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SINOVA
low-voltage electrical products

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Backed by Siemens quality standards, SINOVA introduces exceptional ease of operation and cost-efficiency to electrical installations in buildings, utilities, industries, and infrastructure applications. Our low-voltage electrical products offer protection, control, switching, and metering capabilities that help promote efficiency across the value chain, optimizing OPEX, CAPEX, and reducing environmental impact. We are continuously driven to innovate and provide simple and reliable solutions. Inspired by efficiency and simplicity, we strive to empower industry professionals to streamline processes and complete projects quicker every time.

Index

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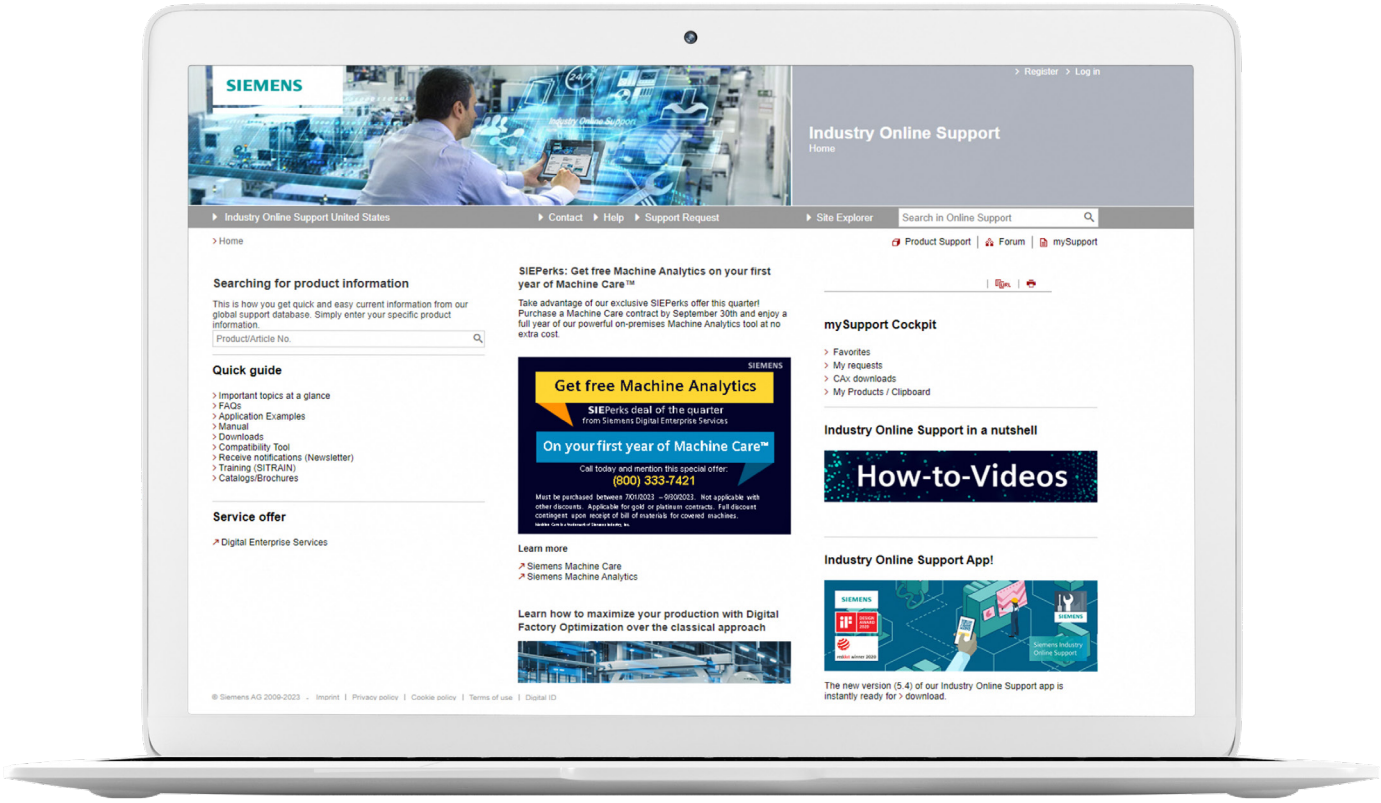

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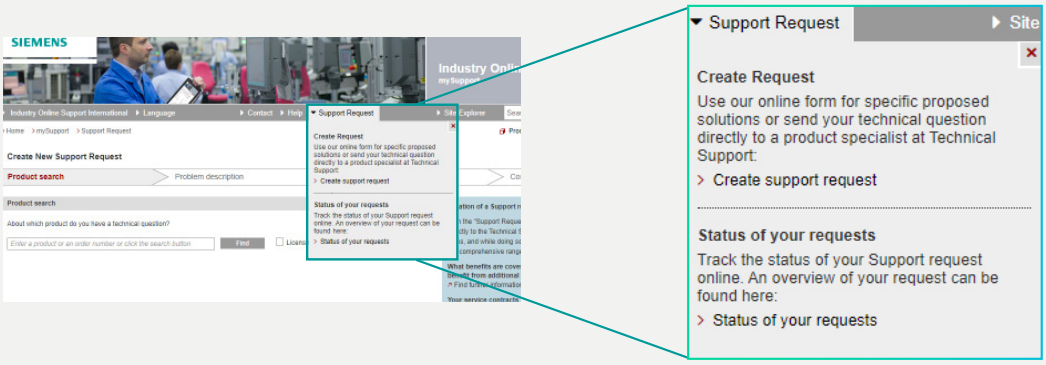

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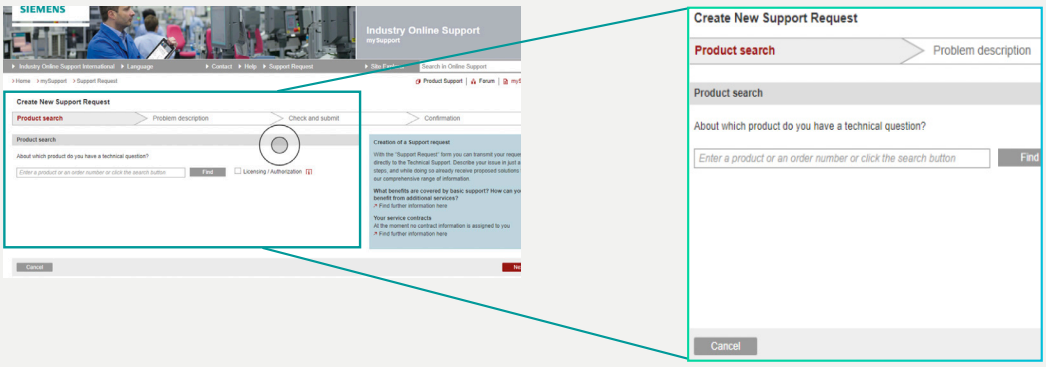

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SINOVA
power distribution

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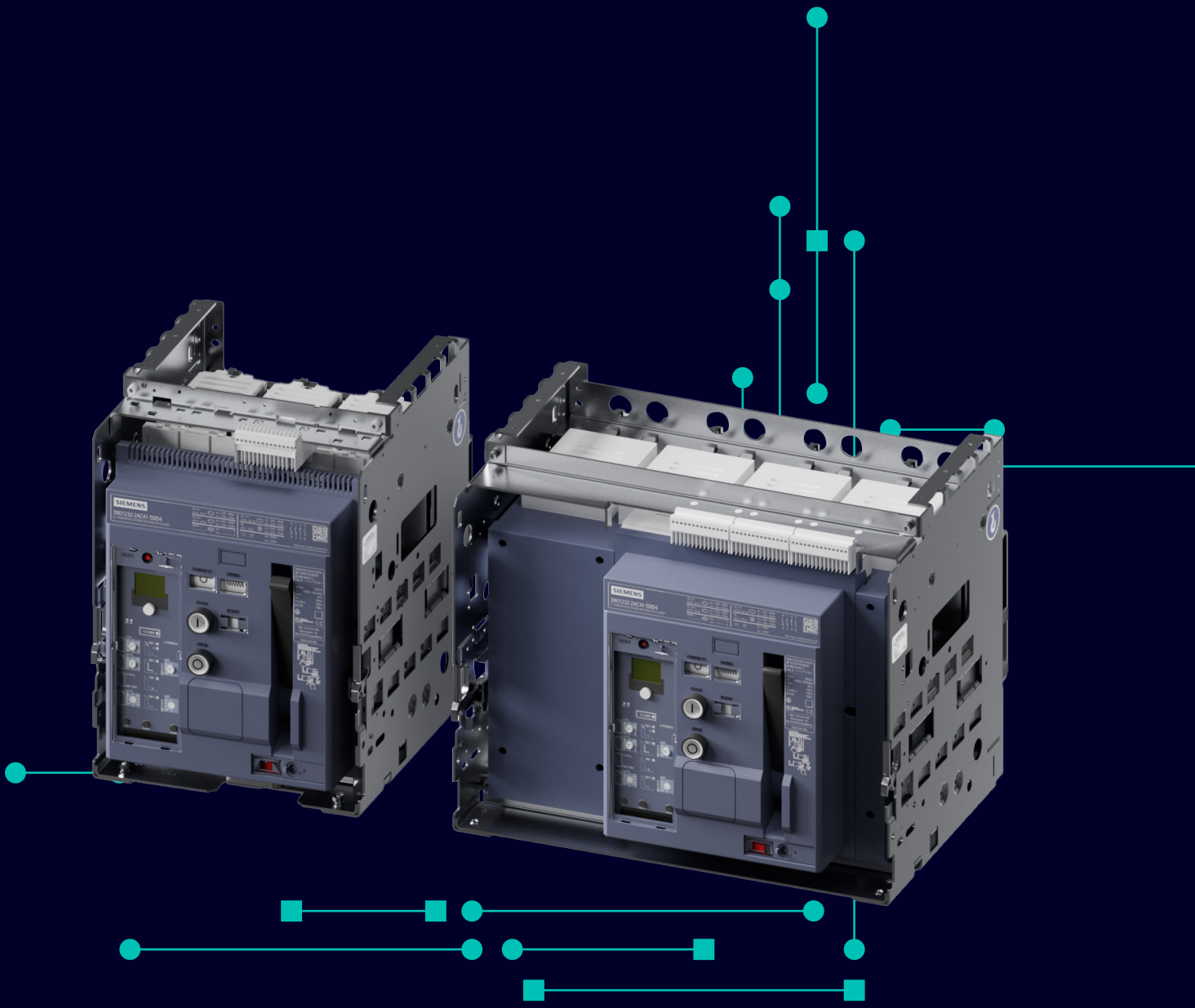
SINOVA
power distribution

Experience the power of simplicity with our SINOVA power distribution range of electrical protection products.

In the complex realm of power distribution, our wide range of components is designed to protect your investment in people, equipment, and infrastructure from potential electrical faults and hazards while ensuring optimal performance. Our focus on safety, reliability, and value-driven excellence means you can have confidence in our power distribution products, which include air circuit breakers and molded case circuit breakers. Experience the assurance of Siemens quality, made simple with exact product features that meet your specific needs.

SINOVA The Power of **Simplicity**



3WJ air circuit breakers

SINOVA The Power of **Simplicity**

3WJ
air circuit breakers

SINOVA The Power of **Simplicity**

3WJ air circuit breakers

Product **highlights**

Adaptable

Our air circuit breakers feature common footprints, allowing for easy and seamless integration.

Comprehensive

With a range of up to 4000A, our air circuit breakers cater to all your standard application needs.

Customizable

We provide complete flexibility for users to choose their desired features, ensuring cost-efficient performance that meets their specific requirements.

SINOVA The Power of **Simplicity**

Overview

Product range

Fixed breakers			Rated currents (A)
Frame size I	3 pole	4 pole	800A 1000A 1250A 1600A
Frame size II	3 pole	4 pole	2000A 2500A 3200A 4000A




Withdrawable breakers			Rated currents (A)
Frame size I	3 pole	4 pole	800A 1000A 1250A 1600A
Frame size II	3 pole	4 pole	2000A 2500A 3200A 4000A




Overview

Accessories

Trip alarm switch

Auxiliary switch block

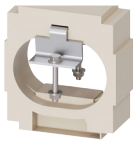
Charging motor (M)

Closing Coil (CC) / Shunt Trip (ST) - For continuous duty

Transparent cover for Electronic Trip Unit (ETU)

Crank handle

Door sealing frame



External current sensor for N-conductor

Undervoltage Release (UVR): Instantaneous (≤8ms), Short delay (≤200ms)

Undervoltage Release (UVR-t): Adjustable 0.2s and 0.3s

Key interlocking system

Locking provision against unauthorized closing secured open

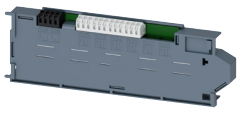
Phase barrier

Operation counter

Ready-to-close

Sealing cap

Protective cover IP55



Position signailing switch

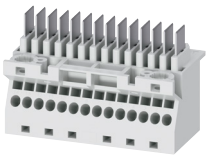
Mutual merchanical interlock

Note: You will find a detailed range of accessories in the Accessories and Spare parts section from page 20 to page 25.

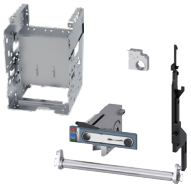
Overview

Spares

Arc chute

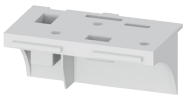


Base part

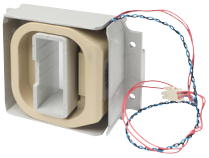


Conversion set

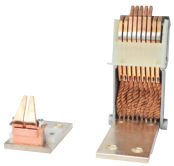
Electronic Trip Unit (ETU)



Dummy block



Internal current sensor

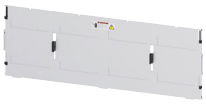


Main contact system (1 pc)

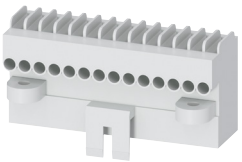
Rear vertical main connection, top or bottom

Vertical main connection, top or bottom

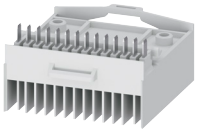
Rear horizontal main connection, top or bottom



Shutter



Secondary disconnect terminals



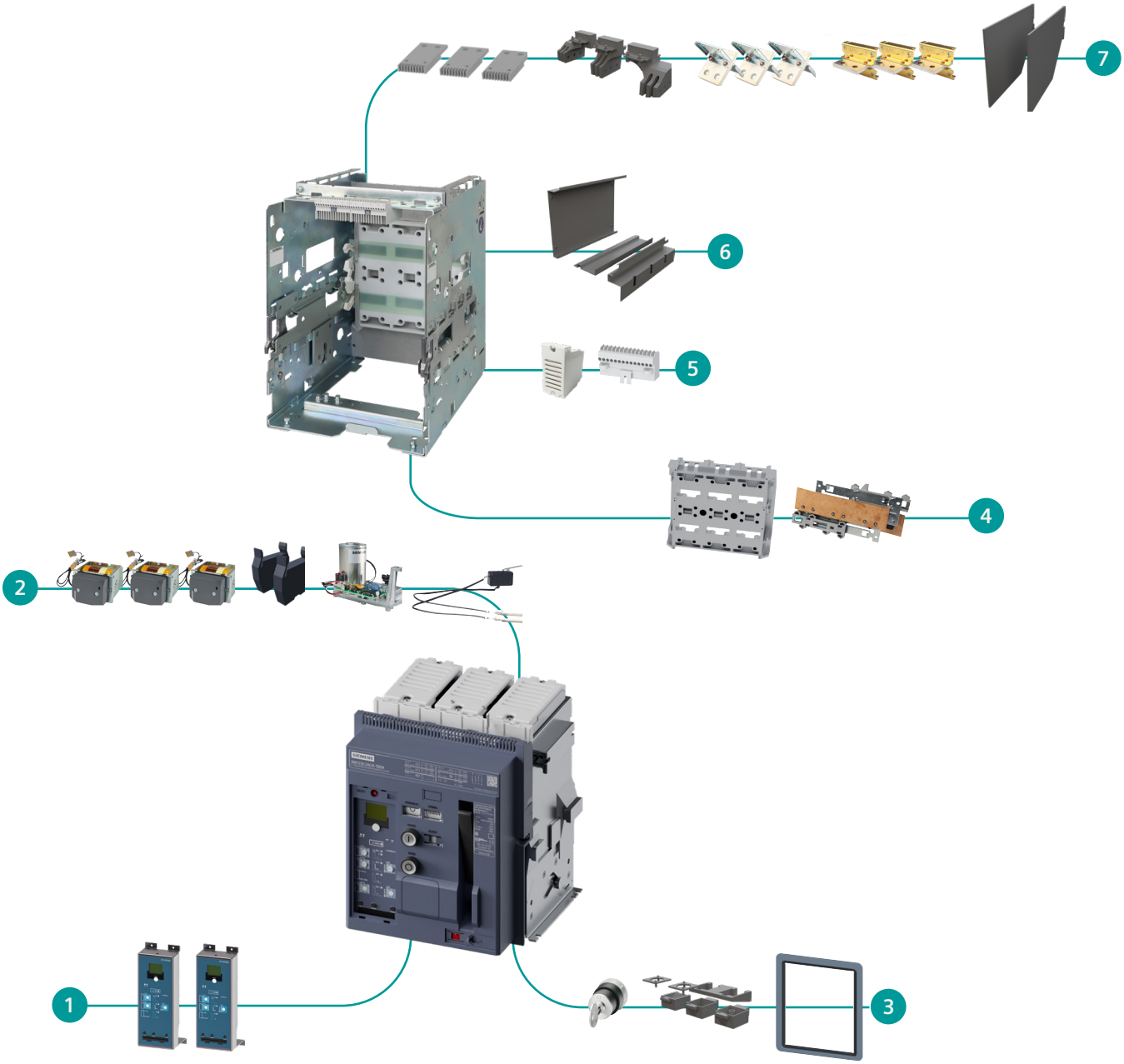
Sliding disconnect

Mechanical interlock to prevent opening of the circuit breaker compartment door

Note: You will find a detailed range of accessories in the Accessories and Spare parts section from page 20 to page 25.

Overview

System overview



1. Electronic Trip Unit (ETU)
2. Spring charging motor, auxiliary switches, closing coil, shunt trip, under voltage releases
3. Various interlocking devices
4. Guide frame, shutter, position indicator switch
5. Arc chute, secondary disconnect terminal
6. Arc chute cover
7. Main connection, phase barrier

Technical specifications

3WJ air circuit breakers

The automatic circuit breakers adhere to IEC 60947-2 standards, and non-automatic circuit breakers adhere to IEC 60947-2 CBI-Y standards.

Frame size			
Breaker type			
Rated current in at 40°C, at 50/60Hz	Main conductor Neutral conductor (only 4P)		A A
Rated operating voltage Ue at 50/60Hz			AC V
Rated impulse	Main circuits Auxiliary circuits		kV kV
Utilization category			
Rated short circuit	Breaking capacity	up to	
Making capacity Icm (peak value)	S	440V AC	kA
Rated service short circuit	Breaking capacity	up to	
Breaking capacity Ics (rms value)	S	440V AC	kA
Rated ultimate short circuit	Breaking capacity	up to	
Breaking capacity Icu (rms value)	S	440V AC	kA
Permissible ambient temperatures	Operation		°C
	Storage		°C
Rated short-time withstand current Icw at 50/60Hz		1 secs	kA
Power loss at In **With 3-phase symmetric load**	Fixed-mounted Withdrawable including guide-frame		W W
Endurance	Mechanical Electrical up to 440V AC		Operating cycle
Operating frequency	Mechanical		1/h
Main conductor for minimum cross-section	Copper bars, bare Copper bars, bare		Qty mm² Qty mm²
Auxiliary conductors (Cu) **Max no. of auxiliary conductors X cross-section**	Solid and finely stranded with end sleeves		

 I				 II			
3WJ1108	**3WJ1110**	**3WJ1112**	**3WJ1116**	**3WJ1220**	**3WJ1225**	**3WJ1232**	**3WJ1240**
800	1000	1250	1600	2000	2500	3200	4000
100%							
440							
8							
4							
B							
105	105	105	105	121	121	121	121
50	50	50	50	55	55	55	55
50	50	50	50	55	55	55	55
-20...+70							
-40...+80							
50	50	50	50	55	55	55	55
60 130	90 205	122 255	170 392	216 493	338 563	420 760	750 960
12000 8000	12000 8000	12000 8000	12000 8000	10000 4000	10000 4000	10000 4000	10000 4000
60							
1x 60 x 10	2x 40 x 10	2x 60 x 10	2x 60 x 10	2x 100 x 10	2x 100 x 10	3x 100 x 10	4x 120 x 10
1x 50 x 10	2x 60 x 10	2x 40 x 10	2x 50 x 10	2x 80 x 10	2x 100 x 10	3x 100 x 10	4x 100 x 10
1 x 0.5 ... 2.5mm²; 1 x AWG14 2 x 1.0 mm²							

Selection & ordering data

MLFB Structure: Basic configuration for AC circuit breakers and AC non-automatic circuit breakers.

3WJ1					5	6	7	8	9	10	11	12	13	14	15	16	Z

Switching device

Frame size	1				1
	2				2
		SZ 1	SZ 2		
Max. rated current $I_{n\,max}$	800A	■	-		0 8
	1000A	■	-		1 0
	1250A	■	-		1 2
	1600A	■	-		1 6
	2000A	-	■		2 0
	2500A	-	■		2 5
	3200A	-	■		3 2
	4000A	-	■		4 0
Breaking capacity I_{cu}/I_{cs}(kA), I_{cw} for 1s (kA) at 440V AC	Breaking capacity S	■	-	50/50kA	2
		-	■	55/55kA	2
AC non-automatic circuit breakers		ETU			A A
Circuit breakers, display with current metering					
Electronic Trip Unit (ETU)		ETU350WJ:LSI			A E
		ETU360WJ:LSING			A F

				11
Number of poles	Fixed-mounted		3 pole	0
			4 pole	1
	Withdrawable	Without position signaling switch and without shutter	3 pole	3
			4 pole	4
		Without position signaling switch and with shutter	3 pole	5
			4 pole	6

Connection

		SZ 1	SZ 2		12
Number of mounting	Fixed-mounted [1]	■	■	Vertical	1
		■	■	Horizontal	2
		■	■	Vertical on top / horizontal at the bottom	5
		■	■	Horizontal on top / vertical at the bottom	6
	Withdrawable [1]	■	■	Without guide frame	0
		■	■	Vertical	1
		■	■	Horizontal	2
		■	■	Vertical on top / horizontal at the bottom	5
		■	■	Horizontal on top / vertical at the bottom	6

			13
Spring charging motor (M), auxiliary switches (AUX)			
Without spring charging motor and without auxiliary switches			0
Without spring charging motor but with auxiliary switches 2 NO, 2 NC		S1, S2	1
Auxiliary switches 2 NO, 2 NC and spring charging motor		S1, S2	
Spring charging motor	24V DC		2
Spring charging motor	110-127V AC / 110-125V DC		3
Spring charging motor	220-240V AC / 220-250V DC		4
Auxiliary switches 4 NO, 4 NC and spring charging motor		S5, S6	
Spring charging motor	24V DC		5
Spring charging motor	110-127V AC / 110-125V DC		6
Spring charging motor	220-240V AC / 220-250V DC		7

Note:
4000A is available for fixed-mounted vertical[1] and withdrawal vertical[1].
Crank Handle is not part of the standard scope of supply, to be ordered as an accessory.

Selection & ordering data

Basic configuration for AC circuit breakers and AC non-automatic circuit breakers.

3WJ1	5	6	7	-	8	9	10	11	12	-	13	14	15	16	-	Z

Closing coil

Without closing coil					A
Closing coil (CC)					
Closing coil	24V DC				B
Closing coil	110-127V AC / 110-125V DC				C
Closing coil	220-240V AC / 220-250V DC				D

1st auxiliary release

Without 1st auxiliary release					A
Shunt trip (ST)	1 0				
Shunt trip	24V DC	--	100% OP		B
Shunt trip	110 ... 125 DC	110 ... 127 AC	100% OP		C
Shunt trip	220 ... 250 DC	220 ... 240 AC	100% OP		D
Undervoltage release (UVR), instantaneous (≤ 80 ms), short-delay (≤ 200 ms)					
UVR	24V DC				E
UVR	110-127V AC / 110-125V DC				F
UVR	220-240V AC / 220-250V DC				G
UVR	380-415V AC				H
Undervoltage release (UVR-t), can be delayed between 0.2 s and 3.2 s					
UVR-t	110-127V AC / 110-125V DC				J
UVR-t	220-240V AC / 220-250V DC				K
UVR-t	380-415V AC				L

2nd auxiliary release

Without 2nd auxiliary release				0
Shunt trip (ST), suitable for continuous duty				
Shunt trip	24V DC	--	100% OP	1
Shunt trip	110 ... 125 DC	110 ... 127 AC	100% OP	3
Shunt trip	220 ... 250 DC	220 ... 240 AC	100% OP	4

Z options

Door sealing frame (IP41)	T40
Trip unit cover	F40
Position signal switch (1x connected, 1x test, 1x disconnected)	R15
Position signal switch (3x connected, 2x test, 1x disconnected)	R16
Neutral CT for 4th Pole	F23
Mutual mechanical interlock - Bowden for fixed breakers with 2m bowden cable	S55
Mutual mechanical interlock - Bowden for drawout breakers with 2m bowden cable	R55
Locking systems - Castell	S05
Door interlock - To prevent the opening of the control cabinet door in the ON position	S30
Door interlock - To prevent the opening of the control cabinet door in the connected position	R30
5 digit operating counter	C01
Ready to close	C22
Trip signal switch	K07
Special packaging	P61

Note:
4000A is available for fixed-mounted vertical [(1)] and withdrawal vertical [(1)].
Crank Handle is not part of the standard scope of supply, to be ordered as an accessory.

Selection & ordering data

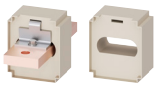
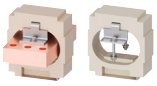
Accessories

Frame size / Accessory	Product image	Frame size / A	Type / Description	Article no.	List price per PU (Per Unit)	Status
Trip alarm switch			1 NO Contact	3WJ9111-0AH02		
Auxiliary switch block			2NO+2NC, S1/S2	3WJ9111-0AG04		
			2NO+2NC, S6/S5	3WJ9111-0AG01		
			3NO+1NC, S60/S5	3WJ9111-0AG02		
			4NO+0NC, S60/S61	3WJ9111-0AG03		
Charging motor (M)			24V DC	3WJ9111-0AF01		
			110-127V AC / 110-125V DC	3WJ9111-0AF05		
			220-240V AC / 220-250V DC	3WJ9111-0AF06		
Closing Coil (CC)/ Shunt Trip (ST) - for continuous duty			24V DC	3WJ9111-0AD01		
			110-127V AC / 110-125V DC	3WJ9111-0AD05		
			220-240V AC / 220-250V DC	3WJ9111-0AD06		
Undervoltage Release (UVR): Instantaneous (≤8ms), Short delay (≤200ms)			24V DC	3WJ9111-0AE01		
			110...127V AC / 110...125V DC	3WJ9111-0AE05		
			220...240V AC / 220...250V DC	3WJ9111-0AE06		
			380...415V AC	3WJ9111-0AE07		
Undervoltage Release (UVR-t): with adjustable time delay of 0.2-3.2s			110...127V AC / 110...125V DC	3WJ9111-0AE15		
			220...240V AC / 220...250V DC	3WJ9111-0AE16		
			380...415V AC	3WJ9111-0AE17		
Locking provision against unauthorized closing secured open			Locking provision for Castell locks. The lock must be ordered at the manufacturer.	3WJ9111-0BA31		
			With CES lock	3WJ9111-0BA35		
Mutual mechanical interlock			Bowden cable - 2m	3WJ9111-0BB41		
			Bowden cable - 3m	3WJ9111-0BB42		
			Bowden cable - 4.5m	3WJ9111-0BB43		
			Bowden cable (2m) for fixed-mounted design is necessary for each circuit breaker. Spare-part for Z-option S55	3WJ9111-0BB21		
			Bowden cable (2m) for withdrawable design is necessary for each circuit breaker. Spare-part for Z-option R55.	3WJ9111-0BB22		

Note: The product images in this table list are for visual representation purposes only and may not reflect exact product sizes.

Selection & ordering data

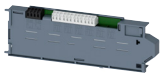
Accessories

Frame size / Accessory	Product image	Frame size / A	Type / Description	Article no.	List price per PU (Per Unit)	Status
Key interlocking system			Against paralleling unsynchronized sources for 3 circuit breakers with CES lock. Interlocking in OFF position mounted to front cover 2 identical keys for 3 circuit breakers max. 2 circuit breakers closed	3WJ9111-0BA43		
Transparent cover for ETU			ETU350WJ	3WJ9111-0EM21		
			ETU360WJ			
Crank handle			For withdrawable circuit breakers	3WJ9111-0BC01		
Door sealing frame			IP41	3WJ9111-0AP01		
External current sensor for N-conductor		1	Busbar connection (Include copper bar)	3WJ9111-0AA31		
			Window type (Without copper bar)	3WJ9111-0AA21		
		2	Busbar connection (Include copper bar)	3WJ9111-0AA32		
			Window type (Without copper bar)	3WJ9111-0AA22		
2 phase barriers (1 set)		1	For 3P fixed design	3WJ9111-0AP51		
			For 3P withdrawable design	3WJ9111-0AP61		
		2	For 3P fixed design	3WJ9111-0AP52		
			For 3P withdrawable design	3WJ9111-0AP62		
3 phase barriers (1 set)		1	For 4P fixed design	3WJ9111-0AP53		
			For 4P withdrawable design	3WJ9111-0AP63		
		2	For 4P fixed design	3WJ9111-0AP54		
			For 4P withdrawable design	3WJ9111-0AP64		
Operation counter			5-digit operating cycles counter	3WJ9111-0AH04		
Ready-to-close			1 NO contact	3WJ9111-0AH01		

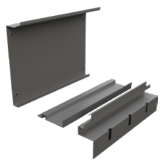
Note: The product images in this table list are for visual representation purposes only and may not reflect exact product sizes.

Selection & ordering data

Accessories

Frame size / Accessory	Product image	Frame size / A	Type / Description	Article no.	List price per PU (Per Unit)	Status
Sealing cap			For OFF push button	3WJ9111-0AP05		
Protective cover IP55			Not possible in combination with door sealing frame	3WJ9111-0AP03		
Position signaling switch			1x connected, 1x test, 1x disconnected	3WJ9111-0AH12		
			3x connected, 2x test, 1x disconnected	3WJ9111-0AH11		

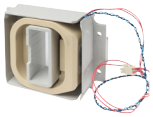
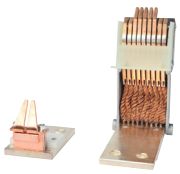
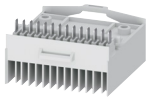
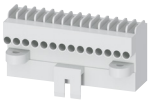
Spares

Frame size / Accessory	Product image	Frame size / A	Type / Description	Article no.	List price per PU (Per Unit)	Status
Arc chute		1	1 unit	3WJ9111-0AP31		
		2		3WJ9111-0AP32		
Arc Chute Cover		1	3 pole, fixed breaker	3WJ9111-0AP45		
			4 pole, fixed breaker	3WJ9111-0AP47		
			3 pole, withdrawable breaker	3WJ9111-0AP41		
			4 pole, withdrawable breaker	3WJ9111-0AP43		
		2	3 pole, fixed breaker	3WJ9111-0AP46		
			4 pole, fixed breaker	3WJ9111-0AP48		
			3 pole, withdrawable breaker	3WJ9111-0AP42		
			4 pole, withdrawable breaker	3WJ9111-0AP44		
Base part			For secondary disconnect terminals	3WJ9111-0AB03		
Conversion set		FS 1/3P	Converting fixed-mounted circuit breakers into withdrawable design	3WJ9111-0BC11		
		FS 1/4P		3WJ9111-0BC14		
		FS 2/3P		3WJ9111-0BC12		
		FS 2/4P		3WJ9111-0BC15		
Dummy block			For secondary disconnect terminals	3WJ9111-0AB04		

Note: The product images in this table list are for visual representation purposes only and may not reflect exact product sizes.

Selection & ordering data

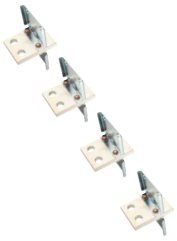
Spares

Frame size Accessory	Product image	Frame size / A	Type / Description	Article no.	List price per PU (Per Unit)	Status
Electronic Trip Unit (ETU)		FS 1/2	ETU350WJ LSI	3WJ9111-0EE31		
		FS 1/2	ETU360WJ LSING	3WJ9111-0EE32		
Internal current sensor		1	Rogowski Coil	3WJ9111-0AA14		
		2		3WJ9111-0AA15		
Main contact system (1 pc)		1600A	-	3WJ9111-0AQ03		
		2000A		3WJ9111-0AQ11		
		2500A		3WJ9111-0AQ12		
		3200A		3WJ9111-0AQ13		
		4000A	For withdrawable design	3WJ9111-0AQ14		
			For fixed mounted design	3WJ9111-0AQ15		
		Up to 1000A	-	3WJ9111-0AQ01		
		Up to 1250A		3WJ9111-0AQ02		
Sliding disconnect			Secondary contact modules only for withdrawable design	3WJ9111-0AB02		
Secondary disconnect terminals			For fixed design	3WJ9111-0AB01		
Rear horizontal main connection, top or bottom		Size 1 up to 1000A	3 pieces for 3 pole in withdrawable design	3WJ9111-0AX11		
		Size 1 up to 1250A	3 pieces for 3 pole in withdrawable design	3WJ9111-0AX13		
		Size 1 up to 1600A	3 pieces for 3 pole in withdrawable design	3WJ9111-0AX15		
		Size 2 2000A	3 pieces for 3 pole in withdrawable design	3WJ9111-0AX21		
		Size 2 2500A	3 pieces for 3 pole in withdrawable design	3WJ9111-0AX23		
		Size 2 3200A	3 pieces for 3 pole in withdrawable design	3WJ9111-0AX25		

Note: The product images in this table list are for visual representation purposes only and may not reflect exact product sizes.

Selection & ordering data

Spares

Frame size Accessory	Product image	Frame size / A	Type / Description	Article no.	List price per PU (Per Unit)	Status
Rear horizontal main connection, top or bottom		Size 1 up to 1000A	4 pieces for 4 pole in withdrawable design	3WJ9111-0AX12		
		Size 1 up to 1250A	4 pieces for 4 pole in withdrawable design	3WJ9111-0AX14		
		Size 1 up to 1600A	4 pieces for 4 pole in withdrawable design	3WJ9111-0AX16		
		Size 2 2000A	4 pieces for 4 pole in withdrawable design	3WJ9111-0AX22		
		Size 2 2500A	4 pieces for 4 pole in withdrawable design	3WJ9111-0AX24		
		Size 2 3200A	4 pieces for 4 pole in withdrawable design	3WJ9111-0AX26		
Rear vertical main connection, top or bottom		Size 1 up to 1000A	3 pieces for 3 pole in withdrawable design	3WJ9111-0AV11		
		Size 1 up to 1250A	3 pieces for 3 pole in withdrawable design	3WJ9111-0AV13		
		Size 1 up to 1600A	3 pieces for 3 pole in withdrawable design	3WJ9111-0AV15		
		Size 1 up to 1000A	4 pieces for 4 pole in withdrawable design	3WJ9111-0AV12		
		Size 1 up to 1250A	4 pieces for 4 pole in withdrawable design	3WJ9111-0AV14		
		Size 1 up to 1600A	4 pieces for 4 pole in withdrawable design	3WJ9111-0AV16		
		Size 2 2000A	3 pieces for 3 pole in withdrawable design	3WJ9111-0AV21		
		Size 2 2500A	3 pieces for 3 pole in withdrawable design	3WJ9111-0AV23		
		Size 2 3200A	3 pieces for 3 pole in withdrawable design	3WJ9111-0AV25		
		Size 2 4000A	3 pieces for 3 pole in withdrawable design	3WJ9111-0AV31		
		Size 2 2000A	4 pieces for 4 pole in withdrawable design (Top)	3WJ9111-0AV22		
			4 pieces for 4 pole in withdrawable design (Bottom)	3WJ9111-0AV27		
		Size 2 2500A	4 pieces for 4 pole in withdrawable design	3WJ9111-0AV24		
		Size 2 3200A	4 pieces for 4 pole in withdrawable design	3WJ9111-0AV26		
		Size 2 4000A	4 pieces for 4 pole in withdrawable design	3WJ9111-0AV32		

Note: The product images in this table list are for visual representation purposes only and may not reflect exact product sizes.

Selection & ordering data

Spares

Frame size / Accessory	Product image	Frame size / A	Type / Description	Article no.	List price per PU (Per Unit)	Status
Vertical main connection, top or bottom		Size 1 up to1000A	3 pieces for 3 pole in fixed mounted design	3WJ9111-0AM11		
		Size 1 up to 1250A	3 pieces for 3 pole in fixed mounted design	3WJ9111-0AM13		
		Size 1 up to 1600A	3 pieces for 3 pole in fixed mounted design	3WJ9111-0AM15		
		Size 1 up to 1000A	4 pieces for 4 pole in fixed mounted design	3WJ9111-0AM12		
		Size 1 up to 1250A	4 pieces for 4 pole in fixed mounted design	3WJ9111-0AM14		
		Size 1 up to 1600A	4 pieces for 4 pole in fixed mounted design	3WJ9111-0AM16		
		Size 2 2000A	3 pieces for 3 pole in fixed mounted design	3WJ9111-0AM21		
		Size 2 2500A	3 pieces for 3 pole in fixed mounted design	3WJ9111-0AM23		
		Size 2 3200A	3 pieces for 3 pole in fixed mounted design	3WJ9111-0AM25		
		Size 2 4000A	3 pieces for 3 pole in fixed mounted design	3WJ9111-0AM31		
		Size 2 2000A	4 pieces for 4 pole in fixed mounted design	3WJ9111-0AM22		
		Size 2 2500A	4 pieces for 4 pole in fixed mounted design	3WJ9111-0AM24		
		Size 2 3200A	4 pieces for 4 pole in fixed mounted design	3WJ9111-0AM26		
		Size 2 4000A	4 pieces for 4 pole in fixed mounted design	3WJ9111-0AM32		
Mechanical interlock to prevent opening of the circuit breaker compartment door			If ACB is closed - for fixed mounted design and spare part for Z-option S30	3WJ9111-0BB12		
			If ACB is closed - for withdrawable design and spare part for Z-option R30	3WJ9111-0BB13		
Shutter		1	For 3 pole	3WJ9111-0AP04		
			For 4 pole	3WJ9111-0AP08		
		2	For 3 pole	3WJ9111-0AP06		
			For 4 pole	3WJ9111-0AP11		

Note: The product images in this table list are for visual representation purposes only and may not reflect exact product sizes.

Selection & ordering data

3WJ8 guide frame for withdrawable design

Current rating	Frame size	No. of poles	Safety shutter	Terminal orientation	AUX connectors	Article no.	List price per PU (Per Unit)	Status
1250A	1	3P	With safety shutter	Top horizontal bottom horizontal	2	3WJ8112-2AA32-1BA1		
1250A	1	4P				3WJ8112-2AA42-1BA1		
1600A	1	3P				3WJ8116-2AA32-1BA1		
1600A	1	4P				3WJ8116-2AA42-1BA1		
2000A	2	3P				3WJ8220-2AA32-1BA1		
2000A	2	4P				3WJ8220-2AA42-1BA1		
2500A	2	3P				3WJ8225-2AA32-1BA1		
2500A	2	4P				3WJ8225-2AA42-1BA1		
3200A	2	3P				3WJ8232-2AA32-1BA1		
3200A	2	4P				3WJ8232-2AA42-1BA1		
1250A	1	3P		Top horizontal bottom vertical		3WJ8112-2AA36-1BA1		
1250A	1	4P				3WJ8112-2AA46-1BA1		
1600A	1	3P				3WJ8116-2AA36-1BA1		
1600A	1	4P				3WJ8116-2AA46-1BA1		
2000A	2	3P				3WJ8220-2AA36-1BA1		
2000A	2	4P				3WJ8220-2AA46-1BA1		
2500A	2	3P				3WJ8225-2AA36-1BA1		
2500A	2	4P				3WJ8225-2AA46-1BA1		
3200A	2	3P				3WJ8232-2AA36-1BA1		
3200A	2	4P				3WJ8232-2AA46-1BA1		
1250A	1	3P		Top vertical bottom vertical		3WJ8112-2AA31-1BA1		
1250A	1	4P				3WJ8112-2AA41-1BA1		
1600A	1	3P				3WJ8116-2AA31-1BA1		
1600A	1	4P				3WJ8116-2AA41-1BA1		
2000A	2	3P				3WJ8220-2AA31-1BA1		
2000A	2	4P				3WJ8220-2AA41-1BA1		
2500A	2	3P				3WJ8225-2AA31-1BA1		
2500A	2	4P				3WJ8225-2AA41-1BA1		
3200A	2	3P				3WJ8232-2AA31-1BA1		
3200A	2	4P				3WJ8232-2AA41-1BA1		
4000A	2	3P				3WJ8240-2AA31-1BA1		
4000A	2	4P				3WJ8240-2AA41-1BA1		

Note: Crank handle is not part of the standard scope of supply, to be ordered as an accessory.

Selection & ordering data

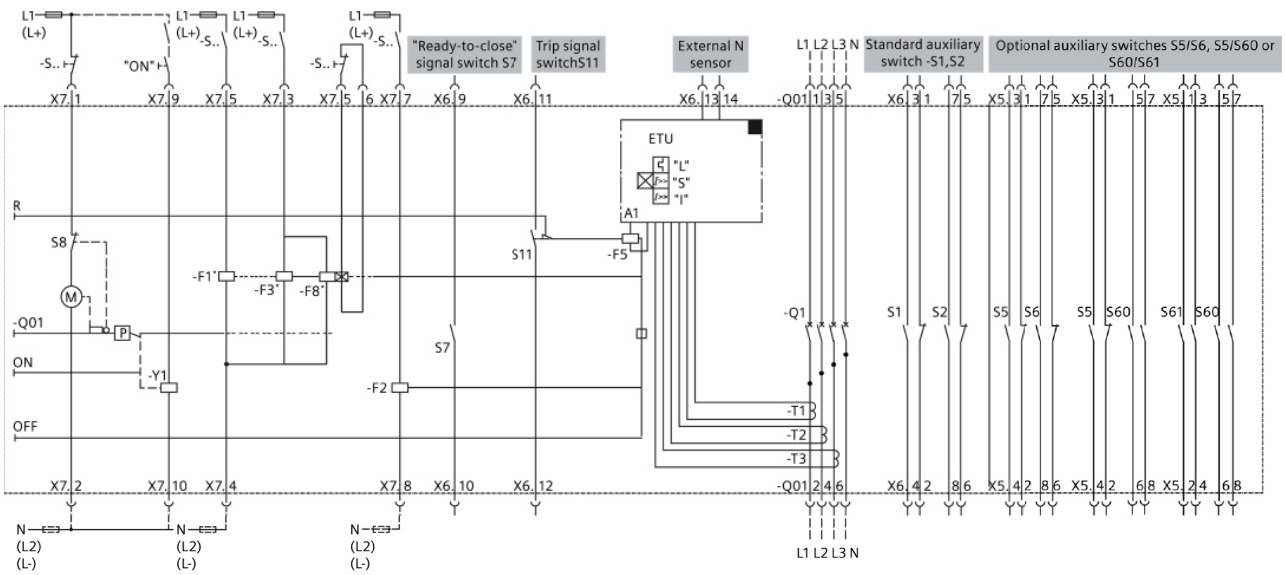
3WJ8 guide frame for withdrawable design

Current rating	Frame size	No. of poles	Safety shutter	Terminal orientation	AUX connectors	Article no.	List price per PU (Per Unit)	Status
1250A	1	3P	Without safety shutter	Top horizontal bottom horizontal	2	3WJ8112-2AA32-0BA1		
1250A	1	4P				3WJ8112-2AA42-0BA1		
1600A	1	3P				3WJ8116-2AA32-0BA1		
1600A	1	4P				3WJ8116-2AA42-0BA1		
2000A	2	3P				3WJ8220-2AA32-0BA1		
2000A	2	4P				3WJ8220-2AA42-0BA1		
2500A	2	3P				3WJ8225-2AA32-0BA1		
2500A	2	4P				3WJ8225-2AA42-0BA1		
3200A	2	3P				3WJ8232-2AA32-0BA1		
3200A	2	4P				3WJ8232-2AA42-0BA1		
1250A	1	3P		Top horizontal bottom vertical		3WJ8112-2AA36-0BA1		
1250A	1	4P				3WJ8112-2AA46-0BA1		
1600A	1	3P				3WJ8116-2AA36-0BA1		
1600A	1	4P				3WJ8116-2AA46-0BA1		
2000A	2	3P				3WJ8220-2AA36-0BA1		
2000A	2	4P				3WJ8220-2AA46-0BA1		
2500A	2	3P				3WJ8225-2AA36-0BA1		
2500A	2	4P				3WJ8225-2AA46-0BA1		
3200A	2	3P				3WJ8232-2AA36-0BA1		
3200A	2	4P				3WJ8232-2AA46-0BA1		
1250A	1	3P		Top vertical bottom vertical		3WJ8112-2AA31-0BA1		
1250A	1	4P				3WJ8112-2AA41-0BA1		
1600A	1	3P				3WJ8116-2AA31-0BA1		
1600A	1	4P				3WJ8116-2AA41-0BA1		
2000A	2	3P				3WJ8220-2AA31-0BA1		
2000A	2	4P				3WJ8220-2AA41-0BA1		
2500A	2	3P				3WJ8225-2AA31-0BA1		
2500A	2	4P				3WJ8225-2AA41-0BA1		
3200A	2	3P				3WJ8232-2AA31-0BA1		
3200A	2	4P				3WJ8232-2AA41-0BA1		
4000A	2	3P				3WJ8240-2AA31-0BA1		
4000A	2	4P				3WJ8240-2AA41-0BA1		

Note: Crank handle is not part of the standard scope of supply, to be ordered as an accessory.

Wiring diagram

3WJ circuit diagram



*) Only one F1, F3 or F8 can be mounted per breaker

A1: Electronic Trip Unit (ETU)
F1/F2: Shunt trip
F3: Undervoltage release
F5 Tripping solenoid
F8: Undervoltage release with delay
M: Motor
P: Stored-energy spring
Q01: Manual storage handle
Q1: Main contact system
R: Mechanical indication of overcurrent trip, reset button

S1/S2/S5/S5/S60/S61: Auxiliary switches
S7: Ready-to-close signal switch
S8: Motor disconnect switch
S11: Trip signal switch
T1/T2/T3: Current transformers
X5/X6/X7: Secondary disconnect terminals
Y1: Closing coil

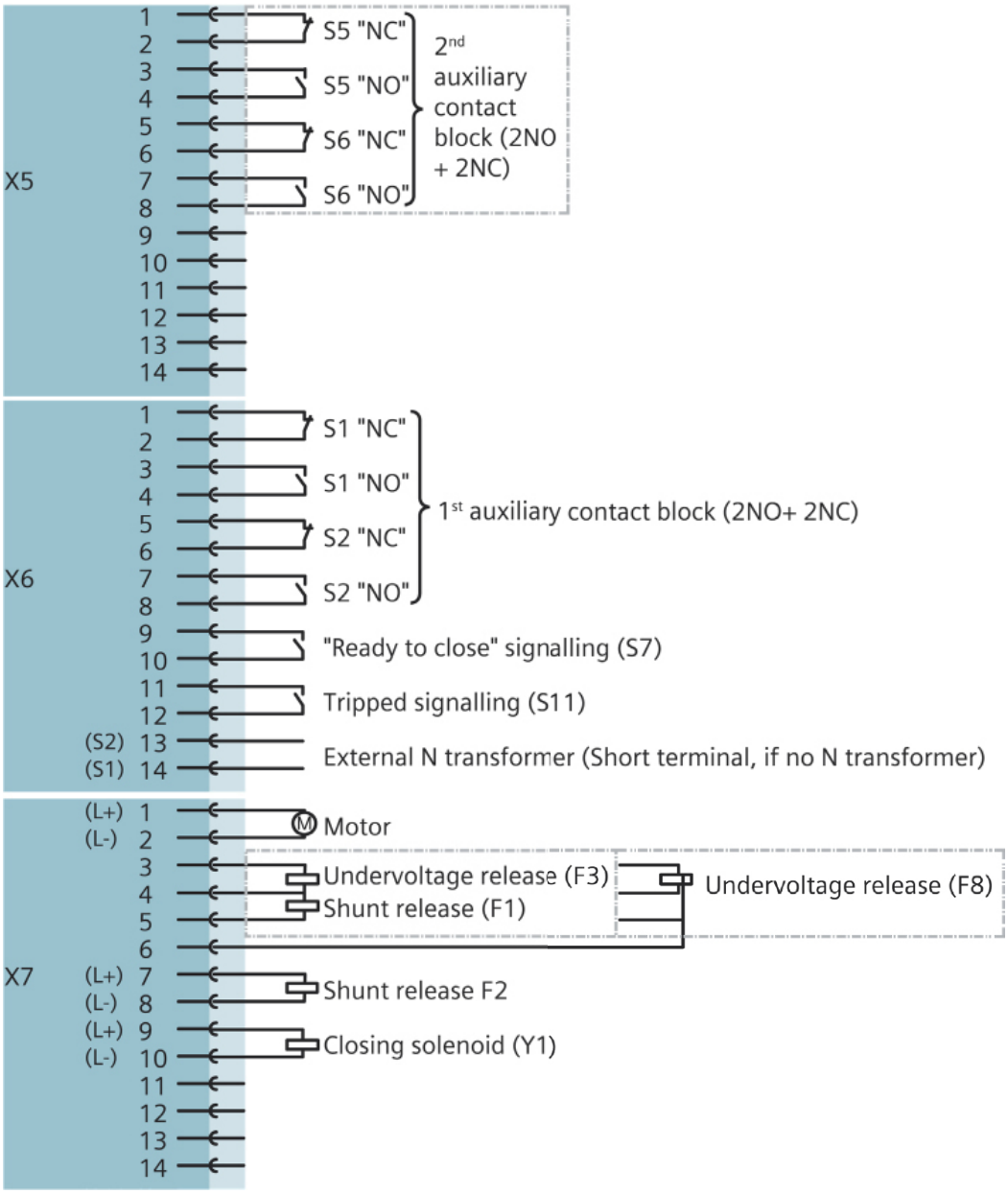
Wiring diagram

Terminal connection diagram of secondary disconnect terminals

Terminal connection diagram

The following overview shows which part of the internal equipment is connected to which part of the secondary disconnect terminals, i.e., this is a complete auxiliary and control wiring diagram of the circuit breakers.

For more information on the detailed wiring of the accessories, refer to the individual operating instructions of the respective accessory.

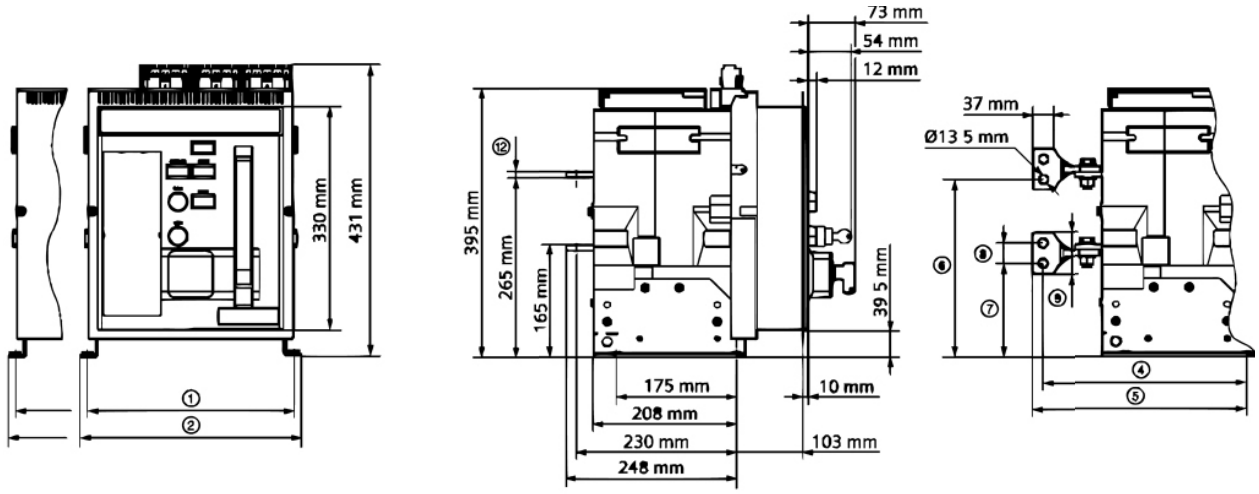


Dimension drawings

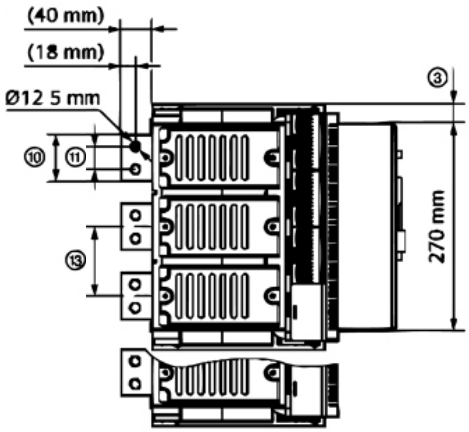
Fixed-mounted circuit breakers

The broken contour at the side depicts the 4 pole version

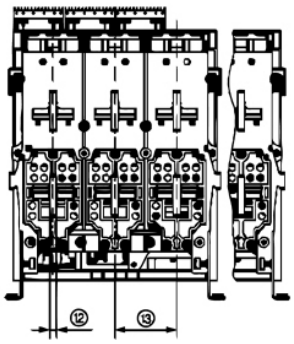
Horizontal connection and vertical connection up to 3200A



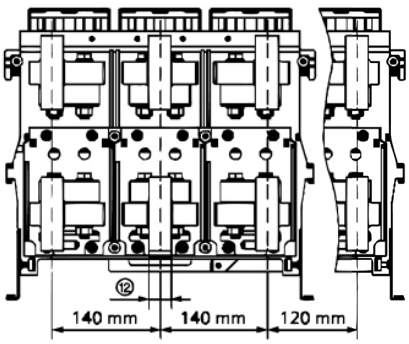
		3WJ11	3WJ1220	3WJ1225	3WJ1232	3WJ1240
1	3P	300mm	400mm			
	4P	390mm	520mm			
2	3P	320mm	420mm			
	4P	410mm	540mm			
3		25mm	75mm			
4		295mm	305mm			327mm
5		310mm	320mm			347mm
6		265.5mm	260mm	267.5mm	285mm	312.5mm
7		134.5mm	130mm	122.5mm	95mm	27.5mm
8		30mm	40mm		50mm	30mm
9		60mm	80mm		100mm	125mm
10		60mm	80mm			-
11		30mm	40mm			-
12		8mm	10mm	15mm	30mm	-
13		90mm	120mm			-



3WJ11



3WJ1220/25/32



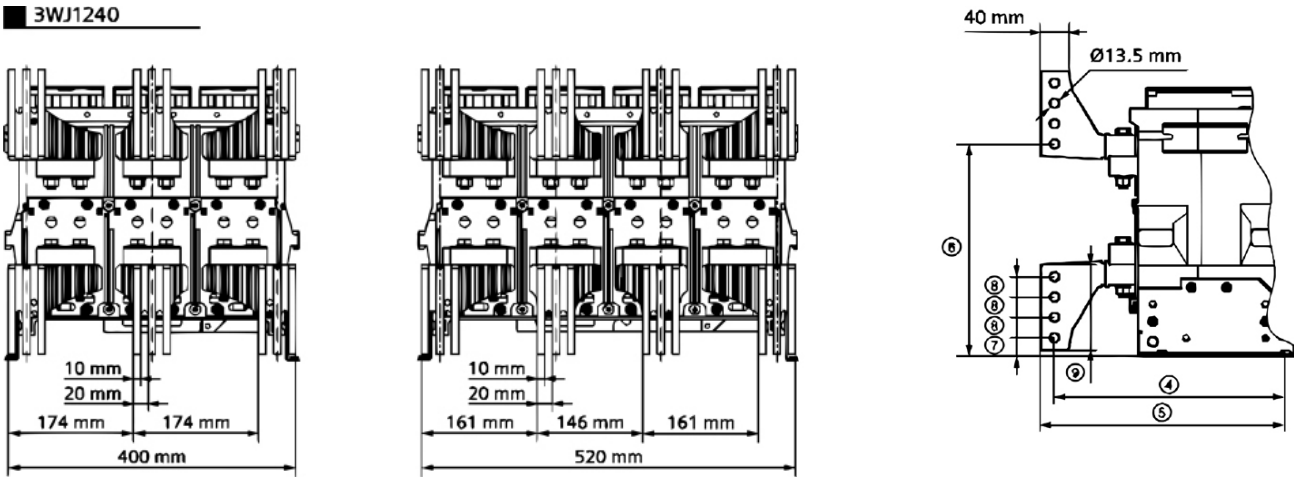
Note: All dimensions are in mm.

Dimension drawings

Fixed-mounted circuit breakers

The broken contour at the side depicts the 4 pole version

Vertical connection 4000A version



Safety distances

No additional safety distances from adjacent, grounded components is required above the circuit breaker (on fixed-mounted circuit breakers marked with “6”). Up to a rated operating voltage of 440V AC, the vertical bars (e.g., with front connection) must not be shielded if the busbar system is not located above the circuit breaker.

On the other hand, live, bare conductors and bars with voltages in excess of 440V AC (if they are located above the circuit breaker and if the current is supplied from above) should be protected against flashover by means of phase barriers, bar covers or, arc chute covers (only use accessories for horizontal or vertical connections).

Optional electrical equipment directly above the circuit breaker (if arc chutes are not used) or next to the circuit breaker should be protected with a cover. Once you have installed additional phase barriers or covers, you must ensure that heat dissipation from the circuit breaker is not impeded.

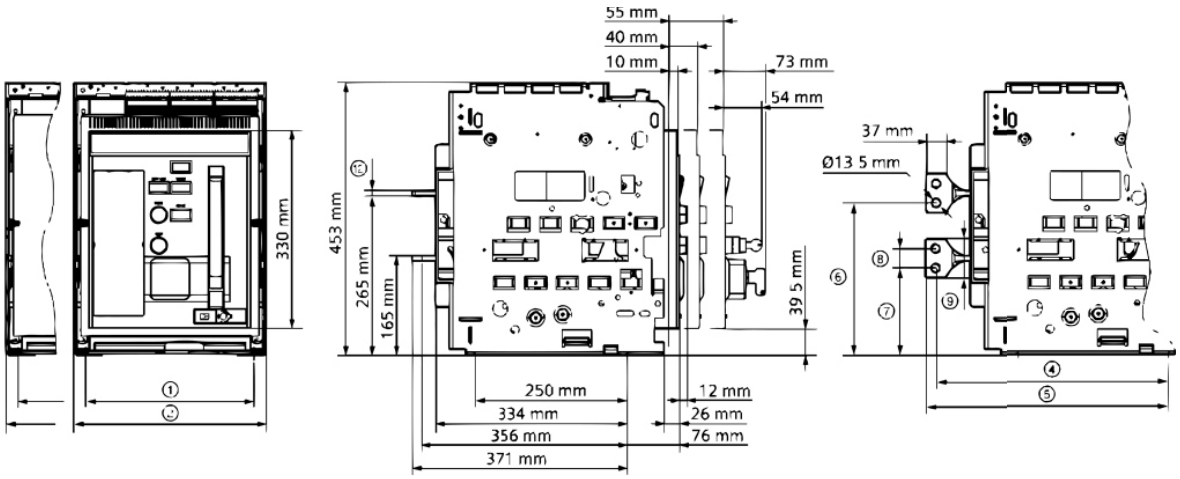
Note: All dimensions are in mm.

Dimension drawings

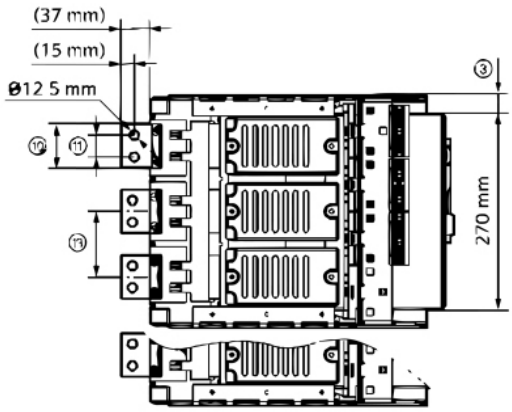
Withdrawable circuit breakers

The broken contour at the side depicts the 4 pole version

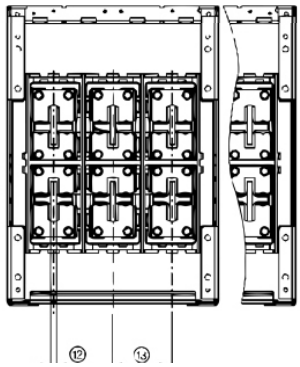
Horizontal connection and vertical connection for up to 3200A



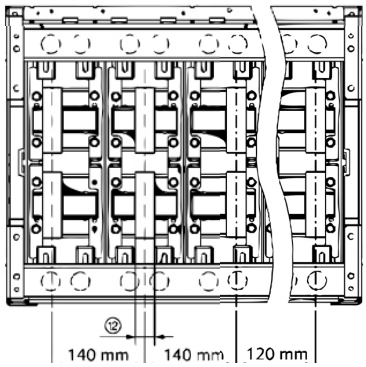
		3WJ11	3WJ1220	3WJ1225	3WJ1232	3WJ1240
1	3P	280mm	380mm			
	4P	370mm	500mm			
2	3P	320mm	420mm			
	4P	410mm	540mm			
3		25mm	75mm			
4		380mm	391mm			411mm
5		395mm	406mm			431mm
6		257.5mm	250mm	252.5mm	255mm	282.5mm
7		142.5mm	140mm	137.5mm	125mm	57.5mm
8		30mm	40mm		50mm	30mm
9		60mm	80mm		100mm	125mm
10		60mm	80mm		100mm	-
11		30mm	40mm		50mm	-
12		8mm	10mm	15mm	30mm	-
13		90mm	120mm			-



3WJ11



3WJ1220/25/32



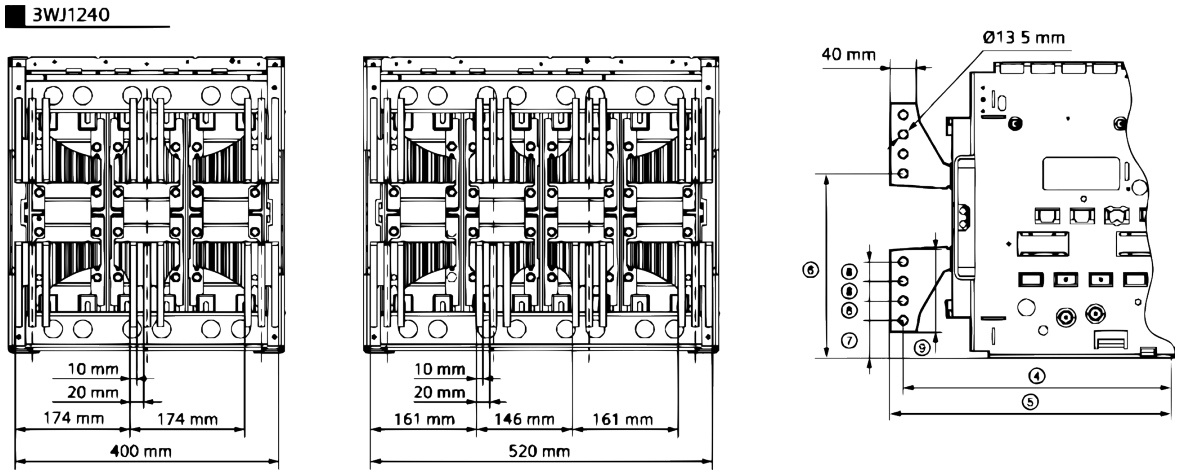
Note: All dimensions are in mm.

Dimension drawings

Withdrawable circuit breakers

The broken contour at the side depicts the 4 pole version

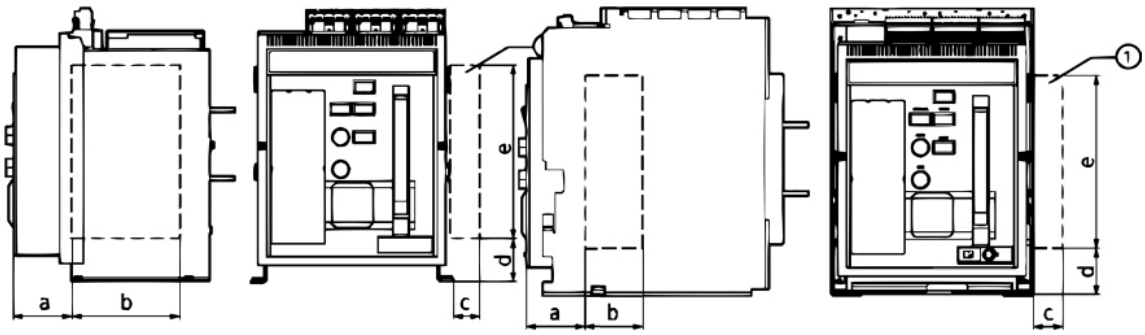
Vertical connection 4000A version



Accessories 3 pole / 4 pole

Mechanical interlock (1)
Interlocking device that prevents closing (2).
Comprising an interlock in the cabinet and an interlocking module with Bowden wire

For fixed-mounted circuit breakers **For withdrawable circuit breakers**



① Distance for interlocking module (without Bowden wire)

Distance for	a	b	c	d	e
(1)	90	90	50	65	270
(2)	58	215	10	250	115

Note: All dimensions are in mm.

Dimension drawings

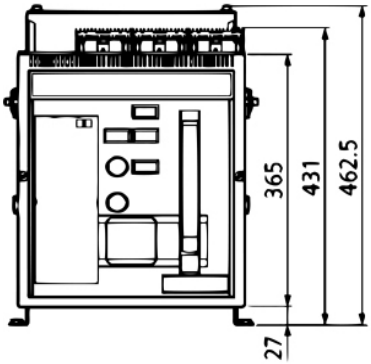
Withdrawable circuit breakers

The broken contour at the side depicts the 4 pole version

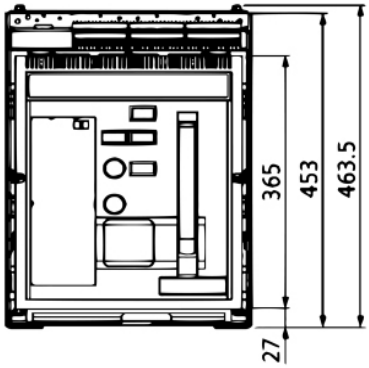
Accessories 3 pole / 4 pole

Arc chute cover

For fixed-mounted circuit breakers



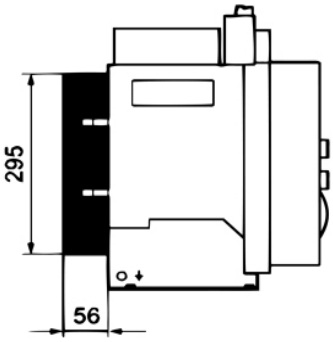
For withdrawable circuit breakers



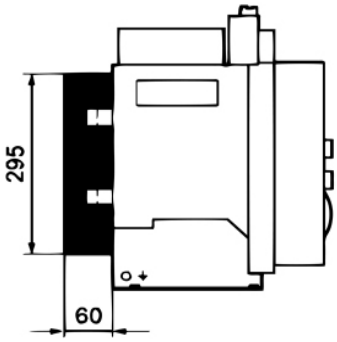
Phase barrier

For fixed-mounted circuit breakers

Frame size I

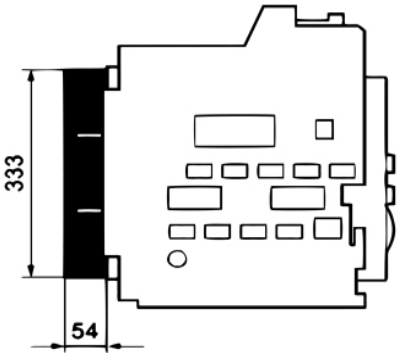


Frame size II

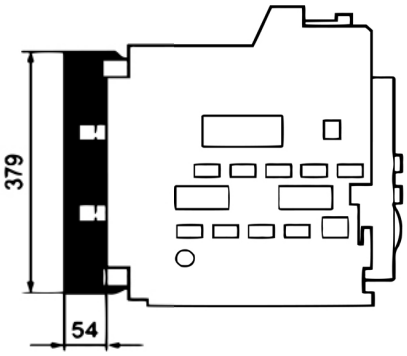


For withdrawable circuit breakers

Frame size I



Frame size II



Note: All dimensions are in mm.

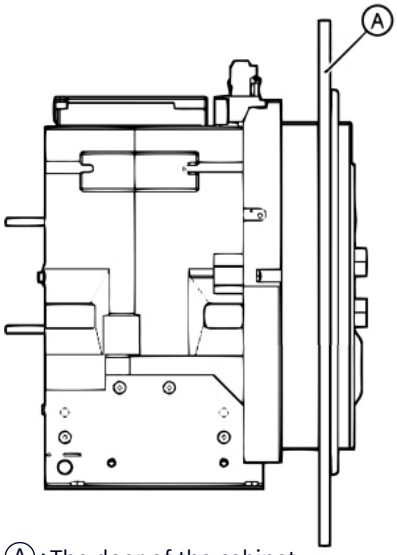
Dimension drawings

Withdrawable circuit breakers

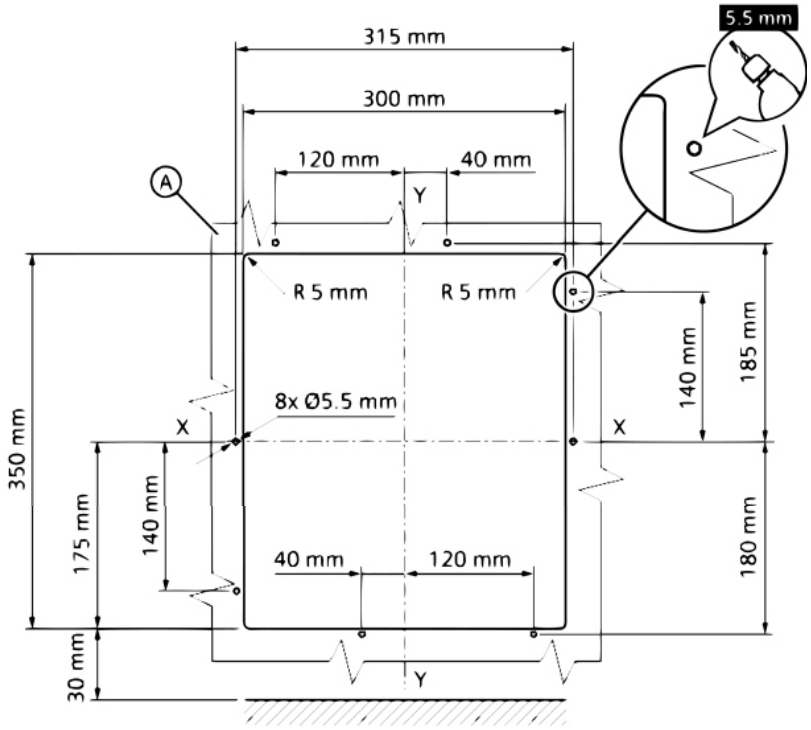
The broken contour at the side depicts the 4 pole version

Door cutout

Door cutout for operator panel with door sealing frame

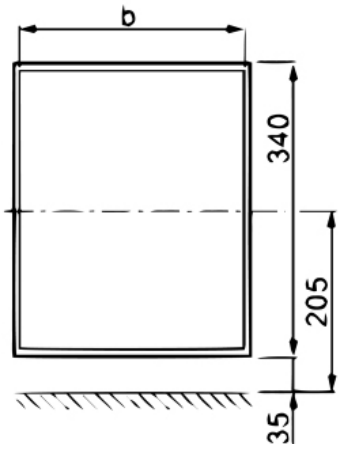


Ⓐ: The door of the cabinet



Door cutout with edge protection

Cutout after edge protection is attached



Note: All dimensions are in mm.

Dimension drawings

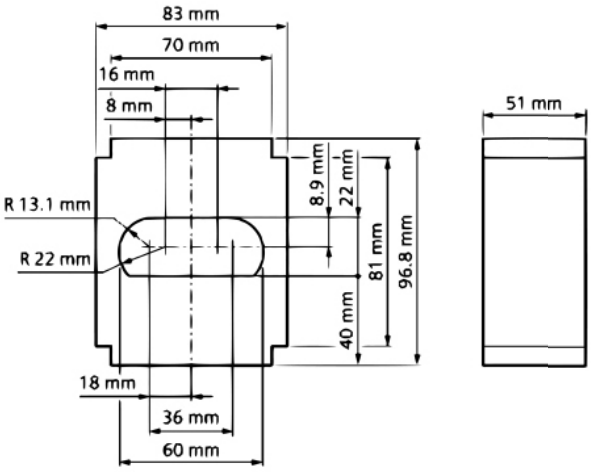
Withdrawable circuit breakers

The broken contour at the side depicts the 4 pole version

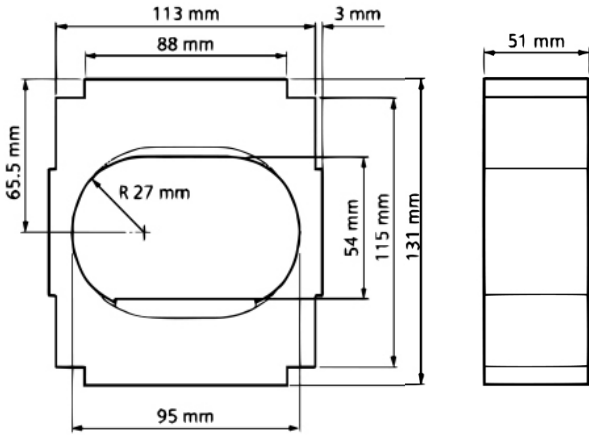
Current transformer for N-conductor

Dimension diagrams of current transformers without busbars

3WJ9111-0AA21

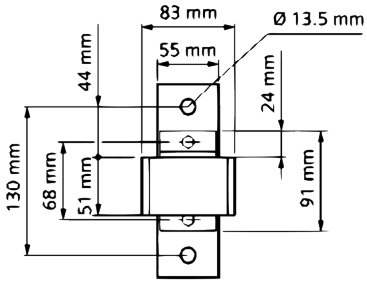


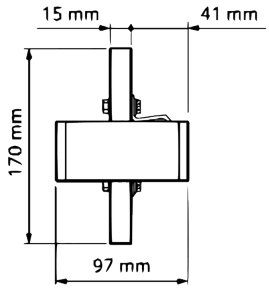
3WJ9111-0AA22



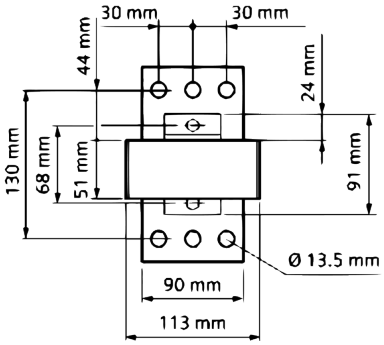
Dimension diagrams of current transformers with busbars

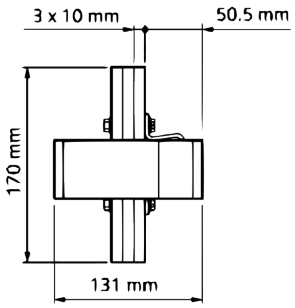
3WJ9111-0AA31





3WJ9111-0AA32





Note: All dimensions are in mm.

3VJ molded case circuit breakers

SINOVA The Power of **Simplicity**

3VJ molded case circuit breakers

SINOVA The Power of **Simplicity**

3VJ molded case circuit breakers

Product **highlights**

Compact

Our compact molded case circuit breakers fit easily into enclosures and switchboards, reducing overall module size.

Efficient

Our user-friendly molded case circuit breakers optimize operational efficiency and save energy, making them a cost-effective power distribution solution.

Reliable & safe

Designed to meet Siemens quality standards for reliable performance and 100% rated neutral operation for demanding applications.

Versatile

With a wide range of accessories, interchangeable neutral pole positioning, and various breaking capacities, our molded case circuit breakers provide flexibility for different installation requirements.

SINOVA The Power of **Simplicity**

Overview

Product range

Range of 3VJ molded case circuit breakers


3VJ10


3VJ10


3VJ11


3VJ12


3VJ13


3VJ14

Internal accessories - Auxiliary switches


Auxiliary switches


Alarm switches

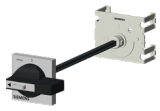

Auxiliary + Alarm switches

Internal accessories - Auxiliary releases


Undervoltage releases

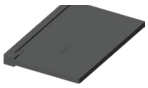

Shunt trip release

External accessories


Door mounted rotary


Extended terminals


Spreader links


Phase barriers


Front barriers


Toggle handle extension

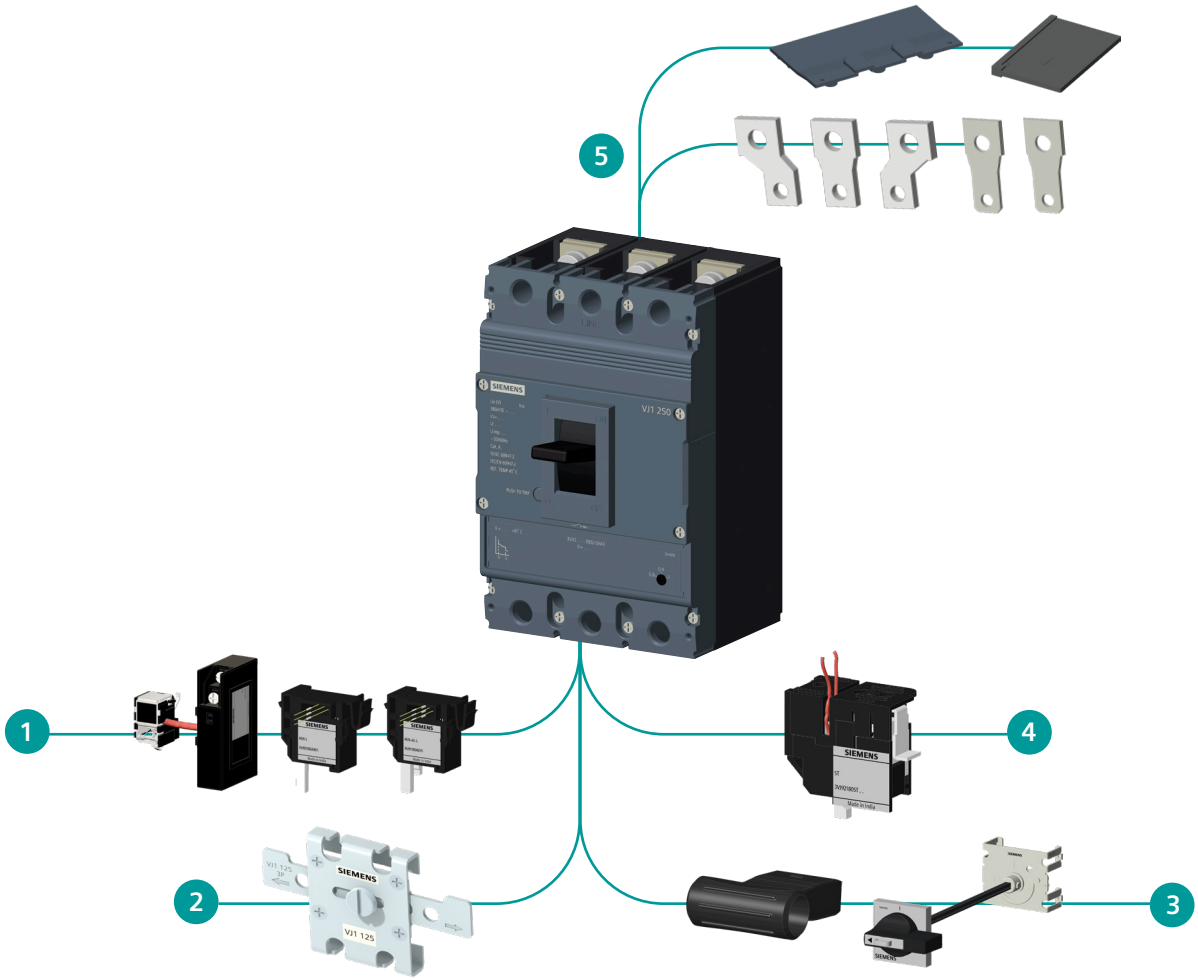

Mechanical interlocking


Enclosure

Note: You will find a detailed range of accessories in the Accessories and Spare parts section from page 70 to page 71.

Overview

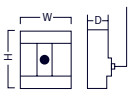
System overview



1. Internal accessories (Left side)
2. Locking devices
3. Door mounted rotary handle
4. Internal accessories (Right side)
5. Spreader phase barriers

Technical specifications

3VJ molded case circuit breakers

							
Type		**3VJ10**	**3VJ10**	**3VJ11**	**3VJ12**	**3VJ13**	**3VJ14**
Number of poles		1	2/3/4	2/3/4	2/3/4	3/4	3/4
Frame size		125X	125X	125	250	400	630
Rated operational current In at 50°C ambient temperature		16-125	16-125	16-125	160-250	320-400	500-630
Rated operational voltage Use 50/60Hz AC	V	240	415	415	415	415	415
Insulation voltage	V	800	800	1000	1000	1000	1000
Impulse voltage	kV	6	6	8	8	8	8
Suitable for isolation		Yes					
Utilization category, according to IEC60947-2		A					
Breaking capacity							
Short-circuit breaking capacities Icu / Ics rms value, according to IEC60947-2							
Icu @ AC 415* V-50/60Hz	kA	10 18 25	10 18 25	25 36 55	18 25 36 55	25 36 50 55	36 50 55
Ics @ AC 415* V-50/60Hz	75%	✓ ✓	✓ ✓	✓ ✓ ✓	✓ ✓ ✓ ✓	✓ ✓ ✓	✓ ✓
Ics @ AC 415* V-50/60Hz	100%	✓ ✓	✓ ✓	✓ ✓	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓	✓ ✓ ✓
Trip units							
Fixed Thermal Fixed Magnetic (1P/2P/3P/4P MCCBs)	FTFM	■					
Adjustable Thermal Fixed Magnetic (3P/4P MCCBs)	ATFM	■					
Neutral protection in 4P MCCB		100%					
Operating cycles							
Mechanical		15000	15000	15000	15000	15000	10000
Electrical @ 415* V AC		5000	5000	5000	5000	5000	4500
Connection technology							
Standard connection technology		Screw terminal					
Overall dimensions							
Width x Height x Depth 		35 x 118 x 68	80 (2P/3P) / 103.5 (4P) x 126 x 68	92 (2P/3P) x 122 (4P) x 150 x 85	107.5 (2P/3P) x 142.5 (4P) x 166 x 85	150 (3P) / 198 (4P) x 260 x 110	150 (3P) / 198 (4P) x 260 x 110

*240V for 1P MCCBs

■ Available

Selection & ordering data

3VJ molded case circuit breakers, Thermal magnetic trip unit, Fixed Thermal Fixed Magnetic (FTFM) Ics=100%Icu

Frame size	Breaking capacity (Icu) @240V AC, 50/60Hz	Rated current In (A)	No. of poles	Type no.	List price per PU (Per Unit)	Status
3VJ10 (VJ1 125X)	10kA	16	1 pole	3VJ1096-0DA12-0AA0		
		20		3VJ1002-0DA12-0AA0		
		25		3VJ1092-0DA12-0AA0		
		32		3VJ1003-0DA12-0AA0		
		40		3VJ1004-0DA12-0AA0		
		50		3VJ1005-0DA12-0AA0		
		63		3VJ1006-0DA12-0AA0		
		80		3VJ1008-0DA12-0AA0		
		100		3VJ1010-0DA12-0AA0		
		125		3VJ1012-0DA12-0AA0		
	18kA	16		3VJ1096-2DA12-0AA0		
		20		3VJ1002-2DA12-0AA0		
		25		3VJ1092-2DA12-0AA0		
		32		3VJ1003-2DA12-0AA0		
		40		3VJ1004-2DA12-0AA0		
		50		3VJ1005-2DA12-0AA0		
		63		3VJ1006-2DA12-0AA0		
		80		3VJ1008-2DA12-0AA0		
		100		3VJ1010-2DA12-0AA0		
		125		3VJ1012-2DA12-0AA0		

Note:
Front barriers are included in the standard MCCB packaging.
Not applicable for 3VJ10..-0....-....

Selection & ordering data

3VJ molded case circuit breakers, Thermal magnetic trip unit,
Fixed Thermal Fixed Magnetic (FTFM) Ics=100%Icu

Frame size	Breaking capacity (Icu) @415V AC, 50/60Hz	Rated current In (A)	No. of poles	Type no.	List price per PU (Per Unit)	Status
3VJ10 (VJ1 125X)	10kA	16	2 pole	3VJ1096-0DA22-0AA0		
		20		3VJ1002-0DA22-0AA0		
		25		3VJ1092-0DA22-0AA0		
		32		3VJ1003-0DA22-0AA0		
		40		3VJ1004-0DA22-0AA0		
		50		3VJ1005-0DA22-0AA0		
		63		3VJ1006-0DA22-0AA0		
		80		3VJ1008-0DA22-0AA0		
		100		3VJ1010-0DA22-0AA0		
		125		3VJ1012-0DA22-0AA0		
	18kA	16		3VJ1096-2DA22-0AA0		
		20		3VJ1002-2DA22-0AA0		
		25		3VJ1092-2DA22-0AA0		
		32		3VJ1003-2DA22-0AA0		
		40		3VJ1004-2DA22-0AA0		
		50		3VJ1005-2DA22-0AA0		
		63		3VJ1006-2DA22-0AA0		
		80		3VJ1008-2DA22-0AA0		
		100		3VJ1010-2DA22-0AA0		
		125		3VJ1012-2DA22-0AA0		

Note:
Phase barriers and front barriers are included in the standard MCCB packing.
For 3VJ10..-0....-.... only phase barriers are supplied as a standard offering along with MCCB.

Selection & ordering data

3VJ molded case circuit breakers, thermal magnetic trip unit, Fixed Thermal Fixed Magnetic (FTFM) Ics=100%Icu

Frame size	Breaking capacity (Icu) @415V AC, 50/60Hz	Rated current In (A)	No. of poles	Type no.	List price per PU (Per Unit)	Status
3VJ10 (VJ1 125X)	10kA	16	3 pole	3VJ1096-0DA32-0AA0		
		20		3VJ1002-0DA32-0AA0		
		25		3VJ1092-0DA32-0AA0		
		32		3VJ1003-0DA32-0AA0		
		40		3VJ1004-0DA32-0AA0		
		50		3VJ1005-0DA32-0AA0		
		63		3VJ1006-0DA32-0AA0		
		80		3VJ1008-0DA32-0AA0		
		100		3VJ1010-0DA32-0AA0		
		125		3VJ1012-0DA32-0AA0		
	18kA	16		3VJ1096-2DA32-0AA0		
		20		3VJ1002-2DA32-0AA0		
		25		3VJ1092-2DA32-0AA0		
		32		3VJ1003-2DA32-0AA0		
		40		3VJ1004-2DA32-0AA0		
		50		3VJ1005-2DA32-0AA0		
		63		3VJ1006-2DA32-0AA0		
		80		3VJ1008-2DA32-0AA0		
		100		3VJ1010-2DA32-0AA0		
		125		3VJ1012-2DA32-0AA0		

Note:
Phase barriers and front barriers are included in the standard MCCB packing.
For 3VJ10..-0....-.... only phase barriers are supplied as a standard offering along with MCCB.

Selection & ordering data

3VJ molded case circuit breakers, thermal magnetic trip unit, Fixed Thermal Fixed Magnetic (FTFM) Ics=100%Icu

Frame size	Breaking capacity (Icu) @415V AC, 50/60Hz	Rated current In (A)	No. of poles	Type no.	List price per PU (Per Unit)	Status
3VJ10 (VJ1 125X)	10kA	16	4 pole	3VJ1096-0EA42-0AA0		
		20		3VJ1002-0EA42-0AA0		
		25		3VJ1092-0EA42-0AA0		
		32		3VJ1003-0EA42-0AA0		
		40		3VJ1004-0EA42-0AA0		
		50		3VJ1005-0EA42-0AA0		
		63		3VJ1006-0EA42-0AA0		
		80		3VJ1008-0EA42-0AA0		
		100		3VJ1010-0EA42-0AA0		
		125		3VJ1012-0EA42-0AA0		
	18kA	16		3VJ1096-2EA42-0AA0		
		20		3VJ1002-2EA42-0AA0		
		25		3VJ1092-2EA42-0AA0		
		32		3VJ1003-2EA42-0AA0		
		40		3VJ1004-2EA42-0AA0		
		50		3VJ1005-2EA42-0AA0		
		63		3VJ1006-2EA42-0AA0		
		80		3VJ1008-2EA42-0AA0		
		100		3VJ1010-2EA42-0AA0		
		125		3VJ1012-2EA42-0AA0		

Note:
Phase barriers and front barriers are included in the standard MCCB packing.
For 3VJ10..-0....-.... only phase barriers are supplied as a standard offering along with MCCB.

Selection & ordering data

3VJ molded case circuit breakers, thermal magnetic trip unit, Adjustable Thermal Fixed Magnetic (ATFM) Ics=100%Icu

Frame size	Breaking capacity (Icu) @415V AC, 50/60Hz	Rated current In (A)	No. of poles	Type no.	List price per PU (Per Unit)	Status
3VJ10 (VJ1 125X)	10kA	16	3 pole	3VJ1096-0DB32-0AA0		
		20		3VJ1002-0DB32-0AA0		
		25		3VJ1092-0DB32-0AA0		
		32		3VJ1003-0DB32-0AA0		
		40		3VJ1004-0DB32-0AA0		
		50		3VJ1005-0DB32-0AA0		
		63		3VJ1006-0DB32-0AA0		
		80		3VJ1008-0DB32-0AA0		
		100		3VJ1010-0DB32-0AA0		
		125		3VJ1012-0DB32-0AA0		
	18kA	16		3VJ1096-2DB32-0AA0		
		20		3VJ1002-2DB32-0AA0		
		25		3VJ1092-2DB32-0AA0		
		32		3VJ1003-2DB32-0AA0		
		40		3VJ1004-2DB32-0AA0		
		50		3VJ1005-2DB32-0AA0		
		63		3VJ1006-2DB32-0AA0		
		80		3VJ1008-2DB32-0AA0		
		100		3VJ1010-2DB32-0AA0		
		125		3VJ1012-2DB32-0AA0		

Note:
Phase barriers and front barriers are included in the standard MCCB packing.
For 3VJ10..-0....-.... only phase barriers are supplied as a standard offering along with MCCB.

Selection & ordering data

3VJ molded case circuit breakers, thermal magnetic trip unit, Adjustable Thermal Fixed Magnetic (ATFM) Ics=100%Icu

Frame size	Breaking capacity (Icu) @415V AC, 50/60Hz	Rated current In (A)	No. of poles	Type no.	List price per PU (Per Unit)	Status
3VJ10 (VJ1 125X)	10kA	16	4 pole	3VJ1096-0EB42-0AA0		
		20		3VJ1002-0EB42-0AA0		
		25		3VJ1092-0EB42-0AA0		
		32		3VJ1003-0EB42-0AA0		
		40		3VJ1004-0EB42-0AA0		
		50		3VJ1005-0EB42-0AA0		
		63		3VJ1006-0EB42-0AA0		
		80		3VJ1008-0EB42-0AA0		
		100		3VJ1010-0EB42-0AA0		
		125		3VJ1012-0EB42-0AA0		
	18kA	16		3VJ1096-2EB42-0AA0		
		20		3VJ1002-2EB42-0AA0		
		25		3VJ1092-2EB42-0AA0		
		32		3VJ1003-2EB42-0AA0		
		40		3VJ1004-2EB42-0AA0		
		50		3VJ1005-2EB42-0AA0		
		63		3VJ1006-2EB42-0AA0		
		80		3VJ1008-2EB42-0AA0		
		100		3VJ1010-2EB42-0AA0		
		125		3VJ1012-2EB42-0AA0		

Note:
Phase barriers and front barriers are included in the standard MCCB packing.
For 3VJ10..-0....-.... only phase barriers are supplied as a standard offering along with MCCB.

Selection & ordering data

3VJ molded case circuit breakers, thermal magnetic trip unit, Fixed Thermal Fixed Magnetic (FTFM) Ics=100%Icu

Frame size	Breaking capacity (Icu) @415V AC, 50/60Hz	Rated current In (A)	No. of poles	Type no.	List price per PU (Per Unit)	Status
3VJ12 (VJ1 250)	18kA	160	2 pole	3VJ1216-2DA22-0AA0		
		200		3VJ1220-2DA22-0AA0		
		250		3VJ1225-2DA22-0AA0		
3VJ11 (VJ1 125)	25kA	16		3VJ1196-4DA22-0AA0		
		20		3VJ1102-4DA22-0AA0		
		25		3VJ1192-4DA22-0AA0		
		32		3VJ1103-4DA22-0AA0		
		40		3VJ1104-4DA22-0AA0		
		50		3VJ1105-4DA22-0AA0		
		63		3VJ1106-4DA22-0AA0		
		80		3VJ1108-4DA22-0AA0		
		100		3VJ1110-4DA22-0AA0		
		125		3VJ1112-4DA22-0AA0		
3VJ12 (VJ1 250)		160		3VJ1216-4DA22-0AA0		
		200		3VJ1220-4DA22-0AA0		
		250		3VJ1225-4DA22-0AA0		
3VJ11 (VJ1 125)	36kA	16		3VJ1196-6DA22-0AA0		
		20		3VJ1102-6DA22-0AA0		
		25		3VJ1192-6DA22-0AA0		
		32		3VJ1103-6DA22-0AA0		
		40		3VJ1104-6DA22-0AA0		
		50		3VJ1105-6DA22-0AA0		
		63		3VJ1106-6DA22-0AA0		
		80		3VJ1108-6DA22-0AA0		
		100		3VJ1110-6DA22-0AA0		
		125		3VJ1112-6DA22-0AA0		
3VJ12 (VJ1 250)		160		3VJ1216-6DA22-0AA0		
		200		3VJ1220-6DA22-0AA0		
		250		3VJ1225-6DA22-0AA0		

Note:
Phase barriers and front barriers are included in the standard MCCB packing.
For 3VJ10..-0....-.... only phase barriers are supplied as a standard offering along with MCCB.

Selection & ordering data

3VJ molded case circuit breakers, thermal magnetic trip unit, Fixed Thermal Fixed Magnetic (FTFM) Ics=100%Icu

Frame size	Breaking capacity (Icu) @415V AC, 50/60Hz	Rated current In (A)	No. of poles	Type no.	List price per PU (Per Unit)	Status
3VJ12 (VJ1 250)	18kA	160	3 pole	3VJ1216-2DA32-0AA0		
		200		3VJ1220-2DA32-0AA0		
		250		3VJ1225-2DA32-0AA0		
3VJ11 (VJ1 125)	25kA	16		3VJ1196-4DA32-0AA0		
		20		3VJ1102-4DA32-0AA0		
		25		3VJ1192-4DA32-0AA0		
		32		3VJ1103-4DA32-0AA0		
		40		3VJ1104-4DA32-0AA0		
		50		3VJ1105-4DA32-0AA0		
		63		3VJ1106-4DA32-0AA0		
		80		3VJ1108-4DA32-0AA0		
		100		3VJ1110-4DA32-0AA0		
		125		3VJ1112-4DA32-0AA0		
3VJ12 (VJ1 250)		160		3VJ1216-4DA32-0AA0		
		200		3VJ1220-4DA32-0AA0		
		250		3VJ1225-4DA32-0AA0		
3VJ13 (VJ1 400)		320		3VJ1332-4DA32-0AA0		
		400		3VJ1340-4DA32-0AA0		
3VJ11 (VJ1 125)	36kA	16		3VJ1196-6DA32-0AA0		
		20		3VJ1102-6DA32-0AA0		
		25		3VJ1192-6DA32-0AA0		
		32		3VJ1103-6DA32-0AA0		
		40		3VJ1104-6DA32-0AA0		
		50		3VJ1105-6DA32-0AA0		
		63		3VJ1106-6DA32-0AA0		
		80		3VJ1108-6DA32-0AA0		
		100		3VJ1110-6DA32-0AA0		
		125		3VJ1112-6DA32-0AA0		
3VJ12 (VJ1 250)		160		3VJ1216-6DA32-0AA0		
		200		3VJ1220-6DA32-0AA0		
		250		3VJ1225-6DA32-0AA0		
3VJ13 (VJ1 400)		320		3VJ1332-6DA32-0AA0		
		400		3VJ1340-6DA32-0AA0		
3VJ14 (VJ1 630)		500		3VJ1450-6DA32-0AA0		
		630		3VJ1463-6DA32-0AA0		

Note:
Phase barriers and front barriers are included in the standard MCCB packing.
For 3VJ10..-0....-.... only phase barriers are supplied as a standard offering along with MCCB.

Selection & ordering data

3VJ molded case circuit breakers, thermal magnetic trip unit, Fixed Thermal Fixed Magnetic (FTFM) Ics=100%Icu

Frame size	Breaking capacity (Icu) @415V AC, 50/60Hz	Rated current In (A)	No. of poles	Type no.	List price per PU (Per Unit)	Status
3VJ12 (VJ1 250)	18kA	160	4 pole	3VJ1216-2EA42-0AA0		
		200		3VJ1220-2EA42-0AA0		
		250		3VJ1225-2EA42-0AA0		
3VJ11 (VJ1 125)	25kA	16		3VJ1196-4EA42-0AA0		
		20		3VJ1102-4EA42-0AA0		
		25		3VJ1192-4EA42-0AA0		
		32		3VJ1103-4EA42-0AA0		
		40		3VJ1104-4EA42-0AA0		
		50		3VJ1105-4EA42-0AA0		
		63		3VJ1106-4EA42-0AA0		
		80		3VJ1108-4EA42-0AA0		
		100		3VJ1110-4EA42-0AA0		
		125		3VJ1112-4EA42-0AA0		
3VJ12 (VJ1 250)		160		3VJ1216-4EA42-0AA0		
		200		3VJ1220-4EA42-0AA0		
		250		3VJ1225-4EA42-0AA0		
3VJ13 (VJ1 400)		320		3VJ1332-4EA42-0AA0		
		400		3VJ1340-4EA42-0AA0		
3VJ11 (VJ1 125)	36kA	16		3VJ1196-6EA42-0AA0		
		20		3VJ1102-6EA42-0AA0		
		25		3VJ1192-6EA42-0AA0		
		32		3VJ1103-6EA42-0AA0		
		40		3VJ1104-6EA42-0AA0		
		50		3VJ1105-6EA42-0AA0		
		63		3VJ1106-6EA42-0AA0		
		80		3VJ1108-6EA42-0AA0		
		100		3VJ1110-6EA42-0AA0		
		125		3VJ1112-6EA42-0AA0		
3VJ12 (VJ1 250)		160		3VJ1216-6EA42-0AA0		
		200		3VJ1220-6EA42-0AA0		
		250		3VJ1225-6EA42-0AA0		
3VJ13 (VJ1 400)		320		3VJ1332-6EA42-0AA0		
		400		3VJ1340-6EA42-0AA0		
3VJ14 (VJ1 630)		500		3VJ1450-6EA42-0AA0		
		630		3VJ1463-6EA42-0AA0		

Note:
Phase barriers and front barriers are included in the standard MCCB packing.
For 3VJ10..-0....-.... only phase barriers are supplied as a standard offering along with MCCB.

Selection & ordering data

3VJ molded case circuit breakers, thermal magnetic trip unit, Fixed Thermal Fixed Magnetic (FTFM) Ics=100%Icu

Frame size	Breaking capacity (Icu) @415V AC, 50/60Hz	Rated current In (A)	No. of poles	Type no.	List price per PU (Per Unit)	Status
3VJ12 (VJ1 250)	18kA	160	3 pole	3VJ1216-2DB32-0AA0		
		200		3VJ1220-2DB32-0AA0		
		250		3VJ1225-2DB32-0AA0		
3VJ11 (VJ1 125)	25kA	16		3VJ1196-4DB32-0AA0		
		20		3VJ1102-4DB32-0AA0		
		25		3VJ1192-4DB32-0AA0		
		32		3VJ1103-4DB32-0AA0		
		40		3VJ1104-4DB32-0AA0		
		50		3VJ1105-4DB32-0AA0		
		63		3VJ1106-4DB32-0AA0		
		80		3VJ1108-4DB32-0AA0		
		100		3VJ1110-4DB32-0AA0		
		125		3VJ1112-4DB32-0AA0		
3VJ12 (VJ1 250)		160		3VJ1216-4DB32-0AA0		
		200		3VJ1220-4DB32-0AA0		
		250		3VJ1225-4DB32-0AA0		
3VJ13 (VJ1 400)		320		3VJ1332-4DB32-0AA0		
		400		3VJ1340-4DB32-0AA0		
3VJ11 (VJ1 125)	36kA	16		3VJ1196-6DB32-0AA0		
		20		3VJ1102-6DB32-0AA0		
		25		3VJ1192-6DB32-0AA0		
		32		3VJ1103-6DB32-0AA0		
		40		3VJ1104-6DB32-0AA0		
		50		3VJ1105-6DB32-0AA0		
		63		3VJ1106-6DB32-0AA0		
		80		3VJ1108-6DB32-0AA0		
		100		3VJ1110-6DB32-0AA0		
		125		3VJ1112-6DB32-0AA0		
3VJ12 (VJ1 250)		160		3VJ1216-6DB32-0AA0		
		200		3VJ1220-6DB32-0AA0		
		250		3VJ1225-6DB32-0AA0		
3VJ13 (VJ1 400)		320		3VJ1332-6DB32-0AA0		
		400		3VJ1340-6DB32-0AA0		
3VJ14 (VJ1 630)		500		3VJ1450-6DB32-0AA0		
		630		3VJ1463-6DB32-0AA0		

Note:
Phase barriers and front barriers are included in the standard MCCB packing.
For 3VJ10..-0....-.... only phase barriers are supplied as a standard offering along with MCCB.

Selection & ordering data

3VJ molded case circuit breakers, Adjustable Thermal Fixed Magnetic (ATFM) Ics=100%Icu

Frame size	Breaking capacity (Icu) @415V AC, 50/60Hz	Rated current In (A)	No. of poles	Type no.	List price per PU (Per Unit)	Status
3VJ12 (VJ1 250)	18kA	160	4 pole	3VJ1216-2EB42-0AA0		
		200		3VJ1220-2EB42-0AA0		
		250		3VJ1225-2EB42-0AA0		
3VJ11 (VJ1 125)	25kA	16		3VJ1196-4EB42-0AA0		
		20		3VJ1102-4EB42-0AA0		
		25		3VJ1192-4EB42-0AA0		
		32		3VJ1103-4EB42-0AA0		
		40		3VJ1104-4EB42-0AA0		
		50		3VJ1105-4EB42-0AA0		
		63		3VJ1106-4EB42-0AA0		
		80		3VJ1108-4EB42-0AA0		
		100		3VJ1110-4EB42-0AA0		
		125		3VJ1112-4EB42-0AA0		
3VJ12 (VJ1 250)		160		3VJ1216-4EB42-0AA0		
		200		3VJ1220-4EB42-0AA0		
		250		3VJ1225-4EB42-0AA0		
3VJ13 (VJ1 400)		320		3VJ1332-4EB42-0AA0		
		400		3VJ1340-4EB42-0AA0		
3VJ11 (VJ1 125)	36kA	16		3VJ1196-6EB42-0AA0		
		20		3VJ1102-6EB42-0AA0		
		25		3VJ1192-6EB42-0AA0		
		32		3VJ1103-6EB42-0AA0		
		40		3VJ1104-6EB42-0AA0		
		50		3VJ1105-6EB42-0AA0		
		63		3VJ1106-6EB42-0AA0		
		80		3VJ1108-6EB42-0AA0		
		100		3VJ1110-6EB42-0AA0		
		125		3VJ1112-6EB42-0AA0		
3VJ12 (VJ1 250)		160		3VJ1216-6EB42-0AA0		
		200		3VJ1220-6EB42-0AA0		
		250		3VJ1225-6EB42-0AA0		
3VJ13 (VJ1 400)		320		3VJ1332-6EB42-0AA0		
		400		3VJ1340-6EB42-0AA0		
3VJ14 (VJ1 630)		500		3VJ1450-6EB42-0AA0		
		630		3VJ1463-6EB42-0AA0		

Note:
Phase barriers and front barriers are included in the standard MCCB packing.
For 3VJ10..-0....-.... only phase barriers are supplied as a standard offering along with MCCB.

Selection & ordering data

3VJ molded case circuit breakers, thermal magnetic trip unit, Fixed Thermal Fixed Magnetic (FTFM) Ics=100%Icu

Frame size	Breaking capacity (Icu) @415V AC, 50/60Hz	Rated current In (A)	No. of poles	Type no.	List price per PU (Per Unit)	Status
3VJ12	55kA	160	2 pole	3VJ12168DA220AA0		
		200		3VJ12208DA220AA0		
		250		3VJ12258DA220AA0		
3VJ12	55kA	160	3 pole	3VJ12168DA220AA0		
		200		3VJ12208DA220AA0		
		250		3VJ12258DA220AA0		
3VJ13		320		3VJ13328DA320AA0		
		400		3VJ13408DA320AA0		
3VJ14		500		3VJ14508DA320AA0		
		630		3VJ14638DA320AA0		
3VJ12	55kA	160	4 pole	3VJ12168EA420AA0		
		200		3VJ12208EA420AA0		
		250		3VJ12258EA420AA0		
3VJ13		320		3VJ13328EA420AA0		
		400		3VJ13408DA320AA0		
3VJ14		500		3VJ14508DA320AA0		
		630		3VJ14638DA320AA0		

Note:
Phase barriers and front barriers are included in the standard MCCB packing.
For 3VJ10..-0....-.... only phase barriers are supplied as a standard offering along with MCCB.

Selection & ordering data

3VJ molded case circuit breakers, thermal magnetic trip unit, Adjustable Thermal Fixed Magnetic (ATFM) Ics=100%Icu

Frame size	Breaking capacity (Icu) @415V AC, 50/60Hz	Rated current In (A)	No. of poles	Type no.	List price per PU (Per Unit)	Status
3VJ12	55kA	160	3 pole	3VJ12168DB320AA0		
		200		3VJ12208DB320AA0		
		250		3VJ12258DB320AA0		
3VJ13		320		3VJ13328DB320AA0		
		400		3VJ13408DB320AA0		
3VJ14		500		3VJ14508DB320AA0		
		630		3VJ14638DB320AA0		
3VJ12	55kA	160	4 pole	3VJ12168EB420AA0		
		200		3VJ12208EB420AA0		
		250		3VJ12258EB420AA0		
3VJ13		320		3VJ13328EB420AA0		
		400		3VJ13408EB420AA0		
3VJ14		500		3VJ14508EB420AA0		
		630		3VJ14638EB420AA0		

Note:
Phase barriers and front barriers are included in the standard MCCB packing.
For 3VJ10..-0....-.... only phase barriers are supplied as a standard offering along with MCCB.

Selection & ordering data

3VJ molded case circuit breakers, thermal magnetic trip unit, Fixed Thermal Fixed Magnetic (FTFM) Ics=75%Icu

Frame size	Breaking capacity (Icu) @240V AC, 50/60Hz	Rated current In (A)	No. of poles	Type no.	List price per PU (Per Unit)	Status
3VJ10 (VJ1 125X)	18kA	16	1 pole	3VJ1096-1DA12-0AA0		
		20		3VJ1002-1DA12-0AA0		
		25		3VJ1092-1DA12-0AA0		
		32		3VJ1003-1DA12-0AA0		
		40		3VJ1004-1DA12-0AA0		
		50		3VJ1005-1DA12-0AA0		
		63		3VJ1006-1DA12-0AA0		
		80		3VJ1008-1DA12-0AA0		
		100		3VJ1010-1DA12-0AA0		
		125		3VJ1012-1DA12-0AA0		
	25kA	16		3VJ1096-3DA12-0AA0		
		20		3VJ1002-3DA12-0AA0		
		25		3VJ1092-3DA12-0AA0		
		32		3VJ1003-3DA12-0AA0		
		40		3VJ1004-3DA12-0AA0		
		50		3VJ1005-3DA12-0AA0		
		63		3VJ1006-3DA12-0AA0		
		80		3VJ1008-3DA12-0AA0		
		100		3VJ1010-3DA12-0AA0		
		125		3VJ1012-3DA12-0AA0		

Note:
Phase barriers and front barriers are included in the standard MCCB packing.
For 3VJ10..-0....-.... only phase barriers are supplied as a standard offering along with MCCB.

Selection & ordering data

3VJ molded case circuit breakers, thermal magnetic trip unit, Fixed Thermal Fixed Magnetic (FTFM) Ics=75%Icu

Frame size	Breaking capacity (Icu) @415V AC, 50/60Hz	Rated current In (A)	No. of poles	Type no.	List price per PU (Per Unit)	Status
3VJ10 (VJ1 125X)	25kA	16	2 pole	3VJ1096-3DA22-0AA0		
		20		3VJ1002-3DA22-0AA0		
		25		3VJ1092-3DA22-0AA0		
		32		3VJ1003-3DA22-0AA0		
		40		3VJ1004-3DA22-0AA0		
		50		3VJ1005-3DA22-0AA0		
		63		3VJ1006-3DA22-0AA0		
		80		3VJ1008-3DA22-0AA0		
		100		3VJ1010-3DA22-0AA0		
		125		3VJ1012-3DA22-0AA0		
	18kA	16		3VJ1096-1DA22-0AA0		
		20		3VJ1002-1DA22-0AA0		
		25		3VJ1092-1DA22-0AA0		
		32		3VJ1003-1DA22-0AA0		
		40		3VJ1004-1DA22-0AA0		
		50		3VJ1005-1DA22-0AA0		
		63		3VJ1006-1DA22-0AA0		
		80		3VJ1008-1DA22-0AA0		
		100		3VJ1010-1DA22-0AA0		
		125		3VJ1012-1DA22-0AA0		

Note:
Phase barriers and front barriers are included in the standard MCCB packing.
For 3VJ10..-0....-.... only phase barriers are supplied as a standard offering along with MCCB.

Selection & ordering data

3VJ molded case circuit breakers, thermal magnetic trip unit, Fixed Thermal Fixed Magnetic (FTFM) Ics=75%Icu

Frame size	Breaking capacity (Icu) @240V AC, 50/60Hz	Rated current In (A)	No. of poles	Type no.	List price per PU (Per Unit)	Status
3VJ10 (VJ1 125X)	18kA	16	3 pole	3VJ1096-1DA32-0AA0		
		20		3VJ1002-1DA32-0AA0		
		25		3VJ1092-1DA32-0AA0		
		32		3VJ1003-1DA32-0AA0		
		40		3VJ1004-1DA32-0AA0		
		50		3VJ1005-1DA32-0AA0		
		63		3VJ1006-1DA32-0AA0		
		80		3VJ1008-1DA32-0AA0		
		100		3VJ1010-1DA32-0AA0		
		125		3VJ1012-1DA32-0AA0		
	25kA	16		3VJ1096-3DA32-0AA0		
		20		3VJ1002-3DA32-0AA0		
		25		3VJ1092-3DA32-0AA0		
		32		3VJ1003-3DA32-0AA0		
		40		3VJ1004-3DA32-0AA0		
		50		3VJ1005-3DA32-0AA0		
		63		3VJ1006-3DA32-0AA0		
		80		3VJ1008-3DA32-0AA0		
		100		3VJ1010-3DA32-0AA0		
		125		3VJ1012-3DA32-0AA0		

Note:
Phase barriers and front barriers are included in the standard MCCB packing.
For 3VJ10..-0....-.... only phase barriers are supplied as a standard offering along with MCCB.

Selection & ordering data

3VJ molded case circuit breakers, thermal magnetic trip unit, Fixed Thermal Fixed Magnetic (FTFM) Ics=75%Icu

Frame size	Breaking capacity (Icu) @415V AC, 50/60Hz	Rated current In (A)	No. of poles	Type no.	List price per PU (Per Unit)	Status
3VJ10 (VJ1 125X)	18kA	16	4 pole	3VJ1096-1EA42-0AA0		
		20		3VJ1002-1EA42-0AA0		
		25		3VJ1092-1EA42-0AA0		
		32		3VJ1003-1EA42-0AA0		
		40		3VJ1004-1EA42-0AA0		
		50		3VJ1005-1EA42-0AA0		
		63		3VJ1006-1EA42-0AA0		
		80		3VJ1008-1EA42-0AA0		
		100		3VJ1010-1EA42-0AA0		
		125		3VJ1012-1EA42-0AA0		
	25kA	16		3VJ1096-3EA42-0AA0		
		20		3VJ1002-3EA42-0AA0		
		25		3VJ1092-3EA42-0AA0		
		32		3VJ1003-3EA42-0AA0		
		40		3VJ1004-3EA42-0AA0		
		50		3VJ1005-3EA42-0AA0		
		63		3VJ1006-3EA42-0AA0		
		80		3VJ1008-3EA42-0AA0		
		100		3VJ1010-3EA42-0AA0		
		125		3VJ1012-3EA42-0AA0		

Note:
Phase barriers and front barriers are included in the standard MCCB packing.
For 3VJ10..-0....-.... only phase barriers are supplied as a standard offering along with MCCB.

Selection & ordering data

3VJ molded case circuit breakers, thermal magnetic trip unit, Adjustable Thermal Fixed Magnetic (ATFM) Ics=75%Icu

Frame size	Breaking capacity (Icu) @415V AC, 50/60Hz	Rated current In (A)	No. of poles	Type no.	List price per PU (Per Unit)	Status
3VJ10 (VJ1 125X)	18kA	16	3 pole	3VJ1096-1DB32-0AA0		
		20		3VJ1002-1DB32-0AA0		
		25		3VJ1092-1DB32-0AA0		
		32		3VJ1003-1DB32-0AA0		
		40		3VJ1004-1DB32-0AA0		
		50		3VJ1005-1DB32-0AA0		
		63		3VJ1006-1DB32-0AA0		
		80		3VJ1008-1DB32-0AA0		
		100		3VJ1010-1DB32-0AA0		
		125		3VJ1012-1DB32-0AA0		
	25kA	16		3VJ1096-3DB32-0AA0		
		20		3VJ1002-3DB32-0AA0		
		25		3VJ1092-3DB32-0AA0		
		32		3VJ1003-3DB32-0AA0		
		40		3VJ1004-3DB32-0AA0		
		50		3VJ1005-3DB32-0AA0		
		63		3VJ1006-3DB32-0AA0		
		80		3VJ1008-3DB32-0AA0		
		100		3VJ1010-3DB32-0AA0		
		125		3VJ1012-3DB32-0AA0		

Note:
Phase barriers and front barriers are included in the standard MCCB packing.
For 3VJ10..-0....-.... only phase barriers are supplied as a standard offering along with MCCB.

Selection & ordering data

3VJ molded case circuit breakers, thermal magnetic trip unit, Adjustable Thermal Fixed Magnetic (ATFM) Ics=75%Icu

Frame size	Breaking capacity (Icu) @415V AC, 50/60Hz	Rated current In (A)	No. of poles	Type no.	List price per PU (Per Unit)	Status
3VJ10 (VJ1 125X)	18kA	16	4 pole	3VJ1096-1EB42-0AA0		
		20		3VJ1002-1EB42-0AA0		
		25		3VJ1092-1EB42-0AA0		
		32		3VJ1003-1EB42-0AA0		
		40		3VJ1004-1EB42-0AA0		
		50		3VJ1005-1EB42-0AA0		
		63		3VJ1006-1EB42-0AA0		
		80		3VJ1008-1EB42-0AA0		
		100		3VJ1010-1EB42-0AA0		
		125		3VJ1012-1EB42-0AA0		
	25kA	16		3VJ1096-3EB42-0AA0		
		20		3VJ1002-3EB42-0AA0		
		25		3VJ1092-3EB42-0AA0		
		32		3VJ1003-3EB42-0AA0		
		40		3VJ1004-3EB42-0AA0		
		50		3VJ1005-3EB42-0AA0		
		63		3VJ1006-3EB42-0AA0		
		80		3VJ1008-3EB42-0AA0		
		100		3VJ1010-3EB42-0AA0		
		125		3VJ1012-3EB42-0AA0		

Note:
Phase barriers and front barriers are included in the standard MCCB packing.
For 3VJ10..-0....-.... only phase barriers are supplied as a standard offering along with MCCB.

Selection & ordering data

3VJ molded case circuit breakers, thermal magnetic trip unit, Fixed Thermal Fixed Magnetic (FTFM) Ics=75%Icu

Frame size	Breaking capacity (Icu) @415V AC, 50/60Hz	Rated current In (A)	No. of poles	Type no.	List price per PU (Per Unit)	Status
3VJ12 (VJ1 250)	18kA	160	2 pole	3VJ1216-1DA22-0AA0		
		200		3VJ1220-1DA22-0AA0		
		250		3VJ1225-1DA22-0AA0		
3VJ11 (VJ1 125)	25kA	16		3VJ1196-3DA22-0AA0		
		20		3VJ1102-3DA22-0AA0		
		25		3VJ1192-3DA22-0AA0		
		32		3VJ1103-3DA22-0AA0		
		40		3VJ1104-3DA22-0AA0		
		50		3VJ1105-3DA22-0AA0		
		63		3VJ1106-3DA22-0AA0		
		80		3VJ1108-3DA22-0AA0		
		100		3VJ1110-3DA22-0AA0		
		125		3VJ1112-3DA22-0AA0		
3VJ12 (VJ1 250)		160		3VJ1216-3DA22-0AA0		
		200		3VJ1220-3DA22-0AA0		
		250		3VJ1225-3DA22-0AA0		
3VJ11 (VJ1 125)	36kA	16		3VJ1196-5DA22-0AA0		
		20		3VJ1102-5DA22-0AA0		
		25		3VJ1192-5DA22-0AA0		
		32		3VJ1103-5DA22-0AA0		
		40		3VJ1104-5DA22-0AA0		
		50		3VJ1105-5DA22-0AA0		
		63		3VJ1106-5DA22-0AA0		
		80		3VJ1108-5DA22-0AA0		
		100		3VJ1110-5DA22-0AA0		
		125		3VJ1112-5DA22-0AA0		
3VJ12 (VJ1 250)		160		3VJ1216-5DA22-0AA0		
		200		3VJ1220-5DA22-0AA0		
		250		3VJ1225-5DA22-0AA0		

Note:
Phase barriers and front barriers are included in the standard MCCB packing.
For 3VJ10..-0....-.... only phase barriers are supplied as a standard offering along with MCCB.

Selection & ordering data

3VJ molded case circuit breakers, thermal magnetic trip unit, Fixed Thermal Fixed Magnetic (FTFM) Ics=75%Icu

Frame size	Breaking capacity (Icu) @415V AC, 50/60Hz	Rated current In (A)	No. of poles	Type no.	List price per PU (Per Unit)	Status
3VJ12 (VJ1 250)	18kA	160	3 pole	3VJ1216-1DA32-0AA0		
		200		3VJ1220-1DA32-0AA0		
		250		3VJ1225-1DA32-0AA0		
3VJ11 (VJ1 125)	25kA	16		3VJ1196-3DA32-0AA0		
		20		3VJ1102-3DA32-0AA0		
		25		3VJ1192-3DA32-0AA0		
		32		3VJ1103-3DA32-0AA0		
		40		3VJ1104-3DA32-0AA0		
		50		3VJ1105-3DA32-0AA0		
		63		3VJ1106-3DA32-0AA0		
		80		3VJ1108-3DA32-0AA0		
		100		3VJ1110-3DA32-0AA0		
		125		3VJ1112-3DA32-0AA0		
3VJ12 (VJ1 250)		160		3VJ1216-3DA32-0AA0		
		200		3VJ1220-3DA32-0AA0		
		250		3VJ1225-3DA32-0AA0		
3VJ13 (VJ1 400)		320		3VJ1332-3DA32-0AA0		
		400		3VJ1340-3DA32-0AA0		
3VJ11 (VJ1 125)	36kA	16		3VJ1196-5DA32-0AA0		
		20		3VJ1102-5DA32-0AA0		
		25		3VJ1192-5DA32-0AA0		
		32		3VJ1103-5DA32-0AA0		
		40		3VJ1104-5DA32-0AA0		
		50		3VJ1105-5DA32-0AA0		
		63		3VJ1106-5DA32-0AA0		
		80		3VJ1108-5DA32-0AA0		
		100		3VJ1110-5DA32-0AA0		
		125		3VJ1112-5DA32-0AA0		
3VJ12 (VJ1 250)		160		3VJ1216-5DA32-0AA0		
		200		3VJ1220-5DA32-0AA0		
		250		3VJ1225-5DA32-0AA0		
3VJ13 (VJ1 400)		320		3VJ1332-5DA32-0AA0		
		400		3VJ1340-5DA32-0AA0		
3VJ14 (VJ1 630)		500		3VJ1450-5DA32-0AA0		
		630		3VJ1463-5DA32-0AA0		

Note:
Phase barriers and front barriers are included in the standard MCCB packing.
For 3VJ10..-0....-.... only phase barriers are supplied as a standard offering along with MCCB.

Selection & ordering data

3VJ molded case circuit breakers, thermal magnetic trip unit, Fixed Thermal Fixed Magnetic (FTFM) Ics=75%Icu

Frame size	Breaking capacity (Icu) @415V AC, 50/60Hz	Rated current In (A)	No. of poles	Type no.	List price per PU (Per Unit)	Status
3VJ12 (VJ1 250)	18kA	160	4 pole	3VJ1216-1EA42-0AA0		
		200		3VJ1220-1EA42-0AA0		
		250		3VJ1225-1EA42-0AA0		
3VJ11 (VJ1 125)	25kA	16		3VJ1196-3EA42-0AA0		
		20		3VJ1102-3EA42-0AA0		
		25		3VJ1192-3EA42-0AA0		
		32		3VJ1103-3EA42-0AA0		
		40		3VJ1104-3EA42-0AA0		
		50		3VJ1105-3EA42-0AA0		
		63		3VJ1106-3EA42-0AA0		
		80		3VJ1108-3EA42-0AA0		
		100		3VJ1110-3EA42-0AA0		
		125		3VJ1112-3EA42-0AA0		
3VJ12 (VJ1 250)		160		3VJ1216-3EA42-0AA0		
		200		3VJ1220-3EA42-0AA0		
		250		3VJ1225-3EA42-0AA0		
3VJ13 (VJ1 400)		320		3VJ1332-3EA42-0AA0		
		400		3VJ1340-3EA42-0AA0		
3VJ11 (VJ1 125)	36kA	16		3VJ1196-5EA42-0AA0		
		20		3VJ1102-5EA42-0AA0		
		25		3VJ1192-5EA42-0AA0		
		32		3VJ1103-5EA42-0AA0		
		40		3VJ1104-5EA42-0AA0		
		50		3VJ1105-5EA42-0AA0		
		63		3VJ1106-5EA42-0AA0		
		80		3VJ1108-5EA42-0AA0		
		100		3VJ1110-5EA42-0AA0		
		125		3VJ1112-5EA42-0AA0		
3VJ12 (VJ1 250)		160		3VJ1216-5EA42-0AA0		
		200		3VJ1220-5EA42-0AA0		
		250		3VJ1225-5EA42-0AA0		
3VJ13 (VJ1 400)		320		3VJ1332-5EA42-0AA0		
		400		3VJ1340-5EA42-0AA0		
3VJ14 (VJ1 630)		500		3VJ1450-5EA42-0AA0		
		630		3VJ1463-5EA42-0AA0		

Note:
Phase barriers and front barriers are included in the standard MCCB packing.
For 3VJ10..-0....-.... only phase barriers are supplied as a standard offering along with MCCB.

Selection & ordering data

3VJ molded case circuit breakers, thermal magnetic trip unit, Fixed Thermal Fixed Magnetic (FTFM) Ics=75%Icu

Frame size	Breaking capacity (Icu) @415V AC, 50/60Hz	Rated current In (A)	No. of poles	Type no.	List price per PU (Per Unit)	Status
3VJ11 (VJ1 125)	55kA	16	2 pole	3VJ1196-7DA22-0AA0		
		20		3VJ1102-7DA22-0AA0		
		25		3VJ1192-7DA22-0AA0		
		32		3VJ1103-7DA22-0AA0		
		40		3VJ1104-7DA22-0AA0		
		50		3VJ1105-7DA22-0AA0		
		63		3VJ1106-7DA22-0AA0		
		80		3VJ1108-7DA22-0AA0		
		100		3VJ1110-7DA22-0AA0		
		125		3VJ1112-7DA22-0AA0		
3VJ12 (VJ1 250)		160		3VJ1216-7DA22-0AA0		
		200		3VJ1220-7DA22-0AA0		
		250		3VJ1225-7DA22-0AA0		
3VJ11 (VJ1 125)		16	3 pole	3VJ1196-7DA32-0AA0		
		20		3VJ1102-7DA32-0AA0		
		25		3VJ1192-7DA32-0AA0		
		32		3VJ1103-7DA32-0AA0		
		40		3VJ1104-7DA32-0AA0		
		50		3VJ1105-7DA32-0AA0		
		63		3VJ1106-7DA32-0AA0		
		80		3VJ1108-7DA32-0AA0		
		100		3VJ1110-7DA32-0AA0		
		125		3VJ1112-7DA32-0AA0		
3VJ12 (VJ1 250)		160		3VJ1216-7DA32-0AA0		
		200		3VJ1220-7DA32-0AA0		
		250		3VJ1225-7DA32-0AA0		
3VJ13 (VJ1 400)		320		3VJ1332-7DA32-0AA0		
		400		3VJ1340-7DA32-0AA0		
3VJ14 (VJ1 630)		500		3VJ1450-7DA32-0AA0		
		630		3VJ1463-7DA32-0AA0		

Note:
Phase barriers and front barriers are included in the standard MCCB packing.
For 3VJ10..-0....-.... only phase barriers are supplied as a standard offering along with MCCB.

Selection & ordering data

3VJ molded case circuit breakers, thermal magnetic trip unit, Fixed Thermal Fixed Magnetic (FTFM) Ics=75%Icu

Frame size	Breaking capacity (Icu) @415V AC, 50/60Hz	Rated current In (A)	No. of poles	Type no.	List price per PU (Per Unit)	Status
3VJ11 (VJ1 125)	55kA	16	4 pole	3VJ1196-7EA42-0AA0		
		20		3VJ1102-7EA42-0AA0		
		25		3VJ1192-7EA42-0AA0		
		32		3VJ1103-7EA42-0AA0		
		40		3VJ1104-7EA42-0AA0		
		50		3VJ1105-7EA42-0AA0		
		63		3VJ1106-7EA42-0AA0		
		80		3VJ1108-7EA42-0AA0		
		100		3VJ1110-7EA42-0AA0		
		125		3VJ1112-7EA42-0AA0		
3VJ12 (VJ1 250)		160		3VJ1216-7EA42-0AA0		
		200		3VJ1220-7EA42-0AA0		
		250		3VJ1225-7EA42-0AA0		
3VJ13 (VJ1 400)		320		3VJ1332-7EA42-0AA0		
		400		3VJ1340-7EA42-0AA0		
3VJ14 (VJ1 630)		500		3VJ1450-7EA42-0AA0		
		630		3VJ1463-7EA42-0AA0		

Note:
Phase barriers and front barriers are included in the standard MCCB packing.
For 3VJ10..-0....-.... only phase barriers are supplied as a standard offering along with MCCB.

Selection & ordering data

3VJ molded case circuit breakers, thermal magnetic trip unit, Adjustable Thermal Fixed Magnetic (ATFM) Ics=75%Icu

Frame size	Breaking capacity (Icu) @415V AC, 50/60Hz	Rated current In (A)	No. of poles	Type no.	List price per PU (Per Unit)	Status
3VJ12 (VJ1 250)	18kA	160	3 pole	3VJ1216-1DB32-0AA0		
		200		3VJ1220-1DB32-0AA0		
		250		3VJ1225-1DB32-0AA0		
3VJ11 (VJ1 125)	25kA	16		3VJ1196-3DB32-0AA0		
		20		3VJ1102-3DB32-0AA0		
		25		3VJ1192-3DB32-0AA0		
		32		3VJ1103-3DB32-0AA0		
		40		3VJ1104-3DB32-0AA0		
		50		3VJ1105-3DB32-0AA0		
		63		3VJ1106-3DB32-0AA0		
		80		3VJ1108-3DB32-0AA0		
		100		3VJ1110-3DB32-0AA0		
		125		3VJ1112-3DB32-0AA0		
3VJ12 (VJ1 250)		160		3VJ1216-3DB32-0AA0		
		200		3VJ1220-3DB32-0AA0		
		250		3VJ1225-3DB32-0AA0		
3VJ13 (VJ1 400)		320		3VJ1332-3DB32-0AA0		
		400		3VJ1340-3DB32-0AA0		
3VJ11 (VJ1 125)	36kA	16		3VJ1196-5DB32-0AA0		
		20		3VJ1102-5DB32-0AA0		
		25		3VJ1192-5DB32-0AA0		
		32		3VJ1103-5DB32-0AA0		
		40		3VJ1104-5DB32-0AA0		
		50		3VJ1105-5DB32-0AA0		
		63		3VJ1106-5DB32-0AA0		
		80		3VJ1108-5DB32-0AA0		
		100		3VJ1110-5DB32-0AA0		
		125		3VJ1112-5DB32-0AA0		
3VJ12 (VJ1 250)		160		3VJ1216-5DB32-0AA0		
		200		3VJ1220-5DB32-0AA0		
		250		3VJ1225-5DB32-0AA0		
3VJ13 (VJ1 400)		320		3VJ1332-5DB32-0AA0		
		400		3VJ1340-5DB32-0AA0		
3VJ14 (VJ1 630)		500		3VJ1450-5DB32-0AA0		
		630		3VJ1463-5DB32-0AA0		

Note:
Phase barriers and front barriers are included in the standard MCCB packing.
For 3VJ10..-0....-.... only phase barriers are supplied as a standard offering along with MCCB.

Selection & ordering data

3VJ molded case circuit breakers, thermal magnetic trip unit, Adjustable Thermal Fixed Magnetic (ATFM) Ics=75%Icu

Frame size	Breaking capacity (Icu) @415V AC, 50/60Hz	Rated current In (A)	No. of poles	Type no.	List price per PU (Per Unit)	Status
3VJ12 (VJ1 250)	18kA	160	4 pole	3VJ1216-1EB42-0AA0		
		200		3VJ1220-1EB42-0AA0		
		250		3VJ1225-1EB42-0AA0		
3VJ11 (VJ1 125)	25kA	16		3VJ1196-3EB42-0AA0		
		20		3VJ1102-3EB42-0AA0		
		25		3VJ1192-3EB42-0AA0		
		32		3VJ1103-3EB42-0AA0		
		40		3VJ1104-3EB42-0AA0		
		50		3VJ1105-3EB42-0AA0		
		63		3VJ1106-3EB42-0AA0		
		80		3VJ1108-3EB42-0AA0		
		100		3VJ1110-3EB42-0AA0		
		125		3VJ1112-3EB42-0AA0		
3VJ12 (VJ1 250)		160		3VJ1216-3EB42-0AA0		
		200		3VJ1220-3EB42-0AA0		
		250		3VJ1225-3EB42-0AA0		
3VJ13 (VJ1 400)		320		3VJ1332-3EB42-0AA0		
		400		3VJ1340-3EB42-0AA0		
3VJ11 (VJ1 125)	36kA	16		3VJ1196-5EB42-0AA0		
		20		3VJ1102-5EB42-0AA0		
		25		3VJ1192-5EB42-0AA0		
		32		3VJ1103-5EB42-0AA0		
		40		3VJ1104-5EB42-0AA0		
		50		3VJ1105-5EB42-0AA0		
		63		3VJ1106-5EB42-0AA0		
		80		3VJ1108-5EB42-0AA0		
		100		3VJ1110-5EB42-0AA0		
		125		3VJ1112-5EB42-0AA0		
3VJ12 (VJ1 250)		160		3VJ1216-5EB42-0AA0		
		200		3VJ1220-5EB42-0AA0		
		250		3VJ1225-5EB42-0AA0		
3VJ13 (VJ1 400)		320		3VJ1332-5EB42-0AA0		
		400		3VJ1340-5EB42-0AA0		
3VJ14 (VJ1 630)		500		3VJ1450-5EB42-0AA0		
		630		3VJ1463-5EB42-0AA0		

Note:
Phase barriers and front barriers are included in the standard MCCB packing.
For 3VJ10..-0....-.... only phase barriers are supplied as a standard offering along with MCCB.

Selection & ordering data

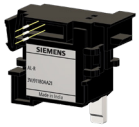
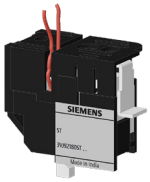
3VJ molded case circuit breakers, thermal magnetic trip unit, Adjustable Thermal Fixed Magnetic (ATFM) Ics=75%Icu

Frame size	Breaking capacity (Icu) @415V AC, 50/60Hz	Rated current In (A)	No. of poles	Type no.	List price per PU (Per Unit)	Status
3VJ11 (VJ1 125)	55kA	16	3 pole	3VJ1196-7DB32-0AA0		
		20		3VJ1102-7DB32-0AA0		
		25		3VJ1192-7DB32-0AA0		
		32		3VJ1103-7DB32-0AA0		
		40		3VJ1104-7DB32-0AA0		
		50		3VJ1105-7DB32-0AA0		
		63		3VJ1106-7DB32-0AA0		
		80		3VJ1108-7DB32-0AA0		
		100		3VJ1110-7DB32-0AA0		
		125		3VJ1112-7DB32-0AA0		
3VJ12 (VJ1 250)		160		3VJ1216-7DB32-0AA0		
		200		3VJ1220-7DB32-0AA0		
		250		3VJ1225-7DB32-0AA0		
3VJ13 (VJ1 400)		320		3VJ1332-7DB32-0AA0		
		400		3VJ1340-7DB32-0AA0		
3VJ14 (VJ1 630)		500		3VJ1450-7DB32-0AA0		
		630		3VJ1463-7DB32-0AA0		
3VJ11 (VJ1 125)		16	4 pole	3VJ1196-7EB42-0AA0		
		20		3VJ1102-7EB42-0AA0		
		25		3VJ1192-7EB42-0AA0		
		32		3VJ1103-7EB42-0AA0		
		40		3VJ1104-7EB42-0AA0		
		50		3VJ1105-7EB42-0AA0		
		63		3VJ1106-7EB42-0AA0		
		80		3VJ1108-7EB42-0AA0		
		100		3VJ1110-7EB42-0AA0		
		125		3VJ1112-7EB42-0AA0		
3VJ12 (VJ1 250)		160		3VJ1216-7EB42-0AA0		
		200		3VJ1220-7EB42-0AA0		
		250		3VJ1225-7EB42-0AA0		
3VJ13 (VJ1 400)		320		3VJ1332-7EB42-0AA0		
		400		3VJ1340-7EB42-0AA0		
3VJ14 (VJ1 630)		500		3VJ1450-7EB42-0AA0		
		630		3VJ1463-7EB42-0AA0		

Note:
Phase barriers and front barriers are included in the standard MCCB packing.
For 3VJ10..-0....-.... only phase barriers are supplied as a standard offering along with MCCB.

Selection & ordering data

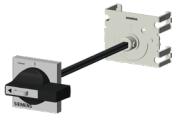
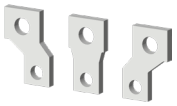
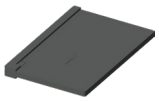
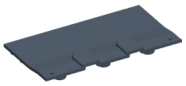
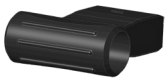
Accessories

Accessory	Product image	Accessory compartment/ coil voltage	Frame size				
			3VJ10 (VJ1 125X)	3VJ11 (VJ1 125)	3VJ12 (VJ1 250)	3VJ13 (VJ1 400)	3VJ14 (VJ1 630)
Auxiliary switches		Left	3VJ9018-0AN11	3VJ9218-0AN11		3VJ9417-0AN11	
		Right	-	3VJ9218-0AN21		3VJ9417-0AN21	
Alarm switches		Left	3VJ9018-0AA11	3VJ9118-0AA11	3VJ9218-0AA11	3VJ9417-0AA11	
		Right	-	3VJ9118-0AA21	3VJ9218-0AA21	3VJ9417-0AA21	
Auxiliary + Alarm switches		Left	3VJ9018-0AD11	3VJ9118-0AD11	3VJ9218-0AD11	3VJ9417-0AD11	
		Right	-	3VJ9118-0AD21	3VJ9218-0AD21	3VJ9417-0AD21	
Shunt trip (right)		24V DC	*	3VJ9218-0ST11		-	
		24V AC/DC	-	-		3VJ9417-0ST21	
		48V DC	*	3VJ9218-0ST12		-	
		48V AC/DC	-	-		3VJ9417-0ST22	
		110V DC	3VJ9018-0ST15	3VJ9218-0ST15		-	
		110V AC/DC	-	-		3VJ9417-0ST25	
		110V AC	3VJ9018-0ST35	3VJ9218-0ST35		-	
		220V AC	3VJ9018-0ST36	3VJ9218-0ST36		3VJ9417-0ST36	
		415V AC	3VJ9018-0ST37	3VJ9218-0ST37		3VJ9417-0ST37	
Under-voltage release (left)		24V DC	-	3VJ9218-0UV11		-	
		48V DC		3VJ9218-0UV12		-	
		220V AC		3VJ9218-0UV36		3VJ9417-0UV36	
		415V AC		3VJ9218-0UV37		3VJ9417-0UV37	

Note:
Internal accessories are available only for 2 pole, 3 pole and 4 pole MCCBs.
3VJ9218-0ST.. shunt releases can be used with 3VJ11 (frame VJ1 125) and 3VJ12 (frame VJ1 250) only.
- : NA
* : Coming soon

Selection & ordering data

Accessories

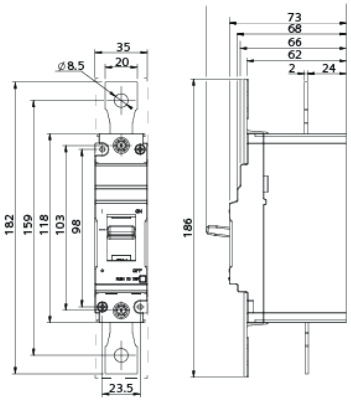
Accessory	Product image	Frame size				
		3VJ10 (VJ1 125X)	3VJ11 (VJ1 125)	3VJ12 (VJ1 250)	3VJ13 (VJ1 400)	3VJ14 (VJ1 630)
Extended door mounted rotary operator (including 8UC handle)*		3VJ9018-0HD11	3VJ9118-0HD11	3VJ9218-0HD11	3VJ9417-0HD11	
Extended terminals#		3VJ9011-0EC00 (1P)	-	-	-	
Spreader links^		3VJ9012-0ED00 (2P)	3VJ9112-0ED00 (2P)	3VJ9212-0ED00 (2P)	-	
		3VJ9013-0ED00 (3P)	3VJ9113-0ED00 (3P)	3VJ9213-0ED00 (3P)	3VJ9313-0ED00	3VJ9413-0ED00
		3VJ9014-0ED00 (4P)	3VJ9114-0ED00 (4P)	3VJ9214-0ED00 (4P)	3VJ9314-0ED00	3VJ9414-0ED00
Phase barriers*		3VJ9018-0CA00	3VJ9218-0CA00		3VJ9417-0CA00	
Front barriers$		3VJ9011-0CJ10 (1P)	-	-	-	
		3VJ9016-0CJ30 (2P/3P)	3VJ9116-0CJ30 (2P/3P)	3VJ9216-0CJ30 (2P/3P)	3VJ9413-0CJ30 (3P)	
		-	3VJ9114-0CJ40 (4P)	3VJ9214-0CJ40 (4P)	3VJ9414-0CJ40 (4P)	
Toggle handle extension		-	-	-	3VJ9417-0DH10	
MIL		-	3VJ9116-0VM10 (2P, 3P)	3VJ9216-0VM10 (2P, 3P)	3VJ9313-0VM10 (3P)	
		-	3VJ9114-0VM10 (4P)	3VJ9214-0VM10 (4P)	3VJ9314-0VM10 (4P)	
Enclosure		3VJ9016-0DE11 (2P, 3P)	3VJ9116-0DE11 (2P, 3P)	3VJ9216-0DE12 (2P, 3P)	-	-
		3VJ9014-0DE11 (4P)	3VJ9114-0DE11 (4P)	3VJ9214-0DE12 (4P)	-	–

Note:
@ 1 set contains rotary mechanism, coupler, shaft and 8UC handle. Rotary operators are not available for 1 pole 3VJ MCCBs.
^ Spreader link 1 set = 2 nos. links in case of 2 pole; and 3 nos. links in case of 3 pole; and 4 nos. links in case of 4 pole.
# Extended terminals 1 set = 2 nos. links.
* Available as a spare; 1 set contains 2 phase barriers.
$ Available as a spare; 1 set contains 2 front barriers (top and bottom).
Toggle handle extension is included in the standard packing of 3VJ13 and 3VJ14 (VJ1 400 and 630) MCCB.

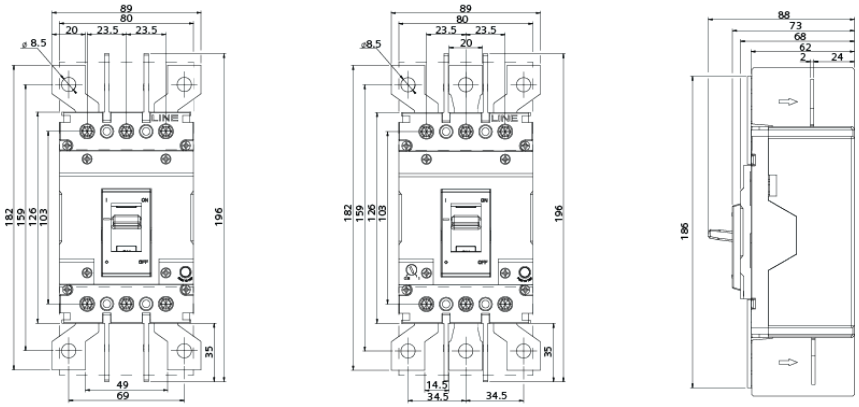
Dimension drawings

3VJ molded case circuit breakers

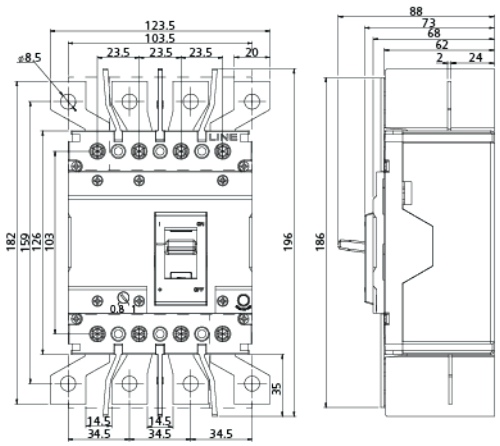
Frame 1x | 3VJ10 | 1 pole



Frame 1x | 3VJ10 | 2 pole / 3 pole



Frame 1x | 3VJ10 | 4 pole

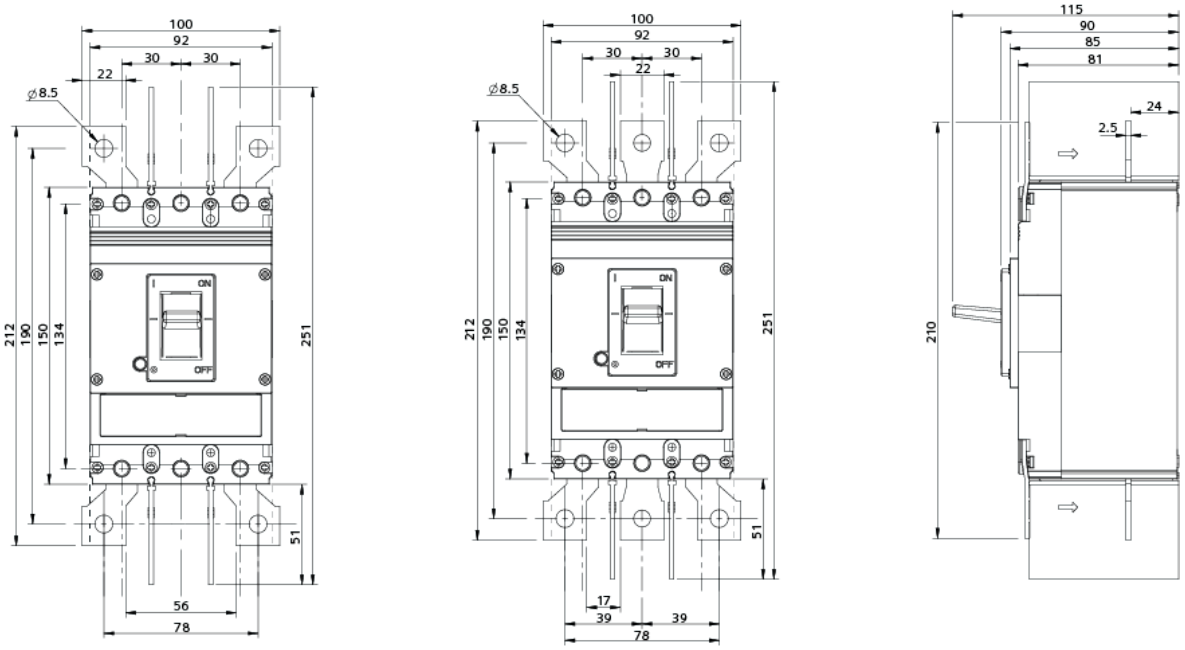


Note: All dimensions are in mm.

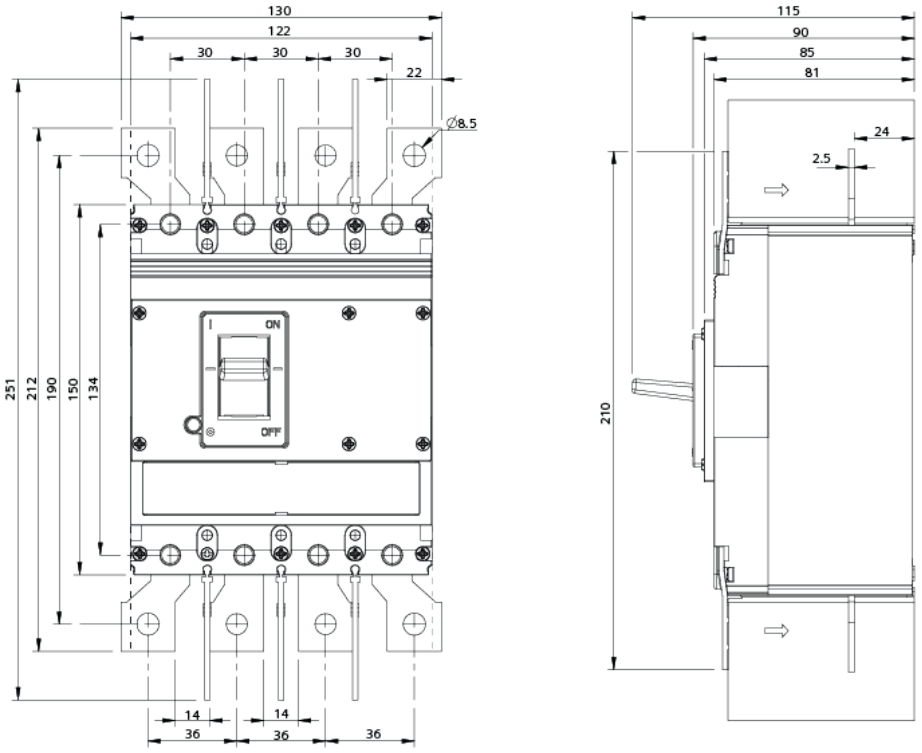
Dimension drawings

3VJ molded case circuit breakers

Frame 1 | 3VJ11 | 2 pole / 3 pole



Frame 1 | 3VJ11 | 4 pole

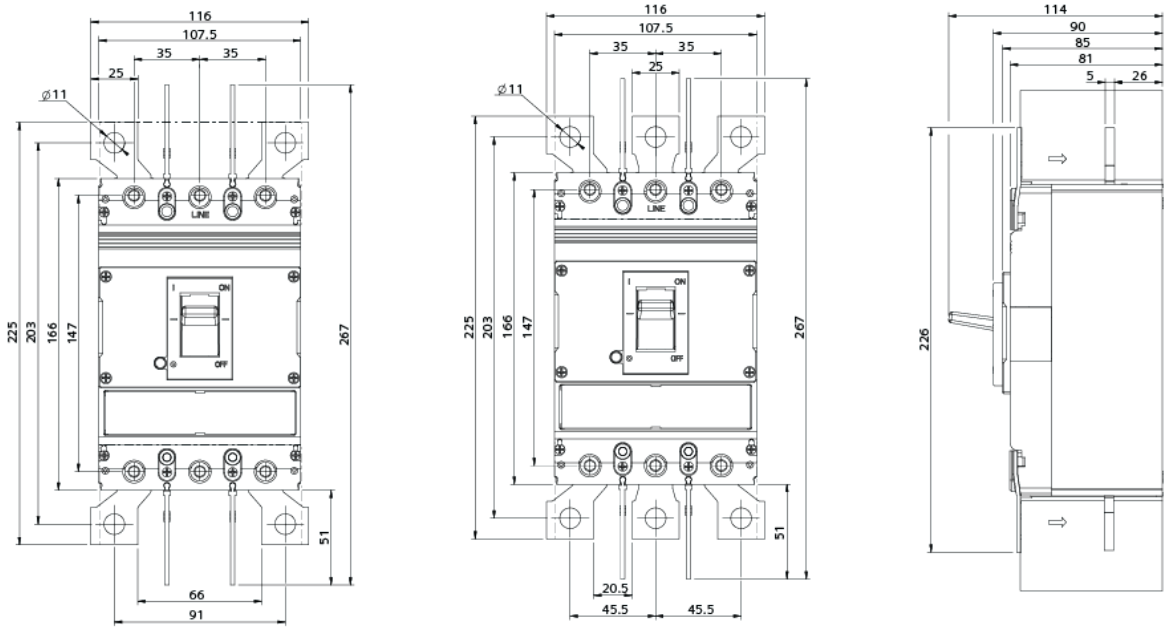


Note: All dimensions are in mm.

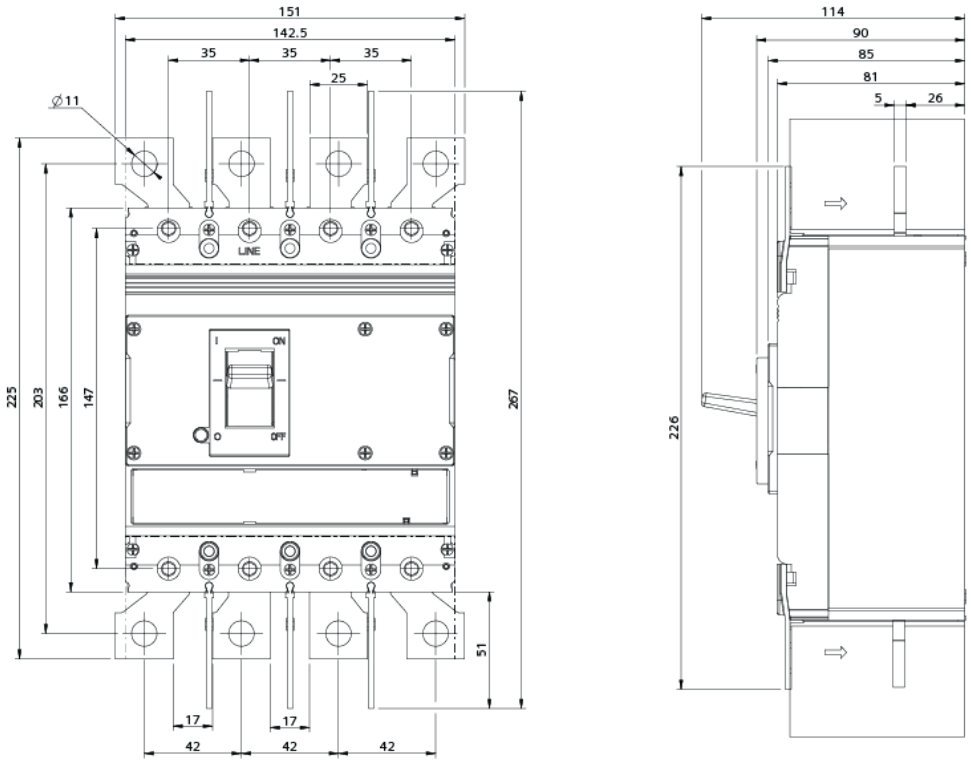
Dimension drawings

3VJ molded case circuit breakers

Frame 2 | 3VJ12 | 2 pole / 3 pole



Frame 2 | 3VJ12 | 4 pole

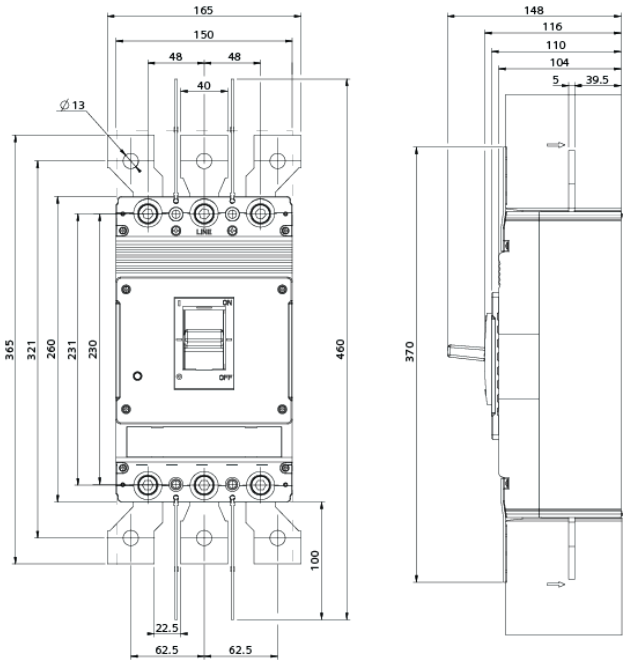


Note: All dimensions are in mm.

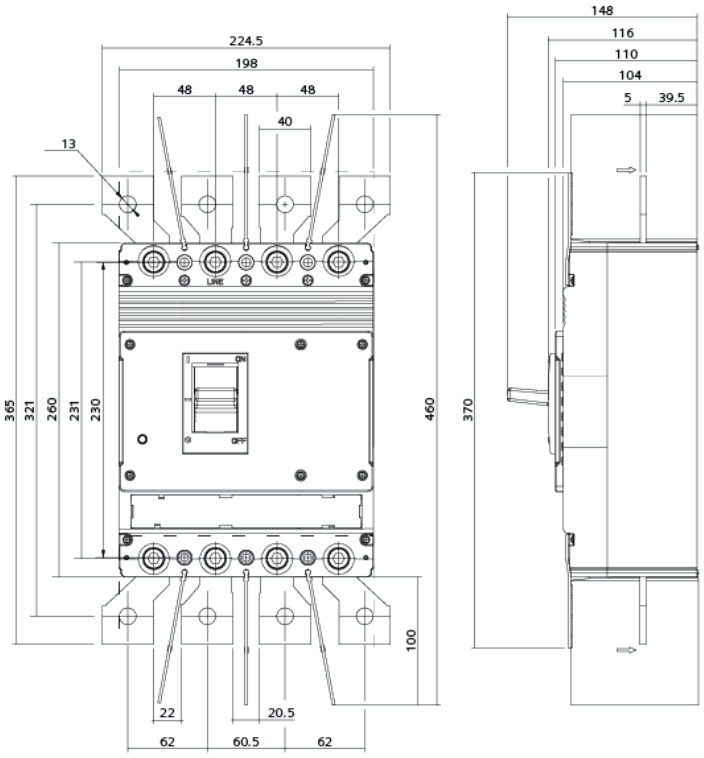
Dimension drawings

3VJ molded case circuit breakers

Frame 3 | 3VJ13 | 3 pole



Frame 3 | 3VJ13 | 4 pole

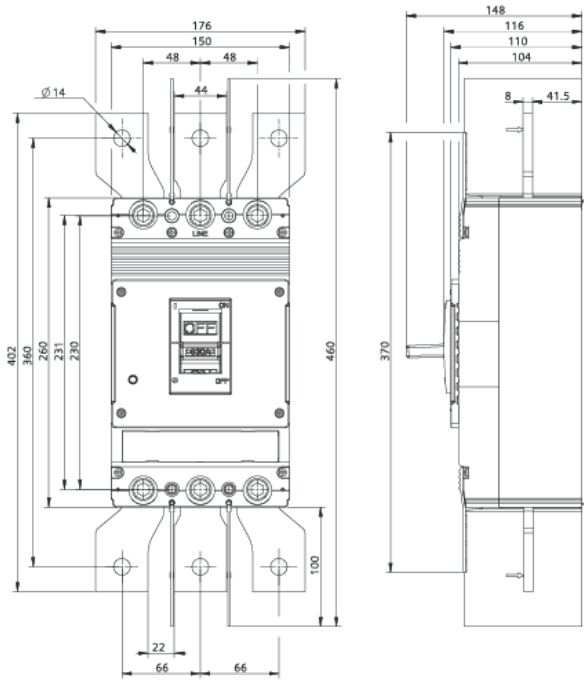


Note: All dimensions are in mm.

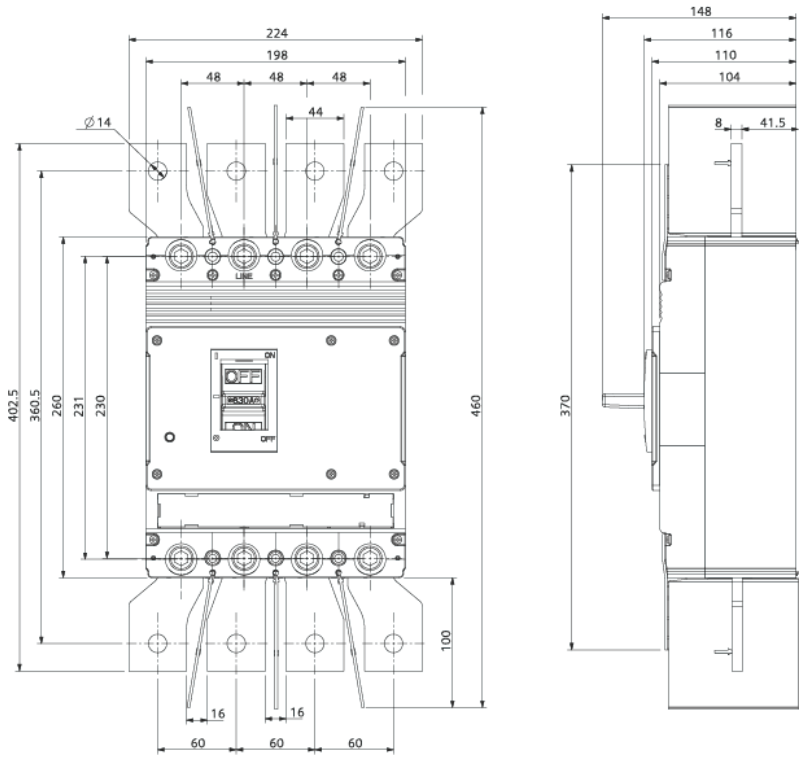
Dimension drawings

3VJ molded case circuit breakers

Frame 4 | 3VJ14 | 3 pole



Frame 4 | 3VJ14 | 3 pole



Note: All dimensions are in mm.

SINOVA
final distribution

SINOVA
final distribution

Experience the power of simplicity with our SINOVA final distribution range of electrical protection products.

Our final distribution products exemplify the Siemens standard of excellence, ensuring safe and efficient power distribution to the end consumer energy management across buildings and industries. With a comprehensive range of components, including miniature circuit breakers, residual current circuit breakers, and isolators, SINOVA caters to the diverse needs of modern power distribution systems. Backed by Siemens' commitment to quality and value, our products are reliable and built for a seamless and secure power distribution experience.

SINOVA The Power of **Simplicity**

5TJ
miniature circuit breakers

SINOVA The Power of **Simplicity**

5TJ miniature circuit breakers

SINOVA The Power of **Simplicity**

5TJ miniature circuit breakers

Product **highlights**

Reliable protection

Our miniature circuit breakers provide reliable protection for your installation with 4.5kA, 6kA, and 10kA breaking capacities.

Easy to use

Our miniature circuit breakers offer flexibility in termination which includes cable, pin-type, and fork-type busbars, making them easy to use.

Cost-effective

With low energy consumption, our miniature circuit breakers help you save on costs over their lifetime.

SINOVA The Power of **Simplicity**

Overview

Product range

Breaking capacity: 4.5kA | Characteristic: C curve

1 pole,
240/415V AC

2 pole,
415V AC

3 pole,
415V AC

4 pole,
415V AC

Breaking capacity: 6kA | Characteristic: B & C curve

1 pole,
240/415V AC

2 pole,
415V AC

3 pole,
415V AC

4 pole,
415V AC

Breaking capacity: 10kA | Characteristic: B & C curve

1 pole,
240/415V AC

2 pole,
415V AC

3 pole,
415V AC

4 pole,
415V AC

Technical specifications

5TJ miniature circuit breakers

Parameters	Unit	Technical details
Standard		IEC 60898-1: 2015
Number of poles		1P, 2P, 3P, 4P
Rated voltage	V AC	240/415
Operational voltage	V AC/pole	Min. 24 Max. 440
Rated breaking capacity acc. to IEC 60898-1	kA AC	4.5, 6 & 10
Tripping characteristics		B curve: 6kA & 10kA C curve: 4.5kA, 6kA & 10kA
Current rating	Ampere	6 to 63
Insulation voltage	V AC	265/456
Rated frequency	Hz	50/60
Impulse withstand voltage	kV	4
Degree of pollution		2
Overvoltage category		III
Line load reversibility		Yes
Degree of protection acc. to EN 60529		IP20
RoHS compliant		Yes
CFC and silicone-free		Yes
REACH		Yes
Terminal tightening torque, recommended	N.m	2
Conductor cross-sections	mm^2	4.5kA & 6kA : up to 25 10kA : up to 35
Bi-connect (dual) terminals		4.5kA & 6kA : available on line side 10kA : available on both sides
Busbar suitability		Both fork and pin type
Mounting position		Any
Average electrical/mechanical life		5,000/20,000 actuation
Ambient temperature	°C	- 25 ... +55 °C, max. 95% humidity Storage temperature: -40 +75 °C
Dimensional details Height x Width x Dimension	mm	84mm x 18mm x 76mm (1 pole)*

*Width changes as number of module sizes increases from 1 pole to 4 pole

Selection & ordering data

5TJ miniature circuit breakers (4.5kA)

Characteristic: C curve

Product	In (A)	No. of poles	Characteristics C Article no.	Standard packaging No. of pieces	List price per PU (Per Unit)	Status
240/415V AC						
	6	1 pole	5TJ3106-7	12		
	10		5TJ3110-7	12		
	16		5TJ3116-7	12		
	20		5TJ3120-7	12		
	25		5TJ3125-7	12		
	32		5TJ3132-7	12		
	40		5TJ3140-7	12		
	50		5TJ3150-7	12		
	63		5TJ3163-7	12		
415V AC						
	6	2 pole	5TJ3206-7	6		
	10		5TJ3210-7	6		
	16		5TJ3216-7	6		
	20		5TJ3220-7	6		
	25		5TJ3225-7	6		
	32		5TJ3232-7	6		
	40		5TJ3240-7	6		
	50		5TJ3250-7	6		
	63		5TJ3263-7	6		
415V AC						
	6	3 pole	5TJ3306-7	4		
	10		5TJ3310-7	4		
	16		5TJ3316-7	4		
	20		5TJ3320-7	4		
	25		5TJ3325-7	4		
	32		5TJ3332-7	4		
	40		5TJ3340-7	4		
	50		5TJ3350-7	4		
	63		5TJ3363-7	4		
415V AC						
	6	4 pole	5TJ3406-7	3		
	10		5TJ3410-7	3		
	16		5TJ3416-7	3		
	20		5TJ3420-7	3		
	25		5TJ3425-7	3		
	32		5TJ3432-7	3		
	40		5TJ3440-7	3		
	50		5TJ3450-7	3		
	63		5TJ3463-7	3		

Selection & ordering data

5TJ miniature circuit breakers (6kA)

Characteristic: B curve

Product	In (A)	No. of poles	Characteristics B Article no.	Standard packaging No. of pieces	List price per PU (Per Unit)	Status
240/415V AC						
	6	1 pole	5TJ6106-6	12		
	10		5TJ6110-6	12		
	16		5TJ6116-6	12		
	20		5TJ6120-6	12		
	25		5TJ6125-6	12		
	32		5TJ6132-6	12		
	40		5TJ6140-6	12		
	50		5TJ6150-6	12		
	63		5TJ6163-6	12		
415V AC						
	6	2 pole	5TJ6206-6	6		
	10		5TJ6210-6	6		
	16		5TJ6216-6	6		
	20		5TJ6220-6	6		
	25		5TJ6225-6	6		
	32		5TJ6232-6	6		
	40		5TJ6240-6	6		
	50		5TJ6250-6	6		
	63		5TJ6263-6	6		
415V AC						
	6	3 pole	5TJ6306-6	4		
	10		5TJ6310-6	4		
	16		5TJ6316-6	4		
	20		5TJ6320-6	4		
	25		5TJ6325-6	4		
	32		5TJ6332-6	4		
	40		5TJ6340-6	4		
	50		5TJ6350-6	4		
	63		5TJ6363-6	4		
415V AC						
	6	4 pole	5TJ6406-6	3		
	10		5TJ6410-6	3		
	16		5TJ6416-6	3		
	20		5TJ6420-6	3		
	25		5TJ6425-6	3		
	32		5TJ6432-6	3		
	40		5TJ6440-6	3		
	50		5TJ6450-6	3		
	63		5TJ6463-6	3		

Selection & ordering data

5TJ miniature circuit breakers (6kA)

Characteristic: C curve

Product	In (A)	No. of poles	Characteristics C Article no.	Standard packaging No. of pieces	List price per PU (Per Unit)	Status
240/415V AC						
	6	1 pole	5TJ6106-7	12		
	10		5TJ6110-7	12		
	16		5TJ6116-7	12		
	20		5TJ6120-7	12		
	25		5TJ6125-7	12		
	32		5TJ6132-7	12		
	40		5TJ6140-7	12		
	50		5TJ6150-7	12		
	63		5TJ6163-7	12		
415V AC						
	6	2 pole	5TJ6206-7	6		
	10		5TJ6210-7	6		
	16		5TJ6216-7	6		
	20		5TJ6220-7	6		
	25		5TJ6225-7	6		
	32		5TJ6232-7	6		
	40		5TJ6240-7	6		
	50		5TJ6250-7	6		
	63		5TJ6263-7	6		
415V AC						
	6	3 pole	5TJ6306-7	4		
	10		5TJ6310-7	4		
	16		5TJ6316-7	4		
	20		5TJ6320-7	4		
	25		5TJ6325-7	4		
	32		5TJ6332-7	4		
	40		5TJ6340-7	4		
	50		5TJ6350-7	4		
	63		5TJ6363-7	4		
415V AC						
	6	4 pole	5TJ6406-7	3		
	10		5TJ6410-7	3		
	16		5TJ6416-7	3		
	20		5TJ6420-7	3		
	25		5TJ6425-7	3		
	32		5TJ6432-7	3		
	40		5TJ6440-7	3		
	50		5TJ6450-7	3		
	63		5TJ6463-7	3		

Selection & ordering data

5TJ miniature circuit breakers (10kA)

Characteristic: B curve

Product	In (A)	No. of poles	Characteristics B Article no.	Standard packaging No. of pieces	List price per PU (Per Unit)	Status
240/415V AC						
	6	1 pole	5TJ4106-6	12		
	10		5TJ4110-6	12		
	16		5TJ4116-6	12		
	20		5TJ4120-6	12		
	25		5TJ4125-6	12		
	32		5TJ4132-6	12		
	40		5TJ4140-6	12		
	50		5TJ4150-6	12		
	63		5TJ4163-6	12		
415V AC						
	6	2 pole	5TJ4206-6	6		
	10		5TJ4210-6	6		
	16		5TJ4216-6	6		
	20		5TJ4220-6	6		
	25		5TJ4225-6	6		
	32		5TJ4232-6	6		
	40		5TJ4240-6	6		
	50		5TJ4250-6	6		
	63		5TJ4263-6	6		
415V AC						
	6	3 pole	5TJ4306-6	4		
	10		5TJ4310-6	4		
	16		5TJ4316-6	4		
	20		5TJ4320-6	4		
	25		5TJ4325-6	4		
	32		5TJ4332-6	4		
	40		5TJ4340-6	4		
	50		5TJ4350-6	4		
	63		5TJ4363-6	4		
415V AC						
	6	4 pole	5TJ4406-6	3		
	10		5TJ4410-6	3		
	16		5TJ4416-6	3		
	20		5TJ4420-6	3		
	25		5TJ4425-6	3		
	32		5TJ4432-6	3		
	40		5TJ4440-6	3		
	50		5TJ4450-6	3		
	63		5TJ4463-6	3		

Selection & ordering data

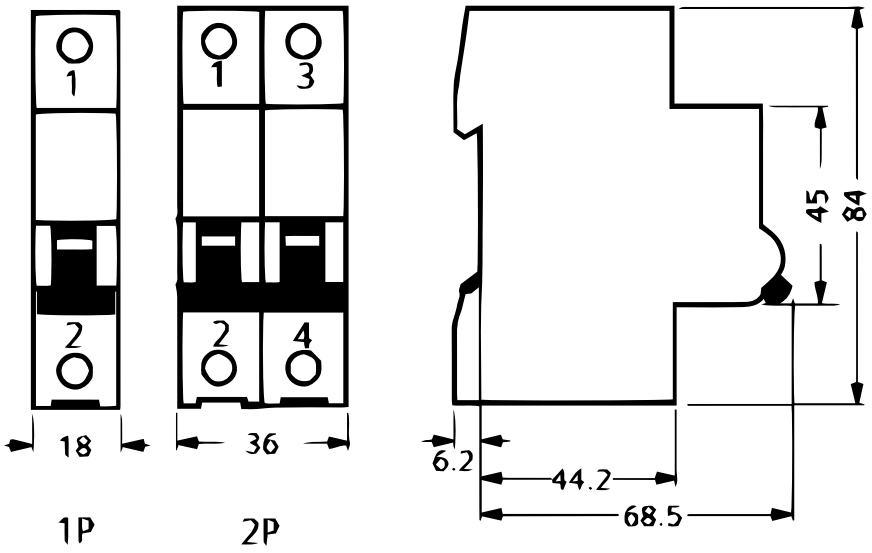
5TJ miniature circuit breakers (10kA)

Characteristic: C curve

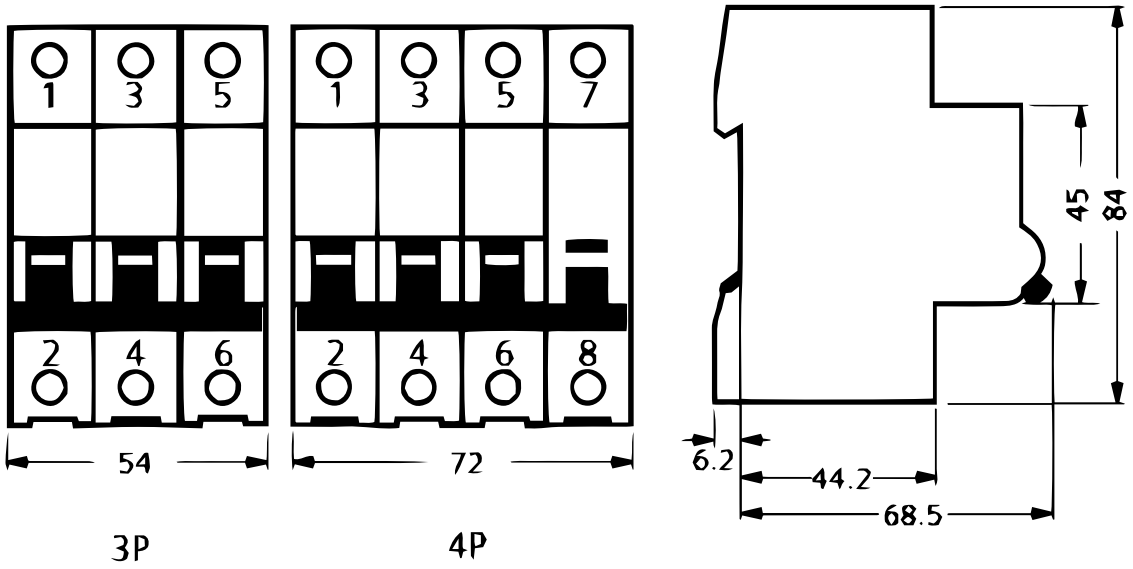
Product	In (A)	No. of poles	Characteristics C Article no.	Standard packaging No. of pieces	List price per PU (Per Unit)	Status
240/415V AC						
	6	1 pole	5TJ4106-7	12		
	10		5TJ4110-7	12		
	16		5TJ4116-7	12		
	20		5TJ4120-7	12		
	25		5TJ4125-7	12		
	32		5TJ4132-7	12		
	40		5TJ4140-7	12		
	50		5TJ4150-7	12		
	63		5TJ4163-7	12		
415V AC						
	6	2 pole	5TJ4206-7	6		
	10		5TJ4210-7	6		
	16		5TJ4216-7	6		
	20		5TJ4220-7	6		
	25		5TJ4225-7	6		
	32		5TJ4232-7	6		
	40		5TJ4240-7	6		
	50		5TJ4250-7	6		
	63		5TJ4263-7	6		
415V AC						
	6	3 pole	5TJ4306-7	4		
	10		5TJ4310-7	4		
	16		5TJ4316-7	4		
	20		5TJ4320-7	4		
	25		5TJ4325-7	4		
	32		5TJ4332-7	4		
	40		5TJ4340-7	4		
	50		5TJ4350-7	4		
	63		5TJ4363-7	4		
415V AC						
	6	4 pole	5TJ4406-7	3		
	10		5TJ4410-7	3		
	16		5TJ4416-7	3		
	20		5TJ4420-7	3		
	25		5TJ4425-7	3		
	32		5TJ4432-7	3		
	40		5TJ4440-7	3		
	50		5TJ4450-7	3		
	63		5TJ4463-7	3		

Dimension drawings

1 and 2 pole



3 and 4 pole



Note: All dimensions are in mm.

5TJ residual current circuit breakers

SINOVA The Power of **Simplicity**

5TJ residual current circuit breakers

SINOVA The Power of **Simplicity**

5TJ residual current circuit breakers

Product **highlights**

Extensive product range

Our residual current circuit breakers come in current ratings of 16A, 25A, 32A, 40A, and 63A. They're available with sensitivities of 30mA, 100mA, and 300mA.

Easy to use

Our residual current circuit breakers offer flexibility in termination which includes cable, pin-type, and fork-type busbars, making them easy to use.

High compatibility

Compatible with 50Hz and 60Hz frequencies, catering to a wide range of needs.

SINOVA The Power of **Simplicity**

Technical specifications

5TJ residual current circuit breakers

Parameters	Unit	Technical details
Standard		IEC 61008-1, IEC 61008-2-1
Number of poles		2P and 4P
Rated voltage	V AC	240/415
Rated current In	Ampere (A)	16, 25, 32, 40 and 63
Rated frequency	Hz	50/60
Type		AC
Rated residual current / Δn	mA	30, 100 and 300
Rated conditional short-circuit current as per IEC 61008-1	kA	6 and 10
Minimum operating voltage for test function		
30mA	V AC	90
100mA		140
300mA		200
Pollution degree		2
Overvoltage category		III
Impulse withstand voltage	kV	4
Handle end position, sealable (sealing wire)		Yes
Degree of protection acc. to EN 60529		IP20 front
RoHS compliant		Yes
CFC and silicone-free		Yes
REACH		Yes
Terminal tightening torque, recommended	N.m	2.5...3
Conductor cross-sections	mm²	2.5...35
Bi-connect (dual) terminals		Yes (bottom only)
Busbar suitability		Both fork and pin type
Mounting position		Any
Average electrical / mechanical life		10,000/15,000 actuation
Ambient temperature	°C	- 25 ... +55 °C, max. 95% humidity Storage temperature: -25 ... +60 °C
Dimensional details Height x Width x Depth	mm	84.5 x 36 × 76 mm (2P) 84.5 x 72 × 76 mm (4P)

Selection & ordering data

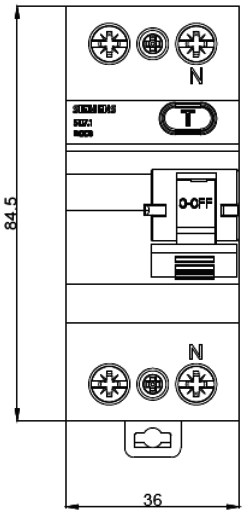
5TJ residual current circuit breakers

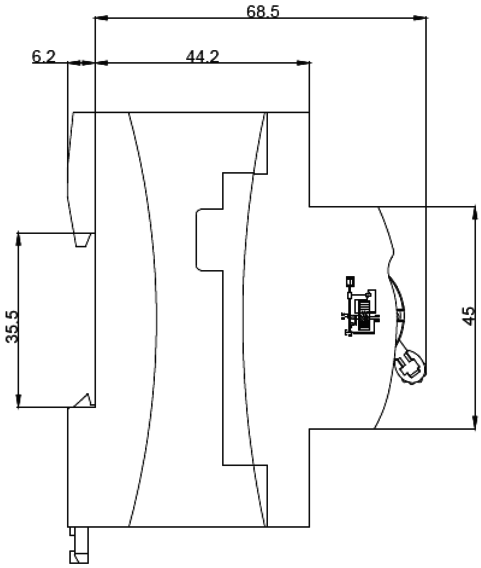
Product	Icn (kA)	In (A)	Sensitivity			Standard packaging No. of pieces	List price per PU (Per Unit)	Status
			30mA	100mA	300mA			
2 pole								
	6	16	5TJ7311-0	5TJ7411-0	5TJ7611-0	5		
	6	25	5TJ7312-0	5TJ7412-0	5TJ7612-0	5		
	6	32	5TJ7313-0	5TJ7413-0	5TJ7613-0	5		
	6	40	5TJ7314-0	5TJ7414-0	5TJ7614-0	5		
	6	63	5TJ7316-0	5TJ7416-0	5TJ7616-0	5		
	10	16	5TJ8311-0	5TJ8411-0	5TJ8611-0	5		
	10	25	5TJ8312-0	5TJ8412-0	5TJ8612-0	5		
	10	32	5TJ8313-0	5TJ8413-0	5TJ8613-0	5		
	10	40	5TJ8314-0	5TJ8414-0	5TJ8614-0	5		
	10	63	5TJ8316-0	5TJ8416-0	5TJ8616-0	5		
4 pole								
	6	16	5TJ7341-0	5TJ7441-0	5TJ7641-0	3		
	6	25	5TJ7342-0	5TJ7442-0	5TJ7642-0	3		
	6	32	5TJ7343-0	5TJ7443-0	5TJ7643-0	3		
	6	40	5TJ7344-0	5TJ7444-0	5TJ7644-0	3		
	6	63	5TJ7346-0	5TJ7446-0	5TJ7646-0	3		
	10	16	5TJ8341-0	5TJ8441-0	5TJ8641-0	3		
	10	25	5TJ8342-0	5TJ8442-0	5TJ8642-0	3		
	10	32	5TJ8343-0	5TJ8443-0	5TJ8643-0	3		
	10	40	5TJ8344-0	5TJ8444-0	5TJ8644-0	3		
	10	63	5TJ8346-0	5TJ8446-0	5TJ8646-0	3		

Dimension drawings

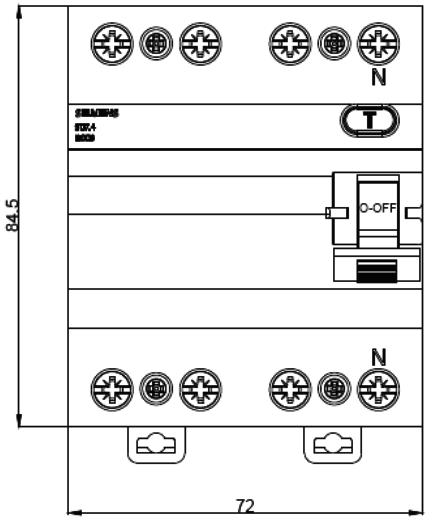
5TJ residual current circuit breakers

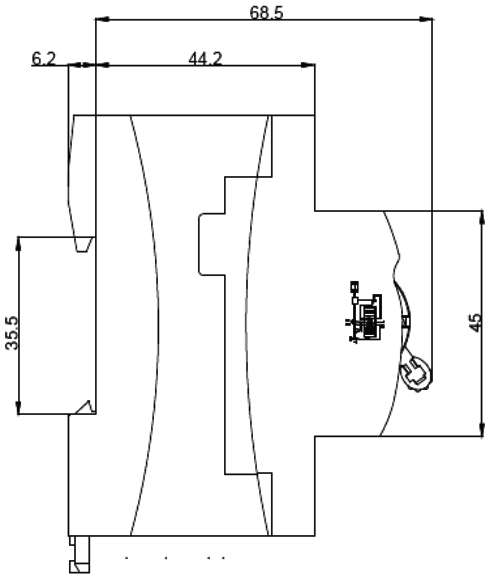
2 pole



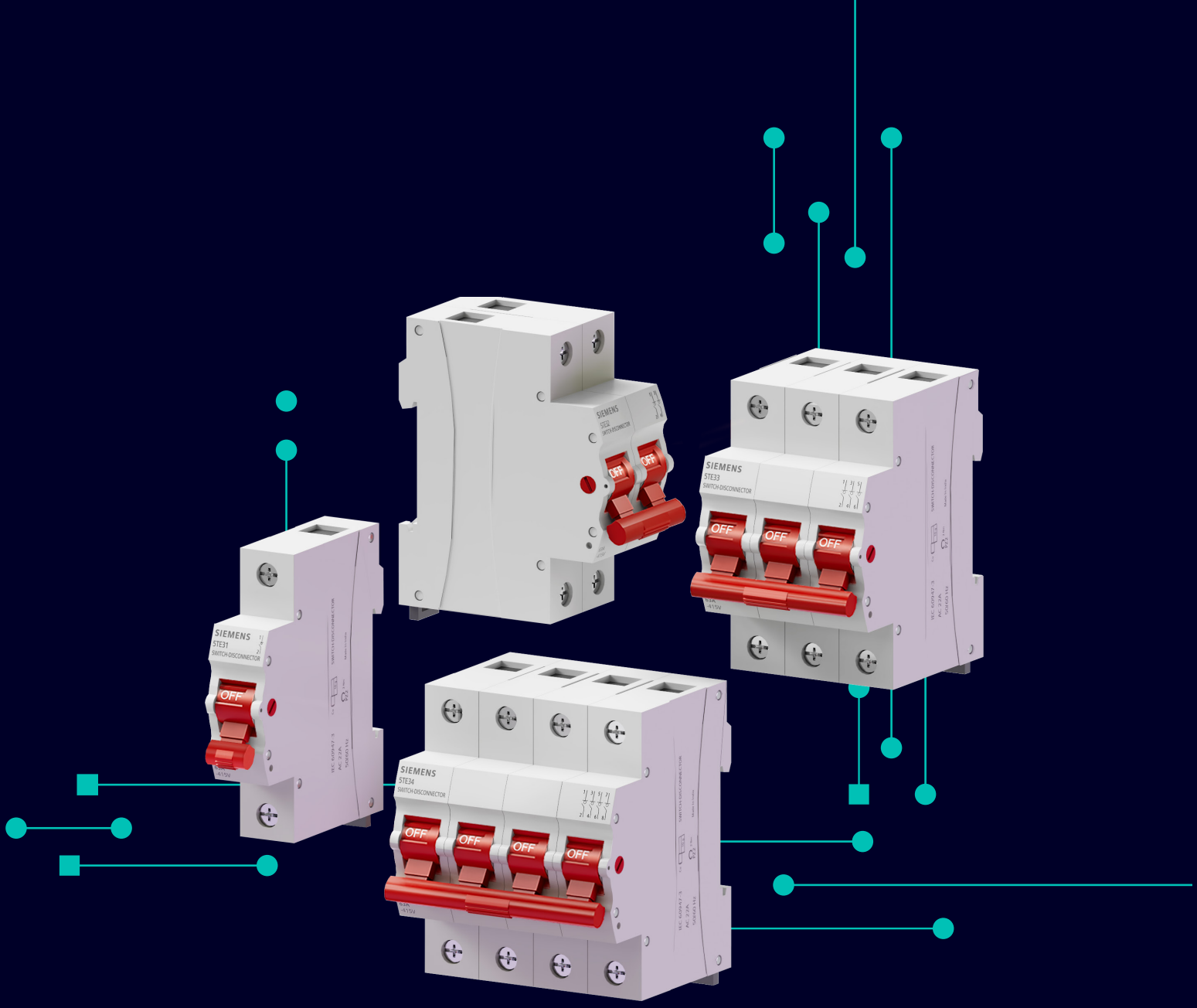


4 pole



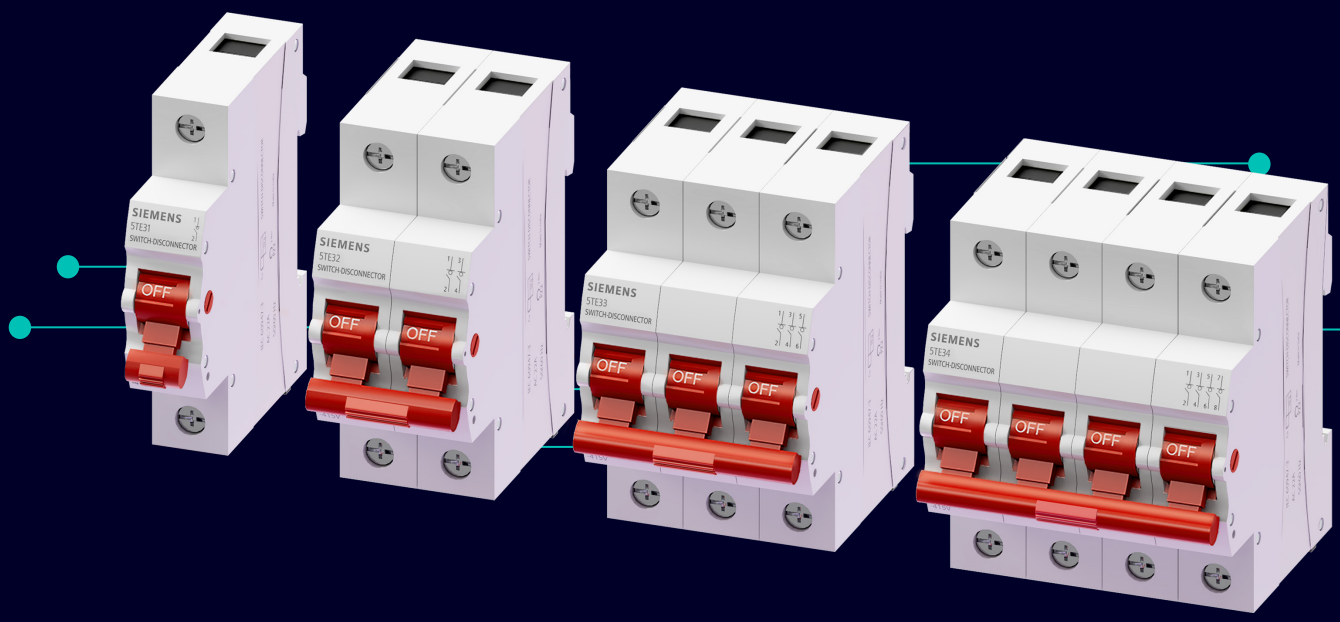


Note: All dimensions are in mm.



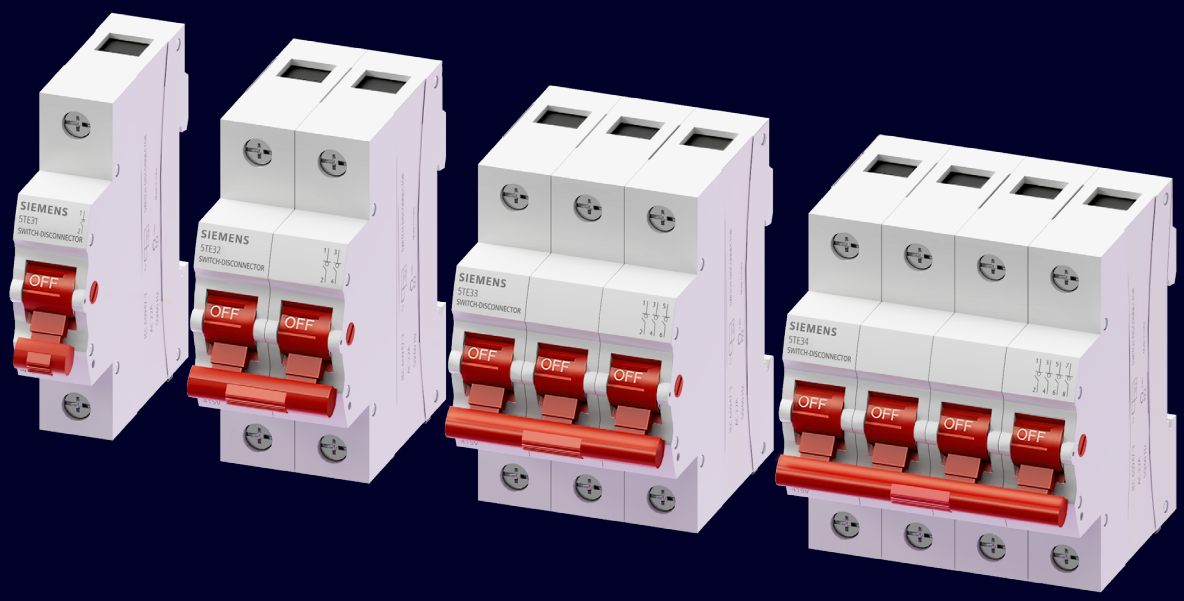
5TE isolators

SINOVA The Power of **Simplicity**



5TE isolators

SINOVA The Power of **Simplicity**



5TE isolators

Product **highlights**

Adaptable

Ideal for switching a variety of applications with mixed resistive and inductive loads in both residential and industrial applications.

IEC Safe

Complete isolation and safe system disconnection during maintenance work, ensuring the safety of personnel. Conform to IEC 60947-3.

Easy to use

Our isolators offer flexibility in termination, which includes cable, pin-type, and fork-type busbars, making them easy to use.

SINOVA The Power of **Simplicity**

Technical specifications

5TE isolators

Parameters	Unit	Technical Details					
Standard		IEC 60947-3					
Rated voltage Un V AC	V AC	1P-240V/415V AC ; 2P,3P,4P- 415V AC					
Current rating	A	**25A**	**40A**	**63A**	**80A**	**100A**	**125A**
Rated power dissipation Pv – per pole max		2.3	2.3	2.5	5.5	5.5	5.5
Breaking capacity • Short circuit withstand capacity Icw (1 sec) • Short circuit making capacity Icm	 A A	 300 500	 480 800	 756 1200	 960 1500	 1200 1800	 1500 2200
Rated insulation voltage	V AC	660					
Rated frequency	Hz	50/60					
Utilization category		AC-22A					
Overvoltage category		III					
Pollution degree		3					
Impulse withstand voltage	kV	4kV					
Degree of protection (front side)		IP20					
Endurance in cycles • Mechanical • Electrical		 10000 2000					
Handle end position (sealable wire)		Yes					
RoHS compliant		Yes					
Terminal details • Bi-connect terminal • Terminal tightening torque N-m	 N-m	 Yes, at bottom 2.5 - 3					
Conductor cross-section • Solid and stranded mm^2	mm^2	4 - 35 | 4 - 50					
Ambient temperature	°C	-5 °C to 55 °C					
Storage temperature	°C	-25 °C to 70 °C					
Mounting		DIN rail (35mm)					
Orientation		Any (horizontal and vertical)					

Selection & ordering data

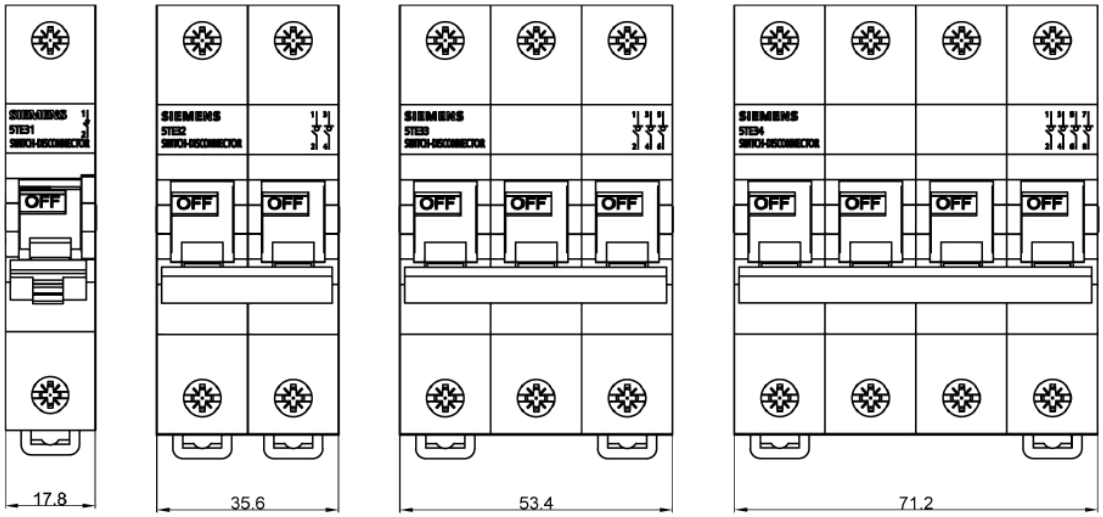
5TE isolators

Product	In (A)	No. of poles	Article no.	Standard packaging No. of pieces	List price per PU (Per Unit)	Status
240V AC						
	25	1 pole	5TE3125-0RC	12		
	40		5TE3140-0RC	12		
	63		5TE3163-0RC	12		
	80		5TE3180-0RC	12		
	100		5TE3191-0RC	12		
	125		5TE3192-0RC	12		
415V AC						
	25	2 pole	5TE3225-0RC	6		
	40		5TE3240-0RC	6		
	63		5TE3263-0RC	6		
	80		5TE3280-0RC	6		
	100		5TE3291-0RC	6		
	125		5TE3292-0RC	6		
415V AC						
	25	3 pole	5TE3325-0RC	4		
	40		5TE3340-0RC	4		
	63		5TE3363-0RC	4		
	80		5TE3380-0RC	4		
	100		5TE3391-0RC	4		
	125		5TE3392-0RC	4		
415V AC						
	25	4 pole	5TE3425-0RC	3		
	40		5TE3440-0RC	3		
	63		5TE3463-0RC	3		
	80		5TE3480-0RC	3		
	100		5TE3491-0RC	3		
	125		5TE3492-0RC	3		

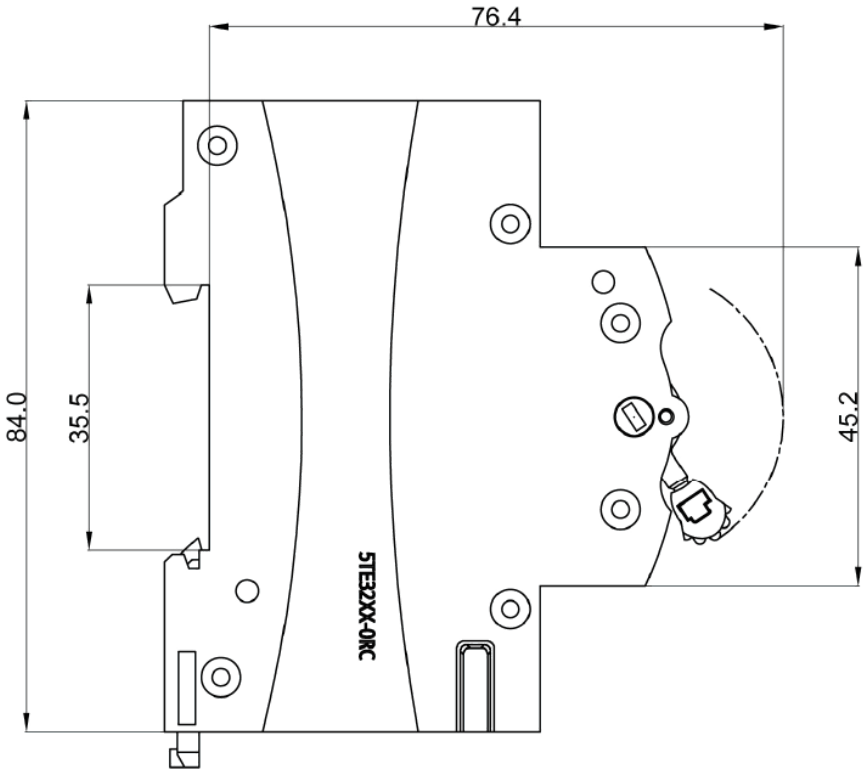
Dimension drawings

5TE isolators

1 pole and 2 pole

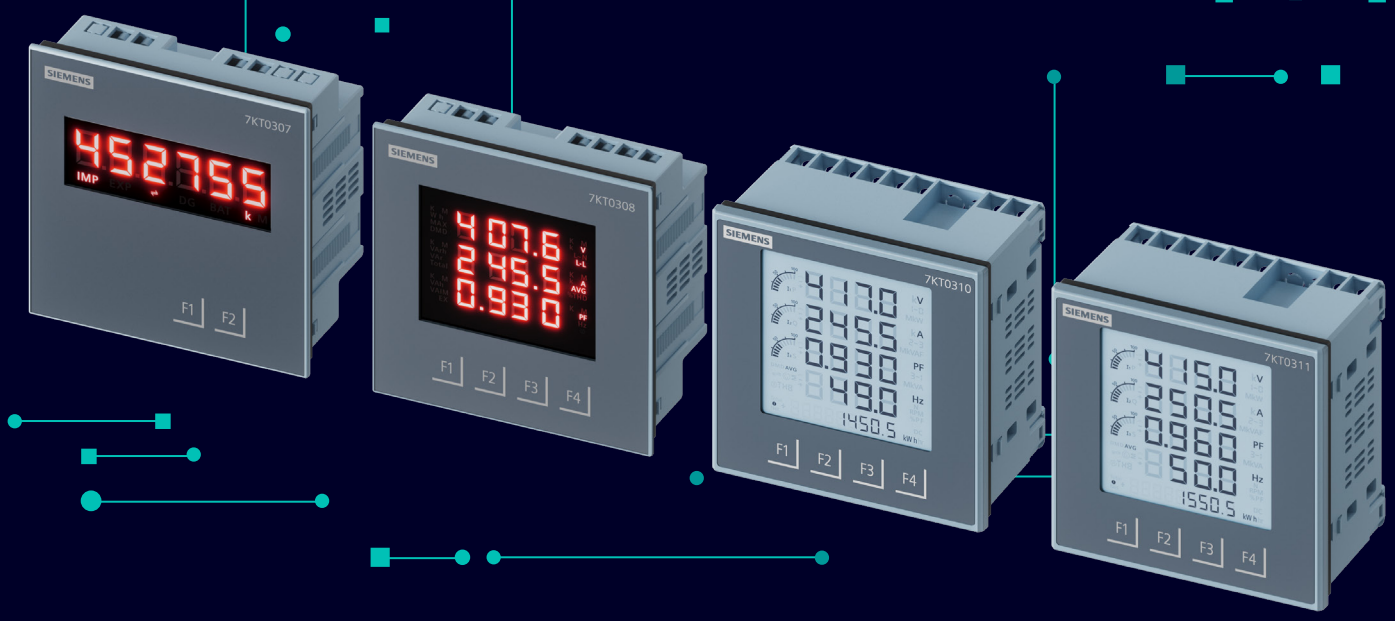


1P 2P 3P 4P



Note: All dimensions are in mm.

SINOVA
measuring devices and power monitoring



SINOVA measuring device and power monitoring

Our easy-to-use power monitoring devices offer a seamless blend of reliability and simplicity to redefine how you monitor and manage power consumption.

Our comprehensive range of SINOVA SMART 7KT power monitoring devices is available in two variants: multifunction meters and discrete panel meters that cater to various applications to suit your specific needs. The large display and accurate readings are designed for ease of use, empowering you to measure what matters to you, monitor performance at the click of a button, and facilitate energy management with simple and clear data points.

In buildings, industry, or infrastructure applications, simplifying your energy measurement efforts allows you to unlock new opportunities for optimizing power distribution systems and increasing operational and cost efficiency.

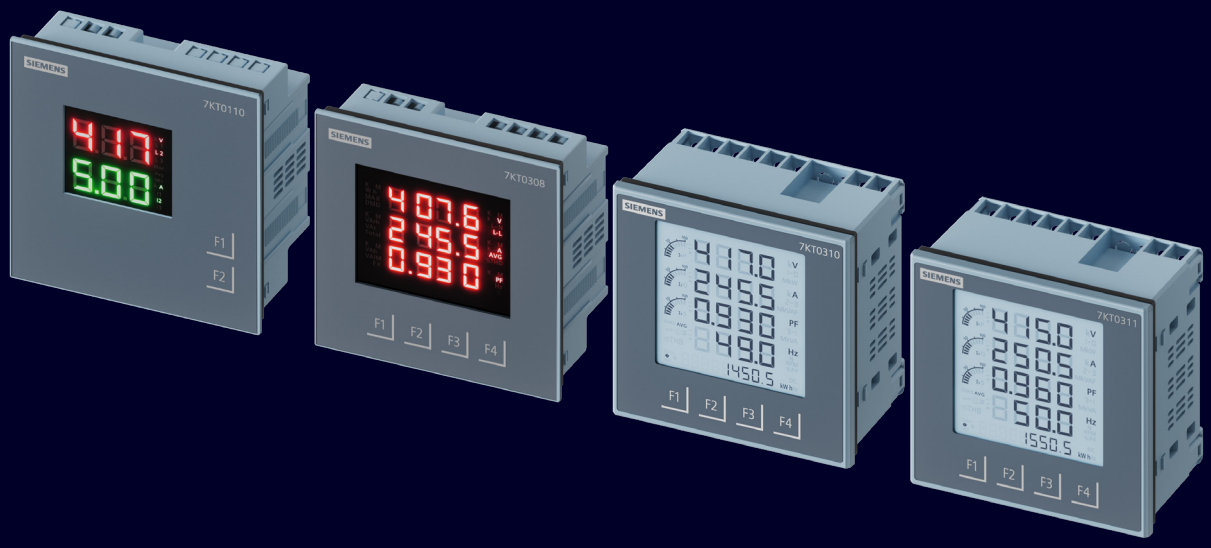
SINOVA The Power of **Simplicity**

SMART 7KT power monitoring devices

SINOVA The Power of **Simplicity**

SMART 7KT
power monitoring devices

SINOVA The Power of **Simplicity**



SMART 7KT power monitoring devices

Product **highlights**

Easy to use

Our devices feature tool-free setup with ClickFit installation, easy-to-read displays, and intuitive interfaces, ensuring a seamless user experience.

Comprehensive

Our multifunction and discrete panel meters are designed to meet all your energy monitoring needs, enabling informed decisions to optimize energy usage across diverse industries and applications.

Reliable

Our RoHs compliant power monitoring devices provide precise measurement and accurate data, meeting IEC 61557-12 and IEC 62053 standards.

SINOVA The Power of **Simplicity**

Overview

Product range

Multifunction meters

7KT0307
Single line LED display Class 1

7KT0308
Multi line LED display Class 1

7KT0310
LCD display Class 1

7KT0311
LCD display Class 0.5

Discrete panel meters

7KT0110
VA meter

7KT0120
VAF meter

7KT0210
3-phase energy meter

Overview

Multifunction meters

				
Parameters	**7KT0307**	**7KT0308**	**7KT0310**	**7KT0311**
Description	Single line LED Class 1	Multi line LED Class 1	LCD Class 1	LCD Class 0.5s
Accuracy	Class 1 (active energy)			Class 0.5s (active energy)
Measured parameters	All parameters			
Power quality indicators measured	-	THD, individual harmonics*		
Display	Single line LED	Multi line LED	LCD with graphic display	
Digital Input (DI) / Digital Output (DO)	-	1 DI		1 DI (dual source) + 1 DO
Communication protocol	Modbus RTU			
Import / Export	Yes			

Accurate measurement of electrical parameters for ISO 50001 compliant energy management.

Note: * = via communication

Overview

Discrete panel meters

			
Parameters	**7KT0110**	**7KT0120**	**7KT0210**
Description	VA meter	VAF meter	3-phase energy meter
Accuracy	Class 1 (voltage & current)		Class 1 (active energy)
Measured parameters	Voltage, current	Voltage, current, frequency	Energy (dual source), power, power factor
Display	Multi line LED with two distinct colors	Multi line LED	Single line LCD
Digital Input (DI) / Digital Output (DO)	-		1 DI (dual source)
Communication protocol	-		Modbus RTU

Precise energy recording in dual-source energy scenarios.

Technical specifications

7KT0307 (Single line LED Class 1)

Measurements	
Measuring procedure for • Voltage measurement • Current measurement	 True RMS True RMS
Type of measured value detection	Complete
Voltage curve	Sinusoidal or distorted
Measurable line frequency • Initial value • Full-scale value	 45Hz 65Hz
Operating mode for measured value detection • Automatic line frequency detection	 Yes
Supply voltage	
Design of the power supply	SMPS power supply
Type of voltage of the supply voltage	AC
Degree of protection class	
Protection class IP on the front	IP54
Protection class IP of the terminal	IP20
Product functions	
• Voltage measurement • Current measurement • Active power measurement • Reactive power measurement • Apparent power measurement • Power factor measurement • Frequency measurement • Apparent energy/active energy/reactive energy	Yes
Display and operation	
Display design	LED
Display height	22mm
Display width	69mm
Display background color	Black
Display supported screen language	EN
Number of keys	2

Technical specifications

7KT0307 (Single line LED Class 1)

Fault limits	
Reference condition for metering accuracy	In accordance with IEC 61557-12, IEC 62053-21, IEC62053-23
Formula for relative total measurement inaccuracy for • Measured variable voltage • Measured variable current • Measured variable apparent power • Measured variable active power • Measured variable reactive power • Measured variable power factor • Measured variable active energy • Measured variable reactive energy	 Class 0.5 as per IEC 61557-12 Class 0.5 as per IEC 61557-12 Class 1 as per IEC 61557-12 Class 1 as per IEC 61557-12 Class 2 as per IEC 61557-12 Class 1 as per IEC 61557-12 Class 1 as per IEC 62053-21 and IEC 61557-12 Class 2 as per IEC 61557-12 and IEC 62053-23
Measuring inputs	
Measurable supply voltage between L and N at AC maximum rated value	240V
Measurable supply voltage between L and N at AC • Minimum • Maximum	 11V 300V
Measurable supply voltage between the line conductors at AC maximum rated value	415V
Measurable supply voltage between the line conductors at AC • Minimum • Maximum	 19V 519V
Voltage measuring range extension with external voltage transformers	Up to 500kV
Line conductors and neutral conductors internal resistance for voltage measurement	1.12 MΩ
Measurable current	1A/5A
Relative measurable current at AC • Minimum • Maximum	 1% 120%
Current measuring range extension with external current transformers	Up to 10kA
Measuring category for current measurement	CAT III
Connections	
Type of electrical connection at the: • Measurement inputs for voltage • Measurement inputs for current	 Screw-type terminals
Communication	
Protocol	Modbus RTU

Technical specifications

7KT0307 (Single line LED Class 1)

Mechanical design	
Mounting	Flush panel-door mounted
Size of power monitoring device	Size 96
Height	99mm
Width	99mm
Cut-out	91.5mm x 91.5mm
Depth	52mm
Installation depth	49mm
Net weight	228g
Mounting position	Vertical
Environmental conditions	
Ambient temperature during operation • Minimum • Maximum	 -10°C 55°C
Ambient temperature during storage • Minimum • Maximum	 -20°C 75°C
Relative humidity at 25°C without condensation during operation maximum	85%
Installation altitude at height above sea level maximum	2000m
Degree of pollution	2

IEC standards		
Description	Standard	Certifications
Accuracy	IEC 61557-12; IEC 62053-21 | Active energy	SMART 7KT multifunction meter conforms to IEC standards, IPC electronics assembly standards, and RoHS
EMC requirements	IEC 61326-1	
Degree of protection test (IP)	IEC 60529	
Safety requirements	IEC 61010-1 and IEC 61010-2-030	

Technical specifications

7KT0308 (Multi line LED Class 1)

Measurements	
Measuring procedure for • Voltage measurement • Current measurement	 True RMS True RMS
Type of measured value detection	Complete
Voltage curve	Sinusoidal or distorted
Measurable line frequency • Initial value • Full-scale value	 45Hz 65Hz
Operating mode for measured value detection • Automatic line frequency detection	Yes
Supply voltage	
Design of the power supply	SMPS power supply
Type of voltage	AC
Degree of protection class	
Protection class IP on the front	IP54
Protection class IP of the terminal	IP20
Product functions	
• Voltage measurement • Current measurement • Active power measurement • Reactive power measurement • Apparent power measurement • Power factor measurement • Frequency measurement • Apparent energy/active energy/reactive energy • % Total Harmonics Distortion (THD) • Individual harmonics measurement via communication • Power demand measurement	Yes
Display and operation	
Display design	LED
Display height	48mm
Display width	62mm
Display background color	Black
Display supported screen language	EN
Number of keys	4

Technical specifications

7KT0308 (Multi line LED Class 1)

Fault limits	
Reference condition for metering accuracy	In accordance with IEC 61557-12, IEC 62053-21, IEC 62053-23
Formula for relative total measurement inaccuracy for: • Measured variable voltage • Measured variable current • Measured variable apparent power • Measured variable active power • Measured variable reactive power • Measured variable power factor • Measured variable active energy • Measured variable reactive energy	 Class 0.5 as per IEC 61557-12 Class 0.5 as per IEC 61557-12 Class 1 as per IEC 61557-12 Class 1 as per IEC 61557-12 Class 2 as per IEC 61557-12 Class 1 as per IEC 61557-12 Class 1 as per IEC 61557-12 and IEC 62053-21 Class 2 as per IEC 61557-12 and IEC 62053-23
Inputs/Outputs	
Number of digital inputs	1
Type of electrical connection at the digital inputs	Screw-type terminals
Operating conditions for digital inputs external voltage supply	Yes
Input voltage at digital input at DC maximum	30V
Input current at digital input initial value for signal<1>recognition	10mA
Measuring inputs	
Measurable supply voltage between L and N at AC maximum rated value	240V
Measurable supply voltage between L and N at AC • Minimum • Maximum	 11V 300V
Measurable supply voltage between the line conductors at AC maximum rated value	415V
Measurable supply voltage between the line conductors at AC • Minimum • Maximum	 19V 519V
Voltage measuring range extension with external voltage transformers	Up to 500kV
Line conductors and neutral conductors internal resistance for voltage measurement	1.12 MΩ
Measurable current	1A/5A
Relative measurable current at AC • Minimum • Maximum	 1% 120%
Current measuring range extension with external current transformers	Up to 10kA
Measuring category for current measurement	CAT III

Technical specifications

7KT0308 (Multi line LED Class 1)

Connections	
Type of electrical connection at the • Measurement inputs for voltage • Measurement inputs for current	Screw-type terminals
Communication	
Protocol	Modbus RTU
Mechanical design	
Mounting	Flush panel-door mounted
Size of power monitoring device	Size 96
Height	99mm
Width	99mm
Cut-out	91.5mm x 91.5mm
Depth	52mm
Installation depth	49mm
Net weight	247g
Mounting position	Vertical
Environmental conditions	
Ambient temperature during operation • Minimum • Maximum	-10°C 55°C
Ambient temperature during storage • Minimum • Maximum	-20°C 75°C
Relative humidity at 25°C without condensation during operation maximum	85%
Installation altitude at height above sea level maximum	2000m
Degree of pollution	2

IEC standards		
Description	Standard	Certifications
Accuracy	IEC 61557-12; IEC 62053-21 | Active energy	SMART 7KT multifunction meter conforms to IEC standards, IPC electronics assembly standards, and RoHS
EMC requirements	IEC 61326-1	
Degree of protection test (IP)	IEC 60529	
Safety requirements	IEC 61010-1 and IEC 61010-2-030	

Technical specifications

7KT0310 (LCD Class 1)

Measurements	
Measuring procedure for • Voltage measurement • Current measurement	 True RMS True RMS
Type of measured value detection	Complete
Voltage curve	Sinusoidal or distorted
Measurable line frequency • Initial value • Full-scale value	 45Hz 65Hz
Operating mode for measured value detection • Automatic line frequency detectiont	Yes
Supply voltage	
Design of the power supply	SMPS power supply
Type of voltage of the supply voltage	AC
Degree of protection class	
Protection class IP on the front	IP65
Protection class IP of the terminal	IP20
Suitability	
For operation	Installation in stationary panels in closed rooms
Product functions	
• Voltage measurement • Current measurement • Active power measurement • Reactive power measurement • Apparent power measurement • Power factor measurement • Frequency measurement • Apparent energy/active energy/reactive energy • % Total Harmonics Distortion (THD) measurement for voltage and current • Individual harmonics measurement via communication • Power demand measurement	Yes
Display and operation	
Display design	LCD with graphical display of current loading
Display height	60mm
Display width	60mm
Display background color	White
Time-controlled reduction of the illuminance of display backlight possible	Yes, up to 2 hrs. (7200 sec)

Technical specifications

7KT0310 (LCD Class 1)

Display and operation	
Display supported screen language	EN
Number of keys	4
Accuracy	
Reference condition for metering accuracy	In accordance with IEC62053-21, IEC 62053-23
Formula for relative total measurement inaccuracy for • Measured variable voltage • Measured variable current • Measured variable frequency • Measured variable power factor • Measured variable active energy • Measured variable reactive energy	 ± 0.5% of full scale ± 0.5% of full scale ± 0.1% ± 0.01% digit Class 1 as per IEC 62053-21 Class 2 as per IEC 62053-23
Inputs	
Number of digital inputs	1
Type of electrical connection at the digital inputs	Screw-type terminals
Operating conditions for digital inputs external voltage supply	Yes
Input voltage at digital input at DC maximum	30V
Input current at digital input initial value for signal<1>recognition	10mA
Measuring inputs	
Measurable supply voltage between L and N at AC maximum rated value	240V
Measurable supply voltage between L and N at AC • Minimum • Maximum	 11V 300V
Measurable supply voltage between the line conductors at AC maximum rated value	415V
Measurable supply voltage between the line conductors at AC • Minimum • Maximum	 19V 519V
Voltage measuring range extension with external voltage transformers	Up to 500kV
Line conductors and neutral conductors internal resistance for voltage measurement	1.12 MΩ
Measuring category for voltage measurement	CAT III
Measurable current	1A/5A
Relative measurable current at AC • Minimum • Maximum	 1% 120%
Current measuring range extension with external current transformers	Up to 10kA
Measuring category for current measurement	CAT III

Technical specifications

7KT0310 (LCD Class 1)

Connections	
Type of electrical connection at the • Measurement inputs for voltage • Measurement inputs for current	Screw-type terminals
Communication	
Protocol	Modbus RTU
Mechanical design	
Mounting	Flush panel-door mounted
Size of power monitoring device	Size 96
Height	96mm
Width	96mm
Cut-out	91.5mm x 91.5mm
Depth	55mm
Installation depth	51mm
Net weight	325g
Environmental conditions	
Ambient temperature during operation • Minimum • Maximum	 -10°C 55°C
Ambient temperature during storage • Minimum • Maximum	 -20°C 75°C
Relative humidity at 25°C without condensation during operation maximum	85%
Installation altitude at height above sea level maximum	2000m
Degree of pollution	2

IEC standards

Description	Standard	Certifications
Accuracy	IEC 62053-21 | Active energy	SMART 7KT multifunction meter conforms to IEC standards, IPC electronics assembly standards, and RoHS
EMC requirements	IEC 61326-1	
Degree of protection test (IP)	IEC 60529	
Safety requirements	IEC 61010-1 and IEC 61010-2-030	
Vibration and mechanical shock	IEC 62052-11	

Technical specifications

7KT0311 (LCD Class 0.5s)

Measurements	
Measuring procedure for • Voltage measurement • Current measurement	 True RMS True RMS
Type of measured value detection	Complete
Voltage curve	Sinusoidal or distorted
Measurable line frequency • Initial value • Full-scale value	 45Hz 65Hz
Operating mode for measured value detection • Automatic line frequency detectiont	Yes
Supply voltage	
Design of the power supply	SMPS power supply
Type of voltage of the supply voltage	AC
Degree of protection class	
Protection class IP on the front	IP65
Protection class IP of the terminal	IP20
Suitability	
For operation	Installation in stationary panels in closed rooms
Product functions	
• Voltage measurement • Current measurement • Active power measurement • Reactive power measurement • Apparent power measurement • Power factor measurement • Frequency measurement • Apparent energy/active energy/reactive energy • Individual harmonics via communication • Power demand measurement	Yes

Technical specifications

7KT0311 (LCD Class 0.5s)

Display and operation	
Display design	LCD with graphical display of current loading
Display height	60mm
Display width	60mm
Display background color	White
Time-controlled reduction of the illuminance of display backlight possible	Yes, up to 2 hrs. (7200 sec)
Display supported screen language	EN
Number of keys	4
Accuracy	
Reference condition for metering accuracy	In accordance with IEC 61557-12, IEC 62053-22, IEC 62053-23
Formula for relative total measurement inaccuracy for • Measured variable voltage • Measured variable current • Measured variable apparent power • Measured variable active power • Measured variable reactive power • Measured variable power factor • Measured variable active energy • Measured variable reactive energy	 Class 0.5 as per IEC 61557-12 Class 0.5 as per IEC 61557-12 Class 1 as per IEC 61557-12 Class 1 as per IEC 61557-12 Class 2 as per IEC 61557-12 Class 1 as per IEC 61557-12 Class 0.5 as per IEC 61557-12 and Class 0.5s as per IEC 62053-22 Class 2 as per IEC 61557-12 and IEC 62053-23
Inputs/Outputs	
Number of digital inputs	1
Type of electrical connection at the digital inputs	Screw-type terminals
Operating conditions for digital inputs extermal voltage supply	Yes
Input voltage at digital input at DC maximum	30V
Input current at digital input initial value for signal<1>recognition	10mA
Number of digital outputs	1
Type of switching output	Unidirectional
Digital output version	Switching or pulse output function
Operating voltage as output voltage at DC maximum permissible	30V
Type of electrical connection at the digital outputs	Screw-type terminals
Output current at the digital outputs at DC limited to 100 mc maximum	130mA
Internal resistance at the digital outputs	55Ω
Standard for pulse emitter	According to IEC 62053-31

Technical specifications

7KT0311 (LCD Class 0.5s)

Inputs/Outputs	
Pulse duration • Initial value • Full-scale value	 100ms 2s
Adjustable time period minimum	100ms
Switching frequency at digital output maximum	17Hz
Measuring inputs	
Measurable supply voltage between L and N at AC maximum rated value	240V
Measurable supply voltage between L and N at AC • Minimum • Maximum	 11V 300V
Measurable supply voltage between the line conductors at AC maximum rated value	415V
Measurable supply voltage between the line conductors at AC • Minimum • Maximum	 19V 519V
Voltage measuring range extension with external voltage transformers	Up to 500kV
Line conductors and neutral conductors internal resistance for voltage measurement	1.12 MΩ
Measuring category for voltage measurement	CAT III
Measurable current	1A/5A
Relative measurable current at AC • Minimum • Maximum	 1% 120%
Current measuring range extension with external current transformers	Up to 10kA
Measuring category for current measurement	CAT III
Connections	
Type of electrical connection at the • Measurement inputs for voltage • Measurement inputs for current	Screw-type terminals
Communication	
Protocol	Modbus RTU

Technical specifications

7KT0311 (LCD Class 0.5s)

Mechanical design	
Mounting	Flush panel-door mounted
Size of power monitoring device	Size 96
Height	96mm
Width	96mm
Cut-out	91.5mm x 91.5mm
Depth	55mm
Installation depth	51mm
Net weight	325g
Environmental conditions	
Ambient temperature during operation • Minimum • Maximum	 -10°C 55°C
Ambient temperature during storage • Minimum • Maximum	 -20°C 75°C
Relative humidity at 25°C without condensation during operation maximum	85%
Installation altitude at height above sea level maximum	2000m
Degree of pollution	2

IEC standards		
Description	Standard	Certifications
Energy accuracy	IEC 61557-12, IEC 62053-21 | Active energy	SMART 7KT multifunction meter conforms to IEC standards, IPC electronics assembly standards, and RoHS
EMC requirements	IEC 61326-1	
Degree of protection test (IP)	IEC 60529	
Safety requirements	IEC 61010-1 and IEC 610102-030	
Vibration and mechanical shock	IEC 62052-11	

Technical specifications

7KT0110 (VA meter)

Measurements	
Measuring procedure for • Voltage measurement • Current measurement	 True RMS True RMS
Type of measured value detection	Complete
Voltage curve	Sinusoidal or distorted
Measurable line frequency • Initial value • Full-scale value	 45Hz 65Hz
Operating mode for measured value detection • Automatic line frequency detectiont	-
Supply voltage	
Design of the power supply	SMPS power supply
Type of voltage of the supply voltage	AC
Degree of protection class	
Protection class IP on the front	IP54
Protection class IP of the terminal	IP20
Suitability	
For operation	Installation in stationary panels in closed rooms
Product functions	
• Voltage measurement • Current measurement	Yes Yes
Display and operation	
Display design	LED
Display height	39mm
Display width	40.5mm
Display background color	Black
Display supported screen language	EN
Number of keys	2

Technical specifications

7KT0110 (VA meter)

Accuracy	
Reference condition for metering accuracy	In accordance with IEC 61557-12
Formula for relative total measurement inaccuracy for • Measured variable voltage • Measured variable current	 Class 1 as per IEC 61557-12 Class 1 as per IEC 61557-12
Measuring inputs	
Measurable supply voltage between L and N at AC maximum rated value	240V
Measurable supply voltage between L and N at AC • Minimum • Maximum	 11V 300V
Measurable supply voltage between the line conductors at AC maximum rated value	415V
Measurable supply voltage between the line conductors at AC • Minimum • Maximum	 19V 519V
Voltage measuring range extension with external voltage transformers	Up to 500kV
Line conductors and neutral conductors internal resistance for voltage measurement	1.12 MΩ
Measurable current	1A/5A
Relative measurable current at AC • Minimum • Maximum	 1% 120%
Current measuring range extension with external current transformers	Up to 10kA
Measuring category for current measurement	CAT III
Connections	
Type of electrical connection at the • Measurement inputs for voltage • Measurement inputs for current	 Screw-type terminals

Technical specifications

7KT0110 (VA meter)

Mechanical design	
Mounting	Flush panel-door mounted
Size of power monitoring device	Size 96
Height	99mm
Width	99mm
Cut-out	91.5mm x 91.5mm
Depth	52mm
Installation depth	49mm
Net weight	207g
Mounting position	Vertical
Environmental conditions	
Ambient temperature during operation • Minimum • Maximum	 -10°C 55°C
Ambient temperature during storage • Minimum • Maximum	 -20°C 75°C
Relative humidity at 25°C without condensation during operation maximum	85%
Installation altitude at height above sea level maximum	2000m
Degree of pollution	2

IEC standards		
Description	Standard	Certifications
Accuracy	IEC 61557-12	SMART 7KT discrete panel meter conforms to IEC standards, IPC electronics assembly standards, and RoHS
EMC requirements	IEC 61326-1	
Degree of protection test (IP)	IEC 60529	
Safety requirements	IEC 61010-1 and IEC 61010-2-030	

Technical specifications

7KT0120 (VAF meter)

Measurements	
Measuring procedure for • Voltage measurement • Current measurement	 True RMS True RMS
Type of measured value detection	Complete
Voltage curve	Sinusoidal or distorted
Measurable line frequency • Initial value • Full-scale value	 45Hz 65Hz
Operating mode for measured value detection • Automatic line frequency detectiont	Yes
Supply voltage	
Design of the power supply	SMPS power supply
Type of voltage of the supply voltage	AC
Degree of protection class	
Protection class IP on the front	IP54
Protection class IP of the terminal	IP20
Suitability	
For operation	Installation in stationary panels in closed rooms
Product functions	
• Voltage measurement • Current measurement • Frequency measurement	Yes Yes Yes
Display and operation	
Display design	LED
Display height	50mm
Display width	45.4mm
Display background color	Black
Display supported screen language	EN
Number of keys	2

Technical specifications

7KT0120 (VAF meter)

Accuracy	
Reference condition for metering accuracy	In accordance with IEC 61557-12
Formula for relative total measurement inaccuracy for • Measured variable voltage • Measured variable current • Measured variable frequency	 Class 1 as per IEC 61557-12 Class 1 as per IEC 61557-12 Class 0.1 as per IEC 61557-12
Measuring inputs	
Measurable supply voltage between L and N at AC maximum rated value	240V
Measurable supply voltage between L and N at AC • Minimum • Maximum	 11V 300V
Measurable supply voltage between the line conductors at AC maximum rated value	415V
Measurable supply voltage between the line conductors at AC • Minimum • Maximum	 19V 519V
Voltage measuring range extension with external voltage transformers	Up to 500kV
Line conductors and neutral conductors internal resistance for voltage measurement	1.12 MΩ
Measuring category for voltage measurement	CAT II
Measurable current	1A/5A
Relative measurable current at AC • Minimum • Maximum	 1% 120%
Current measuring range extension with external current transformers	Up to 10kA
Measuring category for current measurement	CAT III
Measurable line frequency	45-65 Hz
Connections	
Type of electrical connection at the • Measurement inputs for voltage • Measurement inputs for current	 Screw-type terminals

Technical specifications

7KT0120 (VAF meter)

Mechanical design	
Mounting	Flush panel-door mounted
Size of power monitoring device	Size 96
Height	99mm
Width	99mm
Cut-out	91.5mm x 91.5mm
Depth	52mm
Installation depth	49mm
Net weight	223g
Mounting position	Vertical
Environmental conditions	
Ambient temperature during operation • Minimum • Maximum	 -10°C 55°C
Ambient temperature during storage • Minimum • Maximum	 -20°C 75°C
Relative humidity at 25°C without condensation during operation maximum	85%
Installation altitude at height above sea level maximum	2000m
Degree of pollution	2

IEC standards		
Description	Standard	Certifications
Accuracy	IEC 61557-12	SMART 7KT discrete panel meter conforms to IEC standards, IPC electronics assembly standards, and RoHS
EMC requirements	IEC 61326-1	
Degree of protection test (IP)	IEC 60529	
Safety requirements	IEC 61010-1 and IEC 61010-2-030	

Technical specifications

7KT0210 (3-phase energy meter)

Measurements	
Measuring procedure for • Voltage measurement • Current measurement	 True RMS True RMS
Type of measured value detection	Complete
Voltage curve	Sinusoidal or distorted
Measurable line frequency • Initial value • Full-scale value	 45Hz 65Hz
Operating mode for measured value detection • Automatic line frequency detectiont	Yes
Supply voltage	
Design of the power supply	SMPS power supply
Type of voltage of the supply voltage	AC
Degree of protection class	
Protection class IP on the front	IP54
Protection class IP of the terminal	IP20
Suitability	
For operation	Installation in stationary panels in closed rooms
Product functions	
• Voltage measurement • Current measurement • Active power measurement • Reactive power measurement • Apparent power measurement • Power factor measurement • Frequency measurement • Apparent energy/active energy/reactive energy	Yes
Display and operation	
Display design	LCD
Display height	19mm
Display width	75mm
Display background color	White
Display supported screen language	EN
Number of keys	2

Technical specifications

7KT0210 (3-phase energy meter)

Fault limits	
Reference condition for metering accuracy	In accordance with IEC 61557-12, IEC 62053-21, IEC 62053-23
Formula for relative total measurement inaccuracy for • Measured variable voltage • Measured variable current • Measured variable apparent power • Measured variable active power • Measured variable reactive power • Measured variable power factor • Measured variable active energy • Measured variable reactive energy	 Class 0.5 as per IEC 61557-12 Class 0.5 as per IEC 61557-12 Class 1 as per IEC 61557-12 Class 1 as per IEC 61557-12 Class 2 as per IEC 61557-12 Class 1 as per IEC 61557-12 Class 1 as per IEC 62053-21 and IEC 61557-12 Class 2 as per IEC 61557-12 and IEC 62053-23
Inputs/Outputs	
Number of digital inputs	1
Type of electrical connection at the digital inputs	Screw-type terminals
Operating conditions for digital inputs external voltage supply	Yes
Input voltage at digital input at DC maximum	30V
Input current at digital input initial value for signal<1>recognition	10mA
Measuring inputs	
Measurable supply voltage between L and N at AC maximum rated value	240V
Measurable supply voltage between L and N at AC • Minimum • Maximum	 11V 300V
Measurable supply voltage between the line conductors at AC maximum rated value	415V
Measurable supply voltage between the line conductors at AC • Minimum • Maximum	 19V 519V
Voltage measuring range extension with external voltage transformers	Up to 500kV
Line conductors and neutral conductors internal resistance for voltage measurement	1.12 MΩ
Measuring category for voltage measurement	CAT III
Measurable current	1A/5A
Relative measurable current at AC • Minimum • Maximum	 1% 120%
Current measuring range extension with external current transformers	Up to 10kA
Measuring category for current measurement	CAT III

Technical specifications

7KT0210 (3-phase energy meter)

Connections	
Type of electrical connection at the • Measurement inputs for voltage • Measurement inputs for current	Screw-type terminals
Communication	
Protocol	Modbus RTU
Mechanical design	
Mounting	Flush panel-door mounted
Size of power monitoring device	Size 96
Height	99mm
Width	99mm
Cut-out	91.5mm x 91.5mm
Depth	56.9mm
Installation depth	51.6mm
Net weight	234g
Mounting position	Vertical
Environmental conditions	
Ambient temperature during operation • Minimum • Maximum	 -10°C 55°C
Ambient temperature during storage • Minimum • Maximum	 -20°C 75°C
Relative humidity at 25°C without condensation during operation maximum	85%
Installation altitude at height above sea level maximum	2000m
Degree of pollution	2

IEC standards

Description	Standard	Certifications
Accuracy	IEC 61557-12; IEC 62053-21 | Active energy	SMART 7KT discrete panel meter conforms to IEC standards, IPC electronics assembly standards, and RoHS
EMC requirements	IEC 61326-1	
Degree of protection test (IP)	IEC 60529	
Safety requirements	IEC 61010-1 and IEC 61010-2-030	

Selection & ordering data

SMART 7KT multifunction meters

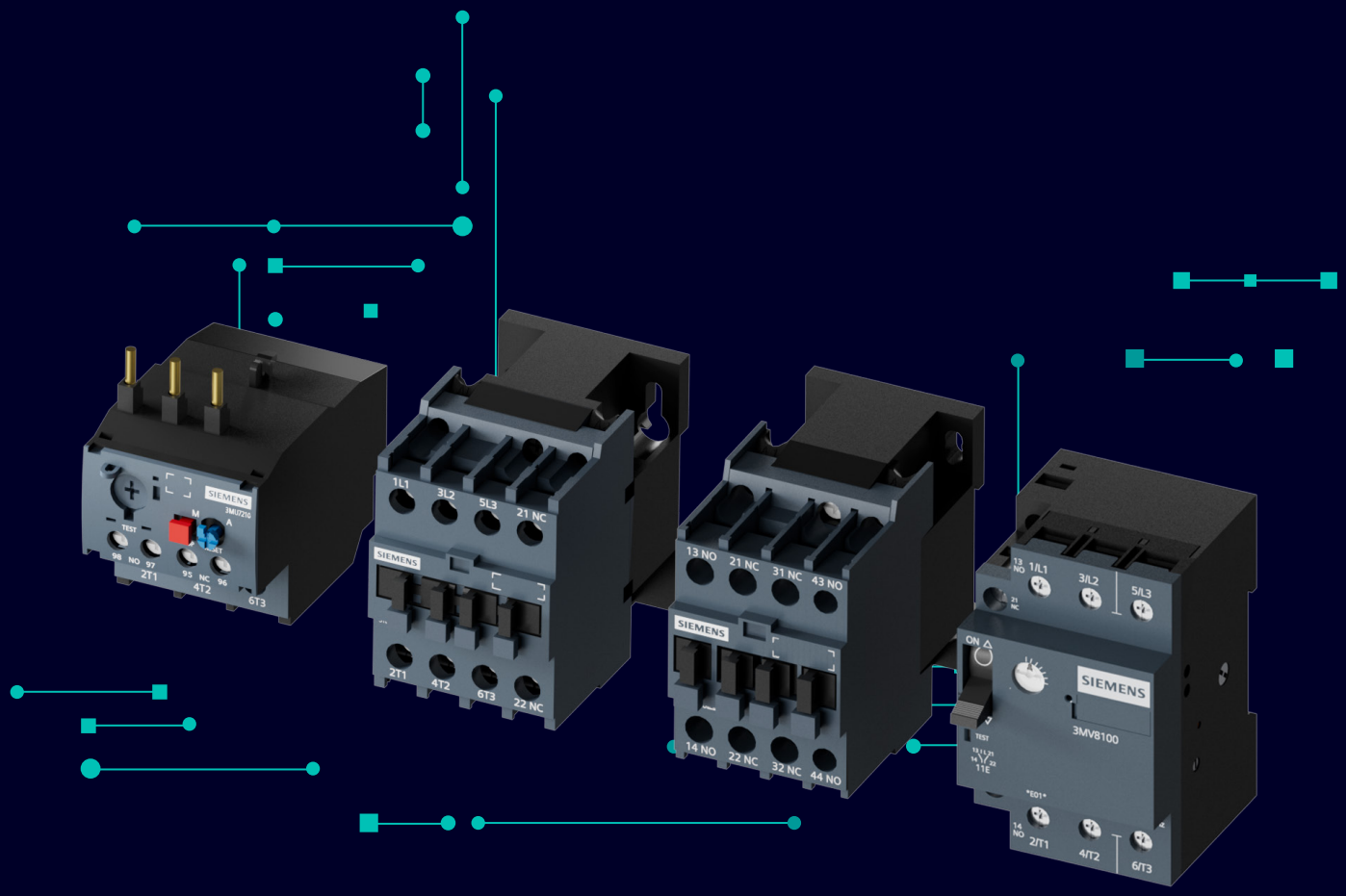
Product image	Description	Features	Article no.	List price per PU (Per Unit)	Status
	Single line LED Class 1 accuracy Modbus RTU	• Bright single-line LED display for easy visualization of essential energy parameters. • An integrated communication port to communicate with energy management software.	7KT0307		
	Multi line LED Class 1 accuracy Modbus RTU	• Large multi-line LED display for easy visualization of essential energy parameters. • An integrated communication port to communicate with energy management software.	7KT0308		
	Multi line LCD Class 1 accuracy Modbus RTU	• Large backlit LCD display for easy visualization of power quality indicators. • Integrated Digital Input (DI) to communicate field signals without additional hardware.	7KT0310		
	Multi line LCD Class 0.5s accuracy Modbus RTU	• Large backlit LCD display for easy visualization of power quality indicators. • Configurable Digital Input (DI) and Digital Output (DO) ports for simplified load management.	7KT0311		

Selection & ordering data

SMART 7KT discrete panel meters

Product image	Description	Features	Article no.	List price per PU (Per Unit)	Status
	VA meter	• Bright multi-colored LED display for easy identification of voltage and current parameters.	7KT0110		
	VAF meter	• Large multi-line LED display for easy visualization of voltage, current and frequency parameters.	7KT0120		
	3-phase energy meter Modbus RTU	• Dual source energy measurement. • An integrated communication port to communicate with energy management software. • Single line LCD display for clear visualization of essential energy parameters.	7KT0210		

SINOVA
control products

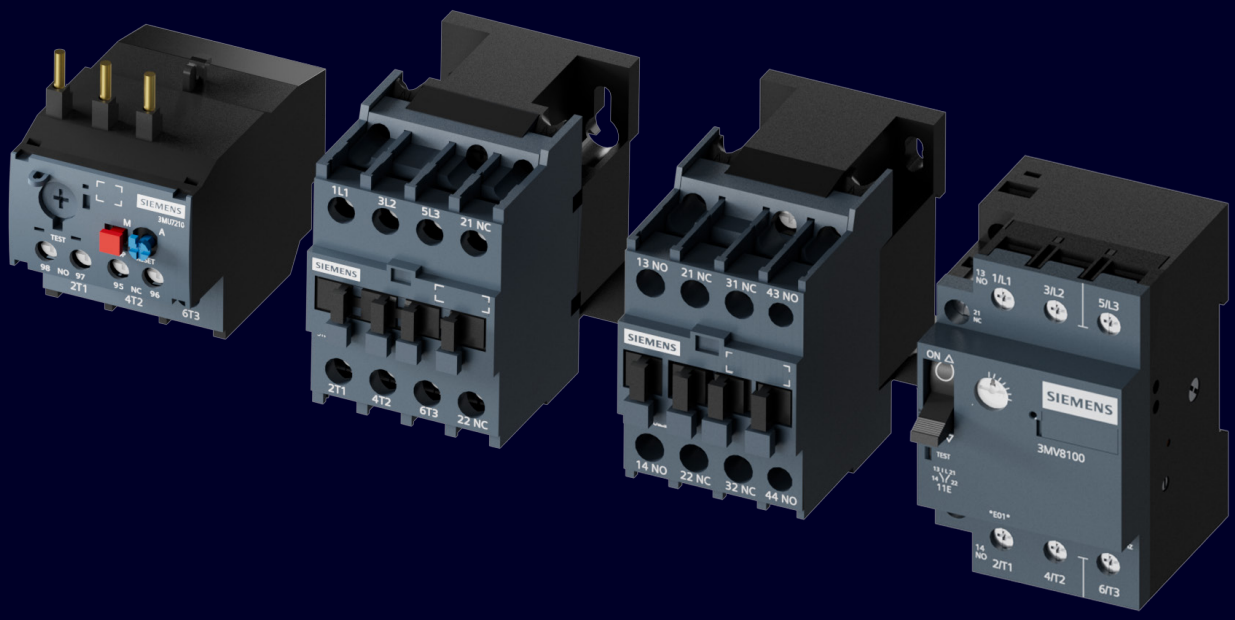


SINOVA
control products

Experience the power of simplicity with our SINOVA control range of electrical protection products.

Our range of control products ensures efficient control and minimizes downtime with the help of our reliable contactors and motor protection devices. Additionally, our motor starter protectors prevent damage to your motors, fans, and pumps from overloads or short circuits. Experience the assurance of Siemens quality, made simple with exact product features to meet your specific needs.

SINOVA The Power of **Simplicity**



3MT7, 3MH7, 3MU7 & 3MV8

contactors, overload relays & motor starter protectors

Product **highlights**

Adaptable

Our contactors and overload relays are designed to easily fit into various panel designs, catering to your control and protection requirements.

Trustworthy

Our contactors and overload relays ensure reliable motor protection with tested Type-2 coordinated feeder solutions.

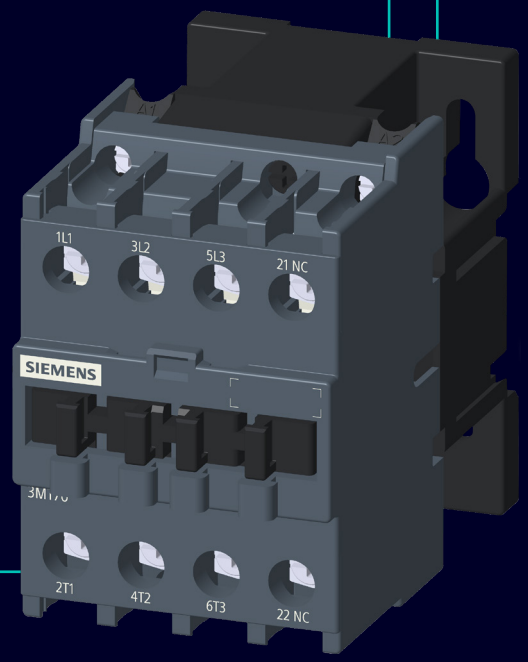
Assurance

Our contactors and overload relays are compliant with IEC 60947-4-1 and IEC 60947-5-1 standards, RoHS compliant, CE certified, and type-tested under the CB scheme.

Consistent design

Our contactors and overload relays are uniform in design aesthetic and compatible with accessories across the product ranges.

SINOVA The Power of **Simplicity**



3MT7
power contactors

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Overview

Product range

Contactors rating 6A to 95A

Size 0

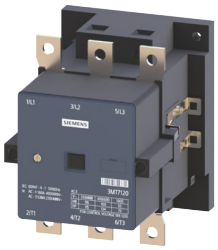
Size 1

Size 2

Size 3

Size 4

Contactors rating 120A to 400A



Size 5

Size 6

Size 7

Size 8

Accessories

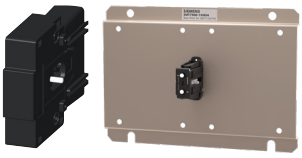
1 pole & 2 pole front auxiliary switches

4 pole front auxiliary switches

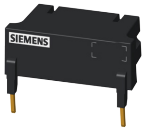
Lateral auxiliary switches

ON delay pneumatic timer

Electro-mechanical interlock



Mechanical interlock

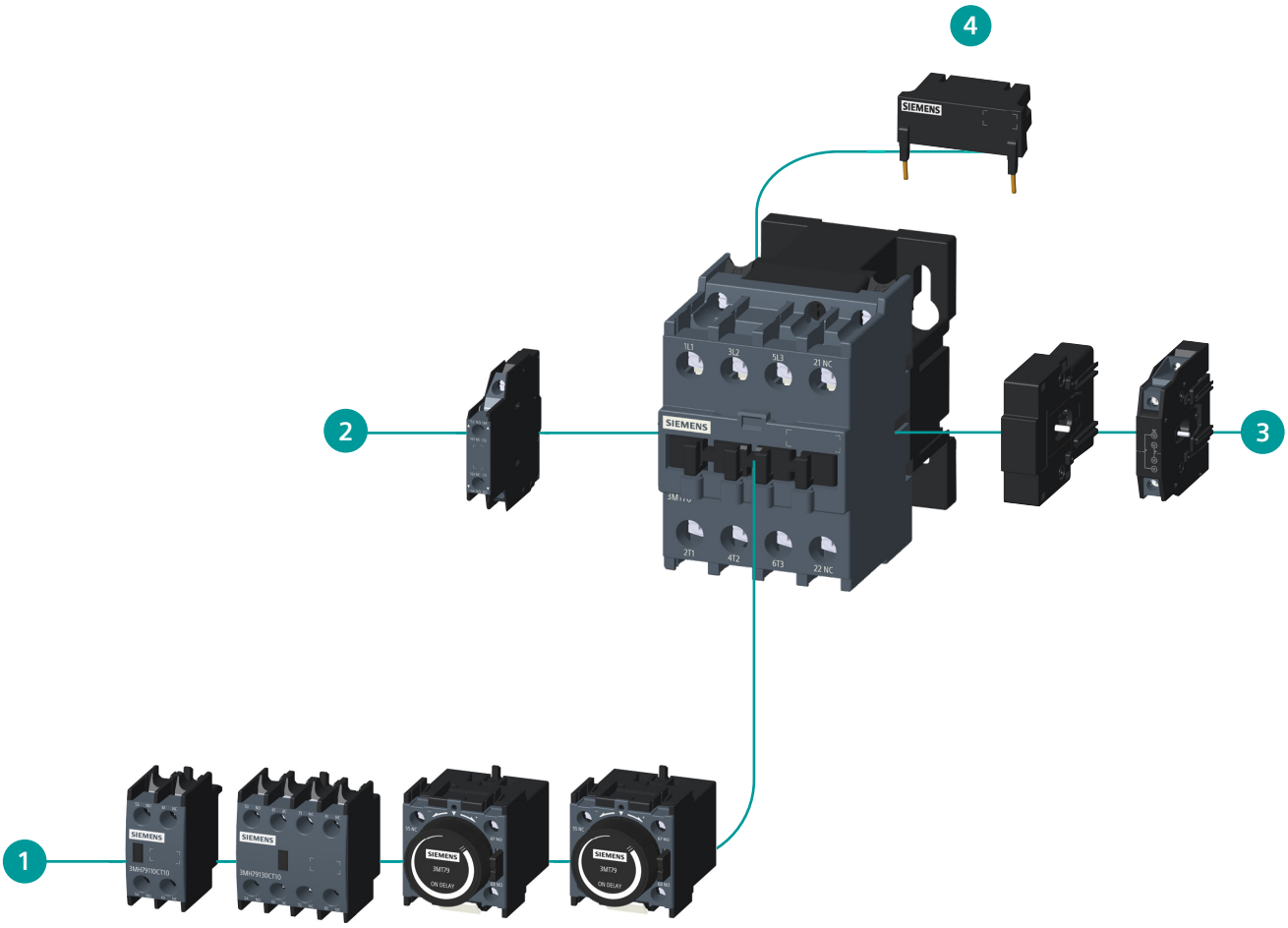


Surge suppressor

Note: You will find a detailed range of accessories in the Accessories and Spare parts section from page 155 to page 158.

Overview

System overview



1. Front auxiliary switches, pneumatic timer
2. Lateral auxiliary switches
3. Mechanical interlock, Electro-mechanical interlock
4. Surge suppressor

Note: The linking lines indicate the correct placement of the accessories onto the product.

Technical specifications

3MT7 3 pole power contactors 6A to 95A

Type		3MT7006-0	3MT7010-0	3MT7012-0	3MT7018-1	3MT7022-1
Size		0	0	0	1	1
General data						
Dimension (W x H x D)						
• Basic unit	W mm	45			45.5	
	H mm	74.4			74.5	
	D mm	81.8			86.6	
Mounting position		22.5° inclination forward and backward, and 360° rotation, in relation to normal vertical mounting plane				
Rated insulation voltage U_i (pollution degree 3)						
• Main circuit	V	1000				
• Auxiliary circuit	V	1000				
Rated impulse withstand voltage U_{imp}						
• Main circuit	kV	6				
• Auxiliary circuit	kV	6				
Permissible ambient temperature						
During operation	°C	-5 ... +55				
During storage	°C	-25 ... +70				
Relative air humidity	%	10 ... 95				
Degree of protection IP on the front		IP20				
Installation altitude at height above sea level, maximum	m	2000				
Short circuit protection						
Main circuit						
• Fuse links, operational class gG						
- Type of coordination "1"	A	32	32	32	40	40
- Type of coordination “2"	A	25	25	25	32	32
Auxiliary circuit						
• Fuse links, operational class gG	A	10				

								
3MT7025-2	**3MT7032-2**	**3MT7038-2**	**3MT7040-2**	**3MT7040-3**	**3MT7050-3**	**3MT7065-3**	**3MT7080-4**	**3MT095-4**
2	2	2	2	3	3	3	4	4
56 82.9 95				74.5 127.4 112.6			84.5 127.4 121.3	
22.5° inclination forward and backward, and 360° rotation, in relation to normal vertical mounting plane								
1000 1000								
6 6				8 6				
-5 ... +55 -25 ... +70								
10 ... 95								
IP20								
2000								
50	50	63	63	80	100	100	160	160
40	40	50	50	63	80	80	125	125
10								

Technical specifications

3MT7 3 pole power contactors 6A to 95A

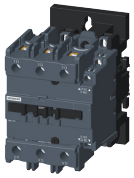
						
Type		**3MT7006-0**	**3MT7010-0**	**3MT7012-0**	**3MT7018-1**	**3MT7022-1**
Size		0	0	0	1	1
Conductor cross-sections						
Main conductors Solid or stranded	mm²	1 x (1 ... 4 mm²); 2 x (1 ... 4 mm²)			1 x (1.5 ... 6 mm²); 2 x (1.5 ... 6 mm²)	
Finely stranded with end sleeve	mm²	1 x (1 ... 4 mm²); 2 x (1 ... 1.5 mm²)			1 x (1 ... 6 mm²); 2 x (1 ... 2.5 mm²)	
• Terminal screw - Tightening torque	Nm	M3.5 1.2			M3.5 1.7	
Auxiliary conductors and coil terminals Solid or stranded	mm²	1 x (1.0 ... 4.0 mm²); 2 x (1.0 ... 4.0 mm²)				
Finely stranded with end sleeve	mm²	1 x (1.0 ... 2.5 mm²); 2 x (1.0 ... 1.5 mm²)				
• Terminal screw - Tightening torque	Nm	M3.5 1.2				
Control						
Solenoid coil operating range • AC operation	at 50Hz at 60Hz	0.85 ... 1.1 x Us 0.85 ... 1.1 x Us				
Power consumption of the solenoid coil (maximum) • AC operation, 50Hz - Closing - Closed • AC operation, 50Hz wide band - Closing - Closed • AC operation, 50/60Hz - Closing - Closed	 VA/p.f. VA/p.f. VA/p.f. VA/p.f. VA/p.f. VA/p.f.	 70 / 0.75 11 / 0.3 90 / 0.75 15 / 0.3 80 / 0.75 12 / 0.3				
Operating times within operating range • AC operation - Closing delay - Opening delay	 ms ms	 9 ... 25 4 ... 15				

								
3MT7025-2	**3MT7032-2**	**3MT7038-2**	**3MT7040-2**	**3MT7040-3**	**3MT7050-3**	**3MT7065-3**	**3MT7080-4**	**3MT095-4**
2	2	2	2	3	3	3	4	4
1 x (1.5 ... 10 mm²); 2 x (1.5 ... 6 mm²)				1 x (2.5 ... 25 mm²); 2 x (2.5 ... 16 mm²)			1 x (4 ... 50 mm²); 2 x (4 ... 35 mm²)	
1 x (1.5 ... 10 mm²); 2 x (1.5 ... 4 mm²)				1 x (2.5 ... 25 mm²); 2 x (2.5 ... 10 mm²)			1 x (4 ... 50 mm²); 2 x (4 ... 16 mm²)	
M4 1.85				M8 5			M10 9	
1 x (1.5 ... 4.0 mm²); 2 x (1.5 ... 4.0 mm²) 1 x (1.5 ... 4.0 mm²); 2 x (1.5 ... 4.0 mm²) M4 1.85				1 x (1.0 ... 4.0 mm²); 2 x (1.0 ... 4.0 mm²) 1 x (1.0 ... 2.5 mm²); 2 x (1.0 ... 1.5 mm²) M3.5 1.2				
0.85 ... 1.1 x Us 0.85 ... 1.1 x Us								
100 / 0.75 15 / 0.3 120 / 0.75 15 / 0.3 110 / 0.75 15 / 0.3				230 / 0.75 44 / 0.3 - - 280 / 0.75 41 / 0.3				
12 ... 27 5 ... 22				17 ... 29 6 ... 15			17 ... 38 5 ... 23	

Technical specifications

3MT7 3 pole power contactors 6A to 95A

Type			3MT7006-0	3MT7010-0	3MT7012-0	3MT7018-1	3MT7022-1
Size			0	0	0	1	1
Rated data for main contacts							
Load rating with AC							
• Utilization category AC-1							
- Rated operational currents I_e At 40 °C up to 690V		A	25	25	25	32	32
Utilization categories AC-3							
- Rated operational currents I_e at 400V, 55 °C		A	6	9	12	18	22
- Rated operational currents I_e at 690V, 55 °C		A	4	5.2	6.7	10.4	12.8
Rated operating power							
• Operating power at AC-3 at 400V		kW	2.2	4	5.5	7.5	11
• Operating power at AC-3 at 690V		kW	3	5.5	5.5	7.5	11
Power loss per pole		W	2.5	2.5	2.5	3.1	3.1
Mechanical service life (in million)							
• Basic unit		Operating cycles	10	10	10	10	10
Switching frequency in operating cycles/hour							
• No load switching frequency		1/h	1800	1800	1800	1800	1800
• Switching frequency AC-1		1/h	600	600	600	600	600
• Switching frequency AC-3		1/h	750	750	750	750	750
Rated data for auxiliary contacts							
Number of auxiliary contacts			1NO or 1NC				
Load rating with AC							
• Rated operational currents I_e							
- AC-12	690V	A	10				
- AC-15 at rated operational voltage U_e	230V	A	6				
	400V	A	3				
	500V	A	2				
	690V	A	1				
• Load rating with DC (1 conducting path)							
- DC-12, at rated operational voltage U_e	24V	A	6				
	110V	A	3				
	220V	A	1				
- DC-13, at rated operational voltage U_e	24V	A	6				
	110V	A	1				
	220V	A	0.3				
	440V	A	0.14				
	600V	A	0.1				

								
3MT7025-2	**3MT7032-2**	**3MT7038-2**	**3MT7040-2**	**3MT7040-3**	**3MT7050-3**	**3MT7065-3**	**3MT7080-4**	**3MT095-4**
2	2	2	2	3	3	3	4	4
40	40	50	50	60	80	80	125	125
25 13	32 16	38 18.2	40 18.2	40 24	50 24	65 32	80 47	95 47
11 11	15 15	18.5 15	18.5 15	18.5 22	22 22	30 30	37 45	45 45
3.6	5.2	5.2	5.2	5.4	7.4	6.4	13.7	13.7
10	10	10	10	5	5	5	3	3
1800 600 750	1800 600 600	1800 600 600	1800 600 600	1200 600 600	1200 600 600	1200 600 600	1200 600 400	1200 600 400
1NO or 1NC				1NO + 1NC				
10 6 3 2 1				10 6 3 2 1				
6 3 1 6 1 0.3 0.14 0.1				6 3 1 6 1 0.3 0.14 0.1				

Technical specifications

3MT7 3 pole power contactors 120A to 400A

Type			3MT7120	3MT7140
Size			5	5
General data				
Dimension (W x H x D)				
Basic unit	W	mm	120	120
	H	mm	150	150
	D	mm	152	152
Mounting position			22.5° inclination forward and backward, and 90° to right / 90° to left, in relation to normal vertical mounting plane, i.e., coil terminals always on top side	
Rated insulation voltage Ui (pollution degree 3) Main circuit		V	1000	
Rated impulse withstand voltage U_{imp} Main circuit		kV	8	
Permissible ambient temperature				
During operation		°C	-5 ... +55	
During storage		°C	-25 ...+70	
Relative air humidity		%	10-95	
Degree of protection IP			IP00	
Installation altitude at height above sea level, maximum		m	2000	
Short circuit protection				
Basic unit				
• Fuse links, operational class gG				
- Type of coordination "1"		A	400	400
- Type of coordination "2"		A	200	250
Conductor cross-sections				
Main conductors				
Stranded wire with cable lug		mm²	2x (50 ... 120 mm²)	2x (50 ... 120 mm²)
Finely stranded with cable lug		mm²	2x (35 ... 95 mm²)	2x (35 ... 95 mm²)
Terminal bar (max. width)		mm	2x(20x3) mm	2x(20x3) mm
Terminal screw			M8 x 25	M8 x 25
Tightening torque		Nm	10 ... 14 Nm	10 ... 14 Nm
Control				
Solenoid coil operating range				
• AC operation		at 50Hz	0.85 to 1.1 x Us	
		at 60Hz	0.85 to 1.1 x Us	

				
3MT7170	**3MT7205**	**3MT7250**	**3MT7300**	**3MT7400**
6	6	7	7	8
135 180 185	135 180 185	150 205 198	150 205 198	160 204 222
22.5° inclination forward and backward, and 90° to right / 90° to left, in relation to normal vertical mounting plane, i.e., coil terminals always on top side				
1000				
8				
-5 ... +55 -25 ...+70 10-95 IP00 2000				
400 250	400 250	500 400	500 400	630 500
2x (50 ... 120 mm²) 2x (35 ... 95 mm²) 2x(20x3) mm M8 x 25 10 ... 14 Nm	2x (50 ... 120 mm²) 2x (35 ... 95 mm²) 2x(20x3) mm M8 x 25 10 ... 14 Nm	2x (70 ... 240 mm²) 2x (50... 240 mm²) 2x(25x5) mm M10 x 30 14 ... 24 Nm	2x (70 ... 240 mm²) 2x (50... 240 mm²) 2x(25x5) mm M10 x 30 14 ... 24 Nm	2x (70 ... 240 mm²) 2x (50 ... 240mm²) 2x(25x5) mm M10 x 30 14 ... 24 Nm
0.85 to 1.1 x Us 0.85 to 1.1 x Us				

Technical specifications

3MT7 3 pole power contactors 120A to 400A

Type		3MT7120	3MT7140
General data			
Power consumption of the solenoid coil (maximum)			
• AC operation, 50Hz			
- Closing	VA/p.f.	550 / 0.45	
- Closed	VA/p.f.	40 / 0.24	
• AC operation, 50/60Hz			
- Closing	VA/p.f.	660 / 0.45	
- Closed	VA/p.f.	56 / 0.24	
Operating times within operating range			
• AC operation			
- Closing delay	ms	22-37	
- Opening delay	ms	8-30	
Rated data for main contacts			
Load rating with AC			
Utilization category AC-1			
Rated operational currents I_e at 400V, 40°C	A	160	160
Utilization categories AC-3			
Rated operational currents I_e at 400V	A	120	140
Rated operational currents I_e at 690V	A	110	100
Rated operating power			
Operating power at AC-3 at 400V	kW	55	75
Operating power at AC-3 at 690V	kW	100	110
Mechanical service life (in million)			
Basic unit	Operating cycles	3	
Switching frequency in operating cycles hour			
No load switching frequency	Cycles/h	5000	5000
Switching frequency AC-1	Cycles/h	800	800
Switching frequency AC-3	Cycles/h	750	750

				
3MT7170	**3MT7205**	**3MT7250**	**3MT7300**	**3MT7400**
910 / 0.38 65 / 0.26 1080 / 0.38 80 / 0.27		1440 / 0.34 95 / 0.24 1780 / 0.32 122 / 0.23		2450 / 0.21 115 / 0.33 3050 / 0.32 165 / 0.29
25-40 10-30		25-40 10-30		25-40 8-30
210	220	300	300	400
170 170	205 170	250 250	300 250	400 400
90 156	110 156	132 235	160 235	200 375
3				
5000 800 700	5000 750 500	3000 800 700	3000 750 500	3000 700 500

Selection & ordering data

3MT7 power contactors

Size	Rated data					Article no.	List price per PU (Per Unit)	Status
	AC-3 at 400V at 55°C	Ratings of three-phase motors at 50Hz and 400V	AC-1 at 690V at 40°C	Auxiliary contacts				
	A	kW	A	NO	NC			
Size 0 	6	2.2	25	1	-	3MT7006-0AA10-0A..		
	6	2.2	25	-	1	3MT7006-0AA01-0A..		
	9	4	25	1	-	3MT7010-0AA10-0A..		
	9	4	25	-	1	3MT7010-0AA01-0A..		
	12	5.5	25	1	-	3MT7012-0AA10-0A..		
	12	5.5	25	-	1	3MT7012-0AA01-0A..		
Size 1 	18	7.5	32	1	-	3MT7018-1AA10-0A..		
	18	7.5	32	-	1	3MT7018-1AA01-0A..		
	22	11	32	1	-	3MT7022-1AA10-0A..		
	22	11	32	-	1	3MT7022-1AA01-0A..		
Size 2 	25	11	40	1	-	3MT7025-2AA10-0A..		
	25	11	40	-	1	3MT7025-2AA01-0A..		
	32	15	40	1	-	3MT7032-2AA10-0A..		
	32	15	40	-	1	3MT7032-2AA01-0A..		
	38	18.5	50	1	-	3MT7038-2AA10-0A..		
	38	18.5	50	-	1	3MT7038-2AA10-0A..		
	40	18.5	50	1	-	3MT7040-2AA10-0A..		
	40	18.5	50	-	1	3MT7040-2AA10-0A..		
Size 3 	40	18.5	60	1	1	3MT7040-3AA11-0A..		
	50	22	80	1	1	3MT7050-3AA11-0A..		
	65	30	80	1	1	3MT7065-3AA11-0A..		
Size 4 	80	37	125	1	1	3MT7080-4AA11-0A..		
	95	45	125	1	1	3MT7095-4AA11-0A..		

Note: .. Please enter coil voltage from "Coil code (AC)" table on page no. 158.

Selection & ordering data

3MT7 power contactors

Size	Rated data					Article no.	List price per PU (Per Unit)	Status
	AC-3 at 400V at 55°C	Ratings of three-phase motors at 50Hz and 400V	AC-1 at 690V at 40°C	Auxiliary contacts				
	A	kW	A	NO	NC			
Size 5 	120	55	160	-	-	3MT7120-5AA00-0A..		
	140	75	160	-	-	3MT7140-5AA00-0A..		
Size 6 	170	90	210	-	-	3MT7170-6AA00-0A..		
	205	110	220	-	-	3MT7205-6AA00-0A..		
Size 7 	250	132	300	-	-	3MT7250-7AA00-0A..		
	300	160	300	-	-	3MT7300-7AA00-0A..		
Size 8 	400	200	400	-	-	3MT7400-8AA00-0A..		

Note: .. Please enter coil voltage from “Coil code (AC)” table on page no. 158.

Selection & ordering data

Spare top housing

Size	AC-3 at 400V at 55°C	Ratings of three-phase motors at 50Hz and 400V	AC-1 at 690V at 40°C	Auxiliary contacts		Article no.	List price per PU (Per Unit)	Status
	A	kW	A	NO	NC			
Size 0 	6	2.2	25	1	-	3MT7906-0HA10		
	6	2.2	25	-	1	3MT7906-0HA01		
	9	4	25	1	-	3MT7910-0HA10		
	9	4	25	-	1	3MT7910-0HA01		
	12	5.5	25	1	-	3MT7912-0HA10		
	12	5.5	25	-	1	3MT7912-0HA01		
Size 1 	18	7.5	32	1	-	3MT7918-1HA10		
	18	7.5	32	-	1	3MT7918-1HA01		
	22	11	32	1	-	3MT7922-1HA10		
	22	11	32	-	1	3MT7922-1HA01		
Size 2 	25	11	40	1	-	3MT7925-2HA10		
	25	11	40	-	1	3MT7925-2HA01		
	32	15	40	1	-	3MT7932-2HA10		
	32	15	40	-	1	3MT7932-2HA01		
	38	18.5	50	1	-	3MT7938-2HA10		
	38	18.5	50	-	1	3MT7938-2HA01		
	40	18.5	50	1	-	3MT7940-2HA10		
	40	18.5	50	-	1	3MT7940-2HA01		
Size 3 	40	18.5	60	1	1	3MT7940-3HA11		
	50	22	80	1	1	3MT7950-3HA11		
	65	30	80	1	1	3MT7965-3HA11		
Size 4 	80	37	125	1	1	3MT7980-4HA11		
	95	45	125	1	1	3MT7995-4HA11		

Selection & ordering data

Spare contact kit

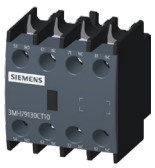
Main contact kits for Size 5, 6, 7, 8 contactors (Set of 6 fixed & 3 moving contacts)				
For contactors	AC-3 rating	Article no.	List price per PU (Per Unit)	Status
3MT71205AA000A..	120A	3MT7912-0KA00		
3MT71405AA000A..	140A	3MT7914-0KA00		
3MT71706AA000A..	170A	3MT7917-0KA00		
3MT72056AA000A..	205A	3MT7920-5KA00		
3MT72507AA000A..	250A	3MT7925-0KA00		
3MT73007AA000A..	300A	3MT7930-0KA00		
3MT74008AA000A..	400A	3MT7940-0KA00		

Accessories

Pneumatic timer Compatible with 3MT7 3 pole power contactors Size 0, 1, 2, 3, 4								
Product image	No. of auxiliary contacts		Mounting position	Function	Timing	Article no.	List price per PU (Per Unit)	Status
	NO	NC			Seconds			
ON delay pneumatic timer 	1	1	Top	ON delay	0.1-3	3MT7900-0PN10		
					0.1-30	3MT7900-0PN20		
					10-180	3MT7900-0PN30		
OFF delay pneumatic timer 				OFF delay	0.1-3	3MT7900-0PF10		
					0.1-30	3MT7900-0PF20		
					10-180	3MT7900-0PF30		

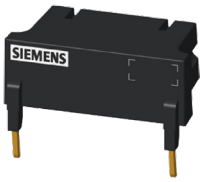
Selection & ordering data

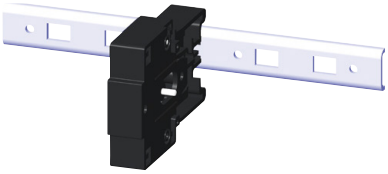
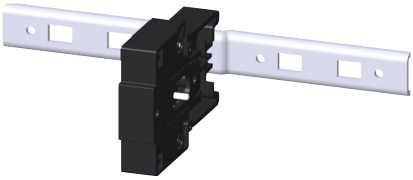
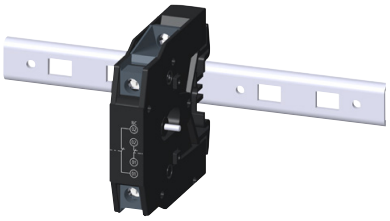
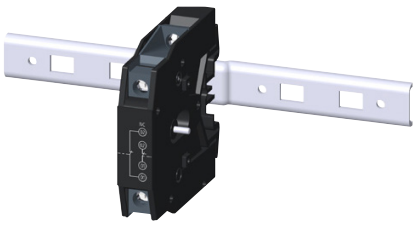
Accessories

Auxiliary switches Compatible with 3MT7 3 pole power contactors								
Product image	No. of auxiliary contacts		Mounting position	Compatible contactor	Maximum mountable auxiliary switches	Article no.	List price per PU (Per Unit)	Status
	NO	NC						
1 pole & 2 pole front auxiliary switches 	1	-	Front	Size 0, 1, 2, 3, 4	1	3MH7910-0CT10		
	-	1				3MH7901-0CT10		
	2	-				3MH7920-0CT10		
	1	1				3MH7911-0CT10		
	-	2				3MH7902-0CT10		
4 pole front auxiliary switches 	4	-				3MH7940-0CT10		
	3	1				3MH7931-0CT10		
	2	2				3MH7922-0CT10		
	1	3				3MH7913-0CT10		
	-	4				3MH7904-0CT10		
Lateral auxiliary switches 	2	-	First left or first right		2	3MH7920-0CL10		
	1	1				3MH7911-0CL10		
	1	1	First left or first right	Size 5, 6, 7, 8	2	3MH79110CL21		
			Second left or second right		2	3MH79110CL22		

Selection & ordering data

Accessories

Surge suppressor Compatible with SINOVA 3MT7 3 pole power contactors						
Product image	**Voltage**	**Mounting position**	**Compatible contactor**	**Article no.**	**List price per PU (Per Unit)**	**Status**
Surge suppressor 	24-48V AC 50/60Hz	Between A1-A2 coil terminals	Size 0, 1, 2, 3, 4	3MT7900-1SC21		
	110-240V AC 50/60Hz			3MT7900-1SL21		
	380-440V AC 50/60Hz			3MT7900-1SV21		
Surge suppressor 	Less than 48V	Between A1-A2 coil terminals	Size 5, 6, 7, 8	3MT79002SC22		
	48 - 127V			3MT79002SF22		
	127 - 240V			3MT79002SL22		
	240 - 400V			3MT79002SV02		
	400 - 600V			3MT79002SR02		

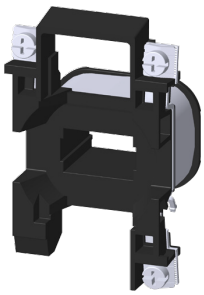
Interlock For 3MT7 3 pole power contactors						
Mechanical interlock	Suitable for contactors Size 0, 1, 2	 3MT7900-1XM01	Suitable for contactor Size 3	 3MT7900-1XM02	Suitable for contactor Size 4	 3MT7900-1XM03
Electro-mechanical interlock		 3MT7900-1XE01		 3MT7900-1XE02		 3MT7900-1XE03

Selection & ordering data

Accessories

Mechanical Interlock For 3MT7 3 pole power contactors				
Product image	**Contactor**	**Article no.**	**List price per PU (Per Unit)**	**Status**
Mechanical interlock 	Size 5	3MT7900-1XM04		
	Size 6	3MT7900-1XM05		
	Size 7	3MT7900-1XM06		
	Size 8	3MT7900-1XM07		
	Size 5 / Size 6	3MT7900-1XM45		
	Size 6 / Size 7	3MT7900-1XM56		

Spares

Product image	Size of contactor	Article no.	List price per PU (Per Unit)	Status
Spare coils 3MT79000L..1 	Size 0, 1	3MT79000L..1		
	Size 2	3MT79000L..2		
	Size 3, 4	3MT79000L..3		
	Size 5	3MT79000L..5		
	Size 6	3MT79000L..6		
	Size 7	3MT79000L..7		
	Size 8	3MT79000L..8		

.. Please enter coil codes from table below

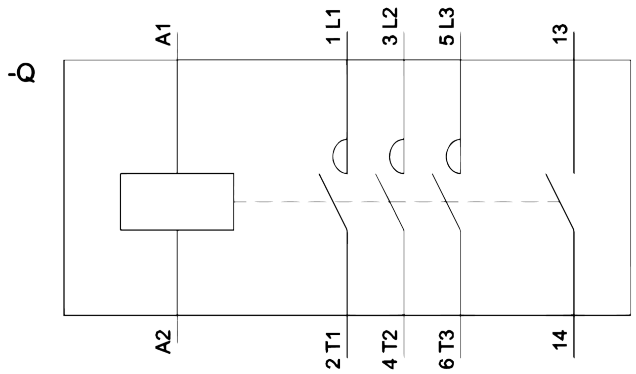
Coil code (AC)												
Frequency	**24V**	**36V**	**48V**	**110V**	**220V**	**230V**	**380V**	**400V**	**415V**	**165-273V***	**353-455V***	**550V**
50Hz	B0	G0#	H0	F0	M0	P0	Q0	V0	R0	S0	T0	A5@
50/60Hz	C2	G2#	H2#	F2	N2	L2	Q2	V2#	R2#	-	-	-

Note:
*T0 and S0 wide band coils are available up to Size 2 contactors
#Not available for Size 5, 6, 7 and 8 contactors
@Available only for Size 5, 6, 7 and 8 contactors

Wiring diagrams

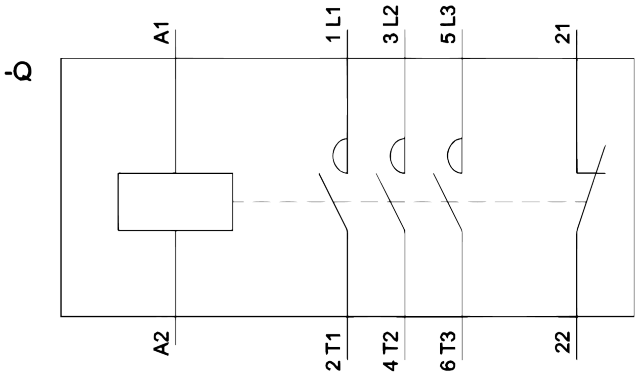
3MT7 power contactors

Size 0, Size 1, Size 2 (1NO version)



Size 0: 6A / 9A / 12A
Size 1: 18A / 22A
Size 2: 25A / 32A / 38A / 40A

Size 0, Size 1, Size 2 (1NC version)

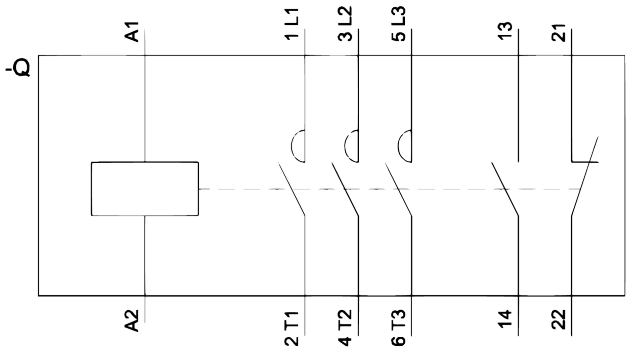


Size 0: 6A / 9A / 12A
Size 1: 18A / 22A
Size 2: 25A / 32A / 38A / 40A

Wiring diagrams

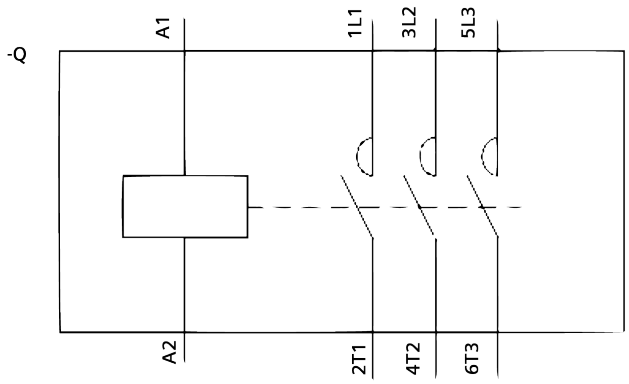
3MT7 power contactors

Size 3, Size 4 (1NO+1NC version)



Size 3: 40A / 50A / 65A
Size 4: 80A / 95A

Size 5, Size 6, Size 7 Size 8

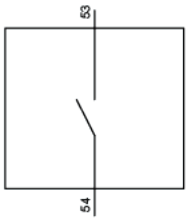


Size 5: 120-140A
Size 6: 170-205A
Size 7: 250-300A
Size 8: 400A

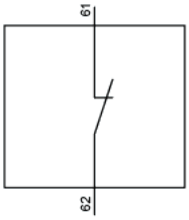
Wiring diagrams

Accessories

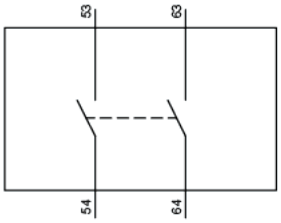
1 pole and 2 pole front auxiliary switches



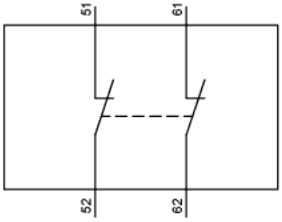
1 pole 1NO



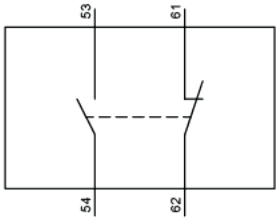
1 pole 1NC



2 pole 2NO

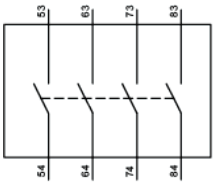


2 pole 2NC

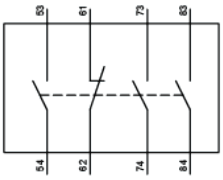


2 pole 1NO+1NC

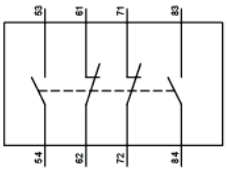
4 pole front auxiliary switches



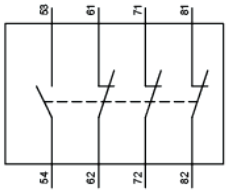
4 pole 4NO



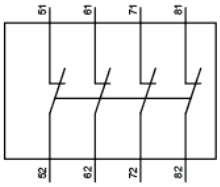
4 pole 3NO+1NC



4 pole 2NO+2NC

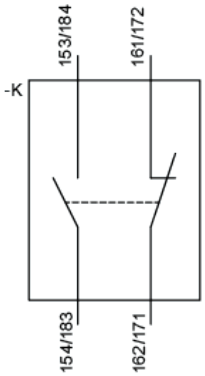


4 pole 1NO+3NC

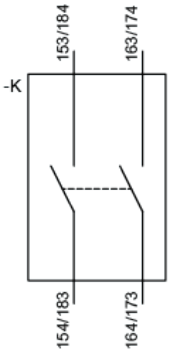


4 pole 4NC

Lateral auxiliary switches



2 pole 1NO+1NC

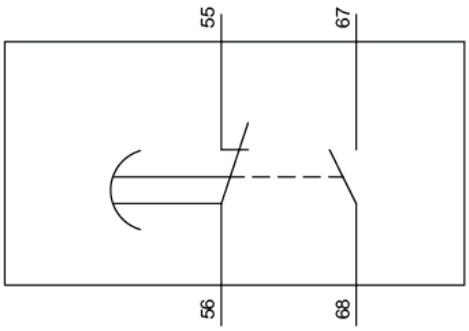


2 pole 2NO

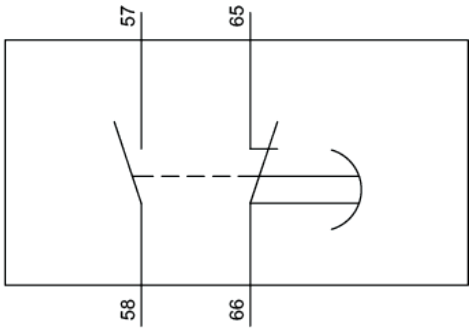
Wiring diagrams

Accessories

Pneumatic timer

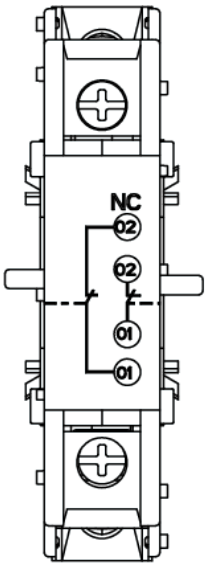


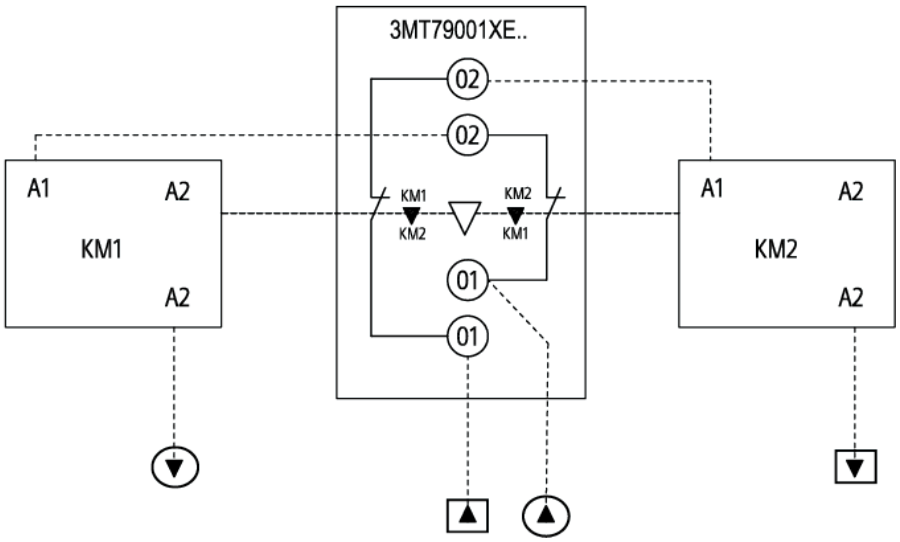
ON delay timer



OFF delay timer

Electro-mechanical interlock

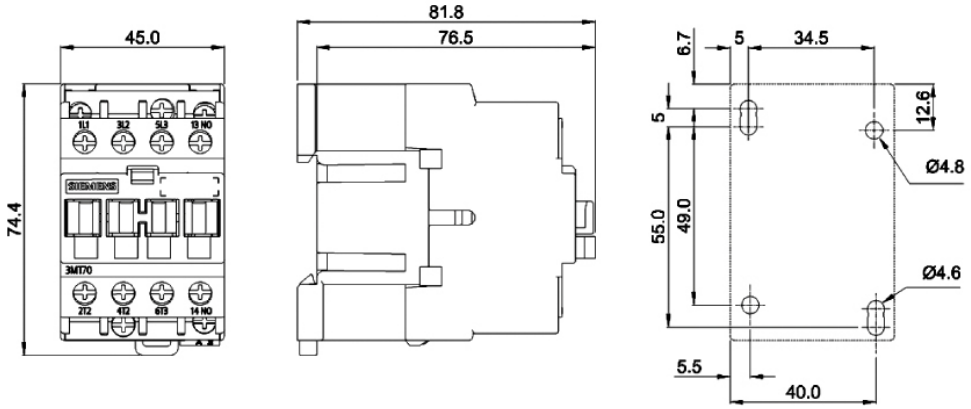




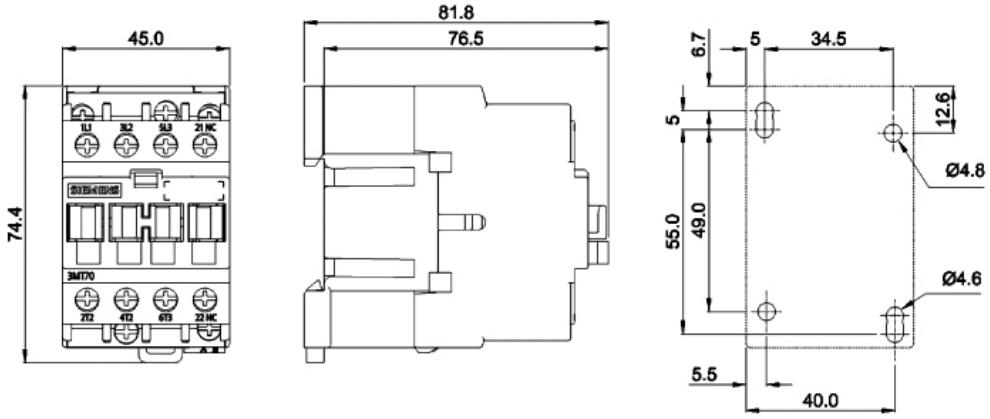
Dimension drawings

Contactor

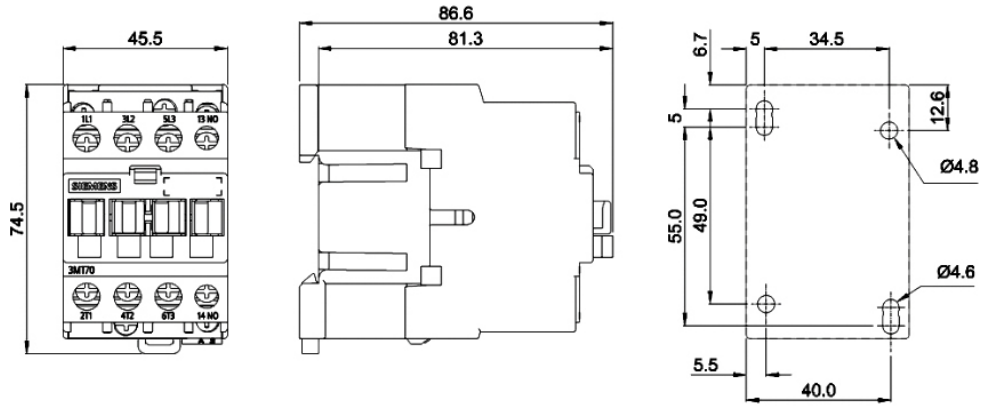
Size 0 (1NO version) — **6A / 9A / 12A**



Size 0 (1NC version) — **6A / 9A / 12A**



Size 1 (1NO version) — **18A / 22A**

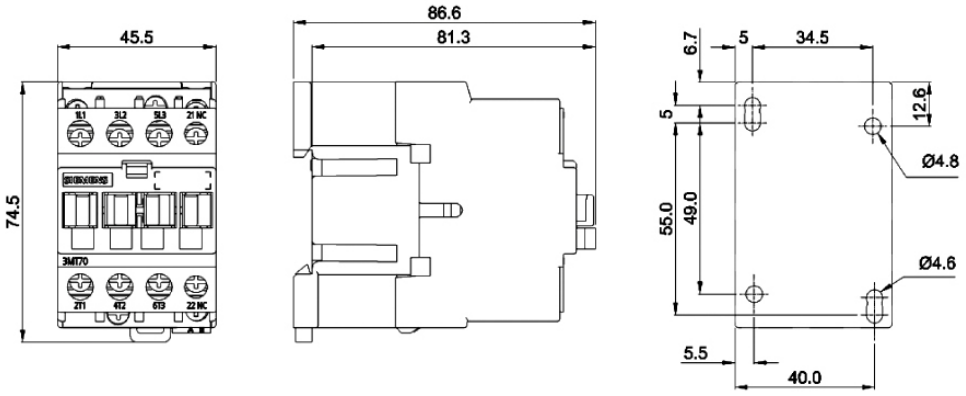


Note: All dimensions are in mm.

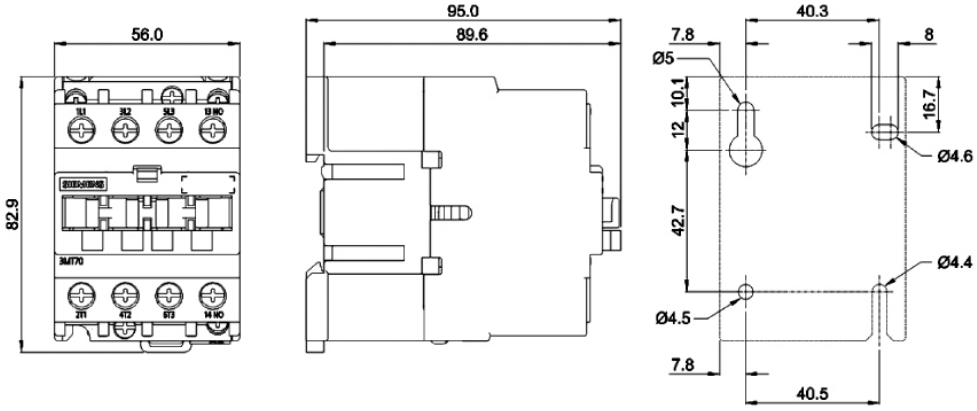
Dimension drawings

Contactor

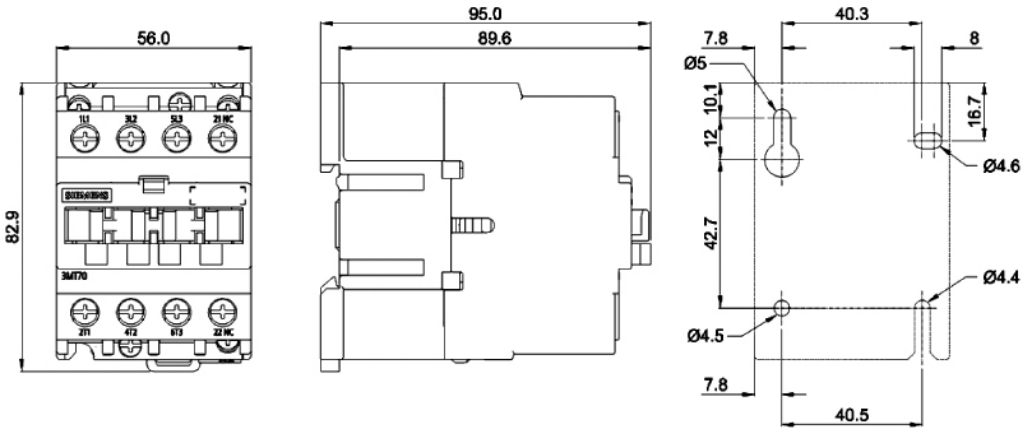
Size 1 (1NC version) — **18A / 22A**



Size 2 (1NO version) — **25A / 32A / 38A / 40A**



Size 2 (1NC version) — **25A / 32A / 38A / 40A**

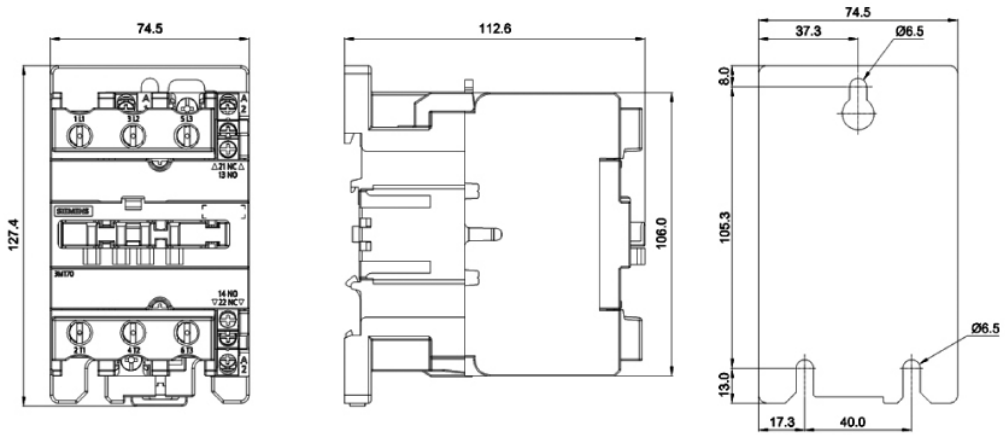


Note: All dimensions are in mm.

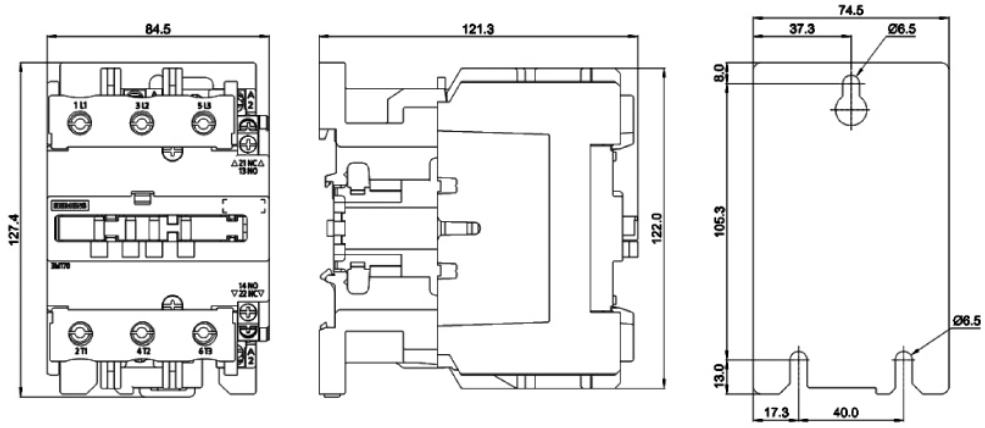
Dimension drawings

Contactor

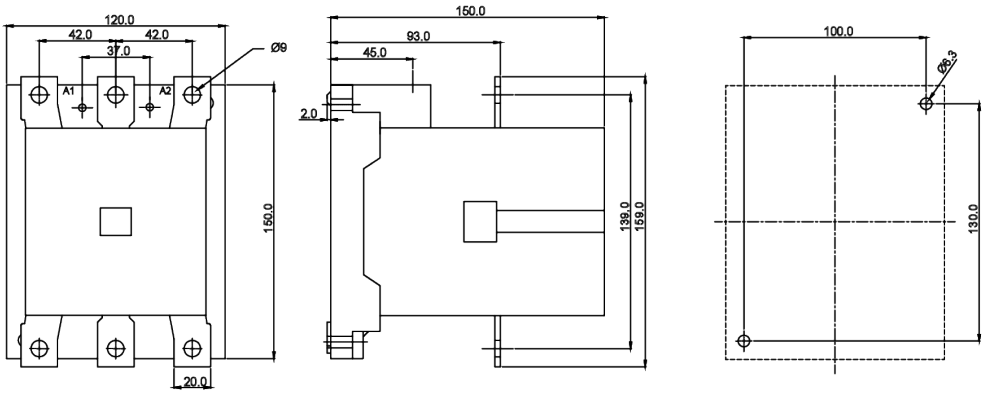
Size 3 (1NO+1NC) — **40A / 50A / 65A**



Size 4 (1NO+1NC) — **80A / 95A**



Size 5 — **120 / 140A**

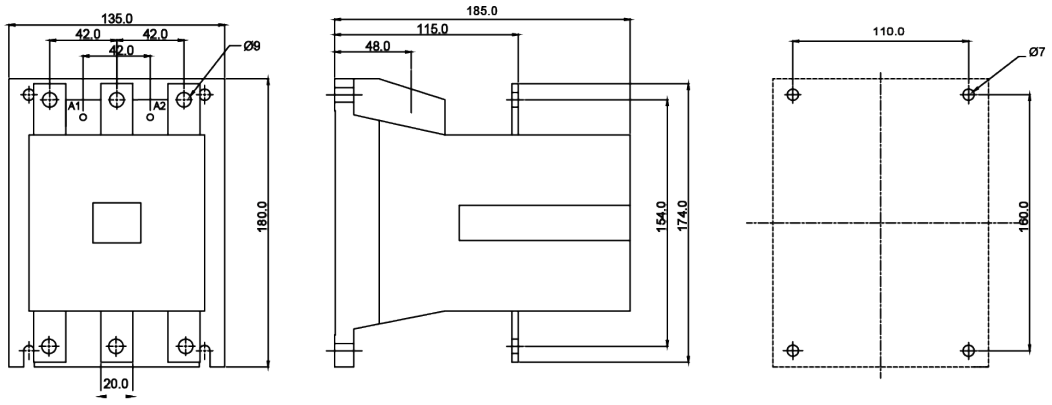


Note: All dimensions are in mm.

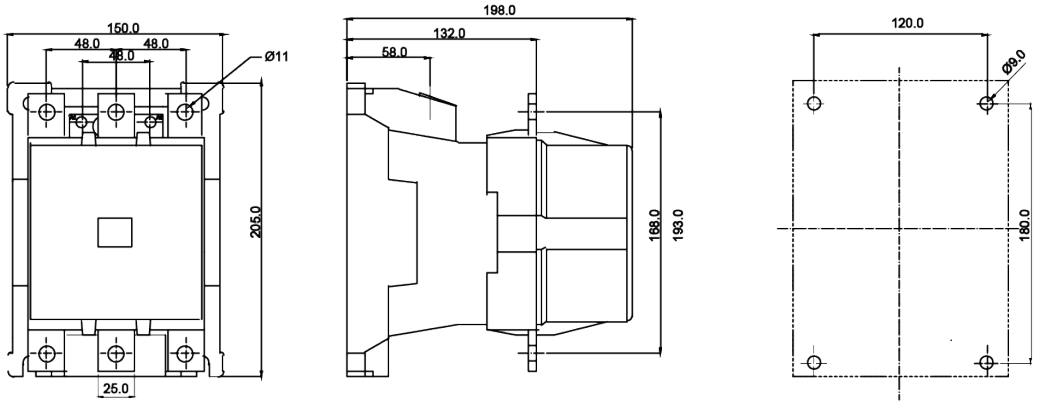
Dimension drawings

Contactor

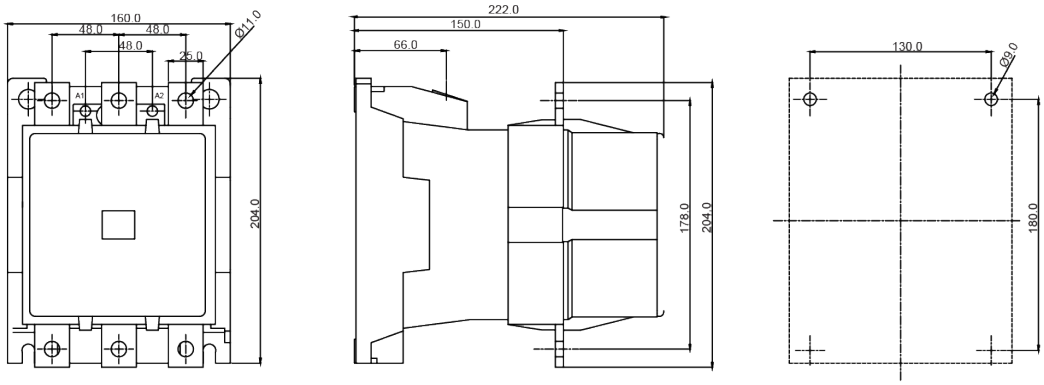
Size 6 **170 / 205A**



Size 7 **250 / 300A**



Size 8 **400A**

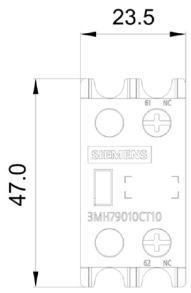


Note: All dimensions are in mm.

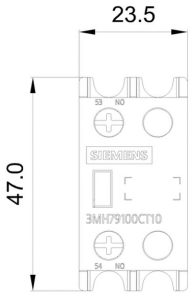
Dimension drawings

Accessories

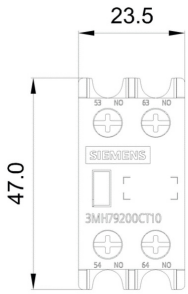
1 pole and 2 pole front auxiliary switches



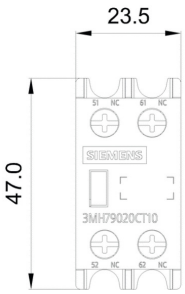
Front view
1 pole 1NC



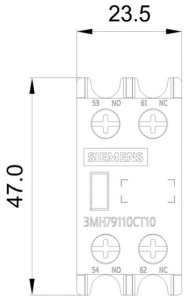
Front view
1 pole 1NO



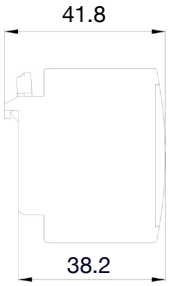
Front view
2 pole 2NO



Front view
2 pole 2NC

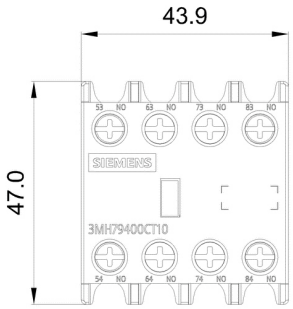


Front view
2 pole 1NO+1NC

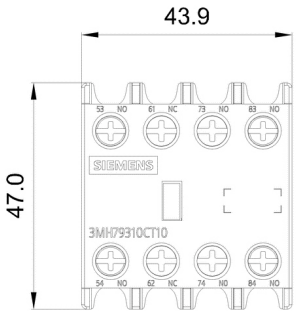


Side view

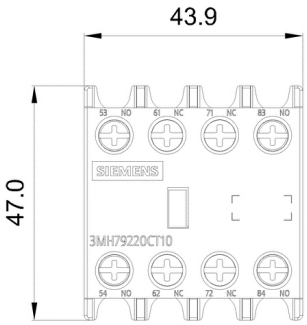
4 pole front auxiliary switches



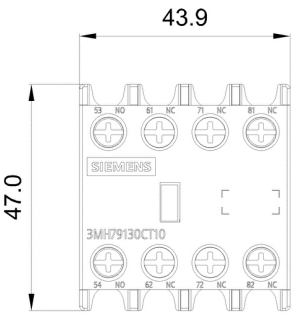
Front view
4NO



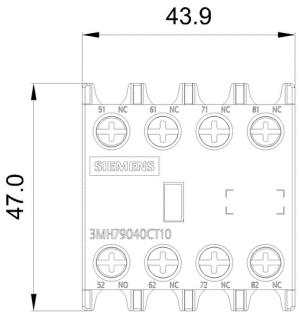
Front view
3NO+1NC



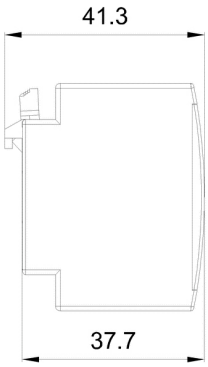
Front view
2NO+2NC



Front view
1NO+3NC



Front view
4NC



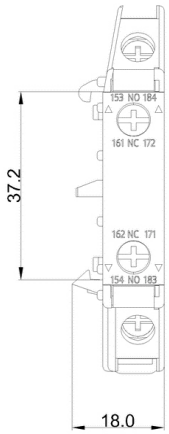
Side view
4 pole

Note: All dimensions are in mm.

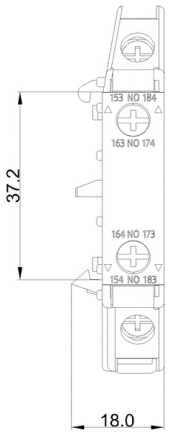
Dimension drawings

Accessories

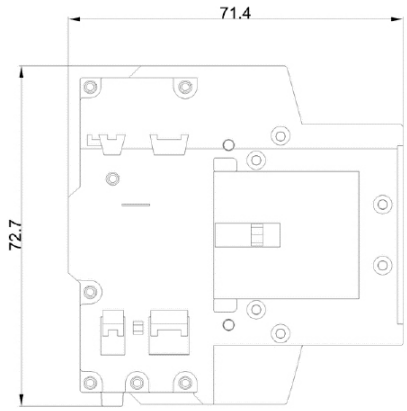
Lateral auxiliary switches



Front view
2 pole 1NO+1NC

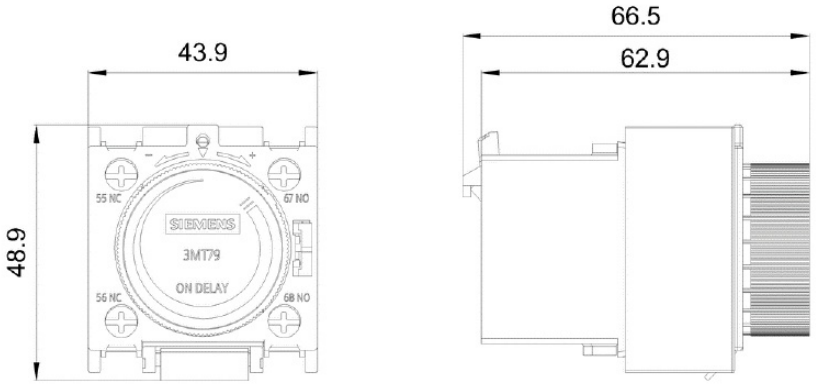


Front view
2 pole 2NO

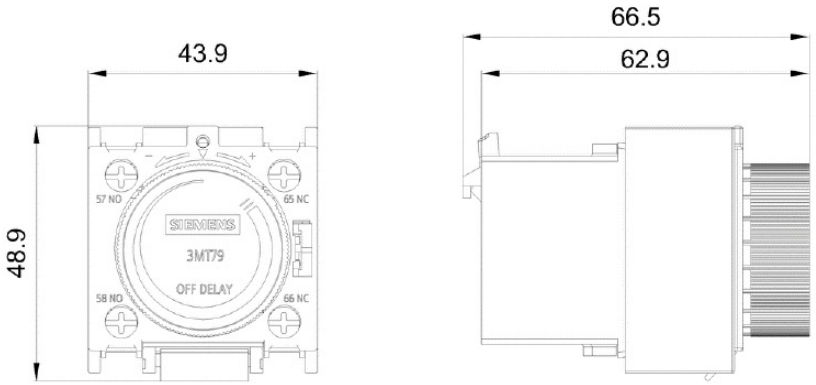


Side view
2 pole

Pneumatic timer



ON delay



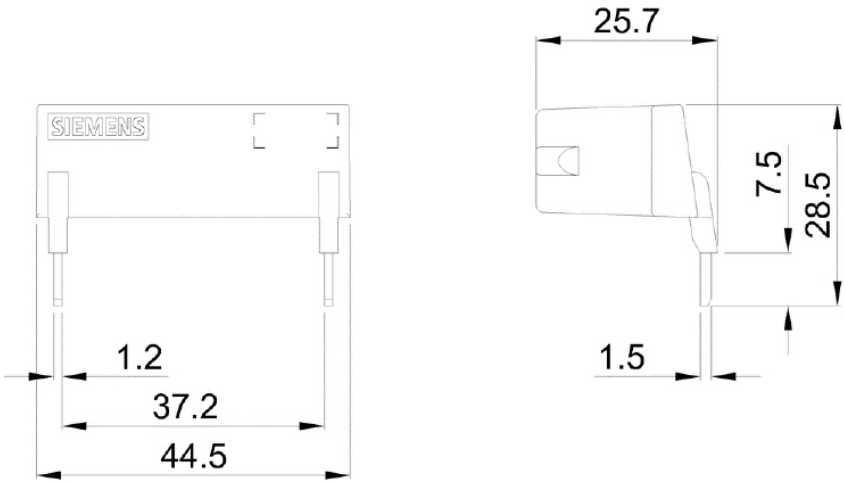
OFF delay

Note: All dimensions are in mm.

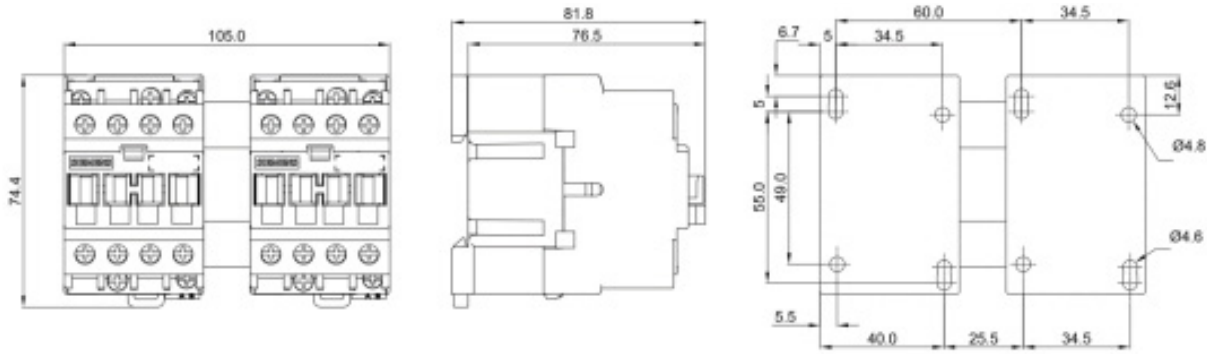
Dimension drawings

Accessories

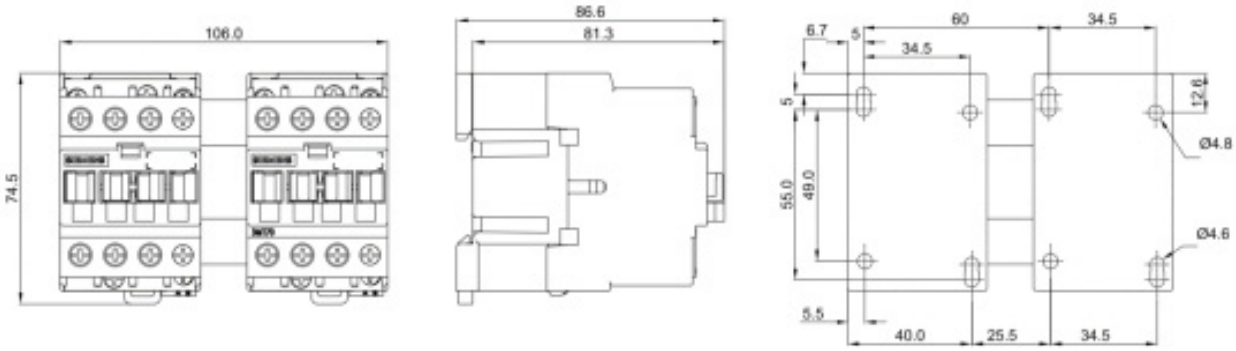
Surge suppressor



Mechanical / electro-mechanical interlock with contactor



3MT79001XM01 / 3MT79001XE01
with Size 0 contactors



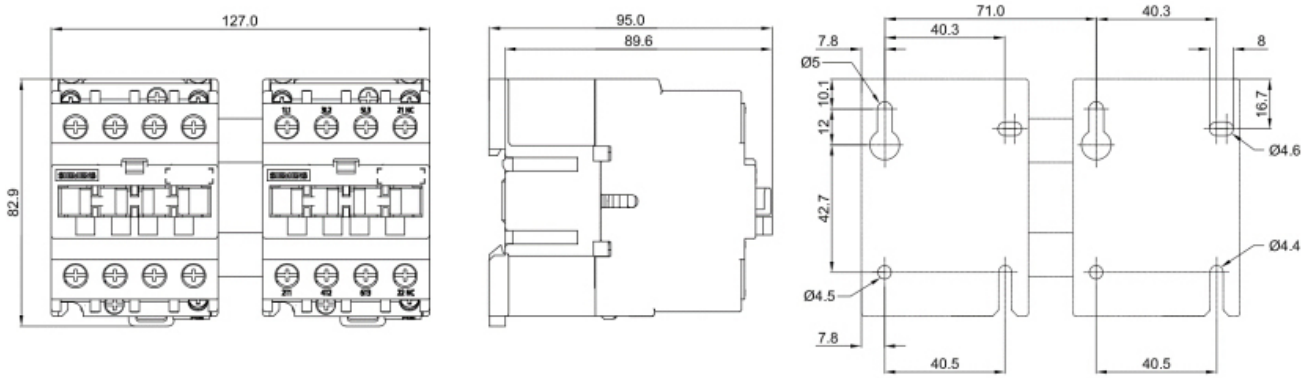
3MT79001XM01 / 3MT79001XE01
with Size 1 contactors

Note: All dimensions are in mm.

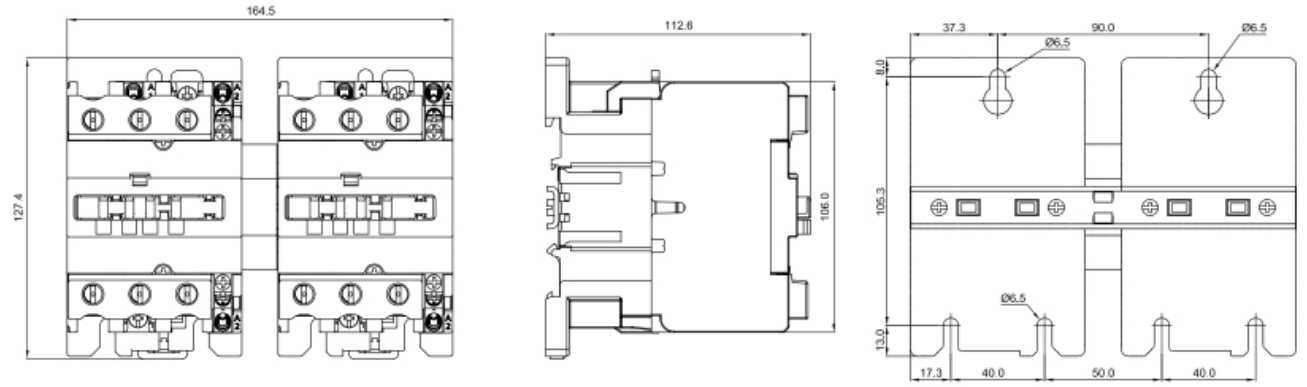
Dimension drawings

Accessories

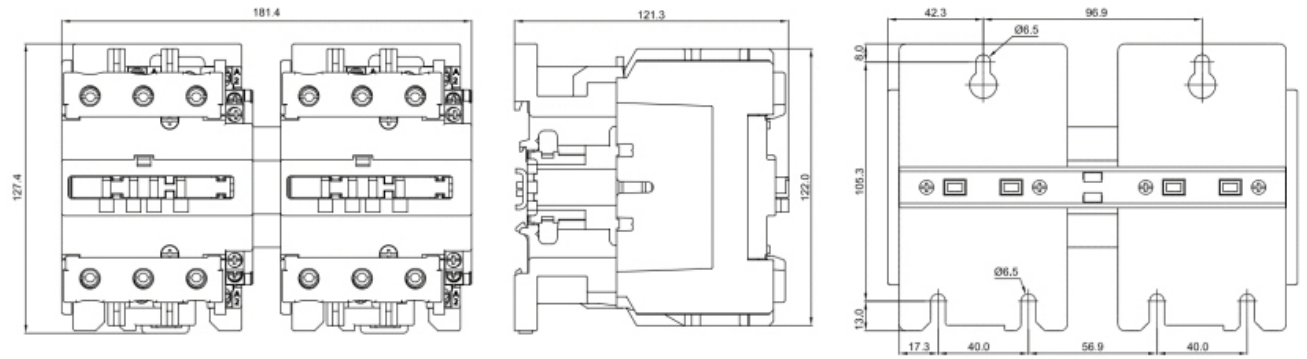
Mechanical / electro-mechanical interlock with contactor



3MT79001XM01 / 3MT79001XE01
with Size 2 contactors

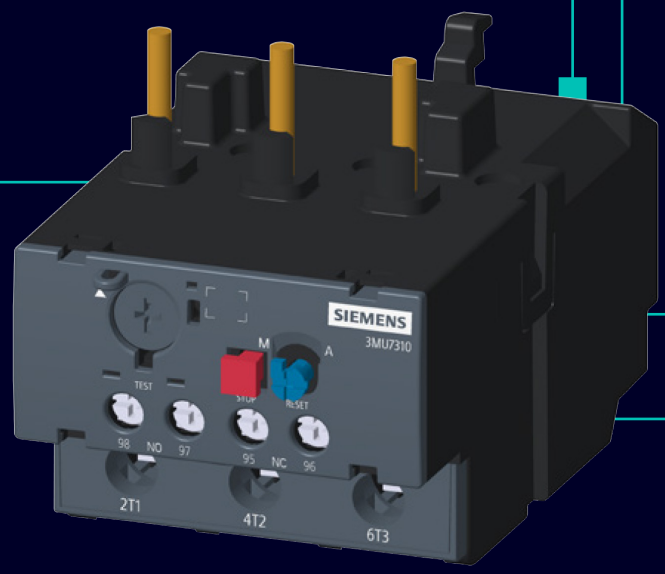


3MT79001XM02 / 3MT79001XE02
with Size 3 contactors



3MT79001XM03 / 3MT79001XE03
with Size 4 contactors

Note: All dimensions are in mm.



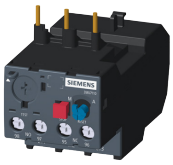
3MU7
overload relays

SINOVA The Power of **Simplicity**

Overview

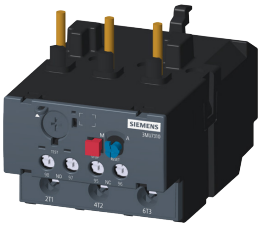
Product range

Thermal overload relays - Tripping class 10



3MU71

3MU72



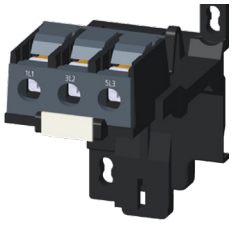
3MU73

Thermal overload relays - Tripping class 10A

3MU74

3MU75

Accessories



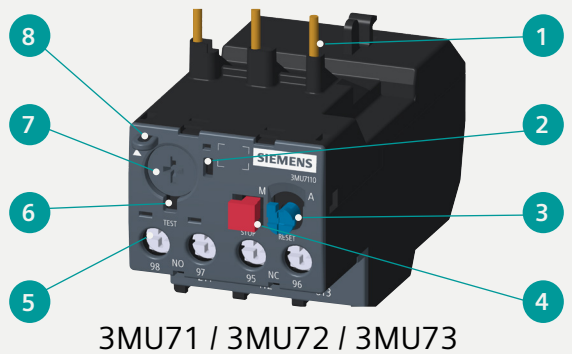
Relay stand-alone installation kit

Relay setting dial sealing cover

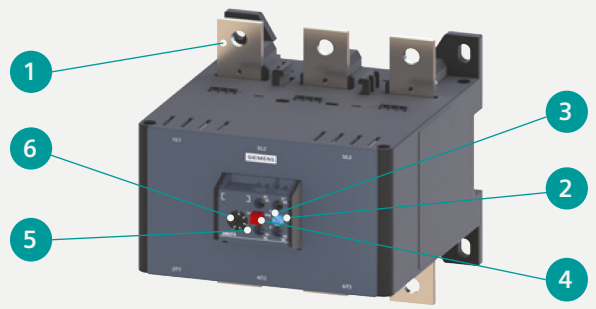
Note: Accessories shown are only applicable to 3MU71, 3MU72 and 3MU73.
You can find detailed range of accessorries in the Accessories section at page 182.

Overview

Functions



3MU71 / 3MU72 / 3MU73



3MU74 / 3MU75

1. Connection for mounting onto contactors
2. Relay status
3. Selector switch for auto / manual reset and reset button
4. Stop button
5. Auxiliary circuit terminals
6. Test function
7. Motor current setting dial
8. Provision for fixing sealing cover

1. Terminals for cable / bar connection
2. Relay status
3. Selector switch for auto / manual reset and reset button
4. Stop / test button
5. Auxiliary circuit terminals
6. Motor current setting dial

Protection

- Tripping due to overload
- Tripping due to single-phase failure

Application

Our 3MU7 thermal overload relays are suitable for applications that require optimum inverse-time delayed protection of three-phase or single-phase AC motors. In the case of a single-phase motor, all the conducting paths of the relay must be connected in series. 3MU71 / 3MU72 / 3MU73 relays comply with tripping class 10 and 3MU74 / 3MU75 relays comply to tripping class 10A as per IEC 60947-4-1. The 3MU7 thermal overload relays compensate ambient temperature from the range of -5 to +55°C according to IEC 60947-4-1.

Technical specifications

3MU7 thermal overload relays

					
Type			**3MU71**	**3MU72**	**3MU73**
General data					
Dimension (W x H x D)					
• Basic unit		mm	44 x 63.6 x 91.8	54 x 76.1 x 92.4	70 x 79.2 x 115
Tripping in the event of			Overload, single-phase failure		
Trip class acc. to IEC 60947-4-1			Class 10		
Reset			Manual		
Recovery			Minimum recovery time depends on the strength of the tripping current and characteristic		
Rated insulation voltage U_i (pollution degree 3)		V	690		
Rated impulse withstand voltage U_{imp}	Main circuit	kV	6		
	Aux circuit	kV	4		
Permissible ambient temperature					
During operation		°C	-5 ... +55		
During storage		°C	-25 ... +70		
Relative air humidity		%	10 ... 95		
Degree of protection IP on the front			IP20		
Installation altitude at height above sea level, maximum		m	2000		
Mounting position			22.5° inclination forward and backward, and ± 90° rotation, in relation to normal vertical mounting plane		
Type of mounting			Direct mounting on contactor Or stand-alone installation by screw fixing Or snap-on mounting on standard mounting rail		

Technical specifications

3MU7 thermal overload relays

				
Type		**3MU71**	**3MU72**	**3MU73**
Main circuit				
Rated operational voltage U_e	V	400 / 690 (L-N / L-L)		
Operating frequency	Hz	50 / 60		
Current setting	A A	0.10 ... 0.16 to 17 ... 25	23 ... 32 to 28 ... 36	23 ... 32 to 80 ... 93
Power loss for rated current in hot state (maximum) • Per pole (maximum)	W W	16.2 5.4	16.5 5.5	25.5 8.5
Short circuit protection • With fuse without contactor • With fuse with contactor		Refer "Selection & ordering data" Refer Type-2 coordination charts		
Auxiliary circuit				
Number of NO contacts		1		
Number of NC contacts		1		
Auxiliary contacts – Assignment		1 NO for the signal "tripped"; 1 NC for disconnecting the contactor		
Contact rating of the auxiliary contacts				
• AC-12 at 690V	A	5		
• AC-15 at rated operational voltage U_e - 24V - 48V - 110V - 220V - 380V - 600V - 690V	 A A A A A A A	 4.17 4.17 3.64 2.73 1.58 1 0.7		

Technical specifications

3MU7 thermal overload relays

				
Type		**3MU71**	**3MU72**	**3MU73**
• DC-13, at rated operational voltage U_e (1 conducting path)				
- 24V	A	4.17		
- 48V	A	2.08		
- 110V	A	0.45		
- 220V	A	0.2		
- 440V	A	0.05		
Short circuit protection of auxiliary circuit				
• With fuse links of operational class gG:	A	10		
Conductor cross-sections				
Main conductors				
Solid or stranded	mm²	1 x (1 ... 6 mm²)	1 x (1.5 ... 10mm²)	1 x (4 ... 35 mm²)
Finely stranded with end sleeve	mm²	1x (1 ... 10 mm²)	1x (1.5 ... 10 mm²)	1x (2.5 ... 35 mm²)
• Terminal screw		M4	M4	M10
- Tightening torque	Nm	1.85	2.5	9
Auxiliary conductors				
Solid or stranded	mm²	1 x (1.0 ... 4.0 mm²)		
Finely stranded with end sleeve	mm²	1 x (1.0 ... 4.0 mm²)		
• Terminal screw		M3.5		
- Tightening torque	Nm	1.2		

Technical specifications

3MU7 thermal overload relays

				
Type			**3MU74**	**3MU75**
General data				
Dimension (W x H x D)				
• Basic unit		mm	147 x 157 x 173	
Tripping in the event of			Overload, single-phase failure	
Trip class acc. to IEC 60947-4-1			Class 10A	
Reset			Manual and remote reset	
Recovery			Minimum recovery time depends on the strength of the tripping current and characteristic	
Rated insulation voltage U_i (pollution degree 3)		V	1000	
Rated impulse withstand voltage U_{imp}	Main circuit	kV	8	
	Aux circuit	kV	6	
Permissible ambient temperature				
During operation		°C	-5 ... +55	
During storage		°C	-25 ... +70	
Relative air humidity		%	10 ... 95	
Degree of protection IP on the front			IP00	
Installation altitude at height above sea level, maximum		m	2000	
Mounting position			22.5° inclination forward and backward, and ± 90° rotation, in relation to normal vertical mounting plane	
Type of mounting			Stand-alone installation by screw fixing	

Technical specifications

3MU7 thermal overload relays

			
Type		**3MU74**	**3MU75**
Main circuit			
Rated operational voltage U_e	V	230 / 400 (L-N / L-L)	
Operating frequency	Hz	50 / 60	
Current setting	A	85-135 to 250-400	312-500
Power loss for rated current in hot state (maximum) • Per pole (maximum)	W W	33.6 11.2	45 15
Short circuit protection of main circuit • With fuse links of operational class gG without contactor:	A	Refer "Selection & ordering data"	
Auxiliary circuit			
Number of NO contacts		1	
Number of NC contacts		1	
Auxiliary contacts – Assignment		1 NO for the signal "tripped"; 1 NC for disconnecting the contactor	
Contact rating of the auxiliary contacts			
• AC-12 at 690V	A	6	
• AC-15 at rated operational voltage U_e - 24V - 48V - 110V - 220V - 380V - 600V - 690V	 A A A A A A A	 2 1.25 1.25 1.15 1 0.3 0.3	

Technical specifications

3MU7 thermal overload relays

			
Type		**3MU74**	**3MU75**
• DC-13, at rated operational voltage Ue (1 conducting path)			
- 24V	A	1	
- 48V	A	0.4	
- 110V	A	0.22	
- 220V	A	0.1	
Short circuit protection of auxiliary circuit			
• With fuse links of operational class at 690V gG:	A	6	

Conductor cross-sections				
Main conductors		3MU7410-3AA1 3MU7410-3BA1	3MU7410-3CA1 3MU7410-3DA1 3MU7410-3EA1	3MU7510-4AA1
Flexible cable with Lugs	mm²	2 x (25 ... 95)	2 x (70 ... 240)	2 x (150 ... 240)
Terminal bar (max. width)	mm	2 x 20 x 3	2 x 25 x 3	2 x 30 x 5
• Terminal screw		M8	M10	M10
- Tightening torque	Nm	10-14	14-24	14-24
Auxiliary contacts				
Solid or stranded	mm²	2 x (1.0 ... 2.5 mm²)		
Finely stranded with end sleeve	mm²	2 x (0.75 ... 1.5 mm²)		
• Terminal screw		M3.5		
- Tightening torque	Nm	0.8-1.2		

Selection & ordering data

3MU7 thermal overload relays

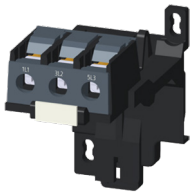
Size	Trip class	Rated power three-phase motor at 400V	Current setting value	Short circuit protection with fuse, type of coordination "2" (operational class gG)	Suitable for contactor size	Article no.	List price per PU (Per Unit)	Status
		kW	A	A				
1 	Class 10	0.04	0.10-0.16	2	0, 1, 2	3MU7110-0AA0		
	Class 10	0.06	0.16-0.25	2	0, 1, 2	3MU7110-0BA0		
	Class 10	0.09	0.25-0.40	2	0, 1, 2	3MU7110-0CA0		
	Class 10	0.18	0.40-0.63	2	0, 1, 2	3MU7110-0DA0		
	Class 10	0.25	0.63-1	4	0, 1, 2	3MU7110-0EA0		
	Class 10	0.55	1-1.6	4	0, 1, 2	3MU7110-0FA0		
	Class 10	0.75	1.25-2	6	0, 1, 2	3MU7110-0GA0		
	Class 10	0.75	1.6-2.5	6	0, 1, 2	3MU7110-0HA0		
	Class 10	1.5	2.5-4	10	0, 1, 2	3MU7110-0JA0		
	Class 10	2.2	4-6	16	0, 1, 2	3MU7110-0KA0		
	Class 10	3	5.5-8	20	0, 1, 2	3MU7110-0LA0		
	Class 10	4	7-10	20	0, 1, 2	3MU7110-0MA0		
	Class 10	5.5	9-13	25	0, 1, 2	3MU7110-0NA0		
	Class 10	7.5	12-18	32	1, 2	3MU7110-0PA0		
	Class 10	11	17-25	50	1, 2	3MU7110-0QA0		
2 	Class 10	15	23-32	63	2	3MU7210-1AA0		
	Class 10	18.5	28-36	63	2	3MU7210-1BA0		
3 	Class 10	15	23-32	63	3, 4	3MU7310-2AA0		
	Class 10	18.5	30-40	80	3, 4	3MU7310-2BA0		
	Class 10	22	37-50	80	3, 4	3MU7310-2CA0		
	Class 10	30	48-65	80	3, 4	3MU7310-2DA0		
	Class 10	37	55-70	125	4	3MU7310-2EA0		
	Class 10	37	63-80	125	4	3MU7310-2FA0		
	Class 10	45	80-93	125	4	3MU7310-2GA0		

Selection & ordering data

3MU7 thermal overload relays

Size	Trip class	Current setting value	Short circuit protection with fuse, type of coordination "2" (operational class gG)	Suitable for contactor size	Article no.	List price per PU (Per Unit)	Status
4 	Class 10A	85-135A	224	Screw mounting	3MU7410-3AA1		
	Class 10A	115-180A	250	Screw mounting	3MU7410-3BA1		
	Class 10A	160-250A	355	Screw mounting	3MU7410-3CA1		
	Class 10A	200-320A	400	Screw mounting	3MU7410-3DA1		
	Class 10A	250-400A	500	Screw mounting	3MU7410-3EA1		
5 	Class 10A	312-500A	500	Screw mounting	3MU7510-4AA1		

Accessories

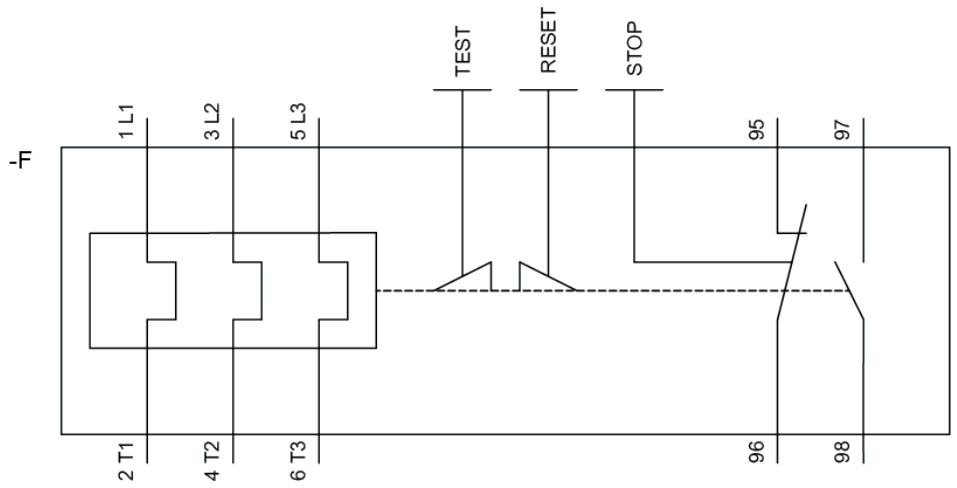
Type	Overload relay size	Article no.	List price per PU (Per Unit)	Status
Relay stand-alone installation kit 	1	3MU7900-0MA10		
	2	3MU7900-0MA20		
	3	3MU7900-0MA30		
Relay setting dial sealing cover 	1	3MU7900-0CA00		
	2			
	3			

Note: Accessories shown are only applicable to 3MU71, 3MU72 and 3MU73.

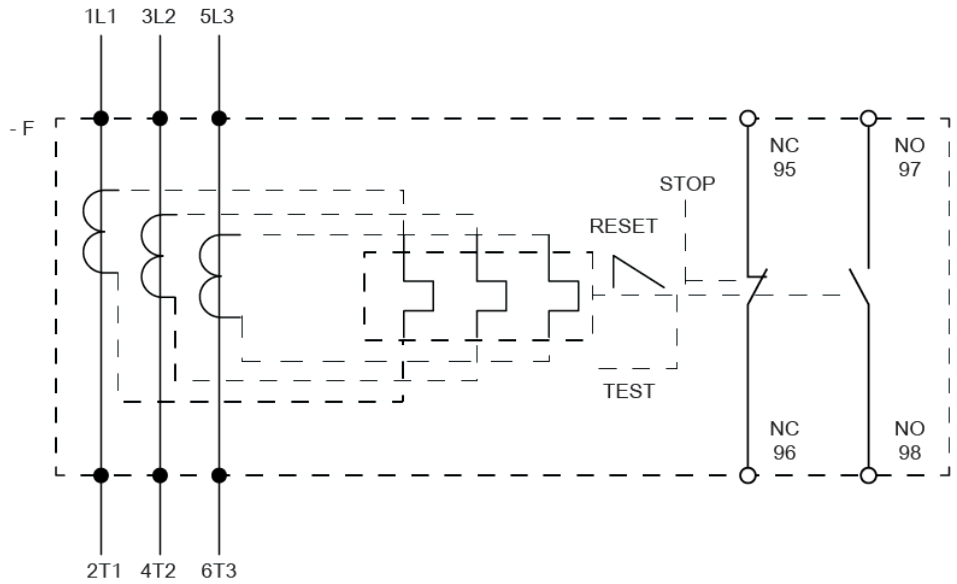
Wiring diagrams

3MU7 thermal overload relays

3MU71 / 3MU72 / 3MU73



3MU74 / 3MU75

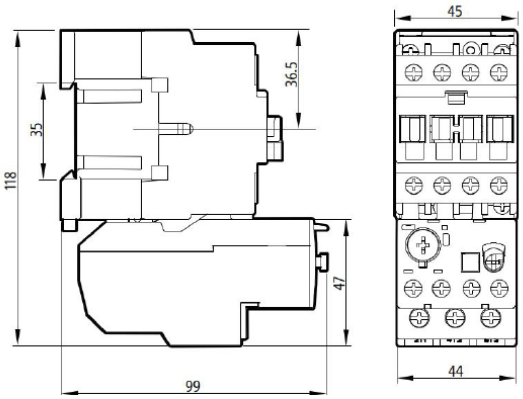


Dimension drawings

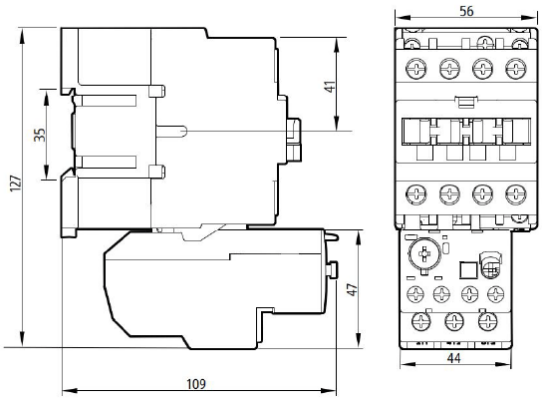
3MU7 thermal overload relays (with contactor)

Size 1 **(3MU7110-0 AA0 ... QA0)**

3MU711... + 3MT7006-0. to 3MT7022-1.

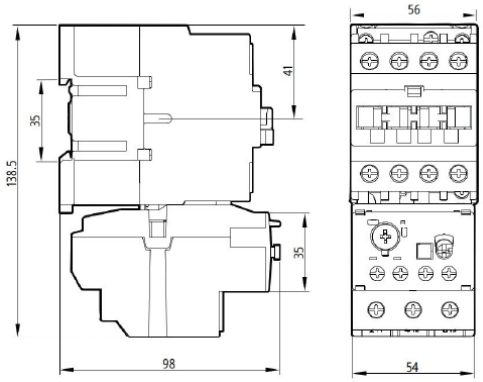


3MU711... + 3MT7025-2. to 3MT7040-2.



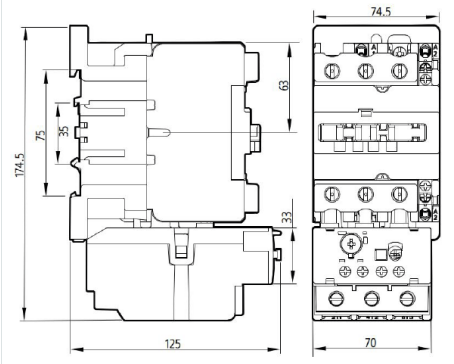
Size 2 **(3MU7210-0 AA0 ... BA0)**

3MU721... + 3MT7025-2. to 3MT7040-2.

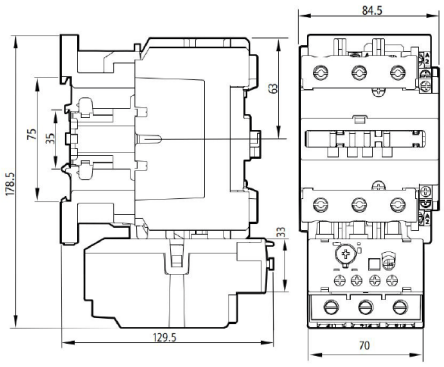


Size 3 **(3MU7310-0 AA0 ... GA0)**

3MU731... + 3MT7040-3. to 3MT7065-3.



3MU731... + 3MT7070-4. to 3MT7095-4.

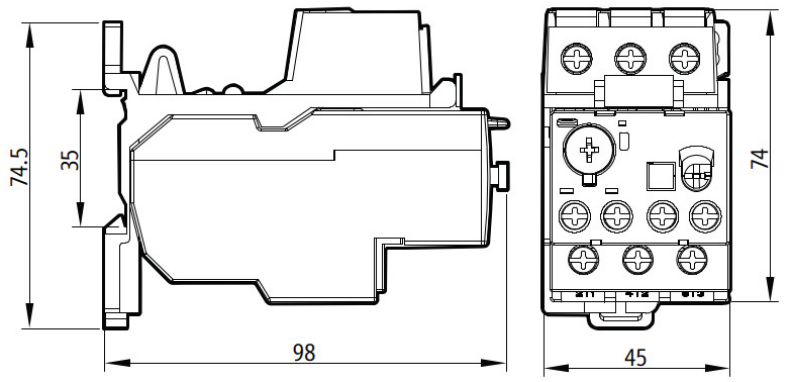


Note: All dimensions are in mm.

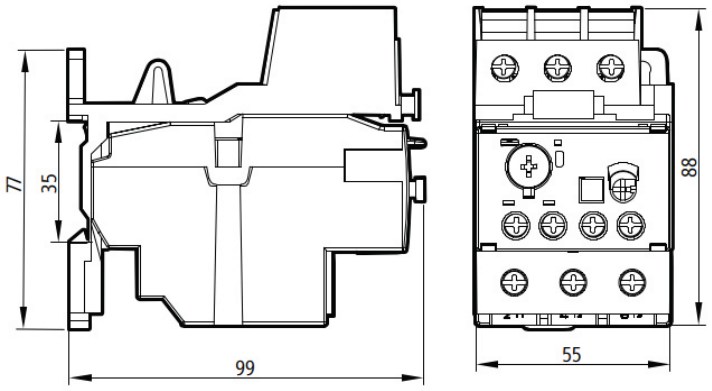
Dimension drawings

3MU7 thermal overload relays (with stand-alone installation kit)

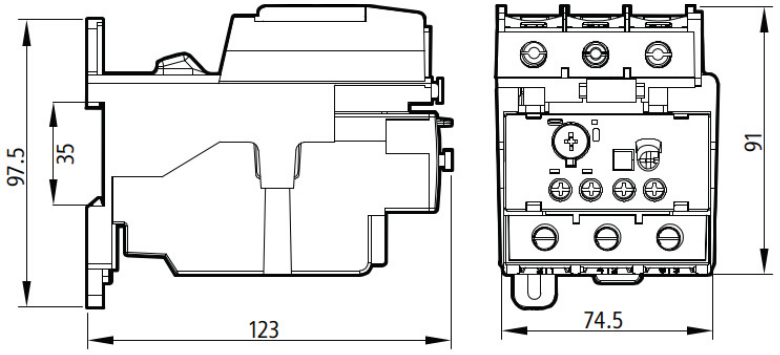
Size 1 **(3MU7110-0 AA0 ... QA0 + 3MU7900-0MA10)**



Size 2 **(3MU7210-0 AA0 ... BA0 + 3MU7900-0MA20)**



Size 3 **(3MU7310-0 AA0 ... GA0 with 3MU7900-0MA30)**

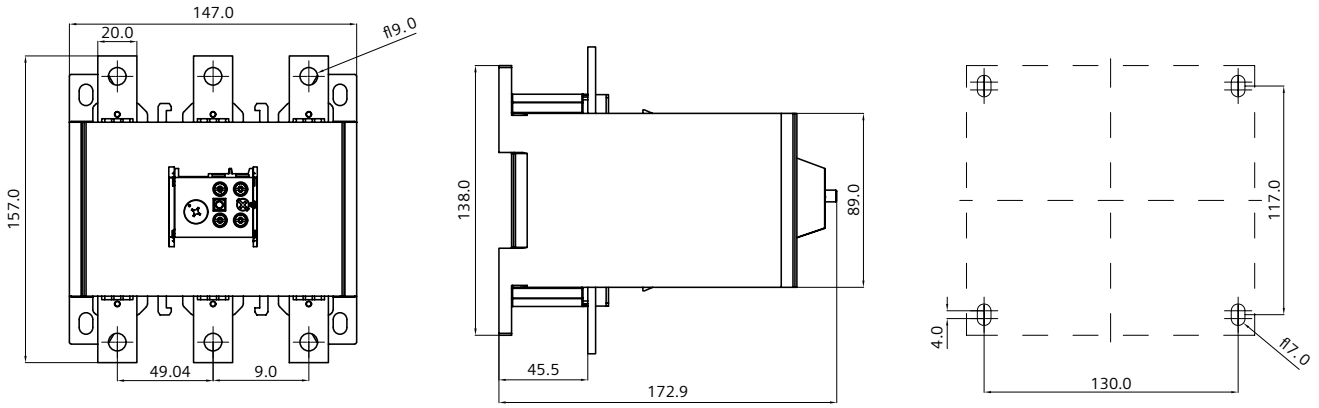


Note: All dimensions are in mm.

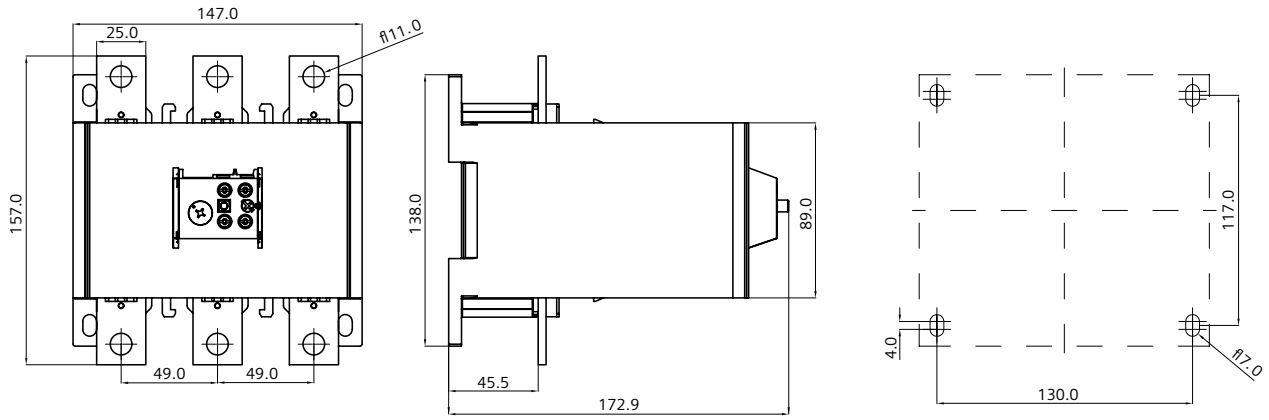
Dimension drawings

3MU7 thermal overload relays (stand-alone)

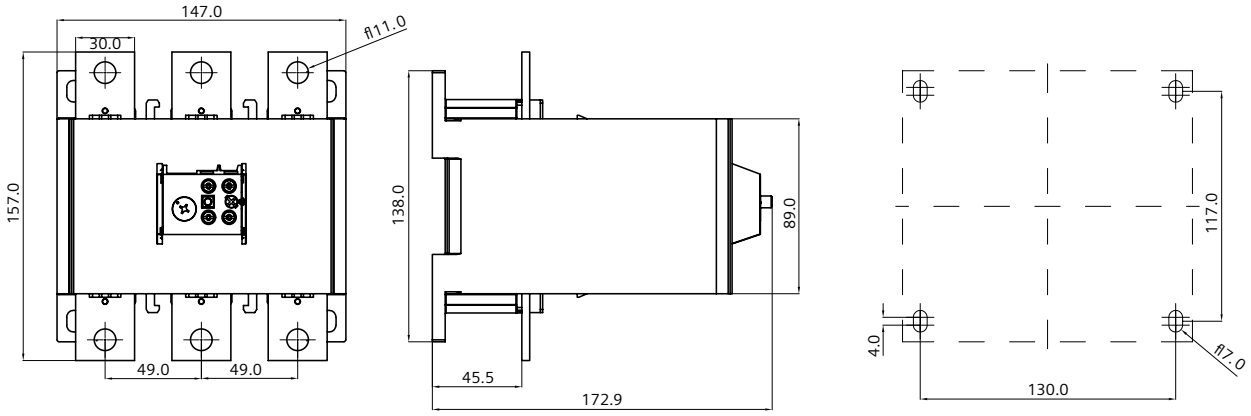
Size 4 **(3MU7410-3AA1 and 3MU7410-3BA1)**



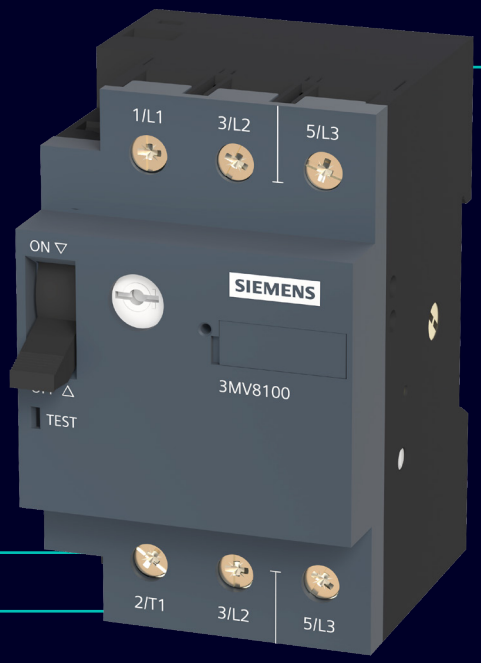
Size 4 **(3MU7410-3CA1, 3MU7410-3DA1 and 3MU7410-3EA1)**



Size 5 **(3MU7510-4AA1)**



Note: All dimensions are in mm.

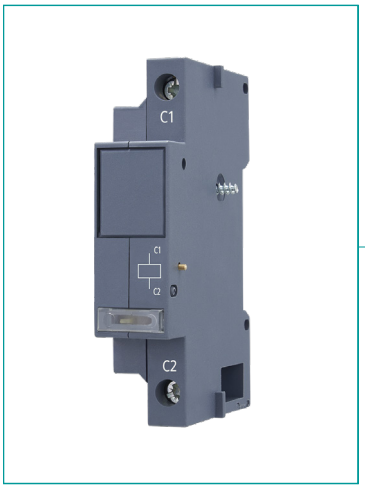


3MV8 motor starter protectors

SINOVA The Power of **Simplicity**

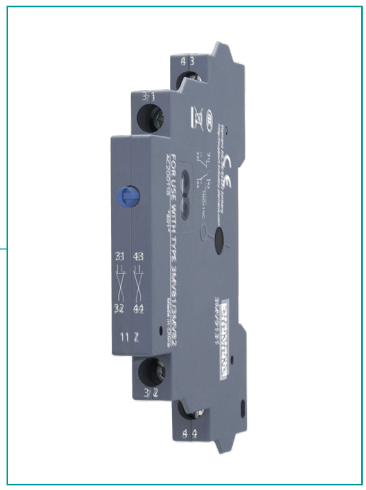
Overview

System overview



Shunt release

3MV81

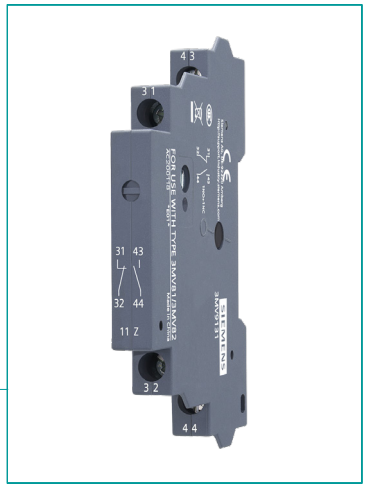


Short circuit fault indicator

Undervoltage release

3MV82

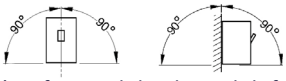
Undervoltage release
with lead action auxiliary contact



Auxiliary switch

Technical specifications

3MV8 motor starter protectors

						
Type			**3MV81**		**3MV82**	
General data						
Dimension • Basic unit	W H D	mm mm mm	54 86 70		70 115 108.5	
Mounting position			 90° inclination forward, backward, left and right			
Rated insulation voltage U_i (pollution degree 3) • Main circuit		V	750			
Rated impulse withstand voltage U_{imp} • Main circuit		kV	6			
Tripping class acc. to IEC 60947-4-1			Class 10A			
Permissible ambient temperature During operation During storage		 °C °C	 -20 ... +55 -50 ... +80			
Relative air humidity		%	10 ... 90			
Degree of protection IP on the front			IP20 (with wiring)			
Installation altitude at height above sea level, maximum		m	2000			
Rated data for main contacts						
Load rating with AC • **Utilization category for circuit breaker** as per IEC 60947-2 / EN60947-2 • **Utilization category for starter** as per IEC 60947-4-1 / EN60947-4-1			A AC-3			
Utilization categories AC-3 - Rated operational currents Ie up to 690V, 55°C		A	25		52	
Power loss per pole		W	I_e (A) 0.6 4 6 25	P (W) 5 6 7 9	I_e (A) 2.4 6 25 52	P (W) 8 7 14 23
Mechanical service life **Electrical service life AC-3 @400V**	Operating cycles Operating cycles		100,000 <=25A 100,000 <=25A		30,000 >25A 30,000 >25A	
Switching frequency in operating cycles/hour • Switching frequency AC-3		1/h	25		25	

Technical specifications

3MV8 motor starter protectors

				
Type			**3MV81**	**3MV82**
Rated data for auxiliary contacts				
Load rating with AC				
• **Rated operational currents I_e**				
- AC-15 at rated operational voltage U_e	230V	A	3	
	415V	A	1.5	
	500V	A	1	
• **Load rating with DC (1 conducting path)**				
- DC-13, at rated operational voltage U_e	24V	A	2.8	
	60V	A	0.7	
	220V	A	0.3	
Switching frequency				
• **Rated operation for utilization category**	AC-15/DC-13	1/h	25	
Short circuit protection				
Auxiliary circuit				
• Back-up fuse (gL/gG)		A	10	
• Miniature circuit breaker		A	6	
Conductor cross-sections				
Main conductors				
Solid or stranded		mm²	2 x (1 ... 6 mm²)	1 x (1.5 ... 25 mm²); 2 x (1.5 ... 16 mm²); 1.5 ... 25 +1.5 ...10 mm²
Finely stranded with end sleeve		mm²	2 x (1 ... 4 mm²)	1 x (1 ... 16 mm²); 2 x (1 ... 10 mm²); 1 ... 16 +1 ... 6 mm²
• Terminal screw			M4	M5
- Tightening torque		Nm	1 ... 1.5	2.5 ... 3
Auxiliary conductors				
Solid or stranded		mm²	2 x (0.5 ... 2.5 mm²);	2 x (0.5 ... 2.5 mm²);
Finely stranded with end sleeve		mm²	2 x (0.5 ... 2.5 mm²);	2 x (0.5 ... 1.5 mm²);
• Terminal screw			M3	M3
- Tightening torque		Nm	0.8 ...1.2	0.8 ...1.2

Technical specifications

Rated short-circuit breaking capacity

Type	Rating	<=240V AC			<=415V AC			<=440V AC			<=500V AC			<=690V AC		
		I_{cu} (kA)	I_{cs} (kA)	Fuse (gL/gG)	I_{cu} (kA)	I_{cs} (kA)	Fuse (gL/gG)	I_{cu} (kA)	I_{cs} (kA)	Fuse (gL/gG)	I_{cu} (kA)	I_{cs} (kA)	Fuse (gL/gG)	I_{cu} (kA)	I_{cs} (kA)	Fuse (gL/gG)
3MV81	<= 1A	100	100	•	100	100	•	100	100	•	100	100	•	100	100	•
	1.6A	100	100	•	100	100	•	100	100	•	100	100	•	2	2	20A
	2.4A	100	100	•	100	100	•	100	100	•	10	10	35A	2	2	35A
	3.2 & 4A	100	100	•	100	100	•	10	10	50A	3	3	50A	2	2	50A
	5 & 6A	100	100	•	100	100	•	5	5	63A	3	3	63A	2	2	63A
	8 & 10A	100	100	•	10	10	80A	5	5	80A	3	3	80A	2	2	80A
	13 & 16A	100	100	•	6	6	80A	5	5	80A	3	3	80A	2	2	80A
	20 & 25A	10	10	100A	6	6	80A	5	5	80A	3	3	80A	2	2	80A
3MV82	<= 2.4A	100	100	•	100	100	•	100	100	•	100	100	•	100	100	•
	4A	100	100	•	100	100	•	100	100	•	100	100	•	4	4	80A
	6A	100	100	•	100	100	•	100	100	•	100	50	•	4	4	100A
	10A	100	100	•	100	100	•	100	50	•	10	5	160A	4	4	125A
	16A	100	100	•	100	100	•	25	13	200A	10	5	160A	4	4	125A
	25A	100	100	•	100	50	•	25	13	200A	10	5	200A	4	4	160A
	32 & 52A	100	100	•	35	17	200A	25	13	200A	10	5	200A	4	4	160A

Note: "•" Indicates that no fuse is required because the breaking capacity of the circuit breakers is not less than 100kA. When the short circuit current at the installation point exceeds the circuit breaker's rated short circuit breaking capacity, the breakers must be protected by a backup fuse. The maximum rating of the backup fuse is given in the table for 100kA breaking capacity.

According to IEC 60947-2, the relationship between the short circuit breaking capacity and the minimum short circuit breaking capacity depends on the corresponding power factor.

Short circuit breaking capacity (A)	Power factor	Short circuit making capacity (A)
$I \leq 3000$	0.9	1.42 x I
$3000 < I \leq 4500$	0.8	1.47 x I
$4500 < I \leq 6000$	0.7	1.5 x I
$6000 < I \leq 10000$	0.5	1.7 x I
$10000 < I \leq 20000$	0.3	2.0 x I
$20000 < I \leq 50000$	0.25	2.1 x I
$50000 < I$	0.2	2.2 x I

Selection & ordering data

3MV8 motor starter protectors

Product image	Rated current	Motor power	Current setting for thermal overload	Instantaneous trip	Auxiliary contacts	Article no.	List price per PU (Per Unit)	Status
	(A)	(kW)	(A)	(A)				
3MV8100-0..00 	0.16	0.04	0.11 ~ 0.16	1.9	-	3MV8100-0MB00		
	0.24	0.06	0.16 ~ 0.24	2.9	-	3MV8100-0MC00		
	0.4	0.09/0.12	0.24 ~ 0.4	4.8	-	3MV8100-0MD00		
	0.6	0.12/0.18	0.4 ~ 0.6	7.2	-	3MV8100-0ME00		
	1	0.25	0.6 ~ 1	12	-	3MV8100-0MF00		
	1.6	0.37/0.55	1 ~ 1.6	19	-	3MV8100-0MG00		
	2.4	0.75	1.6 ~ 2.4	29	-	3MV8100-0MH00		
	3.2	1.1	2 ~ 3.2	38	-	3MV8100-0NH00		
	4	1.1/1.5	2.4 ~ 4	48	-	3MV8100-0MJ00		
	5	1.5/2.2	3.2 ~ 5	60	-	3MV8100-0NJ00		
	6	2.2	4 ~ 6	72	-	3MV8100-0MK00		
	8	3	5 ~ 8	96	-	3MV8100-0NK00		
	10	3/4	6 ~ 10	120	-	3MV8100-0ML00		
	13	4/5.5	8 ~ 13	156	-	3MV8100-0NL00		
	16	7.5	10 ~ 16	190	-	3MV8100-0MM00		
	20	7.5	14 ~ 20	240	-	3MV8100-0MN00		
	25	11	18 ~ 25	300	-	3MV8100-0MP00		
	0.16	0.04	0.11 ~ 0.16	1.9	1NO+1NC	3MV8100-1MB00		
	0.24	0.06	0.16 ~ 0.24	2.9	1NO+1NC	3MV8100-1MC00		
	0.4	0.09/0.12	0.24 ~ 0.4	4.8	1NO+1NC	3MV8100-1MD00		
	0.6	0.12/0.18	0.4 ~ 0.6	7.2	1NO+1NC	3MV8100-1ME00		
	1	0.25	0.6 ~ 1	12	1NO+1NC	3MV8100-1MF00		
	1.6	0.37/0.55	1 ~ 1.6	19	1NO+1NC	3MV8100-1MG00		
	2.4	0.75	1.6 ~ 2.4	29	1NO+1NC	3MV8100-1MH00		
	3.2	1.1	2 ~ 3.2	38	1NO+1NC	3MV8100-1NH00		
	4	1.1/1.5	2.4 ~ 4	48	1NO+1NC	3MV8100-1MJ00		
	5	1.5/2.2	3.2 ~ 5	60	1NO+1NC	3MV8100-1NJ00		
	6	2.2	4 ~ 6	72	1NO+1NC	3MV8100-1MK00		
	8	3	5 ~ 8	96	1NO+1NC	3MV8100-1NK00		
	10	3/4	6 ~ 10	120	1NO+1NC	3MV8100-1ML00		
	13	4/5.5	8 ~ 13	156	1NO+1NC	3MV8100-1NL00		
	16	7.5	10 ~ 16	190	1NO+1NC	3MV8100-1MM00		
	20	7.5	14 ~ 20	240	1NO+1NC	3MV8100-1MN00		
	25	11	18 ~ 25	300	1NO+1NC	3MV8100-1MP00		

Selection & ordering data

3MV8 motor starter protectors

Product image	Rated current	Motor power	Current setting for thermal overload	Instantaneous trip	Auxiliary contacts	Article no.	List price per PU (Per Unit)	Status
	(A)	(kW)	(A)	(A)				
3MV8200-1..00 	1.6	0.37/0.55	1 ~ 1.6	19	-	3MV8200-0MG00		
	2.4	0.75	1.6 ~ 2.4	29	-	3MV8200-0MH00		
	4	1.1/1.5	2.4 ~ 4	48	-	3MV8200-0MJ00		
	6	2.2	4 ~ 6	72	-	3MV8200-0MK00		
	10	3/4	6 ~ 10	120	-	3MV8200-0ML00		
	16	5.5/7.5	10 ~ 16	190	-	3MV8200-0MM00		
	25	11	16 ~ 25	300	-	3MV8200-0MN00		
	32	15	22 ~ 32	380	-	3MV8200-0MP00		
	40	18.5	28 ~ 40	480	-	3MV8200-0MQ00		
	52	22	36 ~ 52	600	-	3MV8200-0MR00		
	1.6	0.37/0.55	1 ~ 1.6	19	1NO+1NC	3MV8200-1MG00		
	2.4	0.75	1.6 ~ 2.4	29	1NO+1NC	3MV8200-1MH00		
	4	1.1/1.5	2.4 ~ 4	48	1NO+1NC	3MV8200-1MJ00		
	6	2.2	4 ~ 6	72	1NO+1NC	3MV8200-1MK00		
	10	3/4	6 ~ 10	120	1NO+1NC	3MV8200-1ML00		
	16	5.5/7.5	10 ~ 16	190	1NO+1NC	3MV8200-1MM00		
	25	11	16 ~ 25	300	1NO+1NC	3MV8200-1MN00		
	32	15	22 ~ 32	380	1NO+1NC	3MV8200-1MP00		
	40	18.5	28 ~ 40	480	1NO+1NC	3MV8200-1MQ00		
	52	22	36 ~ 52	600	1NO+1NC	3MV8200-1MR00		

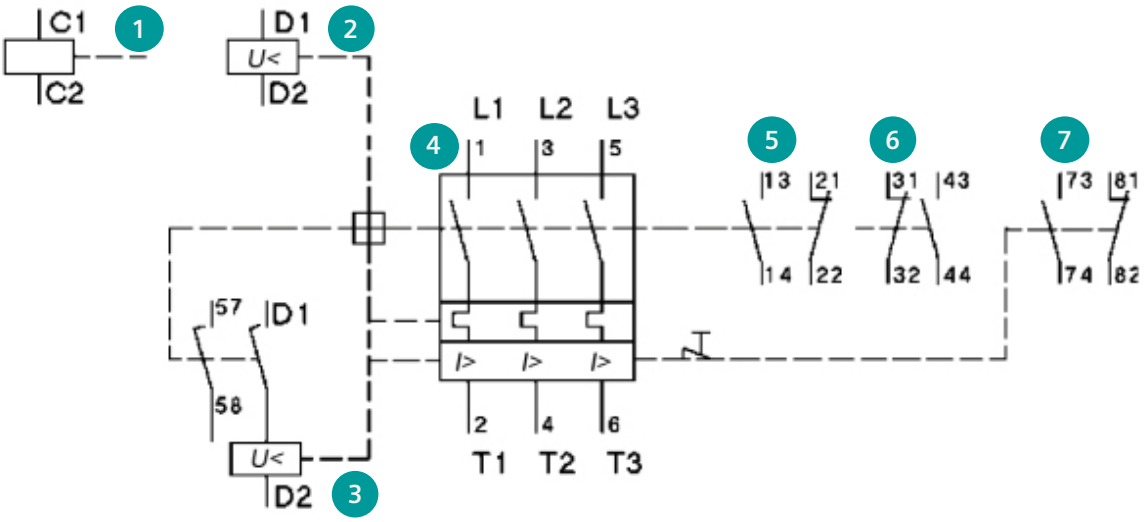
Selection & ordering data

Accessories

Type	Suitable for	Mounting	Auxiliary contacts	Article no.	List price per PU (Per Unit)	Status
Auxiliary contact 	3MV81 / 3MV82	Right side	1NO+1NC	3MV9131-3AA00		
Short circuit fault indicator 	3MV81 / 3MV82	Right side	1NO+1NC	3MV9131-7AA00		
Undervoltage release 	3MV81 / 3MV82	Left side	AC230V 50Hz	3MV9132-0AB15		
			AC240V 50Hz	3MV9132-0AB25		
			AC400V 50Hz	3MV9132-0AB17		
			AC415V 50Hz	3MV9132-0AB18		
			AC120V 60Hz	3MV9132-0AB23		
			AC208V 60Hz	3MV9132-0AB24		
			AC240V 60Hz	3MV9132-0AB26		
Undervoltage release with lead action auxiliary contacts 	3MV81 / 3MV82	Left side	AC230V 50Hz	3MV9132-0AB35		
			AC240V 50Hz	3MV9132-0AB45		
			AC400V 50Hz	3MV9132-0AB37		
			AC415V 50Hz	3MV9132-0AB38		
			AC120V 60Hz	3MV9132-0AB43		
			AC208V 60Hz	3MV9132-0AB44		
			AC240V 60Hz	3MV9132-0AB46		
Shunt release 	3MV81 / 3MV82	Left side	AC24V 50Hz	3MV9132-0AB50		
			AC230V 50Hz	3MV9132-0AB55		
			AC240V 50Hz	3MV9132-0AB65		
			AC400V 50Hz	3MV9132-0AB57		
			AC415V 50Hz	3MV9132-0AB58		
			AC120V 60Hz	3MV9132-0AB63		
			AC208V 60Hz	3MV9132-0AB64		
			DC24-60V	3MV9132-0AB66		
			DC110-240V	3MV9132-0AB73		

Note:
(1) Auxiliary contacts and short circuit fault indicators can be installed on the right side of the circuit breakers at the same time (the short circuit fault indicators are installed on the inside first, and the auxiliary contacts are installed on the outside). It is also possible to install only one auxiliary contact or only one short circuit fault indicator.
(2) Undervoltage release, undervoltage release with advance action auxiliary contact, and shunt release are all installed on the left side of the circuit breakers, but only one of the three can be installed at a time.

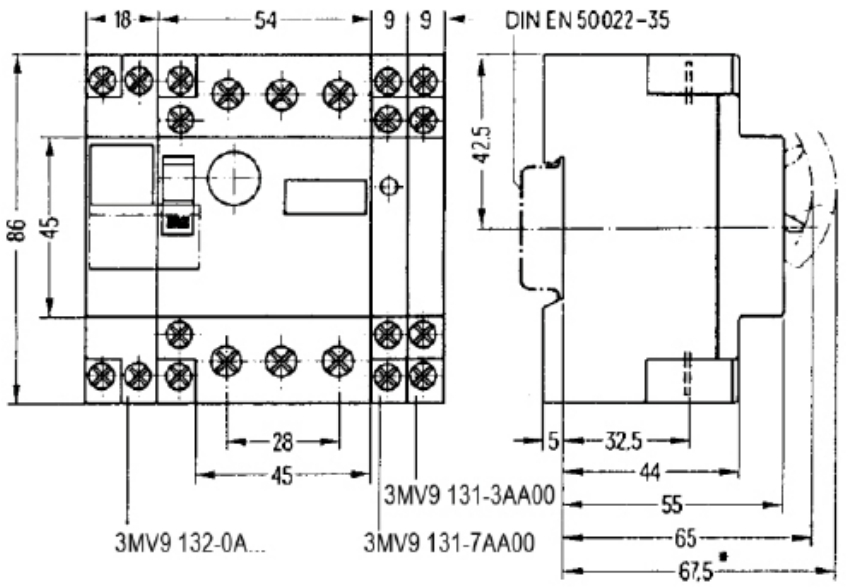
Wiring diagram



1. Shunt release
2. Undervoltage release
3. Undervoltage release with lead action contacts
4. 3MV8 motor starter protector
5. Internal auxiliary contacts
6. Additional auxiliary contacts
7. Short circuit fault indicator

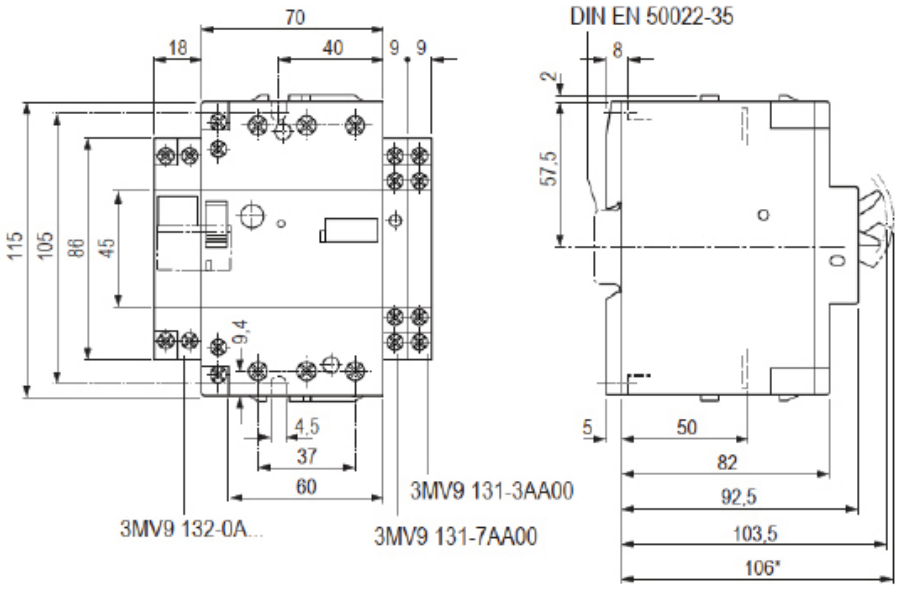
Dimension drawings

3MV81



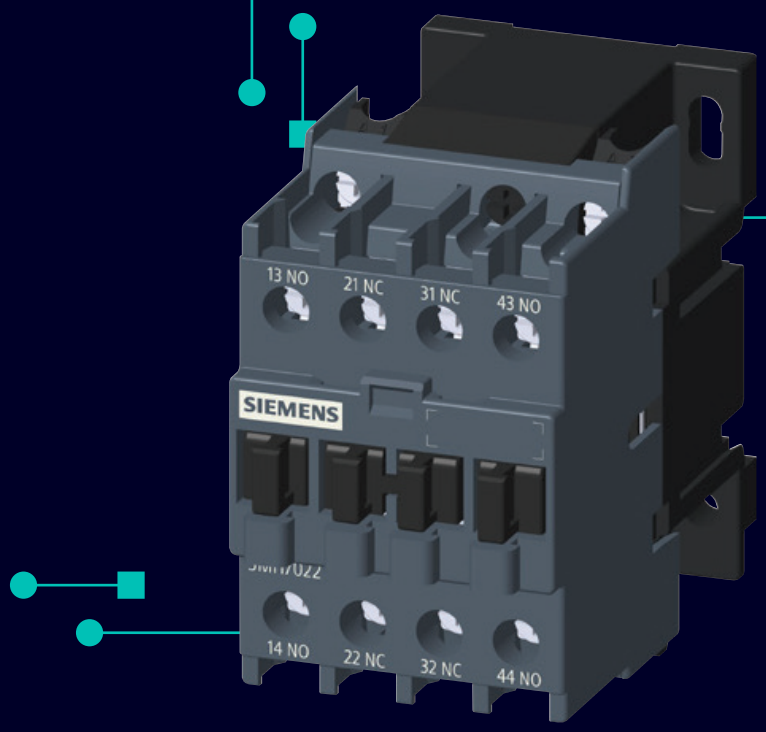
Front view Side view

3MV82



Front view Side view

Note: All dimensions are in mm.



3MH7
contactor relays

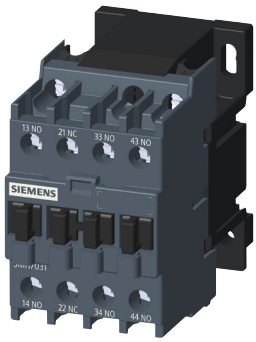
SINOVA The Power of **Simplicity**

Overview

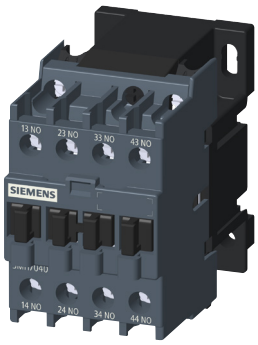
Product range

Contactor relays

3MH7022



3MH7031



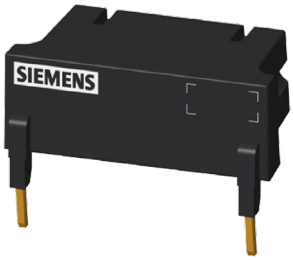
3MH7040

Accessories

1 pole & 2 pole front auxiliary switches

4 pole front auxiliary switches

Lateral auxiliary switches

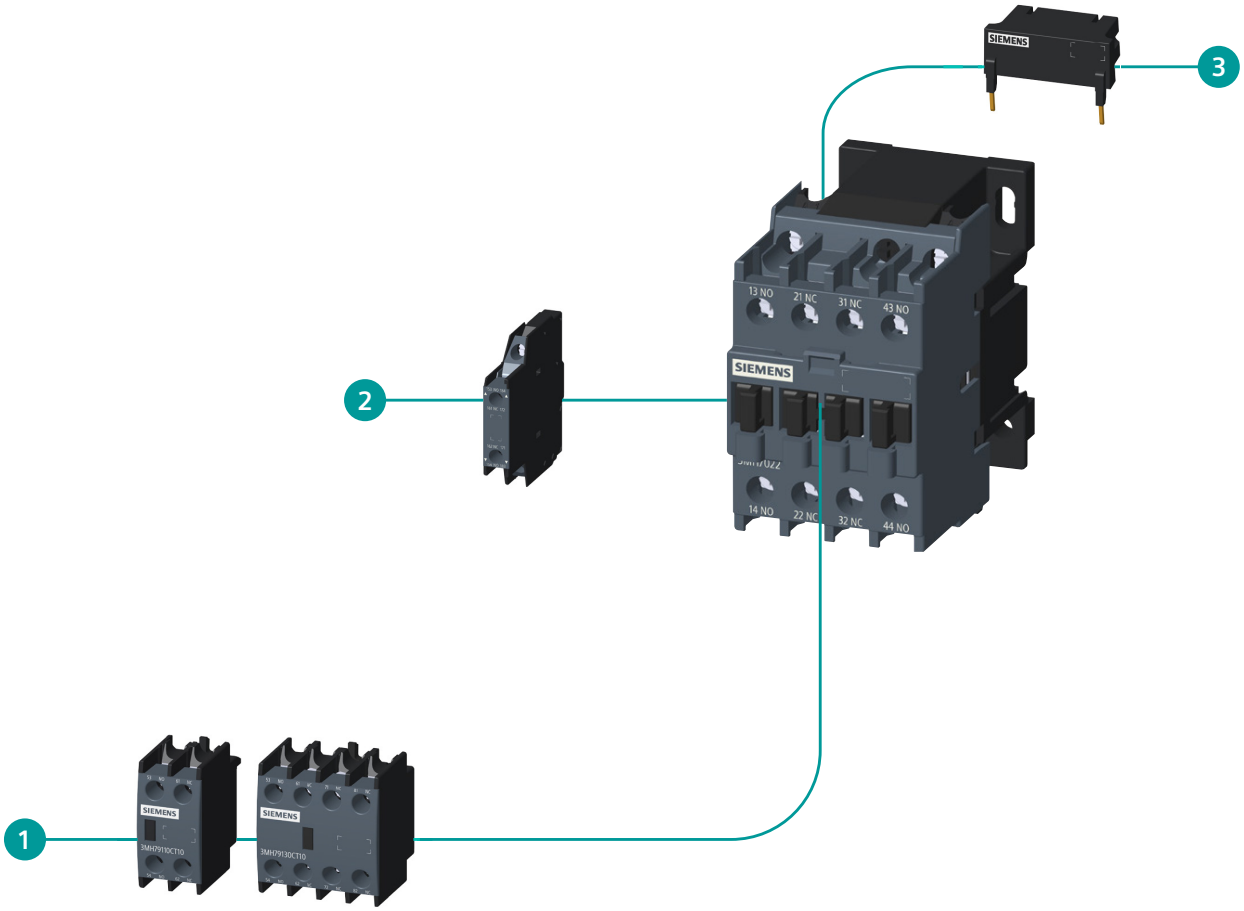


Surge suppressor

Note: You will find a detailed range of accessories in the Accessories and Spare parts section from page 203 to page 204.

Overview

System overview



1. Front auxiliary switches
2. Lateral auxiliary switches
3. Surge suppressor

Note: The linking lines indicate the correct placement of the accessories onto the product.

Technical specifications

3MH7 contactor relays

				
Type		**3MH7022**	**3MH7031**	**3MH7040**
General data				
Dimension (W x H x D) • Basic unit	mm	45 x 74.4 x 81.8		
Mounting position		22.5° inclination forward and backward, and 360° rotation, in relation to normal vertical mounting plane		
Mechanical service life • Basic unit • Basic unit with mounted auxiliary switch	 Operating cycles Operating cycles	 10,000,000 10,000,000		
Rated insulation voltage U_i (pollution degree 3)	V	1000		
Rated impulse withstand voltage U_{imp}	kV	6		
Permissible ambient temperature During operation During storage	 °C °C	 -5 ... +55 -25 ... +70		
Relative air humidity	%	10 ... 95		
Degree of protection IP on the front		IP20		
Installation altitude at height above sea level, maximum	m	2000		
Short circuit protection				
With fuse links of operational class gG:	A	10		

Technical specifications

3MH7 contactor relays

				
Type		**3MH7022**	**3MH7031**	**3MH7040**
Conductor cross-sections				
Auxiliary conductors and coil terminals				
Solid or stranded	mm²	1 x (1.0 ... 4.0 mm²); 2 x (1.0 ... 4.0 mm²)		
Finely stranded with end sleeve	mm²	1 x (1.0 ... 2.5 mm²); 2 x (1.0 ... 1.5 mm²)		
• Terminal screw		M3.5		
- Tightening torque	Nm	1.2		
Control				
Solenoid coil operating range				
• AC operation	at 50Hz	0.85 ... 1.1 x Us		
	at 60Hz	0.85 ... 1.1 x Us		
Power consumption of the solenoid coil				
• AC operation, 50Hz				
- Closing	VA/p.f.	70 / 0.75		
- Closed	VA/p.f.	11 / 0.3		
• AC operation, 50Hz wide band				
- Closing	VA/p.f.	90 / 0.75		
- Closed	VA/p.f.	15 / 0.3		
• AC operation, 50/60Hz				
- Closing	VA/p.f.	80 / 0.75		
- Closed	VA/p.f.	12 / 0.3		
Operating times within operating range				
• AC operation				
- Closing delay	ms	7 ... 22		
- Opening delay	ms	5 ... 20		

Technical specifications

3MH7 contactor relays



Type			3MH7022	3MH7031	3MH7040
Rated data of the auxiliary contacts					
Number of NO contacts			2	3	4
Number of NC contacts			2	1	0
Load rating with AC					
• **Rated operational currents I_e**					
- AC-12	690V	A		10	
- AC-15 at rated operational voltage U_e	230V	A		6	
	400V	A		3	
	500V	A		2	
	690V	A		1	
• **Load rating with DC (1 conducting path)**					
- DC-12, at rated operational voltage U_e	24V	A		6	
	110V	A		3	
	220V	A		1	
- DC-13, at rated operational voltage U_e	24V	A		6	
	110V	A		1	
	220V	A		0.3	
	440V	A		0.14	
	600V	A		0.1	
Switching frequency	Operating cycles/hour				
• **Rated operation for utilization category**					
	AC-12/DC-12	1/h		800	
	AC-15	1/h		800	
	DC-131/h	1/h		800	
• **No load switching frequency**		1/h		1800	

Selection & ordering data

3MH7 contactor relays

3MH7031-1A..0

Operational current AC-15 at 230V AC	Contacts		Article no.	List price per PU (Per Unit)	Status
	NO	NC			
6A	4	0	3MH7040-1A..0		
6A	3	1	3MH7031-1A..0		
6A	2	2	3MH7022-1A..0		

.. Please enter coil codes from table below.

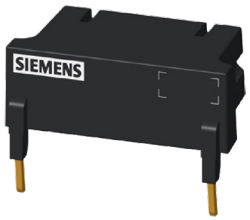
Coil code (AC)											
Frequency	24V	36V	48V	110V	220V	230V	380V	400V	415V	165-273V	353-455V
50Hz	B0	G0	H0	F0	M0	P0	Q0	V0	R0	S0	T0
50/60Hz	C2	G2	H2	F2	N2	L2	Q2	V2	R2	-	-

Accessories

1 pole and 2 pole front auxiliary switches

4 pole front auxiliary switches

Lateral auxiliary switches

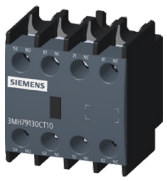


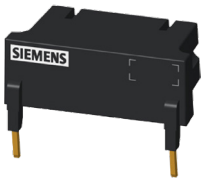
Surge suppressor

Please refer to the next page for more information on accessories.

Selection & ordering data

3MH7 contactor relays | Accessories for contactors

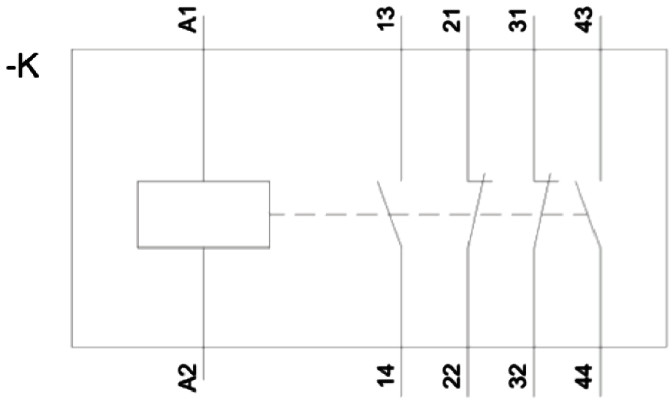
Auxiliary switches								
Product image	No. of auxiliary contacts		Mounting\ position	Compatible contactor	Maximum mountable auxiliary switches	Article no.	List price per PU (Per Unit)	Status
	NO	NC						
1 pole & 2 pole front auxiliary switches 	1	-	Front	Contactor relays	1	3MH7910-0CT10		
	-	1				3MH7901-0CT10		
	2	-				3MH7920-0CT10		
	1	1				3MH7911-0CT10		
	-	2				3MH7902-0CT10		
4 pole front auxiliary switches 	4	-				3MH7940-0CT10		
	3	1				3MH7931-0CT10		
	2	2				3MH7922-0CT10		
	1	3				3MH7913-0CT10		
	-	4				3MH7904-0CT10		
Lateral auxiliary switches 	2	-	First left or first right		2	3MH7920-0CL10		
	1	1				3MH7911-0CL10		

Surge suppressor						
Product image	Voltage	Mounting position	Compatible contactor	Article no.	List price per PU (Per Unit)	Status
	24-48V AC 50/60Hz	Between A1-A2 coil terminals	3MH7	3MT7900-1SC21		
	110-240V AC 50/60Hz			3MT7900-1SL21		
	380-440V AC 50/60Hz			3MT7900-1SV21		

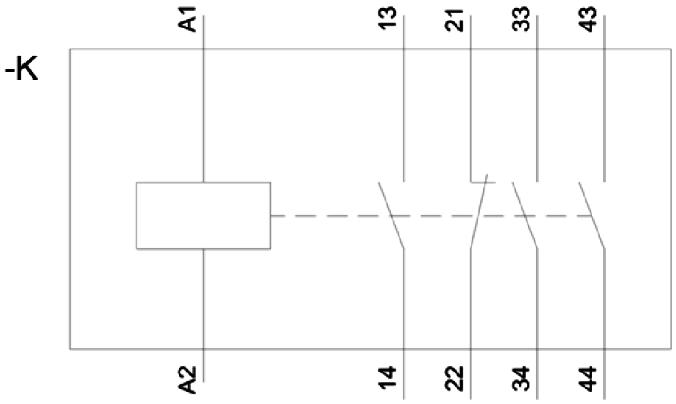
Wiring diagrams

3MH7 contactor relays

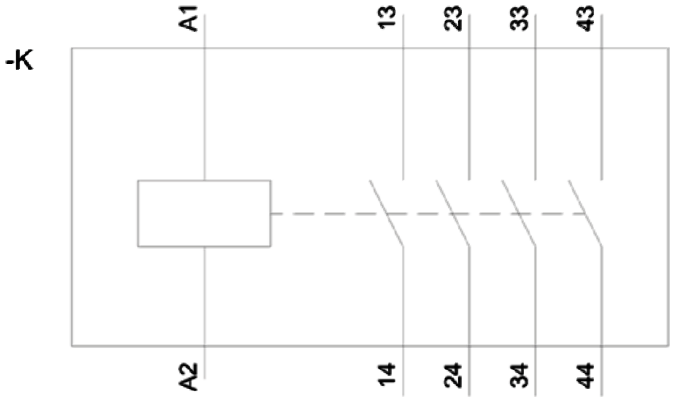
3MH7022 (2NO+2NC)



3MH7031 (3NO+1NC)



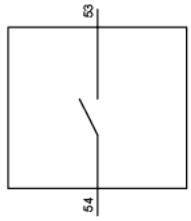
3MH7040 (4NO)



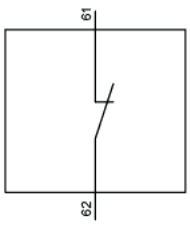
Wiring diagrams

Accessories

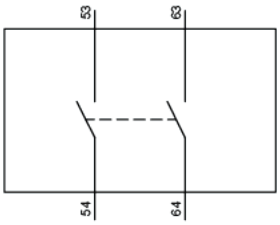
1 pole and 2 pole front auxiliary switches



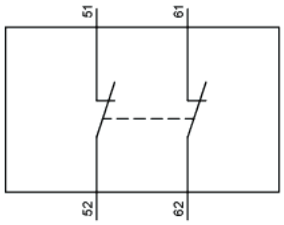
1 pole 1NO



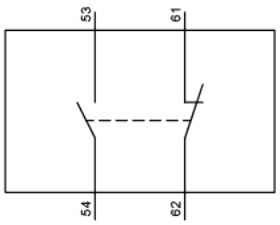
1 pole 1NC



2 pole 2NO

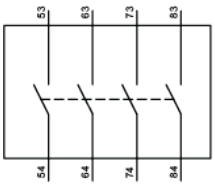


2 pole 2NC

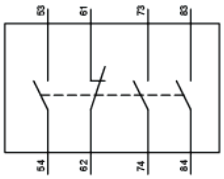


2 pole 1NO+1NC

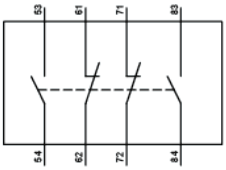
4 pole front auxiliary switches



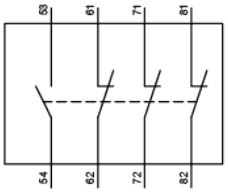
4 pole 4NO



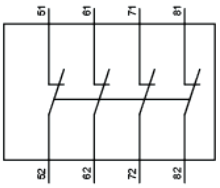
4 pole 3NO+1NC



4 pole 2NO+2NC

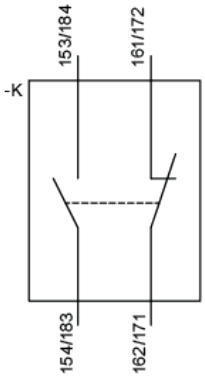


4 pole 1NO+3NC

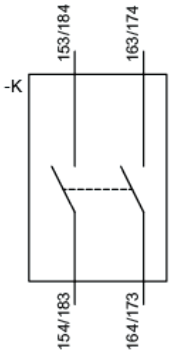


4 pole 4NC

Lateral auxiliary switches



2 pole 1NO+1NC

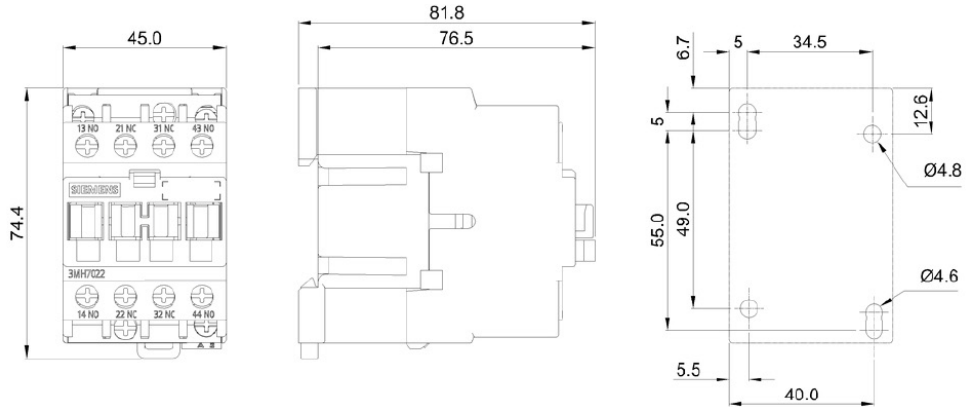


2 pole 2NO

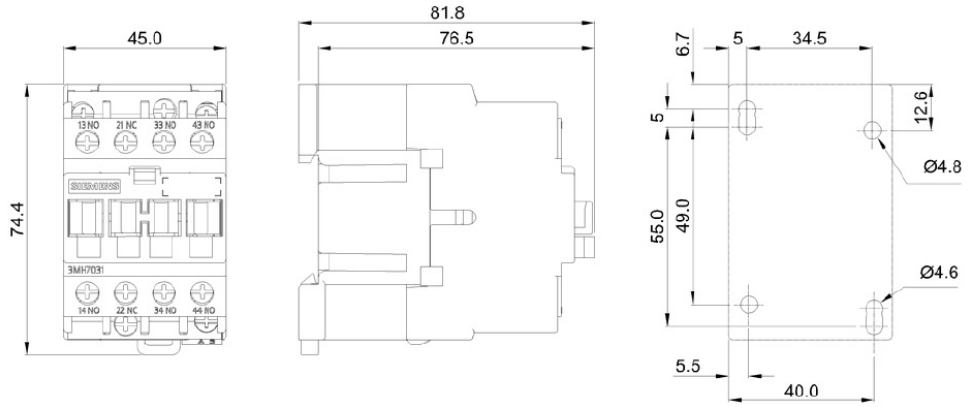
Dimension drawings

3MH7 contactor relays

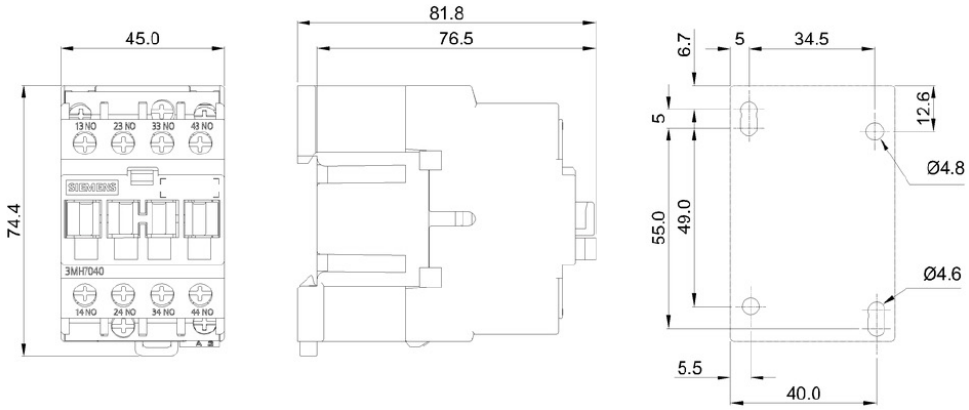
3MH7022 (2NO+2NC)



3MH7031 (3NO+1NC)



3MH7040 (4NO)

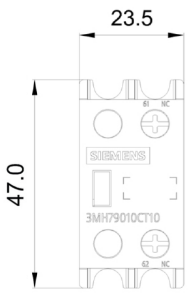


Note: All dimensions are in mm.

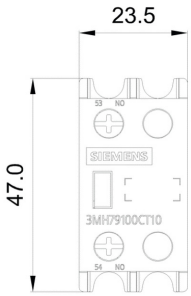
Dimension drawings

Accessories

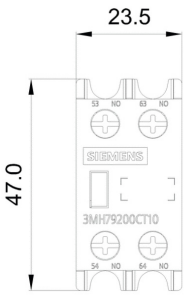
1 pole and 2 pole front auxiliary switches



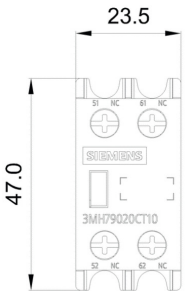
Front view
1 pole 1NC



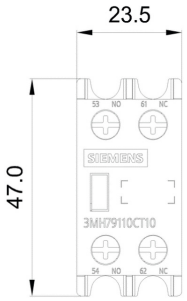
Front view
1 pole 1NO



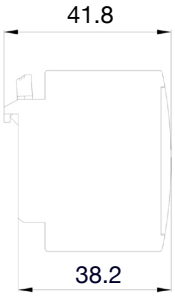
Front view
2 pole 2NO



Front view
2 pole 2NC

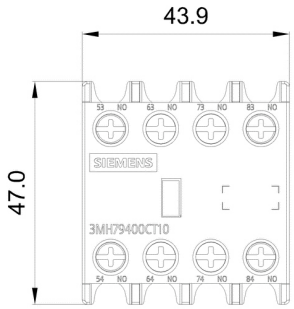


Front view
2 pole 1NO+1NC

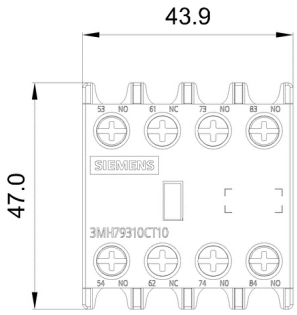


Side view

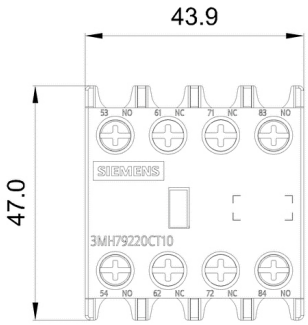
4 pole front auxiliary switches



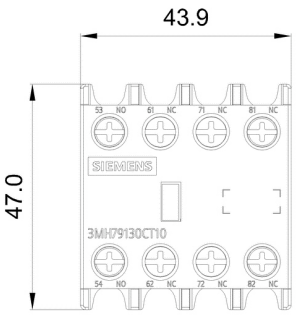
Front view
4NO



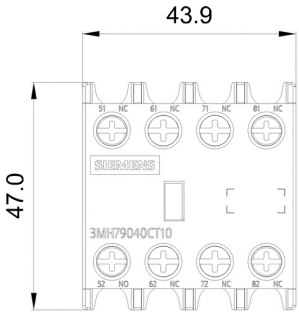
Front view
3NO+1NC



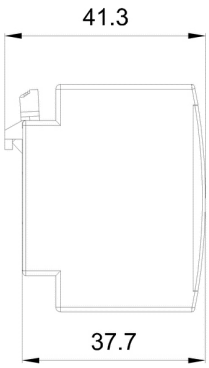
Front view
2NO+2NC



Front view
1NO+3NC



Front view
4NC



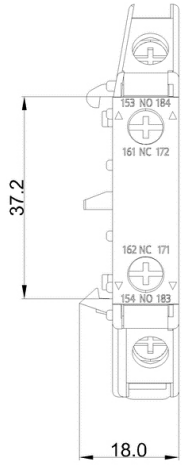
Side view
4 pole

Note: All dimensions are in mm.

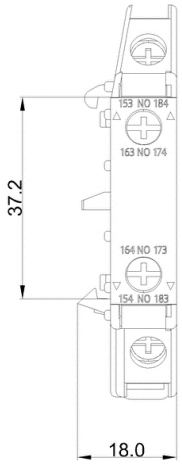
Dimension drawings

Accessories

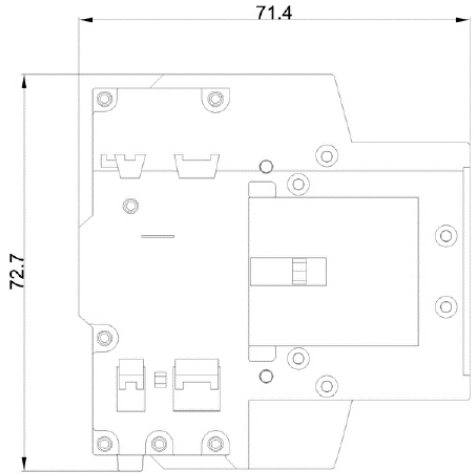
Lateral auxiliary switches



Front view
2 pole 1NO+1NC

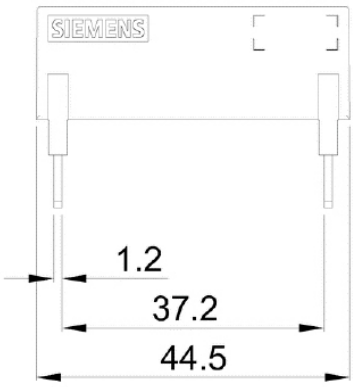


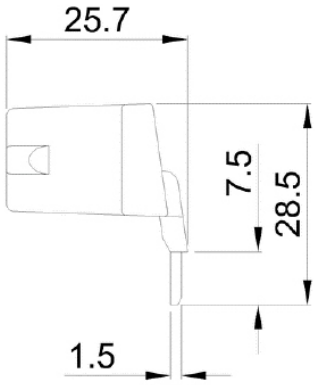
Front view
2 pole 2NO



Side view
2 pole

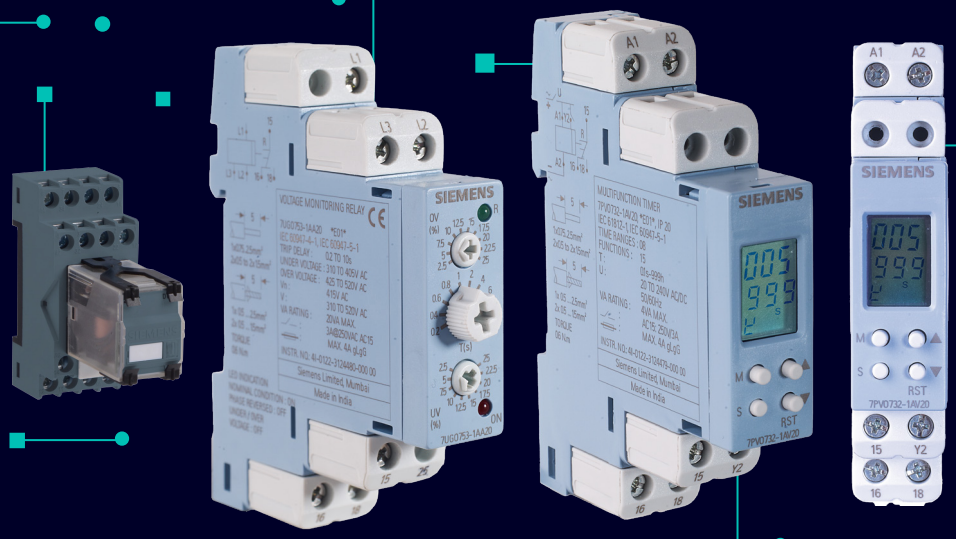
Surge suppressor





Note: All dimensions are in mm.

SINOVA
monitoring and control devices



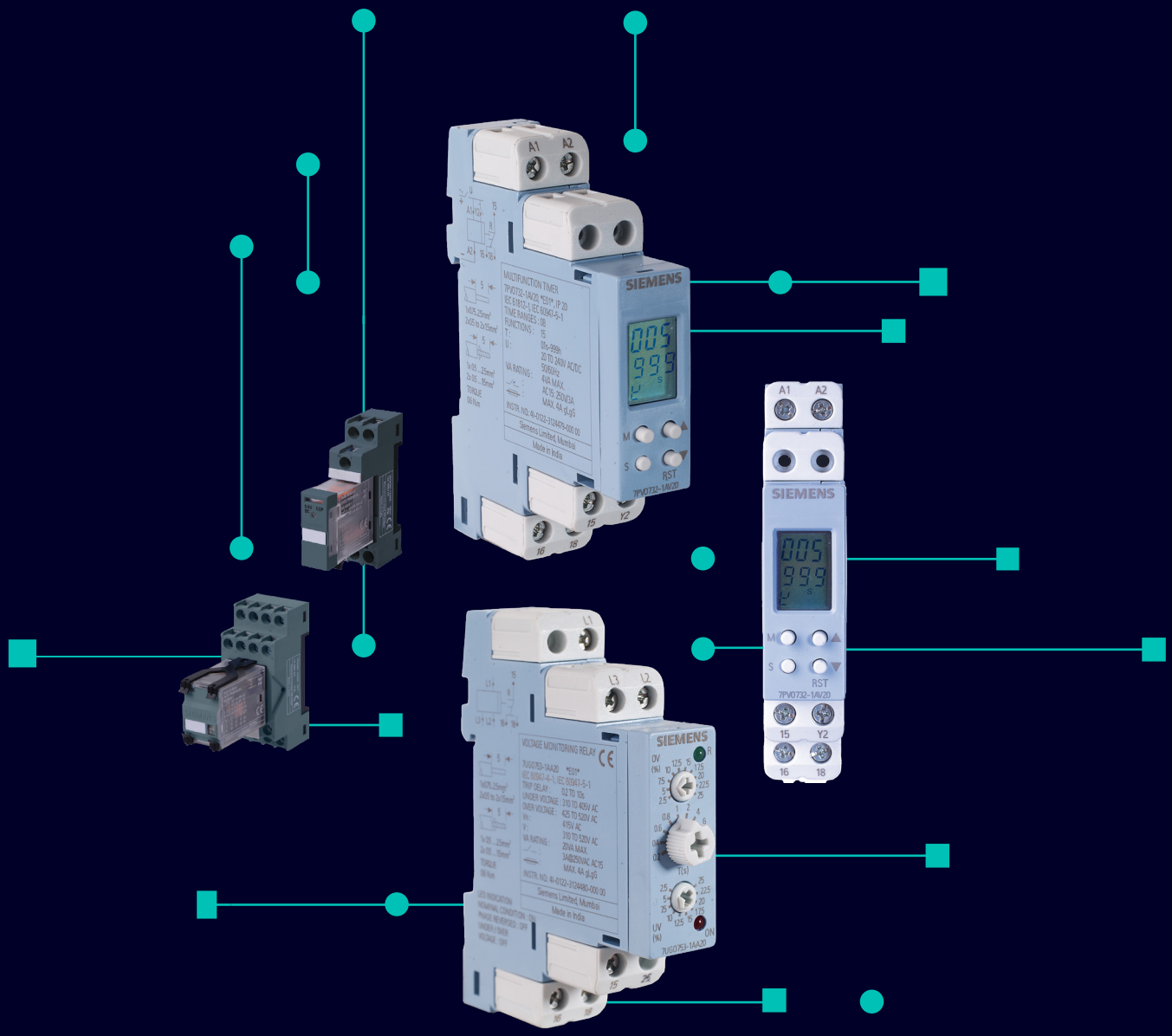
SINOVA
monitoring and control device

Experience the power of simplicity with our SINOVA monitoring and control devices, designed to ensure continuous, stable operations in industrial environments.

Our monitoring and control devices range includes monitoring relays, timing relays, and plug-in relays, providing reliable monitoring, accurate timing, and adaptable control to meet your facility's diverse needs. Each device reflects Siemens' commitment to safety, reliability, and ease of use. With features like easy-to-read LED indicators, flexible mounting options, and compliance with high industry standards, SINOVA monitoring and control devices help you stay ahead of potential issues and maintain seamless operations across applications.

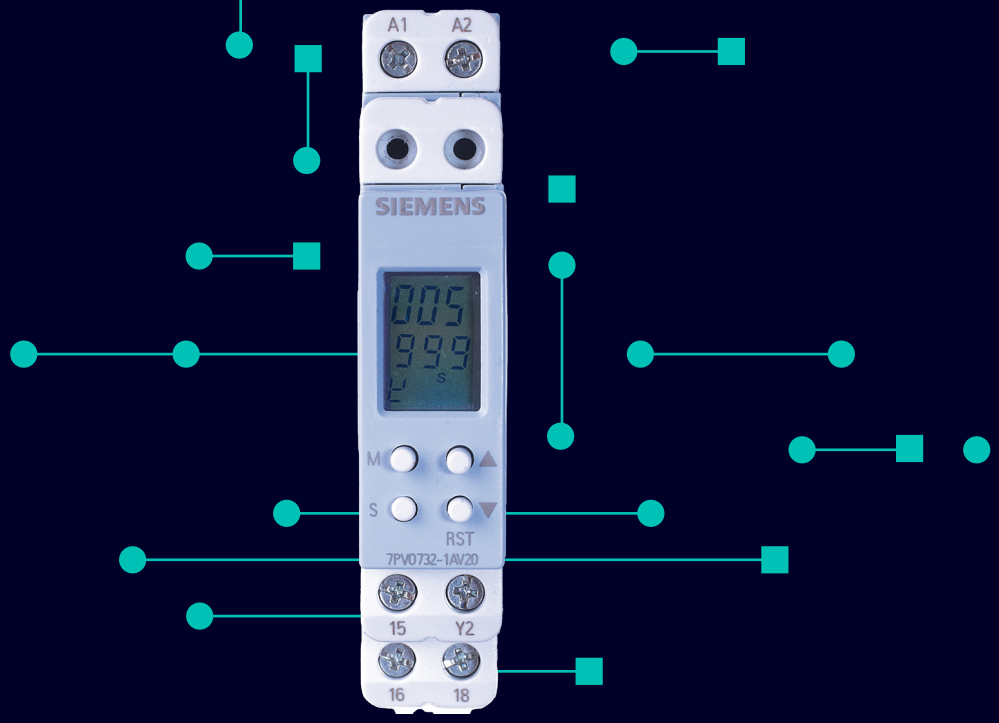
Backed by Siemens quality, these products are engineered for dependable, cost-effective management of your critical systems.

SINOVA The Power of **Simplicity**



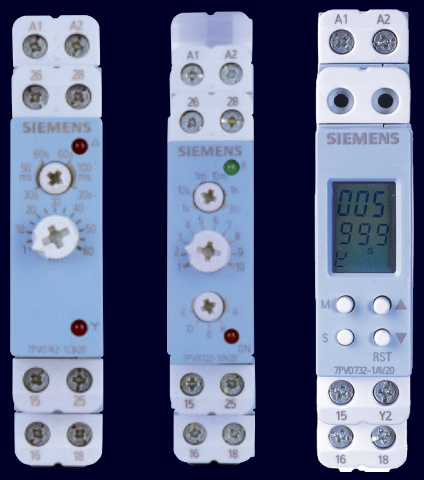
7UG0, 7PV0, and 7RQ monitoring and control devices

SINOVA The Power of **Simplicity**



7PV0
timing relays

SINOVA The Power of **Simplicity**



7PV0 timing relays

Product **highlights**

Easy to use

Clear status visualization with 2 separate LEDs for actuation of control supply and the change over status

Accurate

Our timing relays are highly accurate with a repeat accuracy of <1% and setting accuracy of <5%

Compact

Slim design with a width of 17.5mm

SINOVA The Power of **Simplicity**

Overview

Product range

7PV0 timing relays

ON delay timing relays

Multifunction timing relays (10 functions)

Multifunction timing relays (15 functions)

Technical specifications

7PV0 timing relays

	Parameter	Unit	On delay	Multifunction (10 functions)	Multifunction (15 functions)
			7PV0712-1AD20	7PV0723-1AZ20	7PV0732-1AV20
Main circuit	Rated insulation voltage [U_i]	V AC	300		
	Control voltage (aux. voltage)	V	240V AC	12 - 240V DC 24 - 240V AC	20 - 240V AC/DC
	Impulse test voltage [U_{imp}] (for overvoltage Category II)	kV	2.5		
	Rated frequency	Hz	50/60		
	Pollution degree For PCB For product		2 3		
Response	Setting accuracy	%	±5% of full scale	±5% of full scale	±0.5% of set time
	Repeat accuracy	%	±0.5%	±0.5%	±0.1%
	Recovery time	ms	<100	100	<100
	Power consumption	VA	4VA	3.2VA max	4VA
Endurance	Mechanical endurance operating cycles	mio	10	5	10
	Elect endurance operating cycles AC15:3A @ 250V AC (900 ops./hr)	mio	0.1	0.07	0.1
	Ambient temperature (operational)	°C	0 to 50		
	Ambient temperature (storage)	°C	-20 to +70		
	Relative humidity		25% to 75%		
	Screw tightening torque	Nm	0.6		
	Conductor cross-section (solid)	mm^2	1x (0.75 to 2.5) 2x 0.5 to 2x 1.5	1x (0.75 to 2.5) 2x 0.5 to 2x 1.5	1x (0.75 to 2.5) 2x 0.5 to 2x 1.5
	Conductor cross section fine stranded with end sleeves	mm^2	2x (0.5 to 1.5) 1x (0.5 to 2.5)	2x (0.5 to 1.5) 1x (0.5 to 2.5)	2x (0.5 to 1.5) 1x (0.5 to 2.5)
	Degree of protection of device		IP20		

Technical specifications

7PV0 timing relays

	Parameter	Unit	On delay	Multifunction (10 functions)	Multifunction (15 functions)
			7PV0712-1AD20	7PV0723-1AZ20	7PV0732-1AV20
Timing	Trip time setting	s	0.1 sec to 3 hrs (06 time ranges)	0.1---1s 1---10s 6---60s 1---10min 6---60 min 1---10hr 2---20hr	0.1 sec to 999 hrs
Function	Mode setting		On delay	On delay (A) Delay with totalise (At) Single shot (B) Delay on break (C) Cyclic equal off first (with external contact) (D) Cyclic equal on first (Di) Interval (H) Interval with totalise (Ht) Pulse output (Pe) Interval after break (W)	On delay (A) Interval (B) Asymmetrical cyclic OFF first (C) Asymmetrical cyclic ON first (D) Cyclic equal OFF first (E) Cyclic equal ON first (F) Pulse output (H) Delay on break (J) Delay on make/break (K) Interval after break (L) Single shot (P) Retriggerable single shot (Q) Latching relay (R) Delay on break with totalise (T) Interval with totalise (U)
Output	Max current (I_{th})	mio	5A		
	Contacts @ AC 15, 250V AC	1CO	3A / 250V	3A / 250V	3A / 250V
	Contacts @ AC 12, 250V AC	1CO	5A / 250V	5A / 250V	5A / 250V
	Display		Red LED: Power ON, Green LED: Relay ON	Red LED: Power ON, Green LED: Relay ON	LCD
Dimensions	W x D x H	mm	17.5 x 60 x 90		
	Weight	g	61	68	69
	Mounting		35mm DIN rail		
	Orientation		Any		
Terminal connections	Screw		M3		
	Spring			N/A	
EMC compliance	Immunity tests for industrial environments as per IEC 61812-1				
Certificates	CE		Y		
	Standard compliance		IEC 61812-1		

Selection and ordering data

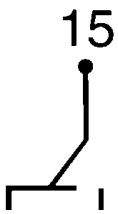
7PV0 timing relays

Type	Description	Contacts	Supply voltage	Width (mm)	Article no.	List price per PU (Per Unit)	Status
ON delay	ON delay, 06 time ranges	1 CO	240V AC	17.5	7PV0712-1AD20		
Multifunction	10 functions, 07 time ranges	1 CO	12 - 240V DC 24 - 240V AC	17.5	7PV0723-1AZ20		
	15 functions, 08 time ranges	1 CO	20 - 240V AC/DC	17.5	7PV0732-1AV20		

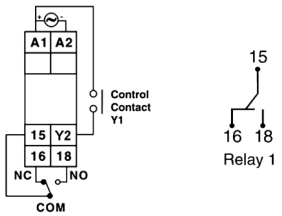
Terminal connections

7PV0 timing relays

7PV0712...



7PV0723.../7PV0732...

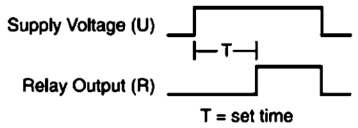


Timing diagram

7PV0 timing relays

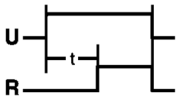
7PV0712...

ON delay

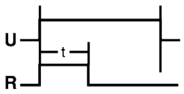


7PV0732 (15 functions)/7PV0723 (10 functions)

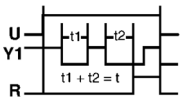
A. ON delay



B/H. Interval

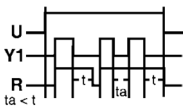


T. Delay on break with totalise At. Delay with toalise

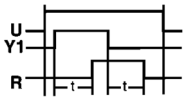


7PV0732 (15 functions)/7PV0723 (10 functions)

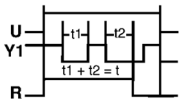
J/C. Delay on break



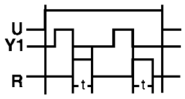
P/B. Single shot



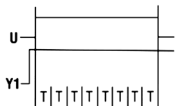
U/Ht. Interval with totalise



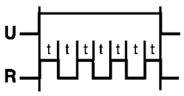
L/W. Interval after break



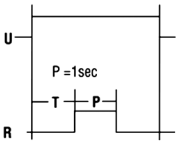
D. Cyclic equal off first (with external contact)



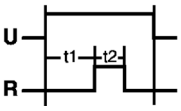
F/Di. Cycle equal (ON 1st)



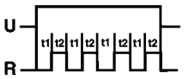
Pe. Pulse output#
P = Pulse time



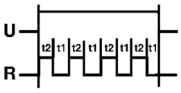
H. Pulse output*



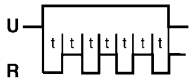
C. Asym. cyclic (OFF 1st)*



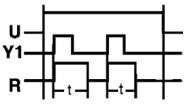
D. Asym. cyclic (ON 1st)*

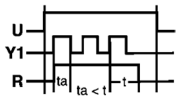


E. Cycle equal (OFF 1st)*

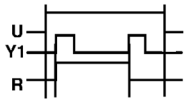


K. Delay on make/break*





R. Latching relay*

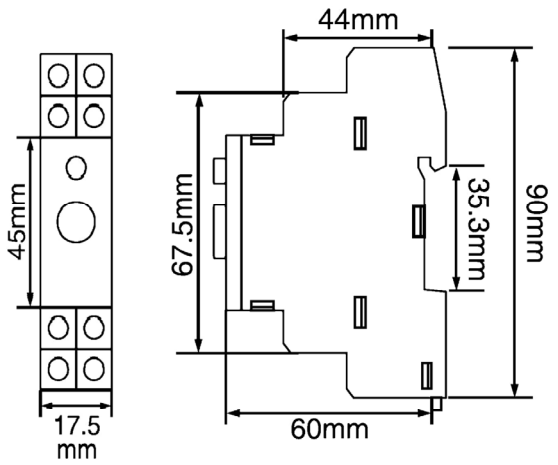


t or T = set time delay
t1 = off time
t2 = on time
# only for 7PV0723
* only for 7PV0732

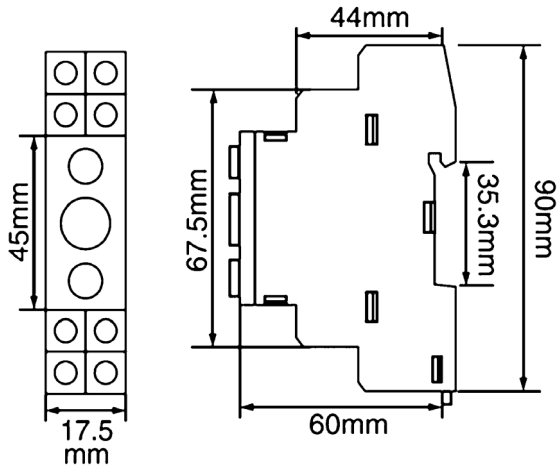
Dimension drawings

7PV0 timing relays

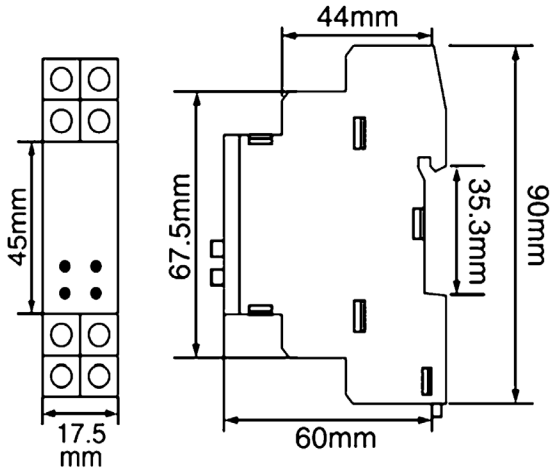
7PV0712...



7PV0723...

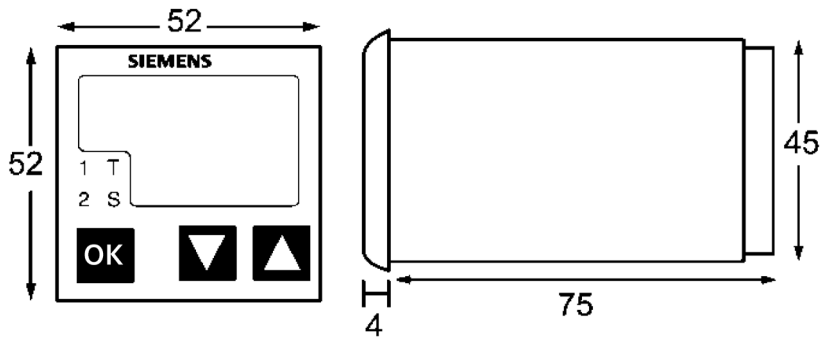


7PV0732...

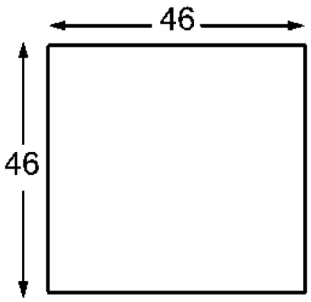


Temperature controller relay

Outline dimensions



Panel cutout



7UG0
monitoring relays

SINOVA The Power of **Simplicity**

7UG0 monitoring relays

Product highlights

Easy to use

Featuring LED status indicators for signaling faults and an LCD display for clear parameter visualization, our monitoring relays are easy to use for better diagnostics.

Reliable

Our 7UG0 monitoring relays enhance system reliability by detecting and signaling any abnormal conditions, helping to prevent equipment breakdowns.

Safe

Provides earth fault protection and protects against undercurrent, overcurrent, current leakage, voltage imbalance, and asymmetry.

SINOVA The Power of **Simplicity**

Overview

Product range

Monitoring relay

Line monitoring relay

Voltage monitoring relay

Current monitoring relay

Earth leakage relay/Earth fault monitoring relay

Thermistor motor protection relay

Water level controller relay

Temperature controller

Overview

Product range

		Relay								
		Line monitoring relay			Voltage monitoring relay	Current monitoring relay		Earth leakage relay	Earth fault monitoring relay	Temperature controller (TC)
	Article no.	7UG0712	7UG0818	7UG0814	7UG0753	7UG082	7UG083	7UG084	7UG086	7UG048
	Ø	3Ø 3W	3Ø 3W / 3Ø 4W	1Ø 2W / 3Ø 3W / 3Ø 4W	3Ø 3W	1Ø 2W	1Ø 2W / 3Ø 3W / 3Ø 4W	1Ø 2W / 3Ø 3W / 3Ø 4W	1Ø 2W / 3Ø 3W / 3Ø 4W	
Features	Phase failure protection	✓	✓	✓	✓					
	Imbalance protection	✓	✓	✓			✓			
	Phase reversal protection	✓	✓	✓	✓					
	Undervoltage protection		✓	✓	✓					
	Overvoltage protection		✓	✓	✓					
	Underfrequency protection		✓	✓						
	Overfrequency protection		✓	✓						
	Neutral loss protection			✓						
	Earth leakage protection							✓		
	Undercurrent protection					✓	✓			
	Overcurrent protection					✓	✓			
	Earth fault								✓	
	Input for TC									TC/RTD

Relay type	Article no.	Sensor type
Thermistor motor protection relay	7UG0881	PTC
Water level controller relay	7UG0885	Conductive sensor probes: Stainless steel

Note: Please refer page 236 for selection and ordering details.

Technical specifications

7UG0 monitoring relays

	Parameter	Unit	Line monitoring relay			Voltage monitoring relay
			7UG0712-1AA20	7UG0818-1CA20	7UG0814-1CA20	7UG0753-1AA20
Main circuit	Rated insulation voltage [U_i]	V AC	480	500		480
	Rated system supply voltage [U_e]	V AC	415			
	Operating band	V/A	154 - 480V (L-L)	280 - 500V AC (L-L)		310 - 480V AC (L-L)
				160 - 300V AC (L-N)		
	Rated control supply (aux. voltage)	V	Built-in			
	Rated impulse withstand voltage [U_{imp}] (for overvoltage Category II)	kV	2.5	4		2.5
	Rated frequency	Hz	50/60			
	Pollution degree For PCB For product		2 3			
Current/ voltage range	Measuring range (RMS value)	V/A	54 - 480V AC	173 - 500V AC (L-L) 100 - 300V AC (L-N)		310 - 480V AC
	Setting range	V/A	Fixed	280 - 500V AC (L-L) 160 - 300V AC (L-N)		310 - 480V AC
Response	Response time maximum	ms	<400	<250	<250	<200
	Recovery time	ms	<400	<250	<250	<300
	Accuracy	%	±3% of FS for time	±5% of setting + 250 ms for time ±1% of setting for voltage ±0.3 Hz of setting for frequency		±5% of FS for time ±1% of FS for voltage
	Power consumption	VA	22	30	50	22
Endurance	Mechanical endurance operating cycles	mio	10			
	Elect endurance operating cycles AC15:3A @ 250V AC (900 ops./hr)	mio	0.1			
Environmental	Ambient temperature (operational)	°C	0 to 50			
	Ambient temperature (storage)	°C	-20 to +70			
	Screw tightening torque	Nm	0.6	0.5	0.5	0.6
	Conductor cross-section (solid)	mm^2	1 x (0.75 to 2.5) 2 x 0.5 to 2 x 1.5			
	Conductor cross-section fine stranded with end sleeve	mm^2	1 x (0.5 to 2.5) 2 x (0.5 to 1.5)			
	Degree of protection of device		IP20			

Technical specifications

7UG0 monitoring relays

	Parameter	Unit	Line monitoring relay			Voltage monitoring relay
			7UG0712-1AA20	7UG0818-1CA20	7UG0814-1CA20	7UG0753-1AA20
Network	Protection (AC network)	1Ø - 2W	-	-	Selectable	-
		3Ø - 3W	✓	Selectable	Selectable	✓
		3Ø - 4W	-	Selectable	Selectable	-
	Phase failure		✓	✓	✓	✓
	Phase reversal		✓	✓	✓	✓
	Phase imbalance/ Current asymmetry	V/A	30V fixed	✓	✓	-
	Neutral loss protection		-	-	✓	-
	Undervoltage/ Undercurrent protection	V/A	-	280 - 500V L-L for 3Ø, 3W 160 - 300V L-N for 3Ø, 4W	160 - 300V L-N for 1Ø, 2W 280 - 500V L-L for 3Ø, 3W 160 - 300V L-N for 3Ø, 4W	310 - 405V
	Overvoltage/ Overcurrent protection	V/A	-	280 - 500V L-L for 3Ø, 3W 160 - 300V L-N for 3Ø, 4W	160 - 300V L-N for 1Ø, 2W 280 - 500V L-L for 3Ø, 3W 160 - 300V L-N for 3Ø, 4W	425 - 480V
	Underfrequency protection	Hz	-	45.0 - 65.0	45.0 - 65.0	-
	Overfrequency protection	Hz	-	45.0 - 65.0	45.0 - 65.0	-
Reset	Auto/Manual/Remote		A	A/M	A/M	A
Delay	Hysteresis	V/A	6V	1 - 99 for V 0.2 - 2 for Hz 2 - 20% for Asymmetry		2V
	Power on delay	s	200ms	2 - 99.9	0 - 999	400ms
	Trip time delay	s	Fixed	0 - 99.9	0 - 999	0.2 - 10
	Recovery time setting	s	-	0 - 99.9	0 - 999	-
Output	Output contacts (CO)		1CO	1CO+ 1CO	1CO+ 1CO	1CO
	Max current (I_{th})	A	5A			
	Contacts @ AC 15, 250V AC	A	3A / 250V			
	Contacts @ AC 12, 250V AC	A	5A / 250V			
	Terminal connections		Screw			
	Display		Green LED on: Power ON Green LED off: Fault indication	"ON" LED: Power ON "R1" LED: Fault in Relay 1 "R2" LED: Fault in Relay 2 LCD: Parameters & fault type		Green LED on: Relay ON Red LED on: Power ON
Dimensions	Width	mm	17.5	35	35	17.5
	Depth	mm	60	70.5	70.5	60
	Height	mm	90	90	90	90
	Weight	g	62	135	135	62
	Mounting		35mm DIN rail			
	Orientation		Any			
Certificates	Approbation		CE			
	Standard compliance		IEC 60947-5-1			

Technical specifications

7UG0 monitoring relays

	Parameter	Unit	Current monitoring relay	Earth leakage monitoring relay	Earth fault monitoring relay
			7UG0821-1AB20 7UG0822-1AD20 7UG0831-1AB20 7UG0832-1AD20	7UG0841-1CB20 7UG0842-1CD20	7UG0861-1BU20
Main circuit	Rated insulation voltage [U_i]	V AC	300		
	Rated system supply voltage [U_e]	V AC	230/240 for 7UG082... 415 for 7UG083...	-	-
	Operating band	V/A	1A - 999A AC (with external CT)	10mA - 30A	10% - 80% of CBCT current
	Rated control supply (aux. voltage)	V	110/230V AC ±15%	110/230V AC +/- 15%	85 - 270V AC/DC
	Rated impulse withstand voltage [U_{imp}] (for overvoltage Category II)	kV	2.5	2.5	2.5
	Rated frequency	Hz	50/60		
	Pollution Degree For PCB For Product		2 3		
Current/ voltage range	Measuring range (RMS value)	V/A	0 -1.19 kA	4mA - 30A	1A - 630A
	Setting range	V/A	Pri: 1A - 999A Sec: 1A/5A	10mA - 30A	CT Primary: 160A, 250A, 630A and trip setting (earth fault) 10% - 80% of rated current
Response	Response time maximum	ms	<200ms	<30ms for >/- 5x set value <50ms for >/- 1x set value	<100
	Recovery time	ms	<= 300ms (on removal of fault)	0 - 99.9 sec (settable)	0 - 99.9 sec (in auto reset mode)
	Accuracy	%	Current: ±1% of setting ±2 digit Time: ±5% of setting + 200ms	Current: ±5% of setting Time: ±5% of setting + 100ms	Current: ± 5% of setting + 2 digits Time: ± (5% of setting + 100ms)
	Power consumption	VA	15	3	4
Endurance	Mechanical endurance operating cycles	mio	10		
	Elect endurance operating cycles AC15:3A @ 250V AC (900 ops./hr)	mio	0.1		
Environmental	Ambient temperature (operational)	°C	0 to 50		
	Ambient temperature (storage)	°C	-20 to +70		
	Screw tightening torque	Nm	0.5		
	Conductor cross-section (solid)	mm^2	1 x (0.75 to 2.5) 2 x 0.5 to 2 x 1.5		
	Conductor cross-section fine stranded with end sleeve	mm^2	1 x (0.5 to 2.5) 2 x 0.5 to 2 x 1.5		
	Degree of protection of device		IP20		

Technical specifications

7UG0 monitoring relays

	Parameter	Unit	Current monitoring relay	Earth leakage monitoring relay	Earth fault monitoring relay
			7UG0821-1AB20 7UG0822-1AD20 7UG0831-1AB20 7UG0832-1AD20	7UG0841-1CB20 7UG0842-1CD20	7UG0861-1BU20
Network	Protection (AC network)	1Ø - 2W	✓	✓	✓
		3Ø - 3W	✓ (for 7UG083...)	✓	✓
		3Ø - 4W	✓ (for 7UG083...)	✓	✓
	Pre-warning	A	-	Yes (50 - 100%)	Yes (50 - 100%)
	CBCT error	A	-	✓	-
	Earth leakage/Fault trip setting	A	-	10mA - 30A	10% to 80% of FLC
	Phase failure		-	-	-
	Phase reversal		-	-	-
	Phase imbalance/ Current asymmetry	V/A	✓ (for 7UG083...)	-	-
	Undervoltage/ Undercurrent protection	V/A	0 - 999A	-	-
	Overvoltage/ Overcurrent protection	V/A	0.5A - 1.19KA	-	-
Reset	Auto/Manual/Remote		A/M	A/M/R	A/M/R
Delay	Hysteresis	V/A	0.1 - 99.9A	5 - 40% of set value	1 to 10% of fault current setting
	Power on delay	s	0.5 - 99.9s	0.5 - 99.9s	0.5 - 99.9s
	Trip time delay	s	0 - 99.9s	0 - 99.9s	0 - 99.9s
	Recovery time setting	s	0 - 99.9s	0 - 99.9s	0 - 99.9s
Output	Output contacts (CO)		1CO	1CO+ 1CO	2CO
	Max current (I_{th})	A	5A		
	Contacts @ AC 15, 250V AC	A	3A / 250V		
	Contacts @ AC 12, 250V AC	A	5A / 250V		
	Terminal connections		Screw		
	Display		"ON" LED : Power ON "R1" LED: Fault in relay LCD: Parameters & fault type	"ON" LED : Power ON "R1" LED: Fault in Relay 1 "R2" LED: Fault in Relay 2 LCD: Parameters & fault type	"ON" LED : Power ON "R1" LED: Fault in Relay 1 "R2" LED: Fault in Relay 2 LCD: Parameters & fault type
Dimensions	Width	mm	35	35	35
	Depth	mm	71	70.5	70.5
	Height	mm	90	90	90
	Weight	g	135	207	207
	Mounting		35mm DIN rail		
	Orientation		Any		
Accessories			Additional requirement: External CT, Class 0.5: 1A/5A secondary	CBCT	CBCT
Certificates	Approbation		CE		
	Standard compliance		IEC 60947-5-1		

Technical specifications

7UG0 monitoring relays

	Parameter	Unit	Temperature controller relay
			7UG0480-1IU20
Main circuit	Rated insulation voltage [U_i]	U_i (V) AC	300
	Rated control supply (aux. voltage)	V	85 - 270 AC/DC
	Rated impulse withstand voltage [U_{imp}]	kV	2.5
	Rated frequency	Hz	50/60
	Power consumption @ 230V AC	VA	Max. 6
	Humidity	RH	Up to 95% RH (non-condensing)
	Pollution degree For PCB For product		 2 3
Input specifications	Sensor inputs		Thermocouple (J,K,T,R,S) / RTD (PT100)
	Filter time	s	0.2 to 10s
	Sensor resolution	°C	0.1/1°C for TC / RTD input (fixed 1°C for R,S type TC input)
	Temperature indication		°C / °F selectable
	Display accuracy		For J, K, T inputs: ±(2% of setting + 1°) For R, S inputs: ±(2% of setting + 2°) (20 min of warm-up time for TC inputs) For RTD inputs: ±(2% of setting + 1°)
Functions specification	Control method		1) PID control with auto or self tuning 2) ON - OFF control 3) Heat - Cool with auto tuning
	Propositional band	°C	1.0 to 400.0
	Integral time (I)	s	0 to 9999
	Derivative time (D)	s	0 to 9999
	Cyclic time	s	0.1 to 99.9
	Hysteresis width	°C	0.1° to 99.9°
	Manual reset value	°C	-19.9° to 19.9°
	Heat cool PID		Control action: PID (with auto-tuning) Propostional cool band (P): 0.0° to 400° Cyclic cool time: 0.1 to 99.9s Dead band: Programmable from set point low limit to high limit Derivative time (D): 0 to 9999s
Endurance	Mechanical endurance operating cycles	mio	4

Technical specifications

7UG0 monitoring relays

	Parameter	Unit	Temperature controller relay
			7UG0480-1IU20
Endurance	Elect endurance operating cycles AC15 @ 250V AC (900 ops./hr)	mio	0'05
	Ambient temperature (operational)	°C	0 to 50
	Ambient temperature (storage)	°C	-20 to +70
	Screw tightening torque	Nm	0.5
	Conductor cross-section (solid)	mm^2	1x (0.75 to 2.5) 2x 0.5 to 2x 1.5
	Conductor cross-section fine stranded with end sleeve	mm^2	1x (0.5 to 2.5) 2x (0.5 to 1.5)
	Degree of protection of device		IP20 (front)
Output	No. of control		Max. 2
	Max current (I_{th})		5A
	Relay contact @ AC 15, 250V AC	2x 1NO	2A / 250V
	Relay contact @ AC 12, 250V AC	2x 1NO	5A / 250V
	Digital output for external SSR		12V DC ± 50mA
	Output selection		User-selectable relay or SSR
	SCPD for relay output (for short circuit current of 1kA as per IEC 60947-5-1)		6A, gL, HRC fuse
	Display		4 digit, 7 segment LED
Terminal connections	Screw		Y (M3.5)
	Spring		No
Dimensions	Width	mm	52
	Depth	mm	79
	Height	mm	52
	Weight	g	135
	Mounting		Panel mountable
Accessories	Sensors		N
Certificates	CE		Y
	Standard compliance		IEC 60947-5-1

Technical specifications

7UG0 monitoring relays

	Parameter	Unit	Thermistor motor protection relay
			7UG0881-1BU20
Main circuit	Rated insulation voltage [U_i]	V AC	300
	Rated control supply (aux. voltage)	V	110 - 240 AC/DC
	Tolerance on control supply		0.85x U_c - 1.1x U_c
	Rated impulse withstand voltage [U_{imp}] (for overvoltage Category II)	kV	2.5
	Rated frequency	Hz	50/60
	Humidity (non-condensing)	% RH	95
	Pollution degree For PCB For product		 2 3
	Max. power consumption	VA	3
	Ambient temperature (operational)	°C	0 to 50
	Ambient temperature (storage)	°C	-20 to +70
	Degree of protection of device		IP20
Function	Types/Modes		Sensor - PTC's
	Modes/Operating range/Features		Sensor short: ≤ 40 Sensor healthy: ≥ 44 (±3) to < 3.8K (±150) Sensor trip: ≥ 3.8K (±150) to < 5.5K (±150) Sensor open: ≥ 5.5K (±150) & above Sensor recovery/Cut-in/Reset: ≤ 1.5K (±60)
Response & delays	Response time	ms	<100
	Recovery time		Instantaneous after cooling (for Auto mode)
	Accuracy		As defined above
	Hysteresis		As defined above
	Power on delay	s	<3
	Trip time delay	s	Instantaneous
Indications	Over temperature		Yes
	Sensor detection		Yes (Healthy/Trip/Open/Short)
	Display		LED for Power ON, Sensor and Relay indication
	Reset		Auto/Manual/Remote

Technical specifications

7UG0 monitoring relays

	Parameter	Unit	Thermistor motor protection relay
			7UG0881-1BU20
Output	Contact configuration		2CO
	Mechanical life (operating cycle)	mio	5
	Electrical life (operating cycle) (AC15: 250V/2A @ 900 ops./hr)	mio	0.07
	Max. current (I_{th})	A	5
	Contact @ AC 15, 250V AC	A	2
	Contact @ AC 12, 250V AC	A	5
	SCPD	A	6A gG HRC Fuse
Terminal connections	Screw tightening torque	Nm	0.5
	Conductor cross section (solid)	mm^2	1x (0.75 to 2.5) 2x 0.5 to 2x 1.5
	Conductor cross section (stranded with end sleeve)	mm^2	1x (0.5 to 2.5) 2x (0.5 to 1.5)
	Screw		M3
Dimensions	Width	mm	35
	Depth	mm	60
	Height	mm	90
	Net weight	g	110
	Mounting		35mm DIN rail
	Orientation		Any
	Accessories (in packing)		N/A
Markings & standards	CE & RoHS		Yes
	Standard compliance		IEC 60947-5-1

Technical specifications

7UG0 monitoring relays

	Parameter	Unit	Water level controller relay
			7UG0885-1JU20
Main circuit	Rated insulation voltage [U_i]	V AC	300
	Rated control supply (aux. voltage) U_c	V	110 - 240 AC/DC
	Tolerance on control supply		0.85x U_c - 1.1x U_c
	Rated impulse withstand voltage [U_{imp}] (for overvoltage Category II)	kV	2.5
	Rated frequency	Hz	50/60
	Humidity (non-condensing)	% RH	95
	Pollution degree For PCB For product		 2 3
	Max. power consumption	VA	3
	Ambient temperature (operational)	°C	0 to 50 (for controller and sensor)
	Ambient temperature (storage)	°C	-20 to +70 (for controller and sensor)
	Degree of protection of device		IP20 (control unit)
Function	Types/Modes		Delivery, suction & dual tank mode (suitable for 3x/6x sensor input)
	Features		• Auto liquid sensitivity adjustment from (0 - 500k) ohms • Water level detection and indication • Pump protection from dry run and overflow condition • Manual start: If lower tank (suction) water level is higher than low level & upper tank (delivery) water level is below high level then by pressing 'START' key, motor can be switched ON manually • Alarm: Alarm function for single tank mode (low level detection in case of suction mode & high level detection in case of delivery mode; no alarm when in dual tank mode)
Response & delays	Response time	ms	<100
	Recovery time		Instantaneous (when liquid is below bottom level sensor)
	Power on delay	s	<3
	Trip time delay	s	2 (fixed)
	Indications (LED)		4 numbers
	Mode selection/Liquid level detection		• 1 LED for suction & 1 LED for delivery • LED steady: all sensors in conduction • LED slow blinking: reference & intermediate sensor immersed • LED fast blinking: only reference sensor is immersed
	Power ON/Module health		1 LED
	Relay output		1 LED
	Reset		Auto/Manual

Technical specifications

7UG0 monitoring relays

	Parameter	Unit	Water level controller relay
			7UG0885-1JU20
Output	Mechanical life (operating cycle)	mio	5
	Electrical life (operating cycle) (AC15: 250V/2A @ 900 ops./hr)	mio	0.05
	Contact configuration		1NO for pump control + 1NO for alarm in single tank mode
	Max. current (I_{th})	A	5
	Contact @ AC 15, 250V AC	A	2
	Contact @ AC 12, 250V AC	A	5
	SCPD	A	6A gG HRC Fuse
Terminal connections	Screw tightening torque	Nm	0.5
	Conductor cross-section (solid)	mm^2	1x (0.75 to 2.5) 2x 0.5 to 2x 1.5
	Conductor cross-section (stranded with end sleeve)	mm^2	1x (0.5 to 2.5) 2x (0.5 to 1.5)
	Screw		M3
Dimensions	Width	mm	35
	Depth	mm	60
	Height	mm	90
	Net weight	g	110 (1x control unit) 22 (1x sensor)
	Mounting		35mm DIN rail
	Orientation		Any
Sensor information (accessory)	Compatible sensor type		7UG0985-0YY00
	Sensor details		Conductive sensor probes: stainless steel
	Sensor voltage & current		5V, 50Hz, < 500µA
	Packing (in separate packing)		3 in 1 packing
Markings & standards	CE & RoHS		Yes
	Standard compliance		IEC 60947-5-1

Selection & ordering data

7UG0 monitoring relays

Type	Description	Contacts	Supply voltage	Width (mm)	Article no.	List price per PU (Per Unit)	Status
Line monitoring relay	Line monitoring relay, 3Ø - 3W	1 CO	Self powered	17.5	7UG0712-1AA20		
	Digital line monitoring relay, 3Ø - 3W, 3Ø - 4W Neutral loss	2x 1 CO	Self powered	35	7UG0814-1CA20		
	Digital line monitoring relay, 3Ø - 3W, 3Ø - 4W	2x 1 CO	Self powered	35	7UG0818-1CA20		
Voltage monitoring relay	Voltage monitoring relay, 3Ø - 3W	1 CO	Self powered	17.5	7UG0753-1AA20		
Current monitoring relay	Digital current monitoring, 1Ø - 2W	1 CO	110V AC	35	7UG0821-1AB20		
	Digital current monitoring, 1Ø - 2W	1 CO	230V AC	35	7UG0822-1AD20		
	Digital current monitoring, 1Ø - 2W, 3Ø - 3W, 3Ø - 4W	1 CO	110V AC	35	7UG0831-1AB20		
	Digital current monitoring, 1Ø - 2W, 3Ø - 3W, 3Ø - 4W	1 CO	230V AC	35	7UG0832-1AD20		
Earth leakage relay	Digital earth leakage monitoring, 1Ø - 2W, 3Ø - 3W, 3Ø - 4W	2x 1 CO	110V AC	35	7UG0841-1CB20		
	Digital earth leakage monitoring, 1Ø - 2W, 3Ø - 3W, 3Ø - 4W	2x 1 CO	230V AC	35	7UG0842-1CD20		
CBCT for earth leakage relay	Core balance CT 35mm				7UG0996		
	Core balance CT 70mm				7UG0997		
	Core balance CT 120mm				7UG0999		
	Core balance CT 210mm				7UG0994		
	Core balance CT 310mm				7UG0995		
Temperature controlling relay	Temperature controller with PID/ON-OFF Control suitable for TC/RTD inputs	2 NO + SSR output	85 - 270V AC/DC	48	7UG0480-1IU20		

Selection & ordering data

7UG0 monitoring relays

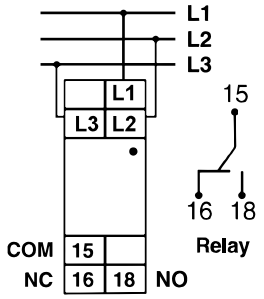
Type	Description	Contacts	Supply voltage	Width (mm)	Article no.	List price per PU (Per Unit)	Status
Earth fault monitoring relay	Digital earth fault monitoring relay 1Ø - 2W, 3Ø - 3W, 3Ø - 4W	2x 1 CO	85 - 270V AC/DC	35	7UG0861-1BU20		
CBCT for earth fault monitoring relay*	Core balance CT 160A	3P			7UG09910		
		4P			7UG09911		
	Core balance CT 250A	3P			7UG09912		
		4P			7UG09913		
	Core balance CT 630A	3P			7UG09914		
		4P			7UG09915		
Thermistor motor protection relay	Thermistor motor protection relay for PTC type thermistor	2x 1 CO	110 - 240V AC/DC	35	7UG0881-1BU20		
Water level controller relay	Water level controller relay	2x 1 NO	110 - 240V AC/DC	35	7UG0885-1JU20		
Sensor for water level controller relay	Conductive sensor probe set of 3 probes				7UG0985-0YY00		

*CBCT for earth fault monitoring relay will be rectangular in dimension

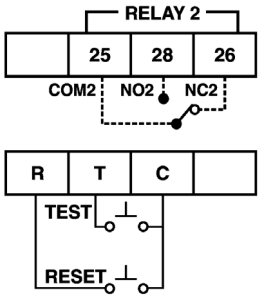
Terminal connections

7UG0 monitoring relays

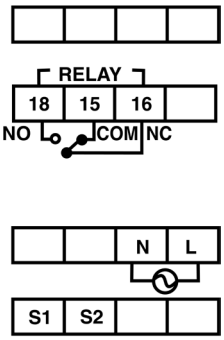
7UG071, 7UG075...



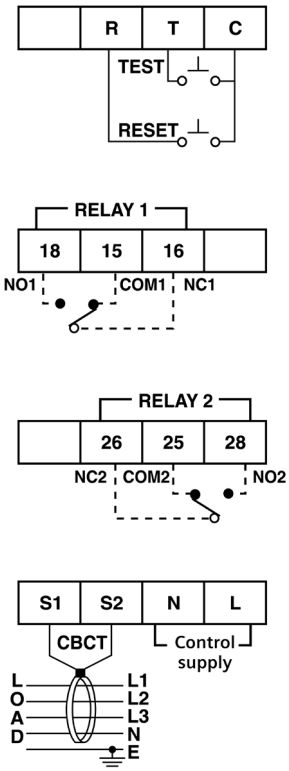
7UG084...



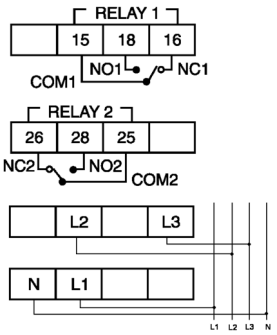
7UG082...



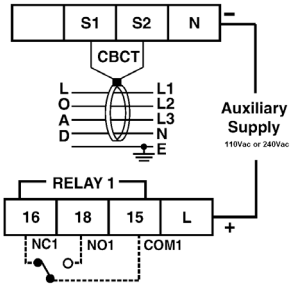
7UG086...

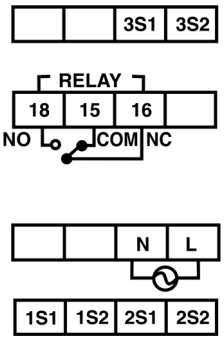


7UG0818...

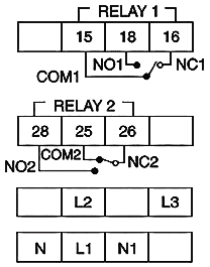


7UG083...



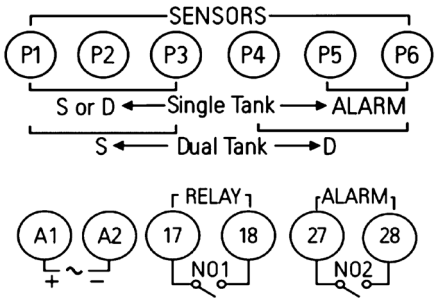


7UG0814...

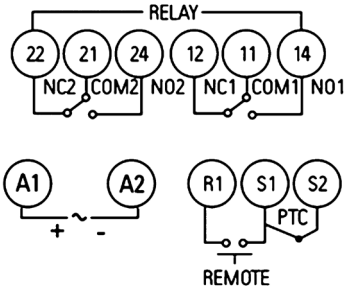


For 3P4W network use L1-L2-L3-N terminals.
For 1P2W network use L1-N1 terminals.

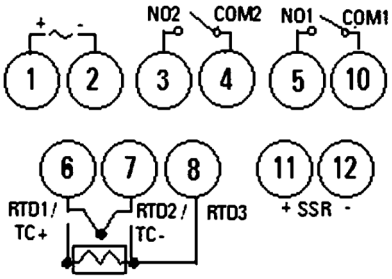
7UG0885...



7UG0881...



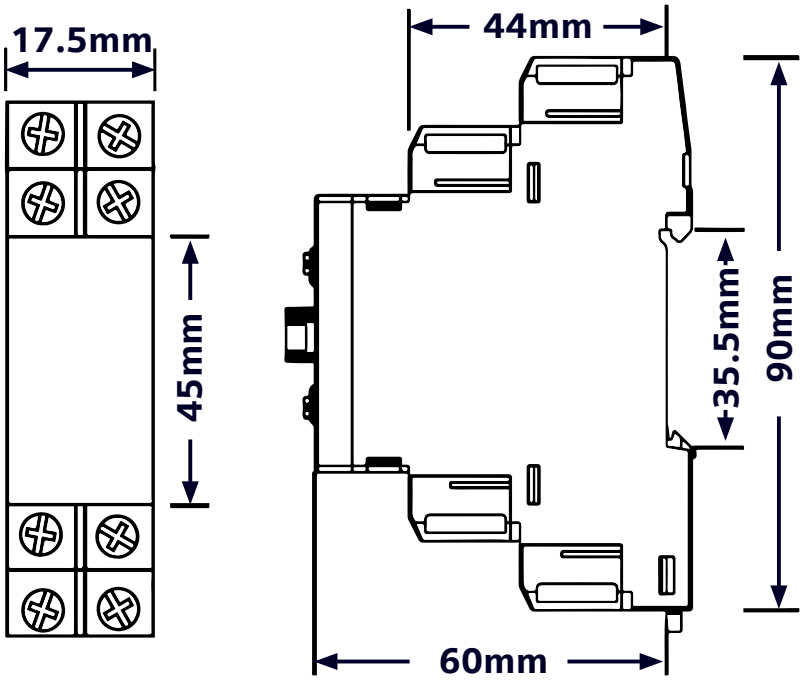
7UG048...



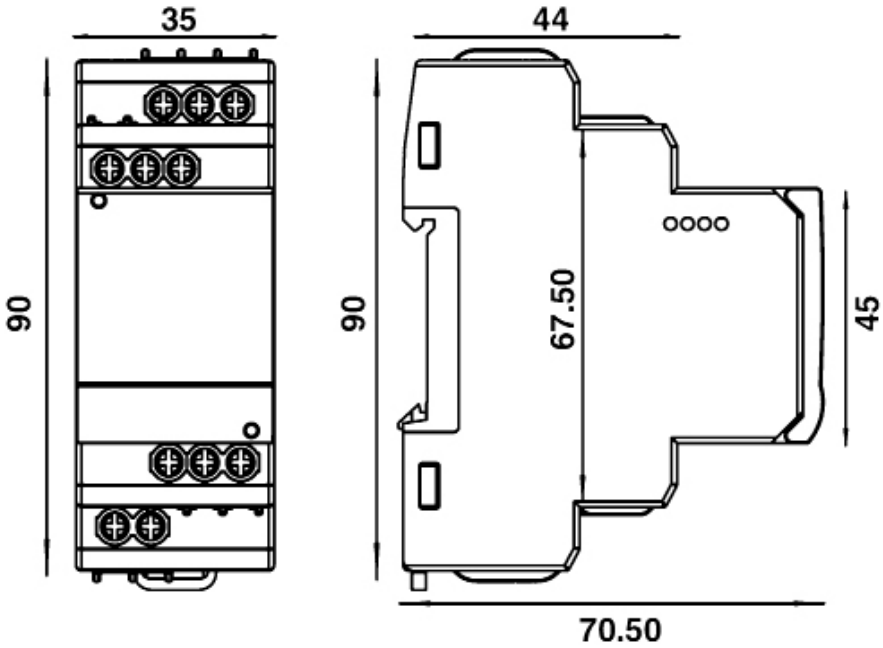
Dimension drawings

7UG0 monitoring relays

7UG07...



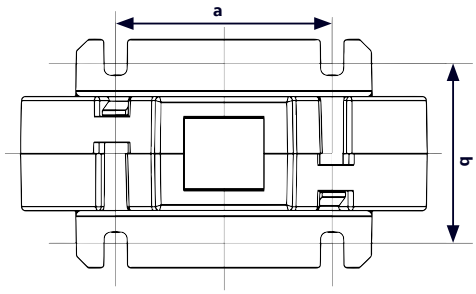
7UG08...



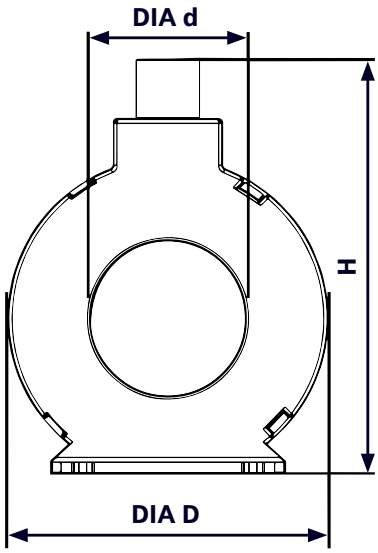
Dimension drawings

7UG0 monitoring relays

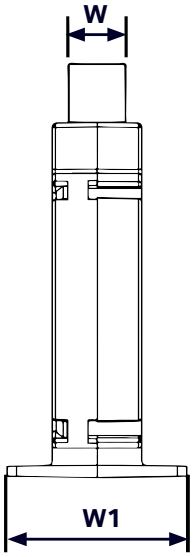
7UG09...(ELR CBCT)



Top view



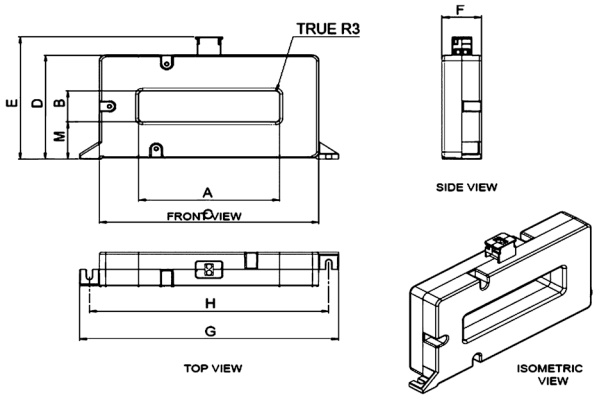
Front view



Side view

CBCT Type	Dimensions (mm)						
	D	d	H	W	W1	a	b
7UG0996	70	35	96	15	40	38	31.5
7UG0997	107	70	131	15	40	38	31.5
7UG0999	157	120	184	15	40	38	31.5
7UG0994	268	210	270	25	55	120	39.6
7UG0995	377	310	380	25	65	200	39.6
STD.TOL.	2 - 3	5 - 6	-	1.5 - 2	-	-	-

7UG09...(EFR CBCT)



Product	Dimensions (mm)								
	A	B	C	D	E	F	G	H	M
7UG09910	100	25	156	84	100	28	184	170	30
7UG09911	140	35	201	98	114	28	230	215	32
7UG09912									
7UG09913	180	35	236	93	109	28	264	250	30
7UG09914									
7UG09915	220	50	276	112	128	28	305	290	32

7RQ
plug-in relays

SINOVA The Power of **Simplicity**

7RQ plug-in relays

Product **highlights**

Easy to use

Compatible with both DIN rail and PCB mounting options for easy installation.

Comprehensive

Wide range of contacts and voltage options for AC and DC systems. Suitable for various applications.

Reliable

Mechanical and LED indicators provide accurate status visibility.

SINOVA The Power of **Simplicity**

Overview

Product range

Relay	No. of contacts	Rating	Available voltages	Socket types	
				DIN rail	PCB
	1 CO	6A	AC: 12, 24, 48, 110, 115, 230 DC: 6, 12, 24, 48, 110		
	2 CO	6A 10A			
	3 CO	10A			
	4 CO	5A			

Technical specifications

7RQ plug-in relays

Technical data			1 CO	2 CO		3 CO	4 CO
	Type		7RQ0100-0A...	7RQ0100-0B...	7RQ0110-0B...	7RQ0100-0C...	7RQ0100-0D...
Dimensions	Width	mm	12.5	12.5	21	35	21
	Depth	mm	36	36	38.5	50.8	38.5
	Height	mm	31	31	28	35	28
	Weight	g	21	21	43	80	43
	Orientation		Any				
General	Rated insulation voltage [U_i] (pollution degree 3)	U_i (V) AC	250				
	Rated control supply voltage [U_c]	U_c (V)	AC: 6V, 12V, 24V, 48V, 110V, 115V, 230V DC: 6V, 12V, 24V, 48V, 110V				
	Overvoltage category		II				
	Impulse withstand voltage [U_{imp}]	kV	2.5				
	Rated frequency	Hz	50/60				
	Control voltage tolerance		≥0.8 x U_c ------- ≤1.1 x U_c				
	Power consumption for coil	AC, VA	1.1	1.1	1.2	1.6	1.2
		DC, W	0.7	0.7	1	1.3	1
	Dielectric strength - Between contacts and coil	kV	3				
	IP protection	Relay	IP40				
		Base	IP20				
	Type of insulation		Double	Basic	Double		Basic
	Mounting distance (side by side)	mm	1.5	2.5	2.5	4.0	4.0
	Categories of environmental protection (RT)		RT1				
	Operation temperature	DC	-40°C to 70°C				
		AC	-40°C to 55°C				
Time	Operate time + bounce time	ms	10.00	10.00	16.00	17.00	10.00
	Release time + bounce time	ms	8.00	8.00	8.00	28.00	6.00
Life	Mechanical	OPS.	For DC coil: 20 millions For AC coil: 10 millions	For DC coil: 20 millions For AC coil: 10 millions	For DC coil: 20 millions For AC coil: 10 millions	For DC coil: 20 millions For AC coil: 10 millions	For DC coil: 20 millions For AC coil: 10 millions
	Electrical	OPS.	0.1 millions				
	Operating frequency at nominal load	Op/hr	360				

Technical specifications

7RQ plug-in relays

Technical data			1 CO	2 CO		3 CO	4 CO
	Type		**7RQ0100-0A...**	**7RQ0100-0B...**	**7RQ0110-0B...**	**7RQ0100-0C...**	**7RQ0100-0D...**
Contact load side	Material		AgNi				
	Conventional thermal current I_{th} @ 40°C*	A	6	6	10	10	5
	Resistive load (IEC 61810-1)	A	6A at 250V AC 6A at 30V DC	6A at 250V AC 6A at 30V DC	10A at 250V AC 10A at 30V DC	10A at 250V AC 10A at 30V DC	5A at 250V AC 5A at 30V DC
	Inductive load (IEC 61810-1)		2A at 250V AC (cosφ = 0.4) 3A at 30V DC (L/R = 7 ms)	2A at 250V AC (cosφ = 0.4) 3A at 30V DC (L/R = 7 ms)	7.5A at 250V AC (cosφ = 0.4) 5A at 30V DC (L/R = 7 ms)	7.5A at 250V AC (cosφ = 0.4) 5A at 30V DC (L/R = 7 ms)	2A at 250V AC (cosφ = 0.4) 3A at 30V DC (L/R = 7 ms)
	AC15		2A at 250V AC		7.5A at 250V AC		2A at 250V AC
	Type of interruption		Micro-disconnection				
	Short circuit current with fuse: 1kA with gG fuse link	A	6	6	10	10	6
	Terminal connections		Screw				
Certificates	Standard and approbations		CE				
			IEC 61810-1				

Mounting sockets

Technical data			1 CO	2 CO		3 CO	4 CO
	Article number		**7RQ0201-1AX00**	**7RQ0201-1BX00**	**7RQ0211-1BX00**	**7RQ0201-1CX00**	**7RQ0201-1DX00**
DIN rail mounting socket	Width	mm	15.2	16	28.7	38	28.7
	Depth	mm	35	49	30.5	28.2	30.5
	Height	mm	67	78	68	59	68
	Weight	g	24	38	61	47	61
	Maximum screw torque	Nm	0.6				
	Screw dimensions	mm	M3				
	Conductor cross section (solid)	mm^2	2 x (0.5 to 1.5)	2 x (0.5 to 1.5)	2 x (0.5 to 1.5)	2 x (0.5 to 1.5)	2 x (0.5 to 1.5)
	Conductor cross section sleeved (stranded)	mm^2	2 x (0.5 to 1.5)	2 x (0.5 to 1.5)	2 x (0.5 to 1.5)	2 x (0.5 to 1.5)	2 x (0.5 to 1.5)
	Article number		**7RQ0202-1AX00**	**7RQ0202-1BX00**	**7RQ0212-1BX00**	**-**	**7RQ0202-1DX00**
PCB mounting socket	Width	mm	15	15	22	-	22
	Depth	mm	15	15	11	-	11
	Height	mm	36	36	30	-	30
	Weight	g	6	6	8	-	8

Note: * Current derating above 40°C, contact Siemens team for more details.

Selection & ordering data

7RQ plug-in relays and mounting sockets

Type	Standard features	Control supply voltage (V)		Article no.	List price per PU (Per Unit)	Status
 1 CO, 6A 5 pin	• Mechanical flag • LED indicator across coil • Freewheeling diode	DC	6	7RQ0100-0AA00		
			12	7RQ0100-0AB00		
			24	7RQ0100-0AC00		
			48	7RQ0100-0AD00		
			110	7RQ0100-0AE00		
	• Mechanical flag • LED indicator across coil	AC	6	7RQ0100-0AK10		
			12	7RQ0100-0AL10		
			24	7RQ0100-0AM10		
			48	7RQ0100-0AN10		
			110	7RQ0100-0AP10		
			115	7RQ0100-0AQ10		
			230	7RQ0100-0AR10		

Socket	Standard features	Article no.	List price per PU (Per Unit)	Status
 1 CO, 10A	PCB mounting	7RQ0202-1AX00		
 1 CO, 10A	DIN rail mounting	7RQ0201-1AX00		

Type	Standard features	Control supply voltage (V)		Article no.	List price per PU (Per Unit)	Status
 2 CO, 6A 8 pin	• Mechanical flag • LED indicator across coil • Freewheeling diode	DC	6	7RQ0100-0BA00		
			12	7RQ0100-0BB00		
			24	7RQ0100-0BC00		
			48	7RQ0100-0BD00		
			110	7RQ0100-0BE00		
	• Mechanical flag • LED indicator across coil	AC	6	7RQ0100-0BK10		
			12	7RQ0100-0BL10		
			24	7RQ0100-0BM10		
			48	7RQ0100-0BN10		
			110	7RQ0100-0BP10		
			115	7RQ0100-0BQ10		
			230	7RQ0100-0BR10		

Socket	Standard features	Article no.	List price per PU (Per Unit)	Status
 2 CO, 6A	PCB mounting	7RQ0202-1BX00		
 2 CO, 6A	DIN rail mounting	7RQ0201-1BX00		

Selection & ordering data

7RQ plug-in relays and mounting sockets

Type	Standard features	Control supply voltage (V)		Article no.	List price per PU (Per Unit)	Status
 2 CO, 10A 8 pin	• LED indicator across coil	DC	6	7RQ0110-0BA00		
			12	7RQ0110-0BB00		
			24	7RQ0110-0BC00		
			48	7RQ0110-0BD00		
			110	7RQ0110-0BE00		
		AC	6	7RQ0110-0BK00		
			12	7RQ0110-0BL00		
			24	7RQ0110-0BM00		
			48	7RQ0110-0BN00		
			110	7RQ0110-0BP00		
			115	7RQ0110-0BQ00		
			230	7RQ0110-0BR00		

Socket	Standard features	Article no.	List price per PU (Per Unit)	Status
 2 CO, 10A	PCB mounting	7RQ0212-1BX00		
 2 CO, 10A	DIN rail mounting	7RQ0211-1BX00		

Type	Standard features	Control supply voltage (V)		Article no.	List price per PU (Per Unit)	Status
 3 CO, 10A 11 pin	• LED indicator across coil	DC	6	7RQ0100-0CA00		
			12	7RQ0100-0CB00		
			24	7RQ0100-0CC00		
			48	7RQ0100-0CD00		
			110	7RQ0100-0CE00		
		AC	6	7RQ0100-0CK00		
			12	7RQ0100-0CL00		
			24	7RQ0100-0CM00		
			48	7RQ0100-0CN00		
			110	7RQ0100-0CP00		
			115	7RQ0100-0CQ00		
			230	7RQ0100-0CR00		

Socket	Standard features	Article no.	List price per PU (Per Unit)	Status
 3 CO, 10A	DIN rail mounting	7RQ0201-1CX00		

Selection & ordering data

7RQ plug-in relays and mounting sockets

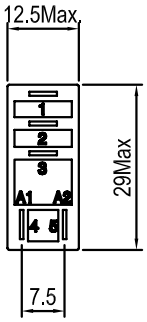
Type		Standard features	Control supply voltage (V)		Article no.	List price per PU (Per Unit)	Status
	4 CO, 5A 14 pin	• LED indicator across coil	DC	6	7RQ0100-0DA0		
				12	7RQ0100-0DB00		
				24	7RQ0100-0DC00		
				48	7RQ0100-0DD00		
				110	7RQ0100-0DE00		
			AC	6	7RQ0100-0DK00		
				12	7RQ0100-0DL00		
				24	7RQ0100-0DM00		
				48	7RQ0100-0DN00		
				110	7RQ0100-0DP00		
				115	7RQ0100-0DQ00		
				230	7RQ0100-0DR00		

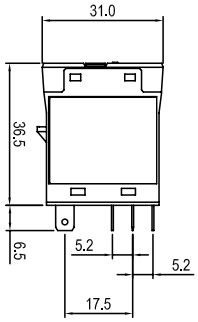
Socket		Standard features	Article no.	List price per PU (Per Unit)	Status
	4 CO, 7A	PCB mounting	7RQ0202-1DX00		
		DIN rail mounting	7RQ0201-1DX00		

Dimension drawings & terminal connections

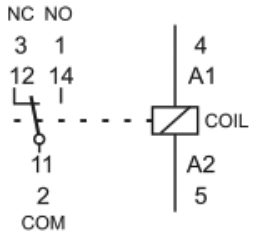
7RQ plug-in relays

1 CO, 6A (7RQ0100-0A....)

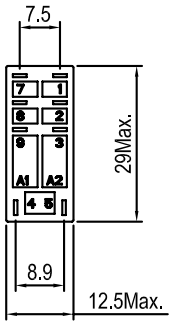


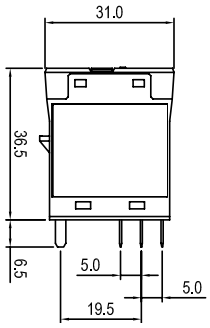


Terminal connections

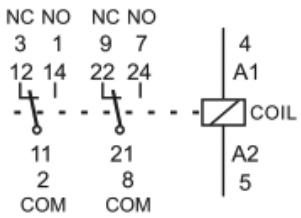


2 CO, 6A (7RQ0100-0B....)

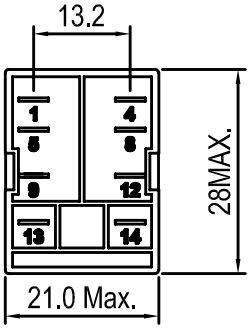


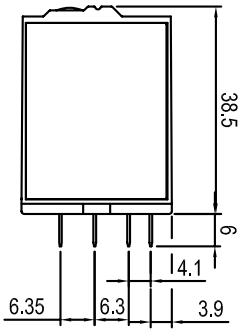


Terminal connections

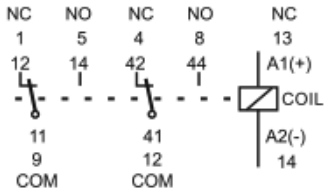


2 CO, 10A (7RQ0110-0B....)





Terminal connections

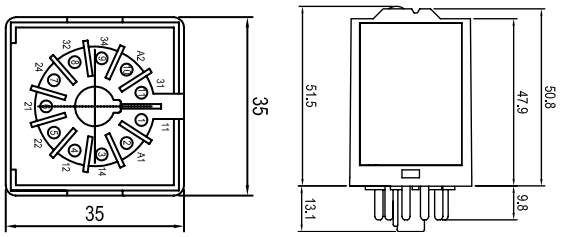


Note: All dimensions are in mm.

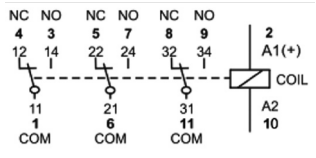
Dimension drawings & terminal connections

7RQ plug-in relays

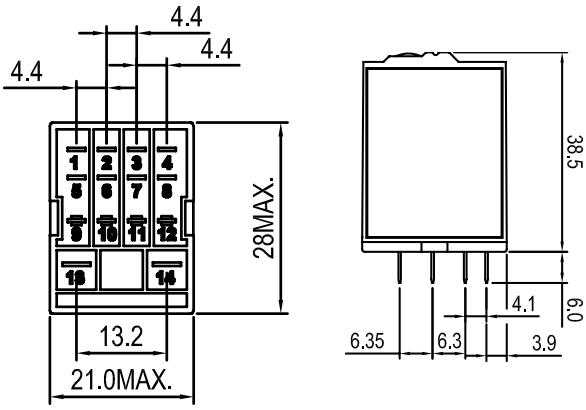
3 CO, 10A (7RQ0100-0C....)



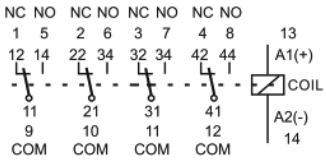
Terminal connections



4 CO, 5A (7RQ0100-0D....)



Terminal connections



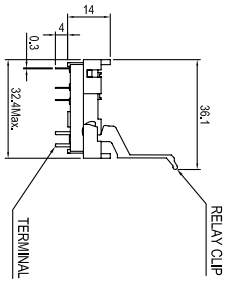
Note: All dimensions are in mm.

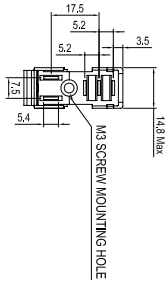
Dimension drawings & terminal connections

Mounting sockets

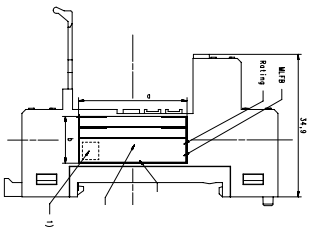
1 CO, 10A

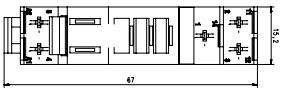
PCB mounting
(7RQ0202-1AX00)



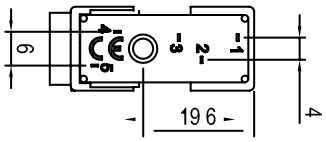


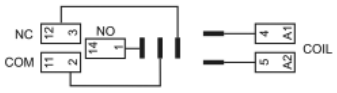
DIN rail mounting
(7RQ0201-1AX00)





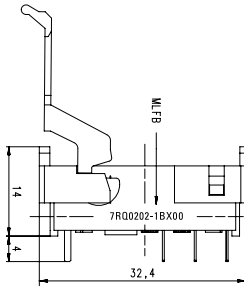
Terminal connections

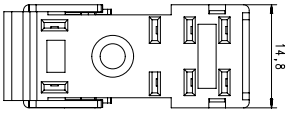




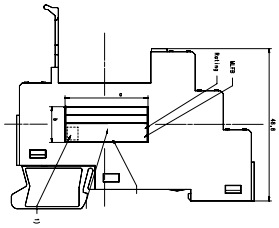
2 CO, 6A

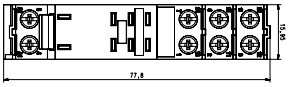
PCB mounting
(7RQ0202-1BX00)



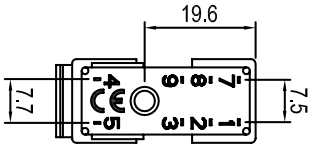


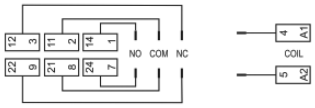
DIN rail mounting
(7RQ0201-1BX00)





Terminal connections



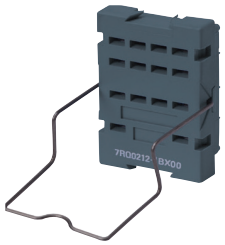


Note: All dimensions are in mm.

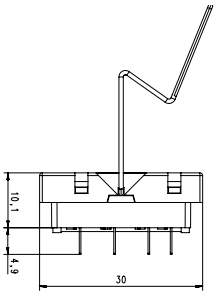
Dimension drawings & terminal connections

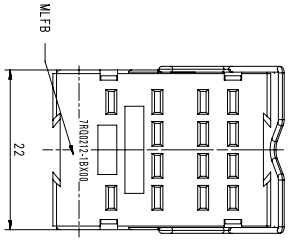
Mounting sockets

2 CO, 10A

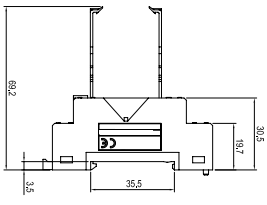


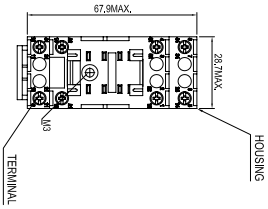
PCB mounting
(7RQ0212-1BX00)



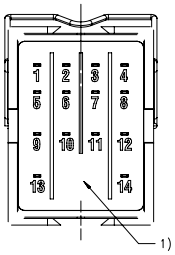


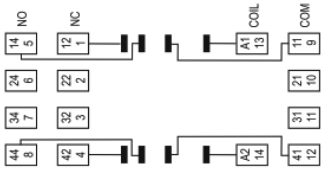
DIN rail mounting
(7RQ0211-1BX00)





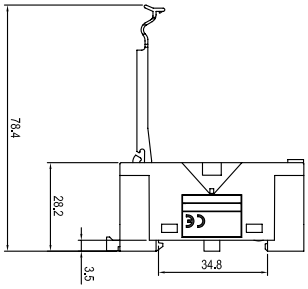
Terminal connections

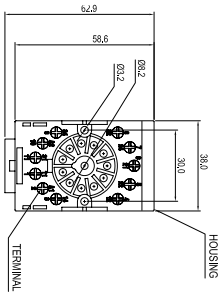




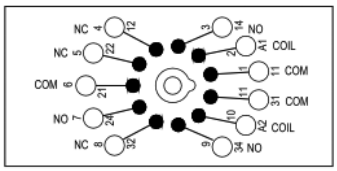
3 CO, 10A

DIN rail mounting
(7RQ0201-1CX00)





Terminal connections



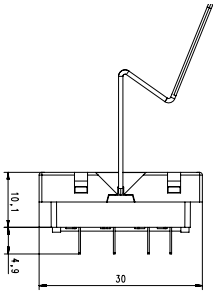
Note: All dimensions are in mm.

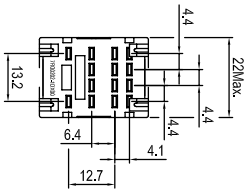
Dimension drawings & terminal connections

Mounting sockets

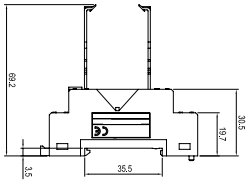
4 CO, 7A

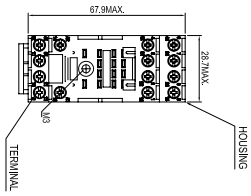
PCB mounting
(7RQ0202-1DX00)



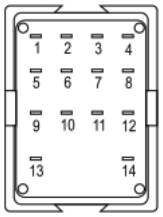


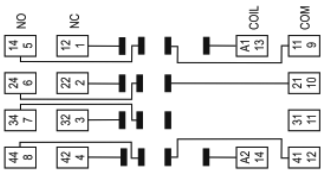
DIN rail mounting
(7RQ0201-1DX00)





Terminal connections





Note: All dimensions are in mm.

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