



SMART 7KT Multi Function Meter Accuracy Class 1 and inbuilt Modbus RTU Communication

Measurements	
<b>measuring procedure</b>	
<ul style="list-style-type: none"> <li>for voltage measurement</li> <li>for current measurement</li> </ul>	<p>True RMS</p> <p>True RMS</p>
<b>type of measured value detection</b>	complete
<b>voltage curve</b>	Sinusoidal or distorted
<b>measurable line frequency</b>	
<ul style="list-style-type: none"> <li>initial value</li> <li>full-scale value</li> </ul>	<p>45 Hz</p> <p>65 Hz</p>
<b>operating mode for measured value detection automatic line frequency detection</b>	Yes
Supply voltage	
<b>design of the power supply</b>	SMPS power supply
<b>type of voltage of the supply voltage</b>	AC
Degree of protection protection class	
<b>protection class IP on the front</b>	IP65
<b>protection class IP of the terminal</b>	IP20
Suitability	
<b>suitability for operation</b>	Installation in stationary panels in closed rooms
Product Functions	
<b>product function</b>	
<ul style="list-style-type: none"> <li>voltage measurement</li> <li>current measurement</li> <li>active power measurement</li> <li>reactive power measurement</li> <li>power factor measurement</li> <li>frequency measurement</li> <li>apparent energy/active energy/reactive energy</li> </ul>	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>
Display and operation	
<b>design of the display</b>	LCD
<b>height of the display</b>	60 mm
<b>width of the display</b>	60 mm
<b>color of the background of the display</b>	White
<b>illuminance of display backlight adjustable</b>	No
<b>time-controlled reduction of the illuminance of display backlight possible</b>	Yes
<b>display contrast adjustable</b>	No
<b>national language on the display screen is supported</b>	EN
<b>number of keys</b>	4

Communication	
transfer rate minimum	0.3 kbit/s
transfer rate maximum	19.2 kbit/s
Fault limits	
reference condition for metering accuracy	according to IEC61557-12, IEC62053-21, IEC62053-23
formula for relative total measurement inaccuracy	
<ul style="list-style-type: none"> <li>for measured variable active energy</li> <li>for measured variable reactive energy</li> </ul>	Class 1 acc. to IEC 62053-21 Class 2 as per 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	30 V
input current at digital input initial value for signal<1>-recognition	10 mA
Measuring inputs	
measurable supply voltage between (PE)N and L at AC maximum rated value	240 V
measurable supply voltage between (PE)N and L at AC	
<ul style="list-style-type: none"> <li>minimum</li> <li>maximum</li> </ul>	11 V 300 V
measurable supply voltage between the line conductors at AC maximum rated value	415 V
measurable supply voltage between the line conductors at AC	
<ul style="list-style-type: none"> <li>minimum</li> <li>maximum</li> </ul>	19 V 519 V
voltage measuring range extension with external voltage transformers	Yes
line conductors and neutral conductors internal resistance for voltage measurement	1.12 MΩ
measuring category for voltage measurement	CAT III
measurable current	
<ul style="list-style-type: none"> <li>1 at AC rated value</li> <li>2 at AC rated value</li> </ul>	1 A 5 A
relative measurable current at AC	
<ul style="list-style-type: none"> <li>minimum</li> <li>maximum</li> </ul>	1 % 120 %
current measuring range extension with external current transformers	Yes
apparent power consumption for current measurement with measuring range 5 A per phase	3 VA
measuring category for current measurement	CAT III
Connections	
type of electrical connection	
<ul style="list-style-type: none"> <li>at the measurement inputs for voltage</li> <li>at the measurement inputs for current</li> </ul>	screw-type terminals screw-type terminals
Mechanical Design	
fastening method DIN-rail mounting	No
size of Power Monitoring Device	size 96
height	96 mm
width	96 mm
depth	57 mm
installation depth	50 mm
cutout height	92 mm
cutout width	92 mm
net weight	3 600 g
mounting position	Vertical
Environmental conditions	
ambient temperature during operation	
<ul style="list-style-type: none"> <li>minimum</li> </ul>	-10 °C

<ul style="list-style-type: none"> <li>• maximum</li> </ul>	55 °C
<b>ambient temperature during storage</b>	
<ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>	-20 °C 75 °C
<b>relative humidity at 25 °C without condensation during operation maximum</b>	85 %
<b>installation altitude at height above sea level maximum</b>	2 000 m
<b>degree of pollution</b>	2

**Approvals Certificates**

<b>General Product Approval</b>	<b>other</b>
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[Confirmation](#)



[Confirmation](#)

**Further information**

**Information on the packaging**

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

**Information for data generation and storage**

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

**Information- and Downloadcenter (catalogues, leaflets,...)**

<https://www.siemens.com/energy-automation>

**Industry Mall (Online ordering system)**

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=7KT0310>

**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<https://support.industry.siemens.com/cs/ww/en/ps/7KT0310>

**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)**

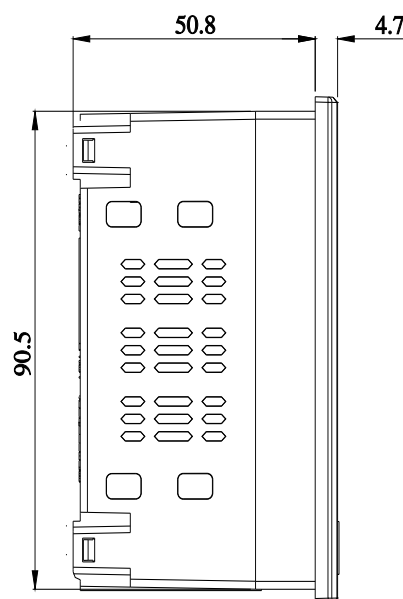
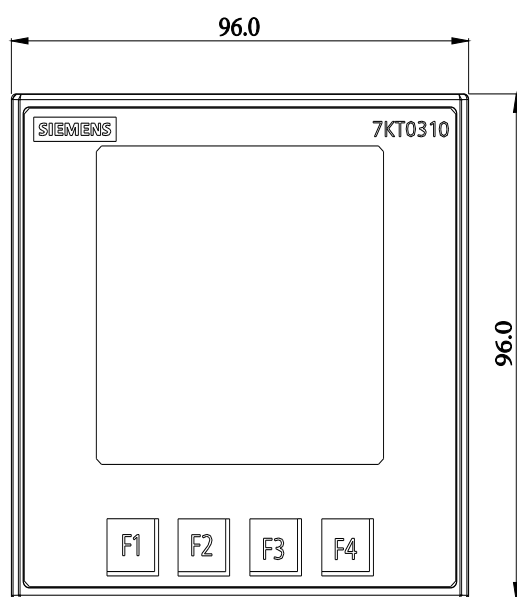
[https://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=7KT0310](https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=7KT0310)

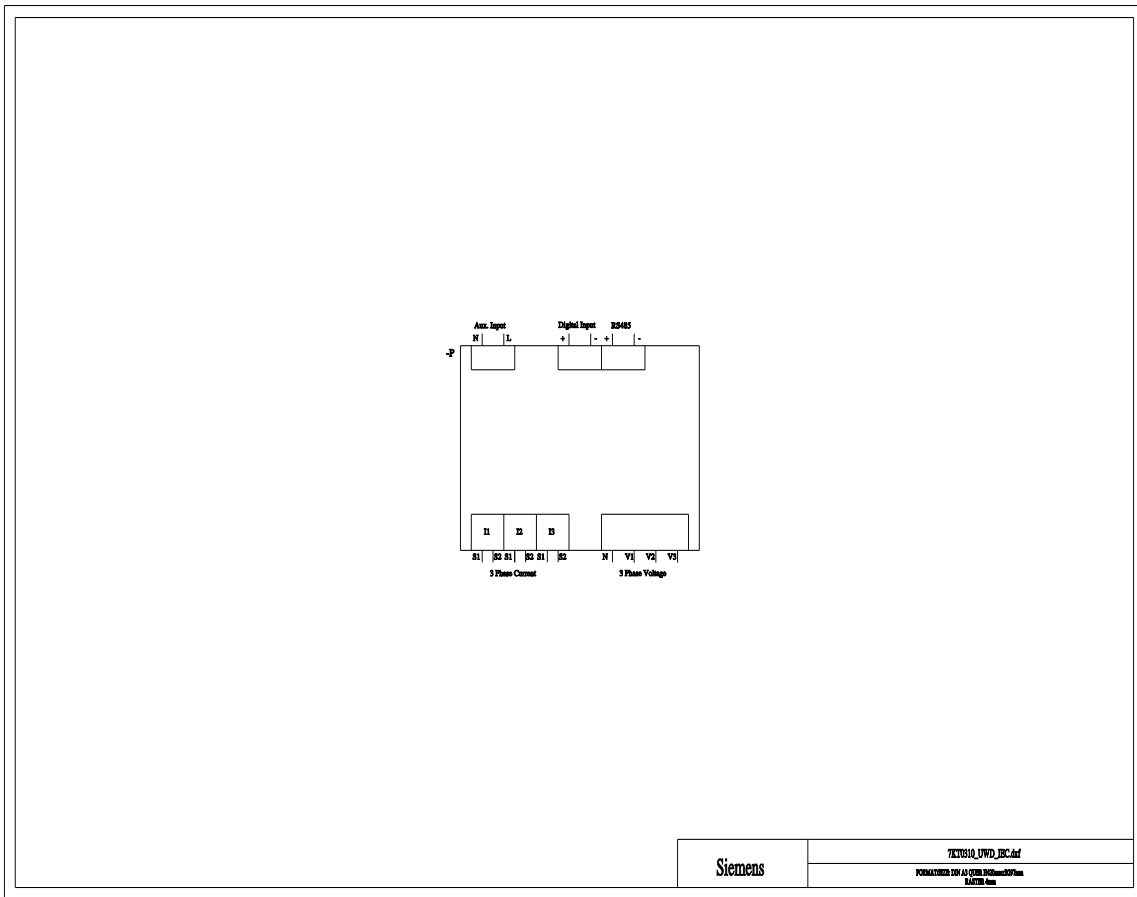
**CAX-Online-Generator**

<https://www.siemens.com/cax>

**Tender specifications**

<https://www.siemens.com/specifications>





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