



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

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

transfer rate minimum	0.3 kbit/s
transfer rate maximum	19.2 kbit/s
<b>Fault limits</b>	
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
<b>Inputs Outputs</b>	
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
<b>Measuring inputs</b>	
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
<b>Connections</b>	
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
<b>Mechanical Design</b>	
fastening method standard 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
<b>Environmental conditions</b>	
ambient temperature during operation	
<ul style="list-style-type: none"> <li>minimum</li> <li>maximum</li> </ul>	-10 °C 55 °C
ambient temperature during storage	
<ul style="list-style-type: none"> <li>minimum</li> <li>maximum</li> </ul>	-20 °C 75 °C

relative humidity at 25 °C without condensation during operation maximum	85 %
installation altitude at height above sea level maximum	2 000 m
degree of pollution	2

**Approvals Certificates**

General Product Approval	other
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**Further information**

**Information on the packaging**

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

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

<http://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, ...)**

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

**CAX-Online-Generator**

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

**Tender specifications**

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





