## **SIEMENS**

Data sheet 7KT0311



Power Monitoring Device Panel instrument for std electrical values Protocol: Modbus RTU LCD display Vaux: 95V to 240V AC x/1 or 5 A, Class 0.5

Measurements	
measuring procedure	
for voltage measurement	True RMS
for current measurement	True RMS
type of measured value detection	complete
voltage curve	Sinusoidal or distorted
measurable line frequency	
• initial value	45 Hz
full-scale value	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> <li>voltage measurement</li> </ul>	Yes
<ul> <li>current measurement</li> </ul>	Yes
<ul> <li>active power measurement</li> </ul>	Yes
<ul> <li>reactive power measurement</li> </ul>	Yes
<ul> <li>power factor measurement</li> </ul>	Yes
<ul> <li>frequency measurement</li> </ul>	Yes
<ul> <li>apparent energy/active energy/reactive energy</li> </ul>	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

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	2000. ag to 1200 1007 12, 12002000 21, 12002000-20
for measured variable voltage	Class 0.5 acc. to IEC 61557-12
for measured variable current	Class 0.5 acc. to IEC 61557-12
for measured variable apparent power	Class 1 as per IEC 61557-12
for measured variable active power	Class 1 acc. to IEC 61557-12
for measured variable reactive power	Class 2 as per IEC 61557-12
for measured variable output factor	Class 1 as per IEC 61557-12
for measured variable active energy	Class 0.5 acc. to IEC 61557-12 and IEC 62053-21
for measured variable reactive energy	Class 2 as per IEC 61557-12 and IEC 62053-21
for measured variable THD	Class 3 as per IEC 61557-12
Inputs Outputs	Class 3 as per IEC 01337-12
	1
number of digital inputs	
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
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	30 V
type of electrical connection at the digital outputs	screw-type terminals
output current at the digital outputs at DC limited to 100 ms maximum	130 mA
internal resistance at the digital outputs	55 Ω
standard for pulse emitter	according to IEC62053-31
pulse duration	
initial value	100 ms
full-scale value	2 000 ms
adjustable time period minimum	100 ms
switching frequency at digital output maximum	17 Hz
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	
• minimum	11 V
maximum	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	
• minimum	19 V
maximum	519 V
voltage measuring range extension with external voltage transformers	Yes
line conductors and neutral conductors internal resistance for voltage measurement	1.12 ΜΩ
measuring category for voltage measurement	CAT III
measurable current	
• 1 at AC rated value	1 A
• 2 at AC rated value	5 A
relative measurable current at AC	
• minimum	1 %
• maximum	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	

• at the measurement inputs for voltage		screw-type terminals
<ul> <li>at the measurement inputs for current</li> </ul>		screw-type terminals
Mechanical Design		
fastening method standard rail mounting		No
size of Power Monitoring Device		size 96
height		96 mm
width		96 mm
depth		57 mm
installation depth		52.3 mm
cutout height		92 mm
cutout width		92 mm
net weight		3 250 g
mounting position		Vertical
Environmental conditions		
ambient temperature during operation		
• minimum		-10 °C
• maximum		55 °C
ambient temperature during storage		
• minimum		-20 °C
• maximum		75 °C
relative humidity at 25 °C without condensation do maximum	uring operation	85 %
installation altitude at height above sea level maximum		2 000 m
degree of pollution		2
Approvals Certificates		
General Product Approval	other	

Confirmation

## Further information

Confirmation

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)

 $\underline{https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=7KT0311}$ 

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

EAC

https://support.industry.siemens.com/cs/ww/en/ps/7KT0311

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

**Miscellaneous** 

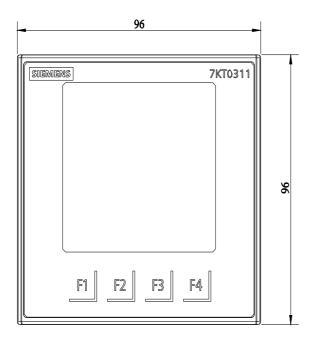
http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=7KT0311

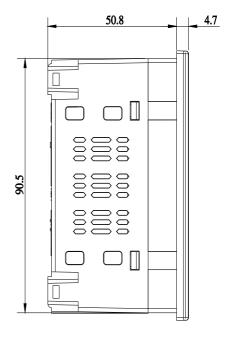
CAx-Online-Generator

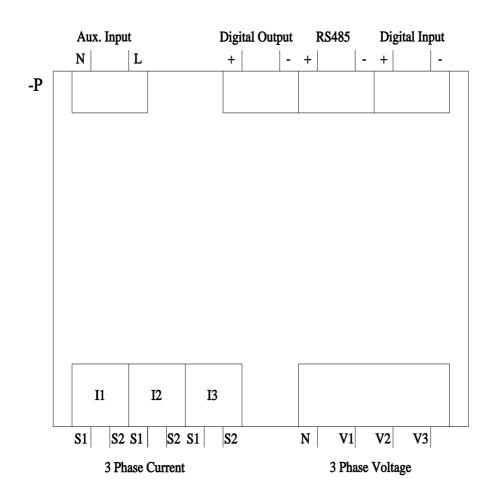
http://www.siemens.com/cax

Tender specifications

http://www.siemens.com/specifications







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