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	
 voltage measurement 	Yes
current measurement	Yes
 active power measurement 	Yes
 reactive power measurement 	Yes
 power factor measurement 	Yes
 frequency measurement 	Yes
 apparent energy/active energy/reactive energy 	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	

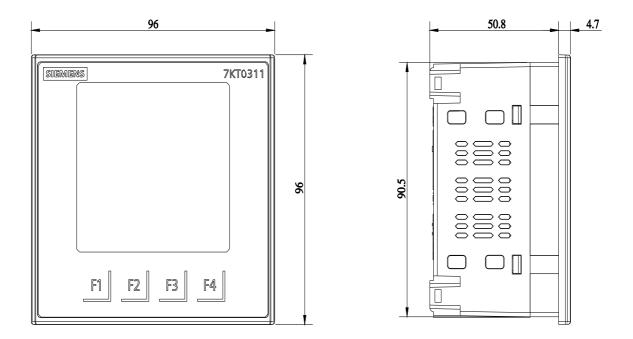
transfer rate minimum	0.3 kbit/s
transfer rate maximum	19.2 kbit/s
Fault limits	
reference condition for metering accuracy	according to IEC61557-12, IEC62053-21, IEC62053-23
formula for relative total measurement inaccuracy	
 for measured variable voltage 	Class 0.5 acc. to IEC 61557-12
 for measured 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 62053-23
 for measured variable THD 	Class 3 as per IEC 61557-12
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
	1
number of digital outputs	Unidirectional
type of switching output	
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	5A
relative measurable current at AC	
minimum	1 %
• maximum	120 %
current measuring range extension with external current	Yes
transformers apparent power consumption for current measurement with	3 VA
measuring range 5 A per phase	
measuring category for current measurement	CAT III
Connections	
type of electrical connection	

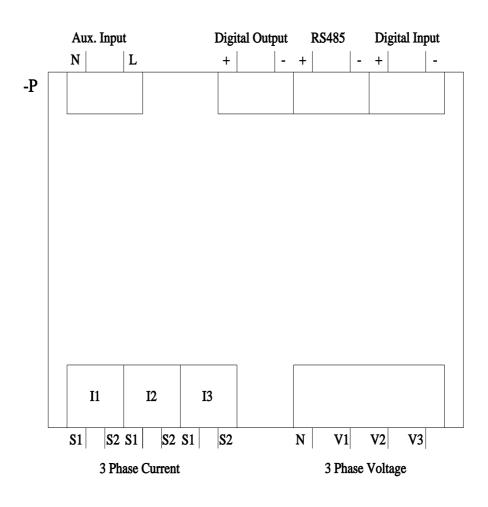
 at the measurement inputs for voltage 	screw-type terminals
 at the measurement inputs for current 	screw-type terminals
Mechanical Design	
fastening method standard rail mounting	No
size of Power Monitoring Device	size 96
height	96 mm
width	96 mm
depth	57 mm
installation depth	52.3 mm
cutout height	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 during operation maximum	on 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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