

Power Monitoring Device and Class A power quality recorder
 Dimensions: 192 mm x 96 mm x 134.6 mm Control panel instrument
 with graphical display Integrated LCD display Auxiliary power supply:
 Power supply AC/DC (110 V to 230 V) without I/O modules without
 I/O modules Modbus TCP (rated measured values and PQ measured
 values/results) and IEC 61850 (with COMTRADE and PQDIF file
 Transfer for PQ data 4 x 1 A/5 A current inputs 4 x voltage
 measurement inputs (PQI clas. A) and logging

Model	
Product type designation	NO_DATA
Product brand name	NO_DATA
Design of the product	NO_DATA
General technical data	
Type of data format / for record	
• PQDif	Yes
• COMTRADE	Yes
• CSV	Yes
Product details	
Suitability	
Suitability for use	
Suitability for operation	
Type of measured value acquisition	
• min./max.-values	Yes
• average values	Yes
Product feature	
• Data logging/recording according to EN 50160	Yes
• Mean value recorder	Yes
• fault record (Sinus wave recording)	Yes
Special product feature	
Product function	
Product function	NO_DATA
• voltage measurement	Yes
• Current measurement	Yes
• frequency measurement	Yes
• active power measurement	Yes
• reactive power measurement	Yes
• Apparent power measuring	Yes

• Active energy measurement	Yes
• Reactive energy measuring	Yes
• Apparent energy measuring	Yes
• display consumed active-energy	Yes
• display yielded active-energy	Yes
• display summation active-energy	Yes
• display reactive energy inductive	NO_DATA
• display reactive energy capacitive	NO_DATA
• display summation reactive energy	NO_DATA
• expandable / THD-measurement of current of harmonics	Yes
• expandable / THD-measurement of voltage of harmonics	Yes
• expandable / measurement of current of harmonics	Yes
• expandable / measurement of voltage of harmonics	Yes
• Logics functionality	Yes
• expandable / measurement limit value violations	Yes
• query limit value violations	Yes
• integrated / for voltage fluctuations by flickers / according to IEC 61000-4-15	Yes
• integrated / Identify and visualise of voltage fluctuations	Yes
• integrated / synchronization of measuring viewing windows	Yes
• at the Ethernet interface / serial gateway	Yes
• Password protection	Yes

Protection function

Power quality function	
• voltage dip/sag	Yes
• voltage swell	NO_DATA
• TDD according to IEEE 519	Yes
• Transient detection/Logging and record	NO_DATA

Energy management function / integrated	
• TOU	Yes
• tariff	Yes
• load profiles	Yes

Control function

Type of time synchronization	kein Wert
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Frequency measurement / in the range 2 kHz ... 9 kHz / according to IEC 61000-4-7	Yes
Control and supervision function	
Product component	
• HMI-HMI operator panel front	Yes
• integrated / HMI operator panel front	Yes
• integrated / clock	Yes
Display and operation	
Voltage	
Type of voltage	DC/AC
Number of voltage inputs	4
Supply voltage	
• at DC / minimum	NO_DATA
• at DC / maximum	NO_DATA
• at AC / minimum	110 V
• at AC / maximum	230 V
Input voltage	
• between L and L / maximum	690 V
• between L and L / according to UL / maximum	600 V
• between L and N / maximum	400 V
• between L and N / according to UL / maximum	347 V
Electricity	
Input current / maximum	5 A
Switching capacity	
Connections	
Number	
Number of harmonics	63
Inputs / Connections / Sensors	
Number of current inputs / maximum	kein Wert
Number of digital inputs / optional	6
Number of digital inputs / Integrated	0
Number of analog inputs / optional	0
Accuracy class / of measuring device / at measured dimension active power / according to IEC 62053-22	
Accuracy class / of measuring device / according to IEC 61000-4-30	
Accuracy class / for voltage and current measurement / according to IEC 61000-4-30	Yes
Accuracy class / for voltage and current measurement / according to IEC 61000-4-30, Klasse A	Yes

Outputs

Number of digital outputs	
• Integrated	0
• optional	6
Number of analog outputs	
• Integrated	0
• optional	0

Communication

• Type of interface / serial RS 485	Yes
• Design of the interface / Ethernet interface	Yes
Number of ports / of Ethernet interface	2
Communication function / Modbus RTU as master	Yes
Protocol / is supported	
• IEC 60870-5-104	No
• IEC 61850	Yes
• Modbus TCP	Yes
• Modbus RTU	Yes
• PROFIBUS DP	No
• IEC 60870-5-103	No
• SNMP	Yes
• HTTP	Yes

Protection class

Protection class IP	
• on the front	kein Wert
• Rear side	kein Wert

Mechanical Design

Width	192 mm
Height	96 mm
Depth	134.6 mm

Environmental conditions

Ambient temperature / during transport	
• minimum	-25 °C
• maximum	70 °C
Operating temperature	
• minimum	-25 °C
• maximum	55 °C

Certificates

Standard / for transmitter	
Certificate of suitability / IEC certificate	Yes

