Product datasheet

Specifications

Conzerv Power and Energy meter - inst., pulse, RS485, THD, 15th Har, Class 1.0

METSEEM6400NGRSCL1

Main

Range	EasyLogic
Product name	EM6400NG+ RS-485
Product or component type	Energy meter

Complementary

Power quality analysis	up to the 15th harmonic
Device application	Power monitoring
Type of measurement	Current Voltage Frequency Apparent energy Apparent power Active and reactive energy Active and reactive power
Metering type	Power factor and displacement PF (signed, four quadrant) Voltage U21, U32, U13, V1, V2, V3 Peak demand power PM, QM, SM Peak demand currents Phase currents Average current Iavg Apparent power S, S1, S2, S3 Calculated neutral current Unbalance voltage Average voltage Vavg Demand current I1, I2, I3 Unbalance current Reactive power Q, Q1, Q2, Q3 Demand power P, Q, S Active power P, P1, P2, P3 Active, reactive, apparent energy (signed, four quadrant)
[Us] rated supply voltage	40...300 V AC 45...65 Hz 40...300 V DC
Network frequency	60 Hz 50 Hz
[In] rated current	5 A 1 A
type of network	3P + N 2P + N 2P 3P 1P + N
Maximum power consumption in VA	6 VA at 277 V between phase and neutral
Maximum power consumption in W	2 W at 277 V
Display type	7 segments LED
Display colour	Red

Messages display capacity	3 fields of 4 characters
Display digits	12 digit(s) - 14.2 mm in height
Communication of data	Net energy Total energy Reading of time-stamped measurements and events Energy metering
Tamperproof of settings	Protected by access code
Sampling rate	64 samples/cycle
Measurement current	5…6000 mA
Signal	Current 0...12 A (impedance 0.3 MOhm)6 x Voltage (impedance 5 MOhm)4 x
Measurement voltage	35…480 V AC 45...65 Hz between phases 35…277 V AC 45...65 Hz between phase and neutral 35…600 V AC 45...65 Hz between phases 35…347 V AC 45...65 Hz between phase and neutral 600…999000 V AC 45...65 Hz with external VT
Frequency measurement range	45…65 Hz
Measurement accuracy	Current +/- 0.5 % Voltage +/- 0.5 % Power +/- 0.5 % Frequency +/- 0.05 % Power factor +/- 0.01
Accuracy class	Class 1 active energy conforming to IEC 62053-21 Class 2 reactive energy conforming to IEC 62053-23 Class 5P harmonic distortion (I THD & U THD) conforming to IEC 61557-12 Class 5P individual harmonics up to the 15th conforming to IEC 61557-12
Number of outputs	0
Demand intervals	Configurable from 1 to 60 min
Information displayed	Voltage (min/max) Current (min/max) Power factor (min/max) Frequency (min/max) Active power (min/max) Apparent power (min/max) Reactive power (min/max) Time (min/max) Demand current (past value) Demand current (present value) Demand power (past value) Demand power (present value)
Local signalling	Green LED: activity Red LED: output signal 1...9999000 pulse/ k_h (kWh, kVAh, kVARh) Green LED: communication status
Communication port protocol	Modbus at 4800 bps, 9600 bps, 19200 bps, 38.4 Kbps even/odd or none - 2 wires, insulation 2500 V
Communication port support	RS485
Data recording	Min/max of instantaneous values Energy consumption logs Time stamping
Material	Polycarbonate
Flame retardance	V-0 conforming to UL 94
Mounting mode	Panel-mounted Flush-mounted
Mounting support	Framework
fixing mode	By clamp
Installation category	III

Type of installation	Indoor installation
Measurement category	Category III 480 V Category II 480…600 V
Electrical insulation class	Class II
Connections - terminals	Current circuit: screw clamp terminals (bottom) 2.08…3.31 mm² cable(s) Voltage circuit: screw clamp terminals (top) 0.82…3.31 mm² cable(s) Control circuit: screw clamp terminals (top) 0.82…3.31 mm² cable(s) Communication: screw clamp terminals 0.33…3.31 mm² cable(s)
Tightening torque	Current circuit: 0.9…1 N.m Philips No 2 screwdriver Voltage circuit: 0.9…1 N.m Philips No 2 screwdriver Control circuit: 0.9…1 N.m Philips No 2 screwdriver Communication: 0.9…1 N.m Philips No 2 screwdriver
Wire stripping length	Current circuit: 3.68 mm Voltage circuit: 7 mm Control circuit: 7 mm Communication: 7 mm
Standards	IEC 61010-1:ed. 3 UL 61010-1:ed. 3
Product certifications	CE conforming to IEC 61010-1 CULus conforming to UL 61010-1 CULus conforming to CSA C22.2 No 61010-1 C-Tick
Width	96 mm
Depth	Panel : 73 mm Outside : 13 mm
Height	96 mm
Net weight	600 g

Environment

Electromagnetic compatibility	Electrostatic discharge conforming to IEC 61000-4-2 Radiated radio-frequency electromagnetic field immunity test conforming to IEC 61000-4-3 Electrical fast transient/burst immunity test conforming to IEC 61000-4-4 Surge immunity test conforming to IEC 61000-4-5 Conducted RF disturbances conforming to IEC 61000-4-6 Magnetic field at power frequency conforming to IEC 61000-4-8 Voltage dips and interruptions immunity test conforming to IEC 61000-4-11 Emission tests conforming to FCC part 15 class A
Overvoltage category	III
IP degree of protection	IP51 front: conforming to IEC 60529 IP30 body: conforming to IEC 60529
Relative humidity	5…95 % at 50 °C
Pollution degree	2
Ambient air temperature for operation	-10…60 °C
Ambient air temperature for storage	-20…70 °C
Operating altitude	<= 2000 m
service life	7 year(s)

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	10.3 cm
Package 1 Width	11.6 cm

Package 1 Length	13.2 cm
Package 1 Weight	500 g

Contractual warranty

Warranty (in months)	18

Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

Environmental Data explained >

How we assess product sustainability >

Environmental footprint

Total lifecycle Carbon footprint	**287 kg CO2 eq.**
Carbon footprint of the manufacturing phase [A1 to A3]	**42 kg CO2 eq.**
Carbon footprint of the distribution phase [A4]	**0.1 kg CO2 eq.**
Carbon footprint of the installation phase [A5]	**0 kg CO2 eq.**
Carbon footprint of the use phase [B2, B3, B4, B6]	**243 kg CO2 eq.**
Carbon footprint of the end-of-life phase [C1 to C4]	**2 kg CO2 eq.**
Environmental Disclosure	**Product Environmental Profile**

Use Better

Materials and Substances

Packaging made with recycled cardboard	**Yes**
Packaging without single use plastic	**No**
SCIP Number	**1e118aef-b19c-4467-88e5-d3127183205f**

Use Longer

Lifetime extension

Repair	**No**

Use Again

Repack and remanufacture

Recyclability potential, in %	**11**
End of life manual availability	**End of Life Information**
Take-back	**No**