

# Product datasheet

Specifications



## CONZERV EM6438H DUAL P&E RS485 CL1.0

METSEEM6438HCL10RS

### Main

Range	EasyLogic
Product name	EasyLogic EM64XXH RS
Device short name	EM6438H
Product or component type	Dual source energy meter

### Complementary

Device application	Wind generation Main or redundant power monitoring Energy monitoring Solar generation GenSet
Type of measurement	Power factor Phase angle RPM Active power Active energy
Metering type	Apparent energy (source 1) Alternate source meter Active power P, P1, P2, P3 Reactive power Q1, Q2 Apparent power S, S1, S2, S3 Apparent energy (source 2) Rotation speed Power factor and displacement PF (signed, four quadrant) Active, reactive, apparent energy (signed, two quadrant)
Counter functions	Alternate-source hour counting ON hour counting
[Us] rated supply voltage	44...300 V AC 45...65 Hz 44...300 V DC
Network frequency	50 Hz 60 Hz
[In] rated current	5 A 1 A
type of network	3P 3P + N 2P 2P + N 1P + N
Maximum power consumption in VA	4 VA at 240 V between phase and neutral
Maximum power consumption in W	2 W at 240 V
Display type	7 segments LED
Display colour	Red
Messages display capacity	3 fields of 4 characters

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

<b>Display digits</b>	12 digit(s) - 14.2 mm in height
<b>Communication of data</b>	System power production All counters Last cleared log Reading of measurements Revolution speed
<b>Tamperproof of settings</b>	Protected by access code
<b>Sampling rate</b>	32 samples/cycle
<b>Measurement current</b>	5...6000 mA
<b>Signal</b>	Voltage (impedance 5 MOhm)4 x Current 0.005...10 A (impedance 0.3 MOhm)6 x
<b>Measurement voltage</b>	46...277 V AC 50...60 Hz between phase and neutral 80...480 V AC 50...60 Hz between phases 277...999000 V AC 50...60 Hz with external VT
<b>Frequency measurement range</b>	45...65 Hz
<b>Measurement accuracy</b>	Power factor +/- 0.01 Reactive power +/- 2 % Active power +/- 1 % Apparent power +/- 1 % Active energy +/- 1 % Reactive energy +/- 2 % Apparent energy +/- 1 %
<b>Accuracy class</b>	Class 1 active energy conforming to IEC 62053-21 Class 2 reactive energy conforming to IEC 62053-23
<b>Number of outputs</b>	0
<b>Demand intervals</b>	1 s
<b>Local signalling</b>	Green LED: activity Red LED: output signal 1...9999000 pulse/ k_h (kWh, kVAh, kVARh) Red LED: alternate source
<b>Communication port protocol</b>	Modbus at 4800 bps, 9600 bps, 19200 bps, 38.4 Kbps even/odd or none - 2 wires, insulation 2500 V
<b>Communication port support</b>	Screw terminal block: RS485
<b>Data recording</b>	Energy consumption logs
<b>Material</b>	Polycarbonate
<b>Flame retardance</b>	V-0 conforming to UL 94
<b>Mounting mode</b>	Flush-mounted
<b>Mounting support</b>	Framework
<b>fixing mode</b>	By clamp
<b>Provided equipment</b>	Installation guide
<b>Installation category</b>	III
<b>Type of installation</b>	Indoor installation
<b>Measurement category</b>	Category III 35...480 V
<b>Electrical insulation class</b>	Class II
<b>Connections - terminals</b>	Current circuit: screw clamp terminals (bottom) 2.08...3.31 mm <sup>2</sup> cable(s) Voltage circuit: screw clamp terminals (top) 0.82...3.31 mm <sup>2</sup> cable(s) Control circuit: screw clamp terminals (top) 0.82...3.31 mm <sup>2</sup> cable(s) Communication: screw clamp terminals (bottom) 0.33...3.31 mm <sup>2</sup> cable(s) Secondary circuit: screw clamp terminals (bottom) 0.33...3.31 mm <sup>2</sup> cable(s)
<b>Tightening torque</b>	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: 0.5...0.6 N.m Philips no 1 screwdriver Secondary circuit: 0.5...0.6 N.m Philips no 1 screwdriver

<b>Wire stripping length</b>	Current circuit: 3.68 mm Voltage circuit: 7 mm Control circuit: 7 mm Communication: 7 mm 7 mm
<b>Standards</b>	IEC 61010-1:ed. 3 UL 61010-1:ed. 3
<b>Product certifications</b>	CE conforming to IEC 61010-1 CULus conforming to UL 61010-1 CULus conforming to CSA C22.2 No 61010-1 C-Tick
<b>Width</b>	96 mm
<b>Depth</b>	Outside : 13 mm Panel : 49 mm
<b>Height</b>	96 mm
<b>Net weight</b>	300 g

## Environment

<b>Electromagnetic compatibility</b>	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 Emission tests conforming to FCC part 15 Subpart C Emission tests conforming to FCC part 15 Subpart E
<b>Overvoltage category</b>	III
<b>IP degree of protection</b>	IP51 front: conforming to IEC 60529 IP30 body: conforming to IEC 60529
<b>Relative humidity</b>	5...95 % at 50 °C
<b>Pollution degree</b>	2
<b>Ambient air temperature for operation</b>	-10...60 °C
<b>Ambient air temperature for storage</b>	-20...70 °C
<b>Operating altitude</b>	<= 2000 m
<b>service life</b>	7 year(s)

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	9 cm
<b>Package 1 Width</b>	12 cm
<b>Package 1 Length</b>	12.2 cm
<b>Package 1 Weight</b>	360 g
<b>Unit Type of Package 2</b>	S03
<b>Number of Units in Package 2</b>	18
<b>Package 2 Height</b>	30 cm
<b>Package 2 Width</b>	30 cm
<b>Package 2 Length</b>	40 cm

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Package 2 Weight	4.86 kg
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## Contractual warranty

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Warranty (in months)	18
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## 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	171 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	54 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0.1 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.1 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	116 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	0.6 kg CO2 eq.
Environmental Disclosure	<a href="#">Product Environmental Profile</a>

### Use Better



### Materials and Substances

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	No
SCIP Number	2e6b556c-15aa-4f88-b35e-16e68ae215e5
EU RoHS Directive	<a href="#">Compliant By Exemption</a>
REACH Regulation	<a href="#">Reference contains Substances of Very High Concern above the threshold</a>

### Use Longer



### Lifetime extension

Repair	No
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### Use Again



### Repack and remanufacture

Recyclability potential, in %	0
End of life manual availability	<a href="#">End of Life Information</a>
Take-back	No
WEEE Label	 The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins