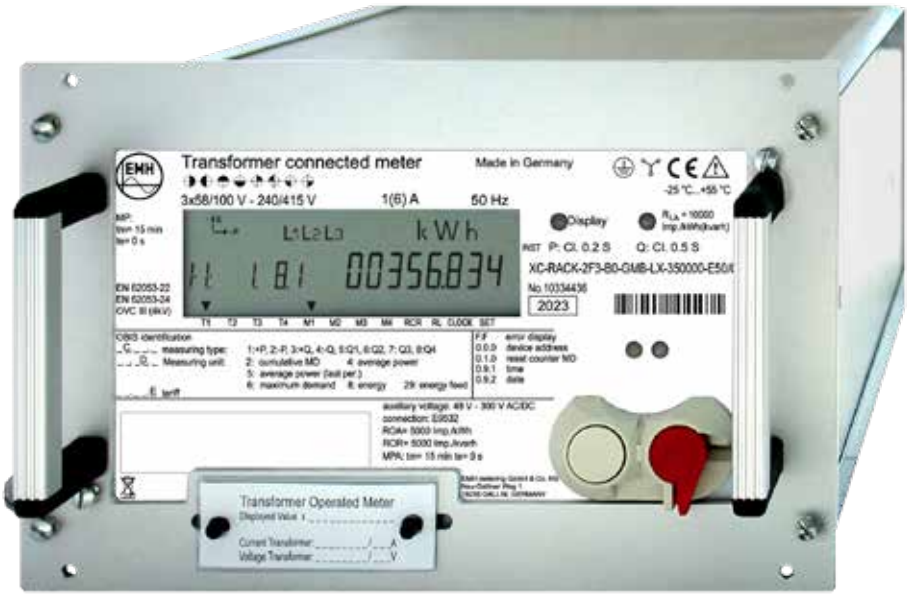
XC-RACK

4-quadrant meter or combi meter

- PRECISION PLUG-IN METER FOR 19-INCH RACK
- MEASUREMENT ACCURACY VERSION IN CL. 0.2 S AND CL. 0.5 S
- ETHERNET INTERFACE OR SMGW INTERFACE
- EXTENDED PQ MEASUREMENTS (HARMONIC, THD, FLICKER)
- AUXILIARY VOLTAGE SUPPLY 48–300 V AC/DC



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EN

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XC-RACK		Transformer connected meter
Voltage	4-wire meter 3-wire meter 2-wire meter (16.7 Hz)	3 x 58/100 V, 3 x 63/110 V, 3 x 115/200 V, 3 x 127/220 V, 3 x 132/230 V, 3 x 230/400 V, 3 x 58/100 V…3 x 240/415 V 3 x 100 V, 3 x 110 V 100 V, 110 V
Current		1 A, 1 (2) A, 1 (6) A, 5 A
Frequency		50 Hz, 16.7 Hz, 60 Hz
Accuracy	Active energy Reactive energy	Cl. 0.2S, Cl. 0.5S (Cl. C as per MID) Cl. 0.5S*, Cl. 1S
Measuring system		Compensated transformer
Measuring types	Active energy Reactive energy Additional	+A, –A +R, –R, R1, R2, R3, R4 S, Ah, U^2h, I^2h
Pulse values	LED Output	10 000 – 100 000 Imp./kWh [kvarh] (type-specific) 5 000 – 50 000 Imp./kWh [kvarh] (type-specific)
Energy registers	Quantity	Max. 32 tariff registers + 16 registers without tariff, 15 pre-values each
Maximum registers	Quantity Measuring period	Max. 32 tariff registers, 15 pre-values each 2, 5, 10, 15, 30, 60 min, adjustable
Load profile	Number of channels Typical memory depth for 1 channel Registration period Recording type	Max. 32 Up to 3 years for a registration period length of 15 min 1, 5, 10, 15, 30, 60 min (parametrisable) Power, energy, energy feed
Real time clock	Running accuracy Synchronisation Power reserve of battery	Within ± 5 ppm (at 23 °C) Via data interface, control input or DCF module Approx. 20 years
Control inputs	S0 Low voltage System voltage	Max. 1, max. 27 V DC, 27 mA Max. 8 inputs, 18…40 V DC Max. 8 inputs, 58…240 V
Data preservation		Voltage-free in EEPROM, at least 10 years
Display	Version Height of digits	LC display, 84 x 24 mm 8 mm
Operation	Mechanical buttons Optical sensor	For calling and resetting the display (sealable) For calling the display
Data interfaces	Optical data interface Electrical data interface Ethernet data interface Data protocols Alternative: LMN interface	D0, 9600 baud RS485, 19200 baud (fixed or C/E mode); optionally 2x RS485 IEEE 802.3 10BaseT/100BaseTx IP address assignment: DHCP or static IP address, Data transfer: TCP/IP server, FTP, IPT, SMTP (mail) EN 62056-21 or DLMS RS485, 921 kilobaud for connecting to an SMGW
Outputs	Quantity Opto-MOSFET	Max. 8 Max. 250 V AC/DC, 100 mA (make contact)
Energy supply	Switched-mode power supply Mains failure buffering time	3-phase > 500 ms
Auxiliary voltage supply	Wide range	48…300 V AC/DC
Power consumption (per phase) (meter without data interfaces and without outputs)	Voltage circuit with auxiliary voltage Voltage circuit without auxiliary voltage Current path Auxiliary voltage	< 0.4 VA/< 0.2 W < 2.7 VA/< 1.6 W < 0.008 VA < 9 VA/< 4.8 W
Safety characteristics	Overvoltage category OVC (overvoltage category) Rated peak withstand voltage	OVC III (as per EN 62052-31) 4 kV (as per EN 62052-31)
EMC characteristics	Insulation strength Surge voltage Resistance to HF fields	4 kV AC, 50 Hz, 1 min 8 kV, pulse 1.2/50 µs, 2 Ω (measuring paths, auxiliary voltage) 6 kV, pulse 1.2/50 µs, 500 Ω (outputs: inputs) 10 V/m (under load)
Temperature range	Defined operating range Limit range for operation, storage and transport	–25 °C…+55 °C –40 °C…+70 °C
Humidity		Maximum 95%, non-condensing, as per EN IEC 62052-11 and EN 60068-2-30
Environmental conditions	Mechanical Electromagnetic Intended operating location	M1 according to the Measuring Instruments Directive (2014/32/EU) E2 according to the Measuring Instruments Directive (2014/32/EU) Interior as per EN IEC 62052-11
Additional equipment features	Recording of instantaneous values Installation check	P, Q, S (per phase and total), U, I, power factor (per phase), mains frequency, phase failures Possible via instantaneous values (service data)
Terminals		ESSAILEC plug-type system or Phoenix screw-type terminals
Housing	Dimensions with terminals	Approx. 200 x 112 x 264 (H x W x D) mm, as per DIN 43862
	Protection class degree of protection of housing Housing material	I The device may only be used in installation environments with a degree of IP 30 protection of IP 51 (or higher). Aluminium alloy, polycarbonate, halogen-free
Weight		Approx. 2.3 kg

* as per EN 62053-24:2015+A1:2017

Subject to technical changes.

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