# Technical
Specification

EMH
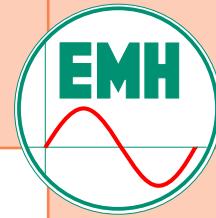
✓ Design acc. to VDEW-Specifications 2.1

✓ Plugable communication module

✓ Exchangeable buffer battery

✓ Network analysis

✓ Optional with DLMS **dlms** ™
device
language
message
specification

LZQJ-XC
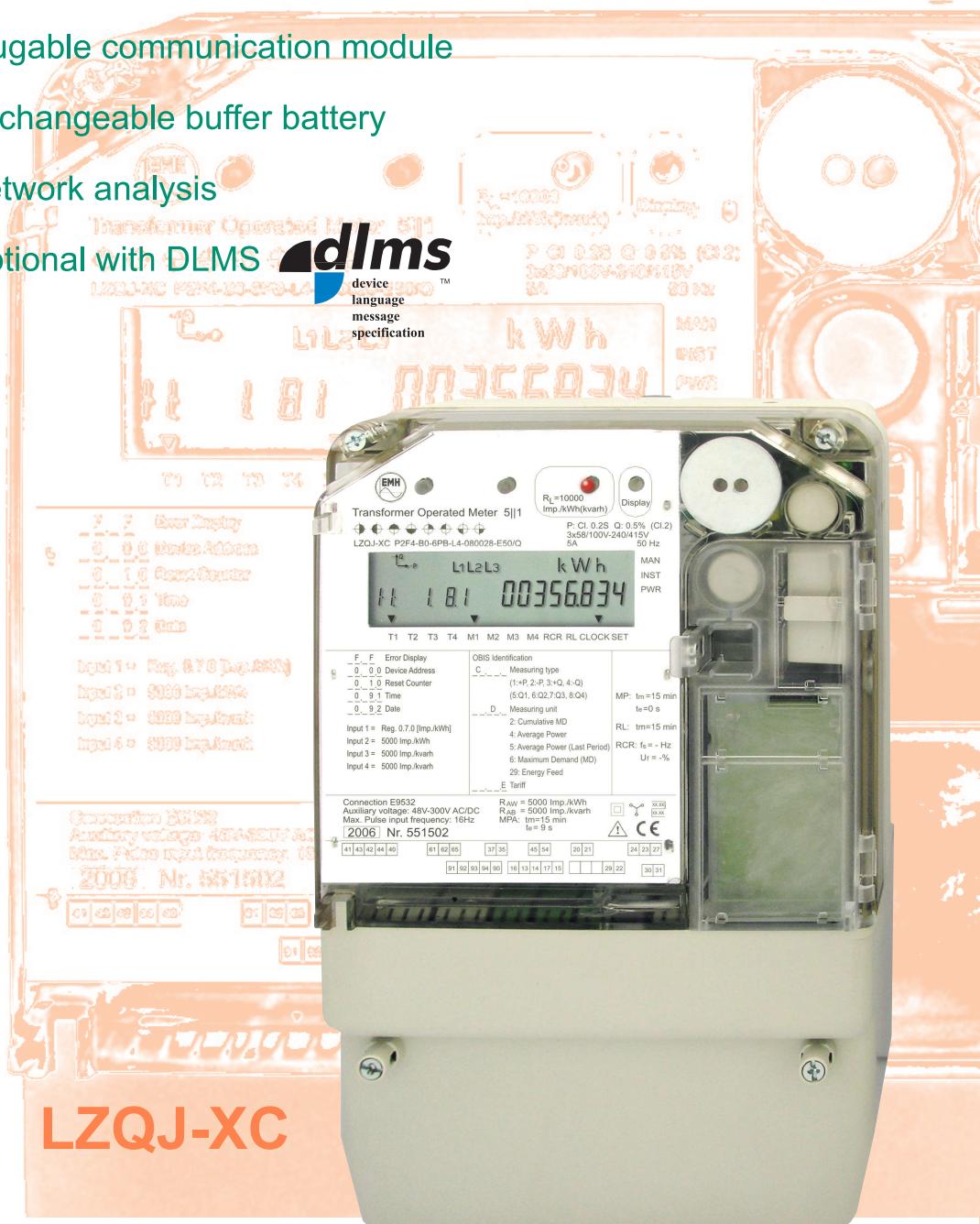
4-Quadrant-/Combi Meter

with load profile memory

Voltage	4-wire meter	3x58/100 V...3x240/415 V
Current		5‖1 A, 1(6) A, 5 A
Frequency		50 Hz
Accuracy	active energy	Cl. 0.2S, Cl. 0.5S acc. to IEC 62053-22; Cl. 1 acc. to IEC 62053-21 Cl. B, Cl. C acc. to DIN EN 50470-3 (MID)
	reactive energy	Cl. 2, Cl. 3 acc. to IEC 62053-23; 0.5% (Cl. 2), 1% (Cl. 2)
Measuring system	description	compensated current transformer
Measuring types	active energy reactive energy others	+A, -A +R, -R, R_1, R_2, R_3, R_4 S, Ah, U^2h, I^2h
Meter constants	LED (Imp./kWh[kvarh]) output (Imp./kWh[kvarh]) configuration ability	10 000...100 000 (depending on meter type) 5 000...50 000 (depending on meter type) after certification by means of the certification relevant logbook
Energy registers	maximum number	32 tariff registers + 16 tariffless registers, each with 15 historical values
Maximum registers	maximum number measuring period	32 tariff registers, each with 15 historical values 1, 5, 10, 15, 30, 60 min, adjustable
Load profile	maximum number of channels typical memory depth at 1 channel registering period registering type	32 up to 3 years with a registering period length of 15 min 1, 5, 10, 15, 30, 60 min, adjustable power, energy, energy feed
Real Time Clock	accuracy synchronisation running reserve battery / capacitor	within ± 5 ppm via data interfaces, control input or DCF-module > 20 years / > 10 days
Control inputs	S0-input/system voltage	max. 2 / max. 8
Date retention time		without voltage in the FLASH-ROM, at least 10 years
Display	display version height of digits alternative display reading without power supply	VDEW-display, 84 mm x 24 mm 8 mm alphanumerical display 4 x 20 characters by buffer battery (optional)
Operation	mechanical buttons optical sensor	for operation of display and reset (sealable under hinged module cover) for operation of display
Data interface	optical data interface electrical data interface data protocols maximum transmission rate	optical data interface D0 RS485, CL0 or RS232 IEC 62056-21 or DLMS up to 9600 baud (fixed or Mode C)
Communication module (plugable)	modem data protocols maximum transmission rate	GSM, PSTN (analog) IEC 62056-21 or DLMS bis 19200 Baud (fixed or Mode C)
Outputs	number Opto-MOSFET S0-output relays high load relay	8 max. 250 V AC/DC, 100 mA, make contact or break contact max. 27 V DC, 27 mA max. 250 V AC/DC, 100 mA (max. 2 make contacts) max. 250 V AC/DC, 10 A
Energy supply	switched-mode power supply mains buffering time	3-phase > 500 ms
Auxiliary voltage supply	long-range	48...300 V AC/DC

Power consumption
per phase
(Basic meter)
	voltage path
	   with auxiliary voltage
	   without auxiliary voltage
	current path
	auxiliary voltage
		
		< 0.02 VA / < 0.01 W
		< 0.6 VA / < 0.31 W
		< 0.004 VA
		< 4.2 VA / < 2.7 W

Electrical parameters	isolation resistance surge voltage resistance against HF-fields	4 kV AC, 50 Hz, 1 min 8 kV, impulse 1,2/50 μs, 2 Ω (measuring paths, auxiliary voltage) 6 kV, impulse 1,2/50 μs, 500 Ω (outputs: Opto-MOSFET, relays) 30 V/m (with load)
Temperature range	operating/limit and storage	-25°C...+55°C / -40°C...+70°C
Relative humidity		90% at 40°C, non-condensing
Housing	dimensions class of protection degree of protection: housing degree of protection: terminal block housing material fire characteristics weight	approx. 180 x 285 x 80 (W x H x D) mm acc. to DIN 43857 2 IP 51 IP 31 polycarbonate glass-fibre-reinforced, without halogen, recyclable acc. to IEC 62052-11 approx. 1.2 kg
Connection-cross section	current- and voltage terminals additional terminals (spring terminals)	max. 6 mm² max. 2.5 mm² (32 or 29 terminals + 1 RJ25-socket [6P6C])
Further features	measuring of instantaneous values installation check optical fibre interface buffer battery (type CR-P2) manipulation recognition network analysis	P, Q, S (per phase and sum), U, I, power factor (per phase), line frequency, phase failures via instantaneous values (service data) possible for connection of up to 4 optical fibre separation boxes exchangeable buffer battery for reading out the meter via the optical interface and reading the display without power with opening of the meter- and terminal cover and recognition of electromagnetic interference monitoring of U, I, THD, f, flicker, harmonics