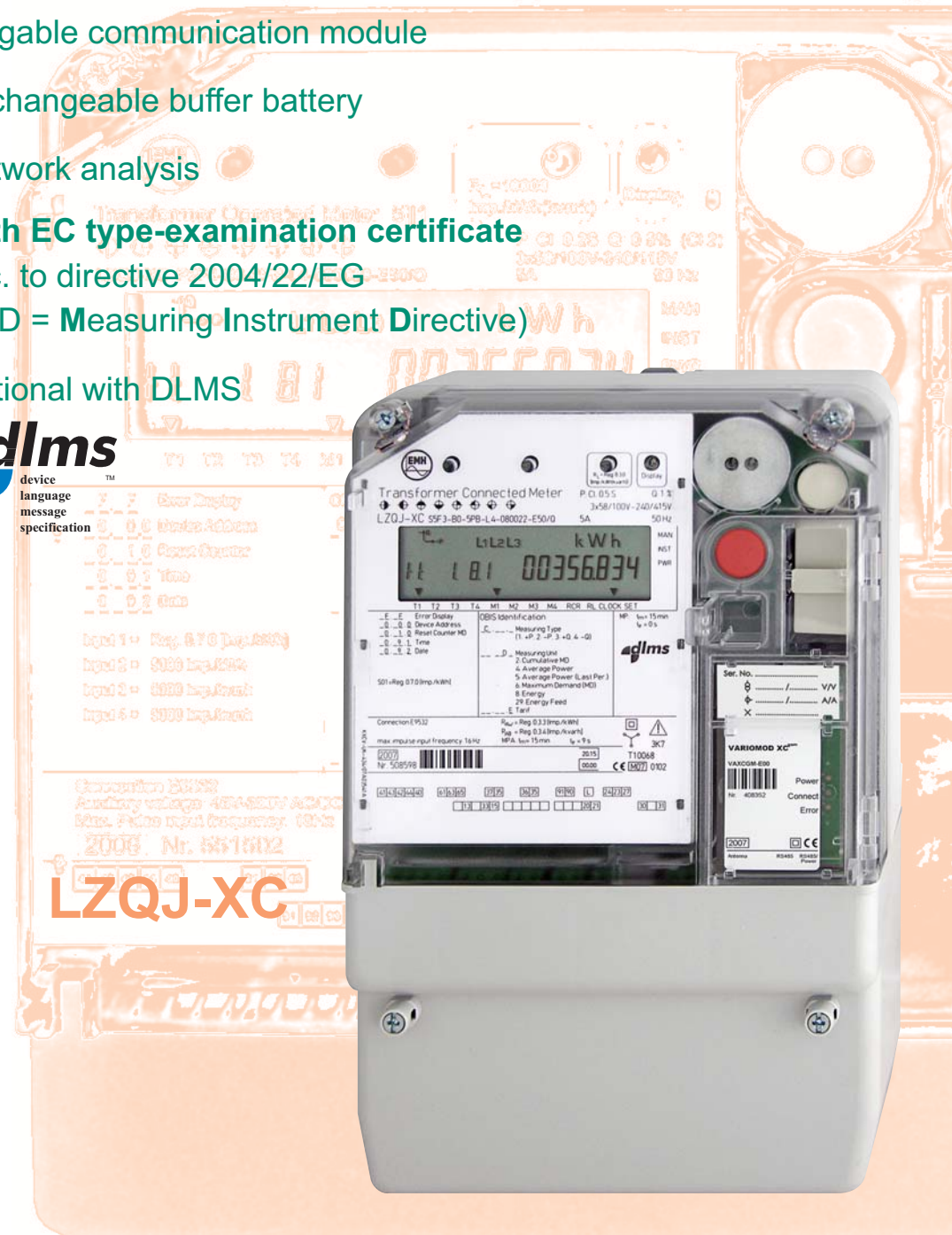


Technical Specification

The LZQJ-XC fulfils the following standards:

DIN 43857-2	Watt-hour meters in moulded insulation case without instrument transformers, up to 60 A rated maximum current; principal dimensions for poly-phase meters
DIN 43857-4	Watt-hour meters in moulded insulation case without instrument transformers, up to 60 A rated maximum current; principal dimensions for meter terminal cover for poly-phase meters,
EN 50470-1	Electricity metering equipment (a.c.) - Part 1: General requirements, tests and test conditions - Metering equipment (class indexes A, B and C)
EN 50470-3	Electricity metering equipment (a.c.) - Part 3: Particular requirements - Static meters for active energy (class indexes A, B and C)
IEC 61000-...	Electromagnetic compatibility (EMC)
IEC 60529	Degrees of protection provided by enclosures (IP code)
IEC 61038	Time switches for tariff and load control
IEC 62052-11	Electricity metering equipment (AC) - General requirements, tests and test conditions - Part 11: Metering equipment
IEC 62053-21	Electricity metering equipment (a.c.) - Particular Requirements - Part 21: Static meters for active energy (classes 1 and 2)
IEC 62053-22	Electricity metering equipment (a.c.) - Particular requirements - Part 22: Static meters for active energy (classes 0,2 S and 0,5 S)
IEC 62053-23	Electricity metering equipment (a.c.) - Particular requirements - Part 23: Static meters for reactive energy (classes 2 and 3)
IEC 62056-21	Electricity metering - Data exchange for meter reading, tariff and load control - Part 21: Direct local data exchange
IEC 62056-46	Electricity metering - Data exchange for meter reading, tariff and load control -Part 46: Data link layer using HDLC protocol
IEC 62056-53	Electricity metering - Data exchange for meter reading, tariff and load control -Part 53: COSEM application layer
IEC 62056-61	Electricity metering - Data exchange for meter reading, tariff and load control - Part 61: Object identification system (OBIS)
IEC 62056-62	Electricity metering - Data exchange for meter reading, tariff and load control - Part 62: Interface classes
DIN 66348-1	Interfaces and basic data link control procedures for serial measurement data communication; start-stop-transmission, point-to-point connection
ITU-T V.11	Electrical characteristics for balanced double-current interchange circuits operating at data signalling rates up to 10 Mbit/s
TIA/EIA-485	Electrical characteristics of generators & receivers for use in balanced digital multipoint systems
ITU-T V.24	List of definitions for interchange circuits between data terminal equipment (DTE) and data circuit-terminating equipment (DCE)
ITU-T V.28	Electrical characteristics for unbalanced double-current interchange circuits

- ✓ Design acc. to VDEW-Specifications 2.1
- ✓ Plugable communication module
- ✓ Exchangeable buffer battery
- ✓ Network analysis
- ✓ **With EC type-examination certificate** acc. to directive 2004/22/EG (MID = **M**easuring **I**nstrument **D**irective)
- ✓ Optional with DLMS



4-Quadrant-/Combi Meter with load profile memory



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		Direct connection version 5(100) A or 10(100) A	Transformer connection version Cl. B* (Cl. 1)	Precision Meter Cl. C* (Cl. 0.5 S)	Precision Meter Cl. 0.2 S
Voltage	4-wire meter	3x127/220 V...3x240/415 V	3x58/100 V...3x240/415 V	3x58/100 V...3x240/415 V	3x58/100 V...3x240/415 V
Current		5(100) A or 10(100) A	5I11 A, 1(6) A, 1(10) A, 5 A	5I11 A, 1(6) A, 1(10) A, 5 A	5I11 A, 1(6) A, 1(10) A, 5 A
Frequency		50 Hz, 60 Hz	50 Hz, 60 Hz	50 Hz, 60 Hz	50 Hz, 60 Hz
Accuracy	active energy reactive energy	Cl. A* (Cl. 2), optional Cl. B* (Cl. 1) Cl. 3, optional Cl. 2	Cl. B* (Cl. 1) Cl. 2	Cl. C* (Cl. 0.5 S) 1% (Cl. 2)	Cl. 0.2 S 0.5% (Cl. 2)
Measuring system	designation	compensated current transformer		compensated current transformer	
Measuring types	active energy reactive energy others	+A, -A +R, -R, R1, R2, R3, R4 S, Ah, U ² h, I ² h		+A, -A +R, -R, R1, R2, R3, R4 S, Ah, U ² h, I ² h	
Meter constants	LED (Imp./kWh[kvarh]) output (Imp./kWh[kvarh]) configuration ability	500...1 000 (depending on meter type) 250...500 (depending on meter type) after certification by means of the certification relevant logbook	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	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	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		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		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		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		within ± 5 ppm via data interfaces, control input or DCF-module > 20 years / > 10 days	
Ripple control receiver	number of channels telegrams	6 all common telegrams		6 all common telegrams	
Control inputs	S0-input / system voltage	max. 1 / max. 5 (in total max. 5 inputs possible)	max. 2 / max. 9 (in total max. 10 inputs possible)	max. 2 / max. 9 (in total max. 10 inputs possible)	max. 2 / max. 9 (in total max. 10 inputs possible)
Data retention time		without voltage in the FLASH-ROM, at least 10 years		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 alphanumeric display 4 x 20 characters; 70.4 mm x 20.8 mm; height of digits 4 mm by buffer battery (optional)		VDEW-display, 84 mm x 24 mm 8 mm alphanumeric display 4 x 20 characters; 70.4 mm x 20.8 mm; height of digits 4 mm by buffer battery (optional)	
Operation	mechanical buttons optical sensor	for operation of display and reset (sealable under hinged module cover) for operation of display		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 19200 baud (fixed or Mode C)		optical data interface D0 CL0, RS485 or RS232 IEC 62056-21 or DLMS up to 19200 Baud (fixed or Mode C)	
Communication module (plugable)	modem interface module data protocols maximum transmission rate	GSM, GPRS, Ethernet, PSTN (analog) RS485, RS232 IEC 62056-21 or DLMS up to 19200 Baud (fixed or Mode C)		GSM, GPRS, Ethernet, PSTN (analog) RS485, RS232 IEC 62056-21 or DLMS up to 19200 Baud (fixed or Mode C)	
Outputs	maximum number Opto-MOSFET S0-output relays high load relay	8 max. 250 V AC/DC, 100 mA (make contact [NO] or break contact [NC]) max. 27 V DC, 27 mA max. 250 V AC/DC, 100 mA (max. 2 make contacts [NO]) max. 250 V AC/DC, 10A (max. 2 make contacts [NO])		8 max. 250 V AC/DC, 100 mA (make contact [NO] or break contact [NC]) max. 27 V DC, 27 mA max. 250 V AC/DC, 100 mA (max. 2 make contacts [NO]) max. 250 V AC/DC, 10A (max. 2 make contacts [NO])	
Energy supply	switched-mode power supply mains buffering time	3-phase > 500 ms		3-phase > 500 ms	
Auxiliary voltage supply	long-range	---	48...300 V AC/DC (optional)	48...300 V AC/DC (optional)	48...300 V AC/DC
Power consumption per phase (Basic meter)	voltage path with auxiliary voltage without auxiliary voltage current path auxiliary voltage	---	< 1.2 VA / < 0.75 W < 0.01 VA	< 0.02 VA / < 0.01 W (3x58/100 V) < 1.2 VA / < 0.75 W < 0.004 VA	< 0.02 VA / < 0.01 W (3x58/100 V) < 1.2 VA / < 0.75 W < 0.004 VA
EMV-characteristics	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)		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		-25°C...+55°C / -40°C...+70°C	
Relative humidity		95% acc. to IEC 62052-11, EN 50470-1 and IEC 60068-2-30		95% acc. to IEC 62052-11, EN 50470-1 and IEC 60068-2-30	
Housing	dimensions class of protection degree of protection housing material fire characteristics weight	approx. 180 x 285 x 80 (W x H x D) mm, acc. to DIN 43857 2 housing: IP 51 / terminal block: IP 31 polycarbonate glass-fibre-reinforced, without halogen, recyclable acc. to IEC 62052-11 1.4 kg		approx. 180 x 285 x 80 (W x H x D) mm, acc. to DIN 43857 2 housing: IP 51 / terminal block: IP 31 polycarbonate glass-fibre-reinforced, without halogen, recyclable acc. to IEC 62052-11 1.2 kg	
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 acc. to DIN EN 50160		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 acc. to DIN EN 50160	

* only valid within EU, Switzerland, Norway, Iceland, Liechtenstein, Croatia and Turkey

Meters from the series LZQJ-XC are designed for universal applications according to VDEW-specifications 2.1. Due to the the application of a tried and tested measuring procedure the meter is distinguished by its high reliability. The high performing processor system guarantees a solid basis for further extensions.

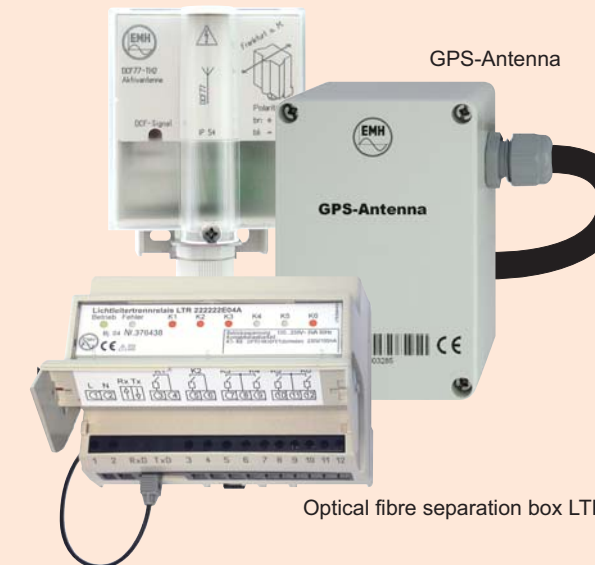
The LZQJ-XC functions can be extended with the following accessories:

Meter modem VARIOMOD-XC (PSTN, GSM, GPRS, Ethernet)

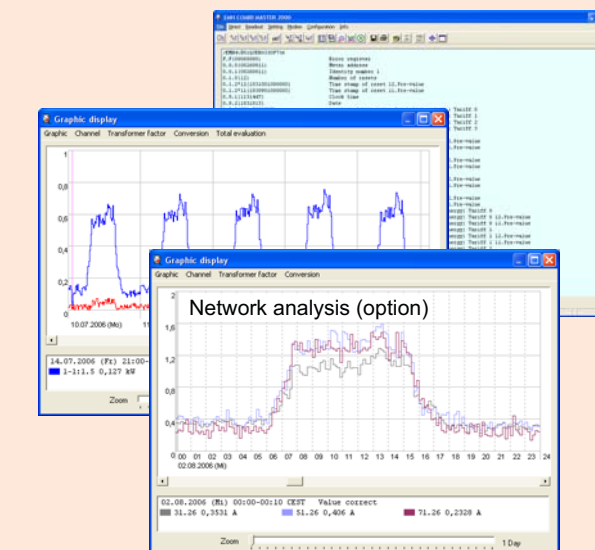
Interface module (RS232, RS485)



DCF-Aerial DCF77-TH2



Optical fibre separation box LTR



Product specifications are subject to change without notice.