Additional features of the LZQJ-XC:

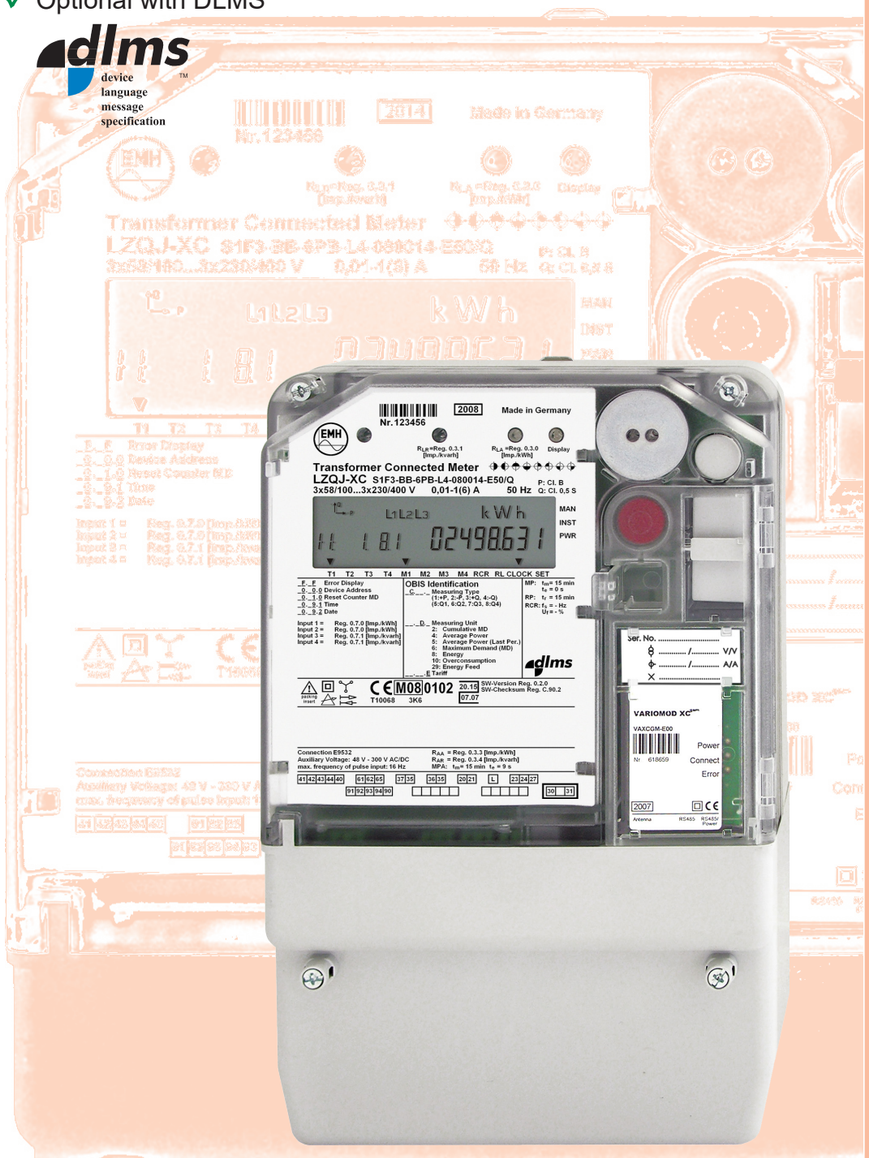
Measuring of instantaneous	P, Q, S (per phase and sum), U, I, power factor, line frequency, values phase failures
Installation check	via instantaneous values (service data) possible
Buffer battery	exchangeable buffer battery for reading out the meter via the optical interface and reading the display without power
Tamper detection	opening of meter and terminal cover and magnetic fields
Network analysis	monitoring of U, I, THD, f, flicker, harmonics acc. to DIN EN 50160

The LZQJ-XC fulfils the following standards:

DIN 43857-2	Watthour meters in moulded insulation case without instrument transformers, up to 60 A rated maximum current; principal dimensions for poly-phase meters
EN 50470-1	Electricity metering equipment (a.c.) - Part 1: General requirements, ests 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

LZQJ-XC

- ✓ Design acc. to VDEW-Specifications 2.1
- ✓ Plugable communication module
- ✓ Exchangeable buffer battery
- ✓ Network analysis
- ✓ Optional with DLMS



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LZQJXC-DAB-E-3.30

		Direct connection version 5(60) A, 10(60) A, 5(100) A, 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	3 x 127/220 V... 3 x 240/415 V	3 x 58/100 V...3 x 240/415 V (optional 3 x 57,7/100...3 x 277/480 V) or up to 3 x 400/690 V	3 x 58/100 V...3 x 240/415 V (optional 3 x 57,7/100...3 x 277/480 V) or up to 3 x 400/690 V	
	3-wire meter	---	3 x 100 V...3 x 415 V or up to 3 x 690 V	3 x 100 V...3 x 415 V or up to 3 x 690 V	
	2-wire meter (for 16,7 Hz)	---	100 V...240 V	100 V...240 V	
Current		5(60) A, 10(60) A, 5(100) A, 10(100) A	5||1 A, 1(6) A, 1(10) A, 5 A, 1 A, 5(20) A	5||1 A, 1(6) A, 1(10) A, 5 A, 1 A, 5(20) A	
Frequency		50 Hz, 60 Hz	50 Hz, 60 Hz, 16,7 Hz	50 Hz, 60 Hz, 16,7 Hz	
Accuracy	active energy	Cl. A (Cl. 2), optional Cl. B (Cl. 1)	Cl. B (Cl. 1)	Cl. C (Cl. 0,5 S)	Cl. 0,2 S
	reactive energy	Cl. 3, optional Cl. 2	Cl. 2	1 % (Cl. 2)	0,5 % (Cl. 2)
Measuring system	designation	compensated current transformer		compensated current transformer	
Measuring types	active energy	+A, -A		+A, -A	
	reactive energy	+R, -R, R_1, R_2, R_3, R_4		+R, -R, R_1, R_2, R_3, R_4	
	others	S, Ah, U^2h, I^2h		S, Ah, U^2h, I^2h	
Meter constants	LED (Imp./kWh[kvarh])	500...1 000 (depending on meter type)	10 000...100 000 (depending on meter type)	10 000...100 000 (depending on meter type) 5 000...50 000 (depending on meter type)	
	output (Imp./kWh[kvarh])	250...500 (depending on meter type)	5 000...50 000 (depending on meter type)	after certification by means of the certification relevant logbook	
	configuration ability	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	32 tariff registers , each with 15 historical values		32 tariff registers , each with 15 historical values	
	measuring period	1, 5, 10, 15, 30, 60 min, adjustable		1, 5, 10, 15, 30, 60 min, adjustable	
Load profile	maximum number of channels	32		32	
	typical memory depth at 1 channel	up to 3 years with a registering period length of 15 min		up to 3 years with a registering period length of 15 min	
	registering period	1, 5, 10, 15, 30, 60 min, adjustable		1, 5, 10, 15, 30, 60 min, adjustable	
	registering type	power, energy, energy feed		power, energy, energy feed	
Real Time Clock	accuracy	within ± 5 ppm		within ± 5 ppm	
	synchronisation	via data interfaces, control input or DCF-module		via data interfaces, control input or DCF-module	
	running reserve battery/capacitor	> 20 years/approx. 6 days (150 hours)		> 20 years/approx. 6 days (150 hours)	
Ripple control receiver	number of channels	6		6	
	telegrams	all common telegrams		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)	
Data retention time		without voltage in the EEPROM, at least 10 years		without voltage in the EEPROM, at least 10 years	
Display	display version	VDEW-display, 84 mm x 24 mm		VDEW-display, 84 mm x 24 mm	
	height of digits	8 mm		8 mm	
	alternative display	alphanumerical display 4 x 20 characters; 70,4 mm x 20,8 mm; height of digits 4 mm		alphanumerical display 4 x 20 characters; 70,4 mm x 20,8 mm; height of digits 4 mm	
	reading without power supply	by buffer battery (optional)		by buffer battery (optional)	
Operation	mechanical buttons	for operation of display and reset (sealable under hinged module cover)		for operation of display and reset (sealable under hinged module cover)	
	optical sensor	for operation of display		for operation of display	
Data interfaces	optical data interface	optical data interface D0		optical data interface D0	
	electrical data interface	RS485, RS232 or CL0		RS485, RS232 or CL0	
	data protocols	IEC 62056-21 or DLMS		IEC 62056-21 or DLMS	
	maximum transmission rate	up to 19200 baud (fixed or Mode C/E)		up to 19200 baud (fixed or Mode C/E)	
Communication module (plugable)	modem	GSM/GPRS, Ethernet, PSTN (analog)		GSM/GPRS, Ethernet, PSTN (analog)	
	interface module	RS485, RS232		RS485, RS232	
	data protocols	IEC 62056-21 or DLMS		IEC 62056-21 or DLMS	
	maximum transmission rate	up to 19200 baud (fixed or Mode C/E)		up to 19200 baud (fixed or Mode C/E)	
Outputs	maximum number	8		8	
	Opto-MOSFET	max. 250 V AC/DC, 100 mA (make contact [NO] or break contact [NC])		max. 250 V AC/DC, 100 mA (make contact [NO] or break contact [NC])	
	S0-output	max. 27 V DC, 27 mA		max. 27 V DC, 27 mA	
	relays	max. 250 V AC/DC, 100 mA (max. 2 make contacts [NO])		max. 250 V AC/DC, 100 mA (max. 2 make contacts [NO])	
	high load relay	max. 250 V AC/DC, 10 A (max. 2 make contacts [NO])		max. 250 V AC/DC, 10 A (max. 2 make contacts [NO])	
Energy supply	switched-mode power supply	3-phase		3-phase	
	mains buffering time	> 500 ms		> 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	voltage path				
per phase	with auxiliary voltage	---	< 0,02 VA/< 0,01 W (3 x 58/100 V)	< 0,02 VA/< 0,01 W (3 x 58/100 V)	
(Basic meter)	without auxiliary voltage	< 1,2 VA/< 0,75 W	< 1,2 VA/< 0,75 W	< 1,2 VA/< 0,75 W	
	current path	< 0,01 VA	< 0,004 VA	< 0,004 VA	
	auxiliary voltage	---	< 4,2 VA...< 2,5 VA	< 4,2 VA...< 2,5 VA	
EMC-characteristics	isolation resistance	4 kV AC, 50 Hz, 1 min		4 kV AC, 50 Hz, 1 min	
	surge voltage	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; inputs: system voltage)		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; inputs: system voltage)	
	resistance against HF-fields	10 V/m (under load)		10 V/m (under load)	
Temperature range	specified operating range	-25 °C...+55 °C		-25 °C...+55 °C	
	limit range for operation, storage and transport	-40 °C...+70 °C		-40 °C...+70 °C	
Relative humidity		max. 95 %, non-condensing acc. to IEC 62052-11, EN 50470-1 and IEC 60068-2-30		max. 95 %, non-condensing acc. to IEC 62052-11, EN 50470-1 and IEC 60068-2-30	
Housing	dimensions	approx. 180 x 285 x 80 (W x H x D) mm, acc. to DIN 43857		approx. 180 x 285 x 80 (W x H x D) mm, acc. to DIN 43857	
	class of protection	II		II	
	degree of protection: housing	IP 51 (optional IP 54)		IP 51 (optional IP 54)	
	degree of protection: terminal block	IP 31		IP 31	
	housing material	polycarbonate glass-fibre reinforced, without halogen, recyclable		polycarbonate glass-fibre reinforced, without halogen, recyclable	
	fire characteristics	acc. to IEC 62052-11		acc. to IEC 62052-11	
Environmental conditions	mechanical	M1 acc. to Measuring Instruments Directive (2004/22/EC)		M1 acc. to Measuring Instruments Directive (2004/22/EC)	
	electromagnetic	E2 acc. to Measuring Instruments Directive (2004/22/EC)		E2 acc. to Measuring Instruments Directive (2004/22/EC)	
	intended location	indoor acc. to EN 50470-1		indoor acc. to EN 50470-1	
Weight		1,4 kg	1,2 kg	1,2 kg	

Product specifications are subject to change without notice!

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 extented with the following accessories:

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

Interface module (RS232, RS485)

DCF-Aerial DCF77-TH2

Communication and parameterisation software