



- Electricity meter with MID approval
- Measurement of active, reactive and apparent energy; 3- and 4-wire measurement
- Suitable for direct measurements up to 65 A
- Bidirectional meters – supply/procurement
- Interfaces: Modbus, M-Bus, pulse
- Outputs for pulses or alarms
- Class B (1%)
- Multi-tariff function
- Multimeter display

B23

Electronic active and reactive energy meter

Functions

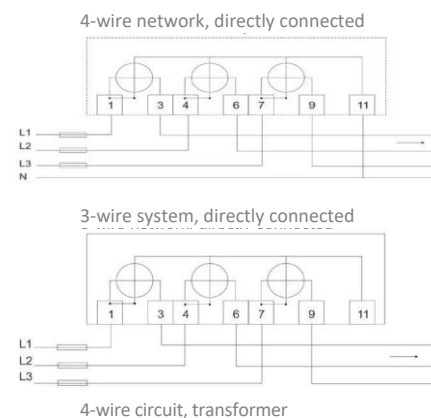
The B23 meters are MID-approved electronic energy meter for use in industrial plants, administrative buildings, leisure facilities or domestic properties. Thanks to its design, it can be mounted compactly on DIN rail with a width of 4 TE.

It is suitable for direct measurement up to 65 A. The clear LCD display shows the actual (primary) measured values.

Equipped with 4 tariffs as standard, the B-meter series also features inputs and outputs for pulses or alarms. Owing to their high accuracy, the B-meters are ideally suited for use in energy management solutions.

For remote transmission of measured energy consumption, the B series is equipped with a comprehensive range of data interfaces. Whether using pulses, Modbus RTU or M-Bus, the meters can be quickly and easily integrated into existing control systems.

Connection options B23



For further connection options, see the manual

For further information on the meters, please visit:

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Berg – die Energieoptimierer®



Measured variables of the instrument's function

Measurement parameter

Voltages [V]	VL1-N, VL2-N, VL3-N VL1-L2, VL2-L3
Currents [A]	IL1, IL2, IL3
Active power [W]	PL1, PL2, PL3, P Σ L
Reactive power [var]	QL1, QL2, QL3, Q Σ L
Power factor	PFL1, PFL2, PFL3, PF Σ L
Frequency [Hz]	fL

Standards applied

IEC 62052-11, IEC 62053-21 Classes 1 and 2,
IEC 62053-22 Class 0.5S, IEC 62053-23
Class 2, GB/T 17215.211-2006, GB/T
17215.321-2008 Classes 1 and 2, GB/T
17215.322-2008 Class 0.5
S, GB 4208-2008, EN 50470-1, EN 50470-3
Cat. B

Technical specifications

B23

Accuracy class	Active energy	Class B (1%) in accordance with IEC 61036
	Reactive energy	Class 2 in accordance with IEC 61268
Voltage inputs	Rated voltage	3×230/400 V AC
	Rated voltage tolerance	-20%...+15%
	Rated frequency	50/60 Hz; ± 5%
	Load	1.6 VA (0.7 W) total
	Connection cross-section	1–25 mm ²
Current inputs	Rated current Ib (Imax)	5 (65) A
	Inrush current	< 20 mA
	Load	< 0.007 VA (0.007 W) per phase at 230 V AC
	Connection cross-section	0.5–10 mm ²
Display	High-resolution LCD display, 7-digit, 7 mm Primary energy values and measured values shown as real values	
Outputs	Switching voltage	24–240 VAC, 24–240 VDC
	Switching current	2–100 mA
	Pulse duration/frequency	10–990 ms
	Pulse value	Adjustable (1–999,999 pulses/kWh)
	Cable cross-section	0.5–1 mm ²
Inputs	Voltage	0 – 240 V AC/DC
	OFF	0 – 12 V AC/DC
	ON	57–240 V AC / 24–240 V DC
	Min. pulse width	30 ms
	Cable cross-section	0.5–1 mm ²
Communication protocols	Depends on version	- Modbus RTU
		- M-Bus
Dimensions/weight	70 × 97 × 64.8 mm (W × H × D)/4 TE	
Housing/Protection class	Polycarbonate, partly glass-fibre reinforced, suitable for DIN rail mounting, protection class IP 20 (IP 51 when fitted in a protective enclosure)	
Environmental conditions	Operating temperature	-40°C to +70°C
	Storage temperature	-40°C to +85°C
	Relative humidity	< 75% on average, 95% for 30 days per year
Standards/specifications	Active energy meters, Class 1 and 2	IEC 61036
	Reactive energy meters, Class 2	IEC 61268
	MID approval	EN 50470-1/3

Order details

Order No.

B23 312 Direct-reading meter with MID certification / SO pulse output / Modbus

3×230/400V, 65A, accuracy class 1, 2 inputs and outputs (pulse/alarm), 4-quadrant measurement, 4 tariffs

002702

B23 313 Direct meter with MID certification / SO pulse output / M-Bus

3×230/400V, 65A, accuracy class 1, 2 inputs and outputs (pulse/alarm), 4-quadrant measurement, 4 tariffs

002703

4 TE door mounting frame

003724