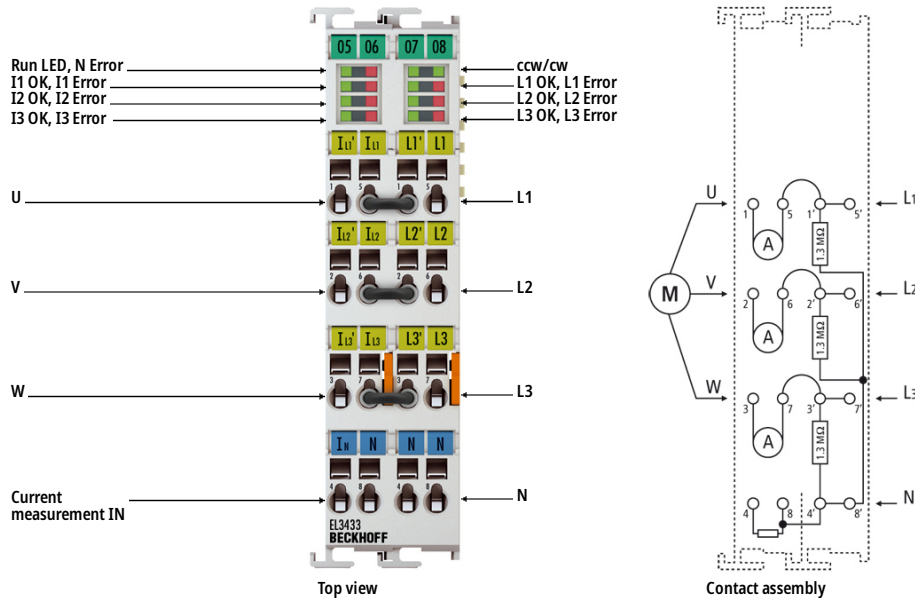
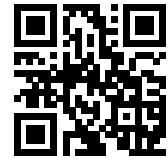


EL3433 | EtherCAT Terminal, 3-channel analog input, power measurement, 500 V AC, 10 A, 16 bit



i Product status: Regular delivery

The EL3433 EtherCAT power measurement terminal is a further development of the EL3403. Currents of up to 10 A can be directly measured with the internal current transformers. This way, there are no additional costs for external current transformers. The external bridges 5 & 1', 6 & 2' and 7 & 3' are already pre-wired. As a result, it is possible to directly connect the supply voltage (5', 6' and 7') and the consumer (1, 2 and 3). The EL3433 can deal with simple grid analysis up to the 21st harmonic analysis. Like all measured terminal data, the harmonic content can be read via the process data.

The EL3433 power measurement terminal has neutral conductor current measurement as standard since the 3rd quarter of 2015. At no additional cost to the end user, the terminal features a shunt between pin 4 and pin 8, in order to enable direct neutral conductor analysis.

Product information

Technical Data

Technical data	EL3433
Number of inputs	4 x current, 3 x voltage
Technology	3-phase power measurement for alternating voltages
Signal type	single-ended
Oversampling factor	-
Distributed clocks	-
Conversion time	mains-synchronous

Measured values	current (I1, I2, I3, In), voltage, effective power, reactive power, apparent power, energy, cos ϕ , frequency, harmonic
Measuring voltage	max. 500 V AC 3~ (ULX-N: max. 288 V AC)
Measuring current	max. 10 A (AC)
Resolution	1 μ A, 0.1 mV, 10 mW
Measuring error	0.5 % relative to full scale value (U/I), 1 % calculated value
Electrical isolation	4500 V
Current consumption power contacts	–
Current consumption E-bus	typ. 200 mA
Special features	direct current measurement, current measurement, harmonic analysis, optional single-phase operation
Weight	approx. 100 g
Operating/storage temperature	-25...+60 °C/-40...+85 °C
Relative humidity	95 %, no condensation
Vibration/shock resistance	conforms to EN 60068-2-6/EN 60068-2-27
EMC immunity/emission	conforms to EN 61000-6-2/EN 61000-6-4
Protect. rating/installation pos.	IP20/variable
Approvals/markings	CE, UL

Housing data	EL-24-2x8pin
Design form	compact terminal housing with signal LEDs
Material	polycarbonate
Dimensions (W x H x D)	24 mm x 100 mm x 68 mm
Installation	on 35 mm DIN rail, conforming to EN 60715 with lock
Side by side mounting by means of	double slot and key connection
Marking	labeling of the BZxxx series
Wiring	solid conductor (e), flexible conductor (f) and ferrule (a): spring actuation by screwdriver
Connection cross-section	s*: 0.08...2.5 mm ² , st*: 0.08...2.5 mm ² , f*: 0.14...1.5 mm ²
Connection cross-section AWG	s*: AWG 28...14, st*: AWG 28...14, f*: AWG 26...16
Stripping length	8...9 mm
Current load power contacts	I _{max} : 10 A

*s: solid wire; st: stranded wire; f: with ferrule