



EL3423 | 3-phase power measurement terminal, Economy

The EL3423 EtherCAT Terminal enables the measurement of relevant data for an efficient energy management system. The voltage is measured internally via direct connection of L1, L2, L3 and N. The current of the three phases L1, L2 and L3 is fed via simple current transformers. The measured energy values are available separately as generated and accepted values. In the EL3423 Terminal, the effective power and the energy consumption for each phase are calculated. In addition, an internally calculated network quality factor provides information about the quality of the monitored voltage supply. The EL3423 offers basic functionality for mains analysis and energy management.

Technical data	EL3423
Number of inputs	3 x current, 3 x voltage
Technology	3-phase power measurement
Oversampling factor	–
Distributed clocks	–
Update interval	10 s...1 h adjustable
Update time	net-synchronous
Measured values	energy, power, power quality factor
Measuring voltage	max. 480 V AC 3~ (ULx-N: max. 288 V AC/DC)
Measuring current	max. 1 A (AC/DC), via measuring transformers x A/1 A
Measuring error	0.5 % relative to full scale value (U/I), 1 % calculated value
Monitoring function	phase order, phase failure, phase asymmetry, undervoltage/overvoltage (adjustable)
Electrical isolation	2500 V
Current consumption power contacts	–
Current consumption E-bus	typ. 120 mA
Special features	single-phase operation possible, mains monitoring functionality
Weight	approx. 75 g
Operating/storage temperature	0...+55 °C/-25...+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
Approvals	CE

Related products	
EL3443	3-phase power measurement terminal with extended functionality
EL3483	3-phase grid status terminal for voltage, frequency and phases