



## EL3443 | 3-phase power measurement terminal with extended functionality

The EL3443 EtherCAT Terminal enables the measurement of all relevant electrical data of the supply network and carries out simple pre-evaluation. The voltage is measured 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. All measured currents and voltages are available as root-mean-square values. In the EL3443 Terminal, the effective power and energy consumption for each phase are calculated. The RMS values of voltage U and current I as well as the active power P, apparent power S, reactive power Q, frequency f, phase shift angle  $\cos \phi$  and harmonic are available. The EL3443 offers extended functionality for mains analysis and energy management.

Technical data	EL3443	EL3443-0010
Number of inputs	3 x current, 3 x voltage	
Technology	3-phase power measurement	
Oversampling factor	–	
Distributed clocks	optional	
Update interval	one mains period (20 ms at 50 Hz)	
Update time	net-synchronous	
Measured values	current, voltage, effective power, reactive power, apparent power, active energy, reactive energy, apparent energy, $\cos \phi$ , frequency, THD, harmonic (up to 40th harmonic)	
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	max. 5 A (AC/DC), via measuring transformers x A/5 A
Measuring error	0.3 % relative to full scale value (U/I), 0.6 % calculated values (see documentation)	
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, precise detection of zero voltage crossing	
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	

Related products	
EL3423	3-phase energy measurement terminal Economy
EL3483	3-phase grid status terminal for voltage, frequency and phases