



EL3483 | 3-phase mains monitoring terminal for voltage, frequency and phase

The EL3483 EtherCAT Terminal enables the monitoring of relevant electrical data of the supply network. The voltage is measured internally via direct connection of L1, L2, L3 and N. The internal measured values are compared with threshold values preset by the user. The result is available as digital information in the process image. The EL3483 checks for the correct phase order L1, L2, L3, phase failure, undervoltage and overvoltage, and possible phase asymmetry. An error bit is set in the case of an incorrect phase order or the failure of a phase. Should, for example, an asymmetry or voltage error occur, only a warning bit is set initially. In addition, an internally calculated mains quality factor provides information about the quality of the monitored voltage supply. The EL3483 offers basic functionality for mains monitoring and analysis.

Technical data	EL3483
Number of inputs	3 x voltage
Technology	3-phase mains monitor
Oversampling factor	–
Distributed clocks	–
Update interval	ten mains periods (200 ms at 50 Hz)
Update time	net-synchronous
Measured values	digital threshold values
Measuring voltage	max. 480 V AC 3~ (ULx-N: max. 288 V AC/DC)
Measuring current	–
Measuring procedure	true RMS
Measuring error	0.5 % relative to full scale value (U), 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	operation as voltage monitor, frequency monitor and phase monitor, optionally in single-phase operation
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	
EL3423	3-phase energy measurement terminal Economy
EL3443	3-phase power measurement terminal with extended functionality