



i EL3453 | 3-phase power measurement terminal up to 690 V AC with extended functionality

The EL3453 EtherCAT power measurement terminal is an advancement based on the EL3413. With up to 690 V AC, the voltage inputs are optimised for the direct monitoring of high-capacity generators, as in the wind power industry, for example. No upstream voltage transformer is required. The four current inputs are electrically isolated so that the terminal can be used in all common grounded current transformer configurations such as 2- or 3-transformer configurations with star or delta connection incl. neutral conductor current measurement. The EL3453 can be used for simple grid analysis up to the 63rd harmonics analysis. Alternatively, all readings can be combined in a power quality factor for simplified diagnostics. Like all measured terminal data, the harmonic content can be read via the process data.

Technical data	EL3453
Number of inputs	4 x current, 3 x voltage
Technology	3-phase power measurement
Oversampling factor	–
Distributed clocks	optional
Conversion time	mains-synchronous
Measured values	current, voltage, effective power, reactive power, apparent power, active energy, reactive energy, apparent energy, $\cos \phi$, frequency, THD, harmonic (up to 63 rd harmonic)
Measuring voltage	max. 690 V AC 3~ (ULx-N: max. 400 V AC)
Measuring current	adjustable, 100 mA, 1 A (default), 5 A; potential-free
Measuring error	0.3 % relative to full scale value (U/I), 0.6 % calculated values (see documentation)
Update time	net-synchronous
Electrical isolation	4500 V
Current consumption power contacts	–
Special features	single-phase operation possible, mains monitoring functionality, precise detection of zero voltage and zero current crossing
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



Product announcement

estimated market release 4th quarter 2018