



EL3433 | 3-phase power measurement terminal 500 V AC, 10 A

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.

| Technical data | EL3433 |
|------------------------------------|--|
| Number of inputs | 4 x current, 3 x voltage |
| Technology | 3-phase power measurement for alternating voltages |
| 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, single-phase operation also possible |
| 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. class/installation pos. | IP 20/variable |
| Approvals | CE, UL |

| Related products | |
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| EL3403 | 3-phase power measurement terminal up to 500 V |