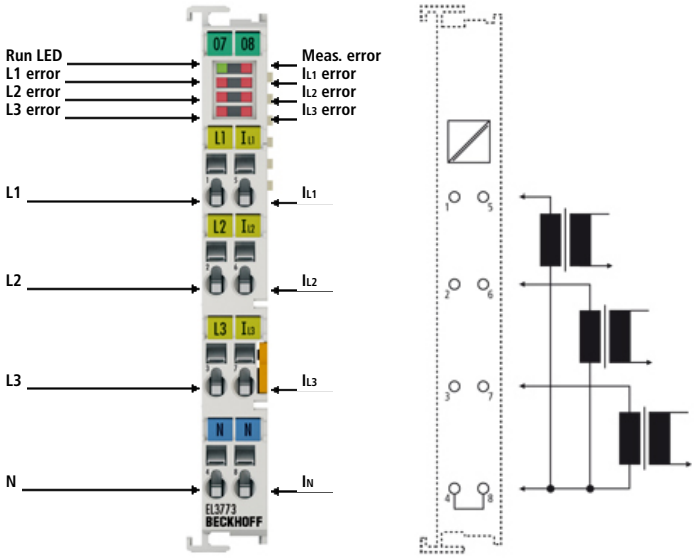

EL3773 | Power monitoring oversampling terminal

The EtherCAT Terminal EL3773 is a power monitoring terminal for state monitoring of a 3-phase AC voltage system. For each phase voltages up to 288 V_{eff}/410 V DC and currents up to 1 A_{eff}/1.5 A DC are sampled as instantaneous values with a resolution of 16 bits. The six channels are measured simultaneously based on the EtherCAT oversampling principle with a temporal resolution of up to 100 µs and passed on to the control system. The control system has sufficient computing power for true RMS or performance calculation and complex custom algorithms based on the measured voltages and currents. Through the oversampling principle the terminal is able to measure at significantly shorter intervals than the cycle time of the control system. AC and DC parameters must be connected and measured with a common reference potential. The EL3773 supports distributed clocks and can therefore measure synchronous with other EtherCAT devices.

Technical data	EL3773
Number of inputs	3 x current, 3 x voltage
Technology	3-phase power monitoring for alternating/direct voltages
Oversampling factor	n = 1…100 selectable
Distributed clocks	yes
Conversion time	min. 100 µs, all channels simultaneously
Measured values	current (I1, I2, I3), voltage as instantaneous values (oversampling)
Measuring voltage	max. 500 V AC 3~ (ULx-N: max. 288 V AC), max. 410 V DC
Measuring current	max. 1 A (AC)/1.5 A (DC), via measuring transformers x A AC/1 A AC
Resolution	16 bit (incl. sign)
Measuring error	0.5 % relative to full scale value
Electrical isolation	2500 V
Current consumption power contacts	–
Current consumption E-bus	200 mA
Special features	oversampling, AC/DC measurement, single-phase operation also possible, adjustable hardware filters
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
Protect. class/installation pos.	IP 20/variable
Approvals	CE, UL