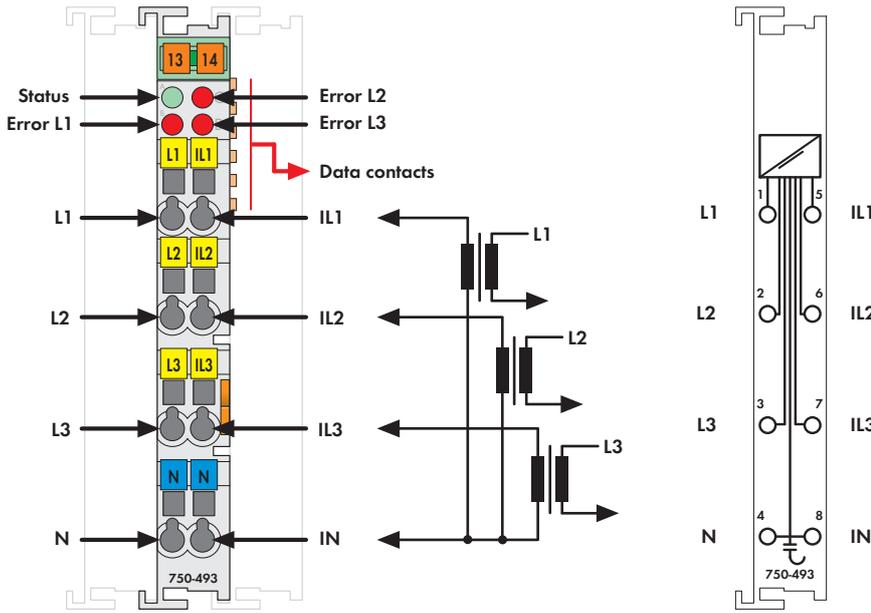


3-Phase Power Measurement Module



Delivery without Mini WSB marker

The 750-493 3-Phase Power Measurement Module measures the electrical data in a 3-phase supply network. The voltage is measured via network connection to L1, L2, L3 and N. The current of the three phases is fed to IL1, IL2, IL3 and IN via current transformers.

The 3-phase power measurement module transmits the root mean square values into the process image without requiring high computing power from the controller. For each phase, the effective power (P), the energy consumption (W) and the power factor (cos φ) are calculated by the 3-phase power measurement module using the root mean square values of all measured voltages (V) and currents (I).

For example, both the apparent power (S) and phase shift angle (φ) can be easily derived from these values. Therefore, the 3-phase power measurement module provides a comprehensive network analysis via the fieldbus. By means of values such as voltage, current, effective and apparent power consumption or load condition, the operator can regulate the supply to a drive or machine in the best possible way and protect the installation from damage/failure.

Description	Item no.	Pack. unit
3-Phase Power Measurement Module (1 A)	750-493	1
3-Phase Power Measurement Module (5 A)	750-493/000-001	1
Accessories	Item no.	Pack. unit
 Miniature WSB quick marking system, plain with marking	248-501	5
	see pages 256 ... 257	
Approvals		
Series 750		
Conformity marking	CE	

Technical Data	
No. of inputs	6 (3 voltage inputs, 3 current inputs)
Measuring voltage (max.)	500 VAC 3~
Input resistance voltage path (typ.)	500 kΩ
Measuring current max.	1 A (750-493) 5 A (750-493/000-001)
Input resistance current path (typ.)	33 mΩ (750-493) 6.8 mΩ (750-493/000-001)
Resolution	16 bits
Frequency range with activated DC filter	10 Hz ... 500 Hz
Frequency range with deactivated DC filter	0 Hz ... 500 Hz
Max. operating frequency	approx. 2 kHz
Signal form	any (in consideration of the frequency range and max. operating frequency)
Measuring error for current and	0.5 % (of the upper range value)
Measuring procedure	True RMS with 64,000 samples / s
Measuring cycle time	configurable, preset at 50 ms per measured value
Measured values	Effective power, energy, power factor (cos φ)
Voltage supply	via system voltage internal bus (5 V)
Current consumption (internal)	115 mA
Isolation	500 V system/supply
Bit width	2 x 48 bits data 2 x 24 bits control/status (optional)
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Stripped lengths	8 ... 9 mm / 0.33 in
Width	12 mm
Weight	48.5 g
EMC CE-Immunity to interference	acc. to EN 50082-2 (1996)
EMC CE-Emission of interference	acc. to EN 50081-1 (1993)