



The 750-495 3-Phase Power Measurement Module measures electrical data in a three-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 (two clamping points each +,-) via current transformers or via Rogowski coils for the 750-495/000-002 module. The 750-495 Module transmits metrics (e.g., reactive/apparent/effective power, energy consumption, power factor, phase angle, frequency, over-/undervoltage) directly into the process image, without requiring high computing power from the controller.

Both comprehensive metrics and harmonic analysis up to the 41st harmonic permit extensive network analysis via the fieldbus. Metrics allow the operator to optimize the supply to a drive or machine, protecting the system from damage and failure. Insulation failures can be detected and prevented via current measurement performed in the neutral conductor. The 4-quadrant display indicates the type of load (inductive, capacitive) and whether it is an energy consumer or producer.

| Description  | Item No.                             | Pack. Unit |
|--|--------------------------------------|------------|
| <b>3-Phase Power Measurement Module (690V/1A)</b>                | <b>750-495</b>                       | 1          |
| <b>3-Phase Power Measurement Module (690V/5A)</b>                | <b>750-495/000-001</b>               | 1          |
| <b>3-Phase Power Measurement Module (690V/RC) Rogowski Coils</b> | <b>750-495/000-002</b>               | 1          |
| Accessories  | Item No.                             | Pack. Unit |
| <b>Miniature WSB Quick marking system</b>                        |                                      |            |
| plain  | <b>248-501</b>                       | 5          |
| with marking   | see Section 11                       |            |
| Approvals  |                                      |            |
| Conformity marking   | CE                                   |            |
| Technical Data   |                                      |            |
| Wire connection  | CAGE CLAMP®                          |            |
| Cross sections   | 0.08 mm² ... 2.5 mm² / AWG 28 ... 14 |            |
| Strip lengths  | 8 ... 9 mm / 0.33 in                 |            |
| Width  | 12 mm                                |            |
| Weight   | 48.5 g                               |            |
| EMC immunity of interference                                     | acc. to EN 61000-6-2                 |            |
| EMC emission of interference                                     | acc. to EN 61000-6-3                 |            |

| Technical Data                          |  |
|---|--|
| Number of measurement inputs            | 7 (3 voltage measurement inputs, 4 differential current measurement inputs)  |
| Rated voltage                           | $V_{IN} = 400 \text{ V AC}$ ; $V_{IL} = 690 \text{ V AC}$  |
| Input resistance voltage path (typ.)    | 1429 kΩ  |
| Measuring current (max.)                | 1 A (750-495)<br>5 A (750-495/000-001)   |
|   | Rogowski Coils RT500/RT2000 (750-495/000-002)  |
| Input resistance current path (typ.)    | 22 mΩ (750-495)<br>5 mΩ (750-495/000-001)<br>44 kΩ (750-495/000-002)   |
| Resolution                              | 24 bits  |
| Frequency range, power supply frequency | 45 Hz ... 65 Hz  |
| Frequency range, harmonics analysis     | 0 Hz ... 3300 Hz   |
| Max. operating frequency                | 15,9 kHz   |
| Signal form                             | any periodic signals (taking the maximum frequency into account)   |
| Measuring error for current and voltage | Max. 0.5 % (of the upper range value)  |
| Measuring procedure                     | True RMS measurement   |
| Measuring cycle time                    | Adjustable for arithmetic mean value, Min_Max_Values   |
| Measured values                         | Line-to-line voltage, power output, energy, power factors, mains frequency, harmonic analysis (up to the 41st harmonic), THD via system voltage internal bus (5 V) |
| Power supply                            |  |
| Current consumption (internal)          | 100 mA   |
| Rated surge voltage                     | 6 kV   |
| Overvoltage category                    | III  |
| Degree of pollution                     | 2  |
| Bit width                               | 2 x 128 bits data<br>2 x 64 bits control/status  |