



| Type Network Analyzer | PQ-Box 50 | | | PQ-Box 150 | | | | PQ-Box 200 | | PQ-Box 300 |
|--|------------|-------|--------------|------------|--------|--------------|--------------|--------------|---------------|------------|
| Option | Basic | Light | Expert | Basic | Basic+ | Light | Expert | T0 | TI | HF |
| Data memory in Gbyte (memory optional) | 1 | | | 4 (32) | | | | 4 (32) | | 8 (32) |
| Sampling frequency voltage | 20,48 kHz | | | 20,48 kHz | | | | 40,96 kHz | | 409,60 kHz |
| Sampling frequency current | 20,48 kHz | | | 20,48 kHz | | | | 40,96 kHz | | 40,96 kHz |
| Sampling frequency transient measurement | - | | | - | | | | - | 4 MHz | 409,60 kHz |
| Input voltage (resolution) | 4 (16-bit) | | | 4 (24-bit) | | | | 4 (24-bit) | | 4 (24-bit) |
| Input current (resolution) | 4 (16-bit) | | | 4 (24-bit) | | | | 5 (24-bit) | | 5 (24-bit) |
| Bridging energy failure | 1,5 h | | | 4,0 h | | | | 4,0 h | 3,5 h | 3,5 h |
| IP protection | IP65 | | | IP65 | | | | IP65 | | IP65 |
| Analog input (1000 mV) | - | - | - | - | - | - | - | • | • | • |
| Binary input (0 - 250 V AC/DC) | - | - | - | - | - | - | - | • | • | • |
| Evaluation according to: EN50160 (2016) / IEC 61000-2-2 (2018) / IEC 61000-2-12/IEC 61000-2-4 (Class 1; 2; 3)/NRS048 /IEEE 519/VDE AR-4105 | - | • | • | - | • | • | • | • | • | • |
| Recording free interval 1 sec to 30 min | • | | | • | | | | • | | • |
| Recording 200 ms interval & 3 sec interval parallel to free interval | - | - | • | - | - | • | • | • | • | • |
| Voltage, Current: ½ periode min. max. average | • | • | • | • | • | • | • | • | • | • |
| Power: P, Q, S, PF, cos phi, sin phi, tan phi | • | • | • | • | • | • | • | • | • | • |
| Distortion-, fundamental reactive-, modulation- and unbalance power | • | • | • | • | • | • | • | • | • | • |
| Energy: P, Q, P+, P-, Q+, Q- | • | • | • | • | • | • | • | • | • | • |
| Flicker (Pst, Plt, Pinst) | - | • | • | - | • | • | • | - | - | • |
| Unbalanced voltage, current; positive sequence/ negative sequence | - | • | • | • | • | • | • | • | • | • |
| Voltage harmonics according IEC 61000-4-30 Ed. 3 Class A - to 50. | - | • | • | - | • | • | • | • | • | • |
| Voltage harmonics extreme values 2. to 50. (200 ms RMS) | - | - | • | - | - | • | • | • | • | • |
| Phase angle of voltage and current harmonics | - | - | • | - | - | • | • | • | • | • |
| Voltage harmonics 200 Hz frequency bands - 2 kHz to 9 kHz (IEC 61000-4-7) | - | - | - | - | - | - | • | • | • | • |
| Voltage Supraharmonics 2 kHz - 170 kHz (200 Hz / 2 kHz frequency bands) | - | - | - | - | - | - | - | - | - | • |
| Current harmonics 2. to 50. | - | • | • | - | • | • | • | • | • | • |
| Current harmonics extreme values 2. to 50. (200 ms RMS) | - | - | • | - | - | • | • | • | • | • |
| Current harmonics 200 Hz frequency bands 2 kHz to 9 kHz (IEC 61000-4-7) | - | - | - | - | - | - | • | • | • | • |
| Phase angle of current harmonics according fundamental of voltage | - | - | • | - | - | • | • | • | • | • |
| THD U and I ; PWHD U and I ; PHC | • | • | • | • | • | • | • | • | • | • |
| Frequency spectrum with 5 Hz resolution up to | - | - | 10 kHz | - | - | 10 kHz | 20 kHz | 20 kHz | 170 kHz | |
| Ripple control signal 100 Hz to 5 kHz (200 ms RMS max value) | - | - | • | - | - | • | • | • | • | • |
| Frequency, 10 sec, average-, min.- max-value | • | • | • | • | • | • | • | • | • | • |
| 10/15/30 min interval P, Q, S, D, cos(φ), sin(φ), tan(φ) add to other interval | • | • | • | • | • | • | • | • | • | • |
| Online mode | | | | | | | | | | |
| Oscilloscope recorder - sampling frequency | 20,48 kHz | | | 20,48 kHz | | | | 40,96 kHz | | 409,60 kHz |
| Power triangle 3D of active-, reactive, apparent power and distortion | • | • | • | • | • | • | • | • | • | • |
| Voltage harmonics and current harmonics | - | • | • | - | • | • | • | • | • | • |
| Online spectrum analysis | - | - | DC to 10 kHz | - | - | DC to 10 kHz | DC to 20 kHz | DC to 20 kHz | DC to 200 kHz | |
| Voltage harmonics, current harmonics 200 Hz frequency band-2 kHz to 9 kHz | - | - | - | - | - | - | • | • | • | • |
| Supraharmonics up to 200 kHz (200 Hz or 2 kHz frequency band) | - | - | - | - | - | - | - | - | - | • |
| Direction of harmonics and phase angle of current harmonics | - | - | • | - | - | • | • | • | • | • |
| Triggerfunctions (Oscilloscope & ½ Periode RMS recorder) | | | | | | | | | | |
| Manual trigger via button | - | - | - | - | • | • | • | • | • | • |
| RMS level trigger (U, I) | - | - | • | - | • | • | • | • | • | • |
| RMS jump trigger (U, I) | - | - | • | - | • | • | • | • | • | • |
| ½ periode frequency trigger (level; df/dt) | - | - | • | - | - | • | • | • | • | • |
| Phase shift trigger | - | - | • | - | - | • | • | • | • | • |
| Envelope trigger | - | - | • | - | - | • | • | • | • | • |
| Interval-trigger, automatic trigger | - | - | • | - | - | • | • | • | • | • |
| Trigger on binary input (0 - 250 V AC/DC signal; threshold 10 V) | - | - | - | - | - | - | - | • | • | • |
| Option R1 Ripple signal voltage and current recorder 100 Hz to 3 kHz | RI | RI | RI | RI | RI | RI | RI | RI | RI | RI |
| Option S1 WLAN / Wifi interface | • | • | • | SI | SI | SI | SI | SI | SI | SI |