Type Network Analyzer	PQ-Box 50			PQ-Box 150				PQ-Box 200		PQ-Box 300
Option	Basic	Light	Expert	Basic	Basic+	Light	Expert	T0	T1	HF
Data memory in Gbyte (memory optional)	1	1	1	4 (32)	4 (32)	4 (32)	4 (32)	4 (32)	4 (32)	8 (32)
Sampling frequency voltage	20,46 kHz	20,46 kHz	20,46 kHz	20,46 kHz	20,46 kHz	20,46 kHz	20,46 kHz	40,96 kHz	40,96 kHz	409,60 kHz
Sampling frequency current	20,46 kHz	20,46 kHz	20,46 kHz	20,46 kHz	20,46 kHz	20,46 kHz	20,46 kHz	40,96 kHz	40,96 kHz	40,96 kHz
Sampling frequency transient measurement	–	–	–	–	–	–	–	–	4 MHz	409,60 kHz
Input voltage (resolution)	4 (16-bit)	4 (16-bit)	4 (16-bit)	4 (24-bit)	4 (24-bit)	4 (24-bit)	4 (24-bit)	4 (24-bit)	4 (24-bit)	4 (24-bit)
Input current (resolution)	4 (16-bit)	4 (16-bit)	4 (16-bit)	4 (24-bit)	4 (24-bit)	4 (24-bit)	4 (24-bit)	5 (24-bit)	5 (24-bit)	5 (24-bit)
Bridging energy failure	4,0 h	4,0 h	4,0 h	4,0 h	4,0 h	4,0 h	4,0 h	4,0 h	3,5 h	3,5 h
IP protection	IP65	IP65	IP65	IP65	IP65	IP65	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	–	–	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	20,46 kHz	20,46 kHz	20,46 kHz	20,46 kHz	20,46 kHz	20,46 kHz	20,46 kHz	40,96 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 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	R1	R1	R1	R1	R1	R1	R1	R1	R1	R1
Option S1 WLAN / Wifi interface	•	•	•	S1	S1	S1	S1	S1	S1	S1