Sonel®

CE

CLASS S	CAT IV	IP51
IEC 61000-4-30	600 V	

v1.01 | 19.02.2020

Connections

Top bar of the display

General correctness

✖ if the table of Parameter correctness includes is at least one ✖

❓ if the table of Parameter correctness includes is at least one ❓ , but there is no error (no ✖)

✔ if all measured parameters in the table of Parameter correctness are correct

🕐 16:59:20 | 2016-07-20 | **H** | ✔ | ▶ | 🔧 F-x | 💾 3.7 GB free | 🔌 | 🔋 | ⚡

1 Current date and time
2 Hold/continue button of display refreshing
3 Parameter Correctness
4 Recording status
5 Actual current probes connected
6 Free memory on SD card
7 USB stick status
8 Battery status and external supply

Measuring inputs

Currents - 4 channels
Flexible: **Fx(A): 1...3000 A**
CT: **C-4: 1...1000 A**
C-6: 0.01...10 A
C7: 0.1...100 A

Voltages - 5 channels
L1, L2, L3, N, PE
AC: **MAX 760 V$_{RMS}$**
DC: **±1150 V**
referred to protective earth terminal (PE)

External power supply

DC supply input
12 V ± 10%
max. 2.5 A

Cover
Power adapter input 12VDC
microSD card slot
Current clamp inputs L1, L2, L3, N
Voltage measurement inputs L1, L2, L3, N, PE

External power supply
CAT II 300 V
100...240 V AC, 50...60 Hz
12 V 2.5 A DC

USB slot for PC connection
USB slot for pendrive
Recording START button
Recording / charging LED indicator

START
ON/OFF button

PQM-707

Battery

Li-Ion BATTERY

11.1 V
3.4 Ah

1 2 3

DC system

DC+M system

1-phase

Split-phase

3-phase 3-wire

3-phase 3-wire (CT, VT)

3-phase 4-wire

3-phase 4-wire (CT, VT)
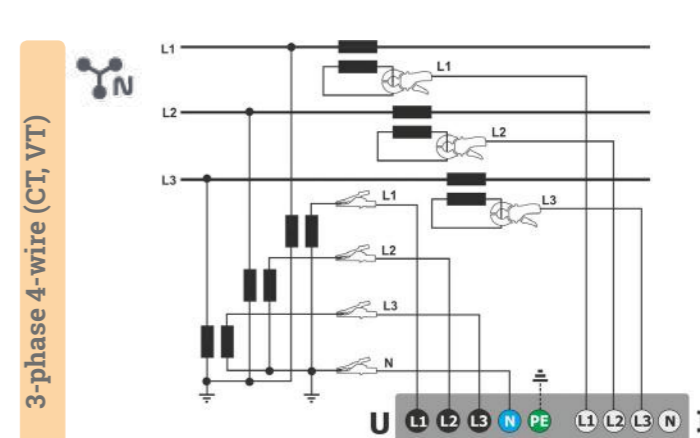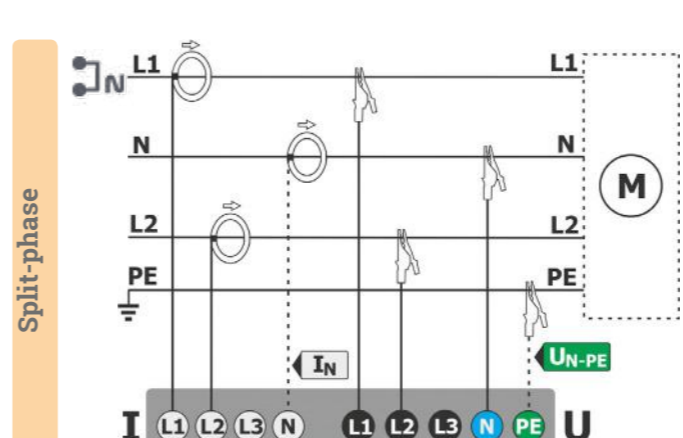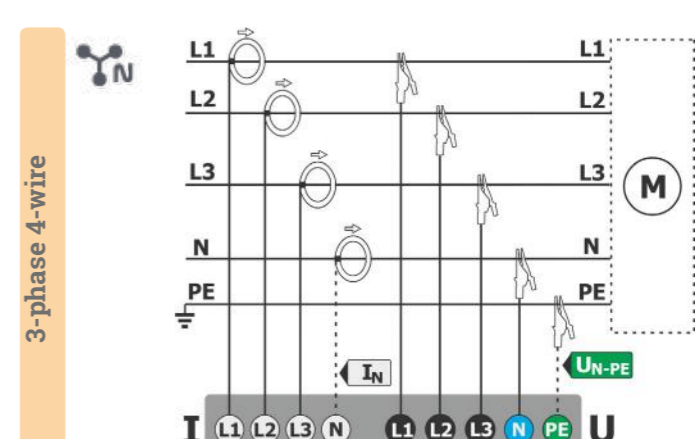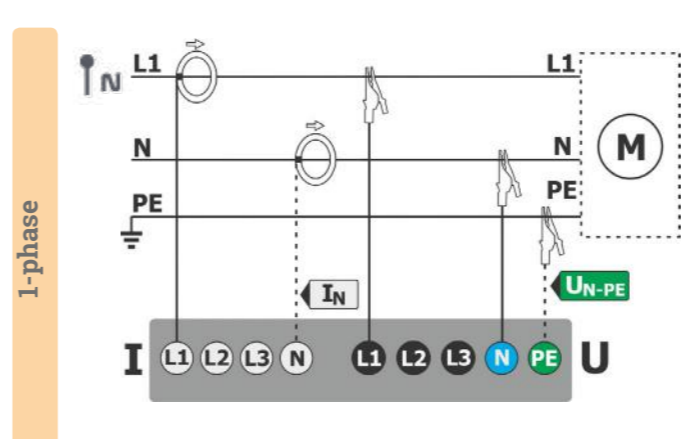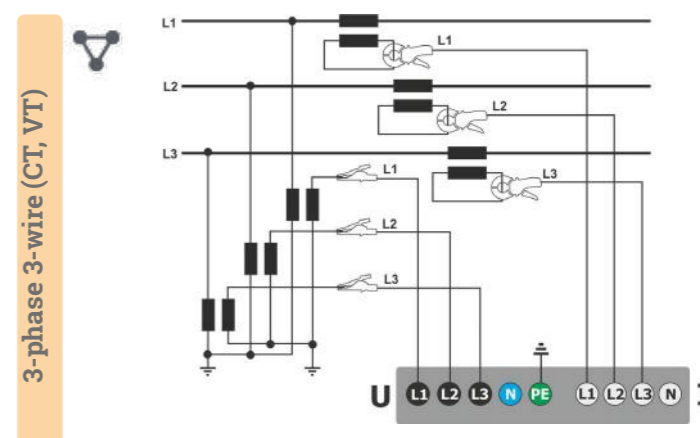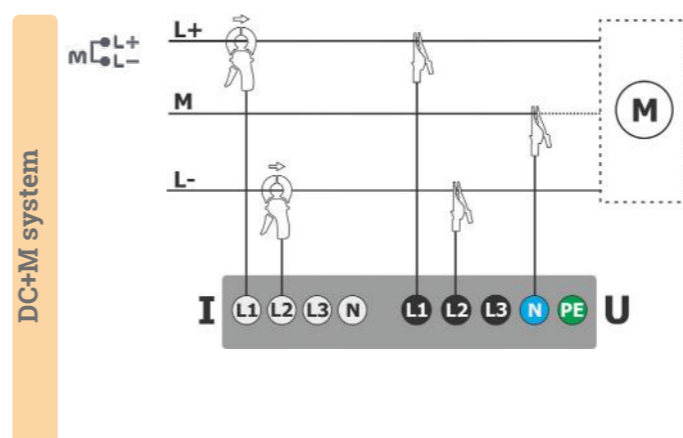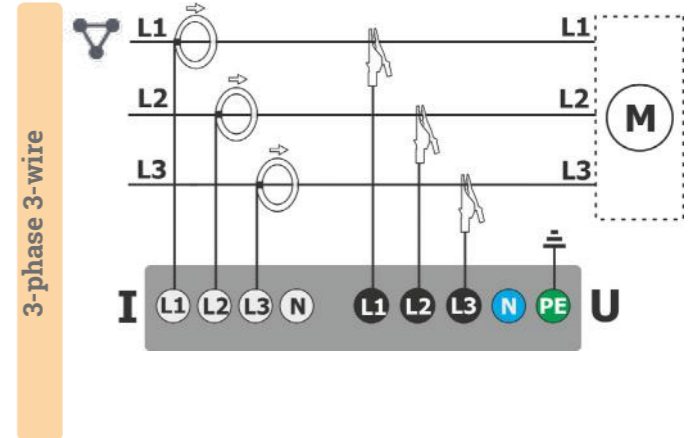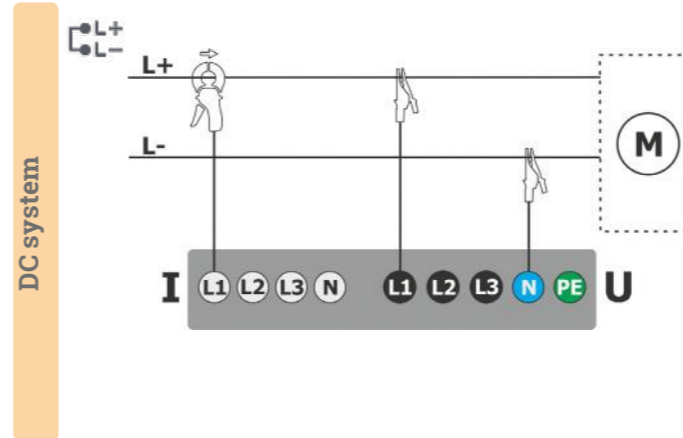
Select a configuration from list

Select configuration from list

Set configuration as active

Connect signals

Start recording

Press START/STOP

LED starts to blink RED

Status icon changes color to red

Buzzer signals are heard: 3 short signals

Stop recording

Press START/STOP

LED does not blink anymore

Status icon changes color to green

Buzzer signals are heard: 1 long + 3 short signals

Before measurement adjust settings

- General settings (I and II)
- Voltage parameters
- Current parameters
- Power parameters
- Energy and factors
- Flicker and unbalance
- THD and harmonics
- Save over own name and select as active

Parameters correctness

Voltage values	✓
Current values	✓
Voltage phasors	✓
Current phasors	✓
Frequency	✓

✓ OK

PQM-707 - Main menu

Recording configuration

Recording analysis

Inrush

Analyzer information

Analyzer settings

Configure the measurement ▶ Record

- Connection of the meter
- Configuration of
  └ mains system
  └ frequency
  └ probes type
  └ measurement duration
  └ nominal current and trigger threshold

- Wait for automatic threshold value
- Wait for end of recording

Analyse waveform plot

- menu bar
- ∿ waveform
- RMS plot
- characteristics

Analyzer settings

Hardware settings	Settings	Managers
① Date and time	⑤ User data	Standards
② Clamps	③ Power saving	Files
Memory	④ Security	Upgrades
	Startup screen	
	Display	

① Set date and time

- YYYY-MM-DD or MM/DD/YYY
- hh:mm:ss

③ Power saving

- Instantaneous auto-off mode
- Instrument auto-off mode

② Set current probe direction

④ Security

- Set lock analyzer PIN

⑤ User data

- User specification, contact and address

List of recorded measurements

Select a measurement file from list

Analysis of the selected recording

Recording summary window

① Configuration name
② History of recording
③ Statistics of events
④ Statistics of Voltage and Amps measurement

⚠ go to list of events
∿ go to plots
timeplots
harmonics
go to standard report (only for configuration acc. to standard)
go to energy costs calculator (only for configuration acc. to user)

⚠ Analysis of events

- Swells
- Dips (sags)
- Interruptions
- I > max
- I < min
- U_{DC} > max
- U_{DC} < min

Report according to standard

Before recording

User data ▶ Enter personal information

After recording

Enter report settings ▶ ✓

Timeplot of trends

Set:
- start time
- duration
- end time

Bargraph of harmonics

Energy cost calculator