

## Digital Power Analyser Multi-function Power Meter

Memory 16MB  
Energy Accuracy 0.2S  
Individual Harmonics to 63<sup>rd</sup> order  
4 CTs (Neutral Current input)  
Optional Plug-in Modules  
Capacitive Buttons

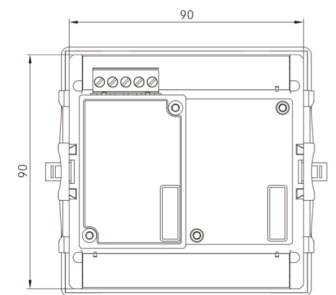
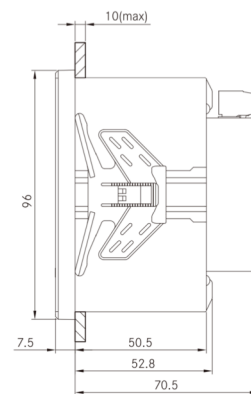
The **Sfere 720** series analyser and multifunction power meter are equipped with advanced power quality measurement feature and expandable plug-in modules.

They support to I/O function and communication available in the markets such as Modbus-TCP/Wi-Fi and BACnet etc.

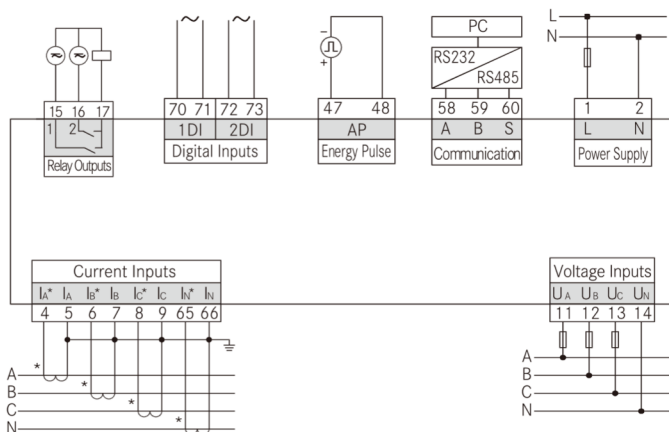
The meters are in full compliance to:

IEC 60068-2-30  
IEC 61000-4-2/3/4/5/6/8/11  
IEC 62503-22 (class 0.2S)  
IEC 62053-23  
IEC 61010-1:2001

Sfere 720XQL	Sfere 720XQT
Class 0.2S	Class 0.2S
63rd Harmonics order	63rd Harmonics order
4 CTs (Neutral Current input)	4 CTs (Neutral Current input)
Mono- Chrome LCD Backlit display	TFT Color display
4 Tariffs	4 Tariffs
16MB memory	16MB memory
Event date time record	Transient Waveform voltage sag/swell record
Plug-in Expansion Module	Plug-in Expansion Module
2 x DI, 2 x DO	2 x DI, 2 x DO
RS485	RS485
Max Demand record	Max Demand record



### Plug-in Modules



Connection layout (Typical 3P4W, 4CT)

### **Contact:**

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## Sfere 720XQL Sfere 720XQT

### FUNCTION

- **Networks**
  - TN, TT, IT networks
- **Accuracy**
  - Active energy: 0.2S
  - Voltage: 0.1%
  - Current: 0.1%
- **Data Log**
  - Demand record
  - Max./Min.value record
  - Off-limit record
  - SOE record
- **Communication**
  - Modbus-RTU
  - Modbus TCP
  - Profibus-DP
- **Power Quality**
  - THD
  - Harmonics up to 63rd
  - Unbalance
  - Sequence component
  - Crest factor and K factor
  - Waveform display
  - Flicker
  - Transient (Only Sfere720)

### MAIN FEATURES

- **Measuring**
  - V/A/P/Q/S/PF/F
  - Demand
  - Max./Min.Value
  - Load profile
- **Energy Metering**
  - Bi-directional energy
  - Four-quadrant reactive energy
  - Tariff energy
  - Fundamental energy
- **Power Quality**
  - Harmonics up to 63rd
  - Sequence component
  - Unbalance
  - Crest factor and K factor
  - Phasor diagram

#### Extension Functions

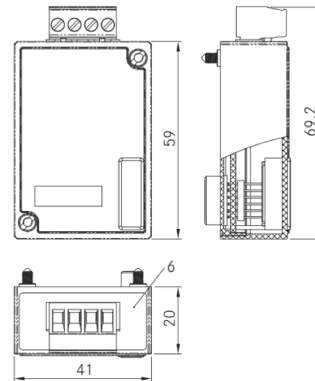
Modbus-TCP	Modbus-RTU	BACnet/IP	BACnet/MSTP	Profibus-DP
Profinet	Dual-Ethernet	DNP3.0	2 Relay outputs	2 Temperature inputs (PT100)
2 Analog outputs	4 DC digital inputs	2 Analog inputs (4-20mA)		

# Sfere 720XQL Sfere 720XQT

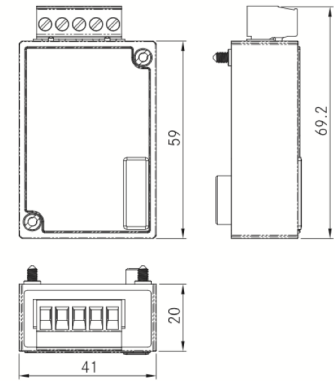
## Optional Modules

- FM2 (4 dry digital inputs)
- FM3 (2 relay outputs)
- FM4 (2 analog inputs)
- FM5 (2 temperature inputs)
- FM6 (2 analog outputs)
- FM7 (Modus-TCP)
- FM8 (Profibus-DP)
- FM11 (RS485, Modbus-RTU)
- FM13 (BACnet/MSTP communication)
- FM14 (BACnet/IP communication)
- FM17 (DNP3.0)
- FM18 (Dual-Ethernet) **Web View**
- FM22 (Profinet)

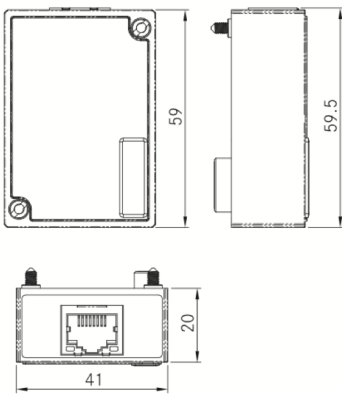
FM3/FM4/FM6/FM11/FM13



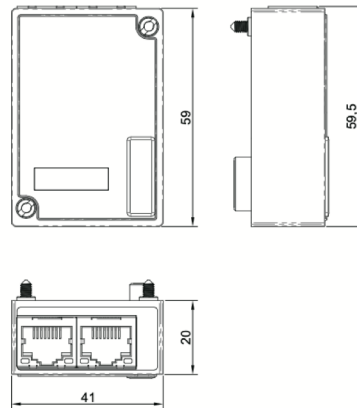
FM2/FM5



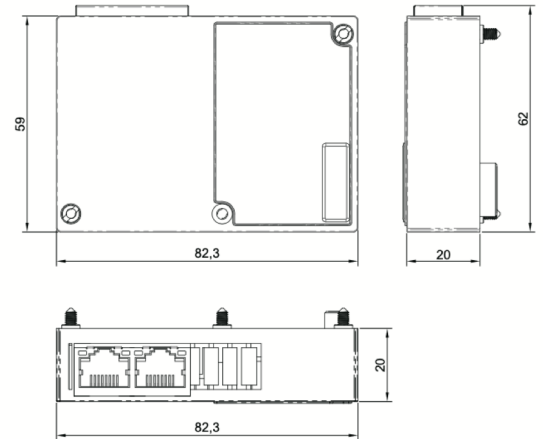
FM7/FM14/FM17



FM18



FM22



# Sfere 720XQL

# Sfere 720XQT

## Technical Data

Sfere 720XQL LCD, Sfere 720XQT colour TFT

Accuracy	V/A	0.2%
	P/Q/S/PF	0.2%
	F	±0.01Hz
	±kWh	Class 0.2S
	±kvarh	Class 2
Voltage Input	Rated value	AC 100V, AC 380V
	Overload	Continuous: 1.2Vn Instantaneous: 2Vn/10s
	Burden	≤0.1VA(per phase)
	Impedance	≥1.7MΩ
	Frequency	45Hz~65Hz
Current Input	Rated value	AC 1A, AC 5A
	Overload	Continuous: 1.2In Instantaneous: 2In/5s
	Burden	≤0.2VA(per phase)
	Impedance	≤20mΩ
Auxiliary Supply	Working range	AC 80~270V 50/60Hz, DC 100~350V
	Consumption	≤5VA
Communication Port		RS485, Modbus-RTU, 2-wire, up to 38.4kbps
Energy Pulse Output		1 photocoupler output, pulse width (80±20%) ms
Digital Input		2 AC wet contact inputs, Isolation: 5kVAC
Relay Output		2 relay outputs, contact rated at AC 5A/250V or DC 5A/30V, Isolation: 2kVAC
Environment Conditions	Operating temperature	-25 C ~70 C
	Storage temperature	-30 C ~80 C
	Relative humidity	≤93%
	Altitude	≤2500m
Insulation		≥ 2kVAC
IP Degree		Front IP64, Rear IP20