Electric Application Solution Expert

Sfere720C





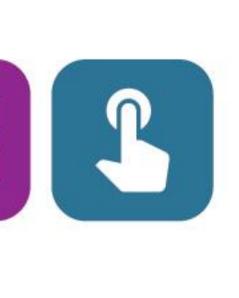






















Networks

-TN,TT, IT networks

Accuracy

- -Active energy: 0.2S
- -Voltage: 0.1%
- -Current: 0.1%

Communication

-Modbus-RTU -Modbus-TCP -Profibus-DP

- - -Max./Min. value record
- -Off-limit record
 - -SOE record

Data Log

-Demand record

Power Quality

- -THD
- -Harmonics up to 63rd
- -Unbalance
- -Sequence component
- -Crest factor and K factor
- -Waveform display
- -Flicker
- -Transient (Only Sfere 720)

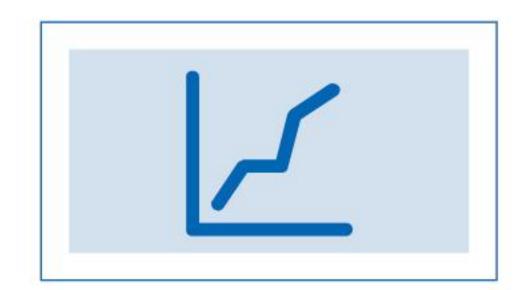
Optional Modules

- -FM1(2 AC digital inputs)
- -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 V0)
- -FM9(WiFi)
- -FM10(GPRS)
- -FM11(RS485, Modbus-RTU)
- -FM12 (M-Bus communication)
- -FM13 (BACnet/MSTP communication)
- -FM14 (BACnet/IP communication)
- -FM15 (RS232, Modbus-RTU)

APPLICATIONS







Energy Management



Remote Power Monitoring



Measuring

- -Fundamental V/A/P/Q/S
- -Demand -Max./Min. Value
- -Load profile

Power Quality

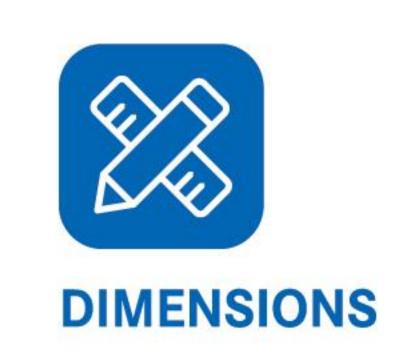
- -Harmonics up to 63rd -Sequence component
- -Unbalance
- -Crest factor and K factor -Phasor diagram

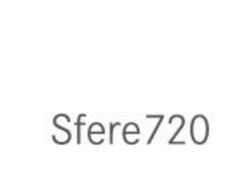
Energy Metering

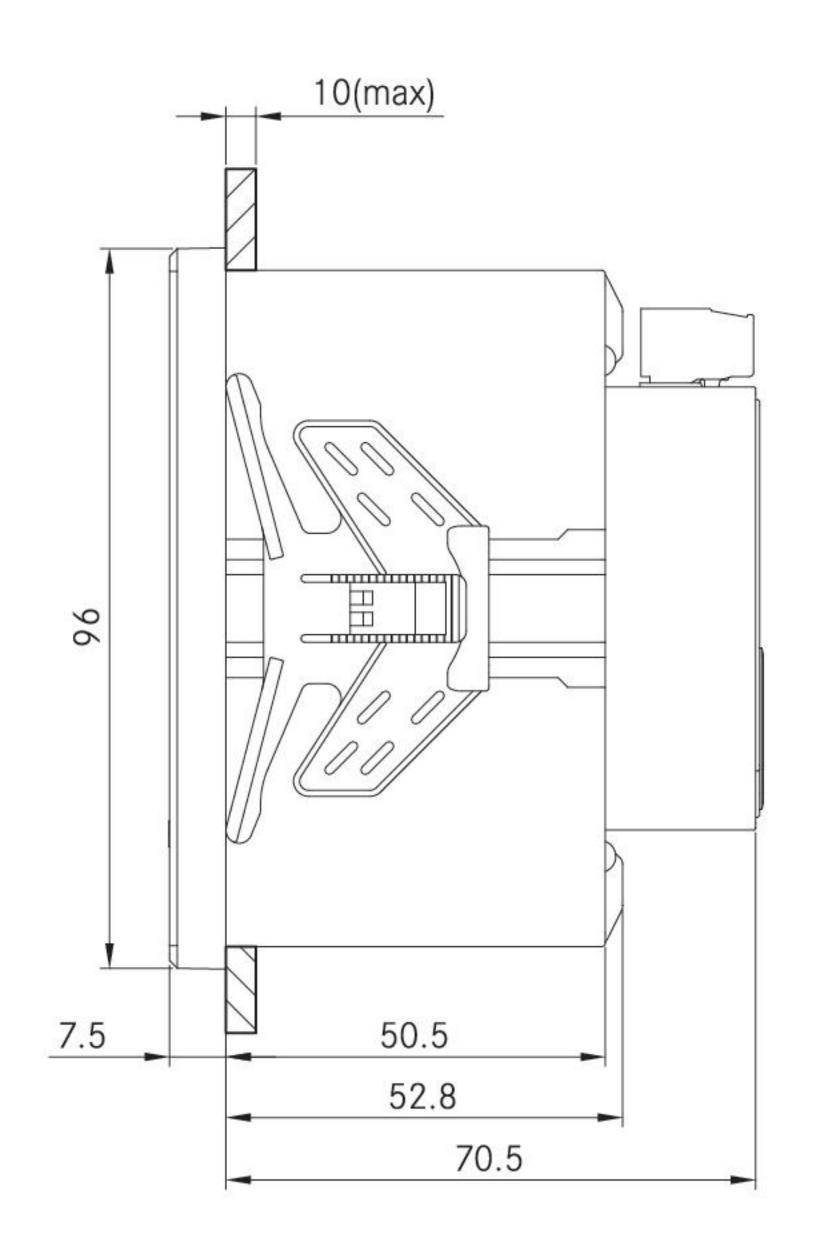
- -Bi-directional energy -Four-quadrant reactive energy
- -Fundamental energy

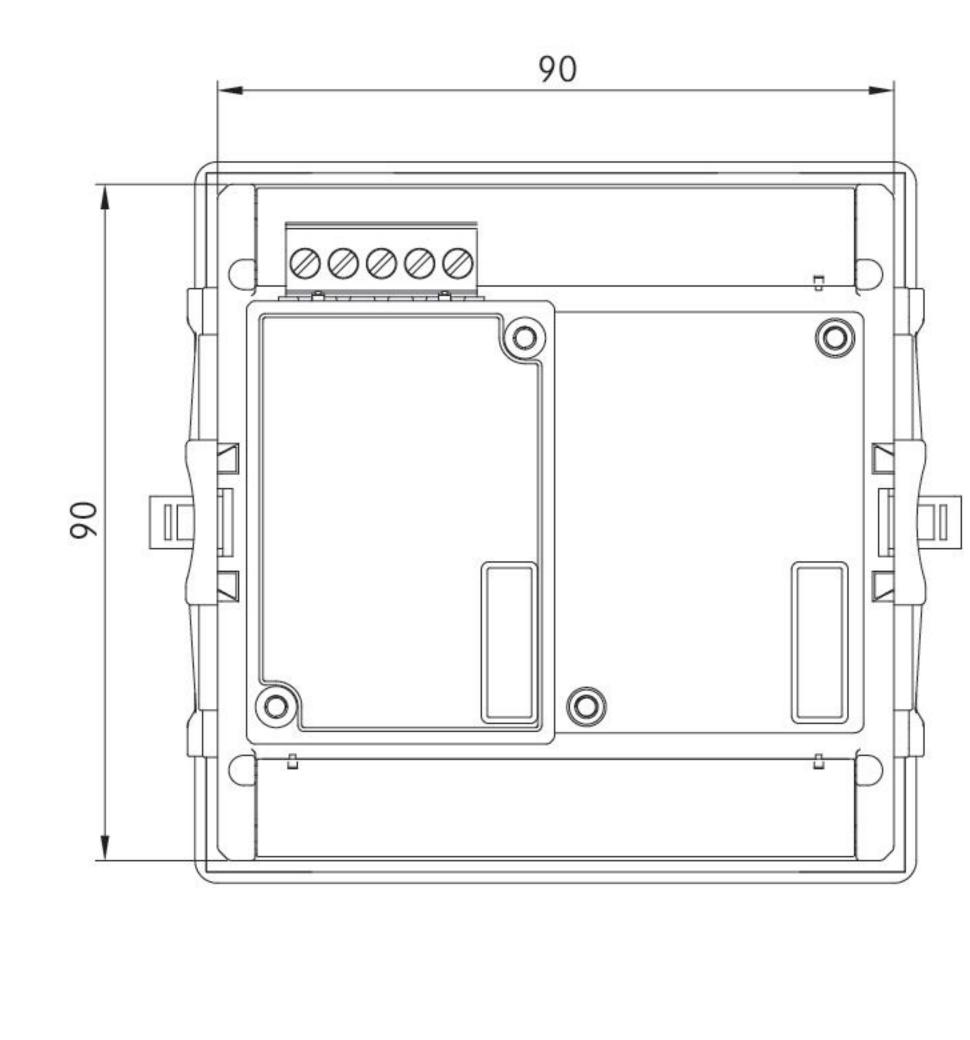
-Tariff energy

Extension Functions				
GPRS	M-Bus	WiFi	BACnet/IP	RS232
Modbus-TCP	Modbus-RTU	2 relay outputs	BACnet/MSTP	Profibus-DP
2 analog outputs	4 DC digital inputs	2 AC digital inputs	2 analog inputs (4-20mA)	2 analog inputs (PT100)



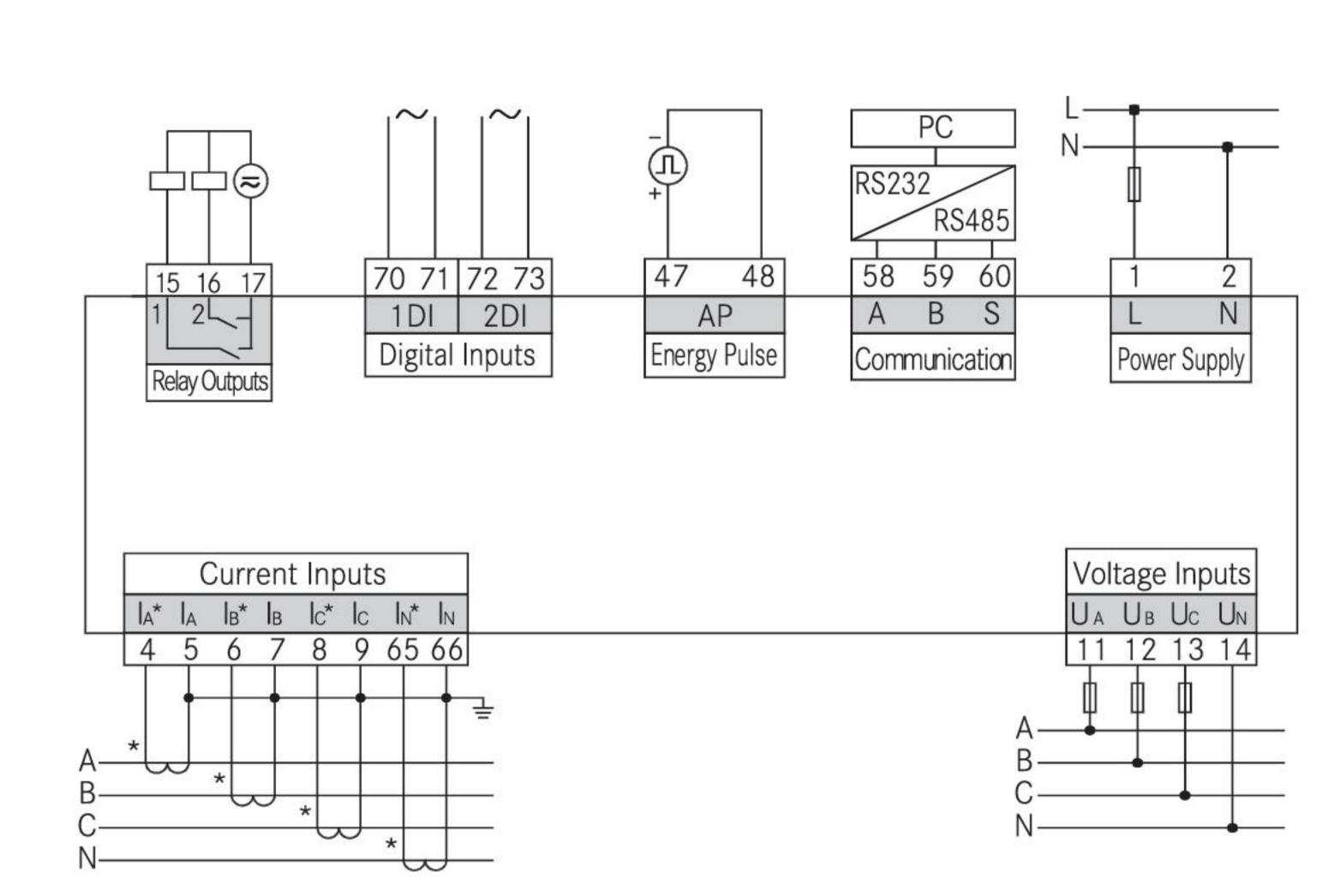






FM1/FM3/FM4/FM6/FM11/FM12/FM13 FM2/FM5 FM9/FM10 FM7/FM14 FM8/FM15 FM8/FM15







TECHNICAL SPECIFICATION

Display Mode		Sfere720C: LCD, Sfere720: 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: 2kVAC
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 ℃ ~80 ℃
	Relative humidity	≤93%
	Altitude	≤2500m
Insulation		≥ 2kVAC
IP Degree		Front IP64, Rear IP20
Insulation		IEC61010-1
Certificate		CE
Active energy		IEC62053-22

https://www.sfere-elec.net