ЭНЕРГОМЕТРИКА
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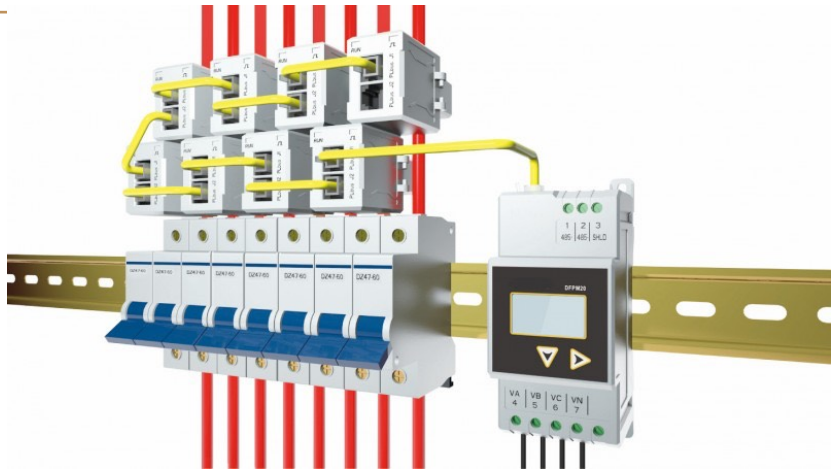
DFPM20 AC Multi-Channel Energy Meter

Application

- Telecoms BTS Energy Management
- AC Electricity Metering

Feature

- **Small Size** – Can be installed at the closest point, integrate in existing space-constrained installations.
- **Ultra-compact Design** - Consists of control unit and current sensors (with RJ12 port, optional solid core or split core)
- **Wide Measurement Range** - Max. Support 63A
- **Multi Circuit** - Support 30 single phase circuit or 10 three phase circuit AC measuring
- **High Accuracy** –Voltage & Current class 0.5s, kWh class 1.0
- **Multi Network Type** - 1P/2W or 3P/4W



Main Function

Real-time Measurement

- Voltage, Current, Active power , Reactive power, Apparent Power, Power Factor, Frequency

Energy Consumption

- Active energy, Reactive energy

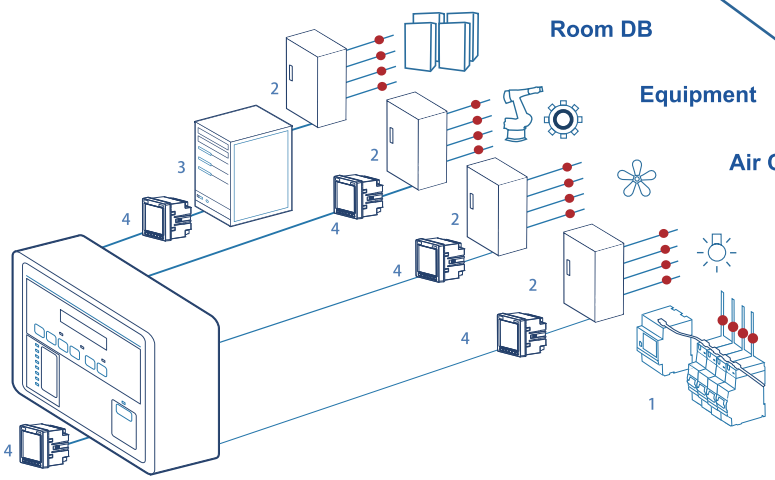
Alarm Function

- Overload, Under load, Over current, Sensor fault

Communication

- 1 RS485 port, MODBUS-RTU protocol

Typical Connection



Compare With Traditional Din-rail Energy Meter

- **Saving 50% Installation Space**
- **Saving 50% Installation Hour**
- **Saving 50% System Debug Time**

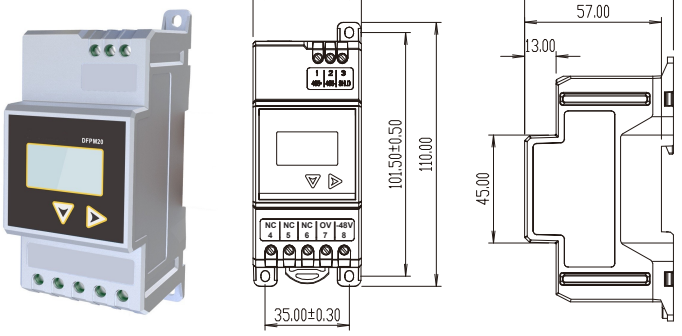
Description

1. DFPM20 (● measurement point)
2. Branching Cabinet
3. UPS
4. DFUN Energy Meter

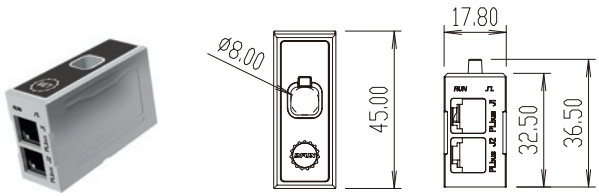
DFPM20 & Accessories

DFPM20-M: Main Module

Connection Mode	1P/2W or 3P/4W	
Power Supply	Self-supply, by A phase	
Voltage Input	1P/2W	220V Range: 40%-150%
	3P/4W	3×220/380V Range: 40%-150%
Frequency	45 ~ 65Hz	
Power Consumption	≤5W	
Communication	RS485 serial, support Modbus-RTU Baudrate: 4800, 9600, 19200bps Address: 1~247	

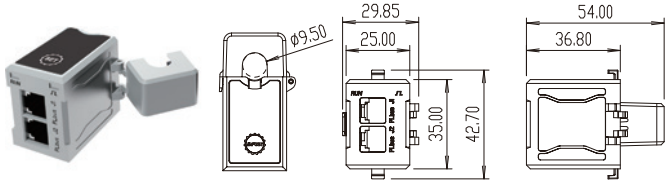


CTC: Solid Core Sensor



Connection Mode	Bus connection (2 x RJ12 Port)
Rated Current Input	5(63) A
Installation	Solid Core
Open hole	Φ8 mm
Sampling Rate	28k Hz

CTO: Split Core Sensor



Connection Mode	Bus connection (2 x RJ12 Port)
Rated Current Input	10(50) A
Installation	Split Core
Open hole	Φ9.5 mm
Sampling Rate	28k Hz

Parameter		Accuracy	Measuring Range
Voltage		0.5%	40%~120%
Current	**Solid Core Sensor (CTC)**	0.5%	0-63A, 1%~120%
	Split Core Sensor (CTO)	0.5%	0-50A, 1%~120%
Power factor		1.0%	-1~1
Active power	**Solid Core Sensor (CTC)**	1.0%	Single phase: 0~±14kW/var/VA Total: 0~±42kW/var/VA
	Split Core Sensor (CTO)	2.0%	
Reactive power		2.0%	
Apparent power		2.0%	
Active energy	**Solid Core Sensor (CTC)**	1.0%	0~99,999,999.9 kWh
	Split Core Sensor (CTO)	2.0%	0~99,999,999.9 kWh
Reactive energy		2.0%	0~99,999,999.9 kVarh
Frequency		0.01	45 ~ 65Hz

DFPM20 AC Multi-Channel Energy Meter

Environment & Standard

Power frequency withstand voltage	2000V AC
Insulation resistance	≥ 100MΩ
Impulse withstand voltage	6kV (peak)
IP index	IP52 (front panel)

Environment	Normal operating temperature: -20℃～+55℃ Operating temperature: -20℃～+50℃ Storage temperature: -30℃～+80℃ Humidity: <95% non-condensing

Standard (EMC)	
• Electrostatic discharge immunity test IEC 61000-4-2,Level 4 • Radiated radio-frequency electromagnetic field immunity (RFEMS) IEC61000-4-3, Level 4 • Electrical fast transient test IEC61000-4-4, Level 4 • Surge immunity test (1,2/50μs～8/20μ) IEC61000-4-5, Level 4	• Conduction disturbance rejection of radio frequency field induction IEC61000-4-6, Level 3 • Electromagnetic emission limits CISPR22: 2006, Pass • Voltage sag and short time interrupt immunity IEC61000-4-11, Pass • Power frequency withstand voltage IEC 62052-11 2003

Solution

DFPM20 Sensor | **DFPM20 Controller** | **Concentrator** | **System**

CTO Split Core Sensor

CTC Solid Core Sensor

+

+

xGate6-Lite

+

BTS Power Management System

BMS/EMS/ BILLING

APP

Order Information

Module	Order code	Description
Main Module	**DFPM20 - M**	Suitable for 1P/2W & 3P/4W
Measure Sensor	**CTC**	Solid Core Sensor: 5 (63)A, Φ8.0 mm, Class 1.0
	CTO	Split Core Sensor: 10(50)A, Φ9.5 mm, Class 2.0

For example: 1pcs DFPM20-M + 20pcs CTC indicate 1pcs DFPM20 main module and 20pcs CTC solid core sensor.