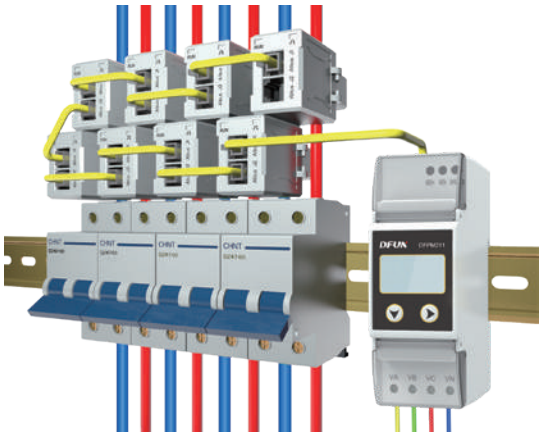
DFPM211 Multi-Channel AC Energy Meter

Feature

- **Application** - Telecoms site energy management, data center
- **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, split core)
- **Wide measurement range** - Max. support 60A
- **Multi circuit** - Support 45 single phase circuit or 15 three phase circuit AC measuring
- **High accuracy** - Voltage & current class 0.5s, kWh class 1.0
- **Multi network type** - 1P2W or 3P4W



Function

Real-time measurement
- Voltage, current, active power, reactive power, power factor, frequency

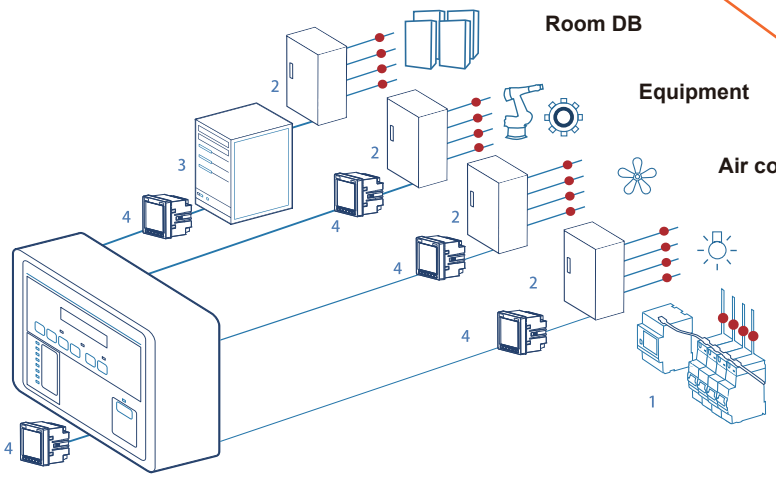
Energy consumption
- Active energy, reactive energy

Alarm function
- Overload, under load, over current, sensor fault

Communication
- 1RS485 port, MODBUS-RTU protocol

Optional function
- Temperature measur (4 channels)
- Leakage current measure (1 channel)

Typical Connection



Compare with traditional Din rail energy meter
- Saving 50% installation space
- Saving 50% installation hour
- Saving 50% system debug time

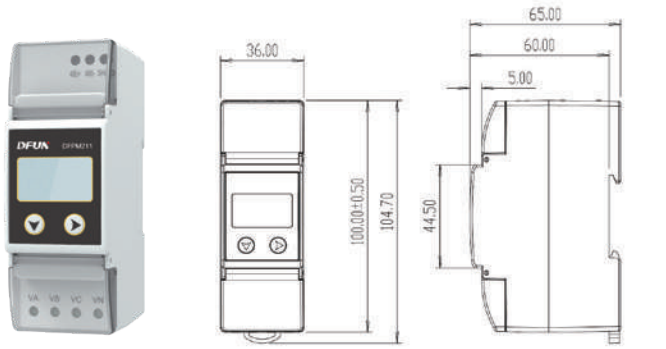
Description
- DFPM211 (● measurement point)
- Branching cabinet
- UPS
- DFUN energy meter

DFPM211 & Accessories

DFPM211-M: Main Module

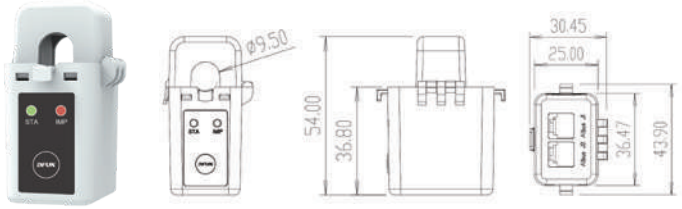
Connection mode	1P2W or 3P4W	
Power supply	Self-supply, by A phase	
Voltage input	1P2W	220V Range: 85%-120%
	3P4W	3x220/380V Range: 85%-120%
Frequency	45 ~ 65Hz	
Power consumption	≤5W	
Communication	RS485 serial, support Modbus-RTU Baud rate: 4800, 9600, 19200, 38400bps Address: 1 ~ 247	

Unit: mm



CTO: Split Core Sensor

Connection mode	Bus connection (2 x RJ12 port)
Rated current input	10(60)A
Installtion	Split core
Open hole	Φ 9.5mm
Sampling rate	28k Hz



Parameter	Accuracy	Measuring range
Voltage	0.5%	85% ~ 120%
Current	0.5%	0-60A, 1% ~ 120%
Power factor	1.0%	-1 ~ 1
Active power	0.5%	Single phase: 0 ~ ±16kW/kvar Total:0 ~ ±48kW/kvar
Reactive power	2.0%	
Apparent power	2.0%	
Active energy	1.0%	0 ~ 9999999.9 kWh
Reactive energy	2.0%	0 ~ 9999999.9 kVarh
Frequency	0.01	45 ~ 65Hz

Environment & Standard

Power frequency withstand voltage	2000VAC
Insulation resistance	≥100MΩ
Impulse withstand voltage	6kV(peak)
IP index	IP20

Environment	Normal operating temperature: -25℃~ 55℃ Limit temperature: -25℃~ 70℃ Storage temperature: -30℃~ 80℃ Humidity: <95%, non-condensing

Standard (EMC)	
• Electrostatic discharge immunity test IEC61000-4-2, Level 4 • Radiated radio-frequency electromagnetic field immunity (RFEMS) IEC61000-4-3, Level4 • Electrical fast transient test IEC61000-4-4, Level4 • Surge immunity test (1,2/50μs ~ 8/20μ) IEC61000-4-5, Level4	• Conduction disturbance rejection of radio frequency field induction IEC61000-4-6, Level3 • Electromagnetic emission limits CISPR22: 2006, Pass • Voltage sag and short time interrup timmunity IEC61000-4-11, Pass • Power frequency withstand voltage IEC 62052-11 2003

Solution

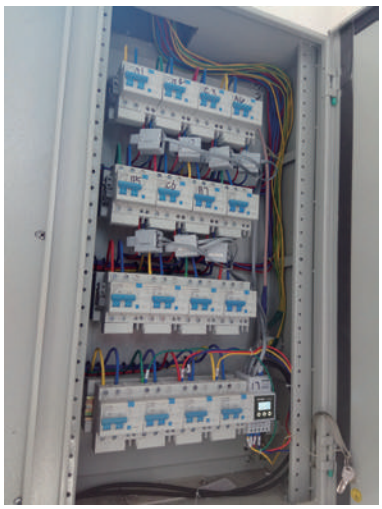
DFPM211 Measure Sensor

CTO
Split Core Sensor

+

DFPM211 Controller

DFPM211-M
Main Module



Order Information

Module	Order code	Description
Main module	**DFPM211- M**	Suitable for 1P/2W & 3P/4W
Measure module	**CTO**	Split core sensor: 10(60)A, Φ9.5mm, class 1.0
Optional module	**T**	Temperature measur (4 channels)
	LC	Leakage current measure (1 channel)

For example: DFPM211-M + 20pcs CTO indicates 1pcs DFPM211 main module and 20pcs CTO split core sensor.

Note:

1. Standard 30cm RJ12 line (from main module to measure module) and 6cm RJ12 line (for connect each measure module), please mention for special requirement. Max. length from main module to the end measure module is 3m.