

Energy Meter Catalog

IoT, DC, AC, Multi-Channel



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| | |
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| | |
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| | |
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Basic Function



- Real-time measure one circuit DC voltage, current, power , kWh
- High accuracy: Class 0.5s
- One LED indicate pulse output
- RS485 port, MODBUS-RTU or DL/T645 protocol (optional)
- 35mm DIN rail installing, standard DIN ED5002
- Shunt: 100A, 200A, 300A, 400A

Technical Specification

| | |
|-------------------------|--|
| Power supply | 9~36VDC |
| Rated Voltage DC | 0~1000VDC |
| Rated Current DC | 100A, 200A, 300A, 400A |
| Shunt | Rated voltage: 75mV Accuracy: Class 0.2 |
| Starting Current | 0.001Ib |
| Pulse output | 1 channel, pulse constant: 1000imp/kWh |
| Power loss | ≤1W |
| Communication | RS485 port MODBUS-RTU or DL/T645-2007 (Settable) Address: 1~247 Baud rate: 2400, 4800, 9600, 19200bps |
| IP index | IP20 |

| | | |
|--|---|-------------------|
| Dimension (L*W*H) | 100*36*65mm (2 module) | |
| Power frequency withstand voltage | 3000VAC | |
| Insulation resistance | ≥ 100mΩ | |
| Impulse voltage | 6000V | |
| Environment | Operating temperature: -20 ℃ ~ +55 ℃ Limit Temperature: -25 ℃ ~ +75 ℃ Storage temperature: -30 ℃ ~ +80 ℃ Humidity: < 95% | |
| EMC Standard | Electrostatic Discharge Immunity Test | IEC61000-4-2:2001 |
| | RF Electromagnetic Field Immunity testing | IEC61000-4-3:2002 |
| | Electrical fast transient immunity test | IEC61000-4-4:2004 |
| | Surge immunity test | IEC61000-4-5:2005 |
| | Injected Current Immunity Test | IEC61000-4-6:2006 |
| | Electromagnetic emission limit | Passed |
| | Voltage sag and short-time interruption Immunity testing | Passed |

| Parameter | Measurement Range | Accuracy |
|----------------|--------------------|------------|
| Voltage | 0-1000VDC | 0.2% |
| Current | 1% ~ 120% of rated | 0.2% |
| Power | 0~300kW | 0.5% |
| Energy | 0~999999.999kWh | Class 0.5s |

Order Information

DFPM90-①--②

| | |
|---------------------|----------------|
| 100 | 100A Shunt |
| 200 | 200A Shunt |
| 300 | 300A Shunt |
| 400 | 400A Shunt |
| P (Optional) | Pulse-, Pulse+ |

Example: Model No. DFPM90-100, which indicate the device provides with basic function and pulse output, 100A shunt, MODBUS-RTU communication protocol.

Note: Default Pulse output function, MODBUS-RTU protocol, baudrate 9600bps, settable for DL/T645-2007 protocol

Basic Function



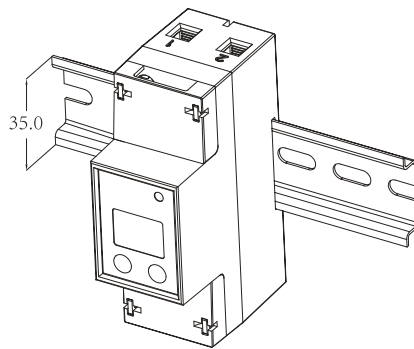
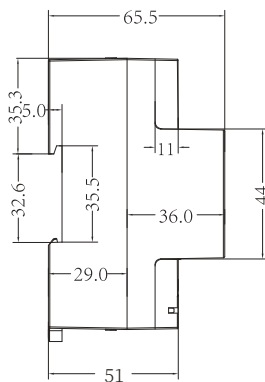
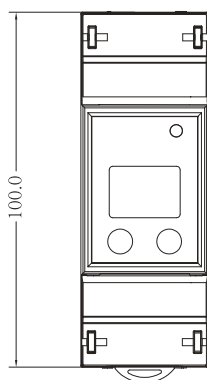
- Suit for 110V, 120V, 220V, 230V, 240V AC low voltage system
- Measure U, I, P, Q, S, PF, kWh, kvarh, LCD display U, I, P, kWh
- 6 +1 digits LCD display (999999.9 kWh)
- LED indicates pulse output
- Password protection
- One key for up/down page, one key for programming
- Small size: 100*36*65mm
- RS485 port, MODBUS-RTU or DL/T645 protocol (selectable)
- 35mm DIN rail installing, standard DIN ED5002
- Standard: IEC62053-21

Technical Specification

| | |
|----------------------------|--|
| Display | 6 +1 digits LCD display (999999.9 kWh) |
| Accuracy | kWh Class 1.0 |
| Rated voltage | AC 230Vph-N or 110Vph-N (Optional) |
| | Range: 0.8Un~1.2Un |
| Rated(Max.) current | 5 (63)A |
| Start current | 0.4%Ib |
| Power consumption | <2W |
| Frequency | 50Hz/ 60Hz (Optional) |
| Wire Diameters | 7mm x 7mm (16mm ²) |

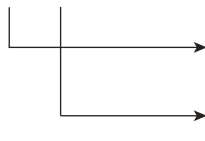
| | |
|--------------------------|---|
| Pulse output | 1 channels |
| Communication | RS485 port, MODBUS-RTU or DL/T 645 communication protocol |
| | Address: 1~247 |
| | Baud rate: 2400, 4800, 9600bps (Default) |
| Creeping | Anti-creeping logic design |
| Dimension (L*W*H) | 100*36*65mm (2 module) |
| Weight | 200g |
| Environment | Operating temperature: -20℃~+55℃ |
| | Storage temperature: -25℃~+70℃ |
| | Humidity: 5%~95% non-condensing |

Dimension



Order Information

DFPM91--①--②



| | |
|-----------|--|
| V1 | 220V (Direct) (Suit for 220, 230, 240Vac ph-N) |
| V2 | 110V (Direct) (Suit for 110, 120Vac ph-N) |
| 50 | 50Hz |
| 60 | 60Hz |

For example: DFPM91-V1-50, which indicates the device providing one RS485, one pulse output, rated input voltage 230Vac, frequency 50Hz, rated current 5(63)A.

Basic Function



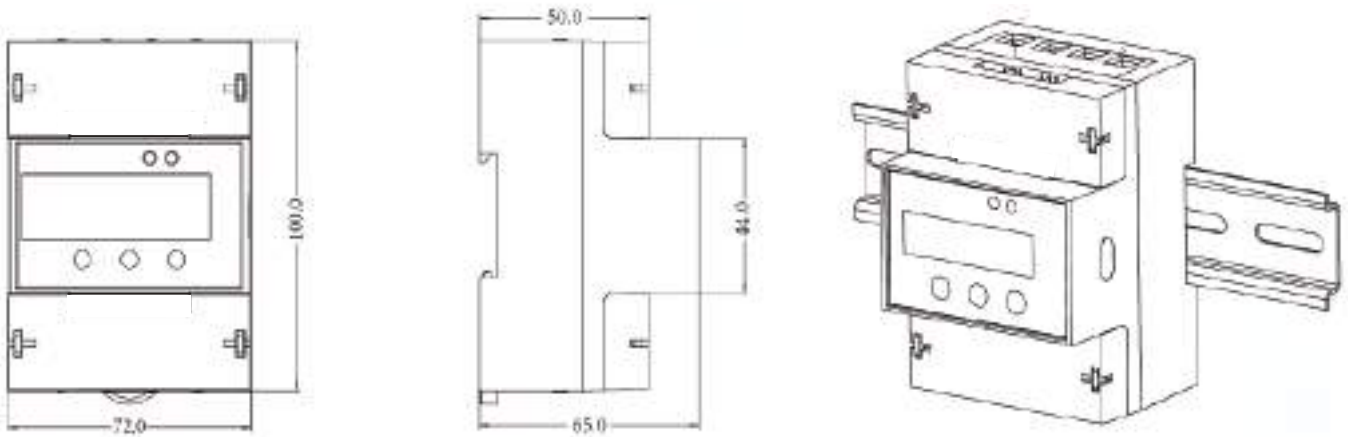
- Suit for 110V, 120V, 220V, 230V, 240V AC low voltage system
- 7 +1 digits LCD display (9999999.9 kWh)
- Measure U, I, P, Q, S, PF, F, kWh, kvarh, Multi-tariff energy value
- Record freeze energy for per 15 min/day
- kWh accuracy: 5(6)A class 0.5s, 5(6)A class 1.0
- Support over-voltage timing, under-voltage timing, over-load timing function
- 2 LED indicates pulse (Settable for kWh or kvarh)
- LCD display prompt for phase sequence error
- 3 keys for programming, 35mm DIN rail installing, standard DIN ED5002
- One RS485 port, MODBUS or DL/T645 protocol (selectable)
- Standard: IEC62053-21/ 23
- Record historical energy for latest 31 days, latest 12 months

Technical Specification

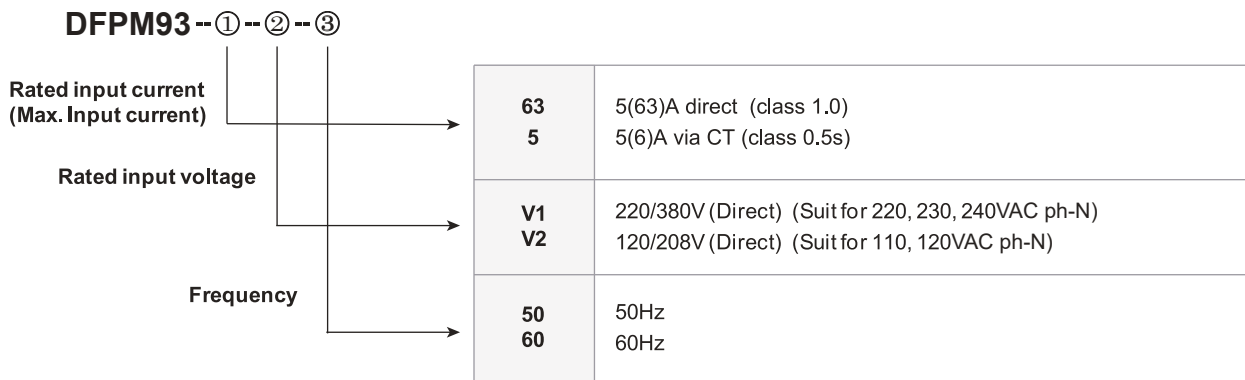
| | | | |
|--------------------------|--|-------------------------|---|
| Rated current | Direct: 5(63)A Or 5(6)A via CT | Connection mode | 3P/4W |
| Rated voltage | AC 220V ph-N or 120V ph-N (Optional) | Pulse output | 2 channels (Settable for kWh or kvarh) |
| Frequency | 50/60Hz (Optional), range: 47~65Hz | Starting Current | 0.4%Ib (direct connect), 0.2%Ib (via CT) |
| Power consumption | <2W | AC voltage tests | 4kV |
| Power supply | Self supply (Note: RS485 won't work, when connect 1 phase,) For 220VAC (L-N), range: 184~276VAC For 120VAC (L-N), range: 96~144VAC | Accuracy | kWh accuracy: class 0.5s or class 1.0 |
| Communication | RS485 serial, MODBUS-RTU or DL/T645 Protocol Baud rate: 2400, 4800, 9600 Address: 1~247 | Pulse constant | 400imp/kWh for 5(63)A 6400imp/kWh for 5(6)A |
| Environment | Operating temperature: -20°C~+55°C Storage temperature: -40°C~+70°C Humidity: 5%~95% non-condensing | Dimension | 72*100*65mm (4 module) |
| | | Wire Diameters | 7mm x 7mm (16mm ²) |
| | | Standard (EMC) | Electrostatic discharge immunity test IEC 61000-4-2, Level 4 Radiated immunity test IEC 61000-4-3, Level 3 Electrical fast transient/burst immunity test IEC 61000-4-4, Level 4 Surge immunity test (1, 2/50μs ~ 8/20μs) IEC 61000-4-5, Level 4 Conducted emission EN55022, Class B Radiated emission EN55022, Class B |

| Parameter | Accuracy | Resolution | Measuring Range | |
|---|----------------|----------------------|-------------------|---|
| Display data, can also be read via MODBUS | Voltage | 0.5% | 0.01V | For 220Vac (L-N), range: 184~276Vac For 120Vac (L-N), range: 96~144V |
| | Current | 0.5% | 0.001A | Direct: 5(63), Via CT: 5(6)A |
| | Active power | 0.5% | 0.1W | 0~1MW |
| | Power factor | 0.5% | 0.001 | -1.000~+1.000 |
| | Frequency | 0.01 | 0.01Hz | 47~65Hz |
| | Active energy | Class 1 for 5(63)A | 0.1kWh | 0~9999999.9 kWh |
| | | Class 0.5s for 5(6)A | | |
| Reactive energy | Class 2 | 0.1kvarh | 0~9999999.9 kvarh | |
| Only can be read via MODBUS | Reactive power | 1.0% | 0.1var | 0~1Mvar |
| | Apparent power | 0.5% | 0.1VA | 0~1MVA |

Dimension & Installation



Order Information



For example: DFPM93-63-V1-50, which indicates the device providing basic function, accuracy class 1, rated current is 5(63)A, TOU (Multi-tariff) function and rated voltage input is 220/380V, 50Hz.

Description

DFPM951X Series is a DIN Rail Relay Control Energy Meter can accurately and directly measure energy consumption and billing. The meters has Relay function, support to control the switch on/off remotely. It can Max. support 80A direct input. With Modbus-RTU protocol and RS485 port, the meter also support connect into 3rd party system.

Feature

- Suit for 120V, 220V, 230V, 240V AC Power System
- 7+1 digits LCD display (9999999.9kWh)
- High accuracy: Class 0.5s for 5A via CT, Class 1.0 for 80A direct input
- 3 keys for programming, 35mm DIN Rail installation, standard DIN ED5002
- 1 LED indicates pulses output, standard DIN 43864
- Support reading and inquiry data when power off
- Standard: IEC62053-21/22

Function

- **Measure** -- U, I, P, Q, S, PF, F, kWh, kvarh, multi-tariff energy (kWh, kvarh)
- **Relay Control** -- for remote control circuit switch on/off
- **TOU (Multi-tariff)** -- 4 tariffs and 8 time periods in 24 hours
- **Historical Record** -- kWh, kvarh, Max. P for last 31 days (Per 15min.) and last 12 months data; last 200 alarms and last 20 times power off
- **Alarm** -- anti-temper alarm, over-load alarm, swich on/off alarm, over-voltage alarm, under-voltage alarm, reversed connection alarm etc.
- **Communication** -- one RS485 port, MODBUS-RTU Protocol



DFPM9511
Single Phase



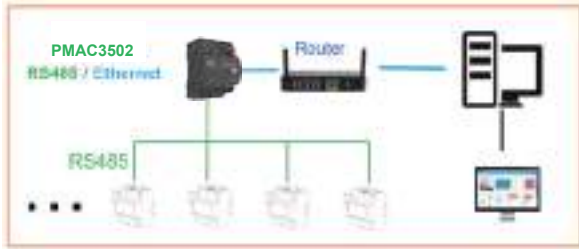
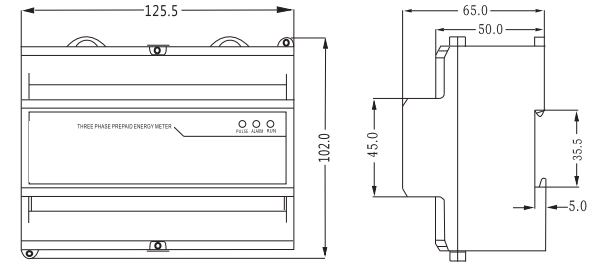
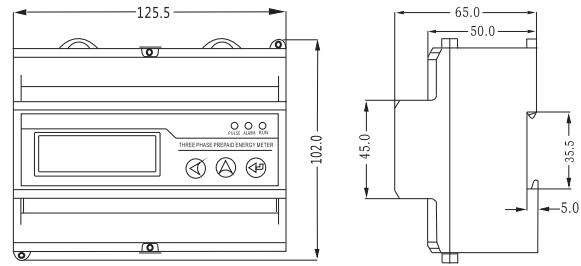
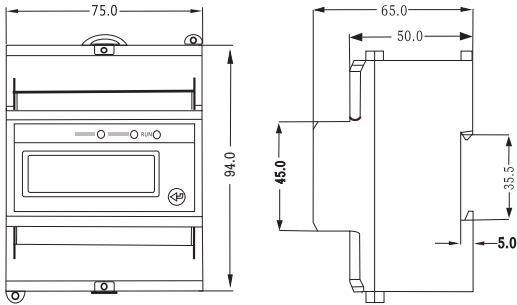
DFPM9513
Three Phase

Technical Specification

| | | | |
|--------------------------|---|--------------------------|---|
| Accuracy | Class 0.5s: 5 (6) A Class 1.0: 10 (80)A | Starting Current | 0.4% Ib |
| Current | DFPM9511: Direct: 10 (80) A DFPM9513: Direct: 10(80)A, 5(6)A via CT | Communication | RS485 port, MODBUS-RTU Baud rate: 2400、4800、9600 Address: 1~247 |
| Rated Voltage | DFPM9511: 220V, 120V, 240V (Optional) DFPM9513: 220/380V, 120/208V, 240V/415V (Optional) | Insulation | Withstand voltage: 2kV, Impulse voltage:6kV |
| Power Supply | Self Supply (Note: for DFPM9513, RS485 won't work if only connect 1 phase voltage) Overload: 1.2 times | Historical Record | - kWh, kvarh, Max. P for last 31 days (Per 15min.) and last 12 months data - Last 200 alarms records - Last 20 times power off |
| Relay Control | Support control circuit switch on/off build-in relay module for DFPM9511/DFPM9513 direct module 10(80)A need to add DFPM9513-R relay module for DFPM9513 5(6)A via CT | EMC Standard | Electrostatic discharge immunity test IEC 61000-4-2,Level 4 Radiated immunity test IEC 61000-4-3,Level 3 Electrical fast transient/burst immunity test IEC 61000-4-4,Level 4 Surge immunity test (1, 2/50μs~8/20μs) IEC 61000-4-5,Level 4 Conducted emission EN55022, Class B Radiated emission EN55022, Class B |
| Pulse Output | 1 Channel (Settable for kWh or kvarh) constant: 1600imp/kWh/kvarh | Environment | Operating temperature: -20 ℃~ +55 ℃ Storage temperature: -40 ℃~ +70 ℃ Humidity: 5%~95% non-condensing |
| Frequency | 50/60Hz | | |
| Power Consumption | <2W/10VA each phase | | |
| Wire Diameters | 7mm*7mm (16mm ²) | | |

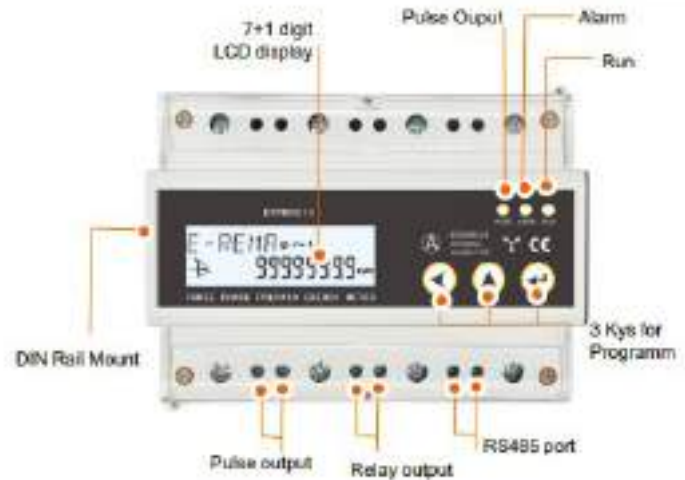
Dimension & Installation

Unit: mm



Relay Control for DFPM9513 5(6)A via CT

Note: DFPM9511 is the same



Order Information

DFPM9511 (Single Phase)

① -- ② -- ③

| | |
|----|---------------------------------|
| 80 | 10(80)A direct |
| V1 | 220V, Suit for 220, 230Vac ph-N |
| V2 | 120V, Suit for 110, 120Vac ph-N |
| V3 | 240V |
| 50 | 50Hz |
| 60 | 60Hz |

DFPM9513 (Three Phase)

① -- ② -- ③

| | |
|------|--------------------------------------|
| A-80 | 10(80)A direct |
| D-5 | 5(6) for external CT |
| V1 | 220/ 380V, Suit for 220, 230Vac ph-N |
| V2 | 120/ 208V, Suit for 110, 120Vac ph-N |
| V3 | 240/415V |
| 50 | 50Hz |
| 60 | 60Hz |

DFPM9513 --R (Relay Control module) for DFPM9513-D

Note:

- DFPM9511 has build-in relay module
- DFPM9513-A 80A direct input model need to add DFPM9513-R relay module to realize remote control switch
- DFPM9513-D 5A via CT module need to add AC contactor and relay switch to realize remote control switch

Feature

Combine Measuring and Electricity Monitoring Into One

- Full Parameter Measuring and Power Quality Monitoring
- Measure and alarm for residual current and cable temperature

Reliable Data Transfer

- 7 days Data Cache & Retransmit
- 10 sec. keep working to posting POWER-OFF alarm
- 1 sec. real-time data upload

Multiple Communication Protocol

- 4G / LoRa / RS485

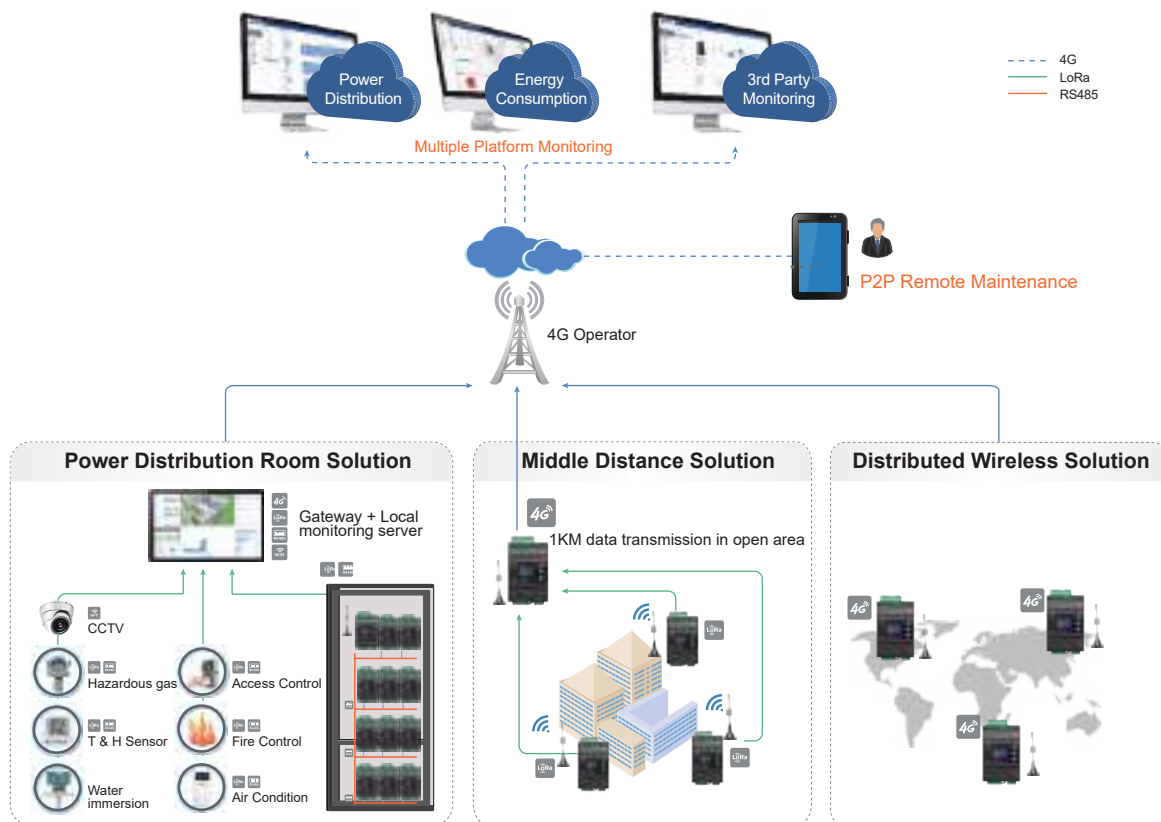
Remote Support and Engineering Simplification

- P2P remote configuration & free maintenance
- Phase-sequence auto adjustment
- Split core CT for easy installation



Meter + Gateway
ALL IN ONE

System Structure



Function



Measurement

- voltage, current, active power, reactive power, apparent power, power factor, frequency, active energy, reactive energy, apparent energy, voltage and current phase angle, cable temperature, residual current, switch detection
- Latest 10 years, 12 months, 31 days historical energy



Power Quality Analysis

- Three phase voltage/current, 63rd harmonic analysis, voltage/current unbalance



Demand Calculation

- Maximum and real-time demand of power and current
- Real-time demand, daily and monthly max. demand



Communication

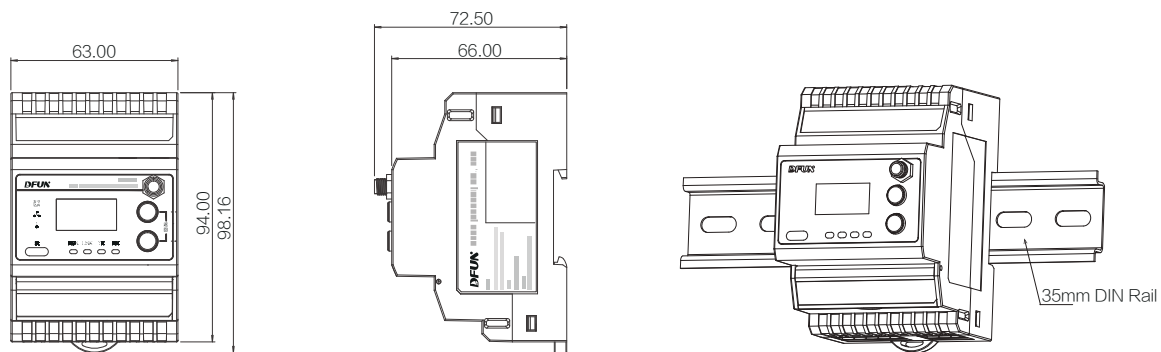
- Standard 1 RS485 and 1 infrared communication
- 4G / LoRa optional, support Modbus, Http, Mqtt communication etc, support Modbus-RTU and Modbus-TCP, register is definable
- Support break-point transfer



Setpoint Alarm

- Support alarming of over-voltage, under-voltage, over-current, under-current, lost phase, power over limit, over temperature, leakage current and power failure with SOE time record.

Dimension & Installation





Technical Specification

| | | | |
|-----------------------------------|---|-----------------------------|---|
| Power supply | AC 85~265V / DC 100~300V | Residual Current | 1 x 0-8000mA |
| Rated Current | 1.67mA, 5A/1.67mA (Standard CT) | Cable Temperature | 4 x 0-150 C |
| Rated Voltage | 3x57.7/100V, 3x220/380V | LoRa | 470-510Mhz, 1KM open area |
| Digital Input | Wet contact, external power supply: 220V, when < 60V, open, when > 140V, closed, Max. Input: 300V | RS485 | 1200-57600bps |
| Connection Mode | 3 Phase 4 Wire 3 Phase 3 Wire | Break-point transfer | 7 days data cache (1 sampling point / 5min.) |
| LTE Wireless Communication | LTE-FDD B1/B3/B5/B8 LTE-FDD B34/B38/B39/B40/B41 | Break-point transfer | Operation Temperature: -25 C ~ +70 C Storage Temperature: -40 C ~ +85 C Operation Humidity: 5% ~ 95% Non-condensing |
| | | EMC Standard | Electrostatic Discharge Immunity Test IEC61000-4-2:2001 RF Electromagnetic Field Immunity testing IEC61000-4-3:2002 Electrical fast transient immunity test IEC61000-4-4:2006 Surge immunity test IEC61000-4-5:2005 Injected Current Immunity Test IEC61000-4-6:2006 Electromagnetic emission limit CISPR22: 2006 Voltage sag and short-time interruption Immunity testing Passed |

DFPM971 IoT Multifunction Power Meter

| Parameter | Measurement Range | Accuracy |
|------------------------|---|----------|
| Voltage | Phase Voltage: 10V~400V Line Voltage: 10V~500V | 0.2% |
| Primary Voltage | Max. 1000kV | -- |
| Current | 5mA~6.5A | 0.2% |
| Primary Current | Max. 100000A | -- |
| Frequency | 40~70Hz | 0.1% |
| Active Energy | 0~99999999.9 kWh | 0.5% |
| Reactive Energy | 0~99999999.9 kvarh | 2% |
| Active Power | Single Phase: 0 ~ ±9999MW/Mvar | 0.5% |
| Reactive Power | Total: 0 ~ ±9999MW/Mvar | 1.0% |
| Harmonic Ratio | 0%~100% | B Level |

Current Transformer

| Model | Typical Connecting Scheme | Application |
|-------|---|---|
| CTO |  | Applied to renovation project with CT, Installation without power off |
| CTC |  | Applied to additional large CT of 5A access scheme |

Order Information

DFPM971--①--②--③

| | |
|----------------------|--|
| Extension | T — 4 channels cable temperature measurement |
| CT | CTO — External 5A Split core CT CTC — External 5A Solid core CT |
| Communication | RS485 — 1 x RS485 LoRa — LoRa、RS485 4G — Lte(4G)、RS485 All — Lte(4G)、LoRa、RS485 |

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

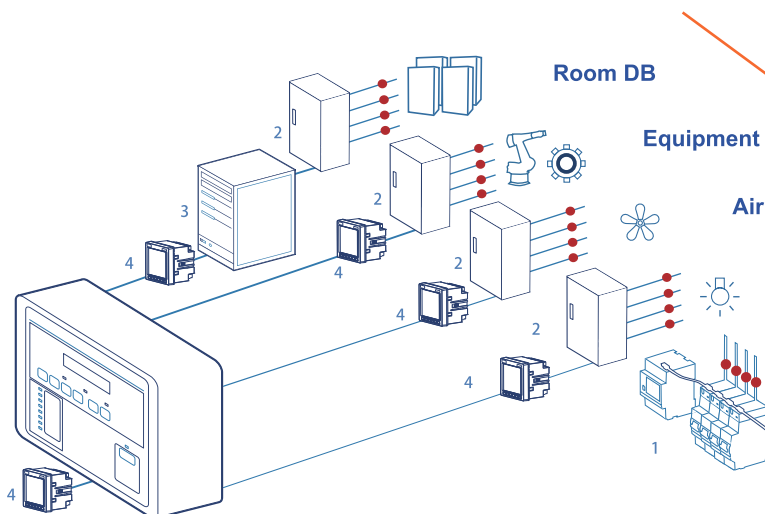
Alarm Function

- 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

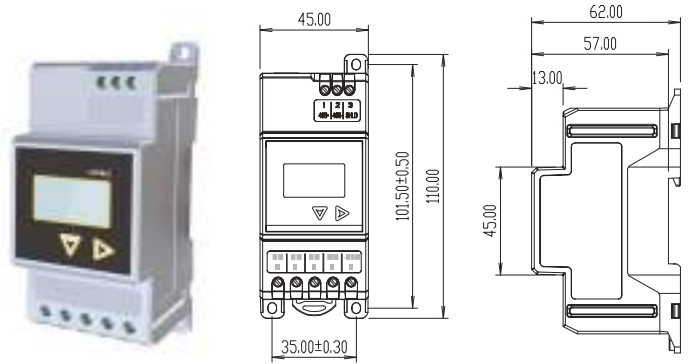
1. DFPM20 (● measurement point)
2. Branching Cabinet
3. UPS
4. DFUN Energy Meter

DFPM20 Multi-Channel Energy Meter

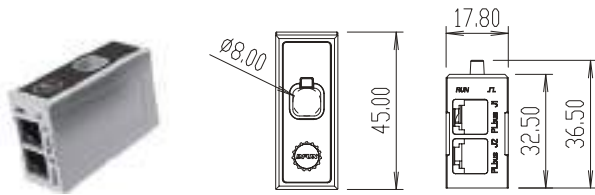
DFPM20 & Accessories

DFPM20-M: Main Module

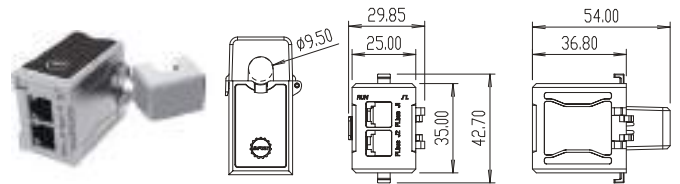
| | | |
|--------------------------|--|-------------------------------|
| Connection Mode | 1P/2W or 3P/4W | |
| Power Supply | Self-supply, by A phase | |
| Voltage Input | 1P/2W | 220V Range: 40%-150% |
| | 3P/4W | 3×220/380V Range: 40%-150% |
| Frequency | 45 ~ 65Hz | |
| Power Consumption | ≤5W |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



CTC: Solid Core Sensor



CTO: Split 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 |

| | |
|----------------------------|--------------------------------|
| 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 Multi-Channel Energy Meter

Environment & Standard

| | | | |
|--|--------------------|--------------------|---|
| Power frequency withstand voltage | 2000V AC | Environment | Normal operating temperature: -20°C ~ +55°C |
| Insulation resistance | ≥ 100MΩ | | Operating temperature: -20°C ~ +50°C |
| Impulse withstand voltage | 6kV (peak) | | Storage temperature: -30°C ~ +80°C |
| IP index | IP52 (front panel) | | Humidity: <95% non-condensing |

| Standard (EMC) | |
|---|--|
| <ul style="list-style-type: none"> • 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 | <ul style="list-style-type: none"> • 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



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.

Application

- Telecoms BTS Billing System
- DC Load Management



Feature

- **Small Size** - Can be install at the closest point, integrate in existing space
- **Easy Installation** - Consist of main module and measur module, connected by PLbus Daisy chain bus topology and RJ12 port, measure module straight insert into the circuit breaker
- **High Accuracy** - Voltage & Current class 0.5s, kWh class 1.0
- **48VDC Power Supply** - Special design for Telecom BTS application
- **Wide Measurement Range** - Max. support 63A direct connect, no need for extra Hall Sensor or Shunt
- **Multi Circuit** - Support 12 single phase circuit

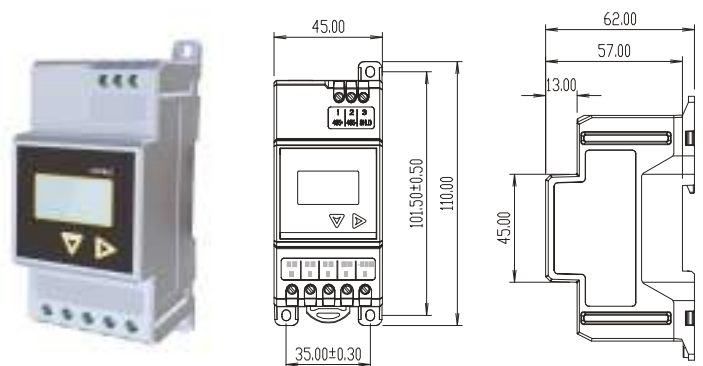
Function

- **Measure** -- Voltage, Current, Power, Energy (input / output / total)
- **Alarm** - Voltage limit alarm (high limit/ low limit), Current limit alarm (high limit), Communication failure alarm
- **Communication** - Modbus-RTU protocol, RS485 port

Typical Specification

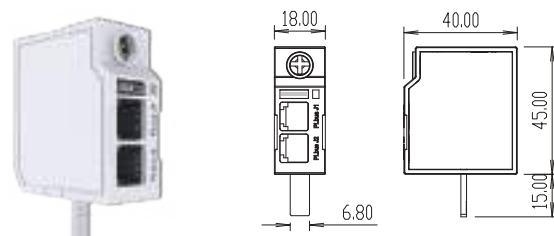
DFPM20D-M: Main Module

| | |
|----------------------------|--|
| Connection Mode | 1P/2W |
| Power Supply | -48VDC, range: 50%~125% |
| Rated Voltage Input | -48VDC, range: 50%~125% |
| Power Consumption | ≤6W |
| Communication | RS485 port, Modbus-RTU protocol Baud Rate: 4800, 9600, 19200bps Address: 1~247 |
| Installation | DIN35 DIN Rail or back screw fixed |



DCS: Measure Module

| | |
|--------------------------|--|
| Connect ion Mode | Daisy chain bus topology and RJ12 port |
| Measuring Current | 10(63) A |
| Parameter | Voltage, Current, Power, Energy |
| Installation | Solid Core |



DFPM20D DC Multi-Channel Energy Meter

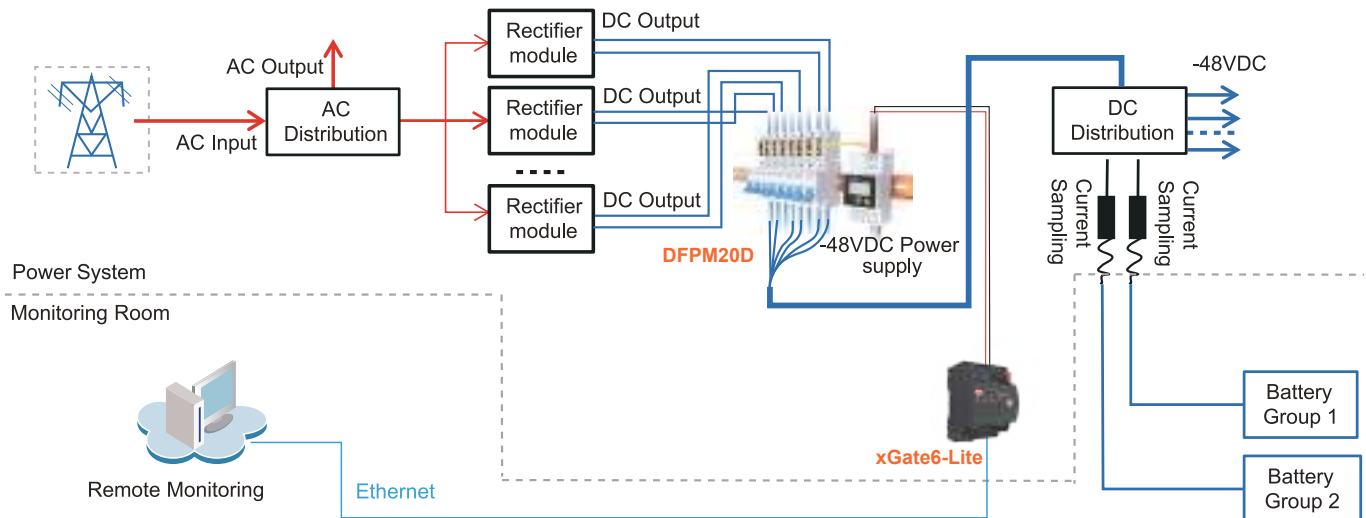
Accuracy

| Parameter Accuracy | Parameter | Range | Accuracy |
|--------------------|-----------|------------------------|----------|
| | Voltage | -38V~-58V | 0.5% |
| | Current | 1~63A | 0.5% |
| | Power | Single phase: 0 ~ ±5kW | 1.0% |
| | Energy | 0~99999999.9 | 1.0% |

Environment & Temperature

| Environment & Temperature | Working Temperature | Normal | -20°C ~ +60°C |
|---------------------------|---------------------|---------------|---------------|
| | | Limit | -25°C ~ +75°C |
| Environment & Temperature | Storage Temperature | -30°C ~ +80°C | |
| | Humidity | < 95% | |
| | IP Degree | IP20 | |

Typical Connection



Order Information

| Module | Order Code | Description |
|----------------|-------------|---|
| Main Module | DFPM20D - M | -48VDC Power Supply, DIN Rail Installation, Modbus-RTU protocol, RS485 port |
| Measure Module | DCS | Depends on requirement, optional from 1 ~ 12 circuit, solid core |

- Note:
1. Measure Module connect via RJ12 daisy chain bus topology
 2. 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.

For example: 1pcs DFPM20D-M + 12pcs DCS indicate 1pcs DFPM20D main module and 12pcs DCS solid core sensor for 12 DC Circuit measuring, power supply -48VDC.



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