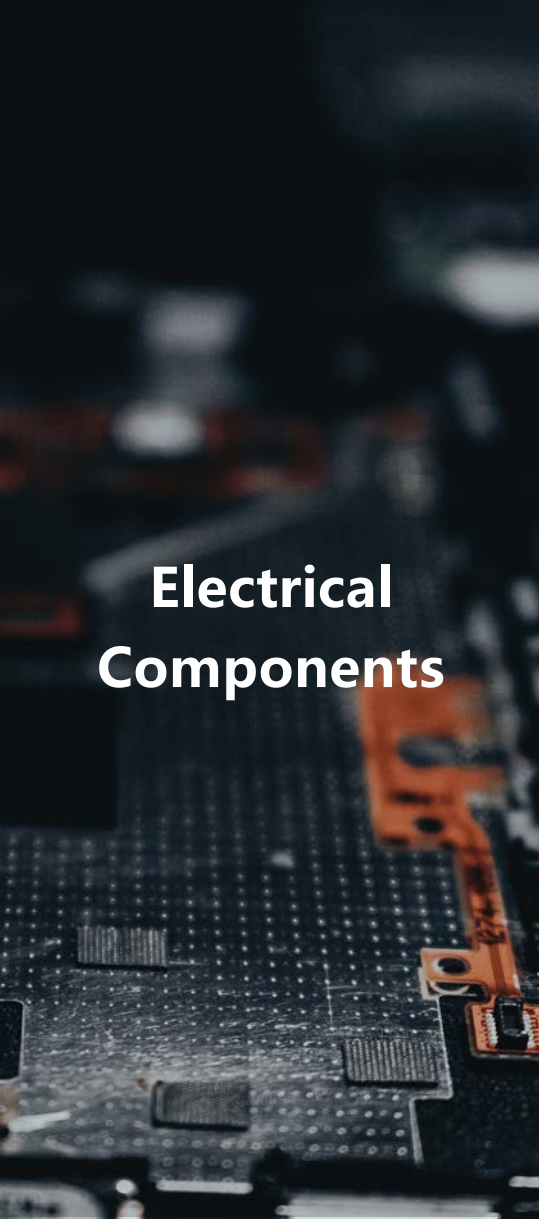




บริษัท ไอเอ็มซี อินดัสทรี จำกัด  
IMC Industry Company Limited

# Elecnova

ELECTRIC APPLICATION SOLUTION EXPERT




**Electrical  
Components**



**Power  
Quality**



**Electrical  
Equipment**



**System  
Software**



# Electrical Components

■ Measuring Electrical Components

■ Protection Electrical Components

■ Communication Electrical Components

■ Switch Electrical Components

■ Safety Electrical Components



# AC Multi-Functional Power Meter

Measuring  
Electrical  
Components



Sfer720 Series

Dimension:  
91x91mm

- Energy Accuracy 0.2S
- IP65 (Front)
- All-parameter measurement
- Bi-directional energy metering
- 4-quadrant reactive metering
- 4 Tariffs
- Harmonics V/A THD
- Harmonics up to 63rd
- Voltage fluctuation/flicker/sudden rise/drop
- Fault record Memory 8MB
- 1 Interface RS485(standard)/2DO/2DI
- Support 15 optional modules

# AC Multi-Functional Power Meter

Measuring  
Electrical  
Components



Sfer720 Series

- 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(Modbus-TCP)
- FM8(Profibus-DP V0)
- FM9(WIFI)
- FM10(GPRS)
- FM11(RS485,Modbus-RTU)
- FM12(M-Bus)
- FM13(BACnet/MSTP)
- FM14(BACnet/IP)
- FM15(RS232,Modbus-RTU)
- FM16(Lora)
- FM17(DNP3.0)

# AC Multi-Functional Power Meter

Measuring  
Electrical  
Components



Dimension:  
91x91mm

PD194Z Series

- Energy Accuracy 0.5S
- IP64 (Front)
- All-parameter measurement
- Bi-directional energy metering
- 2 Tariffs
- Harmonics V/A THD
- Harmonics up to 31st
- 1 Interface RS485/4DI/3DO/1AO

# AC Multi-Functional Power Meter

Measuring  
Electrical  
Components



- Working Temperature :  $-25^{\circ}\text{C} \sim +70^{\circ}\text{C}$
- Especially suitable for low-voltage feeder cabinet

Dimension:  
67x67mm

PD194Z Series

# AC Multi-Functional Power Meter

Measuring  
Electrical  
Components



Dimension:  
91x91mm

PD194Z Series

- Energy Accuracy 0.2S
- IP64 (Front)
- All-parameter measurement
- Bi-directional energy metering
- 2 Tariffs
- Harmonics V/A THD
- Harmonics up to 51st
- Voltage sudden rise/drop
- 1 Interface RS485(standard)
- 6DI/3DO/2AO



# AC Multi-Functional Power Meter

Measuring  
Electrical  
Components



Dimension  
91x91mm



Dimension  
67x67mm

LNF series

- LED display
- Real-time measurement I/U/P/Q/S/F/PF
- Bi-directional energy metering
- 4-quadrant reactive metering
- THD , Harmonics up to 15th
- 1 Energy pulse output
- 1 Interface RS485
- Support optional digital input
- Support optional relay output
- Support optional analog output

# AC Multi-Functional Power Meter

Measuring  
Electrical  
Components



Dimension:  
91x91mm



Dimension:  
67x67mm

LNF Series

- LCD Display
- IP54 (Front)
- Ultra-thin design
- Real-time measurement I/U/P/Q/S/F/PF
- Bi-directional energy metering
- 4-quadrant reactive metering
- THD , Harmonics up to 15th
- Optocoupler isolation
- 1 Interface RS485

# AC Multi-Functional Power Meter

Measuring  
Electrical  
Components

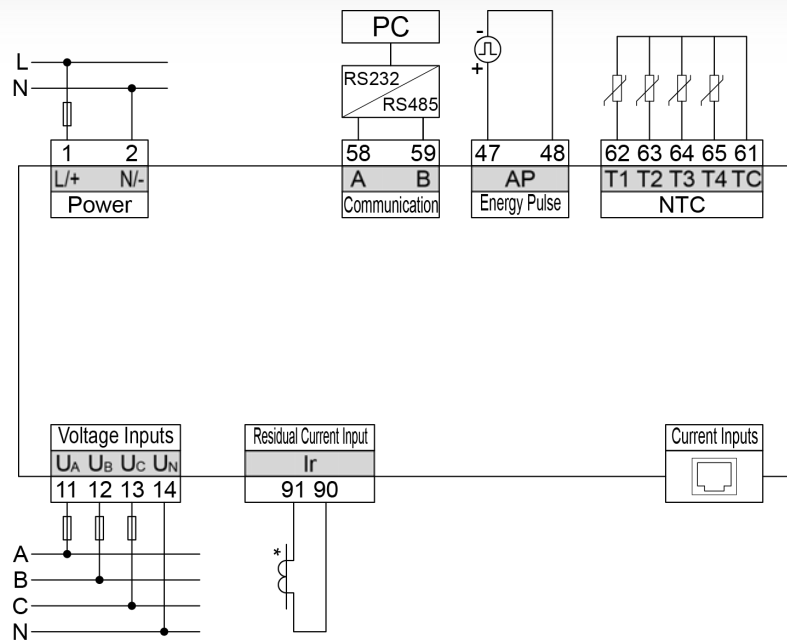


PD194Z-E20

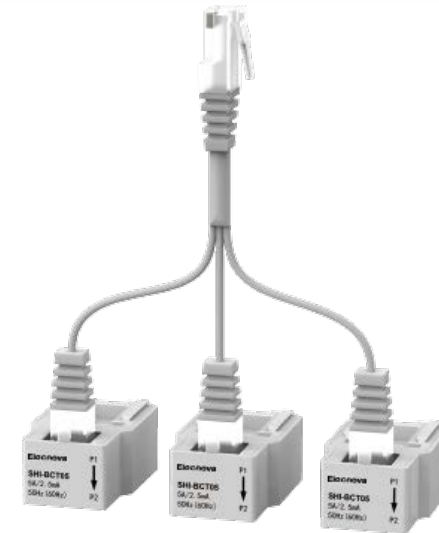
- LED Display DIN-rail mounted
- Real-time measurement I/U/P/Q/S/F/PF
- Bi-directional energy metering
- 4-quadrant reactive metering
- THD, Harmonics up to 15th
- 1 Interface RS485
- Extensive communication module ( LoRa /4G/NB )

# AC Multi-Functional Power Meter

Measuring Electrical Components



PD194Z-E20B



# AC Multi-Functional Power Meter

Measuring  
Electrical  
Components



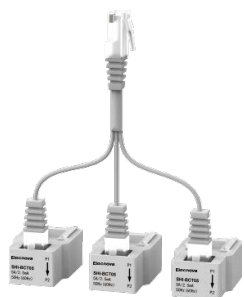
PD194Z-E14

- 3-phase monitoring up to 4 circuit
- Direct connection via external CT (solid/split)
- Real-time measurement I/U/P/Q/S/F/PF
- Bi-directional energy metering
- 4-quadrant reactive metering
- THD , Harmonics up to 31st
- 1 Interface RS485

# AC Multi-Functional Power Meter

Measuring  
Electrical  
Components

Especially suitable for  
Transformation project



## Solid CT

Model	SHI-BCT05	SHI-BCT100	SHI-BCT200	SHI-BCT400	SHI-BCT600
Rated Current	5A	100A	200A	400A	600A
Maximum Current	10A	120A	240A	480A	720A
Accuracy	0.1%	0.1%	0.1%	0.1%	0.1%
Isolation Voltage	4kVAC	4kVAC	4kVAC	4kVAC	4kVAC
Operating Temperature	-40 C ~ 70 C	-40 C ~ 70 C	-40 C ~ 70 C	-40 C ~ 70 C	-40 C ~ 70 C
Storage Temperature	-40 C ~ 70 C	-40 C ~ 70 C	-40 C ~ 70 C	-40 C ~ 70 C	-40 C ~ 70 C
Diameter(mm)	8	18	24	29	29
Dimension(mm)	28*18*44	36*20*59	60*20*80	75*22.5*95	75*22.5*95



## Split CT

Model	SHI-SCT05	SHI-SCT100	SHI-SCT200	SHI-SCT400	SHI-SCT600
Rated Current	5A	100A	200A	400A	600A
Maximum Current	6A	120A	240A	480A	720A
Accuracy	1%	0.5%	0.5%	0.5%	0.5%
Isolation Voltage	4kVAC	4kVAC	4kVAC	4kVAC	4kVAC
Operating Temperature	-40 C ~ 70 C	-40 C ~ 70 C	-40 C ~ 70 C	-40 C ~ 70 C	-40 C ~ 70 C
Storage Temperature	-40 C ~ 70 C	-40 C ~ 70 C	-40 C ~ 70 C	-40 C ~ 70 C	-40 C ~ 70 C
Diameter(mm)	10	16	24	35	35
Dimension(mm)	29*27*42	30*31*53	44*39*70	57*41*84	57*41*84

# AC Multi-Functional Power Meter

Measuring Electrical Components

## SOLID CORE CT



Model	SHI-BCT05	SHI-BCT100	SHI-BCT200	SHI-BCT400	SHI-BCT600
Diameter(mm)	8	18	24	29	29
Dimension(mm)	28×18×44	36×20×59	60×20×80	75×22.5×95	75×22.5×95

## FLEXIBLE CT



Model	SHI-FCT600	SHI-FCT1000	SHI-FCT2000	SHI-FCT3000
Diameter(mm)	65	95	95	95

## SPLIT CORE CT



Model	SHI-SCT05	SHI-SCT100	SHI-SCT200	SHI-SCT400	SHI-SCT600
Diameter(mm)	10	16	24	35	35
Dimension(mm)	29×27×42	30×31×53	44×39×70	57×41×84	57×41×84

Solid CT/Split CT/Flexible CT

# AC Multi-Functional Power Meter

Measuring Electrical Components



Model	SHI-BCT50M	SHI-BCT100M	SHI-BCT200M	SHI-BCT400M
Rated value	50A	100A	200A	400A
Aperture of transformer(mm)	φ18	φ18	φ23, 32×12	φ29, 42×12
Outline dimension(mm)	36×20×59	36×20×59	60×20×80	75×22.5×95



Model	SHI-BCT600M	SHI-BCT800M	SHI-BCT1000M	SHI-BCT2000M
Rated value	600A	800A	1000A	2000A
Aperture of transformer(mm)	φ29, 42×12	φ61, 82×22	φ61, 82×22	φ61, 82×22
Outline dimension(mm)	75×22.5×95	132×37×158	132×37×158	132×37×158

## Matched low-power transformer

- Significant cost advantage
- Safe and reliable, secondary side mV signal output, open circuit allowed
- Breathing light, compact size
- Easy installation and use



# AC Multi-Functional Power Meter

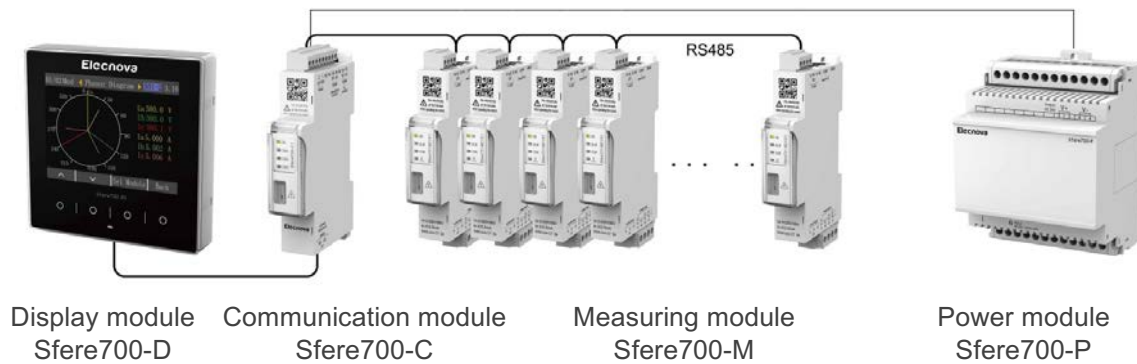
Measuring  
Electrical  
Components



SFERE700 Series

# AC Multi-Functional Power Meter

Measuring  
Electrical  
Components



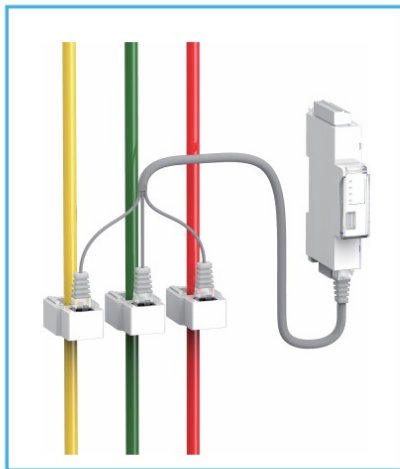
- Up to measuring 32 three-phase circuits or 96 single-phase circuits
- 7/10 inches HMI options
- Centralized display and management of parameters
- Compact design, easy installation
- Primary current supports connection via solid/split/flexible CT

SFERE700 series

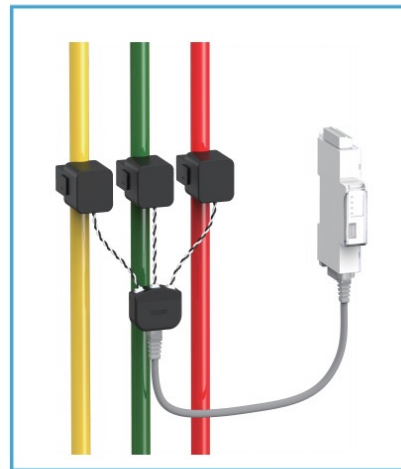
# AC Multi-Functional Power Meter

Measuring Electrical Components

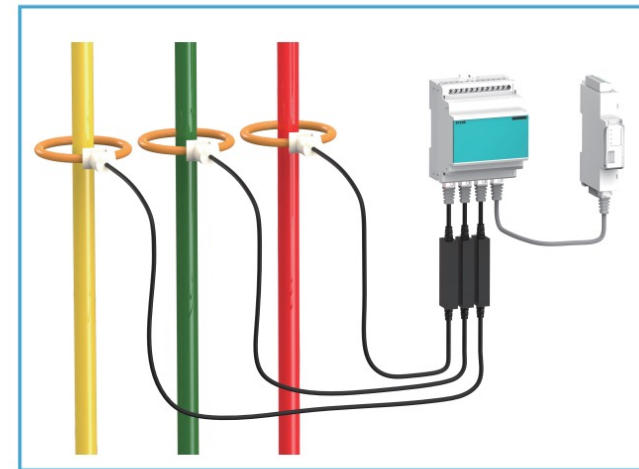
Solid/split/flexible current transformer could be applied to the monitoring module to adapt various applications.



Solid CT



Split CT



Flexible CT

Solid CT/Split CT/Flexible CT

# DC Multi-Functional Power Meter

Measuring  
Electrical  
Components



PD195Z-E31  
PD195Z-E33

- Monitoring up to 21 DC circuits(via extensive EM2D module)
- Real-time measurement I/U/P
- Bi-directional energy metering
- Support monitoring DC 1000V
- 1 Interface RS485

# Precision Distribution Monitoring Unit

Measuring  
Electrical  
Components



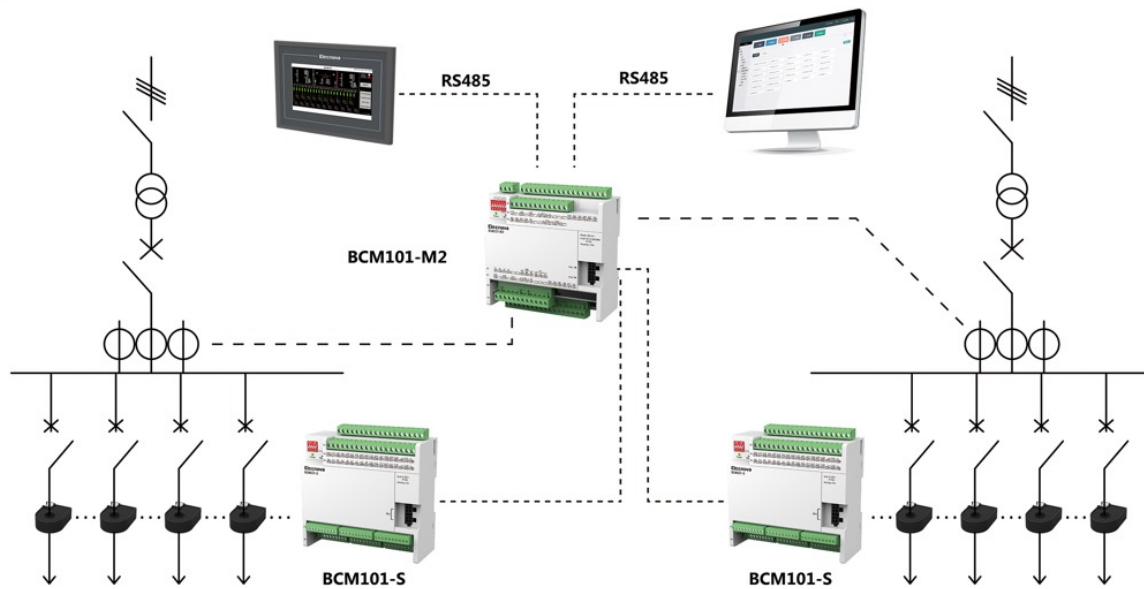
BCM101  
AC Precision Distribution Monitoring Unit

- Support monitoring 2 input circuits & 90 output branch circuits
- Real-time measurement  
voltage/zero-to-earth voltage/current/frequency  
energy/demand/ harmonics/temperature
- Bi-directional energy metering
- Tariffs
- Save the energy of 10 years
- SOE event record ( 1024 pieces )
- Support judging the status of breaker in every branch circuit by monitoring the voltage accordingly
- Support 100A direct connection to current measurement of feeder branch circuit

# Precision Distribution Monitoring Unit

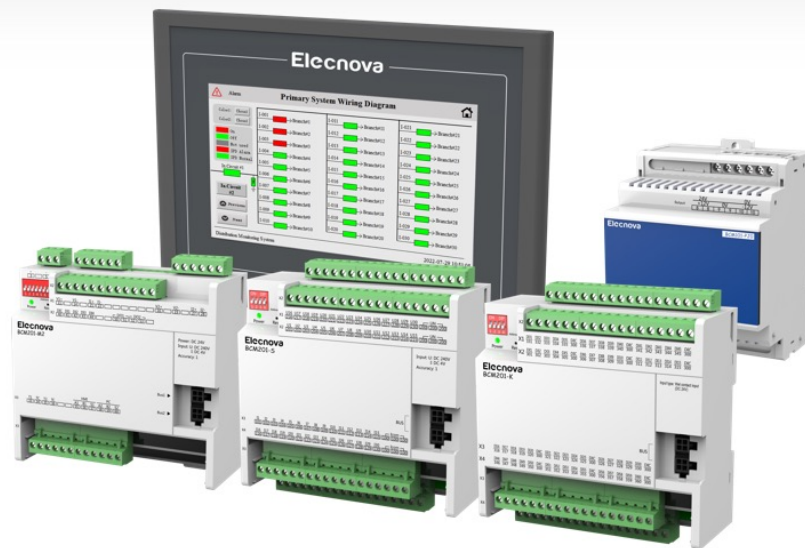
Measuring Electrical Components

Double input circuit system diagram



# Precision Distribution Monitoring Unit

Measuring Electrical Components



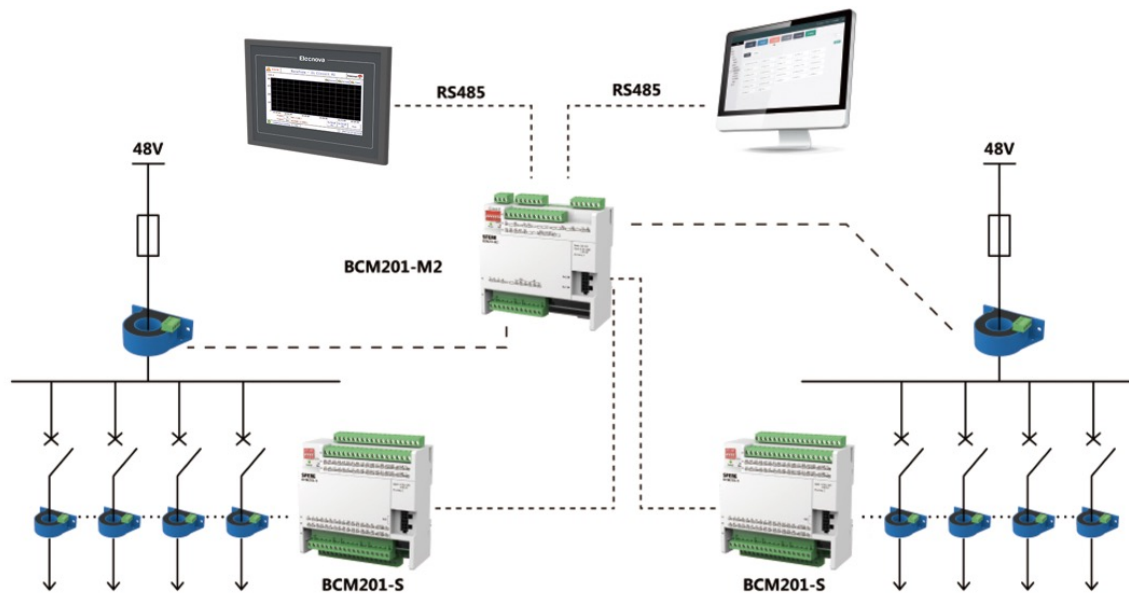
BCM201  
DC Precision Distribution Monitoring Unit

- Support monitoring 2 input circuits & 90 output branch circuits
- Real-time measurement  
voltage/zero-to-earth voltage/current/frequency  
energy/demand/ harmonics/temperature
- Bi-directional energy metering
- Tariffs
- Save the energy of 10 years
- SOE event record ( 1024 pieces )
- Support judging the status of breaker in every branch circuit  
by monitoring the voltage accordingly
- Current signal input via Hall sensor

# Precision Distribution Monitoring Unit

Measuring  
Electrical  
Components

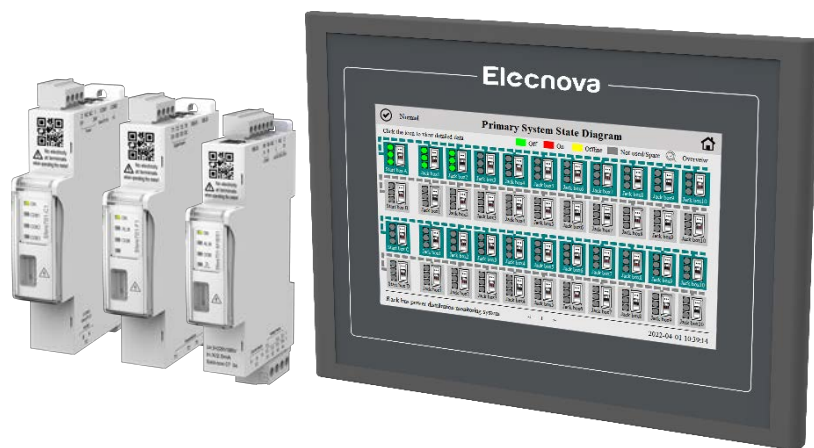
Double input circuit system diagram





# Sfere701 Rack Busway Monitoring Unit

Measuring  
Electrical  
Components

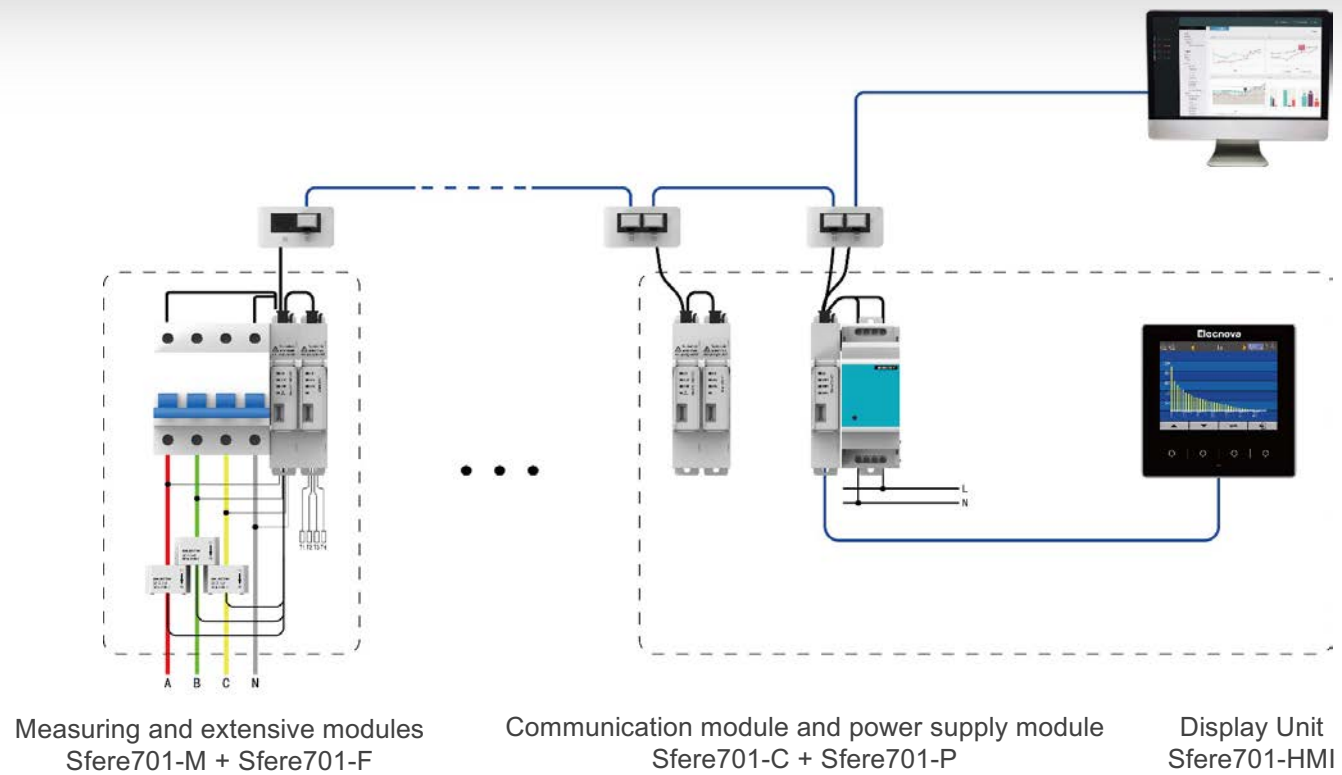


Sfere701-M  
Sfere701-F

- Real-time measurement U/I/P/Q/S/PF
- Energy audit
- Power quality analysis
- Status monitoring/Overload alarm
- Leakage monitoring/Temperature monitoring etc.
- Capability of measuring up to 32 three-phase circuits or 96 single-phase circuits
- Equipped with large multi-color LCD screen and touch mode buttons convenient to use
- Convenient to use, compact size, easy installation

# Sfere701 Rack Busway Monitoring Unit

Measuring  
Electrical  
Components



# AC DIN-rail Mounted Energy Meter

Measuring  
Electrical  
Components



DTS1946-4P  
DTS1946-4M



DTS1946-2P  
DTS1946-2M

- Monitoring AC single-phase/three-phase circuit
- Real-time measurement I/U/P/PF/THD
- Bi-directional energy metering
- Energy Accuracy 0.5S Class1
- 1 Interface RS485
- 1 Energy pulse output
- Support 63A direct access
- Up in Down out
- MID certification(2M,4M)

# AC DIN-rail Mounted Energy Meter

Measuring  
Electrical  
Components



DTS1946



DDS1946



DDS1946-1P



DDS1946-1P+

- Monitoring AC three-phase/single-phase circuit
- Real-time measurement I/U/P/PF/THD
- Bi-directional energy metering
- Energy Accuracy 0.5S Class1
- 1 Interface RS485
- 1 Energy pulse output
- Support direct connection up to 100A
- Support connection via CT

# AC DIN-rail Mounted Energy Meter for EV Charger

Measuring  
Electrical  
Components



DTSF1946-4M-01

- Monitoring AC three-phase circuit
- Real-time measurement I/U/P/PF/THD
- Demand Min./Max. value
- Energy Accuracy ClassB
- 1 Interface RS485
- 1 Energy pulse output
- Support 63A direct connection
- Down in Up out
- Extreme working temperature  $-40^{\circ}\text{C}\sim 70^{\circ}\text{C}$

# AC DIN-rail Mounted Energy Meter For EV Charger

Measuring  
Electrical  
Components



DDS1946-1P  
Single phase



DDS1946-2M  
Single phase



- Monitoring AC single-phase circuit
- Real-time measurement I/U/P/PF/THD
- Demand Min./Max. value
- Energy Accuracy ClassB
- 1 Interface RS485
- 1 Energy pulse output
- Support 63A direct connection
- Up in Down out
- Extreme working temperature -25°C~70°C

# DC DIN-rail Mounted Energy Meter for EV Charger

Measuring  
Electrical  
Components



PD195Z-CD31F Single  
PD195Z-CD32F Dual

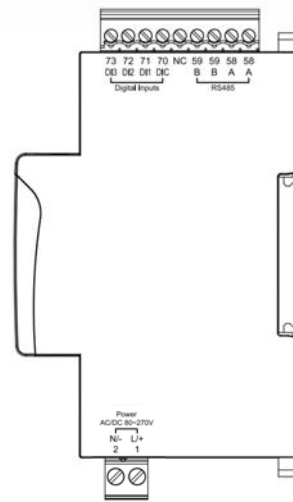
- Support monitoring 1/2 DC circuit
- Real-time measurement I/U/P
- Bi-directional energy metering
- Support monitoring DC 1000V
- 1 Interface RS485
- Extreme working temperature  $-40^{\circ}\text{C} \sim 70^{\circ}\text{C}$

# Digital Signal Measuring Module

Measuring  
Electrical  
Components



Sfero700-DI3



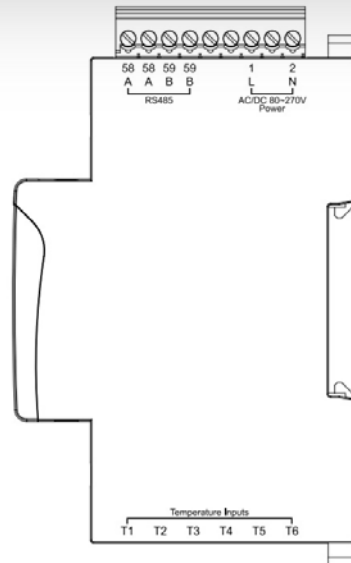
- Support 3 circuit digital input monitoring
- Dry contact
- RS485 interface , Modbus-RTU protocol
- Optional working power supply  
DC24V or AC/DC80~270V

SFERE700-DI3  
Digital input measuring module



# Temperature Measuring Module

Measuring Electrical Components



- Support 6 circuit temperature monitoring
- NTC10K , measuring range -20~150°C
- RS485 interface , Modbus-RTU protocol

SFERE700-T6  
Temperature measuring module

# Intelligent Power Meter

Measuring  
Electrical  
Components

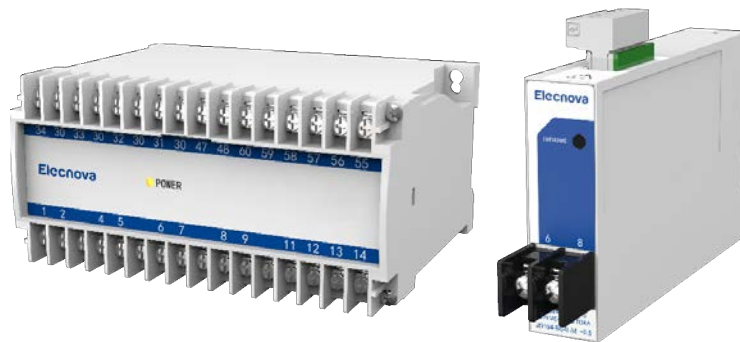


Intelligent power meter

- Optional AC three-phase/single-phase parameters measurement U/I/P/PF/F etc.
- DC voltage/current measurement
- Optional LED/LCD display
- RS485 interface
- Optional digital input/relay output/analog output
- Multi dimensions options

# Electrical Transducer

Measuring  
Electrical  
Components



- Optional three-phase/single-phase parameter transmission output U/I/P etc.
- DIN-rail mounted
- RS485 interface , Modbus-RTU protocol

Transducer

# Motor Protection Controller

Protection components



WDH-31-200

- Measure three-phase current, 1 circuit voltage and 1 circuit residual current
- 10 protection functions
- 2 relay output (1 normally on, 1 normally off)
- SOE event record
- Optional analog output/residual current protection function

# Motor Protection Controller

Protection components



WDH-31-210

- 12 protection functions
- 5 programmable digital input
- 4 programmable relay output
- LCD display
- Optional anti-interference module

# Motor Protection Controller

Protection components



WDH-31-530

- 12 protection functions
- 5 programmable digital input
- 4 programmable relay output
- LCD display
- Optional anti-interference module

# Motor Protection Controller

Protection components



WDH-31-500

- 16 protection functions
- 12 programmable digital input
- 7 programmable relay output
- LCD display
- Support anti-interference/power-up self-starting functions, etc.

# Motor Protection Controller

Protection components



WDH-31-580

- 21 protection functions
- 12 programmable digital input
- 8 programmable relay output
- Harmonics up to 31st
- LCD display
- Energy audit, THD analysis
- Fault record
- Support anti-interference/power-up self-starting functions
- Optional Ethernet/Profibus-DP communication protocol



# Low-voltage Circuit Comprehensive Protection Device

Protection components



- 15 protection functions
- 12 programmable digital input
- 7 programmable relay output
- LCD display

WKH-32-500

# Communication Gateway

Communication components



SC2

- LoRa Wireless communication
- Radio Unvarnished Transmission
- Long-distance
- 470M/868M/912M multi band options
- Downlink RS485

# Communication Gateway

Communication components



S15

- IoT
- Wireless network
- Intelligent configuration and debugging
- Device management
- Multi communication protocols including MQTT
- Dual network port exchanging function
- Uplink Ethernet/WIFI/4G/NB-IoT options
- Downlink RS485/LoRa options

# Communication Gateway

Communication components



S20


- Multi-circuit data acquisition
- Multi-protocol conversion
- Data analysis and calculation
- Automatic logic control
- Docking multiple platforms
- Flexible WEB configuration
- Uplink Ethernet/4G , Downlink RS485
- 128M Flash , 64M SDRAM , extensive 32G TFcard

# Intelligent MCBS

Switch components



SFB2A

- Remote monitoring and data analysis on cloud platform 
- Automatic protection of overvoltage/undervoltage
- Surge, over temperature/short-circuit protection
- Automatic reclosure
- 6000A breaking capacity
- Matched gateway supporting Ethernet/4G/WIFI options

# Air Circuit Breaker

Switch components



SFW1 series

- Intelligent, high breaking, zero flashover
- With 3 poles or 4 poles, drawer type and fixed type, support inverted installation
- Conform to IEC60947-2, GB/T14048.2 and other standards
- Complete protection features, convenient setting and high precision
- Three-position/four-position protection function, monitoring function, fault memory function, can be equipped with communication interface
- Current range 200A-6300A
- Short-circuit breaking capacity 50kA-135kA

# Molded Case Circuit Breakers

Switch components



SFM3 series

- Modular installation of accessories, free selection
- Patented designs such as quick-rod structure and double-spacing structure, the product performance is better
- Complete product accessories are available for selection, with stronger expansion functions to meet customers' diverse needs
- Rated working voltage up to 690V, Rated insulation voltage up to 1000V, meeting the requirements of various industries
- With overload and short-circuit protection functions
- Small dimension, high breaking capacity, short arc, vibration resistance etc.
- Current range 10A-800A
- Short-circuit breaking capacity up to 100kA

# Isolating Switch

Switch components



SFG series

- Applicable for circuits with AC 50Hz, rated voltage of 400V and below, and rated current of 16A-1600A
- High dielectric performance, protection capability and reliable operation safety
- Three poles/four poles optional (three poles+neutral pole that can be on/off)



# Grade-PC Automatic Transfer Switch

Switch components



SFP1 series

- The switch is driven by motor and solenoid coil to ensure the fast transfer rate
- Intergrated three-position/two-position and split-type two-position options
- Rated current 16A-3200A (GA/GN type)
- Split-type products can be equipped with SF70 series intelligent automatic transfer switch controller

# Grade-CB Automatic Transfer Switch

Switch components



SFC3 series

- Grade-CB automatic transfer switch realizes 2-in and 1-out
- Settable parameters, telecommunication communication as an option
- All-bakelite housing with high safety factor and no outward flashover
- Compact design with high anti-interference performance
- Small volume, with isolation function
- Rated current 6A-630A

# Miniature Circuit Breaker

Switch components



SFB1/SFB1L

- Rated current 6A-63A
- 6kA high breaking capacity
- 1P-4P optional
- Mainly used for power distribution in lighting/motor protection
- Overload and short-circuit protection
- Leakage protection (L)

# Miniature Circuit Breaker

Switch components



- Rated current 10-100A
- 10kA high breaking capacity
- 1P-4P optional
- Applied to power distribution system/building lighting protection
- Overload and short-circuit protection
- Leakage protection (L)

SFB3/SFB3L



**THANKS**

**JIANGSU SFERE ELECTRIC CO., LTD.**