Company Profile

Wenzhou Saifa Electric Co., Ltd., established in May 1996, covers an area of 8000 m² and has 200 employees. With 30 excellent professional engineers, we own a powerful researching and developing ability. We have the certificate of ISO9001-2008. Our products have also got the CE, CB certificates approved by Germany TUV company, The panel meters are strictly produced under the International Standard IEC1010 and National Standard GB/T13978-2008. The current transformers are IEC 61010 and National Standard GB/T7676-1998. The digital meters are strictly produced under the Germany TUV company. The panel meters are strictly produced under the International Standard IEC60051.

Our management philosophy is: Service our customers with high quality products; Build the International Standard IEC1010 and National Standard GB/T13978-2008. The current transformers are IEC 61010 and National Standard GB/T7676-1998. The digital meters are strictly produced under the Germany TUV company. The panel meters are strictly produced under the International Standard IEC60051, We have the certificate of IS09001-2008. Our products have also got the CE, CB certificates approved by Germany TUV company. The panel meters are strictly produced under the International Standard IEC1010 and National Standard GB/T13978-2008. The current transformers are IEC 61010 and National Standard GB/T7676-1998. The digital meters are strictly produced under the Germany TUV company. The panel meters are strictly produced under the International Standard IEC60051.

Products Certificates

General Technical Index

<table>
<thead>
<tr>
<th>Technical parameters</th>
<th>Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage</td>
<td>AC 60-600V</td>
</tr>
<tr>
<td>Over load</td>
<td>Consistently 2 times, instantaneously 2 times (3S)</td>
</tr>
<tr>
<td>Consumption</td>
<td>± (0.5% FS ± one digit)</td>
</tr>
<tr>
<td>Impedance</td>
<td>&lt;500Ω</td>
</tr>
<tr>
<td>Rated value</td>
<td>AC 1 A, 5A</td>
</tr>
<tr>
<td>Over load</td>
<td>Consistently 2 times, instantaneously 2 times (3S)</td>
</tr>
<tr>
<td>Reactance</td>
<td>± (0.5% FS ± one digit)</td>
</tr>
<tr>
<td>Frequency</td>
<td>± 0.1Hz</td>
</tr>
<tr>
<td>Harmonic</td>
<td>The three-phase voltage/current 21 total harmonic content</td>
</tr>
<tr>
<td>Power factor</td>
<td>± 0.01PF</td>
</tr>
<tr>
<td>Active energy</td>
<td>±0.5% (only for reference, not for meterage)</td>
</tr>
<tr>
<td>Reactive energy</td>
<td>±0.5% (only for reference, not for meterage)</td>
</tr>
<tr>
<td>Power Scope</td>
<td>AC 220V, 50/60Hz AC/DC BS=285V</td>
</tr>
<tr>
<td>Power Consumption</td>
<td>≤5kW</td>
</tr>
<tr>
<td>Input and output</td>
<td>&gt;2x5kVA/60Hz</td>
</tr>
<tr>
<td>Output and power</td>
<td>&gt;2x5kVA/60Hz</td>
</tr>
<tr>
<td>Insulating resistance</td>
<td>&gt;2x5kVA/60Hz</td>
</tr>
<tr>
<td>Environment</td>
<td>Operation: -40~60°C</td>
</tr>
<tr>
<td>Temperature</td>
<td>Storage: -25~70°C</td>
</tr>
<tr>
<td>Humidity</td>
<td>≤85%RH, free of wet and corrosive gas</td>
</tr>
<tr>
<td>Elevation</td>
<td>≤3000m</td>
</tr>
</tbody>
</table>

Type and designation

SFN-□□-□□-□□+□

Additional functions
- nO: switch value output (n=1, 3, 4 channels)
- nO: switch value input (n=1, 3, 4 channels)
- nO: analog quantity output (n=1, 3, 4 channels)
- nO: harmonic

Measurement parameters (can combine several parameters)
- Voltage
- Current
- Frequency
- Power factor
- Active power
- Reactive power
- R: revolutions per minute
- E: multifunction power meter

Phase
- Om: single-phase or DC
- 3: three-phase

Display mode
- 1: one-row, mixed display
- 2: two-row, mixed display
- 3: three-row, mixed display
- 4: four-row, mixed display
- 5: five-row, mixed display
- 6: LCD display

Function code
- 1: Programmable meter without RS485 communication
- 2: Programmable meter with RS485 communication

Shape code
- 1: 128×64
- 2: 64×64
- 3: 96×48
- 4: 72×24
- 5: 96×96
- 6: 96×48
- 7: 96×96
- 8: 96×96
- 9: 96×96
- 0: modular type
### Digital Active Power Meter

**Model**
- SFN-2K1-I
- SFN-3K1-I
- SFN-4K1-I
- SFN-5K1-I
- SFN-6K1-I
- SFN-7K1-I
- SFN-8K1-I
- SFN-9K1-I
- SFN-10K1-I

**Panel dimension (mm)**
- 120x120
- 96x96
- 80x80
- 68x68
- 48x48
- 92x92
- 72x72
- 68x68
- 48x48
- 92x92

**Cutout hole (mm)**
- 112x112
- 92x92
- 76x76
- 68x68
- 45x45
- 92x45
- 68x48
- 76x68
- 45x45
- 92x92

**Input**
- AC 0-600V
- DC 0-60V

**Accuracy**
- 0.5

**Additional functions**
- Communication interface: RS485 (SN: 1-31)
- A2 channels switch value output (model=200)
- A1 channels analog quantity output (model=1AO)

### Digital DC Voltmeter

**Model**
- SFN-2K1-U
- SFN-3K1-U
- SFN-4K1-U
- SFN-5K1-U
- SFN-6K1-U
- SFN-7K1-U
- SFN-8K1-U
- SFN-9K1-U
- SFN-10K1-U

**Panel dimension (mm)**
- 120x120
- 96x96
- 80x80
- 68x68
- 48x48
- 92x92
- 72x72
- 68x68
- 48x48
- 92x92

**Cutout hole (mm)**
- 112x112
- 92x92
- 76x76
- 68x68
- 45x45
- 92x45
- 68x48
- 76x68
- 45x45
- 92x92

**Input**
- AC 0-60V
- DC 0-60V

**Accuracy**
- 0.5

**Additional functions**
- Communication interface: RS485 (SN: 1-31)
- A2 channels switch value output (model=200)
- A1 channels analog quantity output (model=1AO)

### Digital Frequency Meter

**Model**
- SFN-2K1-P
- SFN-3K1-P
- SFN-4K1-P
- SFN-5K1-P
- SFN-6K1-P
- SFN-7K1-P
- SFN-8K1-P
- SFN-9K1-P
- SFN-10K1-P

**Panel dimension (mm)**
- 120x120
- 96x96
- 80x80
- 68x68
- 48x48
- 92x92
- 72x72
- 68x68
- 48x48
- 92x92

**Cutout hole (mm)**
- 112x112
- 92x92
- 76x76
- 68x68
- 45x45
- 92x45
- 68x48
- 76x68
- 45x45
- 92x92

**Input**
- AC 0-10kHz
- DC 0-10kHz

**Accuracy**
- 0.5

**Additional functions**
- Communication interface: RS485 (SN: 1-31)
- A2 channels switch value output (model=200)
- A1 channels analog quantity output (model=1AO)

### Single/Three-Phase Digital Combined Meter

#### Single-Phase Digital Combined Meter

**Model**
- SFN-2K3-UP
- SFN-3K3-UP
- SFN-4K3-UP
- SFN-5K3-UP
- SFN-6K3-UP
- SFN-7K3-UP
- SFN-8K3-UP
- SFN-9K3-UP
- SFN-10K3-UP

**Panel dimension (mm)**
- 120x120
- 96x96
- 80x80
- 68x68
- 48x48
- 92x92
- 72x72
- 68x68
- 48x48
- 92x92

**Cutout hole (mm)**
- 112x112
- 92x92
- 76x76
- 68x68
- 45x45
- 92x45
- 68x48
- 76x68
- 45x45
- 92x92

**Input**
- AC 0-600V
- DC 0-60V

**Accuracy**
- 0.5

**Additional functions**
- Communication interface: RS485 (SN: 1-31)
- A2 channels switch value output (model=200)
- A1 channels analog quantity output (model=1AO)

#### Three-Phase Digital Combined Meter

**Model**
- SFN-2K3-UIF
- SFN-3K3-UIF
- SFN-4K3-UIF
- SFN-5K3-UIF
- SFN-6K3-UIF
- SFN-7K3-UIF
- SFN-8K3-UIF
- SFN-9K3-UIF
- SFN-10K3-UIF

**Panel dimension (mm)**
- 120x120
- 96x96
- 80x80
- 68x68
- 48x48
- 92x92
- 72x72
- 68x68
- 48x48
- 92x92

**Cutout hole (mm)**
- 112x112
- 92x92
- 76x76
- 68x68
- 45x45
- 92x45
- 68x48
- 76x68
- 45x45
- 92x92

**Input**
- AC 0-600V
- DC 0-60V

**Accuracy**
- 0.5

**Additional functions**
- Communication interface: RS485 (SN: 1-31)
- A2 channels switch value output (model=200)
- A1 channels analog quantity output (model=1AO)
**Sfim**

**THREE-PHASE DIGITAL COMBINED METER**

<table>
<thead>
<tr>
<th>Model</th>
<th>Panel dimension</th>
<th>Cutout hole dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td>SFN-9K-3U1P</td>
<td>96×96</td>
<td>92×92</td>
</tr>
</tbody>
</table>

Can choose several Additional Functions

- Communication interface: RS485 (Model: SFN-9K-3U1P)
- 4-channels switch value output (model +4AO)
- 4-channels switch value input (model +4DI)
- 4-channels analog quantity output (model +4AO)

**DIGITAL AC-DC AMPERE**

<table>
<thead>
<tr>
<th>Model</th>
<th>Panel dimension</th>
<th>Cutout hole dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td>SFN-2K-Y-1</td>
<td>120×120</td>
<td>112×112</td>
</tr>
</tbody>
</table>

Input: AC 0-600V, 0-20mA, 0-5/10V

Accuracy class: 0.5

Additional functions:

- Communication interface: RS485 (Model: SFN-2K-Y-1)
- 2-channels switch value output (model +2AO)
- 2-channels analog quantity output (model +2AO)

**DIGITAL AC-DC VOLTMETER**

<table>
<thead>
<tr>
<th>Model</th>
<th>Panel dimension</th>
<th>Cutout hole dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td>SFN-2K-Y-U</td>
<td>96×96</td>
<td>92×92</td>
</tr>
</tbody>
</table>

Input: AC 0-600V, DC 0-20mA, 0-5/10V

Accuracy class: 0.5

Additional functions:

- 2-channels switch value output (model +2AO)
- 2-channels analog quantity output (model +2AO)

**DIGITAL FREQUENCY METER**

<table>
<thead>
<tr>
<th>Model</th>
<th>Panel dimension</th>
<th>Cutout hole dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td>SFN-2K-Y-V</td>
<td>120×120</td>
<td>112×112</td>
</tr>
</tbody>
</table>

Input: 30-500Hz (AC 30-500V; DC 0-20mA, 0-5/10V

Accuracy class: 0.5

Additional functions:

- Communication interface: RS485 (Model: SFN-2K-Y-V)
- 2-channels switch value output (model +2AO)
- 2-channels analog quantity output (model +2AO)

**SINGLE/THREE-PHASE DIGITAL ACTIVE METER**

<table>
<thead>
<tr>
<th>Model</th>
<th>Panel dimension</th>
<th>Cutout hole dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td>SFN-2K-Y-P</td>
<td>120×120</td>
<td>112×112</td>
</tr>
</tbody>
</table>

Input: AC 0-500V, 5A

Accuracy class: 0.5

Additional functions:

- Communication interface: RS485 (Model: SFN-2K-Y-P)
- 2-channels switch value output (model +2AO)
- 2-channels analog quantity output (model +2AO)

**SINGLE/THREE-PHASE DIGITAL POWER FACTOR METER**

<table>
<thead>
<tr>
<th>Model</th>
<th>Panel dimension</th>
<th>Cutout hole dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td>SFN-2K-Y-R/K</td>
<td>120×120</td>
<td>112×112</td>
</tr>
</tbody>
</table>

Input: AC 0-500V, 5A

Accuracy class: 0.5

Additional functions:

- Communication interface: RS485 (Model: SFN-2K-Y-R/K)
- 2-channels switch value output (model +2AO)
- 2-channels analog quantity output (model +2AO)
### SFN Model Series

#### Three-Phase Current Transducer
- SFN-JBS4I0

#### Three-Phase Voltage Transducer
- SFN-3BS4UD

#### Three-Phase Active Power Transducer
- SFN-3BS4PD

#### Three-Phase Reactive Power Transducer
- SFN-3BS4QD

#### POWER FACTOR TRANSDUCER
- SFN-3BS4HD

#### Three-Phase Multifunctional Transducer
- SFN-JBS4ED

### Single-Phase Current Transducer
- SFN-BS4I0

### Single-Phase Voltage Transducer
- SFN-8S4UD

### Frequency Transducer
- SFN-8S4FO

### Single-Phase Active Power Transducer
- SFN-8S4PO

### Single-Phase Reactive Power Transducer
- SFN-8S4QO

### Single-Phase Power Factor Transducer
- SFN-8S4HD

### Single-Phase Multifunctional Transducer
- SFN-8S4ED

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### Parameters Index

<table>
<thead>
<tr>
<th>Index</th>
<th>Parameters</th>
<th>Index</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ac;uracy</strong></td>
<td>± (0.5% FS + one digit)</td>
<td><strong>Input</strong></td>
</tr>
<tr>
<td><strong>Current</strong></td>
<td>mA, lOmA, lOOmA, lA, SA, lOA</td>
<td><strong>Voltage</strong></td>
</tr>
<tr>
<td><strong>Input</strong></td>
<td>AC 0–600V</td>
<td><strong>Output</strong></td>
</tr>
<tr>
<td><strong>Over load</strong></td>
<td>Instantaneous current: 10 times / s, voltage: 2 times / s</td>
<td><strong>Frequency</strong></td>
</tr>
<tr>
<td><strong>Communication</strong></td>
<td>RS485, MODBUS RTU</td>
<td><strong>Parameters</strong></td>
</tr>
</tbody>
</table>

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### Model and Specification

#### Economic Transducer

- **Model**: SFN-8S4I
- **Panel Cutout Hole Dimension**: 120x120 112x112

#### Single-Phase Transducer

- **Model**: SFN-8S4IU
- **Panel Cutout Hole Dimension**: 95x95 92x92

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### General Technical Index

- **Power**: AC/DC 85~265V
- **Consumption**: <4VA
- **Operation**: ~5~55°C
- **Environment**: 85%RH, free of dust and corrosive gas
- **Output**: 0~4mA, 0~20mA, 0~10V, 0~5V

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### Additional Functions

- **Communication Interface**: RS485 (SFN-3BS4ED)
The length of the graduation on the 90° scales is as follows:
- SF-48 (48 mm): 48 mm
- SF-72 (72 mm): 72 mm
- SF-96 (96 mm): 96 mm

The standard scale plates:
- 90° Scale plates with 1m, 2m, 3m, 5m, 6m

All the technical parameters of SFD series meter refer to the SFN series.
**SF-96 (72, 48) - 1 Panel Meter**

<table>
<thead>
<tr>
<th>Type</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>SF-96</td>
<td>96</td>
<td>96</td>
<td>8</td>
<td>6</td>
<td>89</td>
<td>89</td>
</tr>
<tr>
<td>SF-72</td>
<td>72</td>
<td>72</td>
<td>8</td>
<td>6</td>
<td>66</td>
<td>66</td>
</tr>
</tbody>
</table>

**Outline drawing (unit:mm)**

![Outline drawing](image)

**SF-96 (72, 48) - 6 Panel Meter**

<table>
<thead>
<tr>
<th>Type</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>SF-96</td>
<td>96</td>
<td>96</td>
<td>5</td>
<td>6</td>
<td>44</td>
<td>80</td>
</tr>
<tr>
<td>SF-48</td>
<td>48</td>
<td>48</td>
<td>5</td>
<td>6</td>
<td>44</td>
<td>38</td>
</tr>
</tbody>
</table>

**Outline drawing (unit:mm)**

![Outline drawing](image)

**SF-96 (72, 48) - 8 Panel Meter**

<table>
<thead>
<tr>
<th>Type</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>SF-96</td>
<td>96</td>
<td>96</td>
<td>5</td>
<td>6</td>
<td>66</td>
<td>66</td>
</tr>
<tr>
<td>SF-48</td>
<td>48</td>
<td>48</td>
<td>5</td>
<td>6</td>
<td>44</td>
<td>38</td>
</tr>
</tbody>
</table>

**Outline drawing (unit:mm)**

![Outline drawing](image)

**SF-96 (72, 48) - 9 Panel Meter**

<table>
<thead>
<tr>
<th>Type</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>SF-96</td>
<td>96</td>
<td>96</td>
<td>5</td>
<td>6</td>
<td>66</td>
<td>66</td>
</tr>
<tr>
<td>SF-48</td>
<td>48</td>
<td>48</td>
<td>5</td>
<td>6</td>
<td>44</td>
<td>38</td>
</tr>
</tbody>
</table>
### AC Ammeter and Voltmeter with Selector Switch

<table>
<thead>
<tr>
<th>Picture</th>
<th>Product Structure</th>
<th>Type</th>
<th>Specification</th>
<th>Overload ratio</th>
<th>Accuracy</th>
<th>Standard Mounting</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AC Ammeter with selector switch 5-Position</td>
<td>SF-96-3# SF-72-3#</td>
<td>±±x1A ±±x5A</td>
<td>1 or 2 times (customized) 3, 6, 15 times</td>
<td>1.5</td>
<td>Flush mounting with bracket</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AC Voltmeter with selector switch 5-Position</td>
<td>SF-96-3# SF-72-3#</td>
<td>10V-500V</td>
<td>/</td>
<td>1.5</td>
<td>Flush mounting with bracket</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AC Voltmeter with selector switch 6-Position</td>
<td>SF-96-3# SF-72-3#</td>
<td>10V-500V</td>
<td>/</td>
<td>1.5</td>
<td>Flush mounting with bracket</td>
<td></td>
</tr>
</tbody>
</table>

### Maximum Demand Ammeter

<table>
<thead>
<tr>
<th>Picture</th>
<th>Product Structure</th>
<th>Type</th>
<th>Specification</th>
<th>Response Time</th>
<th>Accuracy</th>
<th>Standard Mounting</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Maximum Demand Ammeter</td>
<td>~3</td>
<td>SF-96-3# SF-72-3#</td>
<td>5A 50mA 60mA 75mA 100mA 200mA 500mA</td>
<td>15min</td>
<td>3.0</td>
<td>Flush mounting with bracket</td>
</tr>
<tr>
<td></td>
<td>Maximum Demand Ammeter</td>
<td>~3</td>
<td>SF-96-3# SF-72-3#</td>
<td>5A 50mA 60mA 75mA 100mA 200mA 500mA</td>
<td>15min</td>
<td>3.0</td>
<td>Flush mounting with bracket</td>
</tr>
<tr>
<td></td>
<td>Maximum Demand Ammeter</td>
<td>~3</td>
<td>SF-96-3# SF-72-3#</td>
<td>5A 50mA 60mA 75mA 100mA 200mA 500mA</td>
<td>15min</td>
<td>3.0</td>
<td>Flush mounting with bracket</td>
</tr>
</tbody>
</table>

### Double Meter

<table>
<thead>
<tr>
<th>Picture</th>
<th>Product Structure</th>
<th>Type</th>
<th>Specification</th>
<th>Accuracy</th>
<th>Standard Mounting</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Double AC Ammeter Double AC Voltmeter</td>
<td>SF-96-3#</td>
<td>10mA-5A 10V-500V</td>
<td>1.5</td>
<td>Flush mounting with bracket</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Double DC Ammeter Double DC Voltmeter</td>
<td>SF-96-3#</td>
<td>50mA-600mA</td>
<td>1.5</td>
<td>Flush mounting with bracket</td>
<td></td>
</tr>
</tbody>
</table>

### Marine Meter 船用仪表

<table>
<thead>
<tr>
<th>Product Structure</th>
<th>Type</th>
<th>Specification</th>
<th>Accuracy</th>
<th>Instruction Angle</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC Ammeter</td>
<td>50mA-150mA</td>
<td>±±x1A ±±x5A</td>
<td>1.5</td>
<td>240°</td>
<td>1A, 5A the scale plate is changeable</td>
</tr>
<tr>
<td>AC Voltmeter</td>
<td>0-600V</td>
<td>/</td>
<td>1.5</td>
<td>/</td>
<td>Connecting to PT /110V</td>
</tr>
<tr>
<td>DC Ammeter</td>
<td>50mA-100mA</td>
<td>/</td>
<td>1.5</td>
<td>/</td>
<td>75mA, 60mAV, 50mA</td>
</tr>
<tr>
<td>DC Voltmeter</td>
<td>SF-110A SF-20A SF-30A SF-60A SF-72A</td>
<td>0-2000V</td>
<td>1.5</td>
<td>240°</td>
<td>the scale plate is changeable</td>
</tr>
<tr>
<td>Frequency Meter</td>
<td>45-55Hz 45-65Hz</td>
<td>/</td>
<td>1.5</td>
<td>/</td>
<td>/</td>
</tr>
<tr>
<td>Power Factor</td>
<td>1A</td>
<td>110V (\times 3) 220V (\times 3) 380V (\times 4) (\times 4)</td>
<td>1.5</td>
<td>240°</td>
<td>Case meter should be connected with external converter</td>
</tr>
</tbody>
</table>

### Synchroscope

<table>
<thead>
<tr>
<th>Picture</th>
<th>Product Structure</th>
<th>Type</th>
<th>Specification</th>
<th>Accuracy</th>
<th>Standard Mounting</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Synchroscope</td>
<td>SF-96-3# SF-72-3#</td>
<td>AC 5V AC 10V AC 220V AC 380V</td>
<td>2.5</td>
<td>Flush mounting with bracket</td>
<td></td>
</tr>
</tbody>
</table>
### Analogue Frequency Meter

<table>
<thead>
<tr>
<th>Picture</th>
<th>Product Structure</th>
<th>Symbols</th>
<th>Type</th>
<th>Specification</th>
<th>Operating Voltage</th>
<th>Accuracy</th>
<th>Standard Mounting</th>
<th>Instruction Angle</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>SF-06-3F</td>
<td></td>
<td>45-59Hz</td>
<td>100V, 220V, 380V, 415V, 440V</td>
<td>0.5</td>
<td>Flush mounting with bracket</td>
<td>0°</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>SF-07-3F</td>
<td></td>
<td>45-59Hz</td>
<td>55-55Hz, 55-55Hz, 55-55Hz, 55-55Hz</td>
<td>1.0</td>
<td>Flush mounting with bracket</td>
<td>90°</td>
<td></td>
</tr>
</tbody>
</table>

### Reeds Frequency Meter

<table>
<thead>
<tr>
<th>Picture</th>
<th>Product Structure</th>
<th>Symbols</th>
<th>Type</th>
<th>Specification</th>
<th>Operating Voltage</th>
<th>Accuracy</th>
<th>Standard Mounting</th>
<th>Characteristics</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>SF-06-3F</td>
<td></td>
<td>45-59Hz</td>
<td>100V, 220V, 380V, 415V, 440V</td>
<td>0.5</td>
<td>Flush mounting with bracket</td>
<td>Single row vibrating reed</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>SF-72-3F</td>
<td></td>
<td>45-59Hz</td>
<td>55-59Hz, 55-59Hz, 55-59Hz, 55-59Hz</td>
<td>1.5</td>
<td>Flush mounting with bracket</td>
<td>Double row vibrating reed</td>
<td></td>
</tr>
</tbody>
</table>

### LED Frequency Meter

<table>
<thead>
<tr>
<th>Picture</th>
<th>Product Structure</th>
<th>Symbols</th>
<th>Type</th>
<th>Specification</th>
<th>Operating Voltage</th>
<th>Accuracy</th>
<th>Standard Mounting</th>
<th>Characteristics</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>SF-06-3F</td>
<td></td>
<td>45-59Hz</td>
<td>100V, 220V, 380V, 415V, 440V</td>
<td>0.5</td>
<td>Flush mounting with bracket</td>
<td>LED display</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>SF-72-3F</td>
<td></td>
<td>45-59Hz</td>
<td>55-59Hz, 55-59Hz, 55-59Hz, 55-59Hz</td>
<td>1.5</td>
<td>Flush mounting with bracket</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Frequency Meter Scale Plates

- Hz
- Hz
- Hz
- Hz
- Hz

The length of the graduation on the 90° scales is as follows:
- 40° x 3 = 5.8mm
- 72° x 7 = 2.2mm
- 88° x 1 = 2.2mm

### Power Factor Meter

<table>
<thead>
<tr>
<th>Picture</th>
<th>Product Structure</th>
<th>Symbols</th>
<th>Type</th>
<th>Specification</th>
<th>Operating Voltage</th>
<th>Current</th>
<th>Accuracy</th>
<th>Standard Mounting</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>SF-06-3F</td>
<td></td>
<td>45-59Hz</td>
<td>100V, 220V, 380V, 415V, 440V</td>
<td>2.5</td>
<td>1A</td>
<td>Flush mounting with bracket</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>SF-72-3F</td>
<td></td>
<td>45-59Hz</td>
<td>55-59Hz, 55-59Hz, 55-59Hz, 55-59Hz</td>
<td>2.5</td>
<td>1A</td>
<td>Flush mounting with bracket</td>
<td></td>
</tr>
</tbody>
</table>

### Active Power Meter and Reactive Power Meter

<table>
<thead>
<tr>
<th>Picture</th>
<th>Product Structure</th>
<th>Symbols</th>
<th>Type</th>
<th>Specification</th>
<th>Operating Voltage</th>
<th>Current</th>
<th>Accuracy</th>
<th>Standard Mounting</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>SF-06-3F</td>
<td></td>
<td>45-59Hz</td>
<td>100V, 220V, 380V, 415V, 440V</td>
<td>1A</td>
<td>5A</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>SF-72-3F</td>
<td></td>
<td>45-59Hz</td>
<td>55-59Hz, 55-59Hz, 55-59Hz, 55-59Hz</td>
<td>1A</td>
<td>5A</td>
<td>1.5</td>
<td></td>
</tr>
</tbody>
</table>

### Phase Sequence Indicator, Hours Run Meter

<table>
<thead>
<tr>
<th>Picture</th>
<th>Product Structure</th>
<th>Type</th>
<th>Specification</th>
<th>Accuracy</th>
<th>Standard Mounting</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>SF-06-3F</td>
<td>AC 100V-200V AC 150V-220V</td>
<td>1.5</td>
<td>Flush mounting with bracket</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>SF-07-3F</td>
<td>AC 100V-200V AC 150V-220V</td>
<td>1.5</td>
<td>Flush mounting with bracket</td>
<td></td>
</tr>
</tbody>
</table>

### Notes
- The length of the graduation on the 90° scales is as follows:
- 40° x 3 = 5.8mm
- 72° x 7 = 2.2mm
- 88° x 1 = 2.2mm
### SFT Panel Meter

**Outline drawing (unit:mm)**

<table>
<thead>
<tr>
<th>Type</th>
<th>A1</th>
<th>A2</th>
<th>B1</th>
<th>B2</th>
<th>Dimac</th>
<th>Hole/Cutout/Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>SFT-810</td>
<td>80</td>
<td>80</td>
<td>64</td>
<td>64</td>
<td>46.5</td>
<td>47.5</td>
</tr>
<tr>
<td>SFT-860</td>
<td>80</td>
<td>80</td>
<td>64</td>
<td>64</td>
<td>46.5</td>
<td>47.5</td>
</tr>
<tr>
<td>SFT-900</td>
<td>80</td>
<td>80</td>
<td>64</td>
<td>64</td>
<td>46.5</td>
<td>47.5</td>
</tr>
<tr>
<td>SFT-700</td>
<td>80</td>
<td>70</td>
<td>64</td>
<td>64</td>
<td>46.5</td>
<td>47.5</td>
</tr>
<tr>
<td>SFT-600</td>
<td>80</td>
<td>56</td>
<td>64</td>
<td>36</td>
<td>46.5</td>
<td>47.5</td>
</tr>
<tr>
<td>SFT-500</td>
<td>80</td>
<td>56</td>
<td>30</td>
<td>36</td>
<td>46.5</td>
<td>47.5</td>
</tr>
</tbody>
</table>

**Modular Type Panel Meter**

**Outline drawing (unit:mm)**

### SF-100Y Panel Meter

**Outline drawing (unit:mm)**

<table>
<thead>
<tr>
<th>Type</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>SF-88Y</td>
<td>68</td>
<td>68</td>
<td>32</td>
<td>12.5</td>
<td>45</td>
<td>55</td>
</tr>
<tr>
<td>SF-100Y</td>
<td>89.5</td>
<td>89.5</td>
<td>32</td>
<td>12.5</td>
<td>60</td>
<td>88</td>
</tr>
</tbody>
</table>

**Supply-Battery Panel Meter**

**Outline drawing (unit:mm)**

<table>
<thead>
<tr>
<th>Type</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>SF-50</td>
<td>35</td>
<td>50</td>
<td>59</td>
<td>39</td>
</tr>
<tr>
<td>SF-45</td>
<td>55</td>
<td>48</td>
<td>69</td>
<td>28</td>
</tr>
<tr>
<td>SF-40</td>
<td>40</td>
<td>40</td>
<td>36</td>
<td>21</td>
</tr>
<tr>
<td>SF-38</td>
<td>48</td>
<td>48</td>
<td>44</td>
<td>36</td>
</tr>
</tbody>
</table>
### SF Series Current Transformer

<table>
<thead>
<tr>
<th>Type</th>
<th>Rated Current (A)</th>
<th>Rated Burden (VA)</th>
<th>Class</th>
<th>Rated Voltage (V)</th>
<th>Rated Frequency (Hz)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SF6/20</td>
<td>30/14-200/5A</td>
<td>1.5-2.5</td>
<td>3.0-5.5</td>
<td>720</td>
<td>50/60</td>
</tr>
<tr>
<td>SF6/30</td>
<td>120/60-200/5A</td>
<td>1.5-5</td>
<td>3.0-5.5</td>
<td>720</td>
<td>50/60</td>
</tr>
<tr>
<td>SF6/40</td>
<td>200/60-100/5A</td>
<td>2.5-16</td>
<td>3.0-5.5</td>
<td>720</td>
<td>50/60</td>
</tr>
<tr>
<td>SF6/50</td>
<td>250/60-150/5A</td>
<td>2.5-20</td>
<td>3.0-5.5</td>
<td>720</td>
<td>50/60</td>
</tr>
<tr>
<td>SF104/60</td>
<td>500/60-200/5A</td>
<td>5-30</td>
<td>3.0-5.5</td>
<td>720</td>
<td>50/60</td>
</tr>
<tr>
<td>SF140/100</td>
<td>1000/60-3200/5A</td>
<td>5-50</td>
<td>3.0-5.5</td>
<td>720</td>
<td>50/60</td>
</tr>
</tbody>
</table>

### MSQ Series Current Transformer

<table>
<thead>
<tr>
<th>Type</th>
<th>Rated Current</th>
<th>Rated Burden (VA)</th>
<th>Class</th>
<th>Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSQ-30</td>
<td>20/5A</td>
<td>6</td>
<td>0.30</td>
<td></td>
</tr>
<tr>
<td>MSQ-40</td>
<td>60/5A</td>
<td>5-10</td>
<td>0.38</td>
<td></td>
</tr>
<tr>
<td>MSQ-60</td>
<td>100/5A</td>
<td>5-10</td>
<td>0.60</td>
<td></td>
</tr>
<tr>
<td>MSQ-80</td>
<td>150/5A</td>
<td>10-15</td>
<td>0.75</td>
<td></td>
</tr>
<tr>
<td>MSQ-100</td>
<td>220/5A</td>
<td>15-30</td>
<td>0.94</td>
<td></td>
</tr>
<tr>
<td>MSQ-120</td>
<td>310/5A</td>
<td>20-50</td>
<td>1.45</td>
<td></td>
</tr>
</tbody>
</table>

### Outline Drawing (unit:mm)

#### SF Series Current Transformer

![Outline Drawing](image1)

#### MSQ Series Current Transformer

![Outline Drawing](image2)
**RCT Series Current Transformer**

<table>
<thead>
<tr>
<th>Type</th>
<th>Rated Current (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCT-110</td>
<td>1000/15A, 1200/15A, 1500/15A, 1800/15A</td>
</tr>
</tbody>
</table>

**MR Series Current Transformer**

<table>
<thead>
<tr>
<th>Type</th>
<th>Rated Current (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MR-28</td>
<td>30/15A, 40/15A, 50/15A</td>
</tr>
<tr>
<td>MR-42</td>
<td>60/15A, 70/15A, 80/15A</td>
</tr>
<tr>
<td>MR-60</td>
<td>90/15A, 100/15A, 120/15A</td>
</tr>
</tbody>
</table>

**DM Series Current Transformer**

<table>
<thead>
<tr>
<th>Type</th>
<th>Rated Current (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DM-02</td>
<td>50/15A, 60/15A, 70/15A</td>
</tr>
</tbody>
</table>

**DSC Series Current Transformer**

<table>
<thead>
<tr>
<th>Type</th>
<th>Rated Current (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSC-30</td>
<td>50/15A, 60/15A, 70/15A</td>
</tr>
</tbody>
</table>

*Noted: For measuring current transformers, the accuracy class is designated by the highest permissible percentage current (ratio) error at the rated current prescribed for the accuracy class concerned.*
LW 28 series general changeover switch, is mainly used in the electric circuit for AC 60HZ, rated voltage lower than 380V, DC 220V and rated current up to 160A. It is used for controlling and changing the unfrequency manual connecting or cutting circuit. It can directly control the three phase asynchronous motor and also used for master controlling and circuit measuring. The LW-28 is widely used and instead of the national various changeover switch. It can be used as circuit controlling switch, instrument testing switch, motor controlling switch, master controlling switch and welding machine used changeover switch.

Standards-compliant: main circuit changeover switch, directly controlling motor changeover switch in line with GB 14048.3-2001
master controlling and testing changeover switch in line with GB 14048.5-2001

Classification
According to purpose: main circuit changeover switch, directly controlling motor changeover switch and master controlling and testing changeover switch
According to the operation mode: self-restoring, position-type, self-re-positioning
According to the connecting system: position-type changeover switch has 1-12 segments, (63A only has 8 segments), self-restoring changeover switch has 1-3 segments, directly controlling motor changeover switch has 1-6 segments
According to the changing angle: 30 degree, 45 degree, 60 degree and 90 degree
According to the rotary switch: R type, O type, F type, B type, S type, L type, P type and K type
According to operation mode and actuator position, see the following picture (See form 1)

Outline drawing (unit:mm) 外形图（单位：毫米）

Note: If you need special specification, please contact with us.