<table>
<thead>
<tr>
<th>catalogue</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moulded case circuit breaker</td>
<td></td>
</tr>
<tr>
<td>HSM9 – 125</td>
<td>C2-2</td>
</tr>
<tr>
<td>HSM9L – 125</td>
<td>C2-2</td>
</tr>
<tr>
<td>DC Circuit breaker</td>
<td></td>
</tr>
<tr>
<td>HSM9Z – 63</td>
<td>C2-3</td>
</tr>
<tr>
<td>Miniature circuit breaker</td>
<td></td>
</tr>
<tr>
<td>HSM9 – 63</td>
<td>C2-4</td>
</tr>
<tr>
<td>HSM9 – 63M</td>
<td>C2-4</td>
</tr>
<tr>
<td>HSM9N – 40</td>
<td>C2-5</td>
</tr>
<tr>
<td>Residual current operated circuit breaker</td>
<td></td>
</tr>
<tr>
<td>HSM9L – 50</td>
<td>C2-6</td>
</tr>
<tr>
<td>HSM9NL – 40</td>
<td>C2-7</td>
</tr>
<tr>
<td>Disconnecting switch</td>
<td></td>
</tr>
<tr>
<td>HSM9D – 125</td>
<td>C2-8</td>
</tr>
<tr>
<td>Accessories</td>
<td></td>
</tr>
<tr>
<td>M9 – OF</td>
<td>C2-9</td>
</tr>
<tr>
<td>M9 – SD</td>
<td>C2-9</td>
</tr>
<tr>
<td>M9 – MX</td>
<td>C2-9</td>
</tr>
<tr>
<td>M9 – GQ</td>
<td>C2-9</td>
</tr>
<tr>
<td>Operated current time characteristic</td>
<td></td>
</tr>
<tr>
<td>Tripping release curve characteristic</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C2-10</td>
</tr>
</tbody>
</table>
HSM9-125

General Information
As for distribution power system circuit of over-load, short circuit reliable protection and matching with the residual current device (HSM9L-125) as protection of residual current faulted in the circuit.

The Function
Short circuit protection, Over-load protection, Residual current protection, control and isolated

Technical parameter
- Frequency: 50Hz
- Rated voltage: AC230V/400V
- Rated current: 50A, 63A, 80A, 100A, 125A
- Rated residual operated current: 30mA, 100mA, 300mA
- Rated residual non-operating current: < 0.1s
- Breaking capacity Icu: 10kA; Ics: 7.5kA
- Pole: 1P, 2P, 3P, 4P (HSM9-125)
  - 1P+N, 2P, 3P, 3P+N, 4P (HSM9L-125)
- Durability: 10000 Time (ON-OFF)
- Operated current time characteristic HSM8 catalog table 1
- Instantaneous tripping characteristic: C Curve: 8In+20%; D Curve: 128In+20%
- Function isolation: it can be indicator ON or OFF contacts when you see the breaker windows. When breaker is switching ON, The window will be showing Red and when breaker is switching OFF, window will be showing Green.
- Rated impulse withstand voltage: 4kV
- Instantaneous tripping characteristic reference to HSM8 catalog drawing 1

Using and Mounting Condition
- Environment Temperature: -5 °C to +40 °C
- Storage Environment Temperature: -25 °C to +55 °C
- Installation Altitude: < 2000m
- Pollution Degree: Degree 3
- Relative Humidity: 90% (+20 °C)
- The installation area should be stable and safe

Structure Characteristic
- It has overload, short circuit function and could be matching to residual current device together.
- Terminal wiring capacity: < 50mm²
- Mounting ways: Standard of DIN RAIL TH35-7.5 type
- Wiring way: Top line in

Conform to standard
IEC60947-2 (GB14048.2)

Order Information
Before order for us please let us know information as below:
- Product name and type
- Rated current
- Instantaneous tripping type (C curve or D curve)
- Rated residual operated current
- Quantity
- Ordering special specification could be discuss with us
1. Product type and Meaning

- Frame rated current
- DC Current
- Design No
- Plastic Shell
- Enterprise Code

General Information
It is suitable for many area such as electrical project, Telecom communication and the medical equipment of power supply etc. also protection for DC distribution power system of overload and short circuit fault.

The Function
- The Short circuit protection
- The overload protection
- Control
- Isolation

Technical Parameters
- Pole: 1P, 2P
- Rated Current: 1, 3, 6, 10, 16, 20, 25, 32, 40, 50, 63A
- Rated Current: 1P 125V(Or 125V)
  2P 250V(Or 125V)
- Breaking Capacity: Icu=10kA, Ics=75%Icu
- Operated current time characteristic: HSM8 catalog table 1
- Instantaneous tripping characteristic: 8In±20%(HSM8 catalog drawing 1)
- Function Isolation: it can be indicator ON or OFF contacts when you see the breaker windows. When breaker is switching ON, the window will be showing Red and when breaker is switching OFF, window will be showing Green.
- Rated impulse withstand voltage: 4kV
- Mechanical Durability: 8500 times
- Electrical Durability: 1500 times

Using and Mounting Condition
- Environment Temperature: -5°C to +40°C
- Storage Environment Temperature: -25°C to +55°C
- Installation Altitude: < 2000m
- Pollution Degree: Degree 3
- Relative Humidity: 90%(+20°C)
- The installation area should be stable and safe

Structure Characteristic
- It has overload and short circuit protection
- Adopted to magnetic blowing with arc extinguishing system could be breaking DC fault current in the distribution power system.
- Terminal wiring capacity: ≤ 25mm²
- Mounting ways: Standard of DIN RAIL TH35-7.5 type

Conform to standard
IEC60947-2(GB14048.2)
General Information

For distribution power system of overload and short circuit faulted protection

The Function

※ The Short circuit protection
※ The overload protection
※ Control
※ Isolation

Technical Parameters

- Frequency: 50Hz
- Rated voltage: AC230/400V
- Breaking Capacity: HSM9-63 10000A
                  HSM9-63M 6000A
- Pole: 1P, 2P, 3P, 4P
- Electrical Durability: 10000 Times (ON-OFF)
- Mechanical Durability: 20000 times
- Operated current time characteristic table 1
- Instantaneous tripping characteristic: C Curve (5In~10In)
                                        D Curve (10In~20In)
- Function Isolation: it can be indicator ON or OFF contacts when you see the breaker windows. When breaker is switching ON, the window will be showing Red and when breaker is switching OFF, window will be showing Green.
- Rated impulse withstand voltage: 4kV
- Instantaneous tripping curve characteristic reference to drawing 1 and drawing 2.

Using and Mounting Condition

- Environment Temperature: -5°C to +40°C
- Storage Environment Temperature: -25°C to +55°C
- Installation Altitude: < 2000m
- Pollution Degree: Degree 2
- Relative Humidity: 90% (+20°C)
- The installation area should be stable and safe

Structure Characteristic

- It has overload and short circuit protection
- Terminal wiring capacity < 25mm²
- Mounting ways: Standard of DIN RAIL TH35-7.5 type
- Wiring way: Top line in

Conform to standard
IEC60898-1 (GB10963.1)
HSM9N-40 MINIATURE CIRCUIT BREAKER

General Information
For distribution power system of overload and short circuit faulted protection

The Function
※ The Short circuit protection
※ The overload protection
※ Control
※ Isolation

Technical Parameters
● Frequency: 50Hz
● Rated voltage: AC230/400V
● Breaking Capacity: 6000A
● Pole: 2P (Only one protection pole)
● Electrical Durability: 10000 Times (ON-OFF)
  Mechanical Durability: 20000 times
● Instantaneous tripping characteristic: C Curve (5In~10In)
● Function Isolation: it can be indicator ON or OFF contacts when you see the breaker windows. When breaker is switching ON, the window will be showing Red and when breaker is switching OFF, window will be showing Green.
● Rated impulse withstand voltage: 4kV
● Instantaneous tripping curve characteristic reference to drawing 1

Using and Mounting Condition
● Environment Temperature: -5 °C to +40 °C
● Storage Environment Temperature: -25 °C to +55 °C
● Installation Altitude: < 2000m
● Pollution Degree: Degree 2
● Relative Humidity: 90%(+20 °C)
● The installation area should be stable and safe

Structure Characteristic
● It has overload and short circuit protection
● Terminal wiring capacity < 10mm²
● Mounting ways: Standard of DIN RAIL TH35-7.5 type
● Wiring way: Top line in

Conform to standard
IEC60898-1(GB10963.1)
**HSM9**

**HSM9 SERIES MODULUS END TERMINAL APPARATUS**

**General Information**

For distribution power system of over load, short circuit and residual current faulted protection

**The Function**

- The Short circuit protection
- The overload protection
- The Residual current protection
- Control
- Isolation

**Technical Parameters**

- Frequency: 50Hz
- Rated voltage: AC230/400V
- Rated Residual Operated Current: 30mA, 100mA, 300mA
- Rated Residual Operated Time: < 0.1s
- Breaking Capacity: HSM9L-63 10000A
  
  HSM9L-63M 6000A
- Pole: 1P+N, 2P, 3P, 3P+N, 4P
- Electrical Durability: 10000 Times (ON-OFF)
- Mechanical Durability: 20000 times
- Operated current time characteristic table 1
- Instantaneous tripping characteristic: C Curve(5In~10In)
  
  D Curve(10In~20In)
- Function Isolation: it can be indicator ON or OFF contacts when you see the breaker windows. When breaker is switching ON, The window will be showing Red and when breaker is switching OFF, window will be showing Green.
- Rated impulse withstand voltage: 4kV
- Instantaneous tripping curve characteristic reference to drawing 1 and drawing 2.

**Using and Mounting Condition**

- Environment Temperature: -5°C to +40°C
- Storage Environment Temperature: -25°C to +55°C
- Installation Altitude: ≤ 2000m
- Pollution Degree: Degree 2
- Relative Humidity: 90%(+20°C)
- The installation area should be stable and safe

**Structure Characteristic**

- It has overload, short and residual circuit protection
- Terminal wiring capacity < 25mm²
- Mounting ways: Standard of DIN RAIL TH35-7.5 type
- Wiring way: Top line in

**Conform to standard**

IEC61009-1(GB16817.1)
General Information
For distribution power system of over load, short circuit and residual current faulted protection.

The Function
The Short circuit protection, The overload protection, The Residual current protection, Control, Isolation

Technical Parameters
- Frequency: 50Hz
- Rated voltage: AC230
- Rated Residual Operated Current: 10mA, 30mA
- Rated Residual Operated Time: < 0.1s
- Breaking Capacity: HSM9NL-40M 6kA; HSM9NL-40 10kA
- Pole: 2P (Only for one protection)
- Electrical Durability: 10000 Times (ON-OFF)  Mechanical Durability: 20000 times
- Instantaneous tripping characteristic: C Curve (5In~10In) D Curve (10In~20In)
- Rated impulse withstand voltage: 4kV
- Function Isolation: It can be indicator ON or OFF contacts when you see the breaker windows. When breaker is switching ON, The window will be showing Red and when breaker is switching OFF, window will be showing Green.
- Rated impulse withstand voltage: 4kV
- Instantaneous tripping curve characteristic reference to drawing 1 and drawing 2.

Using and Mounting Condition
- Environment Temperature: -5°C to +40°C
- Storage Environment Temperature: -25°C to +55°C
- Pollution Degree: Degree 3
- Relative Humidity: 90% (+20°C)
- The installation area should be stable and safe

Structure Characteristic
- It has overload, short and residual circuit protection
- Terminal wiring capacity ≤ 25mm²
- Mounting ways: Standard of DIN RAIL TH35-7.5 type
- Wiring way: Top line in

Conform to standard
IEC61009-1 (GB16917.1)

Order Information
Before order for us please let us know information as below:
- Product name and type
- Rated current
- Instantaneous tripping type (C curve or D curve)
- Rated residual operated current
- Quantity
- Ordering special specification could be discuss with us
**HSM9D-125**

**Disconnecting Switch**

**General Information**
As used for Main switch for industrial area, commercial building and household.

**Characteristic**
- Contact has high wear ability
- Terminal
- Contacts state

**Technical Parameters**
- Frequency: 50Hz
- Rated Voltage: AC240V/AC415V
- Rated Current: 32A, 40A, 50A, 63A, 80A, 100A, 125A
- Utilization category: AC-23A
- Rated Insulation voltage: 690V
- Rated impulse withstand voltage: 6kA
- Rated Short-time Withstand Current: 2kA
- Rating short circuit breaking capacity: 3kA
- Pole: 1, 2, 3, 4
- The Max Fuse: 125A
- Electrical Durability: 10000 times
- Wiring Capacity: Conductor (6~50)mm²; Main bus bar (0.8~1.0)mm
- Mounting Ways: Standard din rail 35mm
- Indicator: Red means contacts switching ON, Green Means contacts switching OFF

**Using and Mounting Condition**
- Environment Temperature: -5 °C to +40 °C
- Storage Environment Temperature: -25 °C to +55 °C
- Installation Altitude: < 2000m
- Pollution Degree: Degree 3
- Relative Humidity: 90%(+20 °C)
- The installation area should be stable and safe

**Conform to standard**
IEC60947-3(GB14048.3)

**Order Information**
Before order for us please let us know information as below:
- Product name and type
- Rated current
- Pole
- Quantity
- Ordering special specification could be discuss with us
Auxiliary contacts M9-0F
- Left mounting on circuit breaker and fixed by screw
- Indicator circuit breaker close or open state

Technical Parameters
The Contacts 1NO+1NC
AC-13 Ie:3A Ue:AC230V
AC-15 Ie:2A Ue:AC230V
AC-12 Ie:0.5A Ue:DC110V
Ith: 4A
Wiring cross-sectional area: 0.5~2.5mm²
Terminal screw: M3
The Max tighten torque for terminal screw: 1.0N m

Auxiliary alarm contacts M9-D
- Left mounting on circuit breaker and fixed by screw
- Left mounting on circuit breaker screw fixed the two groups of changeover contacts. It could be shift alarm contacts (tripping signal contacts) to auxiliary contacts. Auxiliary contacts terminal number 11, 12, 14, Alarm contacts terminal number 21, 22, 24
- Alarm contacts sent a signal of tripping release not for cut off the power.

Technical Parameters
The Contacts 1NO+1NC
AC-13 Ie:3A Ue:AC230V
AC-15 Ie:2A Ue:AC230V
DC-12 Ie:0.5A Ue:DC110V
Ith: 4A
Wiring cross-sectional area: 0.5~2.5mm²
Terminal screw: M3
The Max tighten torque for terminal screw: 1.0N m

Shunt release M9-MX
- For remote tripping Left mounting on circuit breaker
- Red-Green contacts position indicator (For tripping indicator)

Technical parameter
Working voltage Us: 110V~400V AC  110V~220V DC
12V~60V AC  12V~60V DC
Wiring cross-sectional area: 1~25mm²
Terminal screw: M5
The Max tighten torque for terminal screw: 4.0N m

Over and under voltage tripping release M9-GQ
- Left mounting on circuit breaker as for over and under voltage protection in the circuit.
- Available for mounting M9-OF
- Red-Green contacts position indicator (For tripping indicator)

Technical parameter
Rated voltage Ue:230V AC
Over voltage operated setting value Uvo: 275V
Over voltage recover value Uvor: ≤253V
Under voltage operated setting value Uvu: ≤195V
Under voltage recover value Uvur: ≥160V
Operated time tou: ≤1s
Wiring cross-sectional area: 1~25mm²
Terminal screw: M5
The Max tighten torque for terminal screw: 4.0N m

Note: 1. The above accessories are supplied with HSM9-63,HSM9-63M,HSM9Z-63,HSM9L-63,HSM9L-63M.
2. M9-OF and M9-SD can't be installed together. Can install together:OF or SD and MX, OF or SD and GQ.
3. M9-GQ could be order over voltage tripping release only and M9-G could be order under voltage tripping release M9-Q only.
Order Information

Before order for us please let us know information as below:

- Product name and type
- Rated current
- Instantaneous tripping type (C curve or D curve)
- Pole
- Quantity
- Ordering special specification could be discuss with us

Table 1: Relaying follow before project

<table>
<thead>
<tr>
<th>Instantaneous tripping characteristic</th>
<th>Rated current In A</th>
<th>Starting state</th>
<th>Test current A</th>
<th>Limited time tripping or non-tripping</th>
<th>Reference ambient temperature</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>C, D</td>
<td>≤ 63</td>
<td>Cold state</td>
<td>1.13ln</td>
<td>t &lt; 1h</td>
<td>Non-tripped</td>
<td></td>
</tr>
<tr>
<td>C, D</td>
<td>≤ 32</td>
<td>Testing follow before project</td>
<td>1.45ln</td>
<td>t &lt; 1h</td>
<td>Tripped</td>
<td>30℃ ~ 35℃</td>
</tr>
<tr>
<td>C, D</td>
<td>&gt; 32</td>
<td>Cold state</td>
<td>2.55ln</td>
<td>1s &lt; t &lt; 60s</td>
<td>Tripped</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>All value</td>
<td>Cold state</td>
<td>5ln</td>
<td>t &lt; 0.1s</td>
<td>Non-tripped</td>
<td>The Auxiliary switch is closed and connection current</td>
</tr>
<tr>
<td>D</td>
<td>All value</td>
<td>Cold state</td>
<td>10ln</td>
<td>t &lt; 0.1s</td>
<td>Tripped</td>
<td></td>
</tr>
</tbody>
</table>

Note: When circuit breaker have multi-poles protection and only have one pole just starting on cold state the fellow current should be tripping within the stipulate time. For two pole protection of two pole circuit breaker current is 1.1×1.45ln; For three pole and four pole circuit breaker the current is 1.2×1.45ln.