



PRODUCT-DETAILS

# CM-MPN.72S

## CM-MPN.72S Three-phase monitoring relay

2c/o, 0,0.1-30s, L1-L2-L3=3x530-820VAC



| General Information   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Extended Product Type | CM-MPN.72S                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Product ID            | 1SVR750489R8300                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| EAN                   | 4016779851930                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Catalog Description   | CM-MPN.72S Three-phase monitoring relay 2c/o, 0,0.1-30s, L1-L2-L3=3x530-820VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Long Description      | <p>The CM-MPN.72S is a multifunctional relay from the CM three-phase monitors range. It operates with a rated control supply voltage / three-phase measuring voltage of 530-820 V AC 50/60 Hz and has a 2 c/o (SPDT) output with contacts rated at 250 V / 4 A. This relay monitors all phase parameters such as over/undervoltage, phase unbalance and phase failure. The corresponding threshold values are adjustable. The CM-MPN.72S also offers selection of phase sequence monitoring, automatic phase sequence correction as well as an ON or OFF tripping delay. The output contacts can be configured as 1x2 c/o (SPDT) contacts (common signal) or 2x1 c/o (SPDT) contact (separate signal for over- and undervoltage thresholds) operation. The tripping delay is adjustable over a range of instantaneous to 30 s (0, 0.1-30 s). A sealable transparent cover for protection against unauthorized changes is available as accessory. The device offers screw connection technology with double-chamber cage connection terminals.</p> |

| Ordering |               |
|----------|---------------|
| EAN      | 4016779851930 |

|                        |          |
|------------------------|----------|
| Minimum Order Quantity | 1 piece  |
| Customs Tariff Number  | 85364900 |

## Popular Downloads

|                                   |                                    |
|-----------------------------------|------------------------------------|
| Data Sheet, Technical Information | 2CDC112177D0201                    |
| Instructions and Manuals          | 1SVC730730M1000<br>1SVC730730M0000 |
| CAD Dimensional Drawing           | 2CDC001079B0201                    |

## Dimensions

|                            |          |
|----------------------------|----------|
| Product Net Width          | 45 mm    |
| Product Net Height         | 85.6 mm  |
| Product Net Depth / Length | 104.8 mm |
| Product Net Weight         | 0.224 kg |

## Technical

|                                                     |                                                                                                                                                               |
|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Function                                            | Automatic phase sequence correction<br>Over- and undervoltage monitoring<br>Phase failure detection<br>Phase unbalance detection<br>Phase sequence monitoring |
| Measuring Range                                     | (L-L) 530 ... 820 V AC                                                                                                                                        |
| Time Range                                          | 0 s or 0.1 ... 30 s tripping delay (ON or OFF)<br>200 ms start-up delay                                                                                       |
| Rated Control Supply Voltage (U <sub>s</sub> )      | (L-L) 530 ... 820 V AC                                                                                                                                        |
| Rated Frequency (f)                                 | Supply Circuit 50/60 Hz                                                                                                                                       |
| Output                                              | 2 x 1 c/o or 1 x 2 c/o contacts, configurable                                                                                                                 |
| Terminal Type                                       | Screw Terminals                                                                                                                                               |
| Rated Operational Current AC-12 (I <sub>e</sub> )   | (230 V) 4 A                                                                                                                                                   |
| Rated Operational Current AC-15 (I <sub>e</sub> )   | (230 V) 3 A                                                                                                                                                   |
| Rated Operational Current DC-12 (I <sub>e</sub> )   | (24 V) 4 A                                                                                                                                                    |
| Rated Operational Current DC-13 (I <sub>e</sub> )   | (24 V) 2 A                                                                                                                                                    |
| Minimum Switching Capacity                          | 24 V<br>10 mA                                                                                                                                                 |
| Rated Impulse Withstand Voltage (U <sub>imp</sub> ) | Input Circuit 8 kV<br>Output Circuit 4 kV                                                                                                                     |
| Rated Insulation Voltage (U <sub>i</sub> )          | Input Circuit / Output Circuit 1000 V<br>Output Circuit 1 / Output Circuit 2 300 V                                                                            |
| Degree of Protection                                | Housing IP50<br>Terminals IP20                                                                                                                                |
| Overvoltage Category                                | III                                                                                                                                                           |
| Pollution Degree                                    | 3                                                                                                                                                             |
| Short-Circuit Protective Devices                    | Output Circuit NC - F Type Fuses 6 A<br>Output Circuit NO - F Type Fuses 10 A                                                                                 |
| Electrical Durability                               | AC-12 100000 cycle                                                                                                                                            |

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                      |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mechanical Durability    | 30000000 cycle                                                                                                                                                                                                                                                                                                                                                                                                       |
| Connecting Capacity      | Flexible with Ferrule 1x 0.5 ... 2.5 mm <sup>2</sup><br>Flexible with Ferrule 2x 0.5 ... 1.5 mm <sup>2</sup><br>Flexible with Insulated Ferrule 1x 0.5 ... 2.5 mm <sup>2</sup><br>Flexible with Insulated Ferrule 2x 0.5 ... 1.5 mm <sup>2</sup><br>Flexible 1x 0.5 ... 2.5 mm <sup>2</sup><br>Flexible 2x 0.5 ... 1.5 mm <sup>2</sup><br>Rigid 1x 0.5 ... 4 mm <sup>2</sup><br>Rigid 2x 0.5 ... 2.5 mm <sup>2</sup> |
| Tightening Torque        | 0.6 ... 0.8 N·m                                                                                                                                                                                                                                                                                                                                                                                                      |
| Wire Stripping Length    | 8 mm                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Recommended Screw Driver | 4.5<br>0.8 x 4<br>Pozidriv 1                                                                                                                                                                                                                                                                                                                                                                                         |
| Mounting Position        | 1 ... 6                                                                                                                                                                                                                                                                                                                                                                                                              |
| Mounting on DIN Rail     | TH35-7.5 (35 x 7.5 mm Mounting Rail) acc. to IEC 60715<br>TH35-15 (35 x 15 mm Mounting Rail) acc. to IEC 60715                                                                                                                                                                                                                                                                                                       |
| Standards                | IEC/EN 63000<br>IEC/EN 60255-27<br>IEC/EN 61000-6-2<br>IEC/EN 61000-6-3                                                                                                                                                                                                                                                                                                                                              |

## Technical UL/CSA

|                                  |                                                                                            |
|----------------------------------|--------------------------------------------------------------------------------------------|
| Maximum Operating Voltage UL/CSA | Output Circuit 300 V AC                                                                    |
| Contact Rating UL/CSA            | B300                                                                                       |
| Connecting Capacity UL/CSA       | Flexible 1x 18-14 AWG<br>Flexible 2x 18-16 AWG<br>Rigid 2x 20-14 AWG<br>Rigid 1x 20-12 AWG |
| Tightening Torque UL/CSA         | 7.08 in·lb                                                                                 |
| Pilot Duty UL/CSA                | B300                                                                                       |
| Flammability According to UL94   | V-0                                                                                        |

## Environmental

|                                        |                                                    |
|----------------------------------------|----------------------------------------------------|
| Ambient Air Temperature                | Operation -25 ... +60 °C<br>Storage -40 ... +85 °C |
| Maximum Operating Altitude Permissible | Without Derating 2000 m                            |

## Material Compliance

|                                             |                                                                                                                                                                                                                                                                                                                            |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Conflict Minerals Reporting Template (CMRT) | 9AKK108467A5658                                                                                                                                                                                                                                                                                                            |
| REACH Declaration                           | 1SVD981001-4501                                                                                                                                                                                                                                                                                                            |
| RoHS Information                            | 1SVD981001-4401                                                                                                                                                                                                                                                                                                            |
| RoHS Status                                 | Following EU Directive 2011/65/EU                                                                                                                                                                                                                                                                                          |
| SCIP                                        | 07fa3297-e52f-4f12-a7ad-a388114fb57d Germany (DE)                                                                                                                                                                                                                                                                          |
| Simplified SCIP                             | a763026b-e033-4b0c-aef5-70a7c09c3ee4 Poland (PL)<br>2a7d288b-0f74-4f87-a812-a763e1719ade Belgium (BE)<br>a5252ea7-c6b0-41c2-88ed-e9a34667981e Germany (DE)<br>fe60c231-f9a1-47a0-8c4d-2ff561925765 Norway (NO)<br>a2fc798b-92ac-4fd3-bb4f-54260e189e8f Bulgaria (BG)<br>30708991-37dc-4973-8c54-2846397056b8 Portugal (PT) |

|                                     |                                                          |
|-------------------------------------|----------------------------------------------------------|
|                                     | 3304057f-75d5-49bb-ba76-aad5e81c6a1a Poland (PL)         |
|                                     | 0958bc5e-28a5-4da2-b2e0-4c390cec691b France (FR)         |
|                                     | 12e50133-6b92-4203-a4ef-891256966fa4 France (FR)         |
|                                     | a04b71fc-14a3-4ba2-9b45-5de2ae185589 Germany (DE)        |
|                                     | e7fad89a-bfa0-4f1b-b8fb-42ea1a92ce09 Sweden (SE)         |
|                                     | 70bdc2ae-a37a-46b2-bd71-c614e971233c Sweden (SE)         |
|                                     | fdd2385f-50d0-4945-92d4-d68305a5031d Netherlands (NL)    |
|                                     | fd2387e5-1c27-4a16-9675-a90e0a96b7d8 Hungary (HU)        |
|                                     | 804c1d77-e840-4807-ac73-9824ab6c1a45 Greece (GR)         |
|                                     | 9b89ffae-bb87-4767-b69c-bcfb4067a814 Poland (PL)         |
|                                     | a7e43dd1-f1dd-4073-8bba-e27fae4f8617 Spain (ES)          |
|                                     | d28d08a8-e0aa-439e-b315-e1099a67de21 Hungary (HU)        |
|                                     | c2d50f5d-7ab2-4f6e-9271-523fc3ce6d75 Belgium (BE)        |
|                                     | 486a37ed-235a-4b4c-b2e1-9a8a7d564786 Germany (DE)        |
|                                     | a7e5d50f-f776-4d89-8e1b-1e2ef1e8ce74 Czech Republic (CZ) |
|                                     | 9398c502-6ebe-444b-bcc2-b8ec38f9cf05 Italy (IT)          |
|                                     | b6356fed-734f-4e9e-91bf-52d2e52ada18 Croatia (HR)        |
|                                     | 03948e54-d7c3-440d-bf5b-7e962545d9a5 Estonia (EE)        |
|                                     | 6207c5e7-d25b-4725-844c-a48667ab4429 Germany (DE)        |
|                                     | cc43dc40-c527-4359-a8ae-78bd88f7d202 Denmark (DK)        |
|                                     | c2948013-bcd6-47a7-ad9d-c84c218d8920 Finland (FI)        |
| Toxic Substances Control Act - TSCA | 2CMT2023-006536                                          |

Certificates and Declarations

|                                  |                     |
|----------------------------------|---------------------|
| CB Certificate                   | CB_DK-27946-UL      |
| CQC Certificate                  | CQC2009010303326655 |
| Declaration of Conformity - CCC  | 2020980303000197    |
| Declaration of Conformity - CE   | 1SVD981014-00       |
| Declaration of Conformity - UKCA | 1SVD981014-10       |
| DNV GL Certificate               | DNV_GL_TAA000017D   |

Container Information

|                                |               |
|--------------------------------|---------------|
| Package Level 1 Units          | box 1 piece   |
| Package Level 1 Width          | 97 mm         |
| Package Level 1 Depth / Length | 52.5 mm       |
| Package Level 1 Height         | 109 mm        |
| Package Level 1 Gross Weight   | 0.249 kg      |
| Package Level 1 EAN            | 4016779851930 |

External Classifications and Standards

|                            |                                   |
|----------------------------|-----------------------------------|
| Object Classification Code | B                                 |
| ETIM 7                     | EC001441 - Phase monitoring relay |
| ETIM 8                     | EC001441 - Phase monitoring relay |
| ETIM 9                     | EC001441 - Phase monitoring relay |
| eClass                     | V11.0 : 27371803                  |
| UNSPSC                     | 39122332                          |
| E-Number (Finland)         | 2712268                           |
| E-Number (Norway)          | 4188146                           |
| E-Number (Sweden)          | 3860594                           |

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## Categories

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Low Voltage Products and Systems → Control Products → Electronic Relays and Controls → Three Phase Monitors

