

## PRODUCT-DETAILS

# CM-MPN.52S

CM-MPN.52S Three-phase monitoring relay  
2c/o, 0,0.1-30s, L1-L2-L3=3x350-580VAC



## General Information

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Extended Product Type | CM-MPN.52S                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Product ID            | 1SVR750487R8300                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| EAN                   | 4016779851916                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Catalog Description   | CM-MPN.52S Three-phase monitoring relay 2c/o, 0,0.1-30s, L1-L2-L3=3x350-580VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Long Description      | <p>The CM-MPN.52S is a multifunctional relay from the CM three-phase monitors range. It operates with a rated control supply voltage / three-phase measuring voltage of 350-580 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.52S 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

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

## Popular Downloads

|                       |                 |
|-----------------------|-----------------|
| Data Sheet, Technical | 2CDC112177D0201 |
|-----------------------|-----------------|

## Information

|                          |                 |
|--------------------------|-----------------|
| Instructions and Manuals | 1SVC730510M1001 |
|--------------------------|-----------------|

## Dimensions

|                            |          |
|----------------------------|----------|
| Product Net Width          | 45 mm    |
| Product Net Depth / Length | 104.8 mm |
| Product Net Height         | 85.6 mm  |
| Product Net Weight         | 0.23 kg  |

## Technical

|                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Function                                            | Phase failure detection<br>Phase sequence monitoring<br>Automatic phase sequence correction<br>Over- and undervoltage monitoring<br>Phase unbalance detection                                                                                                                                                                                                                                                        |
| Standards                                           | CAN/CSA C22.2 No.14<br>IEC/EN 63000<br>IEC/EN 60255-27<br>IEC/EN 61000-6-2<br>IEC/EN 61000-6-3<br>UL 508                                                                                                                                                                                                                                                                                                             |
| Measuring Range                                     | (L-L) 350 ... 580 V AC                                                                                                                                                                                                                                                                                                                                                                                               |
| Rated Control Supply Voltage (U <sub>s</sub> )      | (L-L) 350 ... 580 V AC                                                                                                                                                                                                                                                                                                                                                                                               |
| Rated Frequency (f)                                 | Supply Circuit 50/60 Hz                                                                                                                                                                                                                                                                                                                                                                                              |
| Output                                              | 2 x 1 c/o or 1 x 2 c/o contacts, configurable                                                                                                                                                                                                                                                                                                                                                                        |
| Time Range                                          | 200 ms start-up delay<br>0 s or 0.1 ... 30 s tripping delay (ON or OFF)                                                                                                                                                                                                                                                                                                                                              |
| 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 Insulation Voltage (U <sub>i</sub> )          | Input Circuit / Output Circuit 1000 V<br>Output Circuit 1 / Output Circuit 2 300 V                                                                                                                                                                                                                                                                                                                                   |
| Rated Impulse Withstand Voltage (U <sub>imp</sub> ) | Input Circuit 8 kV<br>Output Circuit 4 kV                                                                                                                                                                                                                                                                                                                                                                            |
| 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 | Pozidriv 1<br>4.5<br>0.8 x 4                                                                                   |
| Mounting Position        | 1 ... 6                                                                                                        |
| Mounting on DIN Rail     | TH35-15 (35 x 15 mm Mounting Rail) acc. to IEC 60715<br>TH35-7.5 (35 x 7.5 mm Mounting Rail) acc. to IEC 60715 |

## Environmental

|                                        |                                                    |
|----------------------------------------|----------------------------------------------------|
| Ambient Air Temperature                | Operation -25 ... +60 °C<br>Storage -40 ... +85 °C |
| Maximum Operating Altitude Permissible | Without Derating 2000 m                            |
| RoHS Status                            | Following EU Directive 2011/65/EU                  |

## 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 1x 20-12 AWG<br>Rigid 2x 20-14 AWG |
| Tightening Torque UL/CSA         | 7.08 in·lb                                                                                 |

## Certificates and Declarations (Document Number)

|                                  |                           |
|----------------------------------|---------------------------|
| CB Certificate                   | CB_DK-27946-UL            |
| CCC Certificate                  | CCC_2009010303326655      |
| CQC Certificate                  | CQC2009010303326655       |
| cULus Certificate                | cULus508_20120829-E140448 |
| Declaration of Conformity - CCC  | 2020980303000197          |
| Declaration of Conformity - CE   | 1SVD981014-00             |
| Declaration of Conformity - UKCA | 1SVD981014-10             |
| DNV GL Certificate               | DNV_GL_TAA000017D         |
| EAC Certificate                  | EAC_RU_C-DE.ME77.B.03424  |
| Instructions and Manuals         | 1SVC730510M1001           |
| RMRS Certificate                 | RMRS_1740020250           |
| RoHS Information                 | 1SVD981014-00             |

## Container Information

|                                |               |
|--------------------------------|---------------|
| Package Level 1 Units          | box 1 piece   |
| Package Level 1 Width          | 97 mm         |
| Package Level 1 Height         | 109 mm        |
| Package Level 1 Depth / Length | 52.5 mm       |
| Package Level 1 Gross Weight   | 0.255 kg      |
| Package Level 1 EAN            | 4016779851916 |

**Classifications**

|                            |                                   |  |
|----------------------------|-----------------------------------|--|
| Object Classification Code | B                                 |  |
| ETIM 4                     | EC001441 - Phase monitoring relay |  |
| ETIM 5                     | EC001441 - Phase monitoring relay |  |
| ETIM 6                     | EC001441 - Phase monitoring relay |  |
| ETIM 7                     | EC001441 - Phase monitoring relay |  |
| eClass                     | V11.0 : 27371803                  |  |
| UNSPSC                     | 39121536                          |  |
| E-Number (Finland)         | 2712264                           |  |
| E-Number (Sweden)          | 3860592                           |  |

**Categories**

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

