



SEMI-COND. CONTACTOR 3RF2,1-PH. AC 51 30 A 40 DEGREES C 48-460 V / 110-230 V AC SCREW TERMINAL

| General technical data:                                                   |    |                               |
|---------------------------------------------------------------------------|----|-------------------------------|
| product brand name                                                        |    | SIRIUS                        |
| product designation                                                       |    | solid-state contactor         |
| Product function                                                          |    | zero-point switching          |
| Number of poles / for main current circuit                                |    | 1                             |
| Protection class IP                                                       |    | IP20                          |
| Product designation / _1 / of the accessories that can be ordered         |    | terminal cover                |
| Manufacturer article number / _1 / of the accessories that can be ordered |    | <a href="#">3RF2900-3PA88</a> |
| Product designation / _4 / of the accessories that can be ordered         |    | load monitoring               |
| Manufacturer article number / _4 / of the accessories that can be ordered |    | <a href="#">3RF2950-0GA36</a> |
| Ambient temperature                                                       |    |                               |
| • during operating                                                        | °C | -25 ... +60                   |
| • during storage                                                          | °C | -55 ... +80                   |
| Installation altitude / at a height over sea level / maximum              | m  | 1,000                         |
| Resistance against vibration / according to IEC 60068-2-6                 |    | 2g                            |
| Resistance against shock / according to IEC 60068-2-27                    |    | 15g / 11 ms                   |
| Item designation                                                          |    |                               |

|                                                                                                                                                                     |   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| <ul style="list-style-type: none"> <li>• according to DIN 40719 extendable after IEC 204-2 / according to IEC 750</li> <li>• according to DIN EN 61346-2</li> </ul> | K |
|                                                                                                                                                                     | Q |
| <b>Number of NC contacts / for auxiliary contacts</b>                                                                                                               | 0 |
| <b>Number of NO contacts / for auxiliary contacts</b>                                                                                                               | 0 |
| <b>Number of change-over switches / for auxiliary contacts</b>                                                                                                      | 0 |

| Main circuit:                                                                                                                                           |                   |                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|--------------------------|
| <b>Number of NO contacts / for main contacts</b>                                                                                                        |                   | 1                        |
| <b>Number of NC contacts / for main contacts</b>                                                                                                        |                   | 0                        |
| <b>Operating current</b> <ul style="list-style-type: none"> <li>• at AC-1 / at 400 V / rated value</li> <li>• at AC-51 / rated value</li> </ul>         | A<br>A            | 30<br>30                 |
| <b>Operating current / minimum</b>                                                                                                                      | mA                | 500                      |
| <b>Operating voltage</b> <ul style="list-style-type: none"> <li>• at 50 Hz / at AC / rated value</li> <li>• at 60 Hz / at AC / rated value</li> </ul>   | V<br>V            | 48 ... 460<br>48 ... 460 |
| <b>Working area related to the operating voltage</b> <ul style="list-style-type: none"> <li>• at 50 Hz / for AC</li> <li>• at 60 Hz / for AC</li> </ul> | V<br>V            | 40 ... 506<br>40 ... 506 |
| <b>Operating frequency</b> <ul style="list-style-type: none"> <li>• rated value</li> </ul>                                                              | Hz                | 50 ... 60                |
| <b>Insulation voltage / rated value</b>                                                                                                                 | V                 | 600                      |
| <b>Voltage slew rate / at the thyristor / for main contacts / maximum permissible</b>                                                                   | V/μs              | 1,000                    |
| <b>Block voltage / at the thyristor / for main contacts / maximum permissible</b>                                                                       | V                 | 1,200                    |
| <b>Reverse current / of the thyristor</b>                                                                                                               | mA                | 10                       |
| <b>Derating temperature</b>                                                                                                                             | °C                | 40                       |
| <b>Active power loss / total / typical</b>                                                                                                              | W                 | 33                       |
| <b>Resistance against the impulse current / rated value</b>                                                                                             | A                 | 600                      |
| <b>I<sup>2</sup>t-level / maximum</b>                                                                                                                   | A <sup>2</sup> ·s | 1,800                    |

| Control circuit:                                                                                                                       |          |          |
|----------------------------------------------------------------------------------------------------------------------------------------|----------|----------|
| <b>Control supply voltage frequency</b> <ul style="list-style-type: none"> <li>• 1 / rated value</li> <li>• 2 / rated value</li> </ul> | Hz<br>Hz | 50<br>60 |
| <b>Type of voltage / of the controlled supply voltage</b>                                                                              |          | AC       |
| <b>Control supply voltage / 1</b> <ul style="list-style-type: none"> <li>• at 50 Hz / for AC</li> <li>• initial rated value</li> </ul> | V        | 110      |

|                                                                                                                     |    |                                                                                                                                                                 |
|---------------------------------------------------------------------------------------------------------------------|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• final rated value</li> </ul>                                               | V  | 230                                                                                                                                                             |
| <ul style="list-style-type: none"> <li>• at 60 Hz / for AC</li> </ul>                                               |    |                                                                                                                                                                 |
| <ul style="list-style-type: none"> <li>• initial rated value</li> </ul>                                             | V  | 110                                                                                                                                                             |
| <ul style="list-style-type: none"> <li>• final rated value</li> </ul>                                               | V  | 230                                                                                                                                                             |
| <b>Control supply voltage</b>                                                                                       |    |                                                                                                                                                                 |
| <ul style="list-style-type: none"> <li>• at 50 Hz / for AC / final value for signal&lt;0&gt;-recognition</li> </ul> | V  | 40                                                                                                                                                              |
| <ul style="list-style-type: none"> <li>• at 60 Hz / for AC / final value for signal&lt;0&gt;-recognition</li> </ul> | V  | 40                                                                                                                                                              |
| <b>Tolerance of the line frequency</b>                                                                              | Hz | 5                                                                                                                                                               |
| <b>Control current</b>                                                                                              |    |                                                                                                                                                                 |
| <ul style="list-style-type: none"> <li>• at minimum control supply voltage / for AC</li> </ul>                      | mA | 2                                                                                                                                                               |
| <ul style="list-style-type: none"> <li>• for AC / rated value</li> </ul>                                            | mA | 15                                                                                                                                                              |
| <b>Fuse assignments</b>                                                                                             |    | <a href="https://www.automation.siemens.com/cd-static/material/info/3RF21_eng.pdf">https://www.automation.siemens.com/cd-static/material/info/3RF21_eng.pdf</a> |

| Installation/mounting/dimensions:                                                  |     |                                                              |
|------------------------------------------------------------------------------------|-----|--------------------------------------------------------------|
| <b>Type of mounting</b>                                                            |     | screw and snap-on mounting onto 35 mm standard mounting rail |
| <b>Type of fixing/fixation / series installation</b>                               |     | Yes                                                          |
| <b>Design of the thread / of the screw for fastening of the operating resource</b> |     | M4                                                           |
| <b>Tightening torque / of the screw for fastening of the operating resource</b>    | N·m | 1.5                                                          |
| <b>Width</b>                                                                       | mm  | 45                                                           |
| <b>Height</b>                                                                      | mm  | 100                                                          |
| <b>Depth</b>                                                                       | mm  | 140.5                                                        |

| Connections:                                                                                                                                                                                |        |                                                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|---------------------------------------------------|
| <b>Design of the electrical connection / for main current circuit</b>                                                                                                                       |        | screw-type terminals                              |
| <b>Design of the thread / of the connection screw / for main contacts</b>                                                                                                                   |        | M4                                                |
| <b>Tightening torque / for main contacts</b>                                                                                                                                                |        |                                                   |
| <ul style="list-style-type: none"> <li>• with screw-type terminals</li> </ul>                                                                                                               | N·m    | 2 ... 2.5                                         |
| <b>Tightening torque (lbf·in) / for main contacts</b>                                                                                                                                       |        |                                                   |
| <ul style="list-style-type: none"> <li>• with screw-type terminals</li> </ul>                                                                                                               | lbf·in | 18 ... 22                                         |
| <b>Type of the connectable conductor cross-section</b>                                                                                                                                      |        |                                                   |
| <ul style="list-style-type: none"> <li>• for main contacts <ul style="list-style-type: none"> <li>• solid</li> <li>• finely stranded</li> </ul> </li> </ul>                                 |        | 2x (1.5 ... 2.5 mm²), 2x (2.5 ... 6 mm²)          |
| <ul style="list-style-type: none"> <li>• with conductor end processing</li> </ul>                                                                                                           |        | 2x (1 ... 2.5 mm²), 2x (2.5 ... 6 mm²), 1x 10 mm² |
| <ul style="list-style-type: none"> <li>• for AWG conductors <ul style="list-style-type: none"> <li>• for main contacts</li> <li>• for auxiliary and control contacts</li> </ul> </li> </ul> |        | 2x (14 ... 10)<br>1x (AWG 20 ... 12)              |



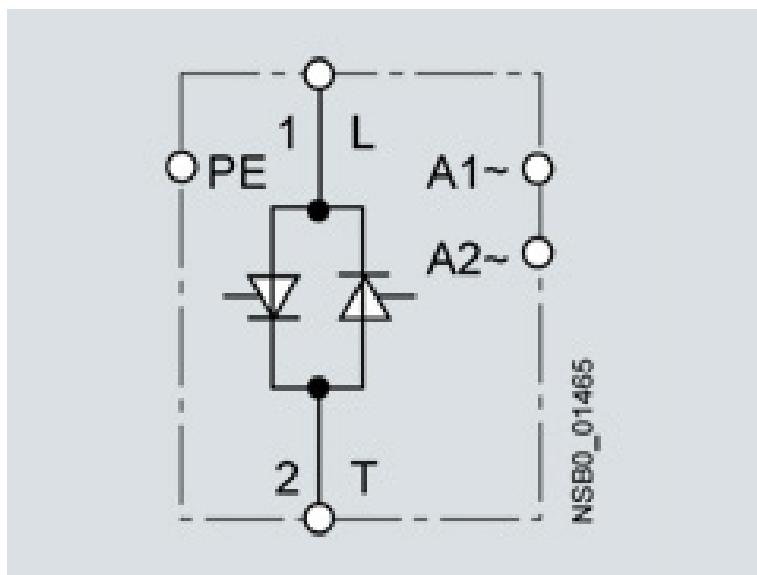
<http://www.siemens.com/industrial-controls/catalogs>

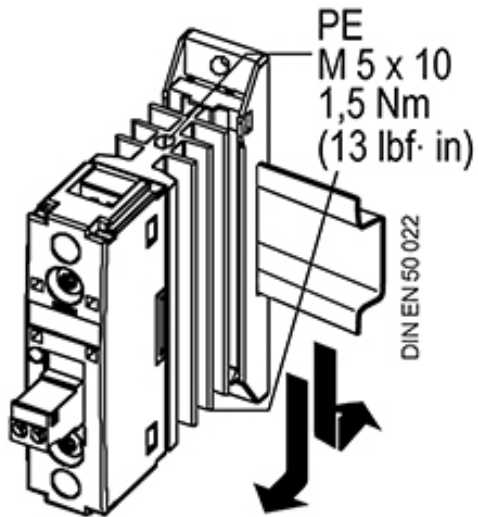
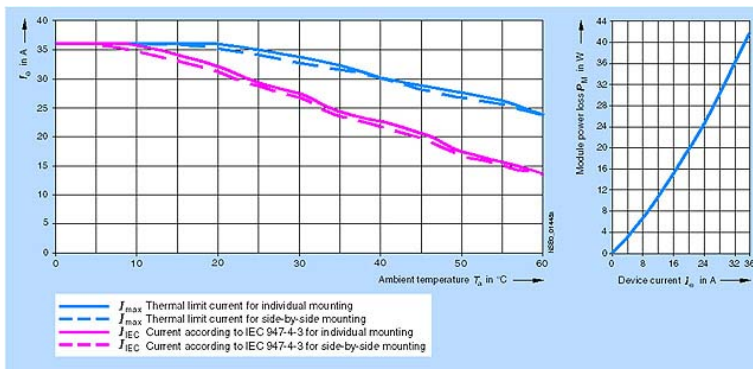
<http://www.siemens.com/industrial-controls/mall>

<http://www.siemens.com/cax>

<http://support.automation.siemens.com/WW/view/en/3RF2330-1AA24/all>

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RF2330-1AA24](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RF2330-1AA24)





last change:

Feb 4, 2013