# **SIEMENS**

Data sheet 3RT1066-6NF36



power contactor, AC-3e/AC-3 300 A, 160 kW / 400 V, AC (50-60 Hz) / DC Uc: 96-127 V PLC input 24 V DC 3-pole, auxiliary contacts 2 NO + 2 NC drive: electronic main circuit: busbar control and auxiliary circuit: screw terminal

| product brand name   | SIRIUS                     |
|--|----------------------------|
| product designation  | Power contactor            |
| product type designation   | 3RT1                       |
| General technical data   |                            |
| size of contactor  | S10                        |
| product extension  |                            |
| <ul> <li>function module for communication</li> </ul>  | No                         |
| auxiliary switch   | Yes                        |
| power loss [W] for rated value of the current  |                            |
| <ul> <li>at AC in hot operating state</li> </ul>   | 66 W                       |
| <ul> <li>at AC in hot operating state per pole</li> </ul>  | 22 W                       |
| without load current share typical   | 3.4 W                      |
| insulation voltage   |                            |
| <ul> <li>of main circuit with degree of pollution 3 rated value</li> </ul>                                   | 1 000 V                    |
| of auxiliary circuit with degree of pollution 3 rated value  | 500 V                      |
| surge voltage resistance   |                            |
| of main circuit rated value  | 8 kV                       |
| of auxiliary circuit rated value   | 6 kV                       |
| maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1 | 690 V                      |
| shock resistance at rectangular impulse  |                            |
| • at AC  | 8,5g / 5 ms, 4,2g / 10 ms  |
| • at DC  | 8,5g / 5 ms, 4,2g / 10 ms  |
| shock resistance with sine pulse   |                            |
| • at AC  | 13,4g / 5 ms, 6,5g / 10 ms |
| • at DC  | 13,4g / 5 ms, 6,5g / 10 ms |
| mechanical service life (operating cycles)   |                            |
| <ul> <li>of contactor typical</li> </ul>   | 10 000 000                 |
| <ul> <li>of the contactor with added electronically optimized<br/>auxiliary switch block typical</li> </ul>  | 5 000 000                  |
| of the contactor with added auxiliary switch block typical   | 10 000 000                 |
| reference code according to IEC 81346-2  | Q                          |
| Substance Prohibitance (Date)  | 05/01/2012                 |
| Ambient conditions   |                            |
| installation altitude at height above sea level maximum  | 2 000 m                    |
| ambient temperature  |                            |
| during operation   | -25 +60 °C                 |
| during storage   | -55 +80 °C                 |
| relative humidity minimum  | 10 %                       |
| relative humidity at 55 °C according to IEC 60068-2-30 maximum   | 95 %                       |

| lain circuit  |         |  |
|---|---------|--|
| number of poles for main current circuit  | 3       |  |
| number of NO contacts for main contacts   | 3       |  |
| operating voltage   |         |  |
| • at AC-3 rated value maximum   | 1 000 V |  |
| <ul> <li>at AC-3e rated value maximum</li> </ul>                                  | 1 000 V |  |
| operational current   |         |  |
| <ul> <li>at AC-1 at 400 V at ambient temperature 40 °C rated<br/>value</li> </ul> | 330 A   |  |
| • at AC-1   |         |  |
| — up to 690 V at ambient temperature 40 $^{\circ}\text{C}$ rated value            | 330 A   |  |
| — up to 690 V at ambient temperature 60 $^{\circ}\text{C}$ rated value            | 300 A   |  |
| — up to 1000 V at ambient temperature 40 $^{\circ}\text{C}$ rated value           | 150 A   |  |
| <ul> <li>up to 1000 V at ambient temperature 60 °C rated value</li> </ul>         | 150 A   |  |
| • at AC-3   |         |  |
| — at 400 V rated value  | 300 A   |  |
| — at 500 V rated value  | 300 A   |  |
| — at 690 V rated value  | 280 A   |  |
| — at 1000 V rated value   | 95 A    |  |
| • at AC-3e  |         |  |
| — at 400 V rated value  | 300 A   |  |
| — at 500 V rated value  | 300 A   |  |
| — at 690 V rated value  | 280 A   |  |
| — at 1000 V rated value   | 95 A    |  |
| <ul> <li>at AC-4 at 400 V rated value</li> </ul>                                  | 280 A   |  |
| • at AC-5a up to 690 V rated value  | 290 A   |  |
| • at AC-5b up to 400 V rated value  | 249 A   |  |
| • at AC-6a  |         |  |
| — up to 230 V for current peak value n=20 rated value                             | 292 A   |  |
| — up to 400 V for current peak value n=20 rated value                             | 292 A   |  |
| — up to 500 V for current peak value n=20 rated value                             | 292 A   |  |
| — up to 690 V for current peak value n=20 rated value                             | 280 A   |  |
| — up to 1000 V for current peak value n=20 rated                                  | 95 A    |  |
| value   |         |  |
| • at AC-6a  |         |  |
| <ul> <li>up to 230 V for current peak value n=30 rated value</li> </ul>           | 195 A   |  |
| <ul> <li>up to 400 V for current peak value n=30 rated value</li> </ul>           | 195 A   |  |
| — up to 500 V for current peak value n=30 rated value                             | 195 A   |  |
| — up to 690 V for current peak value n=30 rated value                             | 195 A   |  |
| — up to 1000 V for current peak value n=30 rated value                            | 95 A    |  |
| minimum cross-section in main circuit at maximum AC-1 rated value                 | 185 mm² |  |
| operational current for approx. 200000 operating cycles at AC-4                   |         |  |
| at 400 V rated value  | 125 A   |  |
| at 690 V rated value  | 115 A   |  |
| operational current   |         |  |
| at 1 current path at DC-1   |         |  |
| — at 24 V rated value   | 300 A   |  |
| — at 60 V rated value   | 300 A   |  |
| — at 110 V rated value  | 33 A    |  |
| — at 220 V rated value  | 3.8 A   |  |
| — at 440 V rated value  | 0.9 A   |  |
| — at 600 V rated value  | 0.6 A   |  |
| <ul><li>with 2 current paths in series at DC-1</li></ul>                          |         |  |
| — at 24 V rated value   | 300 A   |  |
|   | 300 A   |  |
| <ul> <li>at 60 V rated value</li> </ul>   | 300 A   |  |

| — at 220 V rated value  | 300 A       |
|---|-------------|
| — at 440 V rated value  | 4 A         |
| — at 600 V rated value  | 2 A         |
| <ul> <li>with 3 current paths in series at DC-1</li> </ul>  |             |
| — at 24 V rated value   | 300 A       |
| — at 60 V rated value   | 300 A       |
| — at 110 V rated value  | 300 A       |
| — at 220 V rated value  | 300 A       |
| — at 440 V rated value  | 11 A        |
| — at 600 V rated value  | 5.2 A       |
| at 1 current path at DC-3 at DC-5   |             |
| — at 24 V rated value   | 300 A       |
| — at 60 V rated value   | 11 A        |
| — at 220 V rated value  | 0.6 A       |
| — at 440 V rated value  | 0.18 A      |
| — at 600 V rated value  | 0.125 A     |
| <ul> <li>with 2 current paths in series at DC-3 at DC-5</li> </ul>  |             |
| — at 24 V rated value   | 300 A       |
| — at 60 V rated value   | 300 A       |
| — at 110 V rated value  | 300 A       |
| — at 220 V rated value  | 2.5 A       |
| — at 440 V rated value  | 0.65 A      |
| — at 600 V rated value  | 0.37 A      |
| <ul> <li>with 3 current paths in series at DC-3 at DC-5</li> </ul>  |             |
| — at 24 V rated value   | 300 A       |
| — at 60 V rated value   | 300 A       |
| — at 110 V rated value  | 300 A       |
| — at 220 V rated value  | 300 A       |
| — at 440 V rated value  | 1.4 A       |
| — at 600 V rated value  | 0.75 A      |
| operating power   |             |
| • at AC-3   |             |
| — at 230 V rated value  | 90 kW       |
| — at 400 V rated value  | 160 kW      |
| — at 500 V rated value  | 200 kW      |
| — at 690 V rated value  | 250 kW      |
| — at 1000 V rated value   | 132 kW      |
| • at AC-3e  |             |
| — at 230 V rated value  | 90 kW       |
| — at 400 V rated value  | 160 kW      |
| — at 500 V rated value  | 200 kW      |
| — at 690 V rated value  | 250 kW      |
| — at 1000 V rated value   | 132 kW      |
| operating power for approx. 200000 operating cycles at AC-  |             |
| 4   | 74 1/1/1    |
| • at 400 V rated value  | 71 kW       |
| at 690 V rated value  operating apparent power at AC-6a   | 112 kW      |
| • up to 230 V for current peak value n=20 rated value   | 110 000 kVA |
|   | 110 000 kVA |
| • up to 400 V for current peak value n=20 rated value   | 200 000 VA  |
| up to 500 V for current peak value n=20 rated value   | 250 000 VA  |
| up to 690 V for current peak value n=20 rated value      up to 1000 V for current peak value n=20 rated value       | 330 000 VA  |
| up to 1000 V for current peak value n=20 rated value  | 160 000 VA  |
| operating apparent power at AC-6a   | 70 000 \/A  |
| up to 230 V for current peak value n=30 rated value   | 70 000 VA   |
| • up to 400 V for current peak value n=30 rated value   | 130 000 VA  |
| • up to 500 V for current peak value n=30 rated value   | 160 000 VA  |
| • up to 690 V for current peak value n=30 rated value   | 230 000 VA  |
| up to 1000 V for current peak value n=30 rated value      chart time withstand current in cold energing state up to | 160 000 VA  |
| short-time withstand current in cold operating state up to 40 °C  |             |
|   |             |

| # limited to 15 switching at zero current maximum # limited to 16 switching at zero current maximum # limited to 10 switching at zero current maximum # limited to 10 switching at zero current maximum # limited to 20 switching at zero current maxi |  |   |  |  |
|--|--|---|--|--|
| Initiated to 10 a switching at zero current maximum   1838 A; Use minimum cross-section act. b AC-1 rated value   1838 A; U    | limited to 1 s switching at zero current maximum           | 5 524 A; Use minimum cross-section acc. to AC-1 rated value |  |  |
| # limited to 30 a switching at zero current maximum # limited to 30 a switching at zero current maximum # limited to 30 a switching at zero current maximum # at AC  | <u> </u>   |   |  |  |
| ■ milmided to 801 & switching at zero current maximum   1.445 Å; Use minimum cross-section acc. to AC-1 rated value   1.000 th       | -  |   |  |  |
| no-boad switching frequency  | <u> </u>   |   |  |  |
| * # AC   |  | 1 445 A; Use minimum cross-section acc. to AC-1 rated value |  |  |
| ## ACC operating frequency ## AC-1 maximum ## A AC-2 maximum ## A AC-3 maximum ## ACC ## AC-3 maximum ## AC-3 ma |  |   |  |  |
| operating frequency  at AC-3 maximum  boto 1th  at AC-3 maximum  100 1th  Control supply voltage at AC  at BC Hz rated value  at 16 DHz rated value  at 16 DHz rated value  by per of voltage at DC  a rated value  at 16 DHz rated value  at 16 DHz rated value  by be active to the surge state octrol supply voltage rated value of magnet coil at AC  at 15 DHz  at 16 DHz |  |   |  |  |
| ** At AC-1 maximum   |  | 1 000 1/h   |  |  |
|  |  |   |  |  |
|  | • at AC-1 maximum  |   |  |  |
|  |  |   |  |  |
| ** AK-C4 maximum   | • at AC-3 maximum  | 500 1/h   |  |  |
| ACIDE  | at AC-3e maximum   | 500 1/h   |  |  |
| type of voltage of the control supply voltage at AC  - at 60 Hz rated value  - at 60 Hz  - initial value  - at 60 Hz  - at 60  |  | 130 1/h   |  |  |
| Control supply voltage at AC   | Control circuit/ Control                                   |   |  |  |
| • at 50 Hz rated value 96 127 V  | type of voltage of the control supply voltage              | AC/DC   |  |  |
| • at 80 Hz rated value 98 127 V  control supply voltage at DC  • rated value 98 127 V  poperating range factor control supply voltage rated value of magnet coil at DC  • initial value 0.8  • illul-scale value 0.8          | control supply voltage at AC                               |   |  |  |
| control supply voltage at DC   | at 50 Hz rated value                                       | 96 127 V  |  |  |
|  | at 60 Hz rated value                                       | 96 127 V  |  |  |
| operating range factor control supply voltage rated value of magnet coil at DC initial value 0.8 1.1 0.8 1.1 0.8 1.1 0.8 1.1 0.8 1.1 0.8 1.1 0.8 1.1 1.1 0.8 1.1 1   | control supply voltage at DC                               |   |  |  |
| minglet coll at DC     • initial value   0.8     • intil-scale value   0.1.1     operating range factor control supply voltage rated value of magnet coll at AC     • at 50 Hz   0.8 1.1     • yee of PLC-control input according to IEC 60947-1     type of PLC-control input accordin        | rated value  | 96 127 V  |  |  |
| ■ full-scale value      Operating range factor control supply voltage rated value of magnet coil at AC     ■ at 50 Hz     ■ at 60 Hz     Summed current at PLC-control input according to IEC 60947-1     Type 2      consumed current at PLC-control input according to IEC 60947-1 maximum      voltage at PLC-control input rated value     Operating range factor of the voltage at PLC-control input     design of the surge suppressor     with varistor     apparent pick-up power of magnet coil at AC     ■ at 50 Hz     ■ at 60 Hz        |  |   |  |  |
| operating range factor control supply voltage rated value of magnet coil at AC  at 50 Hz  at 60 Hz  type of PLC-control input according to IEC 60947-1  type 2  consumed current at PLC-control input according to IEC 60947-1  rype 2  20 mA  voltage at PLC-control input rated value  operating range factor of the voltage at PLC-control input  design of the surge suppressor  apparent pick-up power of magnet coil at AC  at 50 Hz  at 60 Hz  at 50 Hz  at 60 Hz  ball ball ball ball ball ball ball bal   | • initial value  | 0.8   |  |  |
| magnet coil at AC  • at 50 Hz  • at 60 Hz  • at 60 Hz  • at 60 Hz  type of PLC-control input according to IEC 60947-1  type of PLC-control input according to IEC 60947-1  consumed current at PLC-control input according to IEC 60947-1 maximum  voltage at PLC-control input rated value  operating range factor of the voltage at PLC-control input design of the surge suppressor  supparent pick-up power of magnet coil at AC  • at 50 Hz  • at 60 Hz  at 60 Hz  at 60 Hz  apparent holding power of magnet coil at AC  • at 50 Hz  • at 60 Hz  apparent holding power of magnet coil at AC  • at 50 Hz  • at 60 Hz  alt 60 Hz  blick of the surge suppressor  at 60 Hz  alt 60 Hz  blick of the surge suppressor  at 50 Hz  • at 60 Hz  closing power of magnet coil at AC  • at 60 Hz  closing power of magnet coil at DC  blidling power of magnet coil at DC  closing delay  • at AC  • at DC  opening delay  • at AC  • at DC  opening delay  • at AC  • at DC  Auxillary effective  control version of the switch operating mechanism  Auxillary effective  number of NC contacts for auxillary contacts instantaneous  contact  number of NC contacts for auxillary contacts instantaneous  contact  10 Auxillary effective  20 mA  20 m | full-scale value   | 1.1   |  |  |
|  |  |   |  |  |
| type of PLC-control input according to IEC 60947-1  consumed current at PLC-control input according to IEC 80947-1  voltage at PLC-control input rated value  voltage at PLC-control input according to IEC  voltage at Corollar value  vith varistor  apparent pick-up power of magnet coil at AC  val 50 Hz  val 60 Hz  | ● at 50 Hz   | 0.8 1.1   |  |  |
| consumed current at PLC-control input according to IEC 60947-1 maximum voltage at PLC-control input rated value operating range factor of the voltage at PLC-control input design of the surge suppressor apparent pick-up power of magnet coil at AC • at 50 Hz • at 60 | • at 60 Hz   | 0.8 1.1   |  |  |
| voltage at PLC-control input rated value operating range factor of the voltage at PLC-control input design of the surge suppressor apparent pick-up power of magnet coil at AC  • at 50 Hz • at 60 Hz 10 ductive power factor with closing power of the coil • at 50 Hz • at 60 Hz 2 apparent holding power of magnet coil at AC  • at 50 Hz • at 60 Hz 2 apparent holding power of magnet coil at AC • at 50 Hz • at 60 Hz  apparent holding power of magnet coil at AC • at 50 Hz • at 60 Hz  inductive power factor with the holding power of the coil • at 50 Hz • at 60 Hz • at 60 Hz  inductive power factor with the holding power of the coil • at 50 Hz • at 60  | type of PLC-control input according to IEC 60947-1         | Type 2  |  |  |
| operating range factor of the voltage at PLC-control input design of the surge suppressor apparent pick-up power of magnet coil at AC  • at 50 Hz • at 60 Hz  inductive power factor with closing power of the coil • at 50 Hz • at 60 Hz  apparent holding power of magnet coil at AC  • at 50 Hz • at 60 Hz  apparent holding power of magnet coil at AC • at 50 Hz • at 60 Hz  apparent holding power of magnet coil at AC • at 50 Hz • at 60 Hz  inductive power factor with the holding power of the coil • at 50 Hz • at 60 Hz  closing power of magnet coil at DC  blolding power of magnet coil at DC  closing delay • at AC • at DC • at CC • |  | 20 mA   |  |  |
| design of the surge suppressor  apparent pick-up power of magnet coil at AC  • at 50 Hz  • at 60 Hz  inductive power factor with closing power of the coil  • at 50 Hz  • at 60 Hz  apparent holding power of magnet coil at AC  • at 50 Hz  • at 60 Hz  • at 60 Hz  • at 60 Hz  • at 60 Hz  inductive power factor with the holding power of the coil  • at 50 Hz  • at 60 Hz  • at 60 Hz  Closing power of magnet coil at DC  bloiding power of magnet coil at DC  closing power of magnet coil at DC  sat AC  • at AC  • at DC  • at DC | voltage at PLC-control input rated value                   | 24 V  |  |  |
| apparent pick-up power of magnet coil at AC  • at 50 Hz  • at 60 Hz  inductive power factor with closing power of the coil  • at 50 Hz  • at 60 Hz  • at 60 Hz  apparent holding power of magnet coil at AC  • at 60 Hz  • at 60 Hz  inductive power factor with the holding power of the coil  • at 50 Hz  • at 60 Hz  inductive power factor with the holding power of the coil  • at 50 Hz  • at 60 Hz  closing power of magnet coil at DC  tolding power of magnet coil at DC  sat AC  • at AC  • at AC  • at AC  • at DC  sat SDV  sat SDV  sat SDV  sat SDV  sat SDV  sat SDV  s | operating range factor of the voltage at PLC-control input | 0.8 1.1   |  |  |
| at 50 Hz at 60 Hz at 50 Hz binductive power factor with closing power of the coil at 50 Hz at 50 Hz binductive power of magnet coil at AC at 60 Hz binductive power factor with the holding power of the coil at 50 Hz binductive power factor with the holding power of the coil at 50 Hz binductive power factor with the holding power of the coil at 50 Hz binductive power of magnet coil at DC binductive power of magnet coil at DC binding   | design of the surge suppressor                             | with varistor   |  |  |
| at 60 Hz  inductive power factor with closing power of the coil  at 50 Hz  at 60 Hz  at 50 Hz  at 60 Hz  but at 50 Hz  at 50 Hz  at 60 Hz  at 50 Hz  at 60 Hz  but at 50 Hz  at 60 Hz  closing power of magnet coil at DC  bolding power of magnet coil at DC  closing power of magnet coil at DC  at AC  bolding power of magnet coil at DC  at AC  at AC  at AC  at AC  bolding power of magnet coil at DC  at AC  at AC  at AC  bolding bol  | apparent pick-up power of magnet coil at AC                |   |  |  |
| inductive power factor with closing power of the coil  at 50 Hz  at 60 Hz  apparent holding power of magnet coil at AC  at 50 Hz  at 60 Hz  at 60 Hz  at 60 Hz  but 60 Hz  at 50 Hz  at 60 Hz  at 50 Hz  at 60 Hz  closing power of magnet coil at DC  bolding power of magnet coil at DC  bolding power of magnet coil at DC  closing delay  at AC  at A | • at 50 Hz   | 530 VA  |  |  |
| at 50 Hz at 60 Hz  apparent holding power of magnet coil at AC  at 50 Hz at 60 Hz  at 60 Hz  at 60 Hz  but for Hz at 60 Hz  closing power of magnet coil at DC but folding power of magnet coil at DC but folding power of magnet coil at DC but folding power of magnet coil at DC  closing delay at AC at  | • at 60 Hz   | 530 VA  |  |  |
| apparent holding power of magnet coil at AC  at 50 Hz  at 60 Hz  at 50 Hz  at 60 Hz  build at 50 Hz  at 60 Hz  at 50 Hz  at 60 Hz  at 50 Hz  at 60 Hz  build at 50 Hz  at 60 Hz  build at 50 Hz  at 60 Hz  closing power of magnet coil at DC  building power of magnet coil at DC  closing delay  at AC  build at AC  at AC  at AC  at AC  at AC  build at AC  at AC  at AC  at AC  at AC  at AC  build at AC  at AC  at AC  at AC  build at AC  at AC  at AC  at AC  build at AC  build at AC  build at AC  contact for auxiliary contacts instantaneous  contact  number of NC contacts for auxiliary contacts instantaneous  contact  number of NO contacts for auxiliary contacts instantaneous  2  | inductive power factor with closing power of the coil      |   |  |  |
| apparent holding power of magnet coil at AC  • at 50 Hz • at 60 Hz  inductive power factor with the holding power of the coil • at 50 Hz • at 60 Hz  • at 60 Hz  • at 60 Hz  • at 60 Hz  Closing power of magnet coil at DC  holding power of magnet coil at DC  closing delay • at AC • at DC • at DC • at DC  at DC  st. 80 ms  opening delay • at AC • at DC • at DC  arcing time  control version of the switch operating mechanism  Auxiliary circuit  number of NC contacts for auxiliary contacts instantaneous contact  number of NO contacts for auxiliary contacts instantaneous 2   | ● at 50 Hz   | 0.8   |  |  |
| at 50 Hz at 60 Hz at 60 Hz at 50 Hz at 50 Hz at 60 Hz but 60 Hz at 50 Hz at 60 Hz at 60 Hz but 60 Hz closing power of magnet coil at DC but 60 Hg magnet coil at DC but 6  |  | 0.8   |  |  |
| at 60 Hz  inductive power factor with the holding power of the coil  at 50 Hz  at 60 Hz  0.4  closing power of magnet coil at DC  holding power of magnet coil at DC  closing delay  at AC  at DC  at DC  45 80 ms  opening delay  at AC  at DC  at DC  80 100 ms  arcing time  control version of the switch operating mechanism  Auxiliary circuit  number of NC contacts for auxiliary contacts instantaneous  contact  number of NO contacts for auxiliary contacts instantaneous  2   | apparent holding power of magnet coil at AC                |   |  |  |
| inductive power factor with the holding power of the coil  • at 50 Hz • at 60 Hz  closing power of magnet coil at DC  holding power of magnet coil at DC  closing delay • at AC • at DC • at DC • at AC • at DC • at D | ● at 50 Hz   | 8.5 VA  |  |  |
| at 50 Hz at 60 Hz  closing power of magnet coil at DC  bolding power of magnet coil at DC  closing delay at AC at DC at AC at AC at AC at AC at AC at AC bolding delay at AC at AC at AC at AC bolding delay at AC at AC at AC bolding delay at AC at AC bolding delay at AC at AC bolding delay at AC bolding de  | ● at 60 Hz   | 8.5 VA  |  |  |
| otosing power of magnet coil at DC      holding power of magnet coil at DC      closing delay     ot AC     ot DC     otening delay     ot AC     oth AC           | inductive power factor with the holding power of the coil  |   |  |  |
| closing power of magnet coil at DC  holding power of magnet coil at DC  closing delay  • at AC  • at DC  45 80 ms  opening delay  • at AC  • at DC  80 100 ms  • at DC  arcing time  10 15 ms  control version of the switch operating mechanism  PLC-IN or Standard A1 - A2 (adjustable)  Auxiliary circuit  number of NC contacts for auxiliary contacts instantaneous contact  number of NO contacts for auxiliary contacts instantaneous 2   | ● at 50 Hz   | 0.4   |  |  |
| holding power of magnet coil at DC  closing delay  at AC  at DC  45 80 ms  opening delay  at AC  at AC  at DC  80 100 ms  arcing time  10 15 ms  control version of the switch operating mechanism  PLC-IN or Standard A1 - A2 (adjustable)  Auxiliary circuit  number of NC contacts for auxiliary contacts instantaneous contact  number of NO contacts for auxiliary contacts instantaneous 2   | ● at 60 Hz   | 0.4   |  |  |
| closing delay  • at AC  • at DC  • at AC  • at DC  • at AC  • at DC  • at D | closing power of magnet coil at DC                         | 580 W   |  |  |
| <ul> <li>at AC</li> <li>at DC</li> <li>45 80 ms</li> <li>opening delay</li> <li>at AC</li> <li>at DC</li> <li>at DC</li> <li>at DC</li> <li>at DC</li> <li>at DC</li> <li>arcing time</li> <li>control version of the switch operating mechanism</li> <li>PLC-IN or Standard A1 - A2 (adjustable)</li> <li>Auxiliary circuit</li> <li>number of NC contacts for auxiliary contacts instantaneous contact</li> <li>number of NO contacts for auxiliary contacts instantaneous</li> <li>2</li> </ul>   | holding power of magnet coil at DC                         | 3.4 W   |  |  |
| at DC     opening delay     at AC     at DC     at       | closing delay  |   |  |  |
| opening delay  • at AC  • at DC  80 100 ms  arcing time  10 15 ms  control version of the switch operating mechanism  PLC-IN or Standard A1 - A2 (adjustable)  Auxiliary circuit  number of NC contacts for auxiliary contacts instantaneous contact  number of NO contacts for auxiliary contacts instantaneous  2  | • at AC  | 45 80 ms  |  |  |
| at AC at DC at DC acring time 10 15 ms control version of the switch operating mechanism PLC-IN or Standard A1 - A2 (adjustable)  Auxiliary circuit number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous 2  | • at DC  | 45 80 ms  |  |  |
| ● at DC  arcing time  10 15 ms  control version of the switch operating mechanism  PLC-IN or Standard A1 - A2 (adjustable)  Auxiliary circuit  number of NC contacts for auxiliary contacts instantaneous contact  number of NO contacts for auxiliary contacts instantaneous  2   | opening delay  |   |  |  |
| arcing time  10 15 ms  control version of the switch operating mechanism  PLC-IN or Standard A1 - A2 (adjustable)  Auxiliary circuit  number of NC contacts for auxiliary contacts instantaneous contact  number of NO contacts for auxiliary contacts instantaneous  2  | • at AC  | 80 100 ms   |  |  |
| control version of the switch operating mechanism  PLC-IN or Standard A1 - A2 (adjustable)  Auxiliary circuit  number of NC contacts for auxiliary contacts instantaneous contact  number of NO contacts for auxiliary contacts instantaneous  2   | • at DC  | 80 100 ms   |  |  |
| Auxiliary circuit  number of NC contacts for auxiliary contacts instantaneous contact  number of NO contacts for auxiliary contacts instantaneous 2  | arcing time  | 10 15 ms  |  |  |
| number of NC contacts for auxiliary contacts instantaneous contact  number of NO contacts for auxiliary contacts instantaneous 2   | control version of the switch operating mechanism          | PLC-IN or Standard A1 - A2 (adjustable)                     |  |  |
| contact number of NO contacts for auxiliary contacts instantaneous 2   | Auxiliary circuit  |   |  |  |
|  |  | 2   |  |  |
|  |  | 2   |  |  |

| operational current at AC-12 maximum   | 10 A   |  |  |
|--|--|--|--|
| operational current at AC-12 maximum   | IVA  |  |  |
| at 230 V rated value   | 6 A  |  |  |
|  | 6 A<br>3 A   |  |  |
| <ul> <li>at 400 V rated value</li> <li>at 500 V rated value</li> </ul>   | 2 A  |  |  |
|  |  |  |  |
| at 690 V rated value   | 1 A  |  |  |
| operational current at DC-12   | 40.4   |  |  |
| at 24 V rated value  | 10 A   |  |  |
| • at 48 V rated value  | 6 A  |  |  |
| • at 60 V rated value  | 6 A  |  |  |
| • at 110 V rated value   | 3 A  |  |  |
| • at 125 V rated value   | 2 A  |  |  |
| • at 220 V rated value   | 1 A  |  |  |
| at 600 V rated value   | 0.15 A   |  |  |
| operational current at DC-13   |  |  |  |
| at 24 V rated value  | 10 A   |  |  |
| <ul> <li>at 48 V rated value</li> </ul>  | 2 A  |  |  |
| • at 60 V rated value  | 2 A  |  |  |
| • at 110 V rated value   | 1 A  |  |  |
| • at 125 V rated value   | 0.9 A  |  |  |
| • at 220 V rated value   | 0.3 A  |  |  |
| at 600 V rated value   | 0.1 A  |  |  |
| contact reliability of auxiliary contacts  | 1 faulty switching per 100 million (17 V, 1 mA)  |  |  |
| UL/CSA ratings   |  |  |  |
| full-load current (FLA) for 3-phase AC motor   |  |  |  |
| • at 480 V rated value   | 302 A  |  |  |
| <ul><li>at 600 V rated value</li></ul>   | 289 A  |  |  |
| yielded mechanical performance [hp]  |  |  |  |
| • for 3-phase AC motor   |  |  |  |
| — at 200/208 V rated value   | 100 hp   |  |  |
| — at 220/230 V rated value   | 125 hp   |  |  |
| — at 460/480 V rated value   | 250 hp   |  |  |
| — at 575/600 V rated value   | 300 hp   |  |  |
| contact rating of auxiliary contacts according to UL   | A600 / Q600  |  |  |
| Short-circuit protection   |  |  |  |
| design of the fuse link  |  |  |  |
| for short-circuit protection of the main circuit   |  |  |  |
| with type of coordination 1 required   | gG: 500 A (690 V, 100 kA)  |  |  |
| with type of assignment 2 required   | gG: 400 A (690 V, 100 kA), aM: 315 A (690 V, 50 kA), BS88: 400 A (415 V, 50  |  |  |
| 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  | kA)  |  |  |
| • for short-circuit protection of the auxiliary switch required  | gG: 10 A (500 V, 1 kA)   |  |  |
| Installation/ mounting/ dimensions   |  |  |  |
| mstanation/ mounting/ unitensions  |  |  |  |
| mounting position  | with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back |  |  |
|  |  |  |  |
| mounting position  | +/- 22.5° tiltable to the front and back   |  |  |
| mounting position fastening method   | +/- 22.5° tiltable to the front and back screw fixing  |  |  |
| mounting position  fastening method  • side-by-side mounting   | +/- 22.5° tiltable to the front and back<br>screw fixing<br>Yes  |  |  |
| mounting position  fastening method  • side-by-side mounting height  | +/- 22.5° tiltable to the front and back<br>screw fixing<br>Yes<br>210 mm  |  |  |
| mounting position  fastening method  • side-by-side mounting height width  | +/- 22.5° tiltable to the front and back screw fixing Yes 210 mm 145 mm  |  |  |
| mounting position  fastening method  • side-by-side mounting  height  width  depth   | +/- 22.5° tiltable to the front and back screw fixing Yes 210 mm 145 mm  |  |  |
| mounting position  fastening method  • side-by-side mounting  height  width  depth  required spacing   | +/- 22.5° tiltable to the front and back screw fixing Yes 210 mm 145 mm  |  |  |
| mounting position  fastening method     • side-by-side mounting  height width depth required spacing     • with side-by-side mounting  | +/- 22.5° tiltable to the front and back screw fixing Yes 210 mm 145 mm 202 mm   |  |  |
| mounting position  fastening method  • side-by-side mounting  height  width  depth  required spacing  • with side-by-side mounting  — forwards   | +/- 22.5° tiltable to the front and back screw fixing Yes 210 mm 145 mm 202 mm   |  |  |
| mounting position  fastening method     • side-by-side mounting  height width depth required spacing     • with side-by-side mounting     — forwards     — upwards   | +/- 22.5° tiltable to the front and back screw fixing Yes 210 mm 145 mm 202 mm   |  |  |
| mounting position  fastening method     • side-by-side mounting  height width depth required spacing     • with side-by-side mounting     — forwards     — upwards     — downwards   | +/- 22.5° tiltable to the front and back screw fixing Yes 210 mm 145 mm 202 mm  20 mm 10 mm                              |  |  |
| mounting position  fastening method  • side-by-side mounting  height width depth required spacing  • with side-by-side mounting  — forwards  — upwards  — downwards  — at the side   | +/- 22.5° tiltable to the front and back screw fixing Yes 210 mm 145 mm 202 mm  20 mm 10 mm                              |  |  |
| mounting position  fastening method     • side-by-side mounting  height width depth required spacing     • with side-by-side mounting     — forwards     — upwards     — downwards     — at the side     • for grounded parts  | +/- 22.5° tiltable to the front and back screw fixing Yes 210 mm 145 mm 202 mm  20 mm 10 mm 10 mm 0 mm                   |  |  |
| mounting position  fastening method  • side-by-side mounting  height  width  depth  required spacing  • with side-by-side mounting  — forwards  — upwards  — downwards  — at the side  • for grounded parts  — forwards  | +/- 22.5° tiltable to the front and back screw fixing Yes 210 mm 145 mm 202 mm  20 mm 10 mm 10 mm 0 mm                   |  |  |
| mounting position  fastening method  • side-by-side mounting  height  width  depth  required spacing  • with side-by-side mounting  — forwards  — upwards  — downwards  — at the side  • for grounded parts  — forwards  — upwards  — upwards  | +/- 22.5° tiltable to the front and back screw fixing Yes 210 mm 145 mm 202 mm  10 mm 10 mm 0 mm 20 mm                   |  |  |
| mounting position  fastening method     • side-by-side mounting  height width  depth  required spacing     • with side-by-side mounting     — forwards     — upwards     — downwards     — at the side     • for grounded parts     — in forwards     — upwards     — at the side     • for drounded parts     — at the side     — at the side | +/- 22.5° tiltable to the front and back screw fixing Yes 210 mm 145 mm 202 mm  20 mm 10 mm 0 mm 0 mm 10 mm 10 mm        |  |  |

| forwards   | 20   |  |  |
|--|--|--|--|
| — forwards   | 20 mm  |  |  |
| — upwards  | 10 mm  |  |  |
| — downwards  | 10 mm  |  |  |
| — at the side  | 10 mm  |  |  |
| Connections/ Terminals   |  |  |  |
| type of electrical connection  |  |  |  |
| for main current circuit   | Connection bar   |  |  |
| <ul> <li>for auxiliary and control circuit</li> </ul>                      | screw-type terminals   |  |  |
| <ul> <li>at contactor for auxiliary contacts</li> </ul>                    | Screw-type terminals   |  |  |
| of magnet coil   | Screw-type terminals   |  |  |
| width of connection bar  | 25 mm  |  |  |
| thickness of connection bar  | 6 mm   |  |  |
| diameter of holes  | 11 mm  |  |  |
| number of holes  | 1  |  |  |
| connectable conductor cross-section for main contacts                      |  |  |  |
| • stranded   | 70 240 mm²   |  |  |
| connectable conductor cross-section for auxiliary contacts                 |  |  |  |
| solid or stranded  | 0.5 4 mm²  |  |  |
| <ul> <li>finely stranded with core end processing</li> </ul>               | 0.5 2.5 mm²  |  |  |
| type of connectable conductor cross-sections                               |  |  |  |
| <ul> <li>for auxiliary contacts</li> </ul>                                 |  |  |  |
| — solid  | 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), max. 2x (0.75 4 mm²)                |  |  |
| — solid or stranded  | 2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), max. 2x (0,75 4 mm²)                |  |  |
| <ul> <li>finely stranded with core end processing</li> </ul>               | 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)                                      |  |  |
| <ul> <li>for AWG cables for auxiliary contacts</li> </ul>                  | 2x (20 16), 2x (18 14), 1x 12  |  |  |
| AWG number as coded connectable conductor cross section                    |  |  |  |
| <ul> <li>for auxiliary contacts</li> </ul>                                 | 18 14  |  |  |
| Safety related data  |  |  |  |
| product function   |  |  |  |
| <ul> <li>mirror contact according to IEC 60947-4-1</li> </ul>              | Yes  |  |  |
| <ul> <li>positively driven operation according to IEC 60947-5-1</li> </ul> | No   |  |  |
| B10 value with high demand rate according to SN 31920                      | 1 000 000  |  |  |
| T1 value for proof test interval or service life according to IEC 61508    | 20 a   |  |  |
| protection class IP on the front according to IEC 60529                    | IP00; IP20 with box terminal/cover                                       |  |  |
| touch protection on the front according to IEC 60529                       | finger-safe, for vertical contact from the front with box terminal/cover |  |  |
| suitability for use  |  |  |  |
| safety-related switching OFF   | Yes  |  |  |
| Certificates/ approvals  |  |  |  |
| General Product Approval   |  |  |  |

## General Product Approval





Confirmation



<u>KC</u>



**Functional EMC** Safety/Safety of Ma-**Declaration of Conformity Test Certificates** chinery



Type Examination Certificate





Type Test Certificates/Test Report

Special Test Certific-<u>ate</u>

Marine / Shipping other













| other        |               |              | Railway                |                     |
|--------------|---------------|--------------|------------------------|---------------------|
| Confirmation | Miscellaneous | Confirmation | Special Test Certific- | Vibration and Shock |

#### **Further information**

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

### Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

#### Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

Information- and Downloadcenter (Catalogs, Brochures,...)

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT1066-6NF36

#### Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1066-6NF36

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

https://support.industry.siemens.com/cs/ww/en/ps/3RT1066-6NF36

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

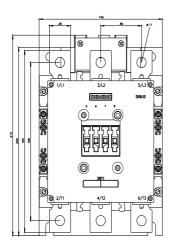
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT1066-6NF36&lang=en

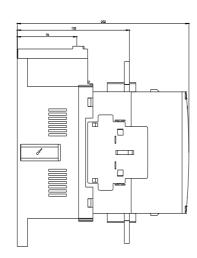
Characteristic: Tripping characteristics, I2t, Let-through current

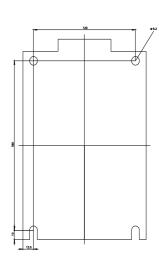
https://support.industry.siemens.com/cs/ww/en/ps/3RT1066-6NF36/char

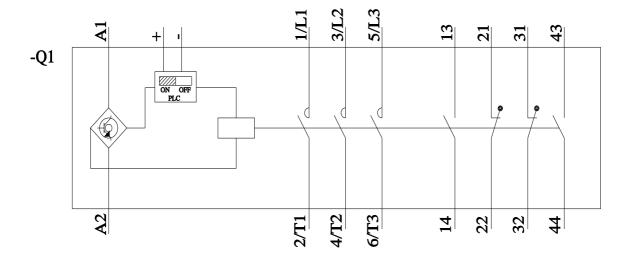
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1066-6NF36&objecttype=14&gridview=view1









last modified: 5/8/2023 🖸