



Figure similar

Non-reversing motor starter, Size 2 1/2, Three phase full voltage, Solid-state overload relay, OLR amp range 25-100A, 110V 50Hz / 120V 60Hz coil, Combination type, 100A circuit breaker, Enclosure NEMA type 1, Indoor general purpose use, Extra-wide enclosure

|   |   |
|---|---|
| product brand name  | Class 18 & 26   |
| design of the product   | Full-voltage non-reversing motor starter with motor circuit protector |
| special product feature   | ESP200 overload relay; Half-size controller                           |
| <b>General technical data</b>   |   |
| Height x Width x Depth [in]   | 36 × 24 × 8 in  |
| touch protection against electrical shock                               | NA for enclosed products  |
| installation altitude [ft] at height above sea level maximum            | 6560 ft   |
| ambient temperature [°F]  |   |
| • during storage  | -22 ... +149 °F   |
| • during operation  | -4 ... +104 °F  |
| ambient temperature   |   |
| • during storage  | -30 ... +65 °C  |
| • during operation  | -20 ... +40 °C  |
| <b>Horsepower ratings</b>   |   |
| yielded mechanical performance [hp] for 3-phase AC motor                |   |
| • at 200/208 V rated value  | 15 hp   |
| • at 220/230 V rated value  | 20 hp   |
| • at 460/480 V rated value  | 30 hp   |
| • at 575/600 V rated value  | 30 hp   |
| <b>Contactors</b>   |   |
| size of contactor   | Controller half size 2 1/2  |
| number of NO contacts for main contacts                                 | 3   |
| operating voltage for main current circuit at AC at 60 Hz maximum       | 600 V   |
| operational current at AC at 600 V rated value                          | 60 A  |
| mechanical service life (switching cycles) of the main contacts typical | 10000000  |
| <b>Auxiliary contact</b>  |   |
| number of NC contacts at contactor for auxiliary contacts               | 0   |
| number of NO contacts at contactor for auxiliary contacts               | 1   |
| number of total auxiliary contacts maximum                              | 7   |
| contact rating of auxiliary contacts of contactor according to UL       | 10A@600VAC (A600), 5A@600VDC (P600)                                   |
| <b>Coil</b>   |   |
| type of voltage of the control supply voltage                           | AC  |
| control supply voltage  |   |
| • at AC at 50 Hz rated value  | 110 V   |
| • at AC at 60 Hz rated value  | 120 V   |

|  |              |
|--|--------------|
| holding power at AC minimum  | 8.6 W        |
| apparent pick-up power of magnet coil at AC                              | 218 VA       |
| apparent holding power of magnet coil at AC                              | 25 VA        |
| operating range factor control supply voltage rated value of magnet coil | 0.85 ... 1.1 |
| percental drop-out voltage of magnet coil related to the input voltage   | 50 %         |
| ON-delay time  | 19 ... 29 ms |
| OFF-delay time   | 10 ... 24 ms |

### Overload relay

|  |  |
|--|--|
| product function   |  |
| <ul style="list-style-type: none"> <li>• overload protection</li> <li>• phase failure detection</li> <li>• asymmetry detection</li> <li>• ground fault detection</li> <li>• test function</li> <li>• external reset</li> </ul> | Yes<br>Yes<br>Yes<br>Yes<br>Yes<br>Yes |
| reset function   | Manual, automatic and remote           |
| trip class   | CLASS 5 / 10 / 20 (factory set) / 30   |
| adjustable current response value current of the current-dependent overload release  | 25 ... 100 A                           |
| make time with automatic start after power failure maximum   | 3 s                                    |
| relative repeat accuracy   | 1 %                                    |
| product feature protective coating on printed-circuit board  | Yes                                    |
| number of NC contacts of auxiliary contacts of overload relay  | 1                                      |
| number of NO contacts of auxiliary contacts of overload relay  | 1                                      |
| operational current of auxiliary contacts of overload relay  |  |
| <ul style="list-style-type: none"> <li>• at AC at 600 V</li> <li>• at DC at 250 V</li> </ul>   | 5 A<br>1 A                             |
| contact rating of auxiliary contacts of overload relay according to UL   | 5A@600VAC (B600), 1A@250VDC (R300)     |
| insulation voltage (Ui)  |  |
| <ul style="list-style-type: none"> <li>• with single-phase operation at AC rated value</li> <li>• with multi-phase operation at AC rated value</li> </ul>  | 600 V<br>300 V                         |

### Enclosure

|                                  |                                    |
|----------------------------------|------------------------------------|
| degree of protection NEMA rating | 1                                  |
| design of the housing            | indoors, usable on a general basis |

### Circuit Breaker

|  |  |
|--|--|
| type of the motor protection   | Motor circuit protector (magnetic trip only) |
| operational current of motor circuit breaker rated value                           | 100 A  |
| adjustable current response value current of instantaneous short-circuit trip unit | 315 ... 1000 A                               |

### Mounting/wiring

|   |                                   |
|---|-----------------------------------|
| mounting position   | Vertical                          |
| fastening method  | Surface mounting and installation |
| type of electrical connection for supply voltage line-side  | Box lug                           |
| type of connectable conductor cross-sections at line-side at AWG cables single or multi-stranded                  | 1x (10 AWG ... 1/0 AWG)           |
| temperature of the conductor for supply maximum permissible   | 75 °C                             |
| material of the conductor for supply  | AL or CU                          |
| type of electrical connection for load-side outgoing feeder   | Box lug                           |
| tightening torque [lbf·in] for load-side outgoing feeder  | 45 ... 45 lbf·in                  |
| type of connectable conductor cross-sections at AWG cables for load-side outgoing feeder single or multi-stranded | 1x (14 ... 2 AWG)                 |
| temperature of the conductor for load-side outgoing feeder maximum permissible                                    | 75 °C                             |
| material of the conductor for load-side outgoing feeder   | AL or CU                          |
| type of electrical connection of magnet coil  | Screw-type terminals              |

|  |   |
|--|---|
| tightening torque [lbf-in] at magnet coil  | 5 ... 12 lbf-in                                     |
| type of connectable conductor cross-sections of magnet coil at AWG cables single or multi-stranded                           | 2x (16 ... 12 AWG)                                  |
| temperature of the conductor at magnet coil maximum permissible  | 75 °C   |
| material of the conductor at magnet coil   | CU  |
| type of electrical connection for auxiliary contacts   | Screw-type terminals                                |
| tightening torque [lbf-in] at contactor for auxiliary contacts   | 10 ... 15 lbf-in                                    |
| type of connectable conductor cross-sections at contactor at AWG cables for auxiliary contacts single or multi-stranded      | 1x (12 AWG), 2x (16 ... 14 AWG), 2x (18 ... 16 AWG) |
| temperature of the conductor at contactor for auxiliary contacts maximum permissible   | 75 °C   |
| material of the conductor at contactor for auxiliary contacts  | CU  |
| type of electrical connection at overload relay for auxiliary contacts   | Screw-type terminals                                |
| tightening torque [lbf-in] at overload relay for auxiliary contacts  | 7 ... 10 lbf-in                                     |
| type of connectable conductor cross-sections at overload relay at AWG cables for auxiliary contacts single or multi-stranded | 2x (20 ... 14 AWG)                                  |
| temperature of the conductor at overload relay for auxiliary contacts maximum permissible                                    | 75 °C   |
| material of the conductor at overload relay for auxiliary contacts   | CU  |

#### Short-circuit current rating

|  |                                     |
|--|-------------------------------------|
| design of the short-circuit trip   | Instantaneous trip circuit breaker  |
| breaking capacity maximum short-circuit current (Icu)  |                                     |
| <ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 480 V</li> <li>• at 600 V</li> </ul> | 100 kA<br>100 kA<br>25 kA           |
| certificate of suitability   | NEMA ICS 2; UL 508; CSA 22.2, No.14 |

#### Further information

**Industrial Controls - Product Overview (Catalogs, Brochures,...)**

[www.usa.siemens.com/iccatalog](http://www.usa.siemens.com/iccatalog)

**Industry Mall (Online ordering system)**

<https://mall.industry.siemens.com/mall/en/us/Catalog/product?mlfb=US2:18GUG82BF>

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

<https://support.industry.siemens.com/cs/US/en/ps/US2:18GUG82BF>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=US2:18GUG82BF&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=US2:18GUG82BF&lang=en)

**Certificates/approvals**

<https://support.industry.siemens.com/cs/US/en/ps/US2:18GUG82BF/certificate>

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