



Figure similar

Non-reversing motor starter, Size 5, Three phase full voltage, Solid-state overload relay, OLR amp range 55-250A, 110-127V 50-60Hz/DC coil, Non-combination type, Enclosure type 12, Dust/drip proof for indoors, Standard width enclosure

|   |  |
|---|--|
| product brand name  | Class 14                                 |
| design of the product   | Full-voltage non-reversing motor starter |
| <b>General technical data</b>   |  |
| weight [lb]   | 113 lb                                   |
| Height x Width x Depth [in]   | 40 × 20 × 11 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                           |
| country of origin   | USA                                      |
| <b>Horsepower ratings</b>   |  |
| yielded mechanical performance [hp] for 3-phase AC motor                |  |
| • at 200/208 V rated value  | 75 hp                                    |
| • at 220/230 V rated value  | 100 hp                                   |
| • at 460/480 V rated value  | 200 hp                                   |
| • at 575/600 V rated value  | 200 hp                                   |
| <b>Contactors</b>   |  |
| size of contactor   | NEMA controller size 5                   |
| 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                          | 270 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               | 2  |
| number of NO contacts at contactor for auxiliary contacts               | 2  |
| number of total auxiliary contacts maximum                              | 8  |
| contact rating of auxiliary contacts of contactor according to UL       | 10A@240VAC (A300), 2.5A@250VDC (Q300)    |
| <b>Coil</b>   |  |
| type of voltage of the control supply voltage                           | AC/DC                                    |
| control supply voltage  |  |
| • at DC rated value   | 110 ... 127 V                            |

|  |               |
|--|---------------|
| <ul style="list-style-type: none"> <li>• at AC at 50 Hz rated value</li> </ul> | 110 ... 127 V |
| <ul style="list-style-type: none"> <li>• at AC at 60 Hz rated value</li> </ul> | 110 ... 127 V |
| holding power at AC minimum  | 7.4 W         |
| apparent pick-up power of magnet coil at AC                                    | 590 VA        |
| apparent holding power of magnet coil at AC                                    | 6.7 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         | 60 %          |
| ON-delay time  | 30 ... 95 ms  |
| OFF-delay time   | 40 ... 80 ms  |

### Overload relay

|   |                                    |
|---|------------------------------------|
| product function  |                                    |
| <ul style="list-style-type: none"> <li>• overload protection</li> </ul>                           | Yes                                |
| <ul style="list-style-type: none"> <li>• phase failure detection</li> </ul>                       | Yes                                |
| <ul style="list-style-type: none"> <li>• asymmetry detection</li> </ul>                           | Yes                                |
| <ul style="list-style-type: none"> <li>• ground fault detection</li> </ul>                        | No                                 |
| <ul style="list-style-type: none"> <li>• test function</li> </ul>                                 | Yes                                |
| <ul style="list-style-type: none"> <li>• external reset</li> </ul>                                | Yes                                |
| reset function  | Manual and automatic               |
| trip class  | CLASS 20                           |
| adjustable current response value current of the current-dependent overload release               | 55 ... 250 A                       |
| product feature protective coating on printed-circuit board                                       | No                                 |
| 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> </ul>                                | 5 A                                |
| <ul style="list-style-type: none"> <li>• at DC at 250 V</li> </ul>                                | 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> </ul> | 600 V                              |
| <ul style="list-style-type: none"> <li>• with multi-phase operation at AC rated value</li> </ul>  | 300 V                              |

### Enclosure

|                                  |                                       |
|----------------------------------|---------------------------------------|
| degree of protection NEMA rating | 12                                    |
| design of the housing            | Dust tight and drip proof for indoors |

### Mounting/wiring

|   |  |
|---|--|
| mounting position   | Vertical   |
| fastening method  | Surface mounting and installation  |
| type of electrical connection for supply voltage line-side  | Box lug  |
| tightening torque [lbf-in] for supply   | 180 ... 195 lbf-in   |
| type of connectable conductor cross-sections at line-side at AWG cables single or multi-stranded                  | 3/0 AWG - 600 MCM (front only) or 250 - 500 MCM (back only) or 2 x 2/0 AWG - 2 x 500 MCM (both front & back) |
| temperature of the conductor for supply maximum permissible   | 75 °C  |
| type of electrical connection for load-side outgoing feeder   | Box lug  |
| tightening torque [lbf-in] for load-side outgoing feeder  | 180 ... 220 lbf-in   |
| type of connectable conductor cross-sections at AWG cables for load-side outgoing feeder single or multi-stranded | 2 x 2/0 AWG - 500 MCM  |
| temperature of the conductor for load-side outgoing feeder maximum permissible                                    | 75 °C  |
| material of the conductor for load-side outgoing feeder   | CU   |
| type of electrical connection of magnet coil  | screw-type terminals   |
| tightening torque [lbf-in] at magnet coil   | 7 ... 10 lbf-in  |
| type of connectable conductor cross-sections of magnet coil at AWG cables single or multi-stranded                | 2 x (18 - 14 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   | 7 ... 10 lbf·in            |
| type of connectable conductor cross-sections at contactor at AWG cables for auxiliary contacts single or multi-stranded      | 2x (20 - 16), 2x (18 - 14) |
| 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 | 2 x (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 fuse link for short-circuit protection of the main circuit required  | 14kA@600V (Class H or K); 100kA@600V (Class R or J) |
| design of the short-circuit trip   | Thermal magnetic 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> | 14 kA<br>14 kA<br>14 kA                             |
| certificate of suitability   | NEMA ICS 2; UL 508                                  |

#### 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=US2:14LPU320F>

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

<https://support.industry.siemens.com/cs/US/en/ps/US2:14LPU320F>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=US2:14LPU320F&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=US2:14LPU320F&lang=en)

**Certificates/approvals**

<https://support.industry.siemens.com/cs/US/en/ps/US2:14LPU320F/certificate>

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