



Non-reversing motor starter, Size 3 1/2, Three phase full voltage, Solid-state overload relay, OLRelay amp range 50-200A, 110 120/220 240VAC 60HZ coil, Non-combination type, Enclosure type 12, Dust/drip proof for indoors, Extra-wide enclosure

|   |   |
|---|---|
| product brand name  | Class 14  |
| design of the product   | Full-voltage non-reversing motor starter                    |
| special product feature   | ESP200 overload relay; Half-size starter; Dual voltage coil |
| <b>General technical data</b>   |   |
| weight [lb]   | 48 lb   |
| Height x Width x Depth [in]   | 26 × 13 × 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  |
| country of origin   | USA   |
| <b>Horsepower ratings</b>   |   |
| yielded mechanical performance [hp] for 3-phase AC motor                |   |
| • at 200/208 V rated value  | 30 hp   |
| • at 220/230 V rated value  | 40 hp   |
| • at 460/480 V rated value  | 75 hp   |
| • at 575/600 V rated value  | 75 hp   |
| <b>Contactors</b>   |   |
| size of contactor   | Controller half size 3 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                          | 115 A   |
| mechanical service life (operating cycles) of the main contacts typical | 5000000   |
| <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 60 Hz rated value  | 110 ... 240 V   |
| holding power at AC minimum   | 14 W  |
| apparent pick-up power of magnet coil at AC                             | 310 VA  |
| apparent holding power of magnet coil at AC                             | 26 VA   |

|  |              |
|--|--------------|
| operating range factor control supply voltage rated value of magnet coil | 0.85 ... 1.1 |
| percentual drop-out voltage of magnet coil related to the input voltage  | 50 %         |
| ON-delay time  | 26 ... 41 ms |
| OFF-delay time   | 14 ... 19 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  | 50 ... 200 A                           |
| tripping time at phase-loss 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

|   |                                       |
|---|---------------------------------------|
| design of the housing                             | Extra-wide                            |
| degree of protection NEMA rating of the enclosure | Extra-wide NEMA Type 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  | 120 ... 120 lbf-in                                 |
| type of connectable conductor cross-sections at line-side for AWG cables single or multi-stranded                        | 1x(14 - 2/0 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   | 120 ... 120 lbf-in                                 |
| type of connectable conductor cross-sections for AWG cables for load-side outgoing feeder single or multi-stranded       | 1x(14 - 2/0 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 for AWG cables single or multi-stranded                      | 2 x (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 for AWG cables for auxiliary contacts single or multi-stranded | 1 x (12 AWG), 2 x (16 - 14 AWG), 2 x (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 for 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 | 10kA@600V (Class H or K); 100kA@600V (Class R or J)  |
| design of the short-circuit trip  | Thermal magnetic circuit breaker   |
| maximum short-circuit current breaking capacity (I <sub>cu</sub> )                | <ul style="list-style-type: none"> <li>• at 240 V 14 kA</li> <li>• at 480 V 10 kA</li> <li>• at 600 V 10 kA</li> </ul> |
| certificate of suitability  | NEMA ICS 2; UL 508; CSA 22.2, No.14  |

**Further information**

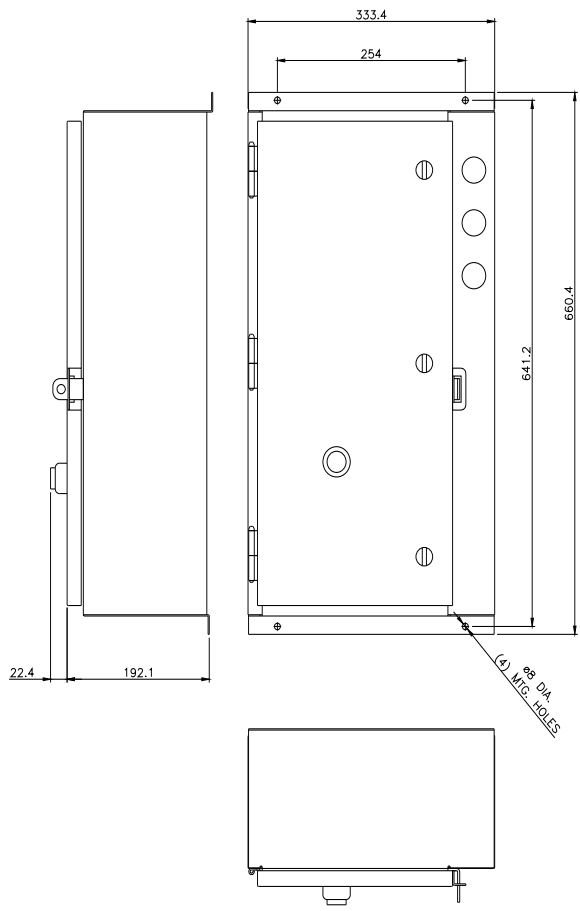
**Industrial Controls - Product Overview (Catalogs, Brochures,...)**  
[www.usa.siemens.com/ccatalog](http://www.usa.siemens.com/ccatalog)

**Industry Mall (Online ordering system)**  
<https://mall.industry.siemens.com/mall/en/us/Catalog/product?mlfb=US2:14IUH820A>

**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**  
<https://support.industry.siemens.com/cs/US/en/ps/US2:14IUH820A>

**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**  
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=US2:14IUH820A&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=US2:14IUH820A&lang=en)

**Certificates/approvals**  
<https://support.industry.siemens.com/cs/US/en/ps/US2:14IUH820A/certificate>





last modified:

11/29/2021