



Figure similar

Duplex starter w/o alternator, Size 3 1/2, Three phase full voltage, Solid-state overload relay, OLR amp range 50-200A, 208VAC 60Hz coil, Non-combination type, Enclosure NEMA type 12, Dust/drip proof for indoors

|   |   |
|---|---|
| product brand name  | Class 83                                    |
| design of the product   | Duplex controller without alternator        |
| special product feature   | Half-size controller; ESP200 overload relay |
| <b>General technical data</b>   |   |
| weight [lb]   | 93 lb                                       |
| Height x Width x Depth [in]   | 29 × 23 × 9 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 (switching 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  |   |

|   |               |
|---|---------------|
| <ul style="list-style-type: none"> <li>• at DC rated value</li> <li>• at AC at 50 Hz rated value</li> <li>• at AC at 60 Hz rated value</li> </ul> | 0 ... 0 V     |
|   | 0 ... 0 V     |
|   | 208 ... 208 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  |
| percental 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           |
| 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

|   |   |
|---|---|
| degree of protection NEMA rating of the enclosure | NEMA 12 enclosure                       |
| design of the housing                             | dustproof and drip-proof for indoor use |

### 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 at 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 at 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 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 at contactor 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 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                    |
| breaking capacity maximum short-circuit current (I <sub>cu</sub> )                |   |
| • at 240 V  | 14 kA   |
| • at 480 V  | 10 kA   |
| • at 600 V  | 10 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=US2:83IUH950D>

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

<https://support.industry.siemens.com/cs/US/en/ps/US2:83IUH950D>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=US2:83IUH950D&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=US2:83IUH950D&lang=en)

**Certificates/approvals**

<https://support.industry.siemens.com/cs/US/en/ps/US2:83IUH950D/certificate>

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