



Figure similar

Duplex starter w/o alternator Size 4 Three phase full voltage Solid-state overload relay OLR amp range 50-200A 240VAC 50Hz / 277VAC 60Hz Coil Combination type Two 200A disconnect switches Encl NEMA type 4X 304 S. Steel Water/dust tight non-corrosive

|                                                                         |                                                                               |
|-------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| product brand name                                                      | Class 84                                                                      |
| design of the product                                                   | Duplex controller with two non-fusible disconnect switches without alternator |
| special product feature                                                 | ESP200 overload relay                                                         |
| <b>General technical data</b>                                           |                                                                               |
| weight [lb]                                                             | 106 lb                                                                        |
| Height x Width x Depth [in]                                             | 56 × 29 × 10 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                                              | 40 hp                                                                         |
| • at 220/230 V rated value                                              | 50 hp                                                                         |
| • at 460/480 V rated value                                              | 100 hp                                                                        |
| • at 575/600 V rated value                                              | 100 hp                                                                        |
| <b>Contactor</b>                                                        |                                                                               |
| size of contactor                                                       | NEMA controller size 4                                                        |
| 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                          | 135 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                                                                                                                            | 0 ... 0 V<br>240 ... 240 V<br>277 ... 277 V |
| <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> |                                             |
| holding power at AC minimum                                                                                                                       | 22 W                                        |
| apparent pick-up power of magnet coil at AC                                                                                                       | 510 VA                                      |
| apparent holding power of magnet coil at AC                                                                                                       | 51 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                                                                                                                                     | 18 ... 34 ms                                |
| OFF-delay time                                                                                                                                    | 10 ... 12 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 %                                    |
| 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                                                                                                                                                                    | 5 A<br>1 A                             |
| <ul style="list-style-type: none"> <li>• at AC at 600 V</li> <li>• at DC at 250 V</li> </ul>                                                                                                                                   |                                        |
| contact rating of auxiliary contacts of overload relay according to UL                                                                                                                                                         | 5A@600VAC (B600), 1A@250VDC (R300)     |
| insulation voltage (Ui)                                                                                                                                                                                                        | 600 V<br>300 V                         |
| <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>                                                                      |                                        |

#### Disconnect Switch

|                                       |             |
|---------------------------------------|-------------|
| response value of switch disconnecter | 200A / 600V |
| design of fuse holder                 | non-fusible |
| operating class of the fuse link      | non-fusible |

#### Enclosure

|                                                   |                                                |
|---------------------------------------------------|------------------------------------------------|
| degree of protection NEMA rating of the enclosure | NEMA 4x 304 stainless steel enclosure          |
| design of the housing                             | dustproof, waterproof & resistant to corrosion |

#### 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                                                                             | 275 ... 275 lbf-in                |
| type of connectable conductor cross-sections at line-side at AWG cables single or multi-stranded                  | 1x (6 AWG ... 300 Kcmil)          |
| 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                                                          | 200 ... 200 lbf-in                |
| type of connectable conductor cross-sections at AWG cables for load-side outgoing feeder single or multi-stranded | 1x (6 AWG ... 250 MCM)            |
| temperature of the conductor for load-side outgoing feeder                                                        | 75 °C                             |

|                                                                                                                              |                                                     |
|------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| maximum permissible                                                                                                          |                                                     |
| 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                                                                                    | 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) |
| 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=US2:84JUH95WDL>

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

<https://support.industry.siemens.com/cs/US/en/ps/US2:84JUH95WDL>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=US2:84JUH95WDL&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=US2:84JUH95WDL&lang=en)

**Certificates/approvals**

<https://support.industry.siemens.com/cs/US/en/ps/US2:84JUH95WDL/certificate>

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