



Figure similar

Non-reversing motor starter, Size 1, Three phase full voltage, Solid-state overload relay, OLR amp range 0.75-3.4A, 110V 50Hz / 120V 60Hz coil, Non-combination type, Enclosure type 12, Dust/drip proof for indoors, Standard width enclosure

product brand name  
design of the product  
special product feature

Class 14  
Full-voltage non-reversing motor starter  
ESP200 overload relay

### General technical data

|                                                              |                            |
|--------------------------------------------------------------|----------------------------|
| weight [lb]                                                  | 11 lb                      |
| Height x Width x Depth [in]                                  | 13 × 8 × 5 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                        |

### Horsepower ratings

|                                                          |         |
|----------------------------------------------------------|---------|
| yielded mechanical performance [hp] for 3-phase AC motor |         |
| • at 200/208 V rated value                               | 0.5 hp  |
| • at 220/230 V rated value                               | 0.75 hp |
| • at 460/480 V rated value                               | 1.5 hp  |
| • at 575/600 V rated value                               | 2 hp    |

### Contactors

|                                                                         |                        |
|-------------------------------------------------------------------------|------------------------|
| size of contactor                                                       | NEMA controller size 1 |
| 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                          | 27 A                   |
| mechanical service life (operating cycles) of the main contacts typical | 10000000               |

### Auxiliary contact

|                                                                   |                                     |
|-------------------------------------------------------------------|-------------------------------------|
| 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                        | 8                                   |
| contact rating of auxiliary contacts of contactor according to UL | 10A@600VAC (A600), 5A@600VDC (P600) |

### Coil

|                                               |       |
|-----------------------------------------------|-------|
| 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                                                                                                                                            | 0.75 ... 3.4 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 | 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                                                        | Screw-type terminals              |
| tightening torque [lbf-in] for supply                                                                             | 35 ... 35 lbf-in                  |
| type of connectable conductor cross-sections at line-side at AWG cables single or multi-stranded                  | 1x(14 - 2 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                                                       | Screw-type terminals              |
| tightening torque [lbf-in] for load-side outgoing feeder                                                          | 20 ... 24 lbf-in                  |
| type of connectable conductor cross-sections at AWG cables for load-side outgoing feeder single or multi-stranded | 2 x (14 - 10 AWG)                 |
| 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                                                                         | 5 ... 12 lbf-in                   |
| type of connectable conductor cross-sections of magnet coil at 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 at 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 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 | 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 (Icu)                             |                                                     |
| • 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=US2:14DUB320F>

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

<https://support.industry.siemens.com/cs/US/en/ps/US2:14DUB320F>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=US2:14DUB320F&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=US2:14DUB320F&lang=en)

##### Certificates/approvals

<https://support.industry.siemens.com/cs/US/en/ps/US2:14DUB320F/certificate>



