



Reversing motor starter, Size 3, Three phase full voltage, Solid-state overload relay, OLR amp range 25-100A, Non-combination type, Enclosure type 1, Indoor general purpose use, Standard width enclosure

|                                                                         |                                      |
|-------------------------------------------------------------------------|--------------------------------------|
| product brand name                                                      | Class 22                             |
| design of the product                                                   | Full-voltage reversing motor starter |
| special product feature                                                 | ESP200 overload relay                |
| <b>General technical data</b>                                           |                                      |
| weight [lb]                                                             | 39 lb                                |
| Height x Width x Depth [in]                                             | 25 × 14 × 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                                              | 25 hp                                |
| • at 220/230 V rated value                                              | 30 hp                                |
| • at 460/480 V rated value                                              | 50 hp                                |
| • at 575/600 V rated value                                              | 50 hp                                |
| <b>Contactor</b>                                                        |                                      |
| size of contactor                                                       | NEMA controller size 3               |
| 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                          | 90 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                                |

|                                                                                                                          |                                                     |
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| 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                                        |
| <b>Overload relay</b>                                                                                                    |                                                     |
| product function                                                                                                         |                                                     |
| • overload protection                                                                                                    | Yes                                                 |
| • phase failure detection                                                                                                | Yes                                                 |
| • asymmetry detection                                                                                                    | Yes                                                 |
| • ground fault detection                                                                                                 | Yes                                                 |
| • test function                                                                                                          | Yes                                                 |
| • external reset                                                                                                         | 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                                      | 25 ... 100 A                                        |
| make time with automatic start after power failure 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                                                              |                                                     |
| • at AC at 600 V                                                                                                         | 5 A                                                 |
| • at DC at 250 V                                                                                                         | 1 A                                                 |
| contact rating of auxiliary contacts of overload relay according to UL                                                   | 5A@600VAC (B600), 1A@250VDC (R300)                  |
| insulation voltage (Ui)                                                                                                  |                                                     |
| • with single-phase operation at AC rated value                                                                          | 600 V                                               |
| • with multi-phase operation at AC rated value                                                                           | 300 V                                               |
| <b>Enclosure</b>                                                                                                         |                                                     |
| degree of protection NEMA rating                                                                                         | 1                                                   |
| design of the housing                                                                                                    | indoors, usable on a general basis                  |
| <b>Mounting/wiring</b>                                                                                                   |                                                     |
| 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                      | 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 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 | 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                                                  |

|                                                                                                                               |                                     |
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| 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 | 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                                  |
| <b>Short-circuit current rating</b>                                                                                           |                                     |
| design of the fuse link for short-circuit protection of the main circuit required                                             | none                                |
| design of the short-circuit trip                                                                                              | none                                |
| maximum short-circuit current breaking capacity (Icu)                                                                         |                                     |
| • at 240 V                                                                                                                    | 0 kA                                |
| • at 480 V                                                                                                                    | 0 kA                                |
| • at 600 V                                                                                                                    | 0 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/ccatalog](http://www.usa.siemens.com/ccatalog)

**Industry Mall (Online ordering system)**

<https://mall.industry.siemens.com/mall/en/us/Catalog/product?mlfb=US2:22HUG32BA>

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

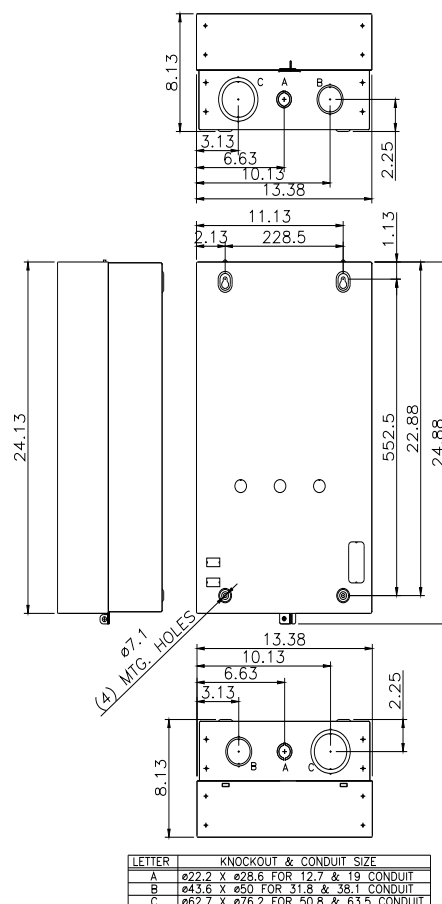
<https://support.industry.siemens.com/cs/US/en/ps/US2:22HUG32BA>

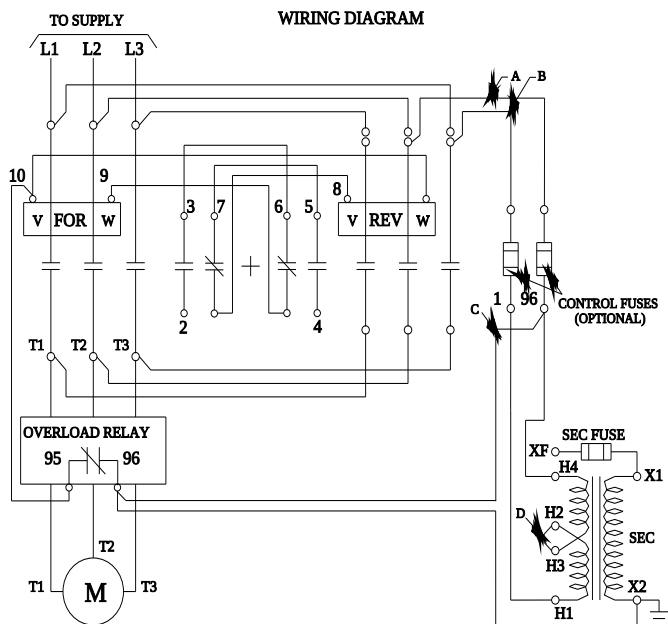
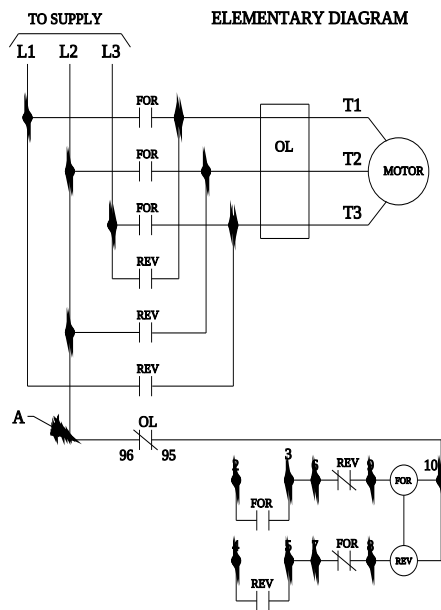
**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=US2:22HUG32BA&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=US2:22HUG32BA&lang=en)

**Certificates/approvals**

<https://support.industry.siemens.com/cs/US/en/ps/US2:22HUG32BA/certificate>





D46590003

last modified:

1/25/2022