



Figure similar

Reversing motor starter, Size 3 1/2, Three phase full voltage, Amb. compensate bimetal OLR, Contactor amp rating 115A, Non-combination type, Enclosure type 12, Dust/drip proof for indoors

|   |                                      |
|---|--------------------------------------|
| product brand name  | Class 14 & 22                        |
| design of the product   | Full-voltage reversing motor starter |
| special product feature   | Half-size starter; Dual voltage coil |
| <b>General technical data</b>   |                                      |
| weight [lb]   | 53.8 lb                              |
| Height x Width x Depth [in]   | 25 × 17 × 7 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>Contactor</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  | 220 ... 480 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  |
| <b>Overload relay</b>  |   |
| product function   |   |
| • overload protection  | Yes   |
| • test function  | Yes   |
| • external reset   | Yes   |
| reset function   | Manual and automatic                                |
| adjustment range of thermal overload trip unit   | 0.85 ... 1.15                                       |
| number of NC contacts of auxiliary contacts of overload relay  | 3   |
| number of NO contacts of auxiliary contacts of overload relay  | 0   |
| operational current of auxiliary contacts of overload relay  |   |
| • at AC at 600 V   | 5 A   |
| • at DC at 250 V   | 5 A   |
| contact rating of auxiliary contacts of overload relay according to UL   | 5A@600VAC (B600), 5A@250VDC (P300)                  |
| <b>Enclosure</b>   |   |
| degree of protection NEMA rating   | 12  |
| design of the housing  | dustproof and drip-proof for indoor use             |
| <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                                  |
| 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   | 35 ... 50 lbf-in                                    |
| 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 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  | 5 ... 12 lbf-in                                     |
| type of connectable conductor cross-sections at overload relay at AWG cables for auxiliary contacts single or multi-stranded | 2x (16 ... 12 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  | 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=US2:22IP320C81>

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

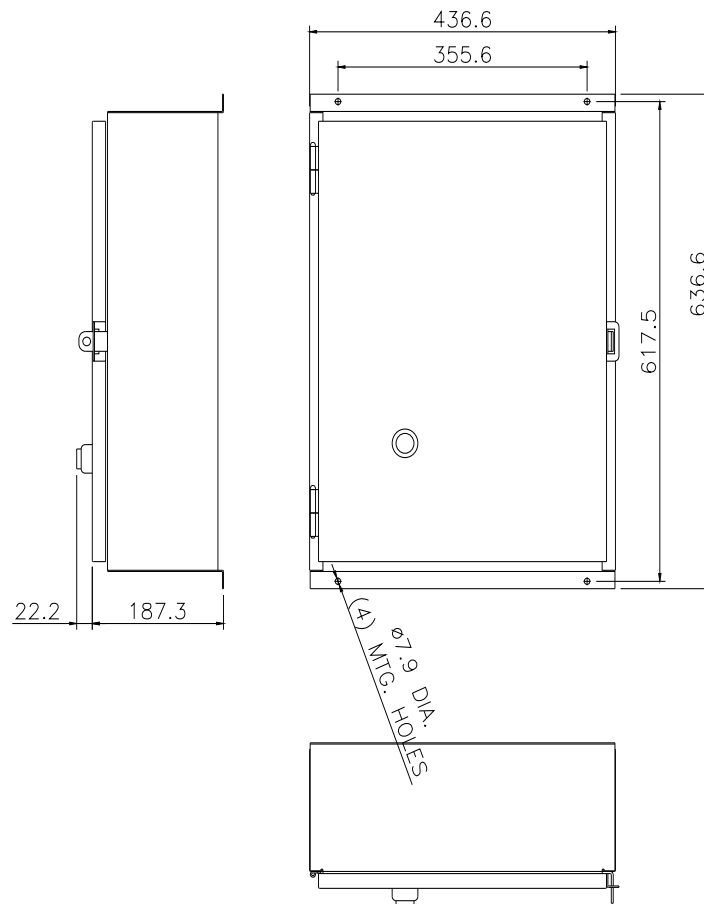
<https://support.industry.siemens.com/cs/US/en/ps/US2:22IP320C81>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=US2:22IP320C81&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=US2:22IP320C81&lang=en)

Certificates/approvals

<https://support.industry.siemens.com/cs/US/en/ps/US2:22IP320C81/certificate>





D46590003

last modified:

1/25/2022