## **SIEMENS**

Data sheet US2:22CUD32WD



Reversing motor starter, Size 0, Three phase full voltage, Solid-state overload relay, OLR amp range 5.5-22A, 208VAC 60Hz coil, Non-combination type, Encl. type 4X 304 S. Steel, Water/dust tight noncorrosive, Standard width enclosure

| product brand name  | Class 22                             |
|---|--------------------------------------|
| design of the product   | Full-voltage reversing motor starter |
| special product feature   | ESP200 overload relay                |
| General technical data  |                                      |
| weight [lb]   | 17 lb                                |
| Height x Width x Depth [in]   | 13 × 13 × 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]  |                                      |
| <ul> <li>during storage</li> </ul>                                      | -22 +149 °F                          |
| during operation  | -4 +104 °F                           |
| ambient temperature   |                                      |
| <ul> <li>during storage</li> </ul>                                      | -30 +65 °C                           |
| during operation  | -20 +40 °C                           |
| country of origin   | USA                                  |
| Horsepower ratings  |                                      |
| yielded mechanical performance [hp] for 3-phase AC motor                |                                      |
| <ul><li>at 200/208 V rated value</li></ul>                              | 3 hp                                 |
| • at 220/230 V rated value  | 3 hp                                 |
| • at 460/480 V rated value  | 0 hp                                 |
| • at 575/600 V rated value  | 0 hp                                 |
| Contactor   |                                      |
| size of contactor   | NEMA controller size 0               |
| 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                          | 18 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 60 Hz rated value  | 208 V                                |
| holding power at AC minimum   | 8.6 W                                |
| apparent pick-up power of magnet coil at AC                             | 218 VA                               |

| annount halding names of second at 4.0  | 2F \/A   |
|---|--|
| 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> <li>overload protection</li> </ul>   | 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-<br>dependent overload release   | 5.5 22 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)   |  |
| <ul> <li>with single-phase operation at AC rated value</li> </ul>   | 600 V  |
| <ul> <li>with multi-phase operation at AC rated value</li> </ul>  | 300 V  |
| Enclosure   |  |
| degree of protection NEMA rating  | 4X, 304 stainless steel  |
| design of the housing   | dustproof, waterproof & resistant to corrosion   |
| Mounting/wiring   |  |
| mounting position   | Vertical   |
|   |  |
| fastening method  | Surface mounting and installation  |
| fastening method type of electrical connection for supply voltage line-side   | Surface mounting and installation Screw-type terminals   |
|   |  |
| type of electrical connection for supply voltage line-side  | Screw-type terminals   |
| type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply type of connectable conductor cross-sections at line-side at   | Screw-type terminals 20 20 lbf-in  |
| type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply type of connectable conductor cross-sections at line-side at AWG cables single or multi-stranded   | Screw-type terminals 20 20 lbf-in 1x (14 2 AWG)  |
| type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply type of connectable conductor cross-sections at line-side at AWG cables single or multi-stranded temperature of the conductor for supply maximum permissible   | Screw-type terminals 20 20 lbf·in 1x (14 2 AWG) 75 °C  |
| type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply type of connectable conductor cross-sections at line-side at AWG cables single or multi-stranded temperature of the conductor for supply maximum permissible material of the conductor for supply  | Screw-type terminals 20 20 lbf-in 1x (14 2 AWG) 75 °C AL or CU   |
| type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply type of connectable conductor cross-sections at line-side at AWG cables single or multi-stranded temperature of the conductor for supply maximum permissible material of the conductor for supply type of electrical connection for load-side outgoing feeder  | Screw-type terminals 20 20 lbf-in 1x (14 2 AWG) 75 °C AL or CU Screw-type terminals  |
| type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply type of connectable conductor cross-sections at line-side at AWG cables single or multi-stranded temperature of the conductor for supply maximum permissible material of the conductor for supply type of electrical connection for load-side outgoing feeder tightening torque [lbf-in] for load-side outgoing feeder type of connectable conductor cross-sections at AWG cables for  | Screw-type terminals 20 20 lbf-in 1x (14 2 AWG) 75 °C AL or CU Screw-type terminals 20 20 lbf-in   |
| type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply type of connectable conductor cross-sections at line-side at AWG cables single or multi-stranded temperature of the conductor for supply maximum permissible material of the conductor for supply type of electrical connection for load-side outgoing feeder tightening torque [lbf-in] for load-side outgoing feeder type of connectable conductor cross-sections at AWG cables for load-side outgoing feeder single or multi-stranded temperature of the conductor for load-side outgoing feeder  | Screw-type terminals 20 20 lbf-in 1x (14 2 AWG)  75 °C AL or CU Screw-type terminals 20 20 lbf-in 1x (14 2 AWG)  |
| type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply type of connectable conductor cross-sections at line-side at AWG cables single or multi-stranded temperature of the conductor for supply maximum permissible material of the conductor for supply type of electrical connection for load-side outgoing feeder tightening torque [lbf-in] for load-side outgoing feeder type of connectable conductor cross-sections at AWG cables for load-side outgoing feeder single or multi-stranded temperature of the conductor for load-side outgoing feeder maximum permissible  | Screw-type terminals 20 20 lbf-in 1x (14 2 AWG)  75 °C AL or CU Screw-type terminals 20 20 lbf-in 1x (14 2 AWG)  75 °C   |
| type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply type of connectable conductor cross-sections at line-side at AWG cables single or multi-stranded temperature of the conductor for supply maximum permissible material of the conductor for supply type of electrical connection for load-side outgoing feeder tightening torque [lbf-in] for load-side outgoing feeder type of connectable conductor cross-sections at AWG cables for load-side outgoing feeder single or multi-stranded temperature of the conductor for load-side outgoing feeder maximum permissible material of the conductor for load-side outgoing feeder  | Screw-type terminals 20 20 lbf-in 1x (14 2 AWG) 75 °C AL or CU Screw-type terminals 20 20 lbf-in 1x (14 2 AWG) 75 °C AL or CU  |
| type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply type of connectable conductor cross-sections at line-side at AWG cables single or multi-stranded temperature of the conductor for supply maximum permissible material of the conductor for supply type of electrical connection for load-side outgoing feeder tightening torque [lbf-in] for load-side outgoing feeder type of connectable conductor cross-sections at AWG cables for load-side outgoing feeder single or multi-stranded temperature of the conductor for load-side outgoing feeder maximum permissible material of the conductor for load-side outgoing feeder type of electrical connection of magnet coil   | Screw-type terminals  20 20 lbf·in  1x (14 2 AWG)  75 °C  AL or CU  Screw-type terminals  20 20 lbf·in  1x (14 2 AWG)  75 °C  AL or CU  Screw-type terminals   |
| type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply type of connectable conductor cross-sections at line-side at AWG cables single or multi-stranded temperature of the conductor for supply maximum permissible material of the conductor for supply type of electrical connection for load-side outgoing feeder tightening torque [lbf-in] for load-side outgoing feeder type of connectable conductor cross-sections at AWG cables for load-side outgoing feeder single or multi-stranded temperature of the conductor for load-side outgoing feeder maximum permissible material of the conductor for load-side outgoing feeder type of electrical connection of magnet coil tightening torque [lbf-in] at magnet coil   | Screw-type terminals 20 20 lbf-in 1x (14 2 AWG)  75 °C AL or CU Screw-type terminals 20 20 lbf-in 1x (14 2 AWG)  75 °C AL or CU Screw-type terminals 5 12 lbf-in   |
| type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply type of connectable conductor cross-sections at line-side at AWG cables single or multi-stranded temperature of the conductor for supply maximum permissible material of the conductor for supply type of electrical connection for load-side outgoing feeder tightening torque [lbf-in] for load-side outgoing feeder type of connectable conductor cross-sections at AWG cables for load-side outgoing feeder single or multi-stranded temperature of the conductor for load-side outgoing feeder maximum permissible material of the conductor for load-side outgoing feeder type of electrical connection of magnet coil tightening torque [lbf-in] at magnet coil type of connectable conductor cross-sections of magnet coil at AWG cables single or multi-stranded temperature of the conductor at magnet coil maximum  | Screw-type terminals 20 20 lbf-in 1x (14 2 AWG) 75 °C AL or CU Screw-type terminals 20 20 lbf-in 1x (14 2 AWG) 75 °C AL or CU Screw-type terminals 2   |
| type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply type of connectable conductor cross-sections at line-side at AWG cables single or multi-stranded temperature of the conductor for supply maximum permissible material of the conductor for supply type of electrical connection for load-side outgoing feeder tightening torque [lbf-in] for load-side outgoing feeder type of connectable conductor cross-sections at AWG cables for load-side outgoing feeder single or multi-stranded temperature of the conductor for load-side outgoing feeder maximum permissible material of the conductor for load-side outgoing feeder type of electrical connection of magnet coil tightening torque [lbf-in] at magnet coil type of connectable conductor cross-sections of magnet coil at AWG cables single or multi-stranded temperature of the conductor at magnet coil maximum permissible  | Screw-type terminals 20 20 lbf-in 1x (14 2 AWG) 75 °C AL or CU Screw-type terminals 20 20 lbf-in 1x (14 2 AWG) 75 °C AL or CU Screw-type terminals 5 °C AL or CU Screw-type terminals 5 12 lbf-in 2x (16 12 AWG)           |
| type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply type of connectable conductor cross-sections at line-side at AWG cables single or multi-stranded temperature of the conductor for supply maximum permissible material of the conductor for supply type of electrical connection for load-side outgoing feeder tightening torque [lbf-in] for load-side outgoing feeder type of connectable conductor cross-sections at AWG cables for load-side outgoing feeder single or multi-stranded temperature of the conductor for load-side outgoing feeder maximum permissible material of the conductor for load-side outgoing feeder type of electrical connection of magnet coil tightening torque [lbf-in] at magnet coil type of connectable conductor cross-sections of magnet coil at AWG cables single or multi-stranded temperature of the conductor at magnet coil maximum permissible material of the conductor at magnet coil | Screw-type terminals 20 20 lbf-in 1x (14 2 AWG)  75 °C AL or CU Screw-type terminals 20 20 lbf-in 1x (14 2 AWG)  75 °C  AL or CU Screw-type terminals 5 12 lbf-in 2x (16 12 AWG)  75 °C  CU                                |
| type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply type of connectable conductor cross-sections at line-side at AWG cables single or multi-stranded temperature of the conductor for supply maximum permissible material of the conductor for supply type of electrical connection for load-side outgoing feeder tightening torque [lbf-in] for load-side outgoing feeder type of connectable conductor cross-sections at AWG cables for load-side outgoing feeder single or multi-stranded temperature of the conductor for load-side outgoing feeder maximum permissible material of the conductor for load-side outgoing feeder type of electrical connection of magnet coil tightening torque [lbf-in] at magnet coil type of connectable conductor cross-sections of magnet coil at AWG cables single or multi-stranded temperature of the conductor at magnet coil maximum permissible material of the conductor at magnet coil | Screw-type terminals  20 20 lbf-in  1x (14 2 AWG)  75 °C  AL or CU  Screw-type terminals  20 20 lbf-in  1x (14 2 AWG)  75 °C  AL or CU  Screw-type terminals  5 12 lbf-in  2x (16 12 AWG)  75 °C  CU  Screw-type terminals |

| 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                    |
| 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

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/us/Catalog/product?mlfb=US2:22CUD32WD

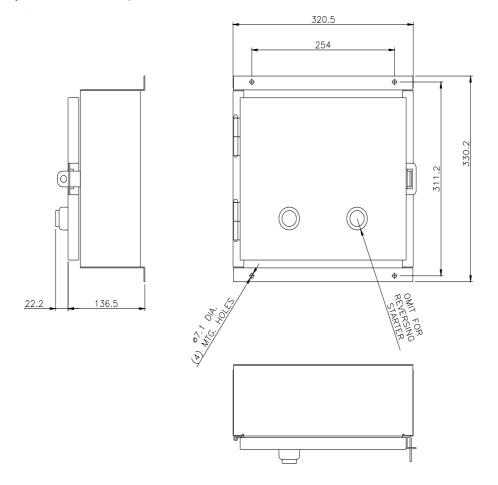
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

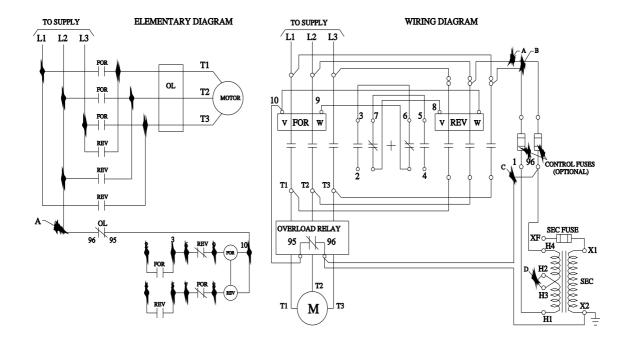
https://support.industry.siemens.com/cs/US/en/ps/US2:22CUD32WD

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) <a href="http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=US2:22CUD32WD&lang=en">http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=US2:22CUD32WD&lang=en</a>

Certificates/approvals

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