SIEMENS

Data sheet US2:22CUB32HA



Reversing motor starter, Size 0, Three phase full voltage, Solid-state overload relay, OLR amp range 0.75-3.4A, Non-combination type, Enclosure type 7/9/3/4, Hazardous locations, Standard width enclosure

Figure similar

| 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] | 141 lb |
| Height x Width x Depth [in] | 28.69 × 17.75 × 11.75 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 |
| 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 | 110 240 V |
| holding power at AC minimum | 8.6 W |
| apparent pick-up power of magnet coil at AC | 218 VA |

| | 05.1/4 |
|---|--|
| 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 | |
| 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 | 0.75 3.4 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 |
| Enclosure | |
| <u> </u> | |
| degree of protection NEMA rating | 3, 4, 7, 9 |
| | 3, 4, 7, 9 extreme conditions indoor & outdoor Class I Div. 1&2 Groups C&D, Class II Groups E, F&G, Class III |
| degree of protection NEMA rating | extreme conditions indoor & outdoor Class I Div. 1&2 Groups C&D, Class II |
| degree of protection NEMA rating design of the housing | extreme conditions indoor & outdoor Class I Div. 1&2 Groups C&D, Class II |
| degree of protection NEMA rating design of the housing Mounting/wiring | extreme conditions indoor & outdoor Class I Div. 1&2 Groups C&D, Class II Groups E, F&G, Class III |
| degree of protection NEMA rating design of the housing Mounting/wiring mounting position | extreme conditions indoor & outdoor Class I Div. 1&2 Groups C&D, Class II Groups E, F&G, Class III Vertical |
| degree of protection NEMA rating design of the housing Mounting/wiring mounting position fastening method | extreme conditions indoor & outdoor Class I Div. 1&2 Groups C&D, Class II Groups E, F&G, Class III Vertical Surface mounting and installation |
| degree of protection NEMA rating design of the housing Mounting/wiring mounting position fastening method type of electrical connection for supply voltage line-side | extreme conditions indoor & outdoor Class I Div. 1&2 Groups C&D, Class II Groups E, F&G, Class III Vertical Surface mounting and installation Screw-type terminals |
| degree of protection NEMA rating design of the housing Mounting/wiring mounting position fastening method 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 | extreme conditions indoor & outdoor Class I Div. 1&2 Groups C&D, Class II Groups E, F&G, Class III Vertical Surface mounting and installation Screw-type terminals 20 20 lbf-in |
| degree of protection NEMA rating design of the housing Mounting/wiring mounting position fastening method 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 | extreme conditions indoor & outdoor Class I Div. 1&2 Groups C&D, Class II Groups E, F&G, Class III Vertical Surface mounting and installation Screw-type terminals 20 20 lbf-in 1x (14 2 AWG) |
| degree of protection NEMA rating design of the housing Mounting/wiring mounting position fastening method 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 | extreme conditions indoor & outdoor Class I Div. 1&2 Groups C&D, Class II Groups E, F&G, Class III Vertical Surface mounting and installation Screw-type terminals 20 20 lbf·in 1x (14 2 AWG) |
| degree of protection NEMA rating design of the housing Mounting/wiring mounting position fastening method 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 | extreme conditions indoor & outdoor Class I Div. 1&2 Groups C&D, Class II Groups E, F&G, Class III Vertical Surface mounting and installation Screw-type terminals 20 20 lbf·in 1x (14 2 AWG) 75 °C AL or CU |
| degree of protection NEMA rating design of the housing Mounting/wiring mounting position fastening method 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 | extreme conditions indoor & outdoor Class I Div. 1&2 Groups C&D, Class II Groups E, F&G, Class III Vertical Surface mounting and installation Screw-type terminals 20 20 lbf·in 1x (14 2 AWG) 75 °C AL or CU Screw-type terminals |
| design of the housing Mounting/wiring mounting position fastening method 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 | extreme conditions indoor & outdoor Class I Div. 1&2 Groups C&D, Class II Groups E, F&G, Class III Vertical Surface mounting and installation Screw-type terminals 20 20 lbf-in 1x (14 2 AWG) 75 °C AL or CU Screw-type terminals 20 24 lbf-in |
| design of the housing Mounting/wiring mounting position fastening method 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 | extreme conditions indoor & outdoor Class I Div. 1&2 Groups C&D, Class II Groups E, F&G, Class III Vertical Surface mounting and installation Screw-type terminals 20 20 lbf-in 1x (14 2 AWG) 75 °C AL or CU Screw-type terminals 20 24 lbf-in 2x (14 10 AWG) |
| design of the housing Mounting/wiring mounting position fastening method 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 | extreme conditions indoor & outdoor Class I Div. 1&2 Groups C&D, Class II Groups E, F&G, Class III Vertical Surface mounting and installation Screw-type terminals 20 20 lbf-in 1x (14 2 AWG) 75 °C AL or CU Screw-type terminals 20 24 lbf-in 2x (14 10 AWG) |
| design of the housing Mounting/wiring mounting position fastening method 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 | extreme conditions indoor & outdoor Class I Div. 1&2 Groups C&D, Class II Groups E, F&G, Class III Vertical Surface mounting and installation Screw-type terminals 20 20 lbf-in 1x (14 2 AWG) 75 °C AL or CU Screw-type terminals 20 24 lbf-in 2x (14 10 AWG) 75 °C CU |
| design of the housing Mounting/wiring mounting position fastening method 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 | extreme conditions indoor & outdoor Class I Div. 1&2 Groups C&D, Class II Groups E, F&G, Class III Vertical Surface mounting and installation Screw-type terminals 20 20 lbf-in 1x (14 2 AWG) 75 °C AL or CU Screw-type terminals 20 24 lbf-in 2x (14 10 AWG) 75 °C CU Screw-type terminals |
| design of the housing Mounting/wiring mounting position fastening method 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 | extreme conditions indoor & outdoor Class I Div. 1&2 Groups C&D, Class II Groups E, F&G, Class III Vertical Surface mounting and installation Screw-type terminals 20 20 lbf·in 1x (14 2 AWG) 75 °C AL or CU Screw-type terminals 20 24 lbf·in 2x (14 10 AWG) 75 °C CU Screw-type terminals 5 12 lbf·in |
| design of the housing Mounting/wiring mounting position fastening method 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 | extreme conditions indoor & outdoor Class I Div. 1&2 Groups C&D, Class II Groups E, F&G, Class III Vertical Surface mounting and installation Screw-type terminals 20 20 lbf·in 1x (14 2 AWG) 75 °C AL or CU Screw-type terminals 20 24 lbf·in 2x (14 10 AWG) 75 °C CU Screw-type terminals 5 12 lbf·in 2x (16 12 AWG) |
| design of the housing Mounting/wiring mounting position fastening method 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 | extreme conditions indoor & outdoor Class I Div. 1&2 Groups C&D, Class II Groups E, F&G, Class III Vertical Surface mounting and installation Screw-type terminals 20 20 lbf-in 1x (14 2 AWG) 75 °C AL or CU Screw-type terminals 20 24 lbf-in 2x (14 10 AWG) 75 °C CU Screw-type terminals 5 12 lbf-in 2x (16 12 AWG) |
| design of the housing Mounting/wiring mounting position fastening method 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 maximum permissible | extreme conditions indoor & outdoor Class I Div. 1&2 Groups C&D, Class II Groups E, F&G, Class III Vertical Surface mounting and installation Screw-type terminals 20 20 lbf-in 1x (14 2 AWG) 75 °C AL or CU Screw-type terminals 20 24 lbf-in 2x (14 10 AWG) 75 °C CU Screw-type terminals 5 12 lbf-in 2x (16 12 AWG) |
| design of the housing Mounting/wiring mounting position fastening method 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 maximum permissible | extreme conditions indoor & outdoor Class I Div. 1&2 Groups C&D, Class II Groups E, F&G, Class III Vertical Surface mounting and installation Screw-type terminals 20 20 lbf-in 1x (14 2 AWG) 75 °C AL or CU Screw-type terminals 20 24 lbf-in 2x (14 10 AWG) 75 °C CU Screw-type terminals 5 12 lbf-in 2x (16 12 AWG) 75 °C CU Screw-type terminals |

| maximum permissible | |
|--|-------------------------------------|
| 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 | 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,...)

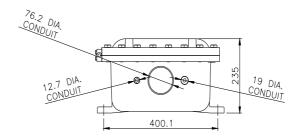
Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/us/Catalog/product?mlfb=US2:22CUB32HA

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

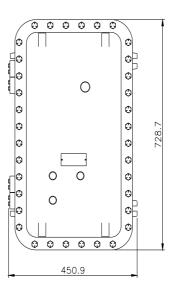
https://support.industry.siemens.com/cs/US/en/ps/US2:22CUB32HA

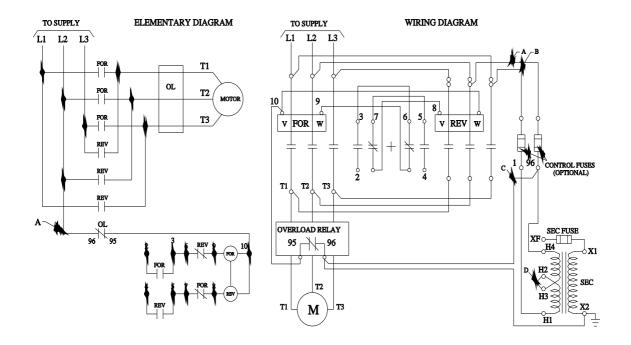
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=US2:22CUB32HA&lang=en

Certificates/approvals
https://support.industry.siemens.com/cs/US/en/ps/US2:22CUB32HA/certificate









D46590003

last modified: 1/25/2022 🖸