## **SIEMENS**

Data sheet US2:22BUB32AD



Reversing motor starter, Size 00, Three phase full voltage, Solid-state overload relay, OLRelay amp range 0.75-3.4a, 208VAC 60HZ coil, Non-combination type, Enclosure type (open), No 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]  | 6 lb                                 |
| Height x Width x Depth [in]  | 7.69 × 10.5 × 3.92 in                |
| touch protection against electrical shock                                | Not finger-safe                      |
| 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  |                                      |
| <ul> <li>during storage</li> </ul>                                       | -30 +65 °C                           |
| during operation   | -20 +40 °C                           |
| country of origin  | Mexico                               |
| Horsepower ratings   |                                      |
| yielded mechanical performance [hp] for 3-phase AC motor                 |                                      |
| <ul><li>at 200/208 V rated value</li></ul>                               | 0.5 hp                               |
| <ul><li>at 220/230 V rated value</li></ul>                               | 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 00              |
| 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                           | 9 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                                   |
| 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   |   |
| overload protection  | Yes   |
| phase failure detection  | Yes   |
| asymmetry detection  | Yes   |
| ground fault detection   | Yes   |
| • test function  | Yes   |
| external reset   | No  |
| reset function   | Manual, automatic and remote  |
| trip class   | CLASS 5 / 10 / 20 (factory set) / 30  |
| adjustable current response value current of the current-  | 0.75 3.4 A  |
| dependent overload release   | 0.73 0. <del>4</del> 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   | 1A  |
| 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  |   |
| degree of protection NEMA rating   | Open device (no enclosure)  |
| design of the housing  | NA  |
| Mounting/wiring  |   |
|  |   |
| mounting position  | Vertical  |
| mounting position  | Vertical  Surface mounting and installation   |
| fastening method   | Surface mounting and installation   |
| fastening method type of electrical connection for supply voltage line-side  | Surface mounting and installation Screw-type terminals  |
| fastening method   | Surface mounting and installation   |
| 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 for  | Surface mounting and installation Screw-type terminals 20 20 lbf·in   |
| 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 for AWG cables single or multi-stranded temperature of the conductor for supply maximum permissible  | Surface mounting and installation Screw-type terminals 20 20 lbf·in 1x (14 2 AWG)   |
| 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 for AWG cables single or multi-stranded temperature of the conductor for supply maximum permissible material of the conductor for supply   | Surface mounting and installation Screw-type terminals 20 20 lbf·in 1x (14 2 AWG) 75 °C AL or CU  |
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| 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 for 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   | 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  |
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| 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 for 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 for 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   | 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  |
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| 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 for AWG cables single or multi-stranded  temperature of the conductor for supply maximum permissible  material of the conductor for load-side outgoing feeder  tightening torque [lbf-in] for load-side outgoing feeder  type of connectable conductor cross-sections for 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 for AWG cables single or multi-stranded  temperature of the conductor at magnet coil maximum permissible  material of the conductor at magnet coil maximum permissible  | 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  |
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| 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 for  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 for 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 for  AWG cables single or multi-stranded  temperature of the conductor at magnet coil maximum permissible  material of the conductor at magnet coil  type of electrical connection for auxiliary contacts  tightening torque [lbf-in] at contactor for auxiliary contacts  type of connectable conductor cross-sections at contactor for  AWG cables for auxiliary contacts single or multi-stranded  temperature of the conductor at contactor for auxiliary contacts | 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  10 15 lbf-in  1x (12 AWG), 2x (16 14 AWG), 2x (18 16 AWG) |

| 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  |
| 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,...) <a href="https://www.usa.siemens.com/iccatalog">www.usa.siemens.com/iccatalog</a>

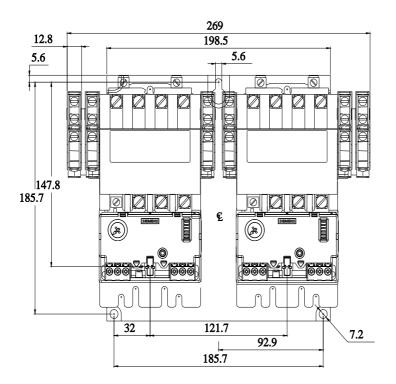
Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/us/Catalog/product?mlfb=US2;22BUB32AD

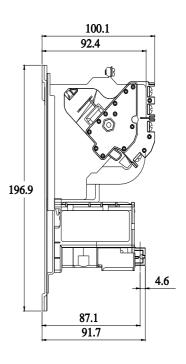
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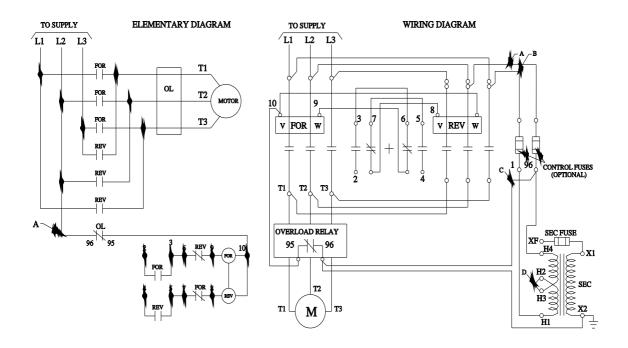
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) <a href="http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=US2:22BUB32AD&lang=en">http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=US2:22BUB32AD&lang=en</a>

Certificates/approvals

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