## **SIEMENS**

Data sheet US2:22DP12BD81



Reversing motor starter, Size 1, Single Phase, 2-Pole, Amb. compensate bimetal OLR, Contactor amp rating 27A, 208VAC 60Hz coil, Non-combination type, Enclosure type 1, Indoor general purpose use

Figure similar

| product brand name  Class 14 & 22  design of the product  Full-voltage reversing motor starter  General technical data  weight [lb]  Height x Width x Depth [in]  20 × 12 × 8 in  touch protection against electrical shock  NA for enclosed products |  |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| General technical data           weight [lb]         23 lb           Height x Width x Depth [in]         20 x 12 x 8 in                                                                                                                               |  |  |
| weight [lb]       23 lb         Height x Width x Depth [in]       20 x 12 x 8 in                                                                                                                                                                      |  |  |
| Height x Width x Depth [in] 20 × 12 × 8 in                                                                                                                                                                                                            |  |  |
| 20 2 2 2 2 2 2                                                                                                                                                                                                                                        |  |  |
| touch protection against electrical snock NA for enclosed products                                                                                                                                                                                    |  |  |
| 0500 0                                                                                                                                                                                                                                                |  |  |
| 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 single-phase AC motor                                                                                                                                                                                         |  |  |
| • at 115 V rated value 2 hp                                                                                                                                                                                                                           |  |  |
| • at 200/208 V rated value 3 hp                                                                                                                                                                                                                       |  |  |
| • at 220/230 V rated value 3 hp                                                                                                                                                                                                                       |  |  |
| Contactor                                                                                                                                                                                                                                             |  |  |
| size of contactor NEMA controller size 1                                                                                                                                                                                                              |  |  |
| number of NO contacts for main contacts 2                                                                                                                                                                                                             |  |  |
| operating voltage for main current circuit at AC at 60 Hz maximum  240 V                                                                                                                                                                              |  |  |
| operational current at AC at 600 V rated value 27 A                                                                                                                                                                                                   |  |  |
| mechanical service life (operating cycles) of the main contacts typical                                                                                                                                                                               |  |  |
| 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                                                                                                                                                                                                    |  |  |
| apparent holding power of magnet coil at AC 25 VA                                                                                                                                                                                                     |  |  |
| operating range factor control supply voltage rated value of 0.85 1.1                                                                                                                                                                                 |  |  |

| magnet coil                                                                                                                  |                                                     |
|------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| percental drop-out voltage of magnet coil related to the input                                                               | 50 %                                                |
| voltage                                                                                                                      |                                                     |
| ON-delay time                                                                                                                | 19 29 ms                                            |
| OFF-delay time                                                                                                               | 10 24 ms                                            |
| Overload relay                                                                                                               |                                                     |
| 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                                                                | 1                                                   |
| 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)                  |
| inclosure                                                                                                                    |                                                     |
| degree of protection NEMA rating                                                                                             | 1                                                   |
| design of the housing                                                                                                        | indoors, usable on a general basis                  |
| Jounting/wiring                                                                                                              | , ,                                                 |
| mounting position                                                                                                            | Vertical                                            |
| fastening method                                                                                                             | Surface mounting and installation                   |
| type of electrical connection for supply voltage line-side                                                                   | Screw-type terminals                                |
| tightening torque [lbf·in] for supply                                                                                        | 35 35 lbf-in                                        |
| <u> </u>                                                                                                                     | 75 °C                                               |
| temperature of the conductor for supply maximum permissible                                                                  |                                                     |
| 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                                                  |
| Short-circuit current rating                                                                                                 |                                                     |
| design of the fuse link for short-circuit protection of the main                                                             | 10kA@600V (Class H or K); 100kA@600V (Class R or J) |
| circuit required                                                                                                             |                                                     |
| 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                 |
|                                                                                                                              |                                                     |

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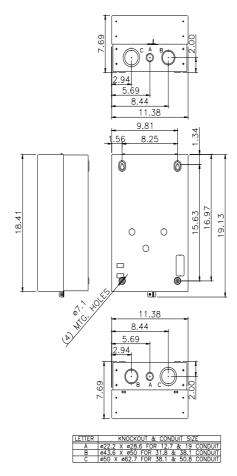
Industry Mall (Online ordering system)
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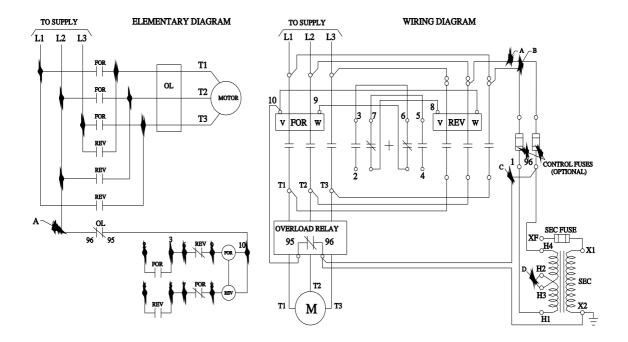
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Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) <a href="http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=US2:22DP12BD81&lang=en">http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=US2:22DP12BD81&lang=en</a>

Certificates/approvals

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