



Figure similar

Non-reversing motor starter, Size 2 1/2, Three phase full voltage, Amb. compensate bimetal OLR, Contactor amp rating 60A, Non-combination type, Enclosure type 1, Indoor general purpose use

|   |  |
|---|--|
| product brand name  | Class 14 & 22                            |
| design of the product   | Full-voltage non-reversing motor starter |
| special product feature   | Half-size starter                        |
| <b>General technical data</b>   |  |
| weight [lb]   | 21 lb                                    |
| Height x Width x Depth [in]   | 20 × 12 × 8 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  | 15 hp                                    |
| • at 220/230 V rated value  | 20 hp                                    |
| • at 460/480 V rated value  | 30 hp                                    |
| • at 575/600 V rated value  | 30 hp                                    |
| <b>Contactors</b>   |  |
| size of contactor   | Controller half size 2 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                          | 60 A                                     |
| mechanical service life (switching cycles) of the main contacts typical | 10000000                                 |
| <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  |  |

|  |               |
|--|---------------|
| <ul style="list-style-type: none"> <li>• at AC at 50 Hz rated value</li> </ul> | 380 ... 440 V |
| <ul style="list-style-type: none"> <li>• at AC at 60 Hz rated value</li> </ul> | 440 ... 480 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 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 style="list-style-type: none"> <li>• overload protection</li> </ul> | Yes                                 |
| <ul style="list-style-type: none"> <li>• test function</li> </ul>       | Yes                                 |
| <ul style="list-style-type: none"> <li>• external reset</li> </ul>      | 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             |                                     |
| <ul style="list-style-type: none"> <li>• at AC at 600 V</li> </ul>      | 10 A                                |
| <ul style="list-style-type: none"> <li>• at DC at 250 V</li> </ul>      | 5 A                                 |
| contact rating of auxiliary contacts of overload relay according to UL  | 10A@600VAC (A600), 5A@250VDC (P300) |

### Enclosure

|                                  |                                    |
|----------------------------------|------------------------------------|
| degree of protection NEMA rating | 1                                  |
| design of the housing            | Extra-wide                         |
| design of the housing            | indoors, usable on a general basis |

### Mounting/wiring

|  |   |
|--|---|
| 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  | 45 ... 45 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                    |
| breaking capacity maximum short-circuit current (Icu)  |   |
| <ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 480 V</li> <li>• at 600 V</li> </ul> | 14 kA<br>10 kA<br>10 kA                             |
| certificate of suitability   | NEMA ICS 2; UL 508; CSA 22.2, No.14                 |
| <b>Further information</b>   |   |

**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=US2:14GP82BH81>

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

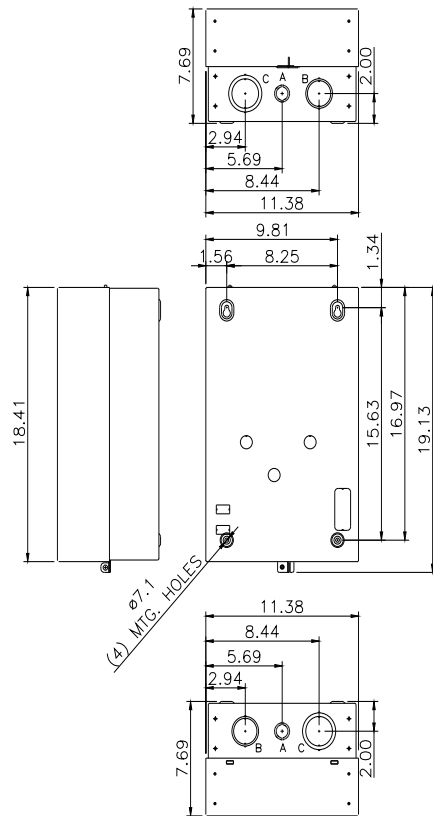
<https://support.industry.siemens.com/cs/US/en/ps/US2:14GP82BH81>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=US2:14GP82BH81&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=US2:14GP82BH81&lang=en)

**Certificates/approvals**

<https://support.industry.siemens.com/cs/US/en/ps/US2:14GP82BH81/certificate>



| LETTER | KNOCKOUT & CONDUIT SIZE             |
|--------|-------------------------------------|
| A      | ø22.2 X ø28.6 FOR 12.7 & 19 CONDUIT |
| B      | ø43.6 X ø50 FOR 31.8 & 38.1 CONDUIT |
| C      | ø50 X ø62.7 FOR 38.1 & 50.8 CONDUIT |

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