



Figure similar

Non-reversing motor starter, Size 3, Three phase full voltage, Amb compensate bimetal OLrelay Contactor amp rating 90Amp 110V 50HZ / 120V 60HZ coil, Non-combination type, Enclosure type (open), No enclosure

|                       |                                          |
|-----------------------|------------------------------------------|
| product brand name    | Class 14 & 22                            |
| design of the product | Full-voltage non-reversing motor starter |

### General technical data

|                                                              |                        |
|--------------------------------------------------------------|------------------------|
| weight [lb]                                                  | 8.1 lb                 |
| Height x Width x Depth [in]                                  | 10.66 × 6.75 × 5.19 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                                          |                        |
| • during storage                                             | -30 ... +65 °C         |
| • during operation                                           | -20 ... +40 °C         |
| country of origin                                            | Mexico                 |

### Horsepower ratings

|                                                          |       |
|----------------------------------------------------------|-------|
| yielded mechanical performance [hp] for 3-phase AC motor |       |
| • at 200/208 V rated value                               | 25 hp |
| • at 220/230 V rated value                               | 30 hp |
| • at 460/480 V rated value                               | 50 hp |
| • at 575/600 V rated value                               | 50 hp |

### Contactors

|                                                                         |                        |
|-------------------------------------------------------------------------|------------------------|
| size of contactor                                                       | NEMA controller size 3 |
| 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                          | 90 A                   |
| mechanical service life (operating cycles) of the main contacts typical | 5000000                |

### 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                        | 7                                   |
| 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 50 Hz rated value                  | 110 V |
| • at AC at 60 Hz rated value                  | 120 V |
| holding power at AC minimum                   | 14 W  |

|                                                                                                                              |                                                     |
|------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| apparent pick-up power of magnet coil at AC                                                                                  | 310 VA                                              |
| apparent holding power of magnet coil at AC                                                                                  | 26 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                                                                                                                | 26 ... 41 ms                                        |
| OFF-delay time                                                                                                               | 14 ... 19 ms                                        |
| <b>Overload relay</b>                                                                                                        |                                                     |
| product function                                                                                                             | Yes                                                 |
| • overload protection                                                                                                        | Yes                                                 |
| • test function                                                                                                              | No                                                  |
| • external reset                                                                                                             | Manual and automatic                                |
| reset function                                                                                                               | 0.85 ... 1.15                                       |
| adjustment range of thermal overload trip unit                                                                               | 3                                                   |
| number of NC contacts of auxiliary contacts of overload relay                                                                | 0                                                   |
| number of NO contacts of auxiliary contacts of overload relay                                                                |                                                     |
| operational current of auxiliary contacts of overload relay                                                                  | 5 A                                                 |
| • at AC at 600 V                                                                                                             | 5 A                                                 |
| • at DC at 250 V                                                                                                             | 5A@600VAC (B600), 5A@250VDC (P300)                  |
| contact rating of auxiliary contacts of overload relay according to UL                                                       |                                                     |
| <b>Enclosure</b>                                                                                                             |                                                     |
| degree of protection NEMA rating                                                                                             | Open device (no enclosure)                          |
| design of the housing                                                                                                        | NA                                                  |
| <b>Mounting/wiring</b>                                                                                                       |                                                     |
| 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                                                                                        | 120 ... 120 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  
 maximum short-circuit current breaking capacity (Icu)  
 • at 240 V  
 • at 480 V  
 • at 600 V  
 certificate of suitability

Thermal magnetic circuit breaker  
 14 kA  
 10 kA  
 10 kA  
 NEMA ICS 2; UL 508; CSA 22.2, No.14

#### Further information

**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=US2:14HP32AF81>

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

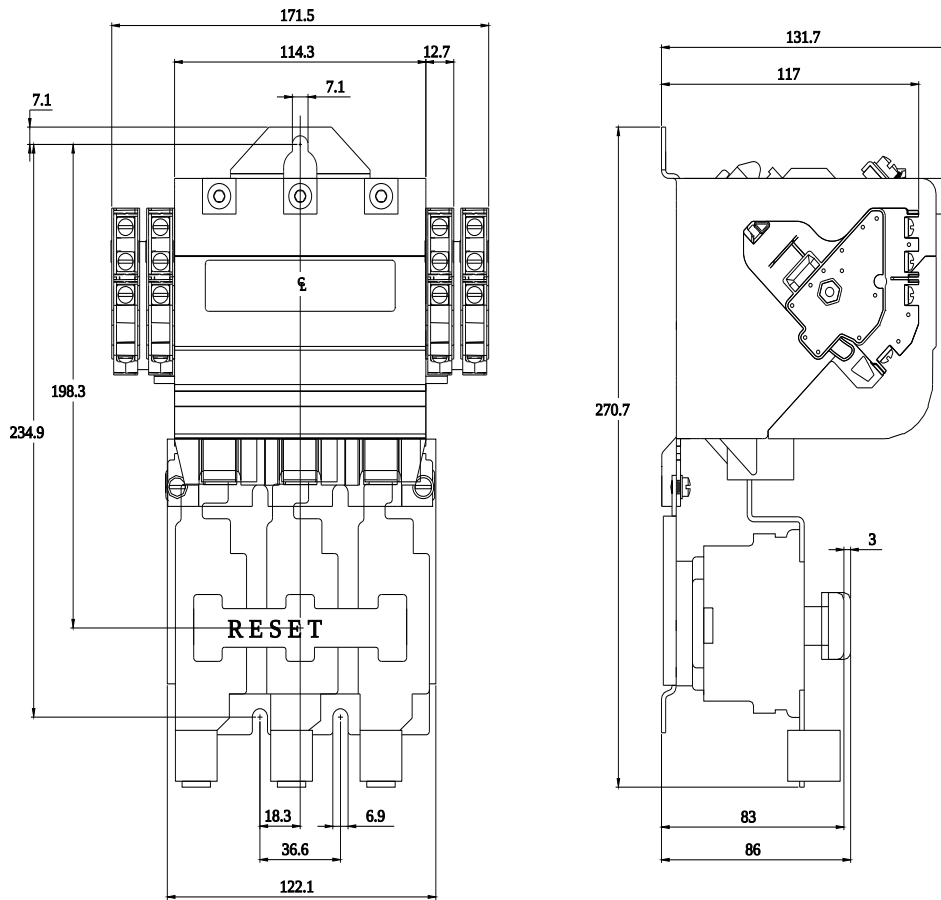
<https://support.industry.siemens.com/cs/US/en/ps/US2:14HP32AF81>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=US2:14HP32AF81&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=US2:14HP32AF81&lang=en)

**Certificates/approvals**

<https://support.industry.siemens.com/cs/US/en/ps/US2:14HP32AF81/certificate>





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