



Non-reversing NEMA contactor, Size 3, Three phase full voltage, Contactor amp rating 90A, 3 wire (NO aux included), 240V 50Hz / 277V 60Hz coil, Non-combination type, Enclosure NEMA type 12, Dust/drip proof for indoors, Extra-wide enclosure

|   |  |
|---|--|
| product brand name  | Class 40   |
| design of the product   | Non-reversing contactor  |
| special product feature   | Gravity dropout contacts; 45 degree, wedge action contacts; Self-rising pressure type control terminals; Encapsulated coil |
| <b>General technical data</b>   |  |
| weight [lb]   | 47 lb  |
| Height x Width x Depth [in]   | 26 × 13 × 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  | 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  |
| <b>Contactors</b>   |  |
| 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  |
| <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  |  |
| • at AC at 50 Hz rated value  | 240 V  |
| • at AC at 60 Hz rated value  | 277 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 |
| percentual drop-out voltage of magnet coil related to the input voltage  | 50 %         |
| ON-delay time  | 26 ... 41 ms |
| OFF-delay time   | 14 ... 19 ms |

#### Enclosure

|   |   |
|---|---|
| degree of protection NEMA rating of the enclosure | NEMA Type 12                            |
| design of the housing                             | dustproof and drip-proof for indoor use |

#### 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  | 120 ... 120 lbf-in                                  |
| type of connectable conductor cross-sections at line-side for AWG cables single or multi-stranded                        | 1x (14 ... 2/0 AWG)                                 |
| 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  | Box lug   |
| tightening torque [lbf-in] for load-side outgoing feeder   | 120 ... 120 lbf-in                                  |
| type of connectable conductor cross-sections for AWG cables for load-side outgoing feeder single or multi-stranded       | 1x (14 ... 2/0 AWG)                                 |
| temperature of the conductor for load-side outgoing feeder maximum permissible   | 75 °C   |
| material of the conductor for load-side outgoing feeder  | AL or CU  |
| 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 for 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 at contactor 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 for 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  |

#### 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 A  |
| • at 480 V  | 10 A  |
| • at 600 V  | 10 A  |
| certificate of suitability  | 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=US2:40HP820L>

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

<https://support.industry.siemens.com/cs/US/en/ps/US2:40HP820L>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=US2:40HP820L&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=US2:40HP820L&lang=en)

**Certificates/approvals**

<https://support.industry.siemens.com/cs/US/en/ps/US2:40HP820L/certificate>



