



Non-reversing NEMA contactor, Size 3, Single phase full voltage, Contactor amp rating 90A, 3 wire (NO aux included), 110V 50Hz / 120V 60Hz coil, Non-combination type, Enclosure NEMA type 12, Dust/drip proof for indoors, Standard width 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]                                                             | 33 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 single-phase AC motor           |                                                                                                                            |
| • at 115 V rated value                                                  | 7.5 hp                                                                                                                     |
| • at 200/208 V rated value                                              | 15 hp                                                                                                                      |
| • at 220/230 V rated value                                              | 15 hp                                                                                                                      |
| • at 460/480 V rated value                                              | 0 hp                                                                                                                       |
| • at 575/600 V rated value                                              | 0 hp                                                                                                                       |
| <b>Contactor</b>                                                        |                                                                                                                            |
| size of contactor                                                       | NEMA controller size 3                                                                                                     |
| 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                          | 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), 2.5A@300VDC (Q300)                                                                                      |
| <b>Coil</b>                                                             |                                                                                                                            |
| 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 |
| 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 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 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 (I <sub>cu</sub> )                | <ul style="list-style-type: none"> <li>• at 240 V 14 A</li> <li>• at 480 V 10 A</li> <li>• at 600 V 10 A</li> </ul> |
| certificate of suitability                                                        | NEMA ICS 2; UL 508; CSA 22.2, No.14                                                                                 |

#### Approvals Certificates

|                   |
|-------------------|
| Test Certificates |
|-------------------|



#### 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=US2:40HP120F>

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

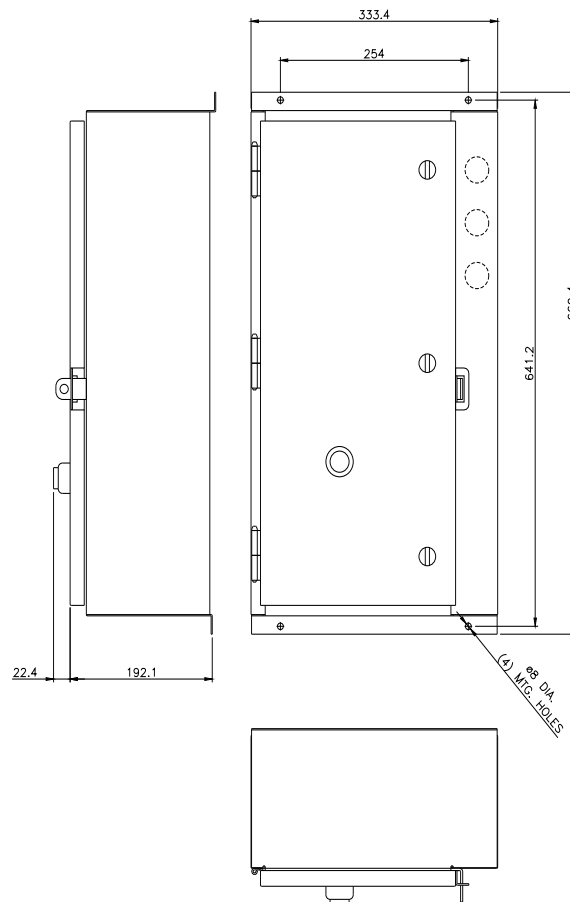
<https://support.industry.siemens.com/cs/US/en/ps/US2:40HP120F>

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

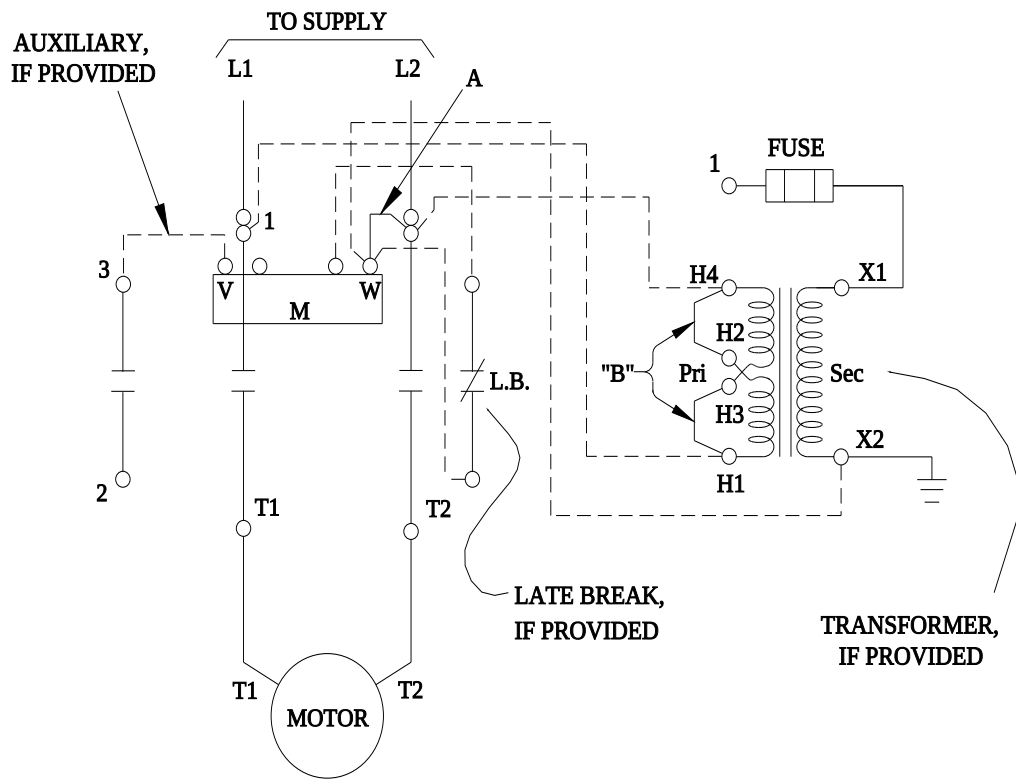
[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=US2:40HP120F&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=US2:40HP120F&lang=en)

Certificates/approvals

<https://support.industry.siemens.com/cs/US/en/ps/US2:40HP120F/certificate>



WIRING DIAGRAM



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