

STARTER,FVNR,S0,3PH,THOLR,120VAC,NEMA 1



|   |                                  |
|---|----------------------------------|
| product brand name  | Siemens                          |
| product designation   | Non-reversing motor starter      |
| special product feature   | No factory installed accessories |
| <b>General technical data</b>   |                                  |
| weight [lb]   | 8 lb                             |
| Height x Width x Depth [in]   | 11 × 7 × 5 in                    |
| touch protection against electrical shock                               | NA for enclosed products         |
| installation altitude [ft] at height above sea level maximum            | 6 560 ft                         |
| ambient temperature [°F] during storage                                 | -22 ... +149 °F                  |
| ambient temperature [°F] during operation                               | -4 ... +104 °F                   |
| ambient temperature during storage                                      | -30 ... +65 °C                   |
| ambient temperature during operation                                    | -20 ... +40 °C                   |
| country of origin   | Germany                          |
| <b>Power and control electronics</b>                                    |                                  |
| number of poles for main current circuit                                | 3                                |
| 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                            |
| disconnecter functionality  | No                               |
| yielded mechanical performance [hp] for 3-phase AC motor                |                                  |
| • at 200/208 V rated value  | 10 hp                            |
| • at 220/230 V rated value  | 10 hp                            |
| • at 460/480 V rated value  | 25 hp                            |
| • at 575/600 V rated value  | 25 hp                            |
| <b>Contactors</b>   |                                  |
| number of NO contacts for main contacts                                 | 3                                |
| operating voltage for main current circuit at AC at 60 Hz maximum       | 600 V                            |
| operating voltage at AC-3 rated value maximum                           | 600 V                            |
| mechanical service life (operating cycles) of the main contacts typical | 10 000 000                       |
| <b>Auxiliary contact</b>  |                                  |
| number of NC contacts for auxiliary contacts                            | 1                                |
| number of NO contacts for auxiliary contacts                            | 1                                |
| number of total auxiliary contacts maximum                              | 8                                |
| contact rating of auxiliary contacts of contactor according to UL       | 10A@600V(A600), 2.5A@600V(Q600)  |
| <b>Coil</b>   |                                  |
| apparent pick-up power of magnet coil at AC                             | 79 VA                            |
| apparent holding power of magnet coil at AC                             | 8.5 VA                           |
| operating range factor control supply voltage rated value of            | 0.8 ... 1.1                      |

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| magnet coil   |  |
| ON-delay time   | 8 ... 40 ms  |
| OFF-delay time  | 4 ... 16 ms  |
| <b>Overload relay</b>   |  |
| product function  |  |
| • overload protection   | Yes  |
| • test function   | Yes  |
| • external reset  | Yes  |
| reset function  | Manual, automatic and remote (with optional accessory) |
| adjustment range of thermal overload trip unit  | 7 ... 10   |
| number of NC contacts of auxiliary contacts of overload relay   | 1  |
| number of NO contacts of auxiliary contacts of overload relay   | 1  |
| contact rating of auxiliary contacts of overload relay according to UL  | 5A@600VAC (B600), 1A@250VDC (R300)                     |
| <b>Enclosure</b>  |  |
| degree of protection NEMA rating of the enclosure   | NEMA 1 standard size enclosure                         |
| design of the housing   | indoors, usable on a general basis                     |
| <b>Mounting/wiring</b>  |  |
| 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   | 18 ... 21 lbf-in                                       |
| type of connectable conductor cross-sections at line-side for AWG cables single or multi-stranded                             | 2x (16 ... 12), 2x (14 ... 8)                          |
| temperature of the conductor for supply maximum permissible   | 60 °C  |
| material of the conductor for supply  | CU   |
| type of electrical connection for load-side outgoing feeder   | Screw-type terminals                                   |
| tightening torque [lbf-in] for load-side outgoing feeder  | 18 ... 21 lbf-in                                       |
| type of connectable conductor cross-sections for AWG cables for load-side outgoing feeder single or multi-stranded            | 2x (16 ... 12), 2x (14 ... 8)                          |
| temperature of the conductor for load-side outgoing feeder maximum permissible  | 60 °C  |
| material of the conductor for load-side outgoing feeder   | CU   |
| type of electrical connection of magnet coil  | Screw-type terminals                                   |
| tightening torque [lbf-in] at magnet coil   | 7 ... 10 lbf-in  |
| type of connectable conductor cross-sections of magnet coil for AWG cables single or multi-stranded                           | 2x (16 ... 12), 2x (14 ... 8)                          |
| 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  | 7 ... 10 lbf-in  |
| type of connectable conductor cross-sections at contactor for AWG cables for auxiliary contacts single or multi-stranded      | 2x (20 ... 16), 2x (18 ... 14)                         |
| 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   | 7 ... 10 lbf-in  |
| type of connectable conductor cross-sections at overload relay for AWG cables for auxiliary contacts single or multi-stranded | 2x (20 ... 16), 2x (18 ... 14)                         |
| temperature of the conductor at overload relay for auxiliary contacts maximum permissible                                     | 70 °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   | Class J  |
| design of the short-circuit trip  | Thermal magnetic circuit breaker                       |
| maximum short-circuit current breaking capacity (I <sub>cu</sub> )  |  |
| • at 240 V  | 5 kA   |
| • at 480 V  | 5 kA   |
| • at 600 V  | 5 kA   |
| certificate of suitability  | UL 60947-4-1   |

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?mifb=3RE4122-8AA31-1JY0>

Search Datasheet in Service&Support (Manuals)

<https://support.industry.siemens.com/cs/US/en/ps/3RE4122-8AA31-1JY0/man>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mifb=3RE4122-8AA31-1JY0&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mifb=3RE4122-8AA31-1JY0&lang=en)

Certificates/approvals

<https://support.industry.siemens.com/cs/US/en/ps/3RE4122-8AA31-1JY0/certificate>



| LETTER | KNOCKOUT & CONDUIT SIZE             |
|--------|-------------------------------------|
| A      | ø22.2 FOR 12.7 CONDUIT              |
| B      | ø22.2 X ø28.6 FOR 12.7 & 19 CONDUIT |
| C      | ø28.6 X ø34.9 FOR 19 & 25.4 CONDUIT |

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