## SIEMENS

Duplex starter W/O alternator Size 0 Three phase full voltage Solidstate overload relay OLRelay amp range 5.5-22A 110VAC 50HZ / 120VAC 60HZ coil Non-combination type Enclosure NEMA type 12


Figure similar

## General technical data

| Weight [lb] | 40 lb |
| :--- | :--- |
| Height $x$ Width $\times$ Depth [in] | $20 \times 16 \times 6$ in |
| Protection against electrical shock | NA for enclosed products |
| Installation altitude [ft] at height above sea level <br> maximum | 6560 ft |
| Ambient temperature [ $\left.{ }^{\circ} \mathrm{F}\right]$ during storage | $-22 \ldots+149{ }^{\circ} \mathrm{F}$ |
| Ambient temperature [ $\left.{ }^{\circ} \mathrm{F}\right]$ during operation | $-4 \ldots+104{ }^{\circ} \mathrm{F}$ |
| Ambient temperature during storage | $-30 \ldots+65^{\circ} \mathrm{C}$ |
| Ambient temperature during operation | $-20 \ldots+40^{\circ} \mathrm{C}$ |
| Country of origin | USA |

## Horsepower ratings

Yielded mechanical performance [hp] for three-phase AC motor

- at $200 / 208 \mathrm{~V}$ rated value

3 hp
3 hp
0 hp

- at $575 / 600 \mathrm{~V}$ rated value

| Contactor |  |
| :---: | :---: |
| Number of NO contacts for main contacts | 3 |
| Operating voltage for main current circuit at AC at 60 Hz maximum | 600 V |
| Operating current at AC at 600 V rated value | 18 A |
| Mechanical service life (switching cycles) of the main contacts typical | 10000000 |
| 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 | 8 |
| 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 <br> - at DC rated value <br> - at AC at 60 Hz rated value <br> - at AC at 50 Hz rated value | $\begin{aligned} & 0 \ldots 0 \mathrm{~V} \\ & 120 \ldots 120 \mathrm{~V} \\ & 110 \ldots 110 \mathrm{~V} \end{aligned}$ |
| Holding power at AC minimum | 8.6 W |
| Apparent pick-up power of magnet coil at AC | $218 \mathrm{~V} \cdot \mathrm{~A}$ |
| Apparent holding power of magnet coil at AC | $25 \mathrm{~V} \cdot \mathrm{~A}$ |
| 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 \% |
| Switch-on delay time | $19 . . .29 \mathrm{~ms}$ |
| Off-delay time | $10 . . .24 \mathrm{~ms}$ |

## Overload relay

Product function

- Overload protection
- Phase failure detection
- Phase unbalance
- Ground fault detection
- Test function
- External reset

Reset function
Adjustable pick-up value current of the current-
dependent overload release

## Yes

Yes
Yes
Yes
Yes
Yes
Manual, automatic and remote
5.5 ... 22 A

| Trip time at phase-loss maximum | 3 s |
| :---: | :---: |
| Relative repeat accuracy | 1 \% |
| Product feature Protective coating on printed-circuit board | Yes |
| Number of NC contacts of auxiliary contacts of overload relay | 1 |
| Number of NO contacts of auxiliary contacts of overload relay | 1 |
| Operating current of auxiliary contacts of overload relay |  |
| - at AC at 600 V | 5 A |
| - at DC at 250 V | 1 A |
| Contact rating of auxiliary contacts of overload relay according to UL | 5A@600VAC (B600), 1A@250VDC (R300) |
| Insulation voltage <br> - with single-phase operation at AC rated value <br> - with multi-phase operation at AC rated value | $\begin{aligned} & 600 \mathrm{~V} \\ & 300 \mathrm{~V} \end{aligned}$ |
| Enclosure |  |
| Degree of protection NEMA rating of the enclosure | NEMA 12 enclosure |
| Design of the housing | Dust tight and drip proof for indoors |
| Mounting/wiring |  |
| (mounting position) | Vertical |
| (mounting type) | Surface mounting and installation |
| Type of electrical connection for supply voltage lineside | Screw-type terminals |
| Tightening torque [lbffin] for supply | $20 . . .20 \mathrm{lbf} \cdot \mathrm{in}$ |
| Type of connectable conductor cross-sections at lineside at AWG conductors single or multi-stranded | 1x (14 ... 2 AWG) |
| Temperature of the conductor for supply maximum permissible | $75^{\circ} \mathrm{C}$ |
| Material of the conductor for supply | AL or CU |
| Type of electrical connection for load-side outgoing feeder | Screw-type terminals |
| Tightening torque [lbffin] for load-side outgoing feeder | $20 . .20 \mathrm{lbf} \cdot \mathrm{in}$ |
| Type of connectable conductor cross-sections at AWG conductors for load-side outgoing feeder single or multi-stranded | 1x (14 ... 2 AWG) |
| Temperature of the conductor for load-side outgoing feeder maximum permissible | $75^{\circ} \mathrm{C}$ |
| 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 | $5 \ldots 12 \mathrm{lbf} \cdot \mathrm{in}$ |


| Type of connectable conductor cross-sections of magnet coil at AWG conductors single or multistranded | 2x (16 ... 12 AWG) |
| :---: | :---: |
| Temperature of the conductor at magnet coil maximum permissible | $75^{\circ} \mathrm{C}$ |
| 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 | $10 . . .15 \mathrm{lbf} \cdot \mathrm{in}$ |
| Type of connectable conductor cross-sections at contactor at AWG conductors for auxiliary contacts single or multi-stranded | 1x (12 AWG), 2x (16 ... 14 AWG), $2 x$ (18 ... 16 AWG) |
| Temperature of the conductor at contactor for auxiliary contacts maximum permissible | $75^{\circ} \mathrm{C}$ |
| 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 | $7 . .10 \mathrm{lbf} \cdot \mathrm{in}$ |
| Type of connectable conductor cross-sections at overload relay at AWG conductors for auxiliary contacts single or multi-stranded | 2x (20 ... 14 AWG) |
| Temperature of the conductor at overload relay for auxiliary contacts maximum permissible | $75^{\circ} \mathrm{C}$ |
| Material of the conductor at overload relay for auxiliary contacts | CU |

## Short-circuit current rating <br> Design of the fuse link for short-circuit protection of the main circuit required

Design of the short-circuit trip
Maximum short-circuit current breaking capacity (Icu)

- at 240 V
- at 480 V
- at 600 V

10kA@600V (Class H or K); 100kA@600V (Class R or J)

Thermal magnetic circuit breaker

14 kA
10 kA
10 kA

## Further information

## Industrial Controls - Product Overview (Catalogs, Brochures,...)

www.usa.siemens.com/iccatalog

## Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/us/Catalog/product?mifb=US2:83CUD950F
Service\&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/US/en/ps/US2:83CUD950F
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=US2:83CUD950F\&lang=en

## Certificates/approvals

https://support.industry.siemens.com/cs/US/en/ps/US2:83CUD950F/certificate


Class 83 \& 84 Duplex W/Manual Alternation Size 0-4


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