

Reduced voltage pump panel, Auto transformer, Size 6, 460V 3-phase motor voltage, Solid-state overload relay, OLR amp range 160-630A, 440-480V 50-60Hz/DC coil, 600A fusible disconnect, 600A/600V fuse clip, HOA Sel Sw. <(>&<> Start P.B., Enclosure NEMA type 3/3R, Weather proof outdoor use

|  |  |
|--|--|
| product brand name   | Class 88   |
| design of the product  | Reduced voltage pump panel with fusible disconnect - Auto transformer                      |
| special product feature  | Latest technology in arc quenching to extend contactor life; Same coil voltage is AC or DC |
| <b>General technical data</b>  |  |
| weight [lb]  | 770 lb   |
| Height x Width x Depth [in]  | 90 × 30 × 20 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   | 0 hp   |
| • at 220/230 V rated value   | 0 hp   |
| • at 460/480 V rated value   | 400 hp   |
| • at 575/600 V rated value   | 0 hp   |
| <b>Contactor</b>   |  |
| size of contactor  | NEMA controller size 6   |
| number of NO contacts for main contacts                                  | 3  |
| operating voltage for main current circuit at AC at 60 Hz maximum        | 460 V  |
| operational current at AC at 600 V rated value                           | 540 A  |
| mechanical service life (operating cycles) of the main contacts typical  | 10000000   |
| <b>Auxiliary contact</b>   |  |
| number of NC contacts at contactor for auxiliary contacts                | 2  |
| number of NO contacts at contactor for auxiliary contacts                | 2  |
| number of total auxiliary contacts maximum                               | 8  |
| contact rating of auxiliary contacts of contactor according to UL        | 10A@240VAC (A300), 2.5A@250VDC (Q300)  |
| <b>Coil</b>  |  |
| type of voltage of the control supply voltage                            | AC/DC  |
| control supply voltage   |  |
| • at DC rated value  | 440 ... 480 V  |
| • at AC at 50 Hz rated value   | 440 ... 480 V  |
| • at AC at 60 Hz rated value   | 440 ... 480 V  |
| holding power at AC minimum  | 10 W   |
| apparent pick-up power of magnet coil at AC                              | 830 VA   |
| apparent holding power of magnet coil at AC                              | 9.2 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  | 60 %   |
| ON-delay time  | 45 ... 100 ms  |
| OFF-delay time   | 60 ... 100 ms  |
| <b>Overload relay</b>  |  |

|   |  |
|---|--|
| product function  |  |
| • overload protection   | Yes  |
| • phase failure detection   | Yes  |
| • asymmetry detection   | Yes  |
| • ground fault detection  | No   |
| • test function   | Yes  |
| • external reset  | Yes  |
| reset function  | Manual and automatic   |
| trip class  | CLASS 10   |
| adjustable current response value current of the current-dependent overload release   | 160 ... 630 A  |
| product feature protective coating on printed-circuit board   | No   |
| number of NC contacts of auxiliary contacts of overload relay   | 1  |
| number of NO contacts of auxiliary contacts of overload relay   | 1  |
| operational 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 (Ui)   |  |
| • with single-phase operation at AC rated value   | 600 V  |
| • with multi-phase operation at AC rated value  | 300 V  |
| <b>Disconnect Switch</b>  |  |
| response value of switch disconnecter   | 600A / 600V  |
| design of fuse holder   | Class R fuse clips   |
| operating class of the fuse link  | Class R  |
| <b>Enclosure</b>  |  |
| degree of protection NEMA rating of the enclosure   | NEMA 3/3R  |
| design of the housing   | Weather proof for outdoor use  |
| <b>Mounting/wiring</b>  |  |
| mounting position   | Vertical   |
| fastening method  | Surface mounting and installation  |
| type of electrical connection for supply voltage line-side  | Box lug  |
| type of connectable conductor cross-sections at line-side for AWG cables single or multi-stranded                             | 2x (3/0 ... 500 kcmil) or 2x (4/0 ... 500 kcmil)   |
| 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  | 180 ... 195 lbf-in   |
| type of connectable conductor cross-sections for AWG cables for load-side outgoing feeder single or multi-stranded            | 3/0 AWG ... 600 MCM (front only) or 250 ... 500 MCM (back only) or 2x 2/0 AWG ... 2x 500 MCM (both front & back) |
| 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   | 7 ... 10 lbf-in  |
| type of connectable conductor cross-sections of magnet coil for AWG cables single or multi-stranded                           | 2x (18 ... 14 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  | 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 AWG), 2x (18 ... 14 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   | 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 ... 14 AWG)   |
| temperature of the conductor at overload relay for auxiliary  | 75 °C  |

|   |   |
|---|---|
| contacts maximum permissible  |   |
| 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) |
| certificate of suitability  | NEMA ICS 2; UL 508                                  |

**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=US2:88MSXT4FH>

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

<https://support.industry.siemens.com/cs/US/en/ps/US2:88MSXT4FH>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=US2:88MSXT4FH&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=US2:88MSXT4FH&lang=en)

**Certificates/approvals**

<https://support.industry.siemens.com/cs/US/en/ps/US2:88MSXT4FH/certificate>

last modified:

4/27/2021 