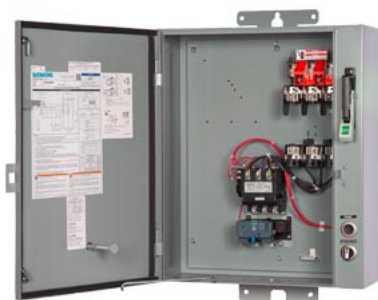




Pump control panel, Size 2, Three phase full voltage, Solid-state overload relay, OLR amp range 13-52A, 220-240/440-480VAC 60Hz coil, Standard type contactor, 100A fusible disconnect, 100A/600V fuse clip, HOA Sel Sw. <(>&<)> Start P.B., Enclosure NEMA type 3/3R, Weather proof outdoor use

|                                                                         |                                                 |
|-------------------------------------------------------------------------|-------------------------------------------------|
| product brand name                                                      | Class 87                                        |
| design of the product                                                   | Pump control panel with fused disconnect switch |
| special product feature                                                 | ESP200 overload relay; Dual voltage coil        |
| <b>General technical data</b>                                           |                                                 |
| weight [lb]                                                             | 48 lb                                           |
| Height x Width x Depth [in]                                             | 29 × 20 × 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                                              | 0 hp                                            |
| • at 220/230 V rated value                                              | 0 hp                                            |
| • at 460/480 V rated value                                              | 25 hp                                           |
| • at 575/600 V rated value                                              | 25 hp                                           |
| <b>Contactor</b>                                                        |                                                 |
| size of contactor                                                       | NEMA controller size 2                          |
| 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                          | 45 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               | 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 DC rated value                                                     | 0 ... 0 V                                       |
| • at AC at 50 Hz rated value                                            | 0 ... 0 V                                       |

|                                                                                                                    |                                      |
|--------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| • at AC at 60 Hz rated value                                                                                       | 220 ... 480 V                        |
| holding power at AC minimum                                                                                        | 8.6 W                                |
| apparent pick-up power of magnet coil at AC                                                                        | 218 VA                               |
| apparent holding power of magnet coil at AC                                                                        | 25 VA                                |
| 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 %                                 |
| ON-delay time                                                                                                      | 19 ... 29 ms                         |
| OFF-delay time                                                                                                     | 10 ... 24 ms                         |
| <b>Overload relay</b>                                                                                              |                                      |
| product function                                                                                                   |                                      |
| • overload protection                                                                                              | Yes                                  |
| • phase failure detection                                                                                          | Yes                                  |
| • asymmetry detection                                                                                              | Yes                                  |
| • ground fault detection                                                                                           | Yes                                  |
| • test function                                                                                                    | Yes                                  |
| • external reset                                                                                                   | Yes                                  |
| reset function                                                                                                     | Manual, automatic and remote         |
| trip class                                                                                                         | Class 5 / 10 (factory set) / 20 / 30 |
| adjustable current response value current of the current-dependent overload release                                | 13 ... 52 A                          |
| tripping 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                                    |
| 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                                                                              | 100A / 600V                          |
| design of fuse holder                                                                                              | Class H fuse clips                   |
| operating class of the fuse link                                                                                   | Class H, J (convertible), K and R    |
| <b>Enclosure</b>                                                                                                   |                                      |
| degree of protection NEMA rating of the enclosure                                                                  | NEMA Type 3R enclosure               |
| design of the housing                                                                                              | Weather proof for outdoor use        |
| <b>Standard Control Devices</b>                                                                                    |                                      |
| product component Hand-Off-Auto selector switch                                                                    | Yes                                  |
| type of Hand-Off-Auto selector switch                                                                              | 30mm metal housing with matte finish |
| product component start push button                                                                                | Yes                                  |
| type of start push button                                                                                          | 30mm metal housing with matte finish |
| <b>Mounting/wiring</b>                                                                                             |                                      |
| 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                  | 1 x (14 ... 1/0 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                                                           | 45 ... 45 lbf·in                     |
| type of connectable conductor cross-sections for AWG cables 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 °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                           | 2 x (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      | 1 x (12 AWG), 2 x (16 ... 14 AWG), 2 x (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                                                     |
| 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 | 2 x (20 ... 14 AWG)                                    |
| temperature of the conductor at overload relay for auxiliary contacts maximum permissible                                     | 75 °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                                             | 10kA@600V (Class H or K); 100kA@600V (Class R or J)    |
| certificate of suitability                                                                                                    | NEMA ICS 2; UL 508                                     |
| <b>Further information</b>                                                                                                    |                                                        |

**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=US2:87FUF60C>

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

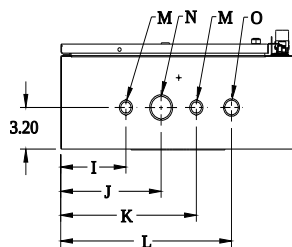
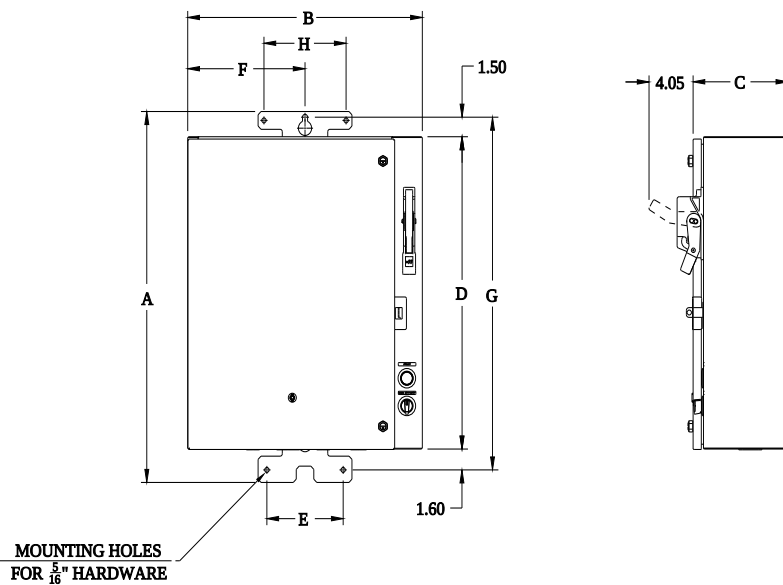
<https://support.industry.siemens.com/cs/US/en/ps/US2:87FUF60C>

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

[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=US2:87FUF60C&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=US2:87FUF60C&lang=en)

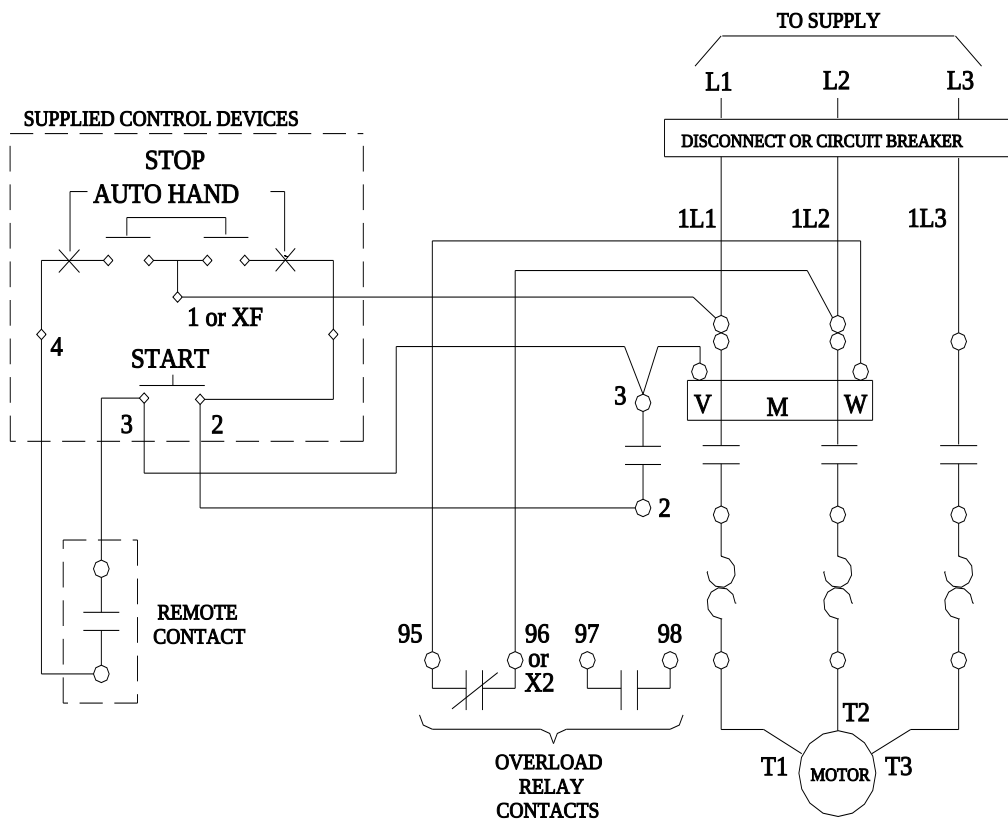
**Certificates/approvals**

<https://support.industry.siemens.com/cs/US/en/ps/US2:87FUF60C/certificate>



| OUTLINE DIMENSIONS  |       |       |       |           |           |           |
|---------------------|-------|-------|-------|-----------|-----------|-----------|
| A                   | B     | C     |       |           |           |           |
| 28.50               | 20.00 | 8.06  |       |           |           |           |
| MOUNTING DIMENSIONS |       |       |       |           |           |           |
| D                   | E     | F     | G     | H         |           |           |
| 24.00               | 6.50  | 10.00 | 27.10 | 7.00      |           |           |
| CONDUIT KNOCKOUTS   |       |       |       |           |           |           |
| I                   | J     | K     | L     | M         | N         | O         |
| 5.50                | 8.50  | 11.50 | 14.50 | 1.12-.875 | 1.96-1.71 | 1.35-1.12 |

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