



Pump control panel, Size 3 1/2, Three phase full voltage, Solid-state overload relay, OLR amp range 50-200A, 110V 50Hz / 120V 60Hz coil, Standard type contactor, 125A circuit breaker, 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 MCP                 |
| special product feature                                                 | Half-size controller; ESP200 overload relay |
| <b>General technical data</b>                                           |                                             |
| weight [lb]                                                             | 81 lb                                       |
| Height x Width x Depth [in]                                             | 41 × 24 × 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                                              | 30 hp                                       |
| • at 220/230 V rated value                                              | 40 hp                                       |
| • at 460/480 V rated value                                              | 75 hp                                       |
| • at 575/600 V rated value                                              | 75 hp                                       |
| <b>Contactors</b>                                                       |                                             |
| size of contactor                                                       | Controller half size 3 1/2                  |
| 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                          | 115 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), 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                                            | 110 ... 110 V                               |
| • at AC at 60 Hz rated value                                            | 120 ... 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 |

#### Overload relay

|                                                                                                                                                                                                                                |                                                                                                                        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| product function                                                                                                                                                                                                               |                                                                                                                        |
| <ul style="list-style-type: none"> <li>● overload protection</li> <li>● phase failure detection</li> <li>● asymmetry detection</li> <li>● ground fault detection</li> <li>● test function</li> <li>● external reset</li> </ul> | <ul style="list-style-type: none"> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> </ul> |
| 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                                                                                                                                            | 50 ... 200 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                                                                                                                                                                    |                                                                                                                        |
| <ul style="list-style-type: none"> <li>● at AC at 600 V</li> <li>● at DC at 250 V</li> </ul>                                                                                                                                   | <ul style="list-style-type: none"> <li>5 A</li> <li>1 A</li> </ul>                                                     |
| contact rating of auxiliary contacts of overload relay according to UL                                                                                                                                                         | 5A@600VAC (B600), 1A@250VDC (R300)                                                                                     |
| insulation voltage (Ui)                                                                                                                                                                                                        |                                                                                                                        |
| <ul style="list-style-type: none"> <li>● with single-phase operation at AC rated value</li> <li>● with multi-phase operation at AC rated value</li> </ul>                                                                      | <ul style="list-style-type: none"> <li>600 V</li> <li>300 V</li> </ul>                                                 |

#### Enclosure

|                                                   |                               |
|---------------------------------------------------|-------------------------------|
| degree of protection NEMA rating of the enclosure | NEMA Type 3R                  |
| design of the housing                             | Weather proof for outdoor use |

#### Standard Control Devices

|                                                 |                                      |
|-------------------------------------------------|--------------------------------------|
| 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 |

#### Circuit Breaker

|                                                                                    |                                              |
|------------------------------------------------------------------------------------|----------------------------------------------|
| type of the motor protection                                                       | Motor circuit protector (magnetic trip only) |
| operational current of motor circuit breaker rated value                           | 125 A                                        |
| adjustable current response value current of instantaneous short-circuit trip unit | 500 ... 1250 A                               |

#### Mounting/wiring

|                                                                                                                    |                                   |
|--------------------------------------------------------------------------------------------------------------------|-----------------------------------|
| 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                  | 1x (10 AWG ... 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                                                           | 120 ... 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                                                  |
| 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 contacts maximum permissible                                     | 75 °C                                               |
| material of the conductor at overload relay for auxiliary contacts                                                            | CU                                                  |

#### Short-circuit current rating

|                                                       |                                    |
|-------------------------------------------------------|------------------------------------|
| design of the short-circuit trip                      | Instantaneous trip circuit breaker |
| maximum short-circuit current breaking capacity (Icu) |                                    |
| • at 240 V                                            | 100 kA                             |
| • at 480 V                                            | 100 kA                             |
| • at 600 V                                            | 25 kA                              |
| 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=US2:87IUH6MF>

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

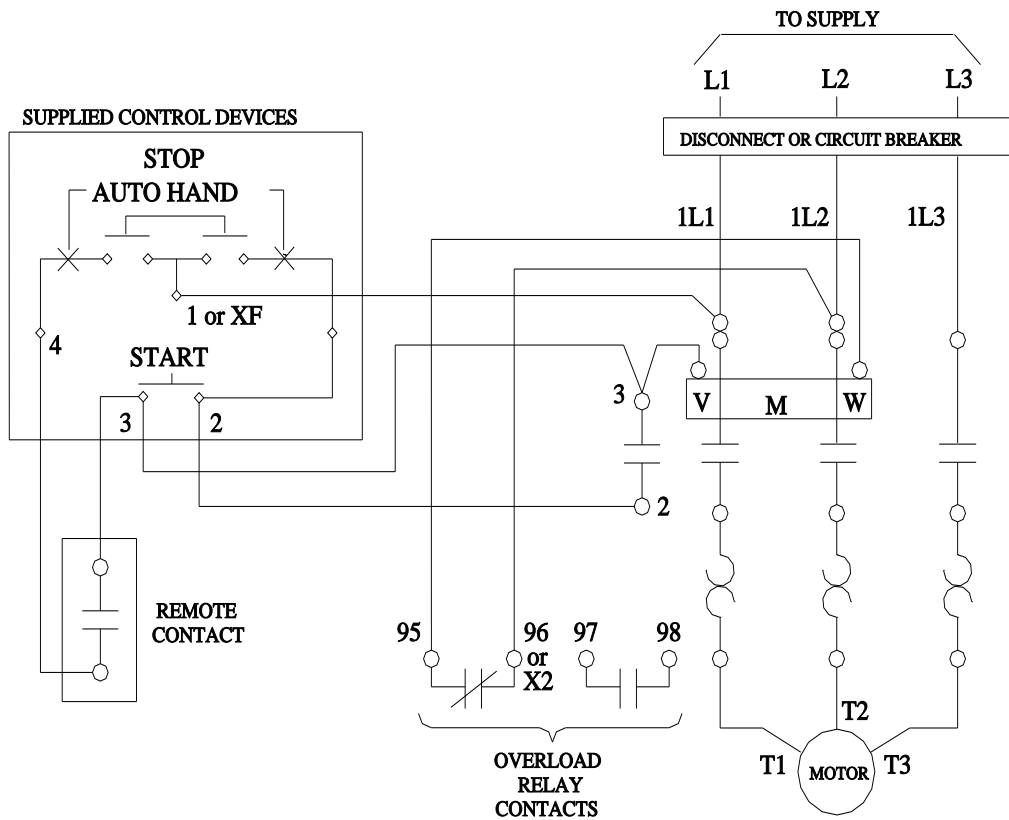
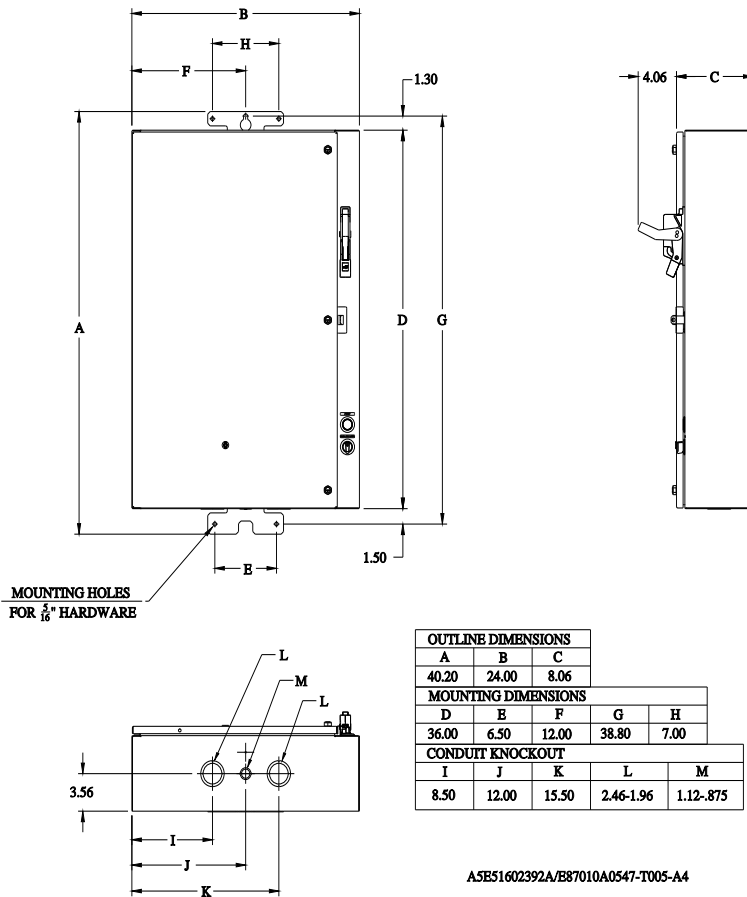
<https://support.industry.siemens.com/cs/US/en/ps/US2:87IUH6MF>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=US2:87IUH6MF&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=US2:87IUH6MF&lang=en)

**Certificates/approvals**

<https://support.industry.siemens.com/cs/US/en/ps/US2:87IUH6MF/certificate>



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