



Pump control panel, Size 1, Three phase full voltage, Solid-state overload relay, OLR amp range 10-40A, 240V 50Hz / 277V 60Hz coil, Standard type contactor, 30A 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   | ESP200 overload relay               |
| <b>General technical data</b>   |                                     |
| weight [lb]   | 47 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  | 7.5 hp                              |
| • at 220/230 V rated value  | 7.5 hp                              |
| • at 460/480 V rated value  | 10 hp                               |
| • at 575/600 V rated value  | 0 hp                                |
| <b>Contactor</b>  |                                     |
| size of contactor   | NEMA controller size 1              |
| 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                          | 27 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                              | 8                                   |
| 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  | 240 ... 240 V                       |
| • at AC at 60 Hz rated value  | 277 ... 277 V                       |
| holding power at AC minimum   | 8.6 W                               |

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|--|--|
| 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                                 |
| percentual 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                                | 10 ... 40 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>Enclosure</b>   |  |
| degree of protection NEMA rating of the enclosure  | NEMA Type 3R                                 |
| 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>Circuit Breaker</b>   |  |
| type of the motor protection   | Motor circuit protector (magnetic trip only) |
| operational current of motor circuit breaker rated value   | 30 A   |
| adjustable current response value current of instantaneous short-circuit trip unit                                 | 80 ... 270 A                                 |
| <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                  | 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  | Screw-type terminals                         |
| tightening torque [lbf-in] for load-side outgoing feeder   | 35 ... 35 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                              |

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|---|---|
| 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  |
| <b>Short-circuit current rating</b>   |   |
| 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                                  |
| <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=US2:87DUE6ML>

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

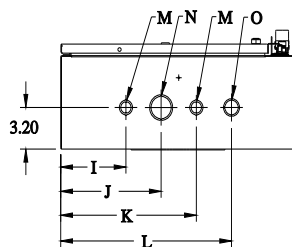
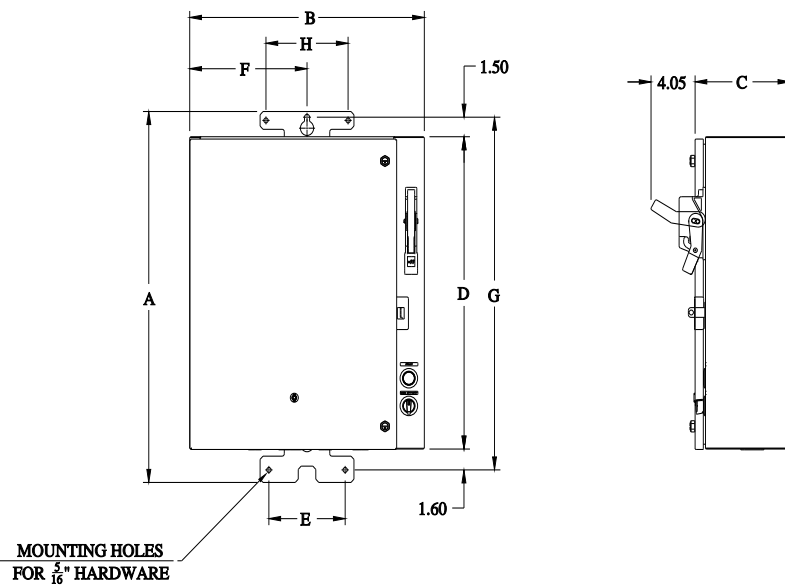
<https://support.industry.siemens.com/cs/US/en/ps/US2:87DUE6ML>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=US2:87DUE6ML&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=US2:87DUE6ML&lang=en)

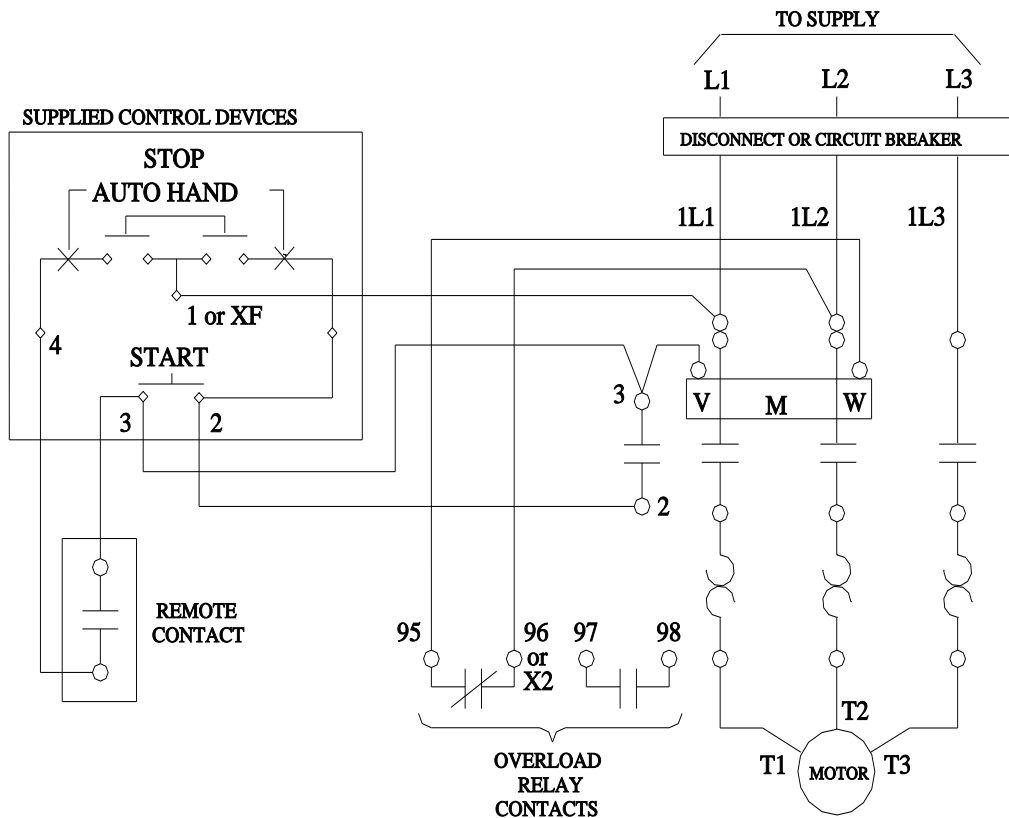
**Certificates/approvals**

<https://support.industry.siemens.com/cs/US/en/ps/US2:87DUE6ML/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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