

Pump control panel, Size 2 1/2, Three phase full voltage, Solid-state overload relay, OLR amp range 25-100A, 240V 50Hz / 277V 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



Figure similar

Product brand name	Class 87
Design of the product	Pump control panel with fused disconnect switch
Special product feature	Half-size controller; ESP200 overload relay

General technical data	
Weight [lb]	48 lb
Height x Width x Depth [in]	29 × 20 × 8 in
Protection against electrical shock	NA for enclosed products
Installation altitude [ft] at height above sea level maximum	6560 ft
Ambient temperature [°F]	
• during storage maximum	149 °F
• during operation maximum	104 °F
Ambient temperature	
• during storage maximum	65 °C
• during operation maximum	40 °C
Country of origin	USA

### Horsepower ratings

Yielded mechanical performance [hp] for three-phase AC motor	
<ul style="list-style-type: none"> <li>• at 200/208 V rated value</li> </ul>	0 hp
<ul style="list-style-type: none"> <li>• at 220/230 V rated value</li> </ul>	0 hp
<ul style="list-style-type: none"> <li>• at 460/480 V rated value</li> </ul>	30 hp
<ul style="list-style-type: none"> <li>• at 575/600 V rated value</li> </ul>	30 hp

### Contactors

Size of contactor	Controller half size 2 1/2
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	60 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	7
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	
<ul style="list-style-type: none"> <li>• at DC rated value</li> </ul>	0 ... 0 V
<ul style="list-style-type: none"> <li>• at AC at 50 Hz rated value</li> </ul>	240 ... 240 V
<ul style="list-style-type: none"> <li>• at AC at 60 Hz rated value</li> </ul>	277 ... 277 V
Holding power at AC minimum	8.6 W
Apparent pick-up power of magnet coil at AC	218 V·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 ms
Off-delay time	10 ... 24 ms

### Overload relay

Product function	
<ul style="list-style-type: none"> <li>• Overload protection</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Phase failure detection</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Phase unbalance</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Ground fault detection</li> </ul>	Yes

<ul style="list-style-type: none"> <li>• Test function</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• External reset</li> </ul>	Yes
Reset function	Manual, automatic and remote
Trip class	Class 5 / 10 (factory set) / 20 / 30
Adjustable pick-up value current of the current-dependent overload release	25 ... 100 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	
<ul style="list-style-type: none"> <li>• at AC at 600 V</li> </ul>	5 A
<ul style="list-style-type: none"> <li>• at DC at 250 V</li> </ul>	1 A
Contact rating of auxiliary contacts of overload relay according to UL	5A@600VAC (B600), 1A@250VDC (R300)
Insulation voltage	
<ul style="list-style-type: none"> <li>• with single-phase operation at AC rated value</li> </ul>	600 V
<ul style="list-style-type: none"> <li>• with multi-phase operation at AC rated value</li> </ul>	300 V

#### Disconnect Switch

Rated response values 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

#### Enclosure

Degree of protection NEMA rating of the enclosure	NEMA 3/3R
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 chrome finish
Product component Start push button	Yes
Type of start push button	30mm metal housing with chrome finish

#### Mounting/wiring

Mounting position	Vertical
Mounting type	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 at AWG conductors single or multi-stranded	1x (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 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 °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 at AWG conductors 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 at AWG conductors 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 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 °C
Material of the conductor at overload relay for auxiliary contacts	CU

### Short-circuit current rating

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=US2:87GUG60L>

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

<https://support.industry.siemens.com/cs/US/en/ps/US2:87GUG60L>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=US2:87GUG60L&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=US2:87GUG60L&lang=en)

**Certificates/approvals**

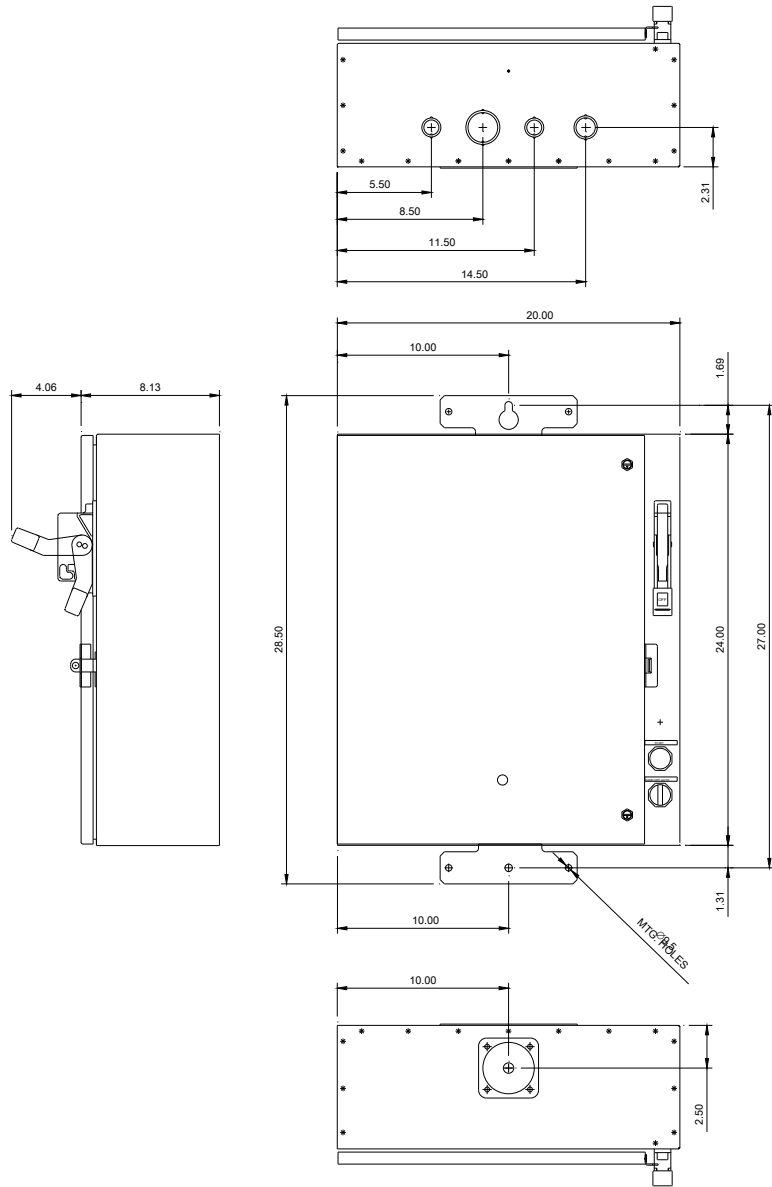
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Ø12.7 X Ø19 CONDUIT KNOCKOUT

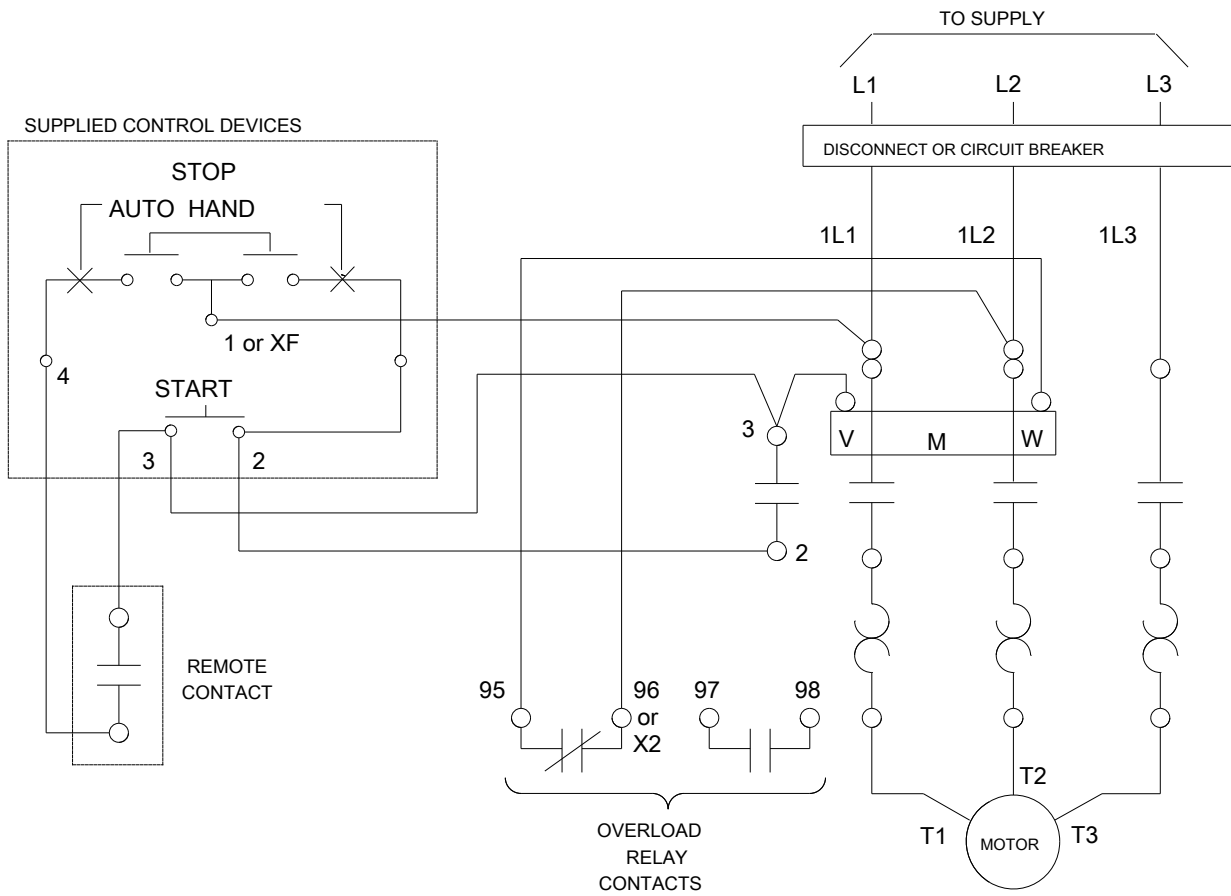
Ø31.8 X Ø38.1 CONDUIT KNOCKOUT

Ø12.7 X Ø19 CONDUIT KNOCKOUT

Ø19 X Ø25.4 CONDUIT KNOCKOUT



CONDUIT HUB COVER



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