

Pump control panel, Size 5, Three phase full voltage, Solid-state overload relay, OLR amp range 55-250A, 220-240V 50-60Hz/DC coil, Standard type contactor, 400A fusible disconnect, 400A/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	Gravity dropout contacts; 45 degree, wedge action contacts; Self-rising pressure type control terminals; Encapsulated coil

General technical data	
Weight [lb]	205 lb
Height x Width x Depth [in]	72 x 20 x 11 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	
• at 200/208 V rated value	0 hp
• at 220/230 V rated value	0 hp
• at 460/480 V rated value	200 hp
• at 575/600 V rated value	200 hp

## Contactors

Size of contactor	NEMA controller size 5
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	270 A
Mechanical service life (switching cycles) of the main contacts typical	10000000

## Auxiliary contact

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)

## Coil

Type of voltage of the control supply voltage	AC/DC
Control supply voltage	
• at DC rated value	220 ... 240 V
• at AC at 50 Hz rated value	220 ... 240 V
• at AC at 60 Hz rated value	220 ... 240 V
Holding power at AC minimum	7.4 W
Apparent pick-up power of magnet coil at AC	590 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	60 %
Switch-on delay time	30 ... 95 ms
Off-delay time	40 ... 80 ms

## Overload relay

Product function	
• Overload protection	Yes
• Phase failure detection	Yes
• Phase unbalance	Yes

<ul style="list-style-type: none"> <li>• Ground fault detection</li> </ul>	No
<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 and automatic
Trip class	CLASS 10
Adjustable pick-up value current of the current-dependent overload release	55 ... 250 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
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	400A / 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
Type of connectable conductor cross-sections at line-side at AWG conductors 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 ... 220 lbf-in
Type of connectable conductor cross-sections at AWG conductors for load-side outgoing feeder single or multi-stranded	2x 2/0 AWG ... 500 MCM
Temperature of the conductor for load-side outgoing feeder maximum permissible	75 °C
Material of the conductor for load-side outgoing feeder	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 at AWG conductors 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 at AWG conductors 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 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=US2:87LPU6FG>

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

<https://support.industry.siemens.com/cs/US/en/ps/US2:87LPU6FG>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=US2:87LPU6FG&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=US2:87LPU6FG&lang=en)

### **Certificates/approvals**

<https://support.industry.siemens.com/cs/US/en/ps/US2:87LPU6FG/certificate>

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