



Pump control panel, Size 6, Three phase full voltage, Solidstate overload relay, OLR amp range 160-630A, 440-480V 50-60HzDC coil, Standard type contactor, 600A fusible disconnect, 600A-600V fuse clip, HOA Sel Sw. and 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	Gravity dropout contacts; 45 degree, wedge action contacts; Self-rising pressure type control terminals; Encapsulated coil
<b>General technical data</b>	
weight [lb]	240 lb
Height x Width x Depth [in]	79 × 22 × 13 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	250 hp
• at 575/600 V rated value	0 hp
<b>Contactor</b>	
size of contactor	NEMA controller size 6
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	540 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	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)
<b>Coil</b>	
type of voltage of the control supply voltage	AC/DC
control supply voltage	
• at DC rated value	440 ... 480 V
• at AC at 50 Hz rated value	440 ... 480 V
• at AC at 60 Hz rated value	440 ... 480 V

holding power at AC minimum	10 W
apparent pick-up power of magnet coil at AC	830 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	60 %
ON-delay time	45 ... 100 ms
OFF-delay time	60 ... 100 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>	Yes Yes Yes No Yes Yes
reset function	Manual and automatic
trip class	CLASS 10
adjustable current response value current of the current-dependent overload release	160 ... 630 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
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>	5 A 1 A
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>	600 V 300 V

#### Disconnect Switch

response value of switch disconnecter	600A / 600V
design of fuse holder	Class H fuse clips
operating class of the fuse link	Class H, J (retrofitable), K and R

#### 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

#### 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	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 for AWG cables 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 for AWG cables single or multi-stranded	2x (18 ... 14 AWG)
temperature of the conductor at magnet coil maximum	75 °C

permissible	
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 for AWG cables 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 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 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=US2:87MSW6FH>

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

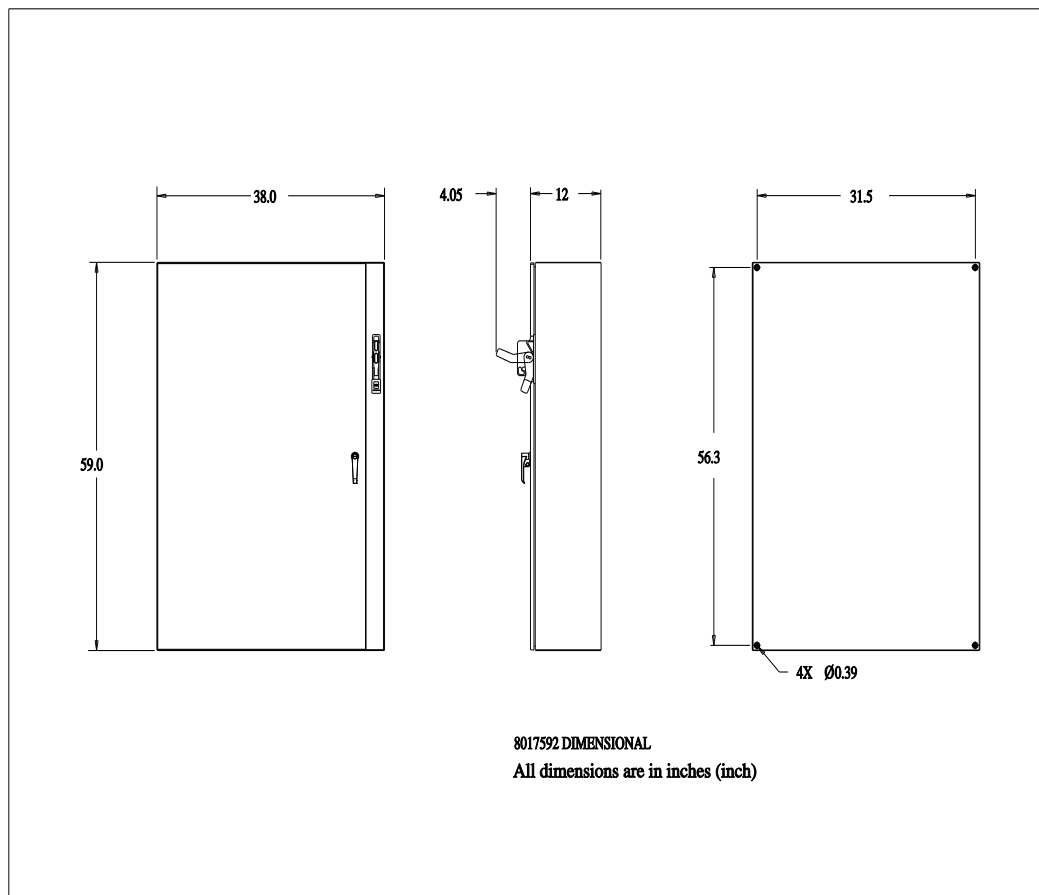
<https://support.industry.siemens.com/cs/US/en/ps/US2:87MSW6FH>

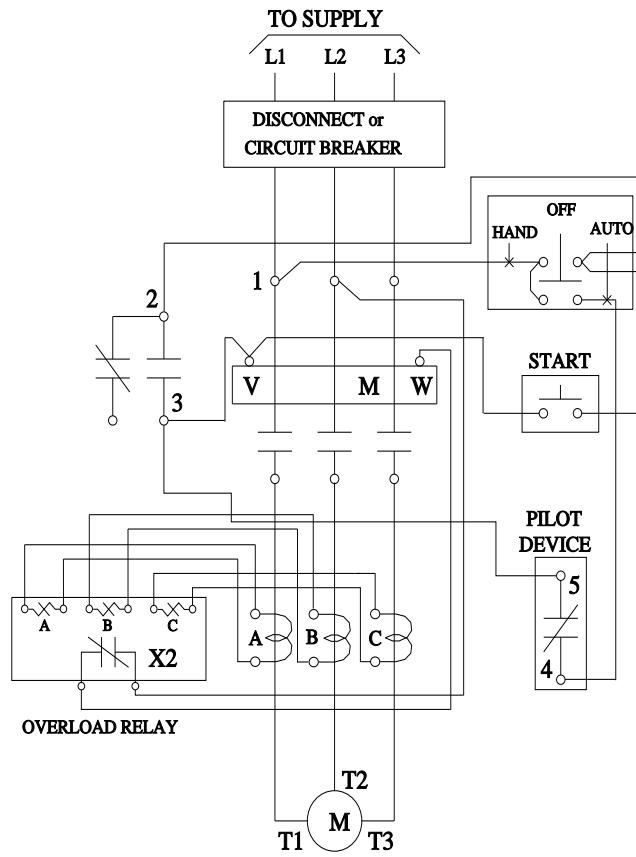
**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=US2:87MSW6FH&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=US2:87MSW6FH&lang=en)

**Certificates/approvals**

<https://support.industry.siemens.com/cs/US/en/ps/US2:87MSW6FH/certificate>





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