## **SIEMENS**

Data sheet US2:87FUF60L



Pump control panel, Size 2, Three phase full voltage, Solid-state overload relay, OLR amp range 13-52A, 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

product brand name	Class 87			
design of the product	Pump control panel with fused disconnect switch			
special product feature	ESP200 overload relay			
General technical data				
weight [lb]	48 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				
<ul> <li>during storage</li> </ul>	-30 +65 °C			
during operation	-20 +40 °C			
country of origin	USA			
Horsepower ratings				
yielded mechanical performance [hp] for 3-phase AC motor				
• at 200/208 V rated value	0 hp			
<ul><li>at 220/230 V rated value</li></ul>	0 hp			
<ul><li>at 460/480 V rated value</li></ul>	25 hp			
<ul><li>at 575/600 V rated value</li></ul>	25 hp			
Contactor				
size of contactor	NEMA controller size 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	45 A			
mechanical service life (operating 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				
at DC rated value	0 0 V			
<ul> <li>at AC at 50 Hz rated value</li> </ul>	240 240 V			
at AC at 60 Hz rated value	277 277 V			
holding power at AC minimum	8.6 W			

annarent nick-up nower of magnet coil at AC	218.VΔ			
apparent pick-up power of magnet coil at AC	218 VA			
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 %			
ON-delay time	19 29 ms			
OFF-delay time	10 24 ms			
Overload relay				
product function				
<ul> <li>overload protection</li> </ul>	Yes			
phase failure detection	Yes			
<ul> <li>asymmetry detection</li> </ul>	Yes			
<ul> <li>ground fault detection</li> </ul>	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	13 52 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	F.A.			
• 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)				
<ul> <li>with single-phase operation at AC rated value</li> </ul>	600 V			
man single prices operation at the fatou value				
with multi-phase operation at AC rated value	300 V			
with multi-phase operation at AC rated value     Disconnect Switch     response value of switch disconnector	300 V 100A / 600V			
with multi-phase operation at AC rated value  Disconnect Switch  response value of switch disconnector  design of fuse holder	300 V  100A / 600V  Class H fuse clips			
with multi-phase operation at AC rated value  Disconnect Switch  response value of switch disconnector  design of fuse holder  operating class of the fuse link	300 V 100A / 600V			
with multi-phase operation at AC rated value  Disconnect Switch  response value of switch disconnector  design of fuse holder  operating class of the fuse link  Enclosure	300 V  100A / 600V  Class H fuse clips  Class H, J (retrofittable), K and R			
with multi-phase operation at AC rated value  Disconnect Switch  response value of switch disconnector  design of fuse holder  operating class of the fuse link  Enclosure  degree of protection NEMA rating of the enclosure	300 V  100A / 600V  Class H fuse clips  Class H, J (retrofittable), K and R  NEMA Type 3R			
with multi-phase operation at AC rated value  Disconnect Switch  response value of switch disconnector  design of fuse holder  operating class of the fuse link  Enclosure  degree of protection NEMA rating of the enclosure  design of the housing	300 V  100A / 600V  Class H fuse clips  Class H, J (retrofittable), K and R			
with multi-phase operation at AC rated value  Disconnect Switch  response value of switch disconnector  design of fuse holder  operating class of the fuse link  Enclosure  degree of protection NEMA rating of the enclosure  design of the housing  Standard Control Devices	300 V  100A / 600V  Class H fuse clips  Class H, J (retrofittable), K and R  NEMA Type 3R  Weather proof for outdoor use			
with multi-phase operation at AC rated value  Disconnect Switch  response value of switch disconnector  design of fuse holder  operating class of the fuse link  Enclosure  degree of protection NEMA rating of the enclosure  design of the housing  Standard Control Devices  product component Hand-Off-Auto selector switch	300 V  100A / 600V  Class H fuse clips  Class H, J (retrofittable), K and R  NEMA Type 3R  Weather proof for outdoor use			
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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		
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

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/us/Catalog/product?mlfb=US2:87FUF60L

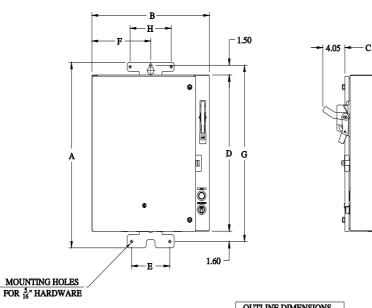
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

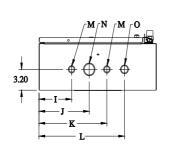
https://support.industry.siemens.com/cs/US/en/ps/US2:87FUF60L

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) <a href="http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=US2:87FUF60L&lang=en">http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=US2:87FUF60L&lang=en</a>

Certificates/approvals

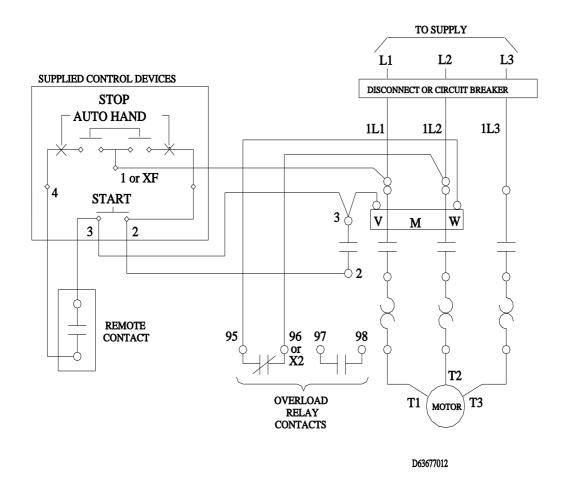
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OUTLIN	IE DIWEN	SIONS						
Α	В	C						
28.50	20.00	8.06						
MOUNT	ING DIM	ENSIONS						
D	Е	F	G	H				
24.00	6.50	10.00	27.10	7.00				
CONDUIT KNOCKOUTS								
I	J	K	L	M	N	0		
5.50	8.50	11.50	14.50	1.12875	1.96-1.71	1.35-1.12		

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