## SIEMENS

## Data sheet

## US2:88LPST4FH

	Reduced voltage pump panel, Auto transformer, Size 5, 460V 3-phase motor voltage, Solid-state overload relay, OLR amp range 55-250A, 440-480V 50-60Hz/DC coil, 400A fusible disconnect, 400A/600V fuse clip, HOA Sel Sw. <(>&<)>Start P.B., Enclosure NEMA type 3/3R, Weather proof outdoor use
product brand name	Class 88
design of the product	Reduced voltage pump panel with fusible disconnect - Auto transformer
special product feature	Latest technology in arc quenching to extend contactor life; Same coil voltage is AC or DC
General technical data	
weight [lb]	637 lb
Height x Width x Depth [in]	90 × 30 × 20 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
Horsepower ratings	
vielded 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	200 hp
• at 575/600 V rated value	0 hp
Contactor	0 lip
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	460 V
operational current at AC at 600 V rated value	270 A
mechanical service life (operating cycles) of the main contacts typical	1000000
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	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	7.4 W
apparent pick-up power of magnet coil at AC	590 VA
apparent holding power of magnet coil at AC	6.7 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	60 %
ON-delay time	30 95 ms
OFF-delay time	40 80 ms
Overload relay	

product tunction	
<ul> <li>product function</li> <li>overload protection</li> </ul>	Yes
phase failure detection	Yes
	Yes
<ul> <li>asymmetry detection</li> <li>ground fault detection</li> </ul>	No
test function	Yes
external reset	Yes
reset function	Manual and automatic
trip class	CLASS 10
adjustable current response value current of the current-	55 250 A
dependent overload release	
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	
• at AC at 600 V	5 A
• at DC at 250 V	1 A
contact rating of auxiliary contacts of overload relay according toUL	5A@600VAC (B600), 1A@250VDC (R300)
insulation voltage (Ui)	
<ul> <li>with single-phase operation at AC rated value</li> </ul>	600 V
<ul> <li>with multi-phase operation at AC rated value</li> </ul>	300 V
Disconnect Switch	
response value of switch disconnector	400A / 600V
design of fuse holder	Class R fuse clips
operating class of the fuse link	Class R
Enclosure	
degree of protection NEMA rating of the enclosure	NEMA 3/3R
design of the housing	Weather proof for outdoor use
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
material of the conductor for supply type of electrical connection for load-side outgoing feeder	AL or CU Box lug
type of electrical connection for load-side outgoing feeder	Box lug
type of electrical connection for load-side outgoing feeder tightening torque [lbf·in] for load-side outgoing feeder type of connectable conductor cross-sections for AWG cables	Box lug 180 195 lbf·in 3/0 AWG 600 MCM (front only) or 250 500 MCM (back only) or 2x 2/0
type of electrical connection for load-side outgoing feeder tightening torque [lbf-in] for load-side outgoing feeder type of connectable conductor cross-sections for AWG cables for load-side outgoing feeder single or multi-stranded temperature of the conductor for load-side outgoing feeder	Box lug 180 195 lbf·in 3/0 AWG 600 MCM (front only) or 250 500 MCM (back only) or 2x 2/0 AWG 2x 500 MCM (both front & back)
type of electrical connection for load-side outgoing feeder tightening torque [lbf-in] for load-side outgoing feeder type of connectable conductor cross-sections for AWG cables for load-side outgoing feeder single or multi-stranded temperature of the conductor for load-side outgoing feeder maximum permissible	Box lug 180 195 lbf·in 3/0 AWG 600 MCM (front only) or 250 500 MCM (back only) or 2x 2/0 AWG 2x 500 MCM (both front & back) 75 °C
type of electrical connection for load-side outgoing feeder tightening torque [lbf-in] for load-side outgoing feeder type of connectable conductor cross-sections for AWG cables for load-side outgoing feeder single or multi-stranded temperature of the conductor for load-side outgoing feeder maximum permissible material of the conductor for load-side outgoing feeder	Box lug           180 195 lbf-in           3/0 AWG 600 MCM (front only) or 250 500 MCM (back only) or 2x 2/0           AWG 2x 500 MCM (both front & back)           75 °C           AL or CU
type of electrical connection for load-side outgoing feeder tightening torque [lbf·in] for load-side outgoing feeder type of connectable conductor cross-sections for AWG cables for load-side outgoing feeder single or multi-stranded temperature of the conductor for load-side outgoing feeder maximum permissible material of the conductor for load-side outgoing feeder type of electrical connection of magnet coil	Box lug           180 195 lbf·in           3/0 AWG 600 MCM (front only) or 250 500 MCM (back only) or 2x 2/0 AWG 2x 500 MCM (both front & back)           75 °C           AL or CU           Screw-type terminals           7 10 lbf·in           2x (18 14 AWG)
type of electrical connection for load-side outgoing feeder tightening torque [lbf·in] for load-side outgoing feeder type of connectable conductor cross-sections for AWG cables for load-side outgoing feeder single or multi-stranded temperature of the conductor for load-side outgoing feeder maximum permissible material of the conductor for load-side outgoing feeder type of electrical connection of magnet coil tightening torque [lbf·in] at magnet coil type of connectable conductor cross-sections of magnet coil for	Box lug           180 195 lbf·in           3/0 AWG 600 MCM (front only) or 250 500 MCM (back only) or 2x 2/0 AWG 2x 500 MCM (both front & back)           75 °C           AL or CU           Screw-type terminals           7 10 lbf·in
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type of electrical connection for load-side outgoing feeder tightening torque [lbf-in] for load-side outgoing feeder type of connectable conductor cross-sections for AWG cables for load-side outgoing feeder single or multi-stranded temperature of the conductor for load-side outgoing feeder maximum permissible material of the conductor for load-side outgoing feeder type of electrical connection of magnet coil tightening torque [lbf-in] at magnet coil type of connectable conductor cross-sections of magnet coil for AWG cables single or multi-stranded temperature of the conductor at magnet coil maximum permissible material of the conductor at magnet coil	Box lug         180 195 lbf·in         3/0 AWG 600 MCM (front only) or 250 500 MCM (back only) or 2x 2/0         AWG 2x 500 MCM (both front & back)         75 °C         AL or CU         Screw-type terminals         7 10 lbf-in         2x (18 14 AWG)         75 °C         CU
type of electrical connection for load-side outgoing feeder tightening torque [lbf-in] for load-side outgoing feeder type of connectable conductor cross-sections for AWG cables for load-side outgoing feeder single or multi-stranded temperature of the conductor for load-side outgoing feeder maximum permissible material of the conductor for load-side outgoing feeder type of electrical connection of magnet coil tightening torque [lbf-in] at magnet coil type of connectable conductor cross-sections of magnet coil for AWG cables single or multi-stranded temperature of the conductor at magnet coil maximum permissible material of the conductor at magnet coil type of electrical connection at contactor for auxiliary contacts	Box lug         180 195 lbf·in         3/0 AWG 600 MCM (front only) or 250 500 MCM (back only) or 2x 2/0         AWG 2x 500 MCM (both front & back)         75 °C         AL or CU         Screw-type terminals         7 10 lbf·in         2x (18 14 AWG)         75 °C         CU         Screw-type terminals
type of electrical connection for load-side outgoing feeder tightening torque [lbf-in] for load-side outgoing feeder type of connectable conductor cross-sections for AWG cables for load-side outgoing feeder single or multi-stranded temperature of the conductor for load-side outgoing feeder maximum permissible material of the conductor for load-side outgoing feeder type of electrical connection of magnet coil tightening torque [lbf-in] at magnet coil type of connectable conductor cross-sections of magnet coil for AWG cables single or multi-stranded temperature of the conductor at magnet coil maximum permissible material of the conductor at contactor for auxiliary contacts tightening torque [lbf-in] at contactor for auxiliary contacts tightening torque [lbf-in] at contactor for auxiliary contacts type of connectable conductor cross-sections at contactor for	Box lug         180 195 lbf-in         3/0 AWG 600 MCM (front only) or 250 500 MCM (back only) or 2x 2/0         AWG 2x 500 MCM (both front & back)         75 °C         AL or CU         Screw-type terminals         7 10 lbf-in         2x (18 14 AWG)         75 °C         CU         Screw-type terminals         7 10 lbf-in         2x (18 14 AWG)
type of electrical connection for load-side outgoing feeder tightening torque [lbf-in] for load-side outgoing feeder type of connectable conductor cross-sections for AWG cables for load-side outgoing feeder single or multi-stranded temperature of the conductor for load-side outgoing feeder maximum permissible material of the conductor for load-side outgoing feeder type of electrical connection of magnet coil tightening torque [lbf-in] at magnet coil type of connectable conductor cross-sections of magnet coil for AWG cables single or multi-stranded temperature of the conductor at magnet coil maximum permissible material of the conductor at contactor for auxiliary contacts tightening torque [lbf-in] at contactor for auxiliary contacts tightening torque [lbf-in] at contactor for auxiliary contacts type of connectable conductor cross-sections at contactor for AWG cables for auxiliary contacts single or multi-stranded temperature of the conductor at contactor for auxiliary contacts	Box lug         180 195 lbf-in         3/0 AWG 600 MCM (front only) or 250 500 MCM (back only) or 2x 2/0         AWG 2x 500 MCM (both front & back)         75 °C         AL or CU         Screw-type terminals         7 10 lbf-in         2x (18 14 AWG)         75 °C         CU         Screw-type terminals         7 10 lbf-in         2x (18 14 AWG)         2x (20 16 AWG), 2x (18 14 AWG)
type of electrical connection for load-side outgoing feeder tightening torque [lbf-in] for load-side outgoing feeder type of connectable conductor cross-sections for AWG cables for load-side outgoing feeder single or multi-stranded temperature of the conductor for load-side outgoing feeder maximum permissible material of the conductor for load-side outgoing feeder type of electrical connection of magnet coil tightening torque [lbf-in] at magnet coil type of connectable conductor cross-sections of magnet coil for AWG cables single or multi-stranded temperature of the conductor at magnet coil maximum permissible material of the conductor at contactor for auxiliary contacts tightening torque [lbf-in] at contactor for auxiliary contacts tightening torque [lbf-in] at contactor for auxiliary contacts type of connectable conductor cross-sections at contactor for AWG cables for auxiliary contacts single or multi-stranded temperature of the conductor cross-sections at contactor for aWG cables for auxiliary contacts single or multi-stranded temperature of the conductor at contactor for auxiliary contacts type of connectable conductor cross-sections at contacts for aWG cables for auxiliary contacts single or multi-stranded temperature of the conductor at contactor for auxiliary contacts maximum permissible	Box lug         180 195 lbf-in         3/0 AWG 600 MCM (front only) or 250 500 MCM (back only) or 2x 2/0         AWG 2x 500 MCM (both front & back)         75 °C         AL or CU         Screw-type terminals         7 10 lbf-in         2x (18 14 AWG)         75 °C         CU         Screw-type terminals         7 10 lbf-in         2x (18 14 AWG)         75 °C         CU         Screw-type terminals         7 10 lbf-in         2x (20 16 AWG), 2x (18 14 AWG)         75 °C
type of electrical connection for load-side outgoing feeder tightening torque [lbf-in] for load-side outgoing feeder type of connectable conductor cross-sections for AWG cables for load-side outgoing feeder single or multi-stranded temperature of the conductor for load-side outgoing feeder maximum permissible material of the conductor for load-side outgoing feeder type of electrical connection of magnet coil tightening torque [lbf-in] at magnet coil type of connectable conductor cross-sections of magnet coil for AWG cables single or multi-stranded temperature of the conductor at magnet coil maximum permissible material of the conductor at contactor for auxiliary contacts tightening torque [lbf-in] at contactor for auxiliary contacts tightening torque [lbf-in] at contactor for auxiliary contacts type of connectable conductor cross-sections at contactor for AWG cables for auxiliary contacts single or multi-stranded temperature of the conductor at contactor for auxiliary contacts type of connectable conductor cross-sections at contactor for AWG cables for auxiliary contacts single or multi-stranded temperature of the conductor at contactor for auxiliary contacts type of connectable conductor at contactor for auxiliary contacts type of connectable conductor at contactor for auxiliary contacts maximum permissible material of the conductor at contactor for auxiliary contacts type of electrical connection at contactor for auxiliary contacts maximum permissible	Box lug         180 195 lbf in         3/0 AWG 600 MCM (front only) or 250 500 MCM (back only) or 2x 2/0         AWG 2x 500 MCM (both front & back)         75 °C         AL or CU         Screw-type terminals         7 10 lbf in         2x (18 14 AWG)         75 °C         CU         Screw-type terminals         7 10 lbf in         2x (18 14 AWG)         75 °C         CU         Screw-type terminals         7 10 lbf in         2x (20 16 AWG), 2x (18 14 AWG)         75 °C         CU         Screw-type terminals         7 10 lbf in         2x (20 16 AWG), 2x (18 14 AWG)         75 °C         CU
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contacts maximum permissible		
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=US2:88LPST4FH Service&Support (Manuals, Certificates, Characteristics, FAQs,) https://support.industry.siemens.com/cs/US/en/ps/US2:88LPST4FH Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros,) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=US2:88LPST4FH⟨=en Certificates/approvals https://support.industry.siemens.com/cs/US/en/ps/US2:88LPST4FH/certificate		

last modified:

4/27/2021 🖸