## SIEMENS

## Data sheet

## US2:84EUE920DF



Pump control panel, Duplex controller Starter size 1.75 Solid-state overload relay, OLR amp range 10-40A, 120 VAC coil, Fusible disconnect HOA Sel Sw. and Start P.B., Enclosure NEMA type 3/3R,12 Weather proof outdoor use

product brand name	Class 84
design of the product	Duplex controller with two non-fusible disconnect switches with alternator
special product feature	ESP200 overload relay; Half-size controller
General technical data	
weight [lb]	70 lb
Height x Width x Depth [in]	34 × 25 × 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	
during storage	-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	10 hp
• at 220/230 V rated value	10 hp
• at 460/480 V rated value	15 hp
• at 575/600 V rated value	15 hp
Contactor	
size of contactor	Controller half size 1 3/4
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	40 A
mechanical service life (operating cycles) of the main contacts typical	1000000
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	8
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
• at AC at 50 Hz rated value	110 110 V
• at AC at 60 Hz rated value	120 120 V
holding power at AC minimum	8.6 W

apparent pick-up power of magnet coil at AC	218 VA
apparent holding power of magnet coil at AC	25 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
<ul> <li>phase failure detection</li> </ul>	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 / 20 (factory set) / 30
djustable current response value current of the current- dependent overload release	10 40 A
tripping time at phase-loss maximum	3 s
relative repeat accuracy	1 %
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	1A
contact rating of auxiliary contacts of overload relay according to UL	5A@600VAC (B600), 1A@250VDC (R300)
insulation voltage (Ui)	
with single-phase operation at AC rated value	600 V
	000 V
	300 V
with multi-phase operation at AC rated value	300 V
with multi-phase operation at AC rated value     Disconnect Switch	
with multi-phase operation at AC rated value Disconnect Switch response value of switch disconnector	60A / 600V
with multi-phase operation at AC rated value     Disconnect Switch     response value of switch disconnector     design of fuse holder	60A / 600V non-fusible
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	60A / 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	60A / 600V non-fusible non-fusible
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	60A / 600V non-fusible non-fusible NEMA Type 12
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	60A / 600V non-fusible non-fusible
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     Mounting/wiring	60A / 600V non-fusible non-fusible NEMA Type 12 dustproof and drip-proof for indoor 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     Mounting/wiring     mounting position	60A / 600V non-fusible non-fusible NEMA Type 12 dustproof and drip-proof for indoor 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     Mounting/wiring     mounting position     fastening method	60A / 600V non-fusible non-fusible NEMA Type 12 dustproof and drip-proof for indoor use Vertical Surface mounting and installation
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     Mounting/wiring     mounting position     fastening method     type of electrical connection for supply voltage line-side	60A / 600V non-fusible non-fusible NEMA Type 12 dustproof and drip-proof for indoor use Vertical Surface mounting and installation Box lug
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     Mounting/wiring     mounting position     fastening method     type of electrical connection for supply voltage line-side     tightening torque [lbf-in] for supply	60A / 600V non-fusible non-fusible NEMA Type 12 dustproof and drip-proof for indoor use Vertical Surface mounting and installation Box lug 35 35 lbf-in
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     Mounting/wiring     mounting position     fastening method     type of electrical connection for supply voltage line-side     tightening torque [lbf-in] for supply     type of connectable conductor cross-sections at line-side for     AWG cables single or multi-stranded	60A / 600V non-fusible non-fusible NEMA Type 12 dustproof and drip-proof for indoor use Vertical Surface mounting and installation Box lug 35 35 lbf-in 1x (14 2 AWG)
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     Mounting/wiring     mounting position     fastening method     type of electrical connection for supply voltage line-side     tightening torque [lbf-in] for supply     type of connectable conductor cross-sections at line-side for     AWG cables single or multi-stranded     temperature of the conductor for supply maximum permissible	60A / 600V non-fusible non-fusible NEMA Type 12 dustproof and drip-proof for indoor use Vertical Surface mounting and installation Box lug 35 35 lbf-in 1x (14 2 AWG) 75 °C
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     Mounting/wiring     mounting position     fastening method     type of electrical connection for supply voltage line-side     tightening torque [lbf-in] for supply     type of connectable conductor for supply maximum permissible     material of the conductor for supply	60A / 600V non-fusible non-fusible NEMA Type 12 dustproof and drip-proof for indoor use Vertical Surface mounting and installation Box lug 35 35 lbf-in 1x (14 2 AWG) 75 °C AL or CU
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     Mounting/wiring     mounting position     fastening method     type of electrical connection for supply voltage line-side     tightening torque [lbf-in] for supply     type of connectable conductor for supply maximum permissible     material of the conductor for supply     type of electrical connection for supply     type of electrical connection for supply     type of the conductor for supply     type of electrical connection for supply     type of electrical connection for supply     type of electrical connection for supply	60A / 600V non-fusible non-fusible NEMA Type 12 dustproof and drip-proof for indoor use Vertical Surface mounting and installation Box lug 35 35 lbf-in 1x (14 2 AWG) 75 °C AL or CU Screw-type terminals
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     Mounting/wiring     mounting position     fastening method     type of electrical connection for supply voltage line-side     tightening torque [lbf-in] for supply     type of connectable conductor for supply maximum permissible     material of the conductor for supply     type of electrical connection for load-side outgoing feeder     tightening torque [lbf-in] for load-side outgoing feeder	60A / 600V non-fusible non-fusible NEMA Type 12 dustproof and drip-proof for indoor use Vertical Surface mounting and installation Box lug 35 35 lbf-in 1x (14 2 AWG) 75 °C AL or CU Screw-type terminals 45 45 lbf-in
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     Mounting/wiring     mounting position     fastening method     type of electrical connection for supply voltage line-side     tightening torque [lbf-in] for supply     type of connectable conductor for supply maximum permissible     material of the conductor for supply     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	60A / 600V         non-fusible         non-fusible         NEMA Type 12         dustproof and drip-proof for indoor use         Vertical         Surface mounting and installation         Box lug         35 35 lbf-in         1x (14 2 AWG)         75 °C         AL or CU         Screw-type terminals         45 45 lbf-in         1x (14 2 AWG)
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     Mounting/wiring     mounting position     fastening method     type of electrical connection for supply voltage line-side     tightening torque [lbf-in] for supply     type of electrical connection for supply maximum permissible     material of the conductor for supply     type of electrical connection for supply     type of electrical connection for supply maximum permissible     material of the conductor for supply     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	60A / 600V non-fusible non-fusible NEMA Type 12 dustproof and drip-proof for indoor use Vertical Surface mounting and installation Box lug 35 35 lbf-in 1x (14 2 AWG) 75 °C AL or CU Screw-type terminals 45 45 lbf-in
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     Mounting/wiring     mounting position     fastening method     type of electrical connection for supply voltage line-side     tightening torque [lbf-in] for supply     type of connectable conductor for supply maximum permissible     material of the conductor for supply     type of electrical connection for load-side outgoing feeder     tightening torque [lbf-in] for load-side outgoing feeder     type of connectable conductor cross-sections at line-side for     AWG cables single or multi-stranded	60A / 600V         non-fusible         non-fusible         NEMA Type 12         dustproof and drip-proof for indoor use         Vertical         Surface mounting and installation         Box lug         35 35 lbf-in         1x (14 2 AWG)         75 °C         AL or CU         Screw-type terminals         45 45 lbf-in         1x (14 2 AWG)
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     Mounting/wiring     mounting position     fastening method     type of electrical connection for supply voltage line-side     tightening torque [lbf-in] for supply     type of connectable conductor for supply maximum permissible     material of the conductor for supply     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     type of connectable conductor for supply	60A / 600V         non-fusible         non-fusible         NEMA Type 12         dustproof and drip-proof for indoor use         Vertical         Surface mounting and installation         Box lug         35 35 lbf-in         1x (14 2 AWG)         75 °C         AL or CU         Screw-type terminals         45 45 lbf-in         1x (14 2 AWG)         75 °C
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     Mounting/wiring     mounting position     fastening method     type of electrical connection for supply voltage line-side     tightening torque [lbf-in] for supply     type of connectable conductor for supply maximum permissible     material of the conductor for load-side outgoing feeder     type of connectable conductor cross-sections for AWG cables     for load-side outgoing feeder     type of connectable conductor for supply     type of electrical connection for load-side outgoing feeder     tightening torque [lbf-in] for load-side outgoing feeder     type of connectable conductor for load-side outgoing feeder     type of connectable conductor for load-side outgoing feeder     type of connectable conductor for load-side outgoing feeder     type of load-side outgoing feeder     type of connectable conductor for load-side outgoing feeder     type of load-side outgoing feeder     type of electrical connection of magnet coil	60A / 600V         non-fusible         non-fusible         NEMA Type 12         dustproof and drip-proof for indoor use         Vertical         Surface mounting and installation         Box lug         35 35 lbf-in         1x (14 2 AWG)         75 °C         AL or CU         Screw-type terminals         45 45 lbf-in         1x (14 2 AWG)         75 °C         AL or CU         Screw-type terminals         45 45 lbf-in         1x (14 2 AWG)
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     Mounting/wiring     mounting position     fastening method     type of electrical connection for supply voltage line-side     tightening torque [lbf-in] for supply     type of connectable conductor for supply maximum permissible     material of the conductor for supply maximum permissible     material of the conductor cross-sections for AWG cables     for load-side outgoing feeder     type of connectable conductor cross-sections for AWG cables     for load-side outgoing feeder     type of connectable conductor for supply     type of electrical connection for load-side outgoing feeder     tightening torque [lbf-in] for load-side outgoing feeder     type of connectable conductor for supply     type of connectable conductor for load-side outgoing feeder     type of connectable conductor for load-side outgoing feeder     type of electrical connection for load-side outgoing feeder     type of electrical connector for load-side outgoing feeder     type of electrical connection of magnet coil	60A / 600V         non-fusible         non-fusible         NEMA Type 12         dustproof and drip-proof for indoor use         Vertical         Surface mounting and installation         Box lug         35 35 lbf-in         1x (14 2 AWG)         75 °C         AL or CU         Screw-type terminals         45 45 lbf-in         1x (14 2 AWG)         75 °C         AL or CU         Screw-type terminals         45 45 lbf-in         1x (14 2 AWG)
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     Mounting/wiring     mounting position     fastening method     type of electrical connection for supply voltage line-side     tightening torque [lbf-in] for supply     type of connectable conductor cross-sections at line-side for     AWG cables single or multi-stranded     temperature of the conductor for supply maximum permissible     material of the conductor for load-side outgoing feeder     type of connectable conductor cross-sections for AWG cables     for load-side outgoing feeder     type of connectable conductor for load-side outgoing feeder     type of connectable conductor for load-side outgoing feeder     type of electrical connection for load-side outgoing feeder     type of connectable conductor for load-side outgoing feeder     type of electrical connection of magnet coil     type of electrical connection of magnet coil	60A / 600V         non-fusible         non-fusible         NEMA Type 12         dustproof and drip-proof for indoor use         Vertical         Surface mounting and installation         Box lug         35 35 lbf in         1x (14 2 AWG)         75 °C         AL or CU         Screw-type terminals         45 45 lbf in         1x (14 2 AWG)         75 °C         AL or CU         Screw-type terminals         45 45 lbf in         1x (14 2 AWG)         75 °C         AL or CU         Screw-type terminals         45 45 lbf in         1x (14 2 AWG)         75 °C         AL or CU         Screw-type terminals         5 12 lbf in
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     Mounting/wiring     mounting position     fastening method     type of electrical connection for supply voltage line-side     tightening torque [lbf-in] for supply     type of connectable conductor for supply maximum permissible     material of the conductor for supply     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     type of connectable conductor for supply     type of electrical connection for load-side outgoing feeder     tightening torque [lbf-in] for load-side outgoing feeder     type of connectable conductor for supply     type of connectable conductor for supply     type of connectable conductor for load-side outgoing feeder     type of electrical connection of magnet coil     type of electrical connection of magnet coil     type of electrical connection of magnet coil     type of connectable conductor cross-sections of magnet coil for     AWG cables single or multi-stranded	60A / 600V         non-fusible         non-fusible         NEMA Type 12         dustproof and drip-proof for indoor use         Vertical         Surface mounting and installation         Box lug         35 35 lbf-in         1x (14 2 AWG)         75 °C         AL or CU         Screw-type terminals         45 45 lbf-in         1x (14 2 AWG)         75 °C         AL or CU         Screw-type terminals         45 45 lbf-in         1x (14 2 AWG)         75 °C         AL or CU         Screw-type terminals         45 45 lbf-in         1x (14 2 AWG)         75 °C         AL or CU         Screw-type terminals         5 12 lbf-in         2x (16 12 AWG)

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; CSA 22.2, No.14
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=US2:84EUE920DF

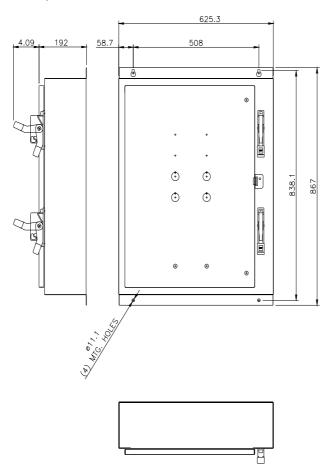
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

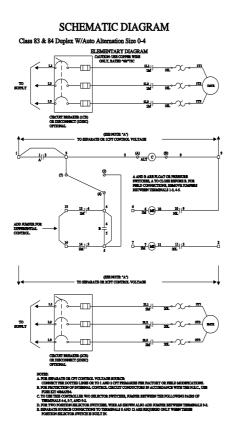
https://support.industry.siemens.com/cs/US/en/ps/US2:84EUE920DF

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=US2:84EUE920DF&lang=en

Certificates/approvals

https://support.industry.siemens.com/cs/US/en/ps/US2:84EUE920DF/certificate





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