SIEMENS

Data sheet US2:84HUG950DF



Duplex starter W/O alternator, Solid-state overload relay, OLR 60HZ coil, Combination type, Tw NEMA type 12, Dust/drip proof f

product brand name	Class 84
design of the product	Duplex controller with two non-fusible disconnect switches without alternator
special product feature	ESP200 overload relay
General technical data	
weight [lb]	106 lb
Height x Width x Depth [in]	56 × 29 × 10 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	20 hp
• at 220/230 V rated value	25 hp
• at 460/480 V rated value	50 hp
• at 575/600 V rated value	50 hp
Contactor	
size of contactor	NEMA controller size 3
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	90 A
mechanical service life (operating cycles) of the main contacts typical	5000000
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
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	14 W

apparent pick-up power of magnet coil at AC	310 VA
apparent holding power of magnet coil at AC	26 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	26 41 ms
OFF-delay time	14 19 ms
Overload relay	
product function	
overload protection	Yes
phase failure detection	Yes
asymmetry detection ground fault detection	Yes Yes
ground fault detectiontest function	Yes
external reset	Yes
reset function	Manual, automatic and remote
trip class	CLASS 5 / 10 / 20 (factory set) / 30
adjustable current response value current of the current-	25 100 A
dependent overload release	
tripping time at phase-loss maximum	3 \$
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 operational current of auxiliary contacts of overload relay	
at AC at 600 V	5 A
• at DC at 250 V	1.4
contact rating of auxiliary contacts of overload relay according to	5A@600VAC (B600), 1A@250VDC (R300)
UL inquistion voltage (Lii)	
insulation voltage (Ui) • with single-phase operation at AC rated value	600 V
	000 V
■ with multi-phase operation at AC rated value	300 V
with multi-phase operation at AC rated value Disconnect Switch	300 V
Disconnect Switch	300 V 100A / 600V
·	
Disconnect Switch response value of switch disconnector	100A / 600V
Disconnect Switch response value of switch disconnector design of fuse holder	100A / 600V non-fusible
response value of switch disconnector design of fuse holder operating class of the fuse link	100A / 600V non-fusible
response value of switch disconnector design of fuse holder operating class of the fuse link Enclosure	100A / 600V non-fusible non-fusible
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	100A / 600V non-fusible non-fusible NEMA Type 12
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	100A / 600V non-fusible non-fusible NEMA Type 12
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	100A / 600V non-fusible non-fusible NEMA Type 12 dustproof and drip-proof for indoor use
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	100A / 600V non-fusible non-fusible NEMA Type 12 dustproof and drip-proof for indoor use Vertical Surface mounting and installation Box lug
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	100A / 600V non-fusible non-fusible NEMA Type 12 dustproof and drip-proof for indoor use Vertical Surface mounting and installation Box lug 120 120 lbf·in
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	100A / 600V non-fusible non-fusible NEMA Type 12 dustproof and drip-proof for indoor use Vertical Surface mounting and installation Box lug
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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 supply type of electrical connection for load-side outgoing feeder	100A / 600V non-fusible non-fusible NEMA Type 12 dustproof and drip-proof for indoor use Vertical Surface mounting and installation Box lug 120 120 lbf-in 1x (14 1/0 AWG) 75 °C AL or CU Box lug
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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 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 single or multi-stranded temperature of the conductor for load-side outgoing feeder maximum permissible	100A / 600V non-fusible non-fusible NEMA Type 12 dustproof and drip-proof for indoor use Vertical Surface mounting and installation Box lug 120 120 lbf-in 1x (14 1/0 AWG) 75 °C AL or CU Box lug 120 120 lbf-in 1x (14 2/0 AWG)
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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 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 type of connectable 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	100A / 600V non-fusible non-fusible NEMA Type 12 dustproof and drip-proof for indoor use Vertical Surface mounting and installation Box lug 120 120 lbf-in 1x (14 1/0 AWG) 75 °C AL or CU Box lug 120 120 lbf-in 1x (14 2/0 AWG) 75 °C AL or CU Box lug 120 120 lbf-in 1x (14 2/1 AWG)
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 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	100A / 600V non-fusible non-fusible NEMA Type 12 dustproof and drip-proof for indoor use Vertical Surface mounting and installation Box lug 120 120 lbf-in 1x (14 1/0 AWG) 75 °C AL or CU Box lug 120 120 lbf-in 1x (14 2/0 AWG) 75 °C AL or CU Box lug 120 120 lbf-in 1x (14 2/10 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

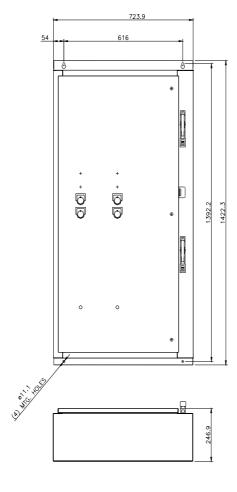
Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/us/Catalog/product?mlfb=US2:84HUG950DF

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

https://support.industry.siemens.com/cs/US/en/ps/US2:84HUG950DF

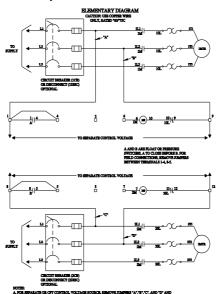
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=US2:84HUG950DF&lang=en

Certificates/approvals
https://support.industry.siemens.com/cs/US/en/ps/US2:84HUG950DF/certificate



SCHEMATIC DIAGRAM

Class 83 & 84 Duplex W/Manual Alternation Size 0-4



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