SIEMENS

Data sheet US2:84EUE950MF



Duplex starter w/o alternator, Size 1 3/4, Three phase full voltage, Solid-state overload relay, OLR amp range 10-40A, 110V 50Hz / 120V 60Hz coil, Combination type, Two 40A circuit breakers, Enclosure NEMA type 12, Dust/drip proof for indoors

product brand name	Class 84
design of the product	Duplex controller with two MCPs without 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	0 hp
• at 220/230 V rated value	0 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	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	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

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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	
 overload protection 	Yes
 phase failure detection 	Yes
asymmetry detection	Yes
ground fault detection	Yes
• test 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- dependent overload release	10 40 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	
• 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
with multi-phase operation at AC rated value	300 V
with multi-phase operation at AC rated value Enclosure	300 V
with multi-phase operation at AC rated value Enclosure degree of protection NEMA rating of the enclosure	300 V NEMA Type 12
with multi-phase operation at AC rated value Enclosure degree of protection NEMA rating of the enclosure design of the housing	300 V
with multi-phase operation at AC rated value Enclosure degree of protection NEMA rating of the enclosure design of the housing Circuit Breaker	300 V NEMA Type 12 dustproof and drip-proof for indoor use
with multi-phase operation at AC rated value Enclosure degree of protection NEMA rating of the enclosure design of the housing Circuit Breaker type of the motor protection	NEMA Type 12 dustproof and drip-proof for indoor use Motor circuit protector (magnetic trip only)
with multi-phase operation at AC rated value Enclosure degree of protection NEMA rating of the enclosure design of the housing Circuit Breaker type of the motor protection operational current of motor circuit breaker rated value	NEMA Type 12 dustproof and drip-proof for indoor use Motor circuit protector (magnetic trip only) 40 A
with multi-phase operation at AC rated value Enclosure degree of protection NEMA rating of the enclosure design of the housing Circuit Breaker type of the motor protection operational current of motor circuit breaker rated value adjustable current response value current of instantaneous short-circuit trip unit	NEMA Type 12 dustproof and drip-proof for indoor use Motor circuit protector (magnetic trip only)
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with multi-phase operation at AC rated value Enclosure degree of protection NEMA rating of the enclosure design of the housing Circuit Breaker type of the motor protection operational current of motor circuit breaker rated value adjustable current response value current of instantaneous short-circuit trip unit Mounting/wiring	NEMA Type 12 dustproof and drip-proof for indoor use Motor circuit protector (magnetic trip only) 40 A 115 375 A
with multi-phase operation at AC rated value Enclosure degree of protection NEMA rating of the enclosure design of the housing Circuit Breaker type of the motor protection operational current of motor circuit breaker rated value adjustable current response value current of instantaneous short-circuit trip unit Mounting/wiring mounting position	NEMA Type 12 dustproof and drip-proof for indoor use Motor circuit protector (magnetic trip only) 40 A 115 375 A Vertical
with multi-phase operation at AC rated value Enclosure degree of protection NEMA rating of the enclosure design of the housing Circuit Breaker type of the motor protection operational current of motor circuit breaker rated value adjustable current response value current of instantaneous short-circuit trip unit Mounting/wiring mounting position fastening method	NEMA Type 12 dustproof and drip-proof for indoor use Motor circuit protector (magnetic trip only) 40 A 115 375 A Vertical Surface mounting and installation
with multi-phase operation at AC rated value Enclosure degree of protection NEMA rating of the enclosure design of the housing Circuit Breaker type of the motor protection operational current of motor circuit breaker rated value adjustable current response value current of instantaneous short-circuit trip unit Mounting/wiring mounting position fastening method type of electrical connection for supply voltage line-side type of connectable conductor cross-sections at line-side for	NEMA Type 12 dustproof and drip-proof for indoor use Motor circuit protector (magnetic trip only) 40 A 115 375 A Vertical Surface mounting and installation Box lug
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with multi-phase operation at AC rated value Enclosure degree of protection NEMA rating of the enclosure design of the housing Circuit Breaker type of the motor protection operational current of motor circuit breaker rated value adjustable current response value current of instantaneous short-circuit trip unit Mounting/wiring mounting position fastening method type of electrical connection for supply voltage line-side 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	NEMA Type 12 dustproof and drip-proof for indoor use Motor circuit protector (magnetic trip only) 40 A 115 375 A Vertical Surface mounting and installation Box lug 1x (10 AWG 1/0 AWG) 75 °C AL or CU Screw-type terminals 45 45 lbf-in
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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 short-circuit trip	Instantaneous trip circuit breaker
maximum short-circuit current breaking capacity (Icu)	
• at 240 V	100 kA
• at 480 V	100 kA
• at 600 V	25 kA
certificate of suitability	NEMA ICS 2; UL 508; CSA 22.2, No.14
Further information	

Industrial Controls - Product Overview (Catalogs, Brochures,...)

Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/us/Catalog/product?mlfb=US2:84EUE950MF

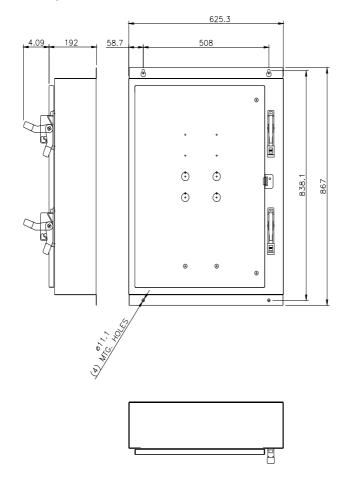
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

https://support.industry.siemens.com/cs/US/en/ps/US2:84EUE950MF

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=US2:84EUE950MF&lang=en

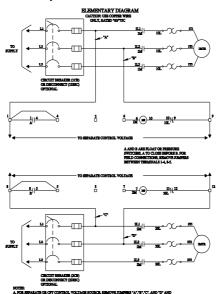
Certificates/approvals

https://support.industry.siemens.com/cs/US/en/ps/US2:84EUE950MF/certificate



SCHEMATIC DIAGRAM

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



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last modified: 1/25/2022 🖸

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