SIEMENS

Data sheet US2:84DUC950MD



Duplex starter w/o alternator, Size 1, Three phase full voltage, Solid-state overload relay, OLR amp range 3-12A, 208VAC 60Hz coil, Combination type, Two 10A 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	
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	2 hp	
• at 220/230 V rated value	2 hp	
• at 460/480 V rated value	5 hp	
• at 575/600 V rated value	5 hp	
Contactor		
size of contactor	NEMA controller size 1	
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	27 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 	0 0 V	
at AC at 60 Hz rated value	208 208 V	
holding power at AC minimum	8.6 W	

	040.1/4
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	3 12 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
Enclosure	
2110100410	
degree of protection NEMA rating of the enclosure	NEMA Tyne 12
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design of the housing	NEMA Type 12 dustproof and drip-proof for indoor use
design of the housing Circuit Breaker	dustproof and drip-proof for indoor use
design of the housing Circuit Breaker type of the motor protection	dustproof and drip-proof for indoor use Motor circuit protector (magnetic trip only)
design of the housing Circuit Breaker type of the motor protection operational current of motor circuit breaker rated value	Motor circuit protector (magnetic trip only) 10 A
design of the housing Circuit Breaker type of the motor protection	dustproof and drip-proof for indoor use Motor circuit protector (magnetic trip only)
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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	Motor circuit protector (magnetic trip only) 10 A 30 100 A
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	Motor circuit protector (magnetic trip only) 10 A 30 100 A Vertical
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	Motor circuit protector (magnetic trip only) 10 A 30 100 A Vertical Surface mounting and installation
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	Motor circuit protector (magnetic trip only) 10 A 30 100 A Vertical Surface mounting and installation Box lug
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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 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 cross-sections for AWG cables for load-side outgoing feeder 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	dustproof and drip-proof for indoor use Motor circuit protector (magnetic trip only) 10 A 30 100 A Vertical Surface mounting and installation Box lug 1x (14 AWG 10 AWG) or 1x (12 AWG 10 AWG) 75 °C AL or CU Screw-type terminals 35 35 lbf·in 1x (14 2 AWG) 75 °C AL or CU Screw-type terminals 5 12 lbf·in 2x (16 12 AWG)

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=US2:84DUC950MD

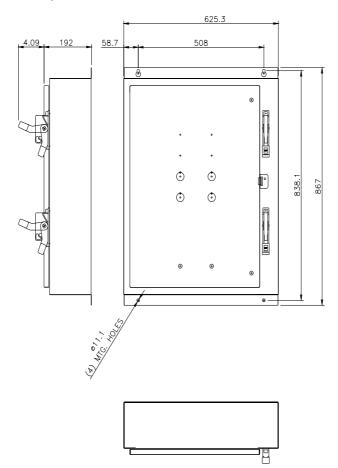
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

https://support.industry.siemens.com/cs/US/en/ps/US2:84DUC950MD

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=US2:84DUC950MD&lang=en

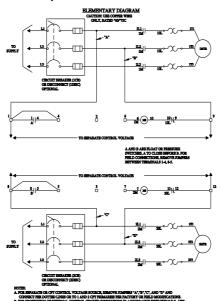
Certificates/approvals

https://support.industry.siemens.com/cs/US/en/ps/US2:84DUC950MD/certificate



SCHEMATIC DIAGRAM

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



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