## **SIEMENS**

Data sheet US2:84DUE950MJ



Duplex starter w/o alternator, Size 1, Three phase full voltage, Solid-state overload relay, OLR amp range 10-40A, 24VAC 50-60Hz coil, Combination type, Two 30A 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	7.5 hp
• at 220/230 V rated value	7.5 hp
• at 460/480 V rated value	0 hp
• at 575/600 V rated value	0 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	24 24 V
at AC at 60 Hz rated value	24 24 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
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	1 A
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
	300 V
with multi-phase operation at AC rated value	300 V  NEMA Type 12
with multi-phase operation at AC rated value     Enclosure	
with multi-phase operation at AC rated value  Enclosure  degree of protection NEMA rating of the enclosure design of the housing	NEMA Type 12
with multi-phase operation at AC rated value     Enclosure     degree of protection NEMA rating of the enclosure     design of the housing     Circuit Breaker	NEMA Type 12 dustproof and drip-proof for indoor use
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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	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 adjustable current response value current of instantaneous	NEMA Type 12 dustproof and drip-proof for indoor use  Motor circuit protector (magnetic trip only) 30 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	NEMA Type 12 dustproof and drip-proof for indoor use  Motor circuit protector (magnetic trip only) 30 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) 30 A 80 270 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) 30 A 80 270 A  Vertical Surface mounting and installation
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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,...)

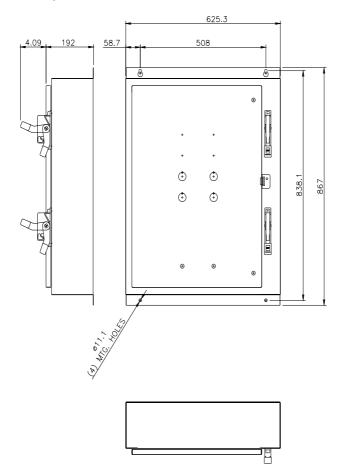
Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/us/Catalog/product?mlfb=US2:84DUE950MJ

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/US/en/ps/US2:84DUE950MJ

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) <a href="http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=US2:84DUE950MJ&lang=en">http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=US2:84DUE950MJ&lang=en</a>

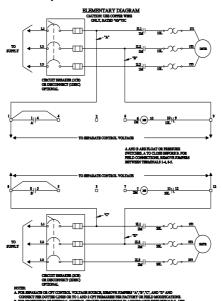
Certificates/approvals

https://support.industry.siemens.com/cs/US/en/ps/US2:84DUE950MJ/certificate



## SCHEMATIC DIAGRAM

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



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