



Figure similar

Duplex starter w/o alternator, Size 1, Three phase full voltage, Solid-state overload relay, OLR amp range 0.75-3.4A, 190-220/220-240V 50/60Hz coil, Non-combination type, Enc NEMA type 4 painted steel, Water/dust tight for outdoors

product brand name	Class 83
design of the product	Duplex controller without alternator
special product feature	ESP200 overload relay
General technical data	
weight [lb]	40 lb
Height x Width x Depth [in]	20 × 16 × 6 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	0.5 hp
• at 220/230 V rated value	0.75 hp
• at 460/480 V rated value	1.5 hp
• at 575/600 V rated value	2 hp
Contactors	
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 (switching 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	

<ul style="list-style-type: none"> • at DC rated value • at AC at 50 Hz rated value • at AC at 60 Hz rated value 	0 ... 0 V
holding power at AC minimum	190 ... 220 V
apparent pick-up power of magnet coil at AC	220 ... 240 V
apparent holding power of magnet coil at AC	8.6 W
operating range factor control supply voltage rated value of magnet coil	218 VA
percental drop-out voltage of magnet coil related to the input voltage	25 VA
ON-delay time	0.85 ... 1.1
OFF-delay time	50 %
Overload relay	
product function	
<ul style="list-style-type: none"> • overload protection • phase failure detection • asymmetry detection • ground fault detection • test function • external reset 	Yes
reset function	Yes
adjustable current response value current of the current-dependent overload release	Yes
tripping time at phase-loss maximum	Yes
relative repeat accuracy	Yes
product feature protective coating on printed-circuit board	Yes
number of NC contacts of auxiliary contacts of overload relay	Manual, automatic and remote
number of NO contacts of auxiliary contacts of overload relay	0.75 ... 3.4 A
operational current of auxiliary contacts of overload relay	3 s
<ul style="list-style-type: none"> • at AC at 600 V • at DC at 250 V 	1 %
contact rating of auxiliary contacts of overload relay according to UL	Yes
insulation voltage (Ui)	1
<ul style="list-style-type: none"> • with single-phase operation at AC rated value • with multi-phase operation at AC rated value 	1
Enclosure	
degree of protection NEMA rating of the enclosure	5 A
design of the housing	1 A
Mounting/wiring	
mounting position	5A@600VAC (B600), 1A@250VDC (R300)
fastening method	600 V
type of electrical connection for supply voltage line-side	300 V
tightening torque [lbf-in] for supply	
type of connectable conductor cross-sections at line-side at 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 at 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 at AWG cables single or multi-stranded	

temperature of the conductor at magnet coil maximum permissible	75 °C
material of the conductor at magnet coil	CU
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 at 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 at 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)
design of the short-circuit trip	Thermal magnetic circuit breaker
breaking capacity maximum short-circuit current (I _{cu})	
• at 240 V	14 kA
• at 480 V	10 kA
• at 600 V	10 kA
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=US2:83DUB95EG>

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

<https://support.industry.siemens.com/cs/US/en/ps/US2:83DUB95EG>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

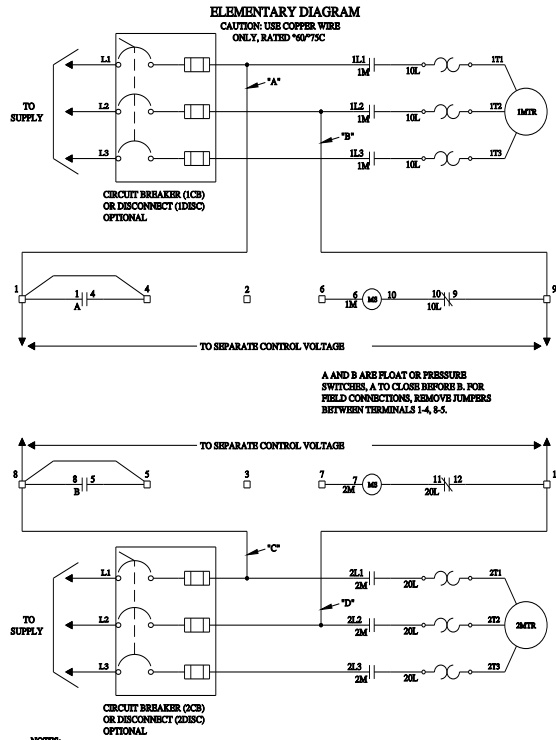
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=US2:83DUB95EG&lang=en

Certificates/approvals

<https://support.industry.siemens.com/cs/US/en/ps/US2:83DUB95EG/certificate>

SCHEMATIC DIAGRAM

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



- NOTES:**
- A. FOR SEPARATE OR CPT CONTROL VOLTAGE SOURCE, REMOVE JUMPERS "A", "B", "C", AND "D" AND CONNECT PER DOTTED LINES OR TO 1 AND 2 CPT PRIMARIES PER FACTORY OR FIELD MODIFICATIONS.
 - B. FOR PROTECTION OF INTERNAL CONTROL CIRCUIT CONDUCTORS IN ACCORDANCE WITH THE N.E.C., USE FUSE KIT 496A-FH.
 - C. TO USE THIS CONTROLLER W/O SELECTOR SWITCHES, JUMPER BETWEEN THE FOLLOWING PAIRS OF TERMINALS 4-6, 5-7.

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