SIEMENS

Data sheet US2:83HP95BF81

Figure similar

Duplex starter W/O alternator, Size 3, Three phase full voltage, Amb compensate bimetal OLrelay Contactor amp rating 90Amp 110V 50HZ / 120V 60HZ coil, Non-combination type, Enclosure NEMA type 1, Indoor general purpose use

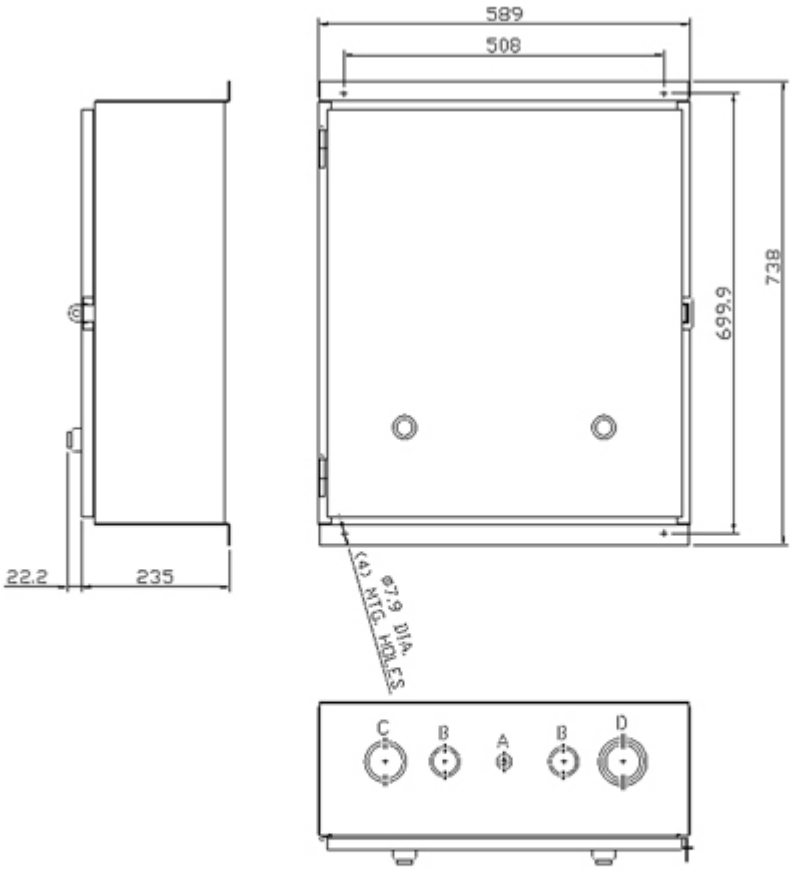
product brand name	Class 83
design of the product	Duplex controller without alternator
special product feature	Gravity dropout contacts; 45 degree, wedge action contacts; Self-rising pressure type control terminals; Encapsulated coil
General technical data	
weight [lb]	93 lb
Height x Width x Depth [in]	29 × 23 × 9 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	25 hp
● at 220/230 V rated value	30 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 (switching 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 V·A
apparent holding power of magnet coil at AC	26 V·A
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 %
switch ON delay time	26 ... 41 ms
OFF delay time	14 ... 19 ms
Overload relay	
product function	
● overload protection	Yes
● test function	Yes
● external reset	Yes
reset function	Manual and automatic
adjustment range of thermal overload trip unit	0.85 ... 1.15
number of NC contacts of auxiliary contacts of overload relay	3
number of NO contacts of auxiliary contacts of overload relay	0
operational current of auxiliary contacts of overload relay	
● at AC at 600 V	5 A
● at DC at 250 V	5 A
contact rating of auxiliary contacts of overload relay according to UL	5A@600VAC (B600), 5A@250VDC (P300)
Enclosure	
degree of protection NEMA rating of the enclosure	NEMA 1 enclosure
design of the housing	Indoor general purpose use
Mounting/wiring	
mounting position	Vertical
fastening method	Surface mounting and installation
type of electrical connection for supply voltage line-side	Box lug
tightening torque [lbf·in] for supply	120 ... 120 lbf·in
type of connectable conductor cross-sections at line-side at AWG cables single or multi-stranded	1x (14 ... 2/0 AWG)
temperature of the conductor for supply maximum permissible	75 °C
material of the conductor for supply	AL or CU
type of electrical connection for load-side outgoing feeder	Screw-type terminals
tightening torque [lbf·in] for load-side outgoing feeder	35 ... 50 lbf·in
type of electrical connection of magnet coil	Screw-type terminals
tightening torque [lbf·in] at magnet coil	5 ... 12 lbf·in
type of connectable conductor cross-sections of magnet coil at AWG cables single or multi-stranded	2x (16 ... 12 AWG)
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	5 ... 12 lbf·in
type of connectable conductor cross-sections at overload relay at AWG cables for auxiliary contacts single or multi-stranded	2x (16 ... 12 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 (Icu)	
• 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

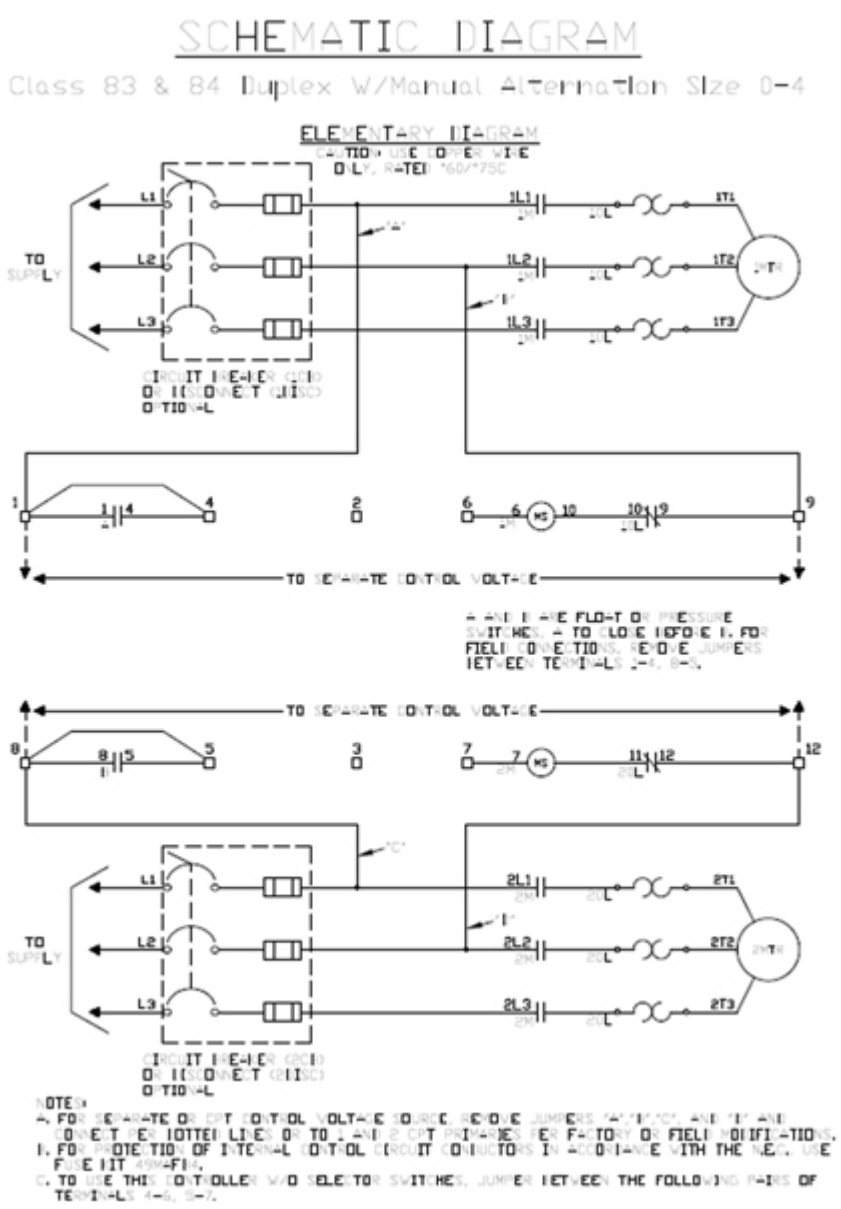
Further information

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=US2:83HP95BF81
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/US/en/ps/US2:83HP95BF81
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=US2:83HP95BF81&lang=en
Certificates/approvals
https://support.industry.siemens.com/cs/US/en/ps/US2:83HP95BF81/certificate



CONDUITS TYP. TOP & BOTTOM

LETTER	CONDUIT SIZE
A	ø12.7 & ø19 DIA. CONDUIT
B	ø31.8 & ø38.1 DIA. CONDUIT
C	ø50.8 & ø63.5 DIA. CONDUIT
D	ø50.8, ø63.5 & ø76.2 DIA. CONDUIT



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