## **SIEMENS**

Data sheet US2:22HP320F81



Reversing motor starter, Size 3, Three phase full voltage, Amb. compensate bimetal OLR, Contactor amp rating 90A, 110V 50Hz / 120V 60Hz coil, Noncombination type, Enclosure type 12, Dust/drip proof for indoors

Figure similar

product brand name	Class 14 & 22
design of the product	Full-voltage reversing motor starter
General technical data	
weight [lb]	53.8 lb
Height x Width x Depth [in]	25 × 17 × 7 in
touch protection against electrical shock	NA for enclosed products
installation altitude [ft] at height above sea level maximum	6560 ft
ambient temperature [°F]	
<ul> <li>during storage</li> </ul>	-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 (operating 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	
<ul> <li>at AC at 50 Hz rated value</li> </ul>	110 V
at AC at 60 Hz rated value	120 V
holding power at AC minimum	14 W

apparent holding power of magnet coil at AC	26 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	26 41 ms
OFF-delay time	14 19 ms
Overload relay	
product function	
<ul> <li>overload protection</li> </ul>	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	12
design of the housing	dustproof and drip-proof for indoor 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
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 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
	CU
material of the conductor at contactor for auxiliary contacts	
type of electrical connection at overload relay for auxiliary contacts	Screw-type terminals
type of electrical connection at overload relay for auxiliary contacts tightening torque [lbf·in] at overload relay for auxiliary contacts	5 12 lbf·in
type of electrical connection at overload relay for auxiliary contacts tightening torque [lbf·in] at overload relay for auxiliary contacts type of connectable conductor cross-sections at overload relay at AWG cables for auxiliary contacts single or multi-stranded	5 12 lbf·in 2x (16 12 AWG)
type of electrical connection at overload relay for auxiliary contacts  tightening torque [lbf-in] at overload relay for auxiliary contacts  type of connectable conductor cross-sections at overload relay at AWG cables for auxiliary contacts single or multi-stranded temperature of the conductor at overload relay for auxiliary contacts maximum permissible	5 12 lbf·in 2x (16 12 AWG) 75 °C
type of electrical connection at overload relay for auxiliary contacts  tightening torque [lbf-in] at overload relay for auxiliary contacts type of connectable conductor cross-sections at overload relay at AWG cables for auxiliary contacts single or multi-stranded temperature of the conductor at overload relay for auxiliary contacts maximum permissible material of the conductor at overload relay for auxiliary contacts	5 12 lbf·in 2x (16 12 AWG)
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type of electrical connection at overload relay for auxiliary contacts  tightening torque [lbf-in] at overload relay for auxiliary contacts  type of connectable conductor cross-sections at overload relay at AWG cables for auxiliary contacts single or multi-stranded temperature of the conductor at overload relay for auxiliary contacts maximum permissible  material of the conductor at overload relay for auxiliary contacts  Short-circuit current rating  maximum short-circuit current breaking capacity (Icu)  • at 240 V  • at 480 V	5 12 lbf-in 2x (16 12 AWG)  75 °C  CU  0 kA 0 kA
type of electrical connection at overload relay for auxiliary contacts  tightening torque [lbf·in] at overload relay for auxiliary contacts type of connectable conductor cross-sections at overload relay at AWG cables for auxiliary contacts single or multi-stranded temperature of the conductor at overload relay for auxiliary contacts maximum permissible material of the conductor at overload relay for auxiliary contacts  Short-circuit current rating  maximum short-circuit current breaking capacity (Icu)  • at 240 V  • at 480 V  • at 600 V	5 12 lbf-in 2x (16 12 AWG)  75 °C  CU  0 kA 0 kA 0 kA
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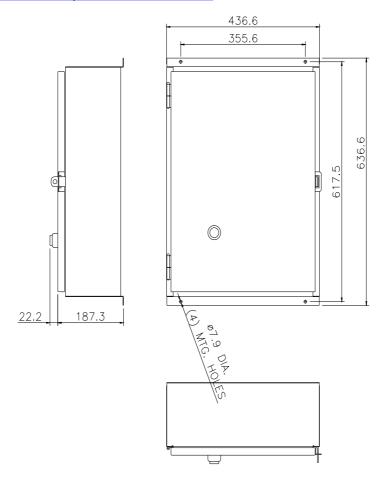
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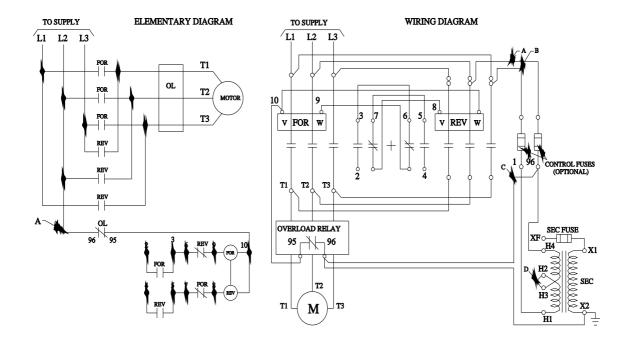
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