## **SIEMENS**

Data sheet US2:14EP12FF81



Non-reversing motor starter, Size 1 3/4, Single Phase, 2-Pole, Amb. compensate bimetal OLR, Contactor amp rating 40A, 110V 50Hz / 120V 60Hz coil, Non-combination type, Enclosure type 4X fiberglass, Water/dust tight noncorrosive

Figure similar

product brand name	Class 14 & 22
design of the product	Full-voltage non-reversing motor starter
special product feature	Half-size starter
General technical data	
weight [lb]	14 lb
Height x Width x Depth [in]	15 × 12 × 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]	
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 single-phase AC motor	
• at 115 V rated value	3 hp
• at 200/208 V rated value	5 hp
• at 220/230 V rated value	5 hp
Contactor	
size of contactor	Controller half size 1 3/4
number of NO contacts for main contacts	2
operating voltage for main current circuit at AC at 60 Hz maximum	240 V
operational current at AC at 600 V rated value	35 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 AC at 50 Hz rated value	
	110 V
at AC at 60 Hz rated value	110 V 120 V

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
• 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	1
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	4X, fiber glass
design of the housing	dustproof, waterproof & resistant to corrosion
Mounting/wiring	
mounting position	Vertical
fastening method	Surface mounting and installation
type of electrical connection for supply voltage line-side	Screw-type terminals
tightening torque [lbf·in] for supply	45 45 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
material of the conductor at contactor for auxiliary contacts	CU Second time terminals
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	40.4.6.00.1.4.0.1.
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
maximum short-circuit current breaking capacity (lcu)	
• at 240 V	14 kA
• at 480 V	10 kA
at 600 V  certificate of cuitability	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)

all.industry.siemens.com/mall/en/us/Catalog/product?mlfb=US2:14EP12FF81

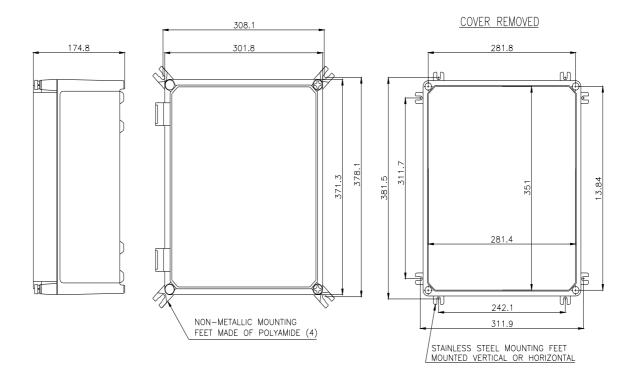
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/US/en/ps/US2:14EP12FF81

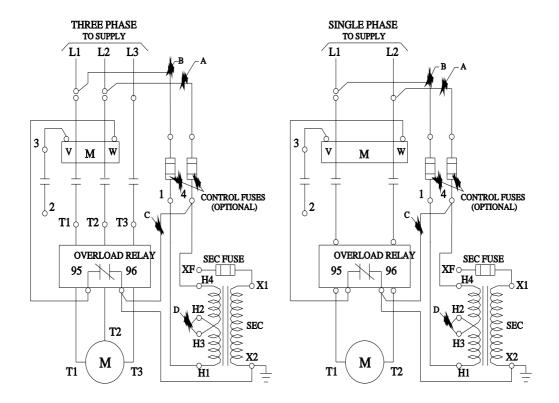
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=US2:14EP12FF81&lang=en

Certificates/approvals

https://support.industry.siemens.com/cs/US/en/ps/US2:14EP12FF81/certificate





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last modified: 1/25/2022 🖸