## **SIEMENS**

Data sheet US2:14IP32FH81



Non-reversing motor starter, Size 3 1/2, Three phase full voltage, Amb. compensate bimetal OLR, Contactor amp rating 115A, Non-combination type, Enclosure type 4X fiberglass, Water/dust tight noncorrosive

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]	41 lb
Height x Width x Depth [in]	24 × 24 × 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	
<ul> <li>during storage</li> </ul>	-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	30 hp
• at 220/230 V rated value	40 hp
• at 460/480 V rated value	75 hp
<ul><li>at 575/600 V rated value</li></ul>	75 hp
Contactor	
size of contactor	Controller half size 3 1/2
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	115 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 AC at 50 Hz rated value	380 440 V
at AC at 60 Hz rated value	440 480 V
holding power at AC minimum	14 W
apparent pick-up power of magnet coil at AC	310 VA
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
<ul><li>test function</li></ul>	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	4X, fiber glass
design of the housing	dustproof, waterproof & resistant to corrosion
Mounting/wiring	
Mounting/wiring mounting position	Vertical
	Vertical Surface mounting and installation
mounting position fastening method type of electrical connection for supply voltage line-side	Surface mounting and installation Box lug
mounting position fastening method type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply	Surface mounting and installation  Box lug  120 120 lbf·in
mounting position fastening method type of electrical connection for supply voltage line-side	Surface mounting and installation Box lug
mounting position fastening method  type of electrical connection for supply voltage line-side tightening torque [lbf·in] for supply temperature of the conductor for supply maximum permissible material of the conductor for supply	Surface mounting and installation  Box lug  120 120 lbf·in  75 °C  AL or CU
mounting position fastening method type of electrical connection for supply voltage line-side tightening torque [lbf·in] for supply temperature of the conductor for supply maximum permissible material of the conductor for supply type of electrical connection for load-side outgoing feeder	Surface mounting and installation  Box lug  120 120 lbf·in  75 °C  AL or CU  Screw-type terminals
mounting position fastening method type of electrical connection for supply voltage line-side tightening torque [lbf·in] for supply 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	Surface mounting and installation  Box lug  120 120 lbf·in  75 °C  AL or CU  Screw-type terminals  35 50 lbf·in
mounting position fastening method type of electrical connection for supply voltage line-side tightening torque [lbf·in] for supply 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 electrical connection of magnet coil	Surface mounting and installation  Box lug  120 120 lbf·in  75 °C  AL or CU  Screw-type terminals  35 50 lbf·in  Screw-type terminals
mounting position fastening method  type of electrical connection for supply voltage line-side tightening torque [lbf·in] for supply 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 electrical connection of magnet coil	Surface mounting and installation  Box lug  120 120 lbf·in  75 °C  AL or CU  Screw-type terminals  35 50 lbf·in  Screw-type terminals  5 12 lbf·in
mounting position fastening method  type of electrical connection for supply voltage line-side tightening torque [lbf·in] for supply 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 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	Surface mounting and installation  Box lug  120 120 lbf·in  75 °C  AL or CU  Screw-type terminals  35 50 lbf·in  Screw-type terminals  5 12 lbf·in  2x (16 12 AWG)
mounting position fastening method  type of electrical connection for supply voltage line-side tightening torque [lbf·in] for supply 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 electrical connection of magnet coil tightening torque [lbf·in] at magnet coil type of connectable conductor cross-sections of magnet	Surface mounting and installation  Box lug  120 120 lbf·in  75 °C  AL or CU  Screw-type terminals  35 50 lbf·in  Screw-type terminals  5 12 lbf·in  2x (16 12 AWG)
mounting position fastening method type of electrical connection for supply voltage line-side tightening torque [lbf·in] for supply 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 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 material of the conductor at magnet coil	Surface mounting and installation  Box lug  120 120 lbf·in  75 °C  AL or CU  Screw-type terminals  35 50 lbf·in  Screw-type terminals  5 12 lbf·in  2x (16 12 AWG)  75 °C
mounting position fastening method type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply 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 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 material of the conductor at magnet coil type of electrical connection for auxiliary contacts	Surface mounting and installation  Box lug  120 120 lbf·in  75 °C  AL or CU  Screw-type terminals  35 50 lbf·in  Screw-type terminals  5 12 lbf·in  2x (16 12 AWG)  75 °C  CU  Screw-type terminals
mounting position fastening method  type of electrical connection for supply voltage line-side tightening torque [lbf·in] for supply 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 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 material of the conductor at magnet coil type of electrical connection for auxiliary contacts tightening torque [lbf·in] at contactor for auxiliary contacts	Surface mounting and installation  Box lug  120 120 lbf·in  75 °C  AL or CU  Screw-type terminals  35 50 lbf·in  Screw-type terminals  5 12 lbf·in  2x (16 12 AWG)  75 °C  CU  Screw-type terminals  10 15 lbf·in
mounting position fastening method type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply 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 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 material of the conductor at magnet coil type of electrical connection for auxiliary contacts	Surface mounting and installation  Box lug  120 120 lbf·in  75 °C  AL or CU  Screw-type terminals  35 50 lbf·in  Screw-type terminals  5 12 lbf·in  2x (16 12 AWG)  75 °C  CU  Screw-type terminals
mounting position fastening method type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply 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 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 material of the conductor at magnet coil type of electrical connection for auxiliary contacts tightening torque [lbf-in] at contactor for auxiliary contacts type of connectable conductor cross-sections at contactor at AWG cables for auxiliary contacts single or multi-	Surface mounting and installation  Box lug  120 120 lbf·in  75 °C  AL or CU  Screw-type terminals  35 50 lbf·in  Screw-type terminals  5 12 lbf·in  2x (16 12 AWG)  75 °C  CU  Screw-type terminals  10 15 lbf·in
mounting position fastening method type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply 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 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 type of electrical connection for auxiliary contacts tightening torque [lbf-in] at contactor for auxiliary contacts type of connectable conductor cross-sections at contactor at AWG cables for auxiliary contacts single or multi- stranded temperature of the conductor at contactor for auxiliary	Surface mounting and installation  Box lug  120 120 lbf·in  75 °C  AL or CU  Screw-type terminals  35 50 lbf·in  Screw-type terminals  5 12 lbf·in  2x (16 12 AWG)  75 °C  CU  Screw-type terminals  10 15 lbf·in  1x (12 AWG), 2x (16 14 AWG), 2x (18 16 AWG)
mounting position fastening method  type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply 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 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 material of the conductor at magnet coil type of electrical connection for auxiliary contacts tightening torque [lbf-in] at contactor for auxiliary contacts type of connectable conductor cross-sections at contactor at AWG cables for auxiliary contacts single or multi- stranded temperature of the conductor at contactor for auxiliary contacts maximum permissible	Surface mounting and installation  Box lug  120 120 lbf·in  75 °C  AL or CU  Screw-type terminals  35 50 lbf·in  Screw-type terminals  5 12 lbf·in  2x (16 12 AWG)  75 °C  CU  Screw-type terminals  10 15 lbf·in  1x (12 AWG), 2x (16 14 AWG), 2x (18 16 AWG)
mounting position fastening method type of electrical connection for supply voltage line-side tightening torque [lbf·in] for supply 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 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 material of the conductor at magnet coil type of electrical connection for auxiliary contacts tightening torque [lbf·in] at contactor for auxiliary contacts type of connectable conductor cross-sections at contactor at AWG cables for auxiliary contacts single or multi- stranded temperature of the conductor at contactor for auxiliary contacts maximum permissible material of the conductor at contactor for auxiliary contacts type of electrical connection at overload relay for auxiliary	Surface mounting and installation  Box lug  120 120 lbf-in  75 °C  AL or CU  Screw-type terminals  35 50 lbf-in  Screw-type terminals  5 12 lbf-in  2x (16 12 AWG)  75 °C  CU  Screw-type terminals  10 15 lbf-in  1x (12 AWG), 2x (16 14 AWG), 2x (18 16 AWG)  75 °C  CU
mounting position fastening method type of electrical connection for supply voltage line-side tightening torque [lbf·in] for supply temperature of the conductor for supply maximum permissible material of the conductor for load-side outgoing feeder tightening torque [lbf·in] 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 material of the conductor at magnet coil type of electrical connection for auxiliary contacts tightening torque [lbf·in] at contactor for auxiliary contacts type of connectable conductor cross-sections at contactor at AWG cables for auxiliary contacts single or multi- stranded temperature of the conductor at contactor for auxiliary contacts maximum permissible material of the conductor at contactor for auxiliary contacts type of electrical connection at overload relay for auxiliary contacts tightening torque [lbf·in] at overload relay for auxiliary	Surface mounting and installation  Box lug  120 120 lbf·in  75 °C  AL or CU  Screw-type terminals  35 50 lbf·in  Screw-type terminals  5 12 lbf·in  2x (16 12 AWG)  75 °C  CU  Screw-type terminals  10 15 lbf·in  1x (12 AWG), 2x (16 14 AWG), 2x (18 16 AWG)  75 °C  CU  Screw-type terminals

contacts maximum permissible	
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=US2:14IP32FH81

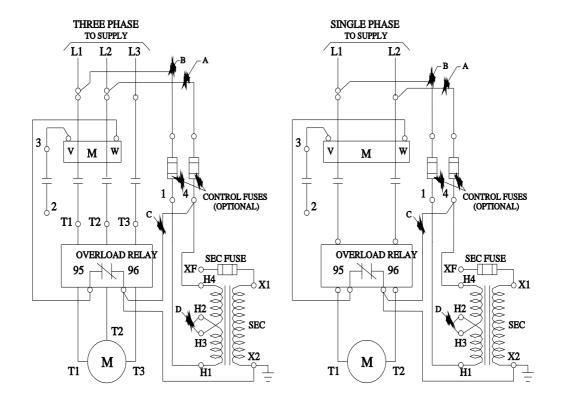
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

https://support.industry.siemens.com/cs/US/en/ps/US2:14IP32FH81

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=US2:14IP32FH81&lang=en">http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=US2:14IP32FH81&lang=en</a>

Certificates/approvals

https://support.industry.siemens.com/cs/US/en/ps/US2:14IP32FH81/certificate



D46590001

1/25/2022 last modified: