## **SIEMENS**

Data sheet US2:14GP82WF81



Non-reversing motor starter, Size 2 1/2, Three phase full voltage, Amb. compensate bimetal OLR, Contactor amp rating 60A, 110V 50Hz / 120V 60Hz coil, Non-combination type, Encl. type 4X 304 S. Steel, 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]	19 lb
Height x Width x Depth [in]	16 × 13 × 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]	
<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	15 hp
• at 220/230 V rated value	20 hp
• at 460/480 V rated value	30 hp
• at 575/600 V rated value	30 hp
Contactor	
size of contactor	Controller half size 2 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	60 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	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	

	110 V
<ul> <li>at AC at 60 Hz rated value</li> </ul>	120 V
holding power at AC minimum	8.6 W
apparent pick-up power of magnet coil at AC	218 VA
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	10 A
● at DC at 250 V	5 A
contact rating of auxiliary contacts of overload relay according to UL	10A@600VAC (A600), 5A@250VDC (P300)
Enclosure	
degree of protection NEMA rating	4X, 304 stainless steel
design of the housing	Extra-wide
design of the housing	dustproof, waterproof & resistant to corrosion
Mounting/wiring	
mounting position	Vertical
fastening method	Surface mounting and installation
fastening method type of electrical connection for supply voltage line-side	Surface mounting and installation  Box lug
type of electrical connection for supply voltage line-side tightening torque [lbf·in] for supply	Box lug 45 45 lbf·in
type of electrical connection for supply voltage line-side	Box lug
type of electrical connection for supply voltage line-side tightening torque [lbf·in] for supply temperature of the conductor for supply maximum	Box lug 45 45 lbf·in
type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply temperature of the conductor for supply maximum permissible	Box lug 45 45 lbf·in 75 °C
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	Box lug 45 45 lbf·in 75 °C  AL or CU Screw-type terminals 35 50 lbf·in
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	Box lug  45 45 lbf·in  75 °C  AL or CU  Screw-type terminals  35 50 lbf·in  Screw-type terminals
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	Box lug  45 45 lbf·in  75 °C  AL or CU  Screw-type terminals  35 50 lbf·in  Screw-type terminals  5 12 lbf·in
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	Box lug  45 45 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)
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	Box lug  45 45 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)
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	Box lug  45 45 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
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	Box lug  45 45 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
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	Box lug  45 45 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
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	Box lug  45 45 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
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-	Box lug  45 45 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
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	Box lug  45 45 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)
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 contacts maximum permissible	Box lug  45 45 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)
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	Box lug  45 45 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  CU

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=US2:14GP82WF81

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

https://support.industry.siemens.com/cs/US/en/ps/US2:14GP82WF81

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

http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=US2:14GP82WF81&lang=en

Certificates/approvals

https://support.industry.siemens.com/cs/US/en/ps/US2:14GP82WF81/certificate

last modified: 1/25/2022 🖸