SIEMENS

Data sheet

US2:14GP12WF81



Non-reversing motor starter, Size 2 1/2, Single phase, 2-pole, Amb compensate bimetal OLrelay Contactor amp rating 60Amp 110V 50HZ / 120V 60HZ coil, Non-combination type, Enclosure type 4X 304 S-steel, Water/dust tight noncorrosive

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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]	16 × 8 × 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]				
 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 	5 hp			
 at 200/208 V rated value 	10 hp			
 at 220/230 V rated value 	10 hp			
Contactor				
size of contactor	Controller half size 2 1/2			
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	60 A			
mechanical service life (switching cycles) of the main contacts typical	1000000			
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			

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control supply voltage	
 at AC at 50 Hz rated value 	110 V
at AC at 60 Hz rated value	120 V
holding power at AC minimum	8.6 W
apparent pick-up power of magnet coil at AC	218 V·A
apparent holding power of magnet coil at AC	25 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	19 29 ms
OFF delay time	10 24 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 overloadrelay	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, 304 stainless steel
design of the housing	Dust-tight, watertight & corrosion resistant
design of the housing Mounting/wiring	Dust-tight, watertight & corrosion resistant
5 5	Vertical
Mounting/wiring	
Mounting/wiring mounting position	Vertical
Mounting/wiring mounting position fastening method	Vertical Surface mounting and installation
Mounting/wiring mounting position fastening method type of electrical connection for supply voltage line-side	Vertical Surface mounting and installation Box lug
Mounting/wiring 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	Vertical Surface mounting and installation Box lug 45 45 lbf·in
Mounting/wiring 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	Vertical Surface mounting and installation Box lug 45 45 lbf·in 75 °C
Mounting/wiring 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	Vertical Surface mounting and installation Box lug 45 45 lbf·in 75 °C AL or CU
Mounting/wiring 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	Vertical Surface mounting and installation Box lug 45 45 lbf·in 75 °C AL or CU Screw-type terminals
Mounting/wiring 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	Vertical Surface mounting and installation Box lug 45 45 lbf·in 75 °C AL or CU Screw-type terminals 35 50 lbf·in
Mounting/wiring 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 tightening torque [lbf·in] for load-side outgoing feeder type of electrical connection of magnet coil	Vertical Surface mounting and installation Box lug 45 45 lbf·in 75 °C AL or CU Screw-type terminals 35 50 lbf·in Screw-type terminals
Mounting/wiring 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	Vertical Surface mounting and installation 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
Mounting/wiring 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 tightening torque [lbf·in] or 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	Vertical Surface mounting and installation 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)
Mounting/wiring 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 tightening torque [lbf·in] or 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	Vertical Surface mounting and installation 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
Mounting/wiring 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 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 material of the conductor at magnet coil	VerticalSurface mounting and installationBox lug $45 \dots 45$ lbf·in $75 °C$ AL or CUScrew-type terminals $35 \dots 50$ lbf·inScrew-type terminals $5 \dots 12$ lbf·in $2x$ (16 12 AWG) $75 °C$ CU
Mounting/wiring 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	Vertical Surface mounting and installation 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
Mounting/wiring 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 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 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 electrical connection for auxiliary contacts 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-	Vertical Surface mounting and installation 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
Mounting/wiring 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 tightening torque [lbf·in] at magnet coil tightening torque [lbf·in] at magnet coil type of connectable 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 at magnet coil type of electrical connection for auxiliary contacts tightening torque [lbf·in] at contactor for auxiliary contacts type of electrical connection 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 cross-sections at contactor type of connectable conductor cross-sections at contactor	Vertical Surface mounting and installation Box lug $45 \dots 45$ lbf·in 75 °C AL or CU Screw-type terminals $35 \dots 50$ lbf·in Screw-type terminals $5 \dots 12$ lbf·in $2x (16 \dots 12$ AWG) 75 °C CU Screw-type terminals $10 \dots 15$ lbf·in $1x (12$ AWG), $2x (16 \dots 14$ AWG), $2x (18 \dots 16$ AWG)
Mounting/wiring 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 tightening torque [lbf-in] at magnet coil tightening torque [lbf-in] at magnet coil type of connectable 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 type of connectable conductor cross-sections at contactor te	Vertical Surface mounting and installation 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
Mounting/wiring 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 tightening torque [lbf·in] at magnet coil tightening torque [lbf·in] at magnet coil type of connectable 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 at contactor for auxiliary contacts type of connectable conductor at contactor for auxiliary contacts type of connectable conductor at contactor for auxiliary contacts type of connectable conductor at contactor for auxiliary contacts type of connectable conductor at conta	VerticalSurface mounting and installationBox lug45 45 lbf·in75 °CAL or CUScrew-type terminals35 50 lbf·inScrew-type terminals5 12 lbf·in2x (16 12 AWG)75 °CCUScrew-type terminals10 15 lbf·in1x (12 AWG), 2x (16 14 AWG), 2x (18 16 AWG)75 °CCU
Mounting/wiring 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 tightening torque [lbf·in] at magnet coil tightening torque [lbf·in] at magnet coil tightening torque [lbf·in] at magnet coil type of connectable 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 tightening torque [lbf·in] at contactor for auxiliary contacts tightening torque [lbf·in] at contactor for auxiliary contacts type of connectable conductor at contactor for auxiliary contacts type of connectable conductor at contactor for auxiliary contacts type of connectable conductor at contactor for auxiliary contacts type of connectable conductor at contactor for auxiliary contacts type of connectable conductor at contactor for auxiliary contacts type of connectable conductor	Vertical Surface mounting and installation 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 Screw-type terminals

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relay at AWG cables for auxiliary contacts single or multi- stranded	
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	

Further Information

Industrial Controls - Product Overview (Catalogs, Brochures,...)

www.usa.siemens.com/iccatalog

Industry Mall (Online ordering system)

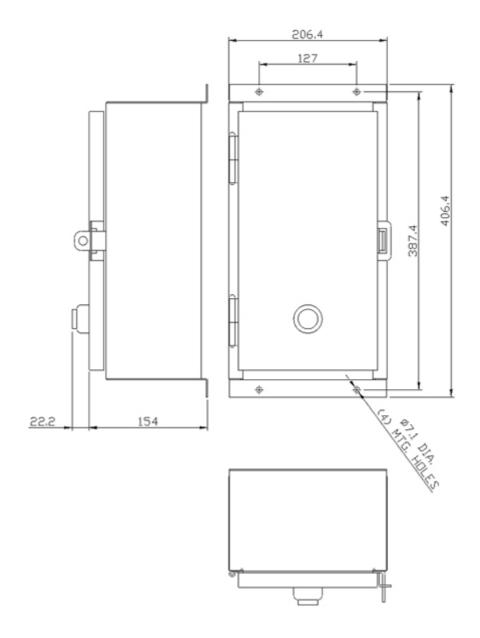
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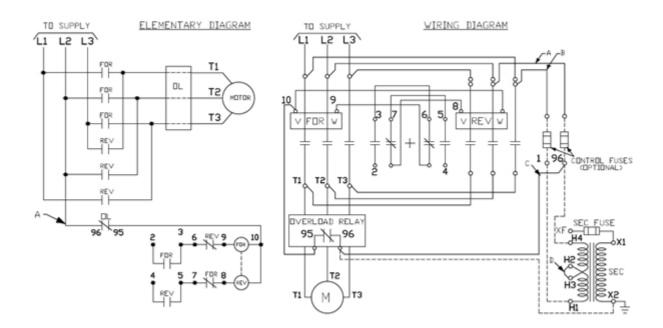
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Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=US2:14GP12WF81&lang=en

Certificates/approvals

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