# **SIEMENS**

### Data sheet

## US2:14HP82WA81

Non-reversing motor starter Size 3 Three phase full voltage Amb compensate bimetal OLrelay Contactor amp rating 90 AMP Noncombination type Encl NEMA type 4X 304 S-steel Water/dust tight non-corrosive Extra-wide enclosure



Figure similar

General technical data	
Weight [lb]	48.5 lb
Height x Width x Depth [in]	26 × 13 × 8 in
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
Ambient temperature [°F] during operation	-4 +104 °F
Ambient temperature during storage	-30 +65 °C
Ambient temperature during operation	-20 +40 °C
Country of origin	USA
Horsepower ratings	
Yielded mechanical performance [hp] for three-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 r	ated value
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50 hp

Contactor         3           Operating voltage for main contracts         3           Operating voltage for main current circuit at AC at 60         400 V           Hz maximum         600 V           Operating current at AC at 600 V rated value         90 A           Mechanical service life (switching cycles) of the main contacts lypical         5000000           Auxiliary contact         0           Number of NC contacts at contactor for auxiliary contacts         1           Number of NC contacts at contactor for auxiliary contacts         1           Number of NC contacts at contactor for auxiliary contacts         1           Contact rating of auxiliary contacts di contactor         10A@600VAC (A600), 5A@600VDC (P600)           according to UL         0         0           Control supply voltage         AC           Control supply voltage         0         0           • at DC rated value         0         0 V           • at AC at 50 Hz rated value         0         0 V V           • dolding power of magnet coil at AC         26 V.A         0           Operating range factor control supply voltage rated value         0.85 1.1         0           • at C at 60 Hz rated value         0.85 1.1         0         0           Operating range factor control supp	• at 575/600 V rated value	50 np
Number of NO contacts for main current circuit at AC at 60     600 V       Operating voltage for main current circuit at AC at 60     600 V       Operating current at AC at 600 V rated value     90 A       Mechanical service life (switching cycles) of the main contacts typical     5000000       Auxiliary contact     0       Number of NC contacts at contactor for auxiliary contacts     1       Number of NC contacts at contactor for auxiliary contacts     1       Number of NO contacts at contactor for auxiliary contacts     1       Number of NO contacts at contactor for auxiliary contacts of contactor according to UL     0       Contact     10A@600VAC (A600), 5A@600VDC (P600)       Control supply voltage     AC       • at AC at 50 Hz rated value     0 0 V       • at AC at 50 Hz rated value     0 0 V       • at AC at 50 Hz rated value     0 0 V       • at AC at 50 Hz rated value     0 0 V       • at AC at 50 Hz rated value     0 0 V       • at AC at 50 Hz rated value     0 0 V       • at AC at 50 Hz rated value     0 0 V       • at AC at 50 Hz rated value     0 0 V       • at AC at 50 Hz rated value     0 0 V       • at AC at 50 Hz rated value     50 %       • briggenet coil at AC     26 VA       Operating range factor control supply voltage rated value     0 0 V <tr< td=""><td>Contactor</td><td></td></tr<>	Contactor	
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Mechanical service life (switching cycles) of the main contacts typical         5000000           Auxiliary contact         0           Number of NC contacts at contactor for auxiliary contacts         0           Number of NO contacts at contactor for auxiliary contacts         1           Number of NO contacts at contacts of contactor according to UL         7           Contact rating of auxiliary contacts of contactor according to UL         10A@600VAC (A600), SA@600VDC (P600)           Colt         Type of voltage of the control supply voltage         AC           Contor tarting of auxiliary contacts and contacts of contactor according to UL         0 0 V           • at DC rated value         0 0 V         • at AC at 50 Hz rated value           • at AC at 50 Hz rated value         0 0 V         • at AC at 50 Hz rated value           • at AC at 50 Hz rated value         0 0 V         • at AC at 50 Hz rated value           • at AC at 50 Hz rated value         0 0 V         • at AC at 50 Hz rated value           • out of the input voltage of magnet coil at AC         26 VA         0.0.0 V           Apparent holding power of magnet coil at AC         26 VA         0.85 1.1           Operating range factor control supply voltage rated value of magnet coil         26 41 ms         0.1.0 V           Off-delay time         26 41 ms         0.1.0 V <td< td=""><td></td><td>600 V</td></td<>		600 V
contacts typical         Image: Contact typical           Auxiliary contacts         0           Number of NC contacts at contactor for auxiliary contacts         1           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)           Control supply voltage         AC           Control supply voltage         AC           Control supply voltage         0           • at DC rated value         0           • at AC at 60 Hz rated value         10           • at AC at 50 Hz rated value         0 0 V           • at AC at 50 Hz rated value         0 0 V           • at AC at 50 Hz rated value         0 0 V           • at AC at 50 Hz rated value         0 0 V           • at AC at 50 Hz rated value         0 0 V           • at AC at 50 Hz rated value         0 0 V           • at AC at 50 Hz rated value         0 0 V           • at AC at 50 Hz rated value         0 0 V           • ad AC at 50 Hz rated value         0 0 V           • ad AC at 50 Hz rated value         0 0 V           • ad AC at 50 Hz rated value         0 0 V	Operating current at AC at 600 V rated value	90 A
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contacts         Image           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)           Colt         Type of voltage of the control supply voltage         AC           Contact rating of auxiliary contacts of contactor         0 0 V           • at DC rated value         0 0 V           • at Cat 60 Hz rated value         0 0 V           • at Cat 60 Hz rated value         0 0 V           • at Cat 60 Hz rated value         0 0 V           • at Cat 60 Hz rated value         0 0 V           • at Cat 50 Hz rated value         0 0 V           • at Cat 50 Hz rated value         0 0 V           • at Cat 50 Hz rated value         0 0 V           • at Cat 50 Hz rated value         0 0 V           • at Cat 50 Hz rated value         0 0 V           • at Cat 50 Hz rated value         0 0 V           • at Cat 50 Hz rated value         0 0 V           • at Cat 50 Hz rated value         0 0 V           • at Cat 50 Hz rated value         0 0 V           • at Cat 50 Hz rated value         0 0 V           • at Cat 50 Hz rated valu	Auxiliary contact	
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according to UL.       Coll         Type of voltage of the control supply voltage       AC         Control supply voltage       0 0 V         • at DC rated value       0 0 V         • at AC at 60 Hz rated value       110 240 V         • at AC at 50 Hz rated value       0 0 V         Holding power at AC minimum       14 W         Apparent pick-up power of magnet coil at AC       310 V-A         Apparent holding power of magnet coil at AC       26 V-A         Operating range factor control supply voltage rated value       0.85 1.1         Percental drop-out voltage of magnet coil related to the input voltage       50 %         Switch-on delay time       26 41 ms         Off-delay time       14 19 ms         Overload protection       Yes         • Cverload protection       Yes         • External reset       Yes         Reset function       0.85 1.15         Number of NC contacts of auxiliary contacts of overload relay       3	Number of total auxiliary contacts maximum	7
Type of voltage of the control supply voltage       AC         Control supply voltage       0 0 V         • at DC rated value       110 240 V         • at AC at 60 Hz rated value       0 0 V         • at AC at 50 Hz rated value       0 0 V         Holding power at AC minimum       14 W         Apparent pick-up power of magnet coil at AC       310 V:A         Apparent holding power of magnet coil at AC       26 V:A         Operating range factor control supply voltage rated value       0.85 1.1         Value of magnet coil       26 41 ms         Off-delay time       26 41 ms         Off-delay time       14 19 ms         Overload protection       Yes         • Test function       Yes         • External reset       Yes         Reset function       0.85 1.15         Number of NC contacts of auxiliary contacts of overload trip unit       0.85 1.15		10A@600VAC (A600), 5A@600VDC (P600)
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value of magnet coil50 %Percental drop-out voltage of magnet coil related to the input voltage50 %Switch-on delay time26 41 msOff-delay time14 19 msOverload relayProduct functionYes• Overload protectionYes• Test functionYes• External resetYesReset function0.85 1.15Adjustment range of thermal overload trip unit0.85 1.15Number of NC contacts of auxiliary contacts of overload relay0	Apparent holding power of magnet coil at AC	26 V·A
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Off-delay time       14 19 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 overload relay       0		50 %
Overload relay       Product function       • Overload protection       • Test function       • Test function       • External reset       Reset function       Adjustment range of thermal overload trip unit       0.85 1.15       Number of NC contacts of auxiliary contacts of overload relay       Number of NO contacts of auxiliary contacts of       0	Switch-on delay time	26 41 ms
Product functionYes• Overload protectionYes• Test functionYes• External resetYesReset functionManual and automaticAdjustment range of thermal overload trip unit0.85 1.15Number of NC contacts of auxiliary contacts of overload relay3Number of NO contacts of auxiliary contacts of 00	Off-delay time	14 19 ms
Product functionYes• Overload protectionYes• Test functionYes• External resetYesReset functionManual and automaticAdjustment range of thermal overload trip unit0.85 1.15Number of NC contacts of auxiliary contacts of overload relay3Number of NO contacts of auxiliary contacts of 00	Overload relay	
<ul> <li>Test function</li> <li>External reset</li> <li>Reset function</li> <li>Adjustment range of thermal overload trip unit</li> <li>Number of NC contacts of auxiliary contacts of overload relay</li> <li>Number of NO contacts of auxiliary contacts of</li> <li>O</li> </ul>	Product function	
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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       0	Test function	Yes
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       0	• External reset	Yes
Number of NC contacts of auxiliary contacts of overload relay     3       Number of NO contacts of auxiliary contacts of     0	Reset function	Manual and automatic
overload relay       Number of NO contacts of auxiliary contacts of       0	Adjustment range of thermal overload trip unit	0.85 1.15
	-	3
	-	0

Operating 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 of the enclosure	NEMA 4X 304 stainless steel enclosure
Design of the housing	Dust-tight, watertight & corrosion resistant
Mounting/wiring	
Mounting position	Vertical
(mounting type)	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 conductors 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 conductors 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
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 conductors 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	
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 (Icu)	
• at 240 V	14 kA
● at 480 V	10 kA

#### Further information

Industrial Controls - Product Overview (Catalogs, Brochures,...) www.usa.siemens.com/iccatalog

Industry Mall (Online ordering system)

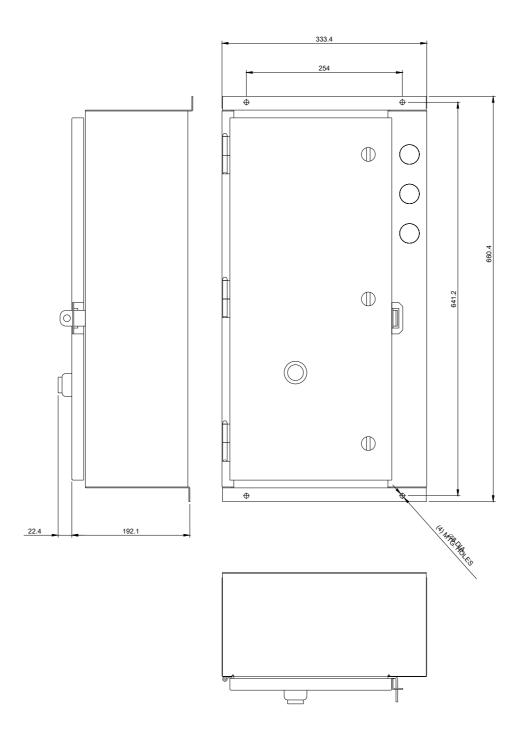
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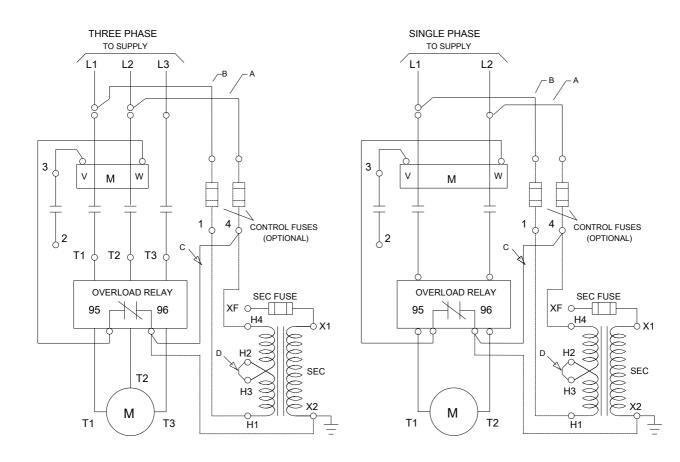
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/US/en/ps/US2:14HP82WA81

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=US2:14HP82WA81&lang=en

#### Certificates/approvals

https://support.industry.siemens.com/cs/US/en/ps/US2:14HP82WA81/certificate





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