## SIEMENS

## Data sheet

## US2:18HUG82XF



Non-reversing motor starter, Size 3, Three phase full voltage, Solid-state overload relay, OLR amp range 25-100A, 110V 50Hz / 120V 60Hz coil, Combination type, 125A circuit breaker, Encl NEMA type 4X 316 S-Steel, Water/dust tight noncorrosive, Extra-wide enclosure

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product brand name	Class 18 & 26
design of the product	Full-voltage non-reversing motor starter with motor circuit protector
special product feature	ESP200 overload relay
General technical data	
Height x Width x Depth [in]	36 × 24 × 8 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
Horsepower ratings	
yielded mechanical performance [hp] for 3-phase AC motor	
<ul> <li>at 200/208 V rated value</li> </ul>	25 hp
<ul> <li>at 220/230 V rated value</li> </ul>	30 hp
<ul> <li>at 460/480 V rated value</li> </ul>	50 hp
<ul> <li>at 575/600 V rated value</li> </ul>	50 hp
Contactor	
size of contactor	NEMA controller size 3
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	90 A
mechanical service life (switching cycles) of the main contacts typical	500000
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	
<ul> <li>at AC at 50 Hz rated value</li> </ul>	110 V
• at AC at 60 Hz rated value	120 V

holding power at AC minimum	14 W
	310 VA
apparent pick-up power of magnet coil at AC 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	
reset function	Manual, automatic and remote
trip class	CLASS 5 / 10 / 20 (factory set) / 30
adjustable current response value current of the current- dependent overload release	25 100 A
make time with automatic start after power failure maximum	3 s
relative repeat accuracy	1 %
number of NC contacts of auxiliary contacts of overload relay	1
number of NO contacts of auxiliary contacts of overload relay	1
operational current of auxiliary contacts of overload relay	
● at AC at 600 V	5 A
• at DC at 250 V	1 A
contact rating of auxiliary contacts of overload relay according to UL	5A@600VAC (B600), 1A@250VDC (R300)
insulation voltage (Ui)	
with single-phase operation at AC rated value	600 V
<ul> <li>with multi-phase operation at AC rated value</li> </ul>	300 V
Enclosure	
degree of protection NEMA rating	4X, 304 stainless steel
design of the housing	dustproof, waterproof & resistant to corrosion
Circuit Breaker	
Circuit Breaker type of the motor protection	Motor circuit protector (magnetic trip only)
Circuit Breaker type of the motor protection operational current of motor circuit breaker rated value	Motor circuit protector (magnetic trip only) 125 A
Circuit Breaker type of the motor protection operational current of motor circuit breaker rated value adjustable current response value current of instantaneous short-circuit trip unit	Motor circuit protector (magnetic trip only)
Circuit Breaker type of the motor protection operational current of motor circuit breaker rated value adjustable current response value current of instantaneous short-circuit trip unit Mounting/wiring	Motor circuit protector (magnetic trip only) 125 A
Circuit Breaker type of the motor protection operational current of motor circuit breaker rated value adjustable current response value current of instantaneous short-circuit trip unit Mounting/wiring mounting position	Motor circuit protector (magnetic trip only) 125 A 500 1250 A Vertical
Circuit Breaker         type of the motor protection         operational current of motor circuit breaker rated value         adjustable current response value current of         instantaneous short-circuit trip unit         Mounting/wiring         mounting position         fastening method	Motor circuit protector (magnetic trip only) 125 A 500 1250 A Vertical Surface mounting and installation
Circuit Breaker         type of the motor protection         operational current of motor circuit breaker rated value         adjustable current response value current of         instantaneous short-circuit trip unit         Mounting/wiring         mounting position         fastening method         type of electrical connection for supply voltage line-side	Motor circuit protector (magnetic trip only) 125 A 500 1250 A Vertical Surface mounting and installation Box lug
Circuit Breaker         type of the motor protection         operational current of motor circuit breaker rated value         adjustable current response value current of         instantaneous short-circuit trip unit         Mounting/wiring         mounting position         fastening method         type of electrical connection for supply voltage line-side         type of connectable conductor cross-sections at line-side         at AWG cables single or multi-stranded	Motor circuit protector (magnetic trip only) 125 A 500 1250 A Vertical Surface mounting and installation Box lug 1x (10 AWG 1/0 AWG)
Circuit Breaker         type of the motor protection         operational current of motor circuit breaker rated value         adjustable current response value current of         instantaneous short-circuit trip unit         Mounting/wiring         mounting position         fastening method         type of electrical connection for supply voltage line-side         type of connectable conductor cross-sections at line-side         at AWG cables single or multi-stranded         temperature of the conductor for supply maximum         permissible	Motor circuit protector (magnetic trip only) 125 A 500 1250 A Vertical Surface mounting and installation Box lug 1x (10 AWG 1/0 AWG) 75 °C
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Circuit Breaker         type of the motor protection         operational current of motor circuit breaker rated value         adjustable current response value current of         instantaneous short-circuit trip unit         Mounting/wiring         mounting position         fastening method         type of electrical connection for supply voltage line-side         type of connectable conductor cross-sections at line-side         at AWG cables single or multi-stranded         temperature of the conductor for supply maximum         permissible         material of the conductor for supply         type of connectable conductor cross-sections at AWG         cables single or multi-stranded         temperature 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 connectable conductor cross-sections at AWG         cables for load-side outgoing feeder single or multi-stranded         temperature of the conductor for load-side outgoing feeder         type of electrical connection of nagnet coil         tightening torque [lbf-in] at magnet coil	Motor circuit protector (magnetic trip only)         125 A         500 1250 A         Vertical         Surface mounting and installation         Box lug         1x (10 AWG 1/0 AWG)         75 °C         AL or CU         Box lug         120 120 lbf-in         1x (14 2/0 AWG)         75 °C         AL or CU         Box lug         120 120 lbf-in         1x (14 2/0 AWG)         75 °C         AL or CU         Screw-type terminals         5 12 lbf-in
Circuit Breaker type of the motor protection operational current of motor circuit breaker rated value adjustable current response value current of instantaneous short-circuit trip unit Mounting/wiring mounting position fastening method type of electrical connection for supply voltage line-side type of connectable conductor cross-sections at line-side at AWG cables single or multi-stranded 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 connectable conductor cross-sections at AWG cables for load-side outgoing feeder type of connectable conductor for load-side outgoing feeder type of connectable conductor for load-side outgoing feeder type of load-side outgoing feeder single or multi- stranded temperature of the conductor for load-side outgoing feeder material of the conductor for load-side outgoing feeder material of the conductor 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	Motor circuit protector (magnetic trip only)         125 A         500 1250 A         Vertical         Surface mounting and installation         Box lug         1x (10 AWG 1/0 AWG)         75 °C         AL or CU         Box lug         120 120 lbf-in         1x (14 2/0 AWG)         75 °C         AL or CU         Screw-type terminals         5 12 lbf-in         2x (16 12 AWG)
Circuit Breaker         type of the motor protection         operational current of motor circuit breaker rated value         adjustable current response value current of instantaneous short-circuit trip unit         Mounting/wiring         mounting position         fastening method         type of electrical connection for supply voltage line-side         type of connectable conductor cross-sections at line-side         at AWG cables single or multi-stranded         temperature of the conductor for supply maximum permissible         material of the conductor for supply         type of connectable conductor cross-sections at AWG cables single or multi-stranded         temperature 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 connectable conductor cross-sections at AWG         cables for load-side outgoing feeder         type of connectable conductor for load-side outgoing feeder         type of electrical connection for load-side outgoing feeder         type of electrical connection for load-side outgoing feeder         type of electrical connection of magnet coil         type of electrical connection of magnet coil         tightening torque [lbf-in] at magnet coil         type of connectable conductor cross-sections of magnet <td>Motor circuit protector (magnetic trip only) 125 A 500 1250 A Vertical Surface mounting and installation Box lug 1x (10 AWG 1/0 AWG) 75 °C AL or CU Box lug 120 120 lbf·in 1x (14 2/0 AWG) 75 °C AL or CU Screw-type terminals 5 12 lbf·in 2x (16 12 AWG) 75 °C</td>	Motor circuit protector (magnetic trip only) 125 A 500 1250 A Vertical Surface mounting and installation Box lug 1x (10 AWG 1/0 AWG) 75 °C AL or CU Box lug 120 120 lbf·in 1x (14 2/0 AWG) 75 °C AL or CU Screw-type terminals 5 12 lbf·in 2x (16 12 AWG) 75 °C
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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
type of electrical connection at overload relay for auxiliary contacts	Screw-type terminals
tightening torque [lbf·in] at overload relay for auxiliary contacts	7 10 lbf·in
type of connectable conductor cross-sections at overload relay at AWG cables for auxiliary contacts single or multi- stranded	2x (20 14 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 short-circuit trip	Instantaneous trip circuit breaker
breaking capacity maximum short-circuit current (Icu)	
• at 240 V	100 kA
• at 480 V	100 kA
• at 600 V	25 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=US2:18HUG82XF

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

https://support.industry.siemens.com/cs/US/en/ps/US2:18HUG82XF

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=US2:18HUG82XF&lang=en

Certificates/approvals

https://support.industry.siemens.com/cs/US/en/ps/US2:18HUG82XF/certificate

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