## **SIEMENS**

Data sheet US2:14CUD82BD

Non-reversing motor starter Size 0 Three phase full voltage Solid-state overload relay OLRelay amp range 5.5-22A 208VAC 60HZ coil Combination type Indoor general purpose use



product brand name	Class 14	
design of the product	Full-voltage non-reversing motor starter	
special product feature	ESP200 overload relay	
General technical data		
weight [lb]	20 lb	
Height x Width x Depth [in]	20 × 12 × 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]		
during storage	-22 +149 °F	
<ul> <li>during operation</li> </ul>	-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 3-phase AC motor		
<ul><li>at 200/208 V rated value</li></ul>	3 hp	
• at 220/230 V rated value	3 hp	
Contactor		
size of contactor	NEMA controller size 0	
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	18 A	
mechanical service life (operating 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	8	
contact rating of auxiliary contacts of contactor according to UL	345VA@115VAC / 768VA@240VAC	
Coil		
type of voltage of the control supply voltage	AC	
control supply voltage		
at AC at 60 Hz rated value	208 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	10 21 1110
product function	
overload protection	Yes
phase failure detection	Yes
asymmetry detection	Yes
ground fault detection	Yes
• test function	Yes
external reset	Yes
reset function	Manual, automatic and remote
trip class	CLASS 5 / 10 / 20 (factory set) / 30
adjustable current response value current of the current-	5.5 22 A
dependent overload release	3.3 <u></u> 7.
tripping time at phase-loss maximum	3 s
relative repeat accuracy	1 %
product feature protective coating on printed-circuit board	Yes
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)	
<ul> <li>with single-phase operation at AC rated value</li> </ul>	600 V
<ul> <li>with multi-phase operation at AC rated value</li> </ul>	300 V
Enclosure	
desires of the housing	Extra-wide
design of the housing	Extra-wide
design of the housing degree of protection NEMA rating of the enclosure	Extra-wide NEMA Type 1
degree of protection NEMA rating of the enclosure	Extra-wide NEMA Type 1
degree of protection NEMA rating of the enclosure design of the housing	Extra-wide NEMA Type 1
degree of protection NEMA rating of the enclosure design of the housing Mounting/wiring	Extra-wide NEMA Type 1 Indoor general purpose use
degree of protection NEMA rating of the enclosure design of the housing Mounting/wiring mounting position	Extra-wide NEMA Type 1 Indoor general purpose use  Vertical
degree of protection NEMA rating of the enclosure design of the housing  Mounting/wiring mounting position fastening method	Extra-wide NEMA Type 1 Indoor general purpose use  Vertical Surface mounting and installation
degree of protection NEMA rating of the enclosure design of the housing  Mounting/wiring mounting position fastening method type of electrical connection for supply voltage line-side	Extra-wide NEMA Type 1 Indoor general purpose use  Vertical Surface mounting and installation Screw-type terminals
degree of protection NEMA rating of the enclosure design of the housing  Mounting/wiring mounting position fastening method type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply type of connectable conductor cross-sections at line-side for	Extra-wide NEMA Type 1 Indoor general purpose use  Vertical Surface mounting and installation Screw-type terminals 20 20 lbf·in
degree of protection NEMA rating of the enclosure design of the housing  Mounting/wiring mounting position fastening method type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply type of connectable conductor cross-sections at line-side for AWG cables single or multi-stranded	Extra-wide NEMA Type 1 Indoor general purpose use  Vertical Surface mounting and installation Screw-type terminals 20 20 lbf-in 1x(14 - 2 AWG)
degree of protection NEMA rating of the enclosure design of the housing  Mounting/wiring mounting position fastening method type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply type of connectable conductor cross-sections at line-side for AWG cables single or multi-stranded temperature of the conductor for supply maximum permissible	Extra-wide NEMA Type 1 Indoor general purpose use  Vertical Surface mounting and installation Screw-type terminals 20 20 lbf-in 1x(14 - 2 AWG)  75 °C
degree of protection NEMA rating of the enclosure design of the housing  Mounting/wiring mounting position fastening method type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply type of connectable conductor cross-sections at line-side for AWG cables single or multi-stranded temperature of the conductor for supply maximum permissible material of the conductor for supply	Extra-wide NEMA Type 1 Indoor general purpose use  Vertical Surface mounting and installation Screw-type terminals 20 20 lbf-in 1x(14 - 2 AWG)  75 °C AL or CU
degree of protection NEMA rating of the enclosure design of the housing  Mounting/wiring mounting position fastening method type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply type of connectable conductor cross-sections at line-side for 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	Extra-wide NEMA Type 1 Indoor general purpose use  Vertical Surface mounting and installation Screw-type terminals 20 20 lbf-in 1x(14 - 2 AWG)  75 °C AL or CU Screw-type terminals
degree of protection NEMA rating of the enclosure design of the housing  Mounting/wiring mounting position fastening method type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply type of connectable conductor cross-sections at line-side for 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 for AWG cables	Extra-wide NEMA Type 1 Indoor general purpose use  Vertical Surface mounting and installation Screw-type terminals 20 20 lbf-in 1x(14 - 2 AWG)  75 °C AL or CU Screw-type terminals 20 20 lbf-in
degree of protection NEMA rating of the enclosure design of the housing  Mounting/wiring mounting position fastening method type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply type of connectable conductor cross-sections at line-side for 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 for AWG cables for load-side outgoing feeder single or multi-stranded temperature of the conductor for load-side outgoing feeder	Extra-wide NEMA Type 1 Indoor general purpose use  Vertical Surface mounting and installation Screw-type terminals 20 20 lbf-in 1x(14 - 2 AWG)  75 °C AL or CU Screw-type terminals 20 20 lbf-in 1x(14 - 2 AWG)
degree of protection NEMA rating of the enclosure design of the housing  Mounting/wiring mounting position fastening method type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply type of connectable conductor cross-sections at line-side for 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 for AWG cables for load-side outgoing feeder single or multi-stranded temperature of the conductor for load-side outgoing feeder maximum permissible	Extra-wide NEMA Type 1 Indoor general purpose use  Vertical Surface mounting and installation Screw-type terminals 20 20 lbf-in 1x(14 - 2 AWG)  75 °C AL or CU Screw-type terminals 20 20 lbf-in 1x(14 - 2 AWG)
degree of protection NEMA rating of the enclosure design of the housing  Mounting/wiring mounting position fastening method type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply type of connectable conductor cross-sections at line-side for 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 for AWG cables for load-side outgoing feeder single or multi-stranded temperature of the conductor for load-side outgoing feeder maximum permissible material of the conductor for load-side outgoing feeder	Extra-wide NEMA Type 1 Indoor general purpose use  Vertical Surface mounting and installation Screw-type terminals 20 20 lbf-in 1x(14 - 2 AWG)  75 °C AL or CU Screw-type terminals 20 20 lbf-in 1x(14 - 2 AWG)  75 °C AL or CU Screw-type terminals 20 20 lbf-in 1x(14 - 2 AWG)
degree of protection NEMA rating of the enclosure design of the housing  Mounting/wiring mounting position fastening method type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply type of connectable conductor cross-sections at line-side for 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 for AWG cables for load-side outgoing feeder single or multi-stranded temperature of the conductor for load-side outgoing feeder maximum permissible material of the conductor for load-side outgoing feeder type of electrical connection of magnet coil	Extra-wide NEMA Type 1 Indoor general purpose use  Vertical Surface mounting and installation Screw-type terminals 20 20 lbf-in 1x(14 - 2 AWG)  75 °C AL or CU Screw-type terminals 20 20 lbf-in 1x(14 - 2 AWG)  75 °C AL or CU Screw-type terminals 20 20 lbf-in 1x(14 - 2 AWG)
degree of protection NEMA rating of the enclosure design of the housing  Mounting/wiring mounting position fastening method type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply type of connectable conductor cross-sections at line-side for 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 for AWG cables for load-side outgoing feeder single or multi-stranded temperature of the conductor for load-side outgoing feeder maximum permissible material of the conductor for load-side outgoing feeder type of electrical connection of magnet coil tightening torque [lbf-in] at magnet coil	Extra-wide NEMA Type 1 Indoor general purpose use  Vertical  Surface mounting and installation Screw-type terminals 20 20 lbf-in  1x(14 - 2 AWG)  75 °C  AL or CU Screw-type terminals 20 20 lbf-in  1x(14 - 2 AWG)  75 °C  AL or CU Screw-type terminals 20 20 lbf-in  1x(14 - 2 AWG)
degree of protection NEMA rating of the enclosure design of the housing  Mounting/wiring mounting position fastening method type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply type of connectable conductor cross-sections at line-side for 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 for AWG cables for load-side outgoing feeder single or multi-stranded temperature of the conductor for load-side outgoing feeder maximum permissible 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 for AWG cables single or multi-stranded temperature of the conductor at magnet coil maximum	Extra-wide NEMA Type 1 Indoor general purpose use  Vertical Surface mounting and installation Screw-type terminals 20 20 lbf-in 1x(14 - 2 AWG)  75 °C AL or CU Screw-type terminals 20 20 lbf-in 1x(14 - 2 AWG)  75 °C AL or CU Screw-type terminals 20 20 lbf-in 1x(14 - 2 AWG)  75 °C AL or CU screw-type terminals 5 12 lbf-in 2 x (16 - 12 AWG)
degree of protection NEMA rating of the enclosure design of the housing  Mounting/wiring mounting position fastening method type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply type of connectable conductor cross-sections at line-side for 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 for AWG cables for load-side outgoing feeder single or multi-stranded temperature of the conductor for load-side outgoing feeder maximum permissible 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 for AWG cables single or multi-stranded temperature of the conductor at magnet coil maximum permissible	Extra-wide NEMA Type 1 Indoor general purpose use  Vertical  Surface mounting and installation  Screw-type terminals  20 20 lbf-in  1x(14 - 2 AWG)  75 °C  AL or CU  Screw-type terminals  20 20 lbf-in  1x(14 - 2 AWG)  75 °C  AL or CU  Screw-type terminals  20 20 lbf-in  2 x (16 - 12 AWG)  75 °C
degree of protection NEMA rating of the enclosure design of the housing  Mounting/wiring mounting position fastening method type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply type of connectable conductor cross-sections at line-side for 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 for AWG cables for load-side outgoing feeder single or multi-stranded temperature of the conductor for load-side outgoing feeder maximum permissible 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 type of connectable conductor at magnet coil maximum permissible material of the conductor at magnet coil maximum permissible	Extra-wide NEMA Type 1 Indoor general purpose use  Vertical  Surface mounting and installation  Screw-type terminals  20 20 lbf-in  1x(14 - 2 AWG)  75 °C  AL or CU  Screw-type terminals  20 20 lbf-in  1x(14 - 2 AWG)  75 °C  AL or CU  Screw-type terminals  20 20 lbf-in  2 x (16 - 12 AWG)  75 °C  CU
degree of protection NEMA rating of the enclosure design of the housing  Mounting/wiring mounting position fastening method type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply type of connectable conductor cross-sections at line-side for 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 for AWG cables for load-side outgoing feeder single or multi-stranded temperature of the conductor for load-side outgoing feeder maximum permissible 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 for AWG cables single or multi-stranded temperature of the conductor at magnet coil maximum permissible material of the conductor at magnet coil maximum permissible	Extra-wide NEMA Type 1 Indoor general purpose use  Vertical Surface mounting and installation Screw-type terminals 20 20 lbf-in 1x(14 - 2 AWG)  75 °C AL or CU Screw-type terminals 20 20 lbf-in 1x(14 - 2 AWG)  75 °C AL or CU Screw-type terminals 20 20 lbf-in 2 x (16 - 12 AWG)  75 °C  CU Screw-type terminals
degree of protection NEMA rating of the enclosure design of the housing  Mounting/wiring mounting position fastening method type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply type of connectable conductor cross-sections at line-side for 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 for AWG cables for load-side outgoing feeder single or multi-stranded temperature of the conductor for load-side outgoing feeder maximum permissible 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 for AWG cables single or multi-stranded temperature of the conductor at magnet coil maximum permissible material of the conductor at magnet coil maximum permissible material 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	Extra-wide NEMA Type 1 Indoor general purpose use  Vertical Surface mounting and installation Screw-type terminals 20 20 lbf-in 1x(14 - 2 AWG)  75 °C AL or CU Screw-type terminals 20 20 lbf-in 1x(14 - 2 AWG)  75 °C AL or CU screw-type terminals 20 20 lbf-in 2 x (16 - 12 AWG)  75 °C  CU screw-type terminals 5 12 lbf-in 2 x (16 - 12 AWG)  75 °C  CU screw-type terminals 10 15 lbf-in
degree of protection NEMA rating of the enclosure design of the housing  Mounting/wiring  mounting position fastening method type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply type of connectable conductor cross-sections at line-side for AWG cables single or multi-stranded temperature of the conductor for supply maximum permissible material 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 connectable conductor cross-sections for AWG cables for load-side outgoing feeder single or multi-stranded temperature of the conductor for load-side outgoing feeder maximum permissible 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 for AWG cables single or multi-stranded temperature of the conductor at magnet coil maximum permissible material of the conductor at magnet coil maximum permissible 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 for AWG cables for auxiliary contacts single or multi-stranded temperature of the conductor at contactor for auxiliary contacts	Extra-wide NEMA Type 1 Indoor general purpose use  Vertical  Surface mounting and installation  Screw-type terminals  20 20 lbf-in  1x(14 - 2 AWG)  75 °C  AL or CU  Screw-type terminals  20 20 lbf-in  1x(14 - 2 AWG)  75 °C  AL or CU  screw-type terminals  5 12 lbf-in  2 x (16 - 12 AWG)  75 °C  CU  screw-type terminals  10 15 lbf-in  1 x (12 AWG), 2 x (16 - 14 AWG), 2 x (18 - 16 AWG)

contacts	
tightening torque [lbf·in] at overload relay for auxiliary contacts	7 10 lbf·in
type of connectable conductor cross-sections at overload relay for AWG cables for auxiliary contacts single or multi-stranded	2 x (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 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
• 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=US2:14CUD82BD

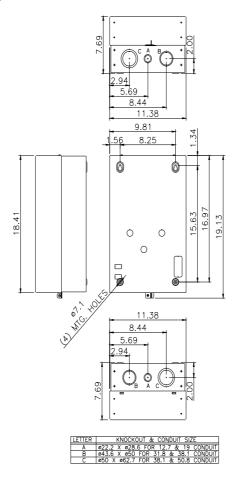
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

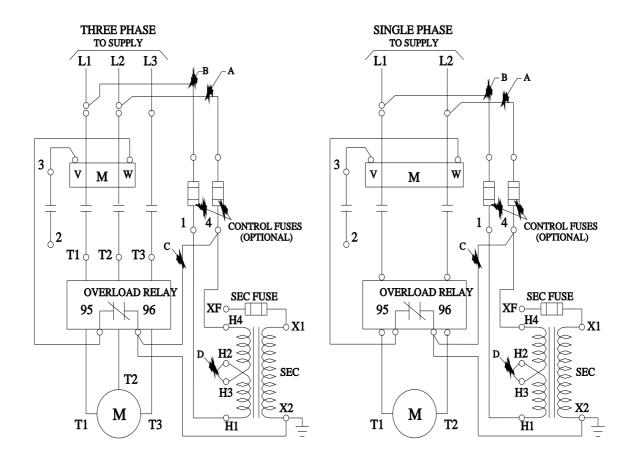
https://support.industry.siemens.com/cs/US/en/ps/US2:14CUD82BD

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=US2:14CUD82BD&lang=en">http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=US2:14CUD82BD&lang=en</a>

Certificates/approvals

https://support.industry.siemens.com/cs/US/en/ps/US2:14CUD82BD/certificate





last modified: 12/7/2023 🖸