SIEMENS

Data sheet

US2:22CUD32AH



Reversing motor starter Size 0 Three phase full voltage Solid-state overload relay OLRelay amp range 5.5-22A 380-440/440-480V 50/60HZ coil Non-combination type Enclosure type (open)

product brand name Class 22 design of the product feature Full-voltage reversing motor starter special product feature ESP200 overload relay General technical data ESP200 overload relay weight [b] 6 lb Height x Width x Depth [in] 7.69 × 10.5 × 3.92 in touch protection against electrical shock Not finger-safe installation altitude [II] at height above sea level maximum 6860 ft ambient temperature [VF] -22 +149 "F • during operation -4 +104 "F ambient temperature -30 +65 °C • during operation -20 +40 "C country of origin Mexico Horsepower ratings -yielded mechanical performance [hp] for 3-phase AC wotor - at 200/208 V rated value 3 hp • at 200/208 V rated value 3 hp - • at 200/208 V rated value 0 hp - • at 200/208 V rated value 0 hp - size of contactor number of NO contacts for main contacts 3 operating voltage formain current circuit at AC at 60 Hz 1000 V	Figure similar	
special product feature ESP200 overload relay General tochnical data 6 lb weight [lb] 6 lb Height X Width X Depth [in] 7.69 × 10.5 × 3.92 in touch protection against electrical shock Not finger-safe installation altitude [ft] at height above sea level maximum ambient temperature [*F] • during operation -4+104 "F ambient temperature -30+65 "C • during operation -20+440 "C arbitry of origin Mexico Horsopower ratings -20+40 "C vielded mechanical performance [hp] for 3-phase AC Mexico motor at 200/208 V rated value 3 hp • at 200/208 V rated value 3 hp -4+104 "F wideld mechanical performance [hp] for 3-phase AC -0	product brand name	Class 22
General technical data 6 lb weight [lb] 6 lb Height x Width x Depth [in] 7.69 × 10.5 × 3.92 in touch protection against electrical shock Not finger-safe installation altitude [l] at height above sea level maximum 6560 ft ambient temperature ['F] -22 +149 °F • during operation -24 +104 °F ambient temperature -30 +65 °C • during operation -20 +40 °C county of origin Mexico Hosepower ratings -30 +65 °C yielded mechanical performance [hp] for 3-phase AC -20 +40 °C motor - at 200/208 V rated value 3 hp • at 200/208 V rated value 3 hp • at 200/208 V rated value 0 hp • at 460/480 V rated value 0 hp • at 450/480 V rated value 0 hp contactor Step of contacts for main contacts size of contactor 1000000 number of NC contacts for ania contacts 3 operating voltage for main current circuit at AC at 60 Hz 00 V maximum 0 10000000 contacts typical 10000000 1	design of the product	Full-voltage reversing motor starter
weight [lb] 6 lb Height x Width x Depth [in] 7.69 × 10.5 × 3.92 in touch protection against electrical shock Not finger-safe installation altitude [ft] at height above sea level maximum 6560 ft ambient temperature ['F] - during storage • during storage -22 +149 "F • during operation -4 +104 "F ambient temperature -30 +65 "C • during operation -20 +40 "C country of origin Mexico Hosspower ratings yielded mechanical performance [hp] for 3-phase AC motor • at 220/280 V rated value 3 hp • at 460/480 V rated value 0 hp • at 460/480 V rated value 0 hp • at 460/480 V rated value 0 hp • at 575/600 V rated value 3 a operating voltage for main current circuit at AC at 60 Hz 3 maximum 600 V maximum 10000000 operating voltage for main current dircuit at AC at 60 Hz 1 maximum 10000000 operating voltage for main current dircuit at AC at 60 Hz 1 maximum 0 1 <	special product feature	ESP200 overload relay
Height x Width x Depth [in] 7.69 × 10.5 × 3.92 in touch protection against electrical shock Not finger-safe installation allitude [ft] at height above sea level maximum 6660 ft ambient temperature [F] -22 +149 °F • during operation -4 +104 °F ambient temperature -30 +65 °C • during operation -20 +40 °C country of origin Mexico Horsepower ratings yielded mechanical performance [hp] for 3-phase AC motor • at 200/208 V rated value 3 hp • at 200/208 V rated value 3 hp • at 460/480 V rated value 0 hp • at 460/480 V rated value 0 hp • at 460/480 V rated value 1 hp • at 460/480 V rated value 0 hp • at 650 for main current circuit at AC at 60 Hz 3 operating voltage for main current circuit at AC at 60 Hz 600 V maximum 18 A operational current at AC at 600 V rated value 18 A mother 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	General technical data	
Use protection against electrical shock Not finger-safe installation altitude [ft] at height above sea level maximum 6560 ft ambient temperature ['F]	weight [lb]	6 lb
installation altitude [t] at height above sea level maximum 6560 ft ambient temperature ['F] -22 +149 °F • during operation -4 +104 °F ambient temperature -30 +65 °C • during operation -20 +40 °C country of origin Mexico Horsepower ratings -30 +65 °C yielded mechanical performance [hp] for 3-phase AC motor at 220/230 V rated value • at 200/208 V rated value 3 hp • at 220/230 V rated value 3 hp • at 450/480 V rated value 0 hp Contactor NEMA controller size 0 number of NO contacts for main current circuit at AC at 60 Hz 3 operating voltage for main current circuit at AC at 60 Hz 600 V maximum operating voltage for main current circuit at AC at 60 Hz maximum 0 operating voltage for main current circuit at AC at 60 Hz maximum 18 A mechanical service life (switching cycles) of the main contacts 1 number of NC contacts at contactor for auxiliary contacts 1 number of NO contacts at a contactor for auxiliary contacts 1 number of total auxiliary contacts of contactor according to U.L	Height x Width x Depth [in]	7.69 × 10.5 × 3.92 in
ambient temperature ["F] -22 +149 "F • during storage -22 +149 "F • during storage -30 +65 °C • during operation -20 +40 °C country of origin Mexico Horsepower ratings yielded mechanical performance [hp] for 3-phase AC motor • at 200/208 V rated value • at 200/208 V rated value 3 hp • at 200/208 V rated value 3 hp • at 200/208 V rated value 0 hp • contactor • size of contacts for main contacts 3 operating voltage for main current circuit at AC at 60 Hz 600 V maximum 18 A operational current at AC at 600 V rated value 1 <td>touch protection against electrical shock</td> <td>Not finger-safe</td>	touch protection against electrical shock	Not finger-safe
	installation altitude [ft] at height above sea level maximum	6560 ft
• during operation -4 +104 °F ambient temperature -30 +65 °C • during operation -20 +40 °C country of origin Mexico Horsepower ratings	ambient temperature [°F]	
ambient temperature -30 +65 °C • during operation -20 +40 °C country of origin Mexico Horsepower ratings yielded mechanical performance [hp] for 3-phase AC motor • at 200/208 V rated value 3 hp • at 220/230 V rated value 3 hp • at 220/230 V rated value 0 hp • at 460/480 V rated value 0 hp • at 575/600 V rated value 0 hp Contactor NEMA controller size 0 number of NO contacts for main contacts 3 operating voltage for main current circuit at AC at 60 Hz 600 V maximum 10000000 operational current at AC at 600 V rated value 18 A mechanical service life (switching cycles) of the main contacts 1 10000000 number of NO contacts at contactor for auxiliary contacts 0 number of NO 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 1 number of NO contacts at contactor for auxiliary contacts 1 number of NO contacts at contactor for auxiliary contacts 1 <t< td=""><td> during storage </td><td>-22 +149 °F</td></t<>	 during storage 	-22 +149 °F
• during storage -30 +65 °C • during operation -20 +40 °C country of origin Mexico Horsepower ratings	 during operation 	-4 +104 °F
• during operation -20 +40 °C country of origin Mexico Horsepower ratings Mexico yielded mechanical performance [hp] for 3-phase AC motor at 200/208 V rated value 3 hp • at 220/230 V rated value 3 hp at 220/230 V rated value 0 hp • at 450/480 V rated value 0 hp 0 hp 0 • at 575/600 V rated value 0 hp 0 0 • at 575/600 V rated value 0 hp 0 0 size of contactor NEMA controller size 0 0 number of NO contacts for main contacts 3 000 V maximum 00perational current circuit at AC at 60 Hz 600 V mechanical service life (switching cycles) of the main contacts typical 10000000 Auxiliary contact 1 10000000 number of NC contacts at contactor for auxiliary contacts 0 1 number of NO contacts at contactor for auxiliary contacts 1 1 number of NC contacts at contactor for auxiliary contacts 1 1 number of NC contacts at contactor for auxiliary contacts 1 1 number of NO contacts at contactor for auxiliary contacts 1<	ambient temperature	
country of origin Mexico Horsepower ratings	 during storage 	-30 +65 °C
Horsepower ratings yielded mechanical performance [hp] for 3-phase AC motor • at 200/208 V rated value 3 hp • at 220/230 V rated value 3 hp • at 460/480 V rated value 0 hp • at 4575/600 V rated value 0 hp • at 575/600 V rated value 0 hp 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 operational current at AC at 600 V rated value 18 A mumber of NC contacts at contactor for auxiliary contacts 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 number of NC contacts at contactor for auxiliary contacts 1 number of total auxiliary contacts of contactor according to UL 8 contact rating of auxiliary contacts of contact according to UL 10A@600VAC (A600), 5A@600VDC (P600) coli to UL AC	 during operation 	-20 +40 °C
yielded mechanical performance [hp] for 3-phase AC motor at 200/208 V rated value 3 hp • at 200/208 V rated value 3 hp • at 220/230 V rated value 3 hp • at 460/480 V rated value 0 hp • at 460/480 V rated value 0 hp • at 450/00 V rated value 0 hp • at 575/600 V rated value 0 hp Contactor NEMA controller size 0 number of NO contacts for main contacts 3 operating voltage for main current circuit at AC at 60 Hz 600 V maximum 600 V operational current at AC at 600 V rated value 18 A mechanical service life (switching cycles) of the main contacts typical 10000000 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 total auxiliary contacts do contacts at contactor according to UL 10A@600VAC (A600), 5A@600VDC (P600) coil toUL 10A@600VAC (A600), 5A@600VDC (P600)	country of origin	Mexico
motor • at 200/208 V rated value 3 hp • at 220/230 V rated value 3 hp • at 420/480 V rated value 0 hp • at 460/480 V rated value 0 hp • at 460/480 V rated value 0 hp • at 575/600 V rated value 0 hp Contactor NEMA controller size 0 number of NO contacts for main contacts 3 operating voltage for main current circuit at AC at 60 Hz 600 V maximum 600 V operational current at AC at 600 V rated value 18 A mechanical service life (switching cycles) of the main contacts typical 10000000 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 number of NO contacts at contactor for auxiliary contacts 1 number of total auxiliary contacts of contactor according to UL 8 contact rating of auxiliary contacts of contactor according to UL 10A@600VAC (A600), 5A@600VDC (P600) coil	Horsepower ratings	
• at 220/230 V rated value 3 hp • at 460/480 V rated value 0 hp • at 575/600 V rated value 0 hp • at 575/600 V rated value 0 hp Contactor NEMA controller size 0 number of NO contacts for main contacts 3 operating voltage for main current circuit at AC at 60 Hz 600 V maximum 600 V operational current at AC at 600 V rated value 18 A mechanical service life (switching cycles) of the main contacts typical 10000000 Auxiliary contacts at contactor for auxiliary contacts 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 of contactor according to UL 10A@600VAC (A600), 5A@600VDC (P600) contact rating of auxiliary contacts of contactor according to UL 10A@600VAC (A600), 5A@600VDC (P600)	5 1 613 1	
• at 460/480 V rated value0 hp• at 575/600 V rated value0 hpContactorNEMA controller size 0size of contactorNEMA controller size 0number of NO contacts for main contacts3operating voltage for main current circuit at AC at 60 Hz600 Vmaximum18 Aoperational current at AC at 600 V rated value18 Amechanical service life (switching cycles) of the main contacts typical10000000Auxiliary contact0number of NC contacts at contactor for auxiliary contacts1number of NO contacts at contactor for auxiliary contacts1number of total auxiliary contacts of contactor according to UL10A@600VAC (A600), 5A@600VDC (P600)CoilAC	• at 200/208 V rated value	3 hp
• at 575/600 V rated value 0 hp Contactor size of contactor number of NO contacts for main contacts 3 operating voltage for main current circuit at AC at 60 Hz 600 V maximum 600 V operational current at AC at 600 V rated value 18 A mechanical service life (switching cycles) of the main contacts typical 10000000 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 number of total auxiliary contacts of contactor according to UL 8 Contact rating of auxiliary contacts of contactor according to UL 10A@600VAC (A600), 5A@600VDC (P600) to UL AC	• at 220/230 V rated value	3 hp
Contactor NEMA controller size 0 number of NO contacts for main contacts 3 operating voltage for main current circuit at AC at 60 Hz 600 V maximum 600 V operational current at AC at 600 V rated value 18 A mechanical service life (switching cycles) of the main contacts typical 10000000 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 contactor for auxiliary contacts 1 number of NO contacts at contactor for auxiliary contacts 1 number of total auxiliary contacts of contacts at contactor according to UL 10A@600VAC (A600), 5A@600VDC (P600) Coil AC	• at 460/480 V rated value	0 hp
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 600 V maximum 600 V operational current at AC at 600 V rated value 18 A mechanical service life (switching cycles) of the main contacts typical 10000000 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 total auxiliary contacts maximum 8 contact rating of auxiliary contacts of contactor according to UL 10A@600VAC (A600), 5A@600VDC (P600) Coil AC	• at 575/600 V rated value	0 hp
number of NO contacts for main contacts 3 operating voltage for main current circuit at AC at 60 Hz 600 V maximum 600 V operational current at AC at 600 V rated value 18 A mechanical service life (switching cycles) of the main contacts typical 10000000 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 total auxiliary contacts maximum 8 contact rating of auxiliary contacts of contactor according to UL 10A@600VAC (A600), 5A@600VDC (P600) Coil AC	Contactor	
operating voltage for main current circuit at AC at 60 Hz maximum600 Voperational current at AC at 600 V rated value18 Amechanical service life (switching cycles) of the main contacts typical1000000Auxiliary contact0number of NC contacts at contactor for auxiliary contacts0number of NO contacts at contactor for auxiliary contacts1number of total auxiliary contacts maximum8contact rating of auxiliary contacts of contactor according to UL10A@600VAC (A600), 5A@600VDC (P600)CoilKype of voltage of the control supply voltage	size of contactor	NEMA controller size 0
maximum operational current at AC at 600 V rated value 18 A mechanical service life (switching cycles) of the main contacts typical 10000000 Auxiliary contact 10000000 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 10A@600VAC (A600), 5A@600VDC (P600) Coil Coil type of voltage of the control supply voltage AC	number of NO contacts for main contacts	3
mechanical service life (switching cycles) of the main contacts typical 1000000 Auxiliary contact 1000000 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 10A@600VAC (A600), 5A@600VDC (P600) Coil 4 type of voltage of the control supply voltage AC		600 V
contacts typical 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 10A@600VAC (A600), 5A@600VDC (P600) Coil 4C	operational current at AC at 600 V rated value	18 A
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 10A@600VAC (A600), 5A@600VDC (P600) Coil 4C		1000000
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 10A@600VAC (A600), 5A@600VDC (P600) Coil 4 type of voltage of the control supply voltage AC	Auxiliary contact	
number of total auxiliary contacts maximum 8 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	number of NC contacts at contactor for auxiliary contacts	0
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	number of NO contacts at contactor for auxiliary contacts	1
to UL Coil type of voltage of the control supply voltage AC	number of total auxiliary contacts maximum	8
type of voltage of the control supply voltage AC		10A@600VAC (A600), 5A@600VDC (P600)
	Coil	
control supply voltage	type of voltage of the control supply voltage	AC
	control supply voltage	

	000 440.14
at AC at 50 Hz rated value	380 440 V
at AC at 60 Hz rated value	440 480 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	
 overload protection 	Yes
 phase failure detection 	Yes
 asymmetry detection 	Yes
 ground fault detection 	Yes
test function	Yes
external reset	No
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	5.5 22 A
make time with automatic start after power failure 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	1
relay	
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
 with multi-phase operation at AC rated value 	300 V
Enclosure	
degree of protection NEMA rating	Open device (no enclosure)
design of the housing	NA
Mounting/wiring	
mounting position	Vertical
fastening method	Surface mounting and installation
type of electrical connection for supply voltage line-side	Screw-type terminals
tightening torque [lbf·in] for supply	20 20 lbf·in
type of connectable conductor cross-sections at line-side	1x (14 2 AWG)
at AWG cables single or multi-stranded 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 20 20 lbf·in
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	1x (14 2 AWG)
temperature of the conductor for load-side outgoing feeder maximum permissible	75 °C
material of the conductor for load-side outgoing feeder	AL or CU
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	2x (16 12 AWG)

coil at AWG cables single or multi-stranded			
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 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 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=US2:22CUD32AH Service&Support (Manuals, Certificates, Characteristics, FAQs,) https://support.industry.siemens.com/cs/US/en/ps/US2:22CUD32AH Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros,) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=US2:22CUD32AH⟨=en Certificates/approvals			
https://support.industry.siemens.com/cs/US/en/ps/US2:22CU	https://support.industry.siemens.com/cs/US/en/ps/US2:22CUD32AH/certificate		

last modified:

11/29/2021 🖸