## **SIEMENS**

Data sheet US2:22HUG32BC



Reversing motor starter, Size 3, Three phase full voltage, Solid-state overload relay, OLR amp range 25-100A, Non-combination type, Enclosure type 1, Indoor general purpose use, Standard width enclosure

Figure similar

design of the product special product feature ESP200 overload relay   General technical data  weight [lb] 39 lb  Helight x Width x Depth [in] 25 x 14 x 9 in  NA for enclosed products  installation altitude [it] at height above sea level maximum  ambient temperature [i*F]  • during storage22 +149 "F  • during operation20 +40 "C  country of origin USA   Horsepower ratings  yielded mechanical performance [hp] for 3-phase AC  motor  • at 2200/208 V rated value 25 hp  • at 2202/30 V rated value 50 hp  • at 575/600 V rated value 50 hp	product brand name	Class 22
weight [Ib] 39 lb Height x Width x Depth [in] 25 × 14 × 9 in touch protection against electrical shock NA for enclosed products installation altitude [ft] at height above sea level maximum ambient temperature ["F] 4 uning storage 4 +104 "F 4 udring storage 4 +104 "F 4 udring storage - 30 +65 "C 5 udring operation - 20 +40 "C country of origin USA  Horsepower ratings yielded mechanical performance [hp] for 3-phase AC motor  at 2200/208 V rated value 25 hp at 2460/480 V rated value 30 hp at 375/600 V rated value 50 hp at 375/600 V rated value 50 hp size of contactor  size of contactor  size of contacts for main contacts 3 operating voltage for main current circuit at AC at 60 Hz maximum operational current at AC at 600 V rated value 90 A mechanical service life (switching cycles) of the main contacts typical  number of NC contacts at contactor for auxiliary contacts number of NC contacts at contactor for auxiliary contacts number of NC contacts at contactor for auxiliary contacts number of NC contacts at contactor for auxiliary contacts number of NC contacts at contactor for auxiliary contacts number of NC contacts at contactor for auxiliary contacts number of NC contacts at contactor for auxiliary contacts number of NC contacts at contactor for auxiliary contacts number of NC contacts at contactor for auxiliary contacts number of NC contacts at contactor for auxiliary contacts number of NC contacts at contactor for auxiliary contacts number of NC contacts at contactor for auxiliary contacts number of NC contacts at contactor for auxiliary contacts number of NC contacts at contactor for auxiliary contacts number of NC contacts at contactor for auxiliary contacts number of NC contacts at contactor for auxiliary contacts number of NC contacts at contacts of contactor according to UL.  Coil	design of the product	Full-voltage reversing motor starter
weight [lb]  Height x Width x Depth [in] touch protection against electrical shock installation altitude [ft] at height above sea level maximum ambient temperature [°F] • during storage • during operation ambient temperature • during storage • during operation  ambient temperature • during storage • during operation  during operation  during operation  20 +65 °C  20 +40 °C  USA  Horsepower ratings yielded mechanical performance [hp] for 3-phase AC motor  at 220/230 Y rated value at 25 hp at 220/230 Y rated value at 575/600 V rated value at 450/480 V rated value 50 hp  Contactor  size of contactor  size of contactor for main contacts operating voltage for main current circuit at AC at 60 Hz maximum operational current at AC at 600 V rated value mechanical service life (switching cycles) of the main contacts typical  Auxiliary contact number of NC contacts at contactor for auxiliary contacts number of NC contacts at contacto	special product feature	ESP200 overload relay
Height x Width x Depth [in]   25 × 14 × 9 in   NA for enclosed products   Installation altitude [ft] at height above sea level maximum   ambient temperature [FT]   e during storage   -22 +149 °F   -4 +104 °F   -4 +104 °F   -4 +104 °C   -20 +40 °C   -20	General technical data	
touch protection against electrical shock installation altitude [ft] at height above sea level maximum ambient temperature [°F]  • during storage • during operation  ambient temperature • during storage • during operation  -30 +65 °C • during operation  country of origin  Horsepower ratings yielded mechanical performance [hp] for 3-phase AC motor • at 200/208 V rated value • at 220/230 V rated value • at 460/480 V rated value • at 460/480 V rated value • at 575/600 V rated value  Size of contactor  number of NO contacts for main contacts operating voltage for main current circuit at AC at 60 Hz maximum operational current at AC at 600 V rated value  mechanical service life (switching cycles) of the main contacts typical  Auxiliary contact number of NC contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of NO conta	weight [lb]	39 lb
installation altitude [ft] at height above sea level maximum ambient temperature [°F]  • during storage • during operation ambient temperature • during operation • 20 +40 °C  country of origin  USA  Horsepower ratings  yielded mechanical performance [hp] for 3-phase AC motor • at 200/208 V rated value • at 220/230 V rated value • at 460/480 V rated value • at 4675/600 V rated value • at 575/600 V rated value • at 575/600 V rated value • at 575/600 V rated value  operating voltage for main current circuit at AC at 60 Hz maximum operational current at AC at 600 V rated value operational current at	Height x Width x Depth [in]	25 × 14 × 9 in
ambient temperature [*F]  • during storage • during operation ambient temperature  • during storage • during storage • during storage • during operation  • during storage • during operation  country of origin  USA  Horsepower ratings  yielded mechanical performance [hp] for 3-phase AC motor • at 200/208 V rated value • at 220/230 V rated value • at 220/230 V rated value • at 575/600 V rated value • at 575/600 V rated value  So hp  Contactor  size of contactor  number of NO contacts for main contacts operating voltage for main current circuit at AC at 60 Hz maximum operational current at AC at 600 V rated value  mechanical service life (switching cycles) of the main contacts typical  Auxiliary contact at contactor for auxiliary contacts number of NC contacts at contactor for auxiliary contacts number of NC contacts at contactor for auxiliary contacts number of NC contacts at contactor for auxiliary contacts number of NC contacts at contactor for auxiliary contacts number of NC contacts at contactor for auxiliary contacts number of NC contacts at contactor for auxiliary contacts number of total auxiliary contacts maximum 7 contact rating of auxiliary contacts of contactor according to UI.  Coil	touch protection against electrical shock	NA for enclosed products
during storage     during operation     during storage     during operation     during o	installation altitude [ft] at height above sea level maximum	6560 ft
during operation     ambient temperature     during storage     during operation     during operation     country of origin     USA  Horsepower ratings  yielded mechanical performance [hp] for 3-phase AC motor     at 200/208 V rated value     at 220/230 V rated value     at 460/480 V rated value     at 450/480 V rated value     at 450/480 V rated value     at 55/600 V rated value     at 50 hp     at 575/600 V rated value     size of contactor  size of contactor  size of contacts for main current circuit at AC at 60 Hz maximum     operating voltage for main current circuit at AC at 60 Hz maximum     operational current at AC at 600 V rated value     poperational current at AC at 600 V rated value     poperational current at AC at 600 V rated value     mechanical service life (switching cycles) of the main contacts typical  Auxiliary contact     number of NC contacts at contactor for auxiliary contacts     number of NO contacts at contactor for auxiliary contacts     number of NO contacts at contactor for auxiliary contacts     number of total auxiliary contacts maximum     contact rating of auxiliary contacts of contactor according to UL  Coil	ambient temperature [°F]	
ambient temperature  • during storage  • during operation  country of origin  USA  Horsepower ratings  yielded mechanical performance [hp] for 3-phase AC motor  • at 200/208 V rated value  • at 220/230 V rated value  • at 460/480 V rated value  • at 575/600 V rated value  Size of contactor  number of NO contacts for main contacts  operating voltage for main current circuit at AC at 60 Hz maximum  operational current at AC at 600 V rated value  mechanical service life (switching cycles) of the main contacts typical  Auxiliary contact  number of NC contacts at contactor for auxiliary contacts  number of NC contacts at contactor for auxiliary contacts  number of NC contacts at contactor for auxiliary contacts  number of NC contacts at contactor for auxiliary contacts  number of NC contacts at contactor for auxiliary contacts  number of NC contacts at contactor for auxiliary contacts  number of total auxiliary contacts maximum  7  contact rating of auxiliary contacts of contactor according to UL  Coil	<ul> <li>during storage</li> </ul>	-22 +149 °F
• during storage     • during operation     country of origin  Horsepower ratings yielded mechanical performance [hp] for 3-phase AC motor      • at 200/208 V rated value     • at 220/230 V rated value     • at 480/480 V rated value     • at 575/600 V rated value     • at 575/600 V rated value     • at 576/600 V rated value     • at 90 value     • at 60 value	during operation	-4 +104 °F
• during operation     country of origin  Horsepower ratings  yielded mechanical performance [hp] for 3-phase AC motor     • at 200/208 V rated value     • at 220/230 V rated value     • at 460/480 V rated value     • at 575/600 V rated value     50 hp  Contactor  size of contactor number of NO contacts for main contacts operating voltage for main current circuit at AC at 60 Hz maximum operational current at AC at 600 V rated value  poperational current at AC at 600 V rated value  mechanical service life (switching cycles) of the main contacts typical  Auxiliary contact number of NC contacts at contactor for auxiliary contacts number of NC contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of total auxiliary contacts maximum  7 contact rating of auxiliary contacts of contactor according to UL  Coil	ambient temperature	
country of origin  Horsepower ratings  yielded mechanical performance [hp] for 3-phase AC motor  • at 200/208 V rated value • at 220/230 V rated value • at 460/480 V rated value • at 4575/600 V rated value • at 575/600 V rated value  Size of contactor  size of contactor  number of NO contacts for main contacts operating voltage for main current circuit at AC at 60 Hz maximum operational current at AC at 600 V rated value  mechanical service life (switching cycles) of the main contacts typical  Auxiliary contact  number of NC contacts at contactor for auxiliary contacts number of NC contacts at contactor for auxiliary contacts number of total auxiliary contacts maximum  contact rating of auxiliary contacts of contactor according to UL  Coil	<ul> <li>during storage</li> </ul>	-30 +65 °C
Horsepower ratings  yielded mechanical performance [hp] for 3-phase AC motor  • at 200/208 V rated value • at 220/230 V rated value • at 460/480 V rated value • at 460/480 V rated value • at 575/600 V rated value  50 hp • at 575/600 V rated value  50 hp  Contactor  size of contactor  number of NO contacts for main contacts operating voltage for main current circuit at AC at 60 Hz maximum operational current at AC at 600 V rated value mechanical service life (switching cycles) of the main contacts typical  Auxiliary contact number of NC contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of total auxiliary contacts maximum rocontact rating of auxiliary contacts of contactor according to UL  Coil	during operation	-20 +40 °C
yielded mechanical performance [hp] for 3-phase AC motor  • at 200/208 V rated value • at 220/230 V rated value • at 460/480 V rated value • at 460/480 V rated value • at 575/600 V rated value • at 575/600 V rated value  Size of contactor  size of contactor  number of NO contacts for main contacts  operating voltage for main current circuit at AC at 60 Hz maximum  operational current at AC at 600 V rated value  mechanical service life (switching cycles) of the main contacts typical  Auxilliary contact  number of NC contacts at contactor for auxiliary contacts  number of NC contacts at contactor for auxiliary contacts  number of total auxiliary contacts maximum  contact rating of auxiliary contacts of contactor according to UL  Coil	country of origin	USA
motor  at 200/208 V rated value at 220/230 V rated value at 460/480 V rated value but 50 hp at 575/600 V rated value but 50 hp  Contactor size of contactor number of NO contacts for main contacts operating voltage for main current circuit at AC at 60 Hz maximum  operational current at AC at 600 V rated value  mechanical service life (switching cycles) of the main contacts typical  Auxiliary contact number of NO contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of total auxiliary contacts maximum  contact rating of auxiliary contacts of contactor according to UL  Coil	Horsepower ratings	
at 220/230 V rated value at 460/480 V rated value at 575/600 V rated value  50 hp  Contactor  size of contactor  number of NO contacts for main contacts operating voltage for main current circuit at AC at 60 Hz maximum  operational current at AC at 600 V rated value  operational service life (switching cycles) of the main contacts typical  Auxiliary contact  number of NC contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of total auxiliary contacts maximum  contact rating of auxiliary contacts of contactor according to UL  Coil		
at 460/480 V rated value     at 575/600 V rated value     50 hp  Contactor  size of contactor  number of NO contacts for main contacts  operating voltage for main current circuit at AC at 60 Hz maximum  operational current at AC at 600 V rated value  operational service life (switching cycles) of the main contacts typical  Auxiliary contact  number of NC contacts at contactor for auxiliary contacts  number of NO contacts at contactor for auxiliary contacts  number of total auxiliary contacts maximum  contact rating of auxiliary contacts of contactor according to UL  Coil	• at 200/208 V rated value	25 hp
otatactor     size of contactor     size of contactor     number of NO contacts for main contacts     operating voltage for main current circuit at AC at 60 Hz     maximum     operational current at AC at 600 V rated value     mechanical service life (switching cycles) of the main     contacts typical  Auxiliary contact     number of NC contacts at contactor for auxiliary contacts     number of NO contacts at contactor for auxiliary contacts     number of total auxiliary contacts maximum     contact rating of auxiliary contacts of contactor according to UL  Coil  NEMA controller size 3  NEMA controller size 3  00  000 V  000 V  000 O  000  000  000	• at 220/230 V rated value	30 hp
Size of contactor  Size of contactor  NEMA controller size 3  number of NO contacts for main contacts  Operating voltage for main current circuit at AC at 60 Hz maximum  Operational current at AC at 600 V rated value  Mechanical service life (switching cycles) of the main contacts typical  Auxiliary contact  number of NC contacts at contactor for auxiliary contacts  number of NO contacts at contactor for auxiliary contacts  number of total auxiliary contacts maximum  contact rating of auxiliary contacts of contactor according to UL  Coil	<ul> <li>at 460/480 V rated value</li> </ul>	50 hp
size of contactor  number of NO contacts for main contacts  operating voltage for main current circuit at AC at 60 Hz maximum  operational current at AC at 600 V rated value  mechanical service life (switching cycles) of the main contacts typical  Auxiliary contact  number of NC contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of total auxiliary contacts maximum  contact rating of auxiliary contacts of contactor according to UL  Coil	• at 575/600 V rated value	50 hp
number of NO contacts for main contacts  operating voltage for main current circuit at AC at 60 Hz maximum  operational current at AC at 600 V rated value  mechanical service life (switching cycles) of the main contacts typical  Auxiliary contact  number of NC contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts  number of total auxiliary contacts maximum  contact rating of auxiliary contacts of contactor according to UL  Coil	Contactor	
operating voltage for main current circuit at AC at 60 Hz maximum  operational current at AC at 600 V rated value  mechanical service life (switching cycles) of the main contacts typical  Auxiliary contact  number of NC contacts at contactor for auxiliary contacts  number of NO contacts at contactor for auxiliary contacts  number of total auxiliary contacts maximum  contact rating of auxiliary contacts of contactor according to UL  Coil  600 V  600 V  600 V  7  100 A  600 V  100 A  100 A	size of contactor	NEMA controller size 3
maximum operational current at AC at 600 V rated value mechanical service life (switching cycles) of the main contacts typical  Auxiliary contact  number of NC contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of total auxiliary contacts maximum  recontact rating of auxiliary contacts of contactor according to UL  Coil	number of NO contacts for main contacts	3
mechanical service life (switching cycles) of the main contacts typical  Auxiliary contact  number of NC contacts at contactor for auxiliary contacts  number of NO contacts at contactor for auxiliary contacts  number of total auxiliary contacts maximum  contact rating of auxiliary contacts of contactor according to UL  Coil  5000000  5000000  10000000  1000000000		600 V
contacts typical  Auxiliary contact  number of NC contacts at contactor for auxiliary contacts  number of NO contacts at contactor for auxiliary contacts  number of total auxiliary contacts maximum  contact rating of auxiliary contacts of contactor according to UL  Coil	operational current at AC at 600 V rated value	90 A
number of NC contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of total auxiliary contacts maximum  contact rating of auxiliary contacts of contactor according to UL  Coil	, , ,	5000000
number of NO contacts at contactor for auxiliary contacts number of total auxiliary contacts maximum  contact rating of auxiliary contacts of contactor according to UL  Coil	Auxiliary contact	
number of total auxiliary contacts maximum  contact rating of auxiliary contacts of contactor according to UL  7 10A@600VAC (A600), 5A@600VDC (P600)  Coil	number of NC contacts at contactor for auxiliary contacts	0
contact rating of auxiliary contacts of contactor according to UL  Coil  10A@600VAC (A600), 5A@600VDC (P600)	number of NO contacts at contactor for auxiliary contacts	1
to UL Coil	number of total auxiliary contacts maximum	7
		10A@600VAC (A600), 5A@600VDC (P600)
type of voltage of the control supply voltage AC	Coil	
The attended at the control output totales	type of voltage of the control supply voltage	AC
control supply voltage	control supply voltage	

at AC at 60 Hz rated value	220 480 V
holding power at AC minimum	14 W
apparent pick-up power of magnet coil at AC	310 VA
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	
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-	25 100 A
dependent overload release	
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 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
with multi-phase operation at AC rated value	300 V
Enclosure	
degree of protection NEMA rating	1
design of the housing	indoors, usable on a general basis
Mounting/wiring	
mounting position	Vertical
fastening method	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
type of connectable conductor cross-sections at line-side at AWG cables single or multi-stranded	1x (14 2/0 AWG)
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	Box lug
tightening torque [lbf·in] for load-side outgoing feeder	120 120 lbf·in
type of connectable conductor cross-sections at AWG cables for load-side outgoing feeder single or multi-stranded	1x (14 2/0 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
_ tig.ttermig terque [io: mi] at magnet een	

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	none
design of the short-circuit trip	none
breaking capacity maximum short-circuit current (Icu)	
• at 240 V	0 kA
• at 480 V	0 kA
● at 600 V	0 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=US2:22HUG32BC

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

https://support.industry.siemens.com/cs/US/en/ps/US2:22HUG32BC

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=US2:22HUG32BC&lang=en">http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=US2:22HUG32BC&lang=en</a>

Certificates/approvals

https://support.industry.siemens.com/cs/US/en/ps/US2:22HUG32BC/certificate

1/25/2022 last modified: