## **SIEMENS**

Data sheet US2:22CUA32BC

Reversing motor starter, Size 0, Three phase full voltage, Solid-state overload relay, OLR amp range 0.25-1A, Non-combination type, Enclosure type 1, Indoor general purpose use, Standard width enclosure





Figure similar

product brand name	Class 22
design of the product	Full-voltage reversing motor starter
special product feature	ESP200 overload relay
General technical data	
weight [lb]	23 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]	
<ul> <li>during storage</li> </ul>	-22 +149 °F
during operation	-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>	0.17 hp
<ul> <li>at 220/230 V rated value</li> </ul>	0.17 hp
• at 460/480 V rated value	0.33 hp
• at 575/600 V rated value	0.5 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 (switching 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	10A@600VAC (A600), 5A@600VDC (P600)
Coil	
type of voltage of the control supply voltage	AC
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	
<ul> <li>overload protection</li> </ul>	Yes
<ul> <li>phase failure detection</li> </ul>	Yes
<ul> <li>asymmetry detection</li> </ul>	Yes
<ul> <li>ground fault detection</li> </ul>	Yes
<ul><li>test function</li></ul>	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- dependent overload release	0.25 1 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 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	
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	Screw-type terminals
tightening torque [lbf·in] for supply	20 20 lbf·in
type of connectable conductor cross-sections at line-side at AWG cables single or multi-stranded	1x (14 2 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	Screw-type terminals
tightening torque [lbf·in] for load-side outgoing feeder	20 24 lbf·in
type of connectable conductor cross-sections at AWG cables for load-side outgoing feeder single or multi-stranded	2x (14 10 AWG)
temperature of the conductor for load-side outgoing feeder maximum permissible	75 °C
material of the conductor for load-side outgoing feeder	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 coil at AWG cables single or multi-stranded	2x (16 12 AWG)
temperature of the conductor at magnet coil maximum permissible	75 °C

design of the fuse link for short-circuit protection of the main circuit required  design of the short-circuit trip  breaking capacity maximum short-circuit current (Icu)  • at 240 V  • at 480 V  • at 600 V  certificate of suitability  10kA@600V (Class H or K); 100kA@600V (Class R or J)  Thermal magnetic circuit breaker  14 kA  10 kA  10 kA  NEMA ICS 2; UL 508; CSA 22.2, No.14		
tightening torque [lbf-in] at contactor for auxiliary contacts type of connectable conductor cross-sections at contactor at AWG cables for auxiliary contacts single or multi- stranded  temperature of the conductor at contactor for auxiliary contacts maximum permissible material of the conductor at contactor for auxiliary contacts type of electrical connection at overload relay for auxiliary contacts type of electrical connection at overload relay for auxiliary contacts tightening torque [lbf-in] at overload relay for auxiliary contacts type of connectable conductor cross-sections at overload relay at AWG cables for auxiliary contacts type of electrical conductor at overload relay for auxiliary contacts type of connectable conductor ross-sections at overload relay at AWG cables for auxiliary contacts single or multi- stranded  2x (20 14 AWG)  2x (20 14 AWG)  CU  CU  CU  CU  CU  CU  CU  CU  CU  C	material of the conductor at magnet coil	CU
type of connectable conductor cross-sections at contactor at AWG cables for auxiliary contacts single or multistranded  temperature of the conductor at contactor for auxiliary contacts maximum permissible  material of the conductor at contactor for auxiliary contacts type of electrical connection at overload relay for auxiliary contacts tightening torque [lbf-in] at overload relay for auxiliary contacts type of connectable conductor cross-sections at overload relay at AWG cables for auxiliary contacts single or multistranded  temperature of the conductor at overload relay for auxiliary contacts  temperature of the conductor at overload relay for auxiliary contacts maximum permissible  material of the conductor at overload relay for auxiliary contacts maximum permissible  material of the conductor at overload relay for auxiliary contacts maximum permissible  design of the fuse link for short-circuit protection of the main circuit required  design of the short-circuit trip  breaking capacity maximum short-circuit current (lcu)  • at 240 V  • at 480 V  • at 480 V  • at 600 V  certificate of suitability  1x (12 AWG), 2x (16 14 AWG)  Screw-type terminals  CU  Screw-type terminals  CU  2x (20 14 AWG)  - 2x (20	type of electrical connection for auxiliary contacts	Screw-type terminals
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contacts maximum permissible  material of the conductor at contactor for auxiliary contacts  type of electrical connection at overload relay for auxiliary contacts  tightening torque [lbf-in] at overload relay for auxiliary contacts  type of connectable conductor cross-sections at overload relay at AWG cables for auxiliary contacts single or multistranded  temperature of the conductor at overload relay for auxiliary contacts maximum permissible  material of the conductor at overload relay for auxiliary contacts  Short-circuit current rating  design of the fuse link for short-circuit protection of the main circuit required  design of the short-circuit trip  breaking capacity maximum short-circuit current (Icu)  • at 240 V  • at 480 V • at 480 V • at 600 V  certificate of suitability  CU  Screw-type terminals  CU  2x (20 14 AWG)  CV  2x (20 14 AWG)  To C  CU  CU  CU  10 kA  10 kA  10 kA  NEMA ICS 2; UL 508; CSA 22.2, No.14	at AWG cables for auxiliary contacts single or multi-	1x (12 AWG), 2x (16 14 AWG), 2x (18 16 AWG)
type of electrical connection at overload relay for auxiliary contacts  tightening torque [lbf-in] at overload relay for auxiliary contacts  type of connectable conductor cross-sections at overload relay at AWG cables for auxiliary contacts single or multistranded  temperature of the conductor at overload relay for auxiliary contacts maximum permissible  material of the conductor at overload relay for auxiliary contacts  Short-circuit current rating  design of the fuse link for short-circuit protection of the main circuit required  design of the short-circuit trip  breaking capacity maximum short-circuit current (Icu)  • at 240 V  • at 480 V • at 480 V • at 600 V  certificate of suitability  Screw-type terminals  7 10 lbf-in		75 °C
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type of connectable conductor cross-sections at overload relay at AWG cables for auxiliary contacts single or multi-stranded  temperature of the conductor at overload relay for auxiliary contacts maximum permissible  material of the conductor at overload relay for auxiliary contacts  Short-circuit current rating  design of the fuse link for short-circuit protection of the main circuit required  design of the short-circuit trip  breaking capacity maximum short-circuit current (Icu)  • at 240 V  • at 480 V • at 600 V  certificate of suitability  2x (20 14 AWG)  75 °C  CU  CU  Thermal magnetic circuit vertificate of suitability  2x (20 14 AWG)  75 °C  Thermal magnetic circuit vertificate of suitability  NEMA ICS 2; UL 508; CSA 22.2, No.14		Screw-type terminals
relay at AWG cables for auxiliary contacts single or multi- stranded  temperature of the conductor at overload relay for auxiliary contacts maximum permissible  material of the conductor at overload relay for auxiliary contacts  Short-circuit current rating  design of the fuse link for short-circuit protection of the main circuit required  design of the short-circuit trip  Thermal magnetic circuit breaker  breaking capacity maximum short-circuit current (Icu)  • at 240 V  • at 480 V  • at 600 V  certificate of suitability  NEMA ICS 2; UL 508; CSA 22.2, No.14		7 10 lbf·in
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breaking capacity maximum short-circuit current (Icu)  • at 240 V  • at 480 V  • at 600 V  10 kA  certificate of suitability  NEMA ICS 2; UL 508; CSA 22.2, No.14		10kA@600V (Class H or K); 100kA@600V (Class R or J)
<ul> <li>at 240 V</li> <li>at 480 V</li> <li>at 600 V</li> <li>certificate of suitability</li> <li>14 kA</li> <li>10 kA</li> <li>NEMA ICS 2; UL 508; CSA 22.2, No.14</li> </ul>	design of the short-circuit trip	Thermal magnetic circuit breaker
• at 480 V         • at 600 V	breaking capacity maximum short-circuit current (Icu)	
at 600 V     certificate of suitability     NEMA ICS 2; UL 508; CSA 22.2, No.14	• at 240 V	14 kA
certificate of suitability NEMA ICS 2; UL 508; CSA 22.2, No.14	• at 480 V	10 kA
,	• at 600 V	10 kA
Further information	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=US2:22CUA32BC

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

https://support.industry.siemens.com/cs/US/en/ps/US2:22CUA32BC

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) <a href="http://www.automation.siemens.com/bilddb/cax">http://www.automation.siemens.com/bilddb/cax</a> de.aspx?mlfb=US2:22CUA32BC&lang=en

Certificates/approvals

https://support.industry.siemens.com/cs/US/en/ps/US2:22CUA32BC/certificate

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