## SIEMENS

## Data sheet

## US2:32CUDA92N2VF



2-speed 3-phase motor starter Size 0 One winding consequent pole Constant or variable torque Solid-state overload relays Low SPD OLR range 0.25-1A High SPD OLR range 5.5-22A 110V 50HZ / 120V 60HZ coil Combination type 25Amp circuit breaker Enclosure NEMA type 4/12 Water/dust tight for outdoors

product brand name	Class 32
design of the product	Two speed motor starter with MCP
special product feature	ESP200 overload relay
General technical data	
weight [lb]	52 lb
Height x Width x Depth [in]	24 × 20 × 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
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	
• 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 575/600 V rated value	0 hp
Contactor	
size of contactor	NEMA controller size 0
number of NO contacts for main contacts	6
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	1000000
Auxiliary contact	
number of NC contacts at contactor for auxiliary contacts	2
number of NO contacts at contactor for auxiliary contacts	2
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
control supply voltage	
• at AC at 50 Hz rated value	110 110 V
<ul> <li>at AC at 60 Hz rated value</li> </ul>	120 120 V
holding power at AC minimum	8.6 W
apparent pick-up power of magnet coil at AC	218 VA

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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
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 overload relay	
<ul> <li>for low rotational speed</li> </ul>	0.25 1 A
for high rotational speed	5.5 22 A
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	1A
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
	300 V
Enclosure	500 V
Enclosure design of the housing	dustproof, waterproof & weatherproof
Enclosure	
Enclosure design of the housing	
Enclosure design of the housing Circuit Breaker	dustproof, waterproof & weatherproof
Enclosure design of the housing Circuit Breaker type of the motor protection	dustproof, waterproof & weatherproof Motor circuit protector (magnetic trip only)
Enclosure design of the housing Circuit Breaker type of the motor protection operational current of motor circuit breaker rated value adjustable current response value current of instantaneous	dustproof, waterproof & weatherproof Motor circuit protector (magnetic trip only) 25 A
Enclosure design of the housing 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	dustproof, waterproof & weatherproof Motor circuit protector (magnetic trip only) 25 A
Enclosure design of the housing 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	dustproof, waterproof & weatherproof Motor circuit protector (magnetic trip only) 25 A 55 180 A
Enclosure design of the housing 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	dustproof, waterproof & weatherproof Motor circuit protector (magnetic trip only) 25 A 55 180 A Vertical
Enclosure         design of the housing         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	dustproof, waterproof & weatherproof Motor circuit protector (magnetic trip only) 25 A 55 180 A Vertical Surface mounting and installation
Enclosure         design of the housing         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 for	dustproof, waterproof & weatherproof Motor circuit protector (magnetic trip only) 25 A 55 180 A Vertical Surface mounting and installation Box lug
Enclosure         design of the housing         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 for AWG cables single or multi-stranded	dustproof, waterproof & weatherproof         Motor circuit protector (magnetic trip only)         25 A         55 180 A         Vertical         Surface mounting and installation         Box lug         1x (14 AWG 10 AWG) or 1x (12 AWG 10 AWG)
Enclosure         design of the housing         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 for AWG cables single or multi-stranded         temperature of the conductor for supply maximum permissible	dustproof, waterproof & weatherproof         Motor circuit protector (magnetic trip only)         25 A         55 180 A         Vertical         Surface mounting and installation         Box lug         1x (14 AWG 10 AWG) or 1x (12 AWG 10 AWG)         75 °C
Enclosure         design of the housing         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 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	dustproof, waterproof & weatherproof         Motor circuit protector (magnetic trip only)         25 A         55 180 A         Vertical         Surface mounting and installation         Box lug         1x (14 AWG 10 AWG) or 1x (12 AWG 10 AWG)         75 °C         AL or CU
Enclosure         design of the housing         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 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         tightening torque [lbf-in] for load-side outgoing feeder         type of connectable conductor cross-sections for AWG cables	dustproof, waterproof & weatherproof Motor circuit protector (magnetic trip only) 25 A 55 180 A Vertical Surface mounting and installation Box lug 1x (14 AWG 10 AWG) or 1x (12 AWG 10 AWG) 75 °C AL or CU Screw-type terminals
Enclosure         design of the housing         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 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         tightening torque [lbf-in] for load-side outgoing feeder         type of connectable conductor cross-sections for AWG cables for load-side outgoing feeder         type of connectable conductor cross-sections for AWG cables for load-side outgoing feeder	dustproof, waterproof & weatherproof         Motor circuit protector (magnetic trip only)         25 A         55 180 A         Vertical         Surface mounting and installation         Box lug         1x (14 AWG 10 AWG) or 1x (12 AWG 10 AWG)         75 °C         AL or CU         Screw-type terminals         20 20 lbf-in
Enclosure         design of the housing         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 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         type of connectable conductor for supply         type of connectable 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 for supply or multi-stranded         temperature of the 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 l	dustproof, waterproof & weatherproof         Motor circuit protector (magnetic trip only)         25 A         55 180 A         Vertical         Surface mounting and installation         Box lug         1x (14 AWG 10 AWG) or 1x (12 AWG 10 AWG)         75 °C         AL or CU         Screw-type terminals         20 20 lbf in         1x (14 2 AWG)
Enclosure         design of the housing         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 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         tightening torque [lbf-in] for load-side outgoing feeder         type of connectable conductor for load-side outgoing feeder         temperature of the conductor for load-side outgoing feeder         temperature of the conductor for load-side outgoing feeder         temperature of the conductor for load-side outgoing feeder         maximum permissible         maximum permissible	dustproof, waterproof & weatherproof         Motor circuit protector (magnetic trip only)         25 A         55 180 A         Vertical         Surface mounting and installation         Box lug         1x (14 AWG 10 AWG) or 1x (12 AWG 10 AWG)         75 °C         AL or CU         Screw-type terminals         20 20 lbf-in         1x (14 2 AWG)
Enclosure         design of the housing         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 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         type of connectable conductor for load-side outgoing feeder         tightening torque [lbf-in] for load-side outgoing feeder         type of connectable conductor for load-side outgoing feeder         type of the conductor for load-side outgoing feeder         type of electrical connection for load-side outgoing feeder         t	dustproof, waterproof & weatherproof         Motor circuit protector (magnetic trip only)         25 A         55 180 A         Vertical         Surface mounting and installation         Box lug         1x (14 AWG 10 AWG) or 1x (12 AWG 10 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)
Enclosure         design of the housing         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 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         tightening torque [lbf-in] 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 connectable conductor for load-side outgoing feeder         tightening torque [lbf-in] at magnet coil         tightening torque [lbf-in] at magnet coil	dustproof, waterproof & weatherproof         Motor circuit protector (magnetic trip only)         25 A         55 180 A         Vertical         Surface mounting and installation         Box lug         1x (14 AWG 10 AWG) or 1x (12 AWG 10 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
Enclosure         design of the housing         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 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         type of connectable 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 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         type of electrical connection of magnet coil	dustproof, waterproof & weatherproof         Motor circuit protector (magnetic trip only)         25 A         55 180 A         Vertical         Surface mounting and installation         Box lug         1x (14 AWG 10 AWG) or 1x (12 AWG 10 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)
Enclosure         design of the housing         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 for         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 for AWG cables for load-side outgoing feeder         tightening torque [lbf-in] for load-side outgoing feeder         type of connectable conductor for load-side outgoing feeder         type of electrical connection of magnet coil         temperature of the conductor for load-side outgoing feeder         type of electrical connection of magnet coil         type of electrical connection of magnet coil         type of electrical connection of magnet coil	dustproof, waterproof & weatherproof         Motor circuit protector (magnetic trip only)         25 A         55 180 A         Vertical         Surface mounting and installation         Box lug         1x (14 AWG 10 AWG) or 1x (12 AWG 10 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
Enclosure         design of the housing         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 for 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 for AWG cables for load-side outgoing feeder         tightening torque [lbf-in] for load-side outgoing feeder         type of connectable conductor for supply         type of connectable conductor for load-side outgoing feeder         tightening torque [lbf-in] for load-side outgoing feeder         type of connectable 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         tightening torque [lbf-in] at magnet coil         type of connectable conductor cross-sections of magnet coil for AWG cables single or multi-stranded	dustproof, waterproof & weatherproof         Motor circuit protector (magnetic trip only)         25 A         55 180 A         Vertical         Surface mounting and installation         Box lug         1x (14 AWG 10 AWG) or 1x (12 AWG 10 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         2x (16 12 AWG)

tightening torque [lbf·in] at contactor for auxiliary contacts	10 15 lbf-in	
type of connectable conductor cross-sections at contactor for 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 for 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	
maximum short-circuit current breaking capacity (Icu)		
• at 240 V	100 A	
• at 480 V	100 A	
• at 600 V	25 A	
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=US2:32CUDA92N2VF		
Service&Support (Manuals, Certificates, Characteristics, FAQs,) https://support.industry.siemens.com/cs/US/en/ps/US2:32CUDA92N2VF Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros,) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=US2:32CUDA92N2VF⟨=en Certificates/approvals		
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