## SIEMENS

## Data sheet

## US2:17FUF82NF



Non-reversing motor starter, Size 2, Three phase full voltage, Solid-state overload relay, OLR amp range 13-52A, 110V 50Hz / 120V 60Hz coil, Combination type, 60A non-fusible disconnect, Enclosure NEMA type 4/12, Water/dust tight for outdoors, Extra-wide enclosure

product brand name	Class 17 & 25
design of the product	Full-voltage non-reversing motor starter with non-fusible disconnect
special product feature	ESP200 overload relay
General technical data	
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
Horsepower ratings	
yielded mechanical performance [hp] for 3-phase AC motor	
• at 200/208 V rated value	10 hp
• at 220/230 V rated value	15 hp
• at 460/480 V rated value	25 hp
• at 575/600 V rated value	25 hp
Contactor	
size of contactor	NEMA controller size 2
number of NO contacts for main contacts	3
operational current at AC at 600 V rated value	45 A
mechanical service life (operating cycles) of the main contacts typical	1000000
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	7
contact rating of auxiliary contacts of contactor according to UL	10A@600VAC (A600), 2.5A@300VDC (Q300)
Coil	
type of voltage of the control supply voltage	AC
control supply voltage	
• at AC at 50 Hz rated value	110 V
• at AC at 60 Hz rated value	120 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	50 %

voltage	
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	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	13 52 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	5
insulation voltage (Ui)	
with single-phase operation at AC rated value	600 V
with multi-phase operation at AC rated value	300 V
Disconnect Switch	20
response value of switch disconnector	
design of fuse holder operating class of the fuse link	non-fusible
Enclosure	
design of the housing	Extra-wide
design of the housing	Extra-wide
design of the housing	Extra-wide dustproof, waterproof & weatherproof
design of the housing Mounting/wiring	dustproof, waterproof & weatherproof
design of the housing Mounting/wiring mounting position	dustproof, waterproof & weatherproof vertical
design of the housing Mounting/wiring mounting position fastening method	dustproof, waterproof & weatherproof vertical Surface mounting and installation
design of the housing Mounting/wiring mounting position fastening method type of electrical connection for supply voltage line-side	dustproof, waterproof & weatherproof vertical
design of the housing Mounting/wiring mounting position fastening method	dustproof, waterproof & weatherproof vertical Surface mounting and installation Box lug
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	dustproof, waterproof & weatherproof vertical Surface mounting and installation Box lug 35 35 lbf-in
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	dustproof, waterproof & weatherproof vertical Surface mounting and installation Box lug 35 35 lbf-in 1
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	dustproof, waterproof & weatherproof vertical Surface mounting and installation Box lug 35 35 lbf-in 1 75 °C
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	dustproof, waterproof & weatherproof vertical Surface mounting and installation Box lug 35 35 lbf·in 1 75 °C AL or CU
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	dustproof, waterproof & weatherproof vertical Surface mounting and installation Box lug 35 35 lbf-in 1 75 °C AL or CU Box lug
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         tightening torque [lbf-in] for load-side outgoing feeder         type of connectable conductor cross-sections for AWG cables	dustproof, waterproof & weatherproof         vertical         Surface mounting and installation         Box lug         35 35 lbf-in         1         75 °C         AL or CU         Box lug         45 45 lbf-in
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         type of connectable conductor for supply         type of connectable conductor 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	dustproof, waterproof & weatherproof         vertical         Surface mounting and installation         Box lug         35 35 lbf-in         1         75 °C         AL or CU         Box lug         45 45 lbf-in         1         75 °C         AL or CU         Box lug         45 45 lbf-in         1         75 °C         AL or CU
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         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	dustproof, waterproof & weatherproof         vertical         Surface mounting and installation         Box lug         35 35 lbf-in         1         75 °C         AL or CU         Box lug         45 45 lbf-in         1         75 °C         AL or CU         Box lug         45 45 lbf-in         1         75 °C         AL or CU         Screw-type terminals
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         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	dustproof, waterproof & weatherproof         vertical         Surface mounting and installation         Box lug         35 35 lbf-in         1         75 °C         AL or CU         Box lug         45 45 lbf-in         1         75 °C         AL or CU         Box lug         45 45 lbf-in         1         75 °C         AL or CU         Screw-type terminals         5 12 lbf-in
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         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         maximum permissible         material 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	dustproof, waterproof & weatherproof         vertical         Surface mounting and installation         Box lug         35 35 lbf-in         1         75 °C         AL or CU         Box lug         45 45 lbf-in         1         75 °C         AL or CU         Box lug         45 45 lbf-in         1         75 °C         AL or CU         Screw-type terminals         5 12 lbf-in         2
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         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         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	dustproof, waterproof & weatherproof         vertical         Surface mounting and installation         Box lug         35 35 lbf-in         1         75 °C         AL or CU         Box lug         45 45 lbf-in         1         75 °C         AL or CU         Box lug         45 45 lbf-in         1         75 °C         AL or CU         Screw-type terminals         5 12 lbf-in         2         75 °C
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         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         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	dustproof, waterproof & weatherproof         vertical         Surface mounting and installation         Box lug         35 35 lbf in         1         75 °C         AL or CU         Box lug         45 45 lbf in         1         75 °C         AL or CU         Box rug         45 45 lbf in         1         75 °C         AL or CU         Screw-type terminals         5 12 lbf in         2         75 °C         CU
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         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         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         type of electrical connection for auxiliary contacts <td>dustproof, waterproof &amp; weatherproof         vertical         Surface mounting and installation         Box lug         35 35 lbf in         1         75 °C         AL or CU         Box lug         45 45 lbf in         1         75 °C         AL or CU         Box rug         45 45 lbf in         1         75 °C         AL or CU         Screw-type terminals         5 12 lbf in         2         75 °C         CU         Screw-type terminals         Screw-type terminals</td>	dustproof, waterproof & weatherproof         vertical         Surface mounting and installation         Box lug         35 35 lbf in         1         75 °C         AL or CU         Box lug         45 45 lbf in         1         75 °C         AL or CU         Box rug         45 45 lbf in         1         75 °C         AL or CU         Screw-type terminals         5 12 lbf in         2         75 °C         CU         Screw-type terminals         Screw-type terminals
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         type of electrical connection for auxiliary contacts         type of electrical connection for auxiliary contacts         type of electrical connection for auxiliary contacts         type of electrical connection for auxiliary	dustproof, waterproof & weatherproof         vertical         Surface mounting and installation         Box lug         35 35 lbf in         1         75 °C         AL or CU         Box lug         45 45 lbf in         1         75 °C         AL or CU         Box rug         45 45 lbf in         1         75 °C         AL or CU         Screw-type terminals         5 12 lbf in         2         75 °C         CU
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         type of cables single or multi-stranded         temperature of the conductor at magnet coil maximum         permissible         material of the conductor at magnet coil         type of electrical conn	dustproof, waterproof & weatherproof         vertical         Surface mounting and installation         Box lug         35 35 lbf-in         1         75 °C         AL or CU         Box lug         45 45 lbf-in         1         75 °C         AL or CU         Box lug         45 45 lbf-in         1         75 °C         AL or CU         Screw-type terminals         5 12 lbf-in         2         75 °C         CU         Screw-type terminals         10 15 lbf-in

maximum permissible	
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	2
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	10
certificate of suitability	NEMA ICS 2; UL 508; CSA 22.2, No.14
Further information	

Industrial Controls - Product Overview (Catalogs, Brochures,...)

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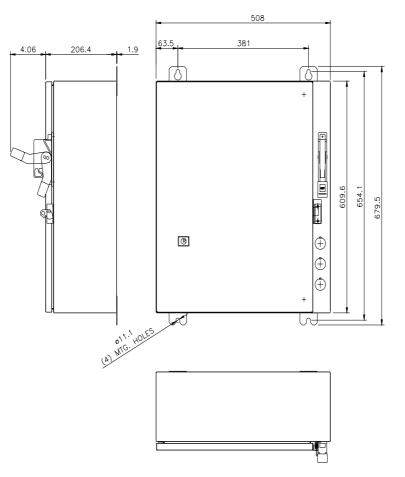
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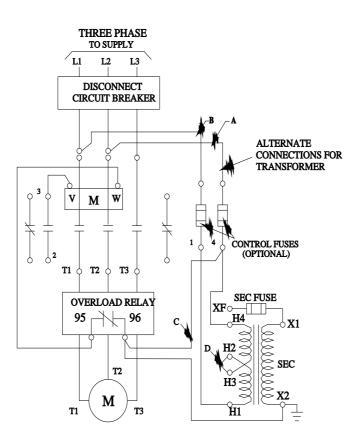
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