3RE4122-8CA11-4FY0

Data sheet

STARTER,FVNR,S0,3PH,THOLR,24VAC,N3R/4/12



Figure similar

Product brand name	Siemens
Product designation	Non-reversing motor starter
Special product feature	No factory installed accessories

General technical data	
Weight [lb]	15 lb
Height x Width x Depth [in]	12 × 10 × 6 in
Protection against electrical shock	NA for enclosed products
Installation altitude [ft] at height above sea level maximum	6 560 ft
Ambient temperature [°F] during storage	-22 +149 °F
Ambient temperature [°F] during operation	-4 +104 °F
Ambient temperature during storage	-30 +65 °C
Ambient temperature during operation	-20 +40 °C
Country of origin	Germany

Power and control electronics	
Number of poles for main current circuit	3
Type of voltage of the control supply voltage	AC

Control supply voltage	
at AC at 50 Hz rated value	24 V
• at AC at 60 Hz rated value	24 V
Disconnector functionality	No
Yielded mechanical performance [hp] for three-phase	
AC motor	
• at 200/208 V rated value	10 hp
• at 220/230 V rated value	10 hp
• at 460/480 V rated value	25 hp
● at 575/600 V rated value	25 hp
Contactor	
Number of NO contacts for main contacts	3
Operating voltage for main current circuit at AC at 60	600 V
Hz maximum	
Operating voltage at AC-3 rated value maximum	600 V
Mechanical service life (switching cycles) of the main	10 000 000
contacts typical	
Auxiliary contact	
Number of NC contacts for auxiliary contacts	1
Number of NO contacts for auxiliary contacts	1
Number of total auxiliary contacts maximum	8
Contact rating of auxiliary contacts of contactor	10A@600V(A600), 2.5A@600V(Q600)
according to UL	
Coil	
Apparent pick-up power of magnet coil at AC	79 V·A
Apparent holding power of magnet coil at AC	8.5 V·A
Operating range factor control supply voltage rated	0.8 1.1
value of magnet coil	
Switch-on delay time	8 40 ms
Off-delay time	4 16 ms
Overload relay	
Product function	
Overload protection	Yes
• Test function	Yes
External reset	Yes
Reset function	Manual, automatic and remote (with optional accessory)
Adjustment range of thermal overload trip unit	28 40
Number of NC contacts of auxiliary contacts of	1
overload relay	
Number of NO contacts of auxiliary contacts of	1
overload relay	

Contact rating of auxiliary contacts of overload relay
according to UL

5A@600VAC (B600), 1A@250VDC (R300)

Enclosure	
Degree of protection NEMA rating of the enclosure	NEMA 3/3R/4/12 enclosure
Design of the housing	Dust- & watertight for outdoor use

Mounting position)         vertical           (mounting position)         vertical           (mounting type)         Surface mounting and installation           Type of electrical connection for supply voltage lineside at AWG conductors single or multi-stranded         2x (16 12), 2x (14 8)           Type of connectable conductor for supply maximum permissible         60 °C           Material of the conductor for supply maximum permissible of electrical connection for load-side outgoing feeder         60 °C           Type of electrical connection for load-side outgoing feeder         18 21 lbf-in           Type of connectable conductor cross-sections at AWG conductors for load-side outgoing feeder single or multi-stranded         2x (16 12), 2x (14 8)           Type of connectable conductor for load-side outgoing feeder maximum permissible         60 °C           Material of the conductor for load-side outgoing feeder single or multi-stranded         CU           Type of electrical connection of magnet coil         Screw-type terminals           Type of connectable conductor cross-sections of magnet coil at AWG conductors single or multi-stranded         T 10 lbf-in           Temperature of the conductor at magnet coil         7 10 lbf-in           Type of electrical connection for auxiliary contacts         Screw-type terminals           Tightening torque [lbf-in] at magnet coil         7 10 lbf-in           Type of electrical connection for au		
Type of connectable conductor for supply maximum permissible  Material of the conductor for load-side outgoing feeder raminum permissible or multi-stranded  Tightening torque [lbf-in] for supply  18 21 lbf-in  2x (16 12), 2x (14 8)  3crew-type terminals  2x (16 12), 2x (14 8)  40 °C	Mounting/wiring	
Type of electrical connection for supply voltage lineside  Tightening torque [lbFin] for supply  Type of connectable conductor cross-sections at lineside at AWG conductors single or multi-stranded  Temperature of the conductor for supply maximum permissible  Material of the conductor for supply CU  Type of electrical connection for load-side outgoing feeder  Tightening torque [lbFin] for load-side outgoing feeder  Type of connectable conductor cross-sections at AWG conductors 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 maximum permissible  Material of the 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 maximum permissible  Type of connectable conductor cross-sections of magnet coil Type of connectable conductor at magnet coil Type of connectable conductor at magnet coil Type of connectable conductor at magnet coil CU  Type of electrical connection for auxiliary contacts  Tightening torque [lbFin] at contactor for auxiliary contacts single or multi-stranded  Temperature of the conductor at contactor for auxiliary contacts single or multi-stranded  Temperature of the conductor at contactor for auxiliary contacts single or multi-stranded  Temperature of the conductor at contactor for auxiliary contacts single or multi-stranded  Temperature of the conductor at contactor for auxiliary contacts single or multi-stranded		
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Type of connectable conductor cross-sections at line- side at AWG conductors single or multi-stranded  Temperature of the conductor for supply maximum permissible  Material of the conductor for load-side outgoing feeder  Tightening torque [lbf·in] for load-side outgoing feeder single or multi-stranded  Type of connectable conductor for load-side outgoing feeder small stranded  Temperature of the conductor for load-side outgoing feeder single or multi-stranded  Material of the conductor for load-side outgoing feeder small stranded  Temperature of the conductor for load-side outgoing feeder single or multi-stranded  Material of the conductor for load-side outgoing feeder  Type of electrical connection of magnet coil  Type of electrical connection of magnet coil  Type of connectable conductor cross-sections of magnet coil at AWG conductors single or multi-stranded  Temperature of the conductor at magnet coil  Type of electrical connection for auxiliary contacts  Tightening torque [lbf·in] at contactor for auxiliary contacts  Tightening torque [lbf·in] at contactor for auxiliary contacts  Tightening torque [lbf·in] at contactor for auxiliary contacts  Type of electrical connection for auxiliary contacts  Type of connectable conductor at magnet coil  Type of electrical connection for auxiliary contacts  Type of connectable conductor for auxiliary contacts  Type of connectable conductor at magnet coil  Type of connectable conductor for auxiliary contacts  Type of connectable conductor for auxiliary contacts  Type of connectable conductor for auxiliary contacts  Type of connectable conductor for auxiliary contacts and the conductor at contactor for auxiliary contacts and the conductor at contactor for auxiliary contacts maximum permissible  Material of the conductor at contactor for auxiliary  CU		Screw-type terminals
side at AWG conductors 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 single or multi-stranded  Temperature of the 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 maximum permissible  Type of electrical connection of magnet coil  Type of connectable conductor cross-sections of magnet coil at AWG conductors single or multi-stranded  Temperature of the conductor at magnet coil  Type of connectable conductor cross-sections of magnet coil at AWG conductors single or multi-stranded  Temperature of the conductor at magnet coil  Type of electrical connection for auxiliary contacts  Tightening torque [lbf-in] at contactor for auxiliary contacts  Type of electrical connection for auxiliary contacts single or multi-stranded  Temperature of the conductor at magnet coil  Type of electrical connection for auxiliary contacts  Type of connectable conductor at magnet coil  Type of electrical connection for auxiliary contacts  Type of connectable conductor for auxiliary contacts  Type of connectable conductor for auxiliary contacts  Type of connectable conductor at contactor for auxiliary contacts  Type of connectable conductor at contactor for auxiliary contacts single or multi-stranded  Temperature of the conductor at contactor 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 maximum permissible	Tightening torque [lbf·in] for supply	18 21 lbf·in
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 at AWG conductors for load-side outgoing feeder summers awaimum 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 or single or multistranded  Temperature of the conductor at magnet coil Type of electrical connection for auxiliary contacts Tightening torque [lbf-in] at contactor for auxiliary contacts Tightening torque [lbf-in] at contactor for auxiliary contacts Type of connectable conductor at magnet coil Type of connectable conductor at magnet coil Type of connectable conductor or auxiliary contacts Tightening torque [lbf-in] at contactor for auxiliary contacts Type of connectable conductor at magnet coil Type of connectable conductor or auxiliary contacts Single or multi-stranded Temperature of the conductor at contactor for auxiliary contacts Type of connectable conductor at contactor for auxiliary contacts single or multi-stranded Temperature of the conductor at contactor 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 maximum permissible  Material of the conductor at contactor for auxiliary contacts maximum permissible		2x (16 12), 2x (14 8)
Type of electrical connection for load-side outgoing feeder  Tightening torque [lbf·in] for load-side outgoing feeder  Type of connectable conductor cross-sections at AWG conductors for load-side outgoing feeder multi-stranded  Temperature of the 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 maximum permissible  Screw-type terminals  CU  CU  Screw-type terminals  Tightening torque [lbf·in] at magnet coil  Type of connectable conductor cross-sections of magnet coil at AWG conductors single or multi-stranded  Temperature of the conductor at magnet coil  Type of electrical connection for auxiliary contacts  Tightening torque [lbf·in] at contactor for auxiliary contacts  Tightening torque [lbf·in] at contactor for auxiliary contacts  Type of connectable conductor at magnet coil  Type of electrical connection for auxiliary contacts  Tightening torque [lbf·in] at contactor for auxiliary contacts  Type of connectable conductor at magnet coil  Type of connectable conductor at magnet coil  Type of electrical connection for auxiliary contacts  Tightening torque [lbf·in] at contactor for auxiliary contacts  Type of connectable conductor cross-sections at contactor at AWG conductors 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 maximum permissible  Material of the conductor at contactor for auxiliary  CU		60 °C
Feeder  Tightening torque [lbf-in] for load-side outgoing feeder  Type of connectable conductor cross-sections at AWG conductors 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 maximum permissible  Material of the conductor for load-side outgoing feeder  Type of electrical connection of magnet coil  Type of connectable conductor cross-sections of magnet coil at AWG conductors single or multi-stranded  Temperature of the conductor at magnet coil  Type of electrical connection of rauxiliary contacts  Tightening torque [lbf-in] at contactor for auxiliary contacts  Type of connectable conductor at magnet coil  Type of one conductor at magnet coil  Type of connectable conductor for auxiliary contacts  Tightening torque [lbf-in] at contactor for auxiliary contacts  Type of connectable conductor for auxiliary contacts and the conductor of the conductor of auxiliary contacts  Type of connectable conductor at contactor for auxiliary contacts and the conductor of the conductor of auxiliary contacts and the conductor of auxiliary contacts  Type of connectable conductor at contactor for auxiliary contacts and the conductor of au	Material of the conductor for supply	CU
Type of connectable conductor cross-sections at AWG conductors 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  Type of connectable conductor cross-sections of magnet coil at AWG conductors single or multi-stranded  Temperature of the conductor at magnet coil  Type of electrical connection of rauxiliary contacts  Tightening torque [lbf-in] at contactor for auxiliary contacts  Tightening torque (lbf-in] at contactor for auxiliary contacts  Tightening torque [lbf-in] at contactor for auxiliary contacts  Type of connectable conductor at magnet coil  Type of electrical connection for auxiliary contacts  Tightening torque [lbf-in] at contactor for auxiliary contacts  Single or multi-stranded  Temperature of the conductor at contactor for auxiliary contacts single or multi-stranded  Temperature of the conductor at contactor 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  Material of the conductor at contactor for auxiliary  CU		Screw-type terminals
AWG conductors 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 at AWG conductors single or multi-stranded  Temperature of the conductor at magnet coil  Type of electrical connection for auxiliary contacts  Tightening torque [lbf·in] at contactor for auxiliary contacts  Screw-type terminals  75 °C  CU  Type of electrical connection for auxiliary contacts  Screw-type terminals  7 10 lbf·in  CU  Type of electrical connection for auxiliary contacts  Screw-type terminals  7 10 lbf·in  2x (20 16), 2x (18 14)  Cype of connectable conductor cross-sections at contactor at AWG conductors 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  CU		18 21 lbf·in
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 at AWG conductors single or multistranded  Temperature of the conductor at magnet coil  Type of electrical connection for auxiliary contacts  Tightening torque [lbf·in] at contactor for auxiliary contacts  Type of connectable conductor cross-sections at contactor at AWG conductors for auxiliary contacts  Type of connectable conductor cross-sections at contactor at AWG conductors for auxiliary contacts  Type of connectable conductor cross-sections at contactor at AWG conductors 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  Material of the conductor at contactor for auxiliary  CU  CU  Type of connectable conductor at contactor for auxiliary contacts  Screw-type terminals  7 10 lbf·in  2x (20 16), 2x (18 14)  7 10 lbf·in  Cu  Cu  Type of connectable conductor at contactor for auxiliary contacts  Cu  Cu  Type of connectable conductor at contactor for auxiliary contacts  Cu  Type of connectable conductor at contactor for auxiliary contacts  Cu  Cu  Cu  Cu  Cu  Cu  Cu  Cu  Cu  C	AWG conductors for load-side outgoing feeder single	2x (16 12), 2x (14 8)
Type of electrical connection of magnet coil  Tightening torque [lbf·in] at magnet coil  Type of connectable conductor cross-sections of magnet coil at AWG conductors single or multistranded  Temperature of the conductor at magnet coil  Type of electrical connection for auxiliary contacts  Tightening torque [lbf·in] at contactor for auxiliary contacts single or multi-stranded  Type of connectable conductor cross-sections at contactor at AWG conductors for auxiliary contacts  Type of connectable conductor cross-sections at contactor at AWG conductors for auxiliary contacts  Type of connectable conductor at contactor 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  Material of the conductor at contactor for auxiliary  CU  CU  Screw-type terminals  7 10 lbf·in  2x (20 16), 2x (18 14)		60 °C
Tightening torque [lbf·in] at magnet coil  Type of connectable conductor cross-sections of magnet coil at AWG conductors single or multistranded  Temperature of the conductor at magnet coil  Type of electrical connection for auxiliary contacts  Tightening torque [lbf·in] at contactor for auxiliary contacts  Type of connectable conductor cross-sections at contactor at AWG conductors for auxiliary contacts single or multi-stranded  Temperature of the conductor at contactor for auxiliary contacts  Type of connectable conductor cross-sections at contactor at AWG conductors for auxiliary contacts  Temperature of the conductor at contactor 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  CU  Type of connectable conductor at contactor for auxiliary contacts  Type of connectable conductor at contactor for auxiliary contacts  Temperature of the conductor at contactor for auxiliary contacts maximum permissible  Material of the conductor at contactor for auxiliary  CU		CU
Type of connectable conductor cross-sections of magnet coil at AWG conductors single or multistranded  Temperature of the conductor at magnet coil maximum permissible  Material of the conductor at magnet coil  Type of electrical connection for auxiliary contacts  Tightening torque [lbf-in] at contactor for auxiliary contacts  Type of connectable conductor cross-sections at contactor at AWG conductors 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  CU   2x (16 12), 2x (14 8)  75 °C  2x (20 10) Ibf-in  2x (16 12), 2x (14 8)	Type of electrical connection of magnet coil	Screw-type terminals
magnet coil at AWG conductors 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  Tightening torque [lbf-in] at contactor for auxiliary contacts  Type of connectable conductor cross-sections at contactor at AWG conductors 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  CU  Temperature of the conductor at contactor for auxiliary CU  CU  To °C  CU  Tubelian  To lbf-in  Tubelian	Tightening torque [lbf·in] at magnet coil	7 10 lbf·in
Material of the conductor at magnet coil  Type of electrical connection for auxiliary contacts  Tightening torque [lbf·in] at contactor for auxiliary contacts  Type of connectable conductor cross-sections at contactor at AWG conductors 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  CU  CU  CU  CU  2x (20 16), 2x (18 14)  2x (20 16), 2x (18 14)  CU  CU	magnet coil at AWG conductors single or multi-	2x (16 12), 2x (14 8)
Type of electrical connection for auxiliary contacts  Tightening torque [lbf·in] at contactor for auxiliary contacts  Type of connectable conductor cross-sections at contactor at AWG conductors 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  CU  Screw-type terminals  7 10 lbf·in  2x (20 16), 2x (18 14)  75 °C  CU  CU  CU  CU  CU  CU  CU  CU  CU		75 °C
Tightening torque [lbf-in] at contactor for auxiliary contacts  Type of connectable conductor cross-sections at contactor at AWG conductors 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  CU  7 10 lbf-in  2x (20 16), 2x (18 14)  75 °C  CU  CU  CU  CU  CU  CU  CU  CU  CU	Material of the conductor at magnet coil	CU
Type of connectable conductor cross-sections at contactor at AWG conductors 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  CU   2x (20 16), 2x (18 14)  75 °C  CU  CU	Type of electrical connection for auxiliary contacts	Screw-type terminals
contactor at AWG conductors 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  CU		7 10 lbf·in
auxiliary contacts maximum permissible  Material of the conductor at contactor for auxiliary  CU	contactor at AWG conductors for auxiliary contacts	2x (20 16), 2x (18 14)
	•	75 °C
	-	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 conductors for auxiliary contacts single or multi-stranded	2x (20 16), 2x (18 14)
Temperature of the conductor at overload relay for auxiliary contacts maximum permissible	70 °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	Class J
the main circuit required	
Design of the short-circuit trip	Thermal magnetic circuit breaker
Maximum short-circuit current breaking capacity (Icu)	
● at 240 V	5 kA
● at 480 V	5 kA
● at 600 V	5 kA
(certificate of suitability)	UL 60947-4-1

## 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=3RE4122-8CA11-4FY0

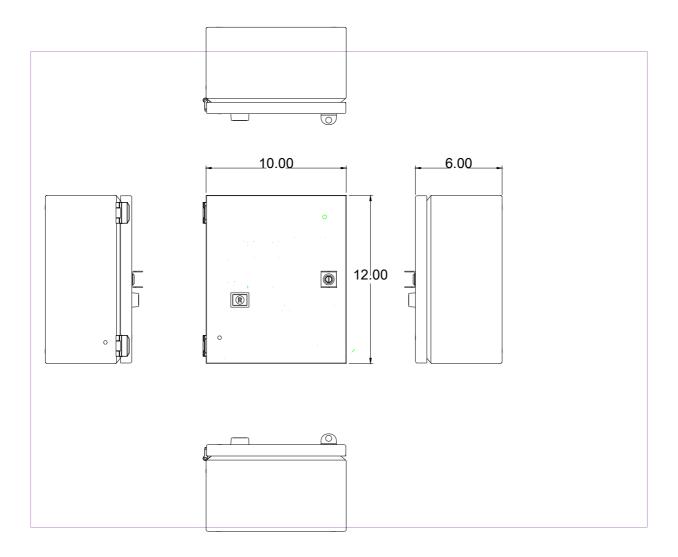
Search Datasheet in Service&Support (Manuals)

https://support.industry.siemens.com/cs/US/en/ps/3RE4122-8CA11-4FY0/man

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=3RE4122-8CA11-4FY0&lang=en">http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RE4122-8CA11-4FY0&lang=en</a>

Certificates/approvals

https://support.industry.siemens.com/cs/US/en/ps/3RE4122-8CA11-4FY0/certificate



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