



STARTER,FVNR,S0,3PH,THOLR,120V,N3R/4/12

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
touch protection against electrical shock	NA for enclosed products
installation altitude [ft] at height above sea level maximum	6 560 ft
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	110 V
• at AC at 60 Hz rated value	120 V
disconnecter functionality	No
yielded mechanical performance [hp] for 3-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
Contactors	
number of NO contacts for main contacts	3
operating voltage for main current circuit at AC at 60 Hz maximum	600 V
operating voltage at AC-3 rated value maximum	600 V
mechanical service life (operating cycles) of the main contacts typical	10 000 000
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 according to UL	10A@600V(A600), 2.5A@600V(Q600)
Coil	
apparent pick-up power of magnet coil at AC	79 VA
apparent holding power of magnet coil at AC	8.5 VA
operating range factor control supply voltage rated value of magnet coil	0.8 ... 1.1
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		14 ... 20	
number of NC contacts of auxiliary contacts of overload relay		1	
number of NO contacts of auxiliary contacts of overload relay		1	
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/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		18 ... 21 lbf-in	
type of connectable conductor cross-sections at line-side for AWG cables single or multi-stranded		2x (16 ... 12), 2x (14 ... 8)	
temperature of the conductor for supply maximum permissible		60 °C	
material of the conductor for supply		CU	
type of electrical connection for load-side outgoing feeder		Screw-type terminals	
tightening torque [lbf-in] for load-side outgoing feeder		18 ... 21 lbf-in	
type of connectable conductor cross-sections for AWG cables for load-side outgoing feeder single or multi-stranded		2x (16 ... 12), 2x (14 ... 8)	
temperature of the conductor for load-side outgoing feeder maximum permissible		60 °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		7 ... 10 lbf-in	
type of connectable conductor cross-sections of magnet coil for AWG cables single or multi-stranded		2x (16 ... 12), 2x (14 ... 8)	
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		7 ... 10 lbf-in	
type of connectable conductor cross-sections at contactor for AWG cables for auxiliary contacts single or multi-stranded		2x (20 ... 16), 2x (18 ... 14)	
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 ... 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 the main circuit required		Class J	
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	
Approvals Certificates			
General Product Approval	Test Certificates	other	Environment



[Confirmation](#)

[Environmental Con-
firmations](#)

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=3RE4122-8CA31-4BY0>

Search Datasheet in Service&Support (Manuals)

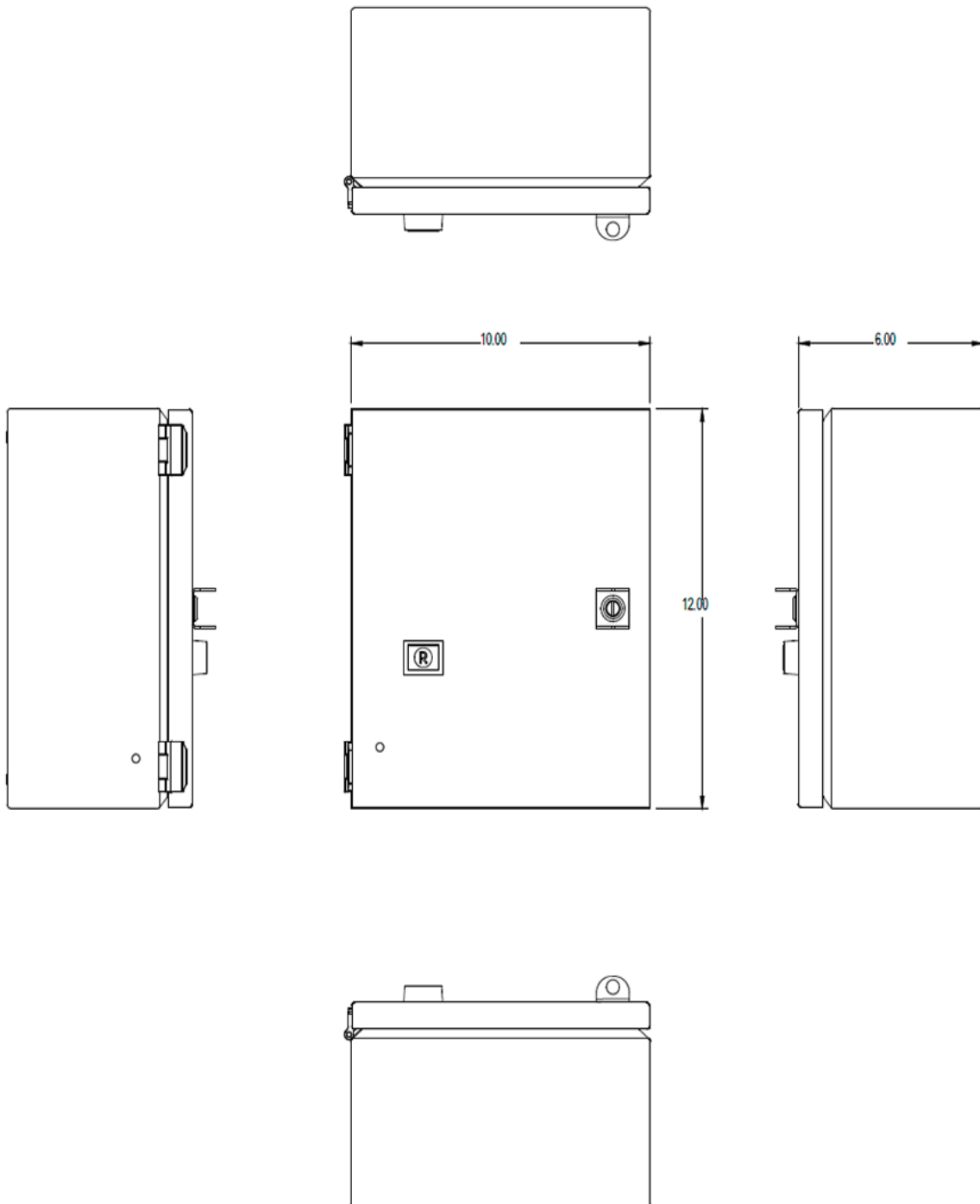
<https://support.industry.siemens.com/cs/US/en/ps/3RE4122-8CA31-4BY0/man>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RE4122-8CA31-4BY0&lang=en

Certificates/approvals

<https://support.industry.siemens.com/cs/US/en/ps/3RE4122-8CA31-4BY0/certificate>



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