SIEMENS

Data sheet

STARTER,FVNR,S0,3PH,THOLR,24VAC,NEMA 1



product designation Non-reversing motor starter Special product feature No factory installed accessories	product brand name	Sieniens
weight [Ib] 8 Ib Height x Width x Depth [in] 11 x 7 x 5 in touch protection against electrical shock NA for enclosed products installation altitude [fi] at height above sea level maximum 6 560 ft ambient temperature [Fi] during storage 2 -22 +149 FF ambient temperature [Virig unity storage 3 -30 +65 °C ambient temperature during storage -30 +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 • at AC at 50 Hz rated value 24 V disconnector functionality yielded mechanical performance [thp] for 3-phase AC motor • at 200/208 V rated value 5 hp • at 220/230 V rated value 5 hp • at 460/480 V rated value 15 hp • at 576/600 V rated value 15 hp Contactor number of NO contacts for auxiliary contacts or portality voltage or the control supply woltage 15 hp Contactor number of NO contacts for auxiliary contacts 1 1 number of NO contacts for auxiliary contacts 1 1 number of NO contacts for auxiliary contacts 1 1 number of NO contacts for auxiliary contacts 1 1 number of NO contacts for auxiliary contacts 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	product designation	Non-reversing motor starter
weight [b]	special product feature	No factory installed accessories
Height x Width x Depth [In] touch protection against electrical shock Installation altitude [If] at height above sea level maximum ambient temperature ['F] during storage ambient temperature ['F] during operation ambient temperature during storage ambient temperature during storage ambient temperature during storage ambient temperature during operation -20 +40 °C country of origin Power and control electronics number of poles for main current circuit 3 type of voltage of the control supply voltage at AC at 50 Hz rated value at AC at 50 Hz rated value at AC at 60 Hz rated value at AC at 60 Hz rated value at 200/208 V rated value at 600/408 V rated value at 601/408 V rated value at 601/408 V rated value at 601/408 V rated value at 675/600 V rated value at 675/600 V rated value at 675/600 V rated value fooration of NO contacts for main contacts operating voltage at AC-3 rated value maximum mechanical service life (operating cycles) of the main contacts typical Auxillary contact number of NO contacts for auxiliary contacts 1 number of NO contacts for auxiliary contacts numb	General technical data	
touch protection against electrical shock installation altitude [fi] at height above sea level maximum ambient temperature [Fr] during storage ambient temperature [Fr] during operation 4	weight [lb]	8 lb
installation altitude [ft] at height above sea level maximum ambient temperature [FF] during storage ambient temperature [FF] during storage ambient temperature during storage ambient temperature during storage ambient temperature during storage ambient temperature during operation -20 +40 °C country of origin Power and control electronics number of poles for main current circuit 3 type of voltage of the control supply voltage at AC at 50 Hz rated value at AC at 50 Hz rated value at AC at 50 Hz rated value at 200/208 V rated value at 200/208 V rated value at 200/208 V rated value at 5 fbp at 4 60/480 V rated value bat 5 fbp at 5 fbp contactor number of NO contacts for main contacts operating voltage for main current circuit at AC at 60 Hz maximum operating voltage for main current circuit at AC at 60 Hz maximum operating voltage at AC-3 rated value maximum operating voltage for contacts for auxiliary contacts number of NC contacts for auxiliary co	Height x Width x Depth [in]	11 × 7 × 5 in
ambient temperature ["F] during storage 42 +149 "F ambient temperature during storage 30 +65 "C ambient temperature during storage 30 +65 "C ambient temperature during operation 220 +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 4 AC at 50 Hz rated value 24 V disconnector functionality No yielded mechanical performance [hp] for 3-phase AC motor • at 200/208 V rated value 5 hp • at 220/230 V rated value 5 hp • at 450/480 V rated value 10 hp • at 450/480 V rated value 15 hp • at 575/600 V rated value 5 hp • at 575/600 V rated value 5 hp • at 575/600 V rated value 600 V maximum operating voltage for main current circuit at AC at 60 Hz maximum operating voltage at AC-3 rated value maximum 600 V mechanical service life (operating cycles) of the main contacts 5 typical Auxiliary contact number of NC contacts for auxiliary contacts 1 number of NO contacts for auxiliary contacts 1 number of total auxiliary contacts of contactor according to UL Coil apparent holding power of magnet coil at AC 60 67 VA apparent holding power of magnet coil at AC 6.5 VA	touch protection against electrical shock	NA for enclosed products
ambient temperature ("FI during operation 4+104 "F ambient temperature during storage 3.30+65 "C ambient temperature during storage 2.20+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 50 Hz rated value 24 V (disconnector functionality No yielded mechanical performance (hp) for 3-phase AC motor • at 200/208 V rated value 5 hp • at 250/230 V rated value 10 hp • at 450/480 V rated value 15 hp • at 450/480 V rated value 15 hp • at 575/600 V rated value 15 hp Contactor number of NO contacts for main contacts operating voltage at AC-3 rated value maximum 600 V mechanical service life (operating cycles) of the main contacts 10 number of NO contacts for auxiliary contacts 1 number of NO contacts for auxiliary contacts 2 1 number of NO contacts for auxiliary contacts 3 1 10A@600V(A600), 2.5A@600V(Q600) Coil apparent holding power of magnet coil at AC 6 67 VA apparent holding power of magnet coil at AC 6 67 VA apparent holding power of magnet coil at AC 6 65 VA	installation altitude [ft] at height above sea level maximum	6 560 ft
ambient temperature during storage ambient temperature during operation country of origin Power and control electronics number of poles for main current circuit 3 type of voltage of the control supply voltage at AC at 60 Hz rated value at AC at 60 Hz rated value at AC at 60 Hz rated value 4 t V disconnector functionality yielded mechanical performance [hp] for 3-phase AC motor at 40,480 V rated value 5 hp at 46,0480 V rated value 5 hp at 575/600 V rated value 10 hp at 575/600 V rated value 5 hp contactor number of NO contacts for main contacts operating voltage at AC-3 rated value maximum operating voltage at AC-3 rated value maximum mechanical service life (operating cycles) of the main contacts fypical number of NC contacts for auxiliary contacts 1 number of NC c	ambient temperature [°F] during storage	-22 +149 °F
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 disconnector functionality No yielded mechanical performance [hp] for 3-phase AC motor • at 200/208 V rated value 5 hp • at 220/230 V rated value 10 hp • at 250/208 V rated value 10 hp • at 575/600 V rated value 15 hp contactor number of NO contacts for main contacts operating voltage at AC-3 rated value maximum 600 V mechanical service life (operating cycles) of the main contacts typical Auxiliary contact number of NC contacts for auxiliary contacts 1 number of total auxiliary contacts auxiliary contacts 1 number of total power of magnet coil at AC 67 VA apparent holding power of magnet coil at AC 67 VA apparent holding power of magnet coil at AC 6.5 VA	ambient temperature [°F] during operation	-4 +104 °F
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	ambient temperature during storage	-30 +65 °C
number of poles for main current circuit 1 type of voltage of the control supply voltage control supply voltage	ambient temperature during operation	-20 +40 °C
number of poles for main current circuit type of voltage of the control supply voltage • at AC at 50 Hz rated value • at AC at 60 Hz rated value (disconnector functionality yielded mechanical performance [hp] for 3-phase AC motor • at 200/208 V rated value • at 220/230 V rated value • at 46/0480 V rated value • at 46/0480 V rated value • at 4575/600 V rated value 15 hp Contactor number of NO contacts for main contacts operating voltage for main current circuit at AC at 60 Hz maximum operating voltage at AC-3 rated value maximum operating voltage at AC-3 rated value maximum mechanical service life (operating cycles) of the main contacts typical Auxiliary contact number of NO contacts for auxiliary contacts 1 number of NO contacts for auxiliary contacts 2 number of total auxiliary contacts maximum 8 contact rating of auxiliary contacts of contactor according to UL coil apparent holding power of magnet coil at AC 67 VA apparent holding power of magnet coil at AC 67 VA apparent holding power of magnet coil at AC 65 VA	country of origin	Germany
type of voltage of the control supply voltage control supply voltage at AC at 50 Hz rated value at AC at 60 Hz rated value 24 V disconnector functionality yielded mechanical performance [hp] for 3-phase AC motor at 200/208 V rated value 5 hp at 220/230 V rated value 5 hp at 460/480 V rated value 10 hp at 675/600 V rated value 15 hp Contactor number of NO contacts for main contacts operating voltage for main current circuit at AC at 60 Hz maximum operating voltage at AC-3 rated value maximum mechanical service life (operating cycles) of the main contacts typical Auxiliary contact 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 Coil apparent holding power of magnet coil at AC 67 VA apparent holding power of magnet coil at AC 6.5 VA	Power and control electronics	
control supply voltage • at AC at 50 Hz rated value • at AC at 60 Hz rated value disconnector functionality yielded mechanical performance [hp] for 3-phase AC motor • at 200/208 V rated value • at 220/230 V rated value • at 460/480 V rated value • at 675/600 V rated value • at 220/230 V rated value •	number of poles for main current circuit	3
at AC at 50 Hz rated value at AC at 60 Hz rated value 24 V disconnector functionality yielded mechanical performance [hp] for 3-phase AC motor at 200/208 V rated value 5 hp at 220/230 V rated value 10 hp at 575/600 V rated value 15 hp Contactor number of NO contacts for main contacts apparating voltage at AC-3 rated value maximum mechanical service life (operating cycles) of the main contacts typical Auxiliary contact number of NO contacts for auxiliary contacts 1 number of NO contacts for auxiliary contacts 2 1 number of NO contacts for auxiliary contacts 3 2 000 000 Coil apparent pick-up power of magnet coil at AC 67 VA apparent holding power of magnet coil at AC 6.5 VA	type of voltage of the control supply voltage	AC
at AC at 60 Hz rated value disconnector functionality yielded mechanical performance [hp] for 3-phase AC motor at 200/208 V rated value at 220/230 V rated value at 460/480 V rated value at 575/600 V rated value to hp at 575/600 V rated value To hp contactor number of NO contacts for main contacts operating voltage for main current circuit at AC at 60 Hz maximum operating voltage at AC-3 rated value maximum operating voltage at AC-3 rated value maximum operating voltage at (operating cycles) of the main contacts typical Auxiliary contact number of NO contacts for auxiliary contacts number of NO 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 Coil apparent pick-up power of magnet coil at AC 67 VA apparent holding power of magnet coil at AC 6.5 VA	control supply voltage	
disconnector functionality yielded mechanical performance [hp] for 3-phase AC motor • at 200/208 V rated value • at 220/230 V rated value • at 460/480 V rated value • at 575/600 V rated value 10 hp • at 575/600 V rated value 15 hp Contactor number of NO contacts for main contacts operating voltage at AC-3 rated value maximum operating voltage at AC-3 rated value maximum operating voltage at AC-3 rated value maximum accontacts (10 000 000 000 000 000 000 000 000 000	• at AC at 50 Hz rated value	24 V
yielded mechanical performance [hp] for 3-phase AC motor • at 200/208 V rated value 5 hp • at 220/230 V rated value 5 hp • at 460/480 V rated value 10 hp • at 575/600 V rated value 15 hp Contactor number of NO contacts for main contacts 3 operating voltage for main current circuit at AC at 60 Hz maximum 600 V mechanical service life (operating cycles) of the main contacts typical Auxillary 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 holding power of magnet coil at AC 6.5 VA	at AC at 60 Hz rated value	24 V
at 200/208 V rated value at 220/230 V rated value at 460/480 V rated value at 575/600 V rated value 10 hp at 575/600 V rated value 15 hp Contactor number of NO contacts for main contacts operating voltage for main current circuit at AC at 60 Hz maximum operating voltage at AC-3 rated value maximum operating solve life (operating cycles) of the main contacts typical Auxiliary contact number of NC contacts for auxiliary contacts 1 number of NO 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 Coil apparent pick-up power of magnet coil at AC 67 VA apparent holding power of magnet coil at AC 6.5 VA	disconnector functionality	No
at 220/230 V rated value at 460/480 V rated value 10 hp at 575/600 V rated value 15 hp Contactor number of NO contacts for main contacts operating voltage for main current circuit at AC at 60 Hz maximum operating voltage at AC-3 rated value maximum operating voltage at AC-3 rated value maximum mechanical service life (operating cycles) of the main contacts typical Auxiliary contact number of NO 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 Coil apparent pick-up power of magnet coil at AC apparent holding power of magnet coil at AC apparent holding power of magnet coil at AC at 10 hp 1	yielded mechanical performance [hp] for 3-phase AC motor	
at 460/480 V rated value at 575/600 V rated value 15 hp Contactor number of NO contacts for main contacts operating voltage for main current circuit at AC at 60 Hz maximum operating voltage at AC-3 rated value maximum operating voltage at AC-3 rated value maximum operating voltage at AC-3 rated value maximum food V mechanical service life (operating cycles) of the main contacts typical Auxiliary contact number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts number of total auxiliary contacts maximum secontact rating of auxiliary contacts of contactor according to UL apparent pick-up power of magnet coil at AC apparent holding power of magnet coil at AC 6.5 VA	at 200/208 V rated value	5 hp
at 575/600 V rated value Contactor number of NO contacts for main contacts operating voltage for main current circuit at AC at 60 Hz maximum operating voltage at AC-3 rated value maximum operating voltage at AC-3 rated value maximum mechanical service life (operating cycles) of the main contacts typical Auxiliary contact number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts number of total auxiliary contacts maximum secontact rating of auxiliary contacts of contactor according to UL apparent pick-up power of magnet coil at AC apparent holding power of magnet coil at AC 65 VA	at 220/230 V rated value	5 hp
Contactor number of NO contacts for main contacts operating voltage for main current circuit at AC at 60 Hz maximum operating voltage at AC-3 rated value maximum mechanical service life (operating cycles) of the main contacts typical Auxiliary contact number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts number of total auxiliary contacts maximum contact rating of auxiliary contacts of contactor according to UL Coil apparent pick-up power of magnet coil at AC apparent holding power of magnet coil at AC 6.5 VA	at 460/480 V rated value	10 hp
number of NO contacts for main contacts operating voltage for main current circuit at AC at 60 Hz maximum operating voltage at AC-3 rated value maximum operating voltage at AC-3 rated value maximum mechanical service life (operating cycles) of the main contacts typical Auxiliary contact number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts number of total auxiliary contacts maximum contact rating of auxiliary contacts of contactor according to UL Coil apparent pick-up power of magnet coil at AC apparent holding power of magnet coil at AC 6.5 VA	• at 575/600 V rated value	15 hp
operating voltage for main current circuit at AC at 60 Hz maximum operating voltage at AC-3 rated value maximum mechanical service life (operating cycles) of the main contacts typical Auxiliary contact number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts number of total auxiliary contacts maximum contact rating of auxiliary contacts of contactor according to UL Coil apparent pick-up power of magnet coil at AC apparent holding power of magnet coil at AC apparent holding power of magnet coil at AC 600 V 10 000 V	Contactor	
operating voltage at AC-3 rated value maximum operating voltage at AC-3 rated value maximum mechanical service life (operating cycles) of the main contacts typical Auxiliary contact number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts number of total auxiliary contacts maximum scontact rating of auxiliary contacts of contactor according to UL Coil apparent pick-up power of magnet coil at AC apparent holding power of magnet coil at AC 65 VA 6.5 VA	number of NO contacts for main contacts	3
mechanical service life (operating cycles) of the main contacts typical Auxiliary contact number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts number of total auxiliary contacts maximum number of total auxiliary contacts of contactor according to UL apparent pick-up power of magnet coil at AC apparent holding power of magnet coil at AC 6.5 VA		600 V
typical Auxiliary contact number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts number of total auxiliary contacts maximum 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 apparent holding power of magnet coil at AC 6.5 VA	operating voltage at AC-3 rated value maximum	600 V
number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts number of total auxiliary contacts maximum 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 apparent holding power of magnet coil at AC 6.5 VA		10 000 000
number of NO contacts for auxiliary contacts number of total auxiliary contacts maximum contact rating of auxiliary contacts of contactor according to UL apparent pick-up power of magnet coil at AC apparent holding power of magnet coil at AC for VA 6.5 VA	Auxiliary contact	
number of total auxiliary contacts maximum 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 apparent holding power of magnet coil at AC 6.5 VA	number of NC contacts for auxiliary contacts	1
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 apparent holding power of magnet coil at AC 6.5 VA	number of NO contacts for auxiliary contacts	1
apparent pick-up power of magnet coil at AC 67 VA apparent holding power of magnet coil at AC 6.5 VA	number of total auxiliary contacts maximum	8
apparent pick-up power of magnet coil at AC 67 VA apparent holding power of magnet coil at AC 6.5 VA	contact rating of auxiliary contacts of contactor according to UL	10A@600V(A600), 2.5A@600V(Q600)
apparent holding power of magnet coil at AC 6.5 VA	Coil	
	apparent pick-up power of magnet coil at AC	67 VA
operating range factor control supply voltage rated value of 0.8 1.1	apparent holding power of magnet coil at AC	6.5 VA
	operating range factor control supply voltage rated value of	0.8 1.1

Siemens

magnet coil	0. 00
ON-delay time	9 38 ms
OFF-delay time	4 16 ms
Overload relay	
product function	Vac
overload protection toot function	Yes
• test function	Yes Yes
external reset reset function	
adjustment range of thermal overload trip unit	Manual, automatic and remote (with optional accessory) 20 25
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	5A@600VAC (B600), 1A@250VDC (R300)
UL	
Enclosure	
degree of protection NEMA rating of the enclosure	NEMA 1 standard size enclosure
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	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

Further information

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

www.usa.siemens.com/iccatalog

Industry Mall (Online ordering system)

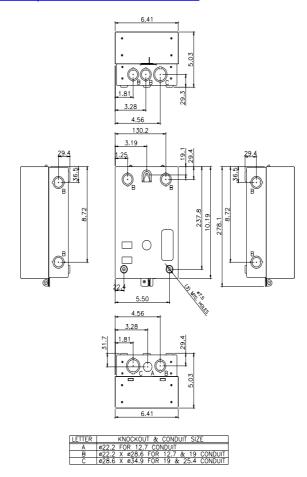
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Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RE4122-5AA11-4DY0&lang=en

Certificates/approvals

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