

Siemens 3RE4 Sirius Motor Starter Packages **Modular design for effortless ordering**



3RE4 IEC Motor Starter Packages

General information NEW

3RE4 Enclosed IEC Motor Starter Packages

Product overview

3RE4 Enclosed IEC motor starters are well suited for both industrial and commercial applications. They are durable and dependable, particularly when it comes to motor protection. Protecting the performance of motors is a critical priority and the 3RE4 enclosed starters are offered with either thermal or solid-state overload relays (ordered separately) to maximize your motor protection.

Packages include a SIRIUS 3RT2 series contactor inside a NEMA 1 enclosure. They are available with or without control transformers, HAND-OFF-AUTO selector switches, ON-OFF push buttons and pilot lights. Overload relays can be purchased separately and installed in the field.



Motor Starter Features

General

- From fractional up to 25 Hp at 575 V
- Non-combination type
- Non-reversing
- Single phase and 3-phase loads
- Thermal and solid-state overload relays (sold separately)
- Type 1 enclosures
- RoHS compliant
- Certifications: cULus

Overload Relay Features

Thermal overload relays

- Trip Class 10
- Phase failure sensitivity
- For single and three phase loads
- Includes NC trip contact and NO alarm contact
- Manual and automatic RESET (selectable)
- Switch position indicator
- TEST function
- STOP button
- Sealable cover (optional)
- Screw-type terminals

Available Factory Mods, Field Kits, Accessories

Factory modifications

- Push buttons
- Selector switches
- Pilot lights
- Control power transformers

Contactor

- Horsepower rated
- High contact reliability
- Auxiliary contact(s) included as standard
- Screw type terminal connections

Solid-state overload relays

- Selectable Trip Class 5, 10, 20 and 30
- Overload, phase failure and unbalance protection
- Internal ground fault detection (selectable)
- Internal power supply
- Includes NC trip contact and NO alarm contact
- Manual and automatic RESET (selectable)
- Electrical remote RESET integrated
- Switch position indicator
- TEST function and self-monitoring
- Sealable cover (optional)
- Screw-type terminals

Field kits and accessories

- Push buttons
- Selector switches
- Pilot lights
- Auxiliary contacts
- Control power transformers
- Control relays and timers
- Control circuit fuse block
- Terminal blocks
- etc.

3RE4 IEC Motor Starter Packages

Catalogue Numbering System **NEW**

Catalogue Numbering System

3RE4 Nomenclature 3RE4 1 6 2 - 5 A A 3 0 - 0 Y Y 0 Non-Combination Motor Starters A A A A A A A A A A A A A A A A A A A
Controller Type
16 = Non-combination non-reversing
Frame Size: UL60947-4-1 Hp Rating
15 = S00: 1-Ph Hp (0.25@115V, 0.5@208V, 0.75@230V), 3-Ph Hp (1.5@208V, 2@230V, 3@460V, 5@575V) 17 = S00: 1-Ph Hp (0.5@115V, 1.5@208V, 2@230V), 3Ph Hp (3@208V, 3@230V, 7.5@460V, 10@575V) 25 = S0: 1-Ph Hp (1@115V, 2@208V, 3@230V), 3-Ph Hp (5@208V, 5@230V, 10@460V, 15@575V) 28 = S0: 1-Ph Hp (3@115V, 5@208V, 5@230V), 3-Ph Hp (10@208V, 10@230V, 25@460V, 25@575V)
Englosure Type and Size
$\mathbf{A} = \text{NEMA Type and Size}$ (Select large size enclosure if control transformer or other
devices are to be installed on the base of the enclosure)
B = NEIMAType T - large size
Disconnect Type
A = None
3 = 110/120 V AC 50/00H2
Overload Relay Type
0 = (none)
Overload Relay Amp Bange
OY = No overload relay

Special-**Y0** = (none)

- B1 = Start-Stop Push Buttons, Red On Pilot Light
- B4 = Start-Stop Push Buttons, CPT Std Capacity 208:120V, Red On Pilot Light
- **C1** = Start-Stop Push Buttons, CPT Std Capacity 240:120V, Red On Pilot Light **C7** = Start-Stop Push Buttons, CPT Std Capacity 480:120V, Red On Pilot Light
- P0 = Start-Stop Push Buttons, CPT Std Capacity 600:120V, Red On Pilot Light
- **F7** = Hand-Off-Auto Selector Switch, Red On Pilot Light
- G1 = Hand-Off-Auto Selector Switch, CPT Std Capacity 208:120V, Red On Pilot Light
- **G7** = Hand-Off-Auto Selector Switch, CPT Std Capacity 240:120V, Red On Pilot Light **H4** = Hand-Off-Auto Selector Switch, CPT Std Capacity 480:120V, Red On Pilot Light
- P1 = Hand-Off-Auto Selector Switch, CPT Std Capacity 600:120V, Red On Pilot Light

Note:

This catalogue numbering system is presented here merely for information purposes and for better understanding of logic behind article numbers. For your orders, please use the article numbers listed in the Selection section..

3RE4 Non-Reversing Starter, 3-Pole (both 1-Ph and 3-Ph), Standard NEMA 1 Enclosure

Selection NEW

Ordering Information Can be converted to a motor starter by installing an overload relay (see page 5). NEMA 1 Enclosure. 110/120 VAC 50/60 Hz coils. For accessories, see page 6 – 7. ► Only overload relays, pilot devices, pilot lights and fuse blocks can be added to Standard size enclosures - for other accessories, please select controllers in large NEMA 1 enclosures. For replacement parts, see page 7. For dimensions, see page 8. ► ► For wiring diagrams, see page 9 - 10.

Non-Reversing Starter, 3-Pole (for both 1-Phase and 3-Phase), Standard Enclosure

			Unused Aux Contacts		Unused Aux Contacts Contacto		Contactor		Maxim	າum HF	P Rating	3			
	Control				Ref	Frame	1-Phas	e		3-Phas	se				
Catalogue Number	Transformer ^①	Operator Devices	NO	NC	Number	Size	115V	208V	230V	208V	230V	460V	575V		
3RE4161-5AA30-0YB1	None	Start-Stop push buttons, red On pilot light	0	0	15	S00	0.25	0.5	0.75	1.5	2	3	5		
3RE4161-5AA30-0YF7	None	HOA Selector Switch, red On pilot light	1	0	15	S00	0.25	0.5	0.75	1.5	2	3	5		
3RE4161-7AA30-0YY0	None	None	1	0	17	S00	0.5	1.5	2	3	3	7.5	10		
3RE4162-5AA30-0YB1	None	Start-Stop push buttons, red On pilot light	0	1	25	S0	1	2	3	5	5	10	15		
3RE4162-5AA30-0YF7	None	HOA Selector Switch, red On pilot light	1	1	25	S0	1	2	3	5	5	10	15		
3RE4162-8AA30-0YY0	None	None	1	1	28	S0	3	5	5	10	10	25	25		

^① NEMA 1 standard size enclosures don't offer enough space for factory or field installed control transformers. If control transformers are required, please select starter in a NEMA 1 large size enclosure (see page 4).

3RE4 Non-Reversing Starter, 3-Pole (both 1-Ph, 3-Ph), Large NEMA 1 Enclosure

Selection NEW

	Ordering Information
SIEMENS	 Can be converted to a motor starter by installing an overload relay (see page 5). NEMA 1 Enclosure.
	 110/120 VAC 50/60 Hz coils. For accessories, see page 6 – 7. For replacement parts, see page 7. For dimensions, see page 8. For wiring diagrams, see page 9 – 10.

Non-Reversing Starter, 3-Pole (for both 1-Phase and 3-Phase), Large Enclosure

			Unused Aux Contacts										
							Maxin	um HP	Rating	1			
	Control			Bef Frar			1-Phas	e		, 3-Phas	3-Phase		
Catalogue Number	Transformer	Operator Devices	NO	NC	Number	Size	115V	208V	230V	208V	230V	460V	575V
3RE4161-5BA30-0YP0	600/120V, 45VA	Start-Stop push buttons, red On pilot light	0	0	15	S00	-	-	-	-	-		5
3RE4161-5BA30-0YB4	208/120V, 45VA	Start-Stop push buttons, red On pilot light	0	0	15	S00	_	0.5	_	1.5	_		_
3RE4161-5BA30-0YC1	240/120V, 45VA	Start-Stop push buttons, red On pilot light	0	0	15	S00	_	_	0.75	_	2		—
3RE4161-5BA30-0YC7	480/120V, 45VA	Start-Stop push buttons, red On pilot light	0	0	15	S00	_	_	_	_	_	3	—
3RE4161-5BA30-0YP1	600/120V, 45VA	HOA Selector Switch, red On pilot light	1	0	15	S00	_	_	_	-	-		5
3RE4161-5BA30-0YG1	208/120V, 45VA	HOA Selector Switch, red On pilot light	1	0	15	S00	—	0.5	-	1.5	-		-
3RE4161-5BA30-0YG7	240/120V, 45VA	HOA Selector Switch, red On pilot light	1	0	15	S00	—	—	0.75	—	2	—	—
3RE4161-5BA30-0YH4	480/120V, 45VA	HOA Selector Switch, red On pilot light	1	0	15	S00	—	—	—	—	—	3	—
3RE4161-5BA30-0YY0	None	None	1	0	15	S00	0.25	0.5	0.75	1.5	2	3	5
3RE4161-7BA30-0YP0	600/120V, 45VA	Start-Stop push buttons, red On pilot light	0	0	17	S00	—	—	—	—	—	—	10
3RE4161-7BA30-0YB4	208/120V, 45VA	Start-Stop push buttons, red On pilot light	0	0	17	S00	—	1.5	_	3	_	—	—
3RE4161-7BA30-0YC1	240/120V, 45VA	Start-Stop push buttons, red On pilot light	0	0	17	S00	—	—	2	_	3	—	—
3RE4161-7BA30-0YC7	480/120V, 45VA	Start-Stop push buttons, red On pilot light	0	0	17	S00	—	_	_	_	_	7.5	—
3RE4161-7BA30-0YP1	600/120V, 45VA	HOA Selector Switch, red On pilot light	1	0	17	S00	—	_	_	_	_	—	10
3RE4161-7BA30-0YG1	208/120V, 45VA	HOA Selector Switch, red On pilot light	1	0	17	S00	—	1.5	_	3	_	—	-
3RE4161-7BA30-0YG7	240/120V, 45VA	HOA Selector Switch, red On pilot light	1	0	17	S00	—	—	2	_	3	—	-
3RE4161-7BA30-0YH4	480/120V, 45VA	HOA Selector Switch, red On pilot light	1	0	17	S00	—	—	_	_	_	7.5	-
3RE4161-7BA30-0YY0	None	None	1	0	17	S00	0.5	1.5	2	3	3	7.5	10
3RE4162-5BA30-0YP0	600/120V, 75VA	Start-Stop push buttons, red On pilot light	0	1	25	S0	_	—	—	_	_	-	15
3RE4162-5BA30-0YP1	600/120V, 75VA	HOA Selector Switch, red On pilot light	1	1	25	S0	—	—	—	—	_	-	15
3RE4162-8BA30-0YP0	600/120V, 75VA	Start-Stop push buttons, red On pilot light	0	1	28	S0	_	_	_	_	_	—	25
3RE4162-8BA30-0YB4	208/120V, 75VA	Start-Stop push buttons, red On pilot light	0	1	28	S0	_	5	_	10	_	—	-
3RE4162-8BA30-0YC1	240/120V, 75VA	Start-Stop push buttons, red On pilot light	0	1	28	S0	_	_	5	_	10	—	-
3RE4162-8BA30-0YC7	480/120V, 75VA	Start-Stop push buttons, red On pilot light	0	1	28	S0	_	_	_	_	_	25	-
3RE4162-8BA30-0YP1	600/120V, 75VA	HOA Selector Switch, red On pilot light	1	1	28	S0	_	_	_	_	_	—	25
3RE4162-8BA30-0YG1	208/120V, 75VA	HOA Selector Switch, red On pilot light	1	1	28	S0	—	5	_	10	_	—	-
3RE4162-8BA30-0YG7	240/120V, 75VA	HOA Selector Switch, red On pilot light	1	1	28	S0	-	-	5	-	10	-	-
3RE4162-8BA30-0YH4	480/120V, 75VA	HOA Selector Switch, red On pilot light	1	1	28	S0	—	_	_	-	-	25	—
3RE4162-8BA30-0YY0	None	None	1	1	28	S0	3	5	5	10	10	25	25

Selection Tables for 3RE4 Overload Relays

Selection NEW

Selection Tables for 3RE4 Overload Relays



Thermal Overload Relays, Trip Class 10, Single and Three Phase

Features and technical characteristics:

- Phase failure sensitivity
- Includes NC trip contact and NO alarm contact

Current Adjustment Range (Amp)	Thermal Overload Relay (reference only)
Frame	Size S00
0.7 - 1	3RU2116-0JB0
0.9 - 1.25	3RU2116-0KB0
1.1 - 1.6	3RU2116-1AB0
1.4 - 2	3RU2116-1BB0
1.8 - 2.5	3RU2116-1CB0
2.2 - 3.2	3RU2116-1DB0
2.8 - 4	3RU2116-1EB0
3.5 - 5	3RU2116-1FB0
4.5 - 6.3	3RU2116-1GB0
5.5 - 8	3RU2116-1HB0
7 - 10	3RU2116-1JB0
9 - 12.5	3RU2116-1KB0
11 - 16	3RU2116-4AB0

- Manual and automatic RESET (selectable) STOP button Switch position indicator
- TEST function

Current Adjustment Range (Amp)	Thermal Overload Relay (reference only)
Frame	Size S0
1.8 - 2.5	3RU2126-1CB0
2.2 - 3.2	3RU2126-1DB0
2.8 - 4	3RU2126-1EB0
3.5 - 5	3RU2126-1FB0
4.5 - 6.3	3RU2126-1GB0
5.5 - 8	3RU2126-1HB0
7 - 10	3RU2126-1JB0
9 - 12.5	3RU2126-1KB0
11 - 16	3RU2126-4AB0
14 - 20	3RU2126-4BB0
17 - 22	3RU2126-4CB0
20 - 25	3RU2126-4DB0
23 - 28	3RU2126-4NB0
27 - 32	3RU2126-4EB0
30 - 36	3RU2126-4PB0
34 - 40	3RU2126-4FB0

- Sealable cover (optional)
- Screw-type terminals

Solid-State Overload Relays, Selectable Trip Class 5, 10, 20 and 30, Three Phase Only

Features and technical characteristics:

- Overload, phase failure and unbalance protection
- Internal ground fault detection (selectable)
- Internal power supply

Current Adjustment Range (Amp)	Solid-State Overload Relay (reference only)
Frame S	Size S00
0.32 - 1.25	3RB3113-4NB0
1 - 4	3RB3113-4PB0
3 - 12	3RB3113-4SB0
4 - 16	3RB3113-4TB0
-	

- Includes NC trip contact and NO alarm contact
- Manual and automatic RESET (selectable)
- Electrical remote RESET integrated

Current Adjustment Range (Amp)	Solid-State Overload Relay (reference only)
Frame	Size S0
0.32 - 1.25	3RB3123-4NB0
1 - 4	3RB3123-4PB0
3 - 12	3RB3123-4SB0
6 - 25	3RB3123-4QB0
10 - 40	3RB3123-4VB0

- Switch position indicator
- TEST function and self-monitoring
- Sealable cover (optional)
- Screw-type terminals

Enclosed Modular IEC Motor Starter Packages 3RE4 Field Modifications and Accessories

Selection **NEW**

Pilot Devices

		Device ^①	Enclosure NEMA Type	Catalogue Number
		Start-Stop Push Buttons, momentary [®]	1	49SDPB5
49SDSBJ	49SDSB4	Hand-Off-Auto Selector Switch	1	49SDSBJ
2-Position Selector Switch	3-Position Selector Switch	On-Off Selector Switch	1	49SDSB4

Pilot Lights

Device [®]	Enclosure NEMA Type	Voltage	Catalogue Number
Light module and lens color: RED, GREEN, and AMBER. Legends include: ON, RUN, OFF [®] , OLR TRIPPED [®]	1	24 to 240 V AC/DC	49SDLBU

Auxiliary Contacts

	Device	Frame Size	Catalogue Number
	1 NO & 1 NC laterally mounted,	S00	3RH2911-1DA11
	screw terminals	S0 and S2	3RH2921-1DA11
	2 NO laterally mounted,	S00	NA
	screw terminals	S0 and S2	3RH2921-1DA20
	2 NC laterally mounted,	S00	3RH2911-1DA02
	screw terminals	S0 and S2	3RH2921-1DA02

3SU 22 mm devices. Pilot lights include LED bulbs.
 Each contactor must have a normally open (NO) auxiliary contact available for seal-in circuit. Order separately as needed.

I To use as an OFF indicator, the contactor must have a normally closed (NC) auxiliary contact available for the circuit. Order separately as needed. [®] To use as an overload relay (OLR) trip indicator, the OLR must have a normally open (NO) auxiliary contact available for the circuit.

3RE4 Field Modifications, Accessories, and Replacement Parts

NEW Selection

Control Power Transformers^①

			Catalogue	Transformer Table	•	
	Device	Frame Size	Number	Primary Volts	Secondary Volts	Code
	45 VA, 1-secondary fuse	S00	KT*050	_	-	—
	75 VA, 2-primary and 1-secondary fuses	S0	KT*075	—	-	-
				208	120	Н
H3 H2 H4			240/480	120	8	
	 Replace * with code from Transformer 45VA CPT does not require primary fu 	Table. ses per NEC.		600	120	9

Control Relays and Timers¹²

	Device	Catalogue Number		
Prove la	Control relay, 4 NO / 0 NC, 110/120 VAC	3RH2140-1AK60		
	Control relay, 3 NO / 1 NC, 110/120 VAC	3RH2131-1AK60		
Annus Sinus	Control relay, 2 NO / 2 NC, 110/120 VAC	3RH2122-1AK60		
REMARK SIRUS	ON-delay timer, 0.05 sec. – 100 hr., 24 – 240V AC/DC	3RP2525-1BW30		
	OFF-delay timer, 0.05 sec. – 100 hr., 24 – 240V AC/DC	3RP2535-1AW30		
	 Relays and timers include screw terminals. 			
Relay Timer				

Miscellaneous

	Device			
		1-pole fuse block for control circuit, 600V / 30A, DIN rail mounted, CC fuses (not included)	3NW7513-0HG	
		2-pole fuse block for control circuit, 600V / 30A, DIN rail mounted, CC fuses (not included)	3NW7523-0HG	
		Ground Lug, 3 Conductor, 2-14 AWG AL/CU Wire	75D28182001	
	6	Terminal block, 1-point unwired, DIN rail mounted, 6mm, 26A®	8WA10111DF11	
3NW7513-0HG	8WA1808	End retainer for DIN rail®	8WA1808	
- 000	200	DIN rail kit, 35mm x 5 in, for mounting optional accessories ${}^{\rm D}$	MTR5	
75D28182001	MTR5	Sealable cover for rotary dial on 3RU2 thermal overload relay (10 per package)	3RV29 08-0P	

Replacement Parts

	Device	Catalogue Number
	Contactor parts (Obtain Cat. No. from device and refer to Industrial Control Catalogue).	-
	Overload relay (Obtain Cat. No. from device and refer to Industrial Control Catalogue).	-
	Overload Relay Reset Operator for all NEMAType enclosures	49MBRS

Enclosure Kits

Controller Frame Size & Type NR = Non-Reversing	Type 1 Standard Size	Type 1 Large Size [®]	
R = Reversing	Catalogue Number	Catalogue Number	
S00 NR, S0 NR	49EC14EB110705R	49EC14GB140807R [®]	

1 The accessory in a NEMA type 1 enclosure requires a large size enclosure. 2 Requires DIN rail kit or equivalent.

③ Enclosure 49EC14GB140807R requires mounting adaptor

- Intervention of the second seco

3RE4 Outline Diagrams

Technical information **NEW**



Figure 1

3RE4 Non-Combination Type Controllers

Enclosure			Outline Dimensions			Mounting		Conduit Size		
Туре	Contactor Rating	Fig.	Α	В	С	D	E	K1	K2	K3
1 (standard size)	S00 NR, S0 NR	1	10.97	6.41	5.03	8.22	4.62	0.5	0.50-0.75	0.75–1
1 (large size)	S00 NR, S0 NR	1	13.53	7.97	6.38	10.25	6.00	0.50-0.75	0.75-1	1-1.25

Sxx = Frame size; NR = Non-reversing

Mounting screw G is 0.25". Dimensions are in inches.

3RE4 Wiring Diagrams

Technical information **NEW**









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3RE4 Wiring Diagrams

Technical information NEW



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