

SIRIUS 3RT10 3-Pole with DC Coil





Ordering Information

- ▶ 4-point DC Coil can be wired on top, bottom, or diagonally.
- ▶ Direct mount 3RU11 overload relays to create starters.
- ▶ Snap-on auxiliary contacts, surge suppressors, and timers.
- ▶ Front and side mount auxiliary contacts available on 3RT102, 3RT103, 3RT104 versions.
- ▶ 3RT102 9A and 12A versions have extended electrical life compared to 3RT101 versions.
- ▶ Overload Relays see pages 254–265.
- ▶ Accessories see pages 238–245.
- ▶ Replacement Parts see page 882.
- ▶ Technical Data see pages 316–347.
- ▶ Dimensions see pages 369–378.

Coil Voltage Codes**

DC V	Code
12	A4 [Ⓞ]
24	B4
48	W4
110	F4
230	P4

Replace the ** in the contactor catalog number with a coil code from the table above.

Illustration	Enclosed Amp Ratings		Single-Phase HP Ratings		Three-Phase HP Ratings				Auxiliary Contacts		Screw Terminals		Cage Clamp Terminals	
	AC3	UL	115V	230V	200V	230V	460V	575V	NO	NC	Catalog No	Price \$	Catalog No	Price \$
 3RT101  3RT102  3RT103  3RT104	3RT101													
	7	20	¼	¾	1½	2	3	5	1	—	3RT1015-1B**1	72.	3RT1015-2B**1	77.
	—	—	—	—	—	—	—	—	—	1	3RT1015-1B**2		3RT1015-2B**2	
	9	20	½	1	2	3	5	7½	1	—	3RT1016-1B**1	89.	3RT1016-2B**1	94.
	—	—	—	—	—	—	—	—	—	1	3RT1016-1B**2		3RT1016-2B**2	
	12	20	½	2	3	3	7½	10	1	—	3RT1017-1B**1	115.	3RT1017-2B**1	120.
	—	—	—	—	—	—	—	—	—	1	3RT1017-1B**2		3RT1017-2B**2	
	3RT102													
	9	35	¼	1	2	3	5	7½	—	—	3RT1023-1B**0	105.	3RT1023-3B**0	108.
	12	35	½	2	3	3	7½	10	—	—	3RT1024-1B**0	130.	3RT1024-3B**0	133.
	17	35	1	3	5	5	10	15	—	—	3RT1025-1B**0	145.	3RT1025-3B**0	148.
	25	35	2	3	7½	7½	15	20	—	—	3RT1026-1B**0	165.	3RT1026-3B**0	168.
3RT103														
28	35	2	5	7½	10	20	25	—	—	3RT1033-1B**0	196.	3RT1033-3A**0	199.	
32	45	2	5	10	10	25	30	—	—	3RT1034-1B**0	221.	3RT1034-3B**0	224.	
40	55	3	7½	10	15	30	40	—	—	3RT1035-1B**0	246.	3RT1035-3B**0	249.	
50	50	3	10	15	15	40	50	—	—	3RT1036-1B**0	261.	3RT1036-3B**0	264.	
3RT104														
65	90	5	15	20	25	50	60	—	—	3RT1044-1B**0	346.	3RT1044-3B**0	349.	
80	105	7½	15	25	30	60	75	—	—	3RT1045-1B**0	386.	3RT1045-3B**0	389.	
95	105	10	—	30	30	75	100	—	—	3RT1046-1B**0	535.	3RT1046-3B**0	538.	

ⓄFor 3RT101 only.

North American Approvals

INSTALLATION CONSIDERATIONS

The control products described in this catalog have been designed, tested and manufactured in accordance with a wide variety of standards including but not limited to those issued by UL, CSA, NEMA and IEC. These standards typically apply to the control product as a component and not the installation or use of the product. It is the responsibility of the end user of the control product to make sure each installation complies with all of the applicable safety requirements, laws, regulations, codes and standards (some examples of which are the N.E.C., the C.E.C.

and OSHA regulations). Note that local authorities may impose further jurisdiction over each installation. When in doubt, consult with the local inspection authorities.

Unless otherwise specified, the control products described in this catalog are designed to operate under "usual service conditions" as defined in NEMA Standards Publication—Part ICS 1-108. Open type devices are intended for installation in enclosures that provide environmental protection as needed for the specific application. See pages 14 and 15 for definitions of the various enclosure types.

PERFORMANCE DATA

Where given in this catalog, performance data should only be used as a guide to determine the suitability of the product for an application. The data may be the result of accelerated testing or elevated stress levels under controlled conditions. The user must take care in correlating this data to actual application or service conditions.



UL and CSA—File Numbers and Guide Card Numbers

Most control equipment listed in this catalog is designed, manufactured and tested in accordance with the relevant UL and CSA standards as listed in the table below.

Siemens Brand Devices Description	UL		UL		UL	
	Guide No	File No	Guide No	File No	Guide No	File No
Control Relays 3TH2 3TH3 3TH8	Class 3211	LR 12730 LR 50487	NKCR	E 44653	NKCR2	E 44653
AC contactors, DC contactors	Class 3211	LR 12730	NLDX	E 31519	NLDX2	E 31519
Reversing Starters	Class 3211	LR 38590	NLDX	E 32529	—	—
Overload relays	Class 3211	LR 12730	NKCR	E 44653	NKCR2	E 44653
Terminal blocks	Class 3211	LR 50181	—	—	XCFR2	E 80027
Manual Motor Controller 3VU	Class 3211	LR 50487	NLVR	E 47705	—	—
Starters, Combination Starters	Class 3211	LR 38590	NLDX	E 32529	—	—
Push buttons	Class 3211	LR 12730	NXXR	E 44653, E 47512	—	—
Lighting and Heating Contactors	Class 3231	LR 38590	NRNT	E 60310	—	—
Mechanical Limit Switches International Style North American Style	Class 3211 Class 3211	LR 50487 LR 68551	NKCR NKCR	E 44653 E 47512	NKCR2 —	E 44653 —
Fast Bus Components/Kits	—	—	NMTR	E 155959	NMTR2	E 160776
Modular Motor Controllers Type E	—	—	NKJH	E 156943	—	—
Modular Motor Controllers—Group Installation	Class 3211	LR 50487	NLVR	E 47705	—	—
US Series Starter	Class 3211	LR 38590	NLDX	E 32529	—	—
Fraction Hp Starters, SMF, MMS	—	—	—	—	NLRV2	E 80332
Sirius 3RT Contactors	Class 3211	LR 12730	NLDX	E 31519	NLDX2	—
Sirius 3RV MSP—Group Installation Type E	Class 3211 —	LR 12730 —	NLVR NKJH	E47705 E 156943	— —	— —
Sirius 3RU Overload	Class 3211	LR 12730	NKCR	E 44653	NKCR2	E 44653
Sirius 3RH Relays	Class 3211	LR 12730, LR50487	NKCR	E 44653	NKCR2	E 44653
Sirius 3RP Timers	Class 3211	LR 12730	NKCR	E 44653	—	—
Miniature Circuit Breakers—5SX	Class 3211	LR 93659	—	—	NKCR2	E 116386
Manual Motor Controllers—3LD	Class 3211	LR 19188	NLVR	E 47705	—	—
Sirius 3RA Combination Starters	—	—	NKJH	E 156943	—	—
Sirius 3RA Reversing Contactors	Class 3211	LR 38590	NLDX	E 31519	—	—
Sirius 3RA Fastbus Combo Starters	—	—	NKJH	E 156943	—	—
Sirius 3RB Solid State Overloads	Class 3211	LR 6535	NKCR	E22655	—	—

Furnas Brand Devices Class	UL		UL		UL	
	Guide No	File No	Guide No	File No	Guide No	File No
11, 12—Manual Switches	Class 3211	LR 6535	NLVR	E 10590	NLRV2	E 10590
14, 22, 30, 40, 43—Starters and Contactors	Class 3211	LR 6535	NLDX	E 14900	NLDX2	E 14900
17, 18, 25, 26, 32—Combination Starters	Class 3211	LR 6535	NKJH	E 185287	—	—
36, 37—Reduced Voltage Starters	Class 3211	LR 6535	NLDX	E 14900	NLDX2	E 14900
83, 84, 85, 87, 88—Pump Control Panels	Class 3211	LR 6535	NKJH	E 185287	—	—
50—Standard Duty Pilot Devices	Class 3211	LR 6535	NKCR	E 22655	—	—
51—Hazardous Location Pilot Devices	Class 3218	LR 23889	NOIV	E 39935	—	—
52—30 mm Pilot Devices	Class 3211	LR 6535	NKCR	E 22655	NKCR2	E 22655
16, 41, 42, 45—Definite Purpose Controls	Class 3211	LR 6535	—	—	NLDX2	E 14900
46, 47—Relays	Class 3211	LR 6535	NKCR	E 22655	NKCR2	E 22655
48, 948, 958—Overload Relays	Class 3211	LR 6535	NKCR	E 22655	NKCR2	E 22655
49—Field Kits	Class 3211	ELR 535	NLDX	E 14900	NLDX2	E 14900
Class 56—Fast Switch	Class 3211	LR 6535	NLVR	E 10590	—	—
Class 53—Master Switch	Class 3211	LR 6535	NKCR	E 22655	—	—
Class 69—Pressure Switch	Class 3211	LR 6535	NKPZ	E 14861	NKPZ2	E 14861

SIRIUS 3RT101

Contactor	Type	Unit of Measure	3RT101	
Mechanical life	Basic units	Operating cycles	30 million	
	Basic unit with mounted auxiliary contact block		10 million	
	Basic unit with mounted solid-state compatible contact block		5 million	
Rated insulation voltage U_i (pollution severity 3)		V	690	
Safe isolation between coil and contacts (according to DIN VDE 0106 Part 101 and A1 [draft 2/89])		V	400	
Positively driven contacts			Yes, in the basic unit and the auxiliary contact block as well as between basic unit and the mounted auxiliary switch block. The solid-state compatible contact blocks have no positively driven contacts.	
Permissible ambient temperature		Operation storage	-25 to +60°C -13 to +140°F -55 to +80°C -67 to +176°F	
Degree of protection according to IEC 947-1 and DIN 40 050			IP 20, coil system IP 40	
Shock resistance	Rectangular pulse	AC	g/ms	7/5 and 4.2/10
		DC	g/ms	7/5 and 4.2/10
	Sine pulse	AC	g/ms	9.8/5 and 5.9/10
		DC	g/ms	9.8/5 and 5.9/10
Contactor cross-sections				
Screw connection (1 or 2 conductor connections possible) For screw driver Size 2 and Pozidrive 2	Main and auxiliary conductor: solid		mm ²	2 × (0.5 to 1.5); 2 × (0.75 to 2.5) acc. to IEC 947; max. 2 × (0.75 to 4)
	finely stranded with end sleeve		mm ²	2 × (0.5 to 1.5); 2 × (0.75 to 2.5)
	AWG conductor connections, solid or stranded		AWG	2 × (18 to 14)
	Terminal screws			M3
Tightening torque			Nm (in lbs)	0.8 to 1.2 (7 to 10.3)
Cage Clamp connection (1 or 2 conductor connections possible) For conductor cross-sections ≤ 1 mm ² an "insulation stop" has to be used, 3RT1916-4JA02.	Main and auxiliary conductors and coil terminal: solid		mm ²	2 × (0.5 to 2.5)
	finely stranded with end sleeve		mm ²	2 × (0.5 to 1.5)
	finely stranded without end sleeve		mm ²	2 × (0.5 to 2.5)
	AWG conductor connections, solid or stranded		AWG	2 × (18 to 14)
Permissible mounting position The contactors are designed for operation on vertical mounting surface.		AC or DC operation		 
Short-circuit protection of the 3RT1015 to 3RT1017 contactors without overload relays for export applications				
Main circuit				
Fuses, utilization category gL/gG	LV HRC DIAZED NEOZED	Type 3NA Type 5SB Type 5SE		
or miniature circuit-breakers with C-characteristics				
With fuses		Type of coord. "1" [ⓐ] Type of coord. "2" [ⓐ]	A A A	35 20 10
—according to IEC 947-4/DIN VDE 0660 Part 102				
With miniature circuit-breakers (up to 230V)				
Auxiliary circuit				
Fuses, class gL/gG (weld-free protection at $I_k \geq 1\text{kA}$)	DIAZED NEOZED	Type 5SB Type 5SE		
or miniature circuit breaker with C-characteristic (short circuit current $I_k < 400\text{A}$)				
With fuses			A	10
NEOZED, DIAZED	gL/gG		A	6
With miniature circuit-breakers (up to 230V)				

[ⓐ]According to excerpt from IEC 947-4/DIN VDE 0660 Part 102:

Type of coordination "1": Destruction of contactor and overload relay is permissible. Contactor and/or overload relay must be replaced, if necessary.

Type of coordination "2": No damage can be tolerated on the overload relay, but contact welding on the contactor is permitted if the contacts can easily be separated.