

File E31519
Project 10CA65262

February 4, 2011

REPORT

on

MAGNETIC MOTOR CONTROLLERS

Siemens AG
Amberg, Germany

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DESCRIPTION

PRODUCT COVERED:

USL, CNL - Type No. 3RT60, 3RT63, or 3RT65, followed by 23, 24, 25, 26, 27 or 28 followed by 1, 2 or 4 followed by A, B, C, D, E, F, K, N or X followed by a character and a number, followed by 0, 1, 2, 3, 4 or 8 may be followed by suffix letters and/or numbers.

Accessories 3RT2916-4MA10, 3RT2926-4EB13

GENERAL:

These devices are open types 3 pole contactors for use in industrial applications.

These devices are intended to be used in combination with listed overload relays type 3RU6.

The Accessories 3RT2916-4MA10 and 3RT2926-4EB13 are covers for use with the devices 3RT6

These devices may be used with line terminal adapters 3RV2925-5EB. In these applications, the incoming line terminal provides spacings not less than 2 inches (50.8 mm) measured over surface and 1 inch (25.4 mm) through air.

ENGINEERING CONSIDERATIONS (NOT FOR UL REPRESENTATIVE USE):

USL - Indicates investigated to UL Standard UL 508 17th Edition, updated September 2008 (Industrial Control Equipment).

CNL - Indicates Investigated to Canadian National Standard(s) C22.2 No. 14-10

Note: CNL = Canadian National Standards - Listed.
USL = United States Standards - Listed.

RATINGS:

Horsepower for Types 3RT6023

Voltage	1-ph	3-ph	FLA/LRA
110-120 V	1	-	16 / 96
200 V	1	-	9.2 / 55.2
208 V	1	-	8.8 / 52.8
220/240 V	1	-	8 / 48
200 V	-	2	7.8 / 57.5
208 V	-	2	7.5 / 55
220/240 V	-	3	9.6 / 64
380-415 V	-	3	6.1 / 43
440/480 V	-	5	7.6 / 46
550/600 V	-	7 1/2	9 / 50.8

Horsepower for Types 3RT6024

Voltage	1-ph	3-ph	FLA/LRA
110-120 V	1	-	16 / 96
200 V	1 1/2	-	11.5 / 69
208 V	2	-	13.2 / 79.2
220/240 V	2	-	12 / 72
200 V	-	3	11.0 / 73.6
208 V	-	3	10.6 / 71
220/240 V	-	3	9.6 / 64
380-415 V	-	5	9.7 / 61
440/480 V	-	7 1/2	11 / 63.5
550/600 V	-	10	11 / 64.8

Horsepower for Types 3RT6025, 3RT6325, 3RT6326, 3RT6327

Voltage	1-ph	3-ph	FLA/LRA
110-120 V	1	-	16 / 96
200 V	2	-	13.8 / 82.8
208 V	2	-	13.2 / 79.2
220/240 V	3	-	17 / 102
200 V	-	3	11 / 73.6
208 V	-	5	16.7 / 102
220/240 V	-	5	15.2 / 92
380-415 V	-	7 1/2	14 / 84
440/480 V	-	10	14 / 81
550/600 V	-	15	17 / 93

Horsepower for Types 3RT6026

Voltage	1-ph	3-ph	FLA/LRA
110-120 V	2	-	24 / 144
200 V	3	-	19.6 / 117.6
208 V	3	-	18.7 / 112.2
220/240 V	3	-	17 / 102
200 V	-	5	17.5 / 105.8
208 V	-	5	16.7 / 102
220/240 V	-	7 1/2	22 / 127
380-415 V	-	10	18 / 107
440/480 V	-	15	21 / 116
550/600 V	-	20	22 / 116

Horsepower for Types 3RT6027

Voltage	1-ph	3-ph	FLA/LRA
110-120 V	2	-	24 / 144
200 V	5	-	30.4 / 182.4
208 V	5	-	30.8 / 184.8
220/240 V	5	-	28 / 168
200 V	-	10	32.2 / 186.3
208 V	-	10	30.8 / 179
220/240 V	-	10	28 / 162
380-415 V	-	20	34 / 194
440/480 V	-	20	27 / 145
550/600 V	-	25	27 / 146

Horsepower for Types 3RT6028

Voltage	1-ph	3-ph	FLA/LRA
110-120 V	3	-	34 / 204
200 V	5	-	32.2 / 193.3
208 V	5	-	30.8 / 184.8
220/240 V	5	-	28 / 168
200 V	-	10	32.2 / 186.3
208 V	-	10	30.8 / 179
220/240 V	-	10	28 / 162
380-415 V	-	20	34 / 194
440/480 V	-	25	34 / 183
550/600 V	-	25	27 / 146

Horsepower for Types 3RT6526

Voltage	1-ph	3-ph	FLA/LRA
110-120 V	2	-	24 / 144
200 V	-	-	-
208 V	-	-	-
220/240 V	3	-	17 / 102
200 V	-	-	-
208 V	-	-	-
220/240 V	-	7 1/2	22 / 127
380-415 V	-	-	-
440/480 V	-	15	21 / 116

Horsepower for Types 3RT6023 (Elevator Use)

Voltage	1-ph	3-ph	FLA/LRA
	--	NO	NO
208 V	--	2	7.5 / 55
220/240 V	--	3	9.6 / 64
440/480 V	--	5	7.6 / 46
550/600 V	--	7 1/2	9.0 / 50.8

Horsepower for Types 3RT6024 (Elevator Use)

Voltage	1-ph	3-ph	FLA/LRA
	--	NO	NO
208 V	--	2	7.5 / 55
220/240 V	--	3	9.6 / 64
440/480 V	--	5	7.6 / 46
550/600 V	--	7 1/2	9.0 / 50.8

Horsepower for Types 3RT6025 (Elevator Use)

Voltage	1-ph	3-ph	FLA/LRA
	--	NO	NO
208 V	--	3	10.8 / 71
220/240 V	--	5	15.2 / 92
440/480 V	--	10	14.0 / 81
550/600 V	--	10	11.0 / 64.8

Horsepower for Types 3RT6026 (Elevator Use)

Voltage	1-ph	3-ph	FLA/LRA
	--	NO	NO
208 V	--	3	10.8 / 71
220/240 V	--	5	15.2 / 92
440/480 V	--	10	14.0 / 81
550/600 V	--	10	11.0 / 64.8

Horsepower for Types 3RT6027 (Elevator Use)

Voltage	1-ph	3-ph	FLA/LRA
	--	NO	NO
208 V	--	3	10.8 / 71
220/240 V	--	5	15.2 / 92
440/480 V	--	10	14.0 / 81
550/600 V	--	10	11.0 / 64.8

Horsepower for Types 3RT6028 (Elevator Use)

Voltage	1-ph	3-ph	FLA/LRA
	--	NO	NO
208 V	--	3	10.6 / 71
220/240 V	--	5	15.2 / 92
440/480 V	--	10	14.0 / 81
550/600 V	--	10	11.0 / 64.8

General Purpose Rating - Main Contacts 3RT6023/24/25/26: 600 V ac, 35 A
3RT6027/28: 600 V ac, 42 A

AC Resistance - 3RT6325 600 V ac, 30 A
3RT6326 600 V ac, 35 A
3RT6327 600 V ac, 38 A
3RT6327 600 V ac, 42 A
(40°C Surrounding air temperature)

Auxiliary Contacts - A600/Q600 for the basic device 1-, 2- or 4-pole auxiliary contact blocks Type 3RH6911 or 3RH6921 are top or side mounted, for ratings refer to File E44653 Vol. 11 Sec. 30 or Vol. 12 Sec. 23. The auxiliary contact blocks are available as factory assembled (removable or not removable design) or available as separate devices for individual arrangements.

Coil Ratings - 24 through 600 V ac, 12 through 240 Vdc

Model 3RT6026 may be marked: "May Replace NEMA Size 1 Contactor" or equivalent.

Standard Short Circuit Ratings:

Type No.	Fuse Class		Comb. Mot. Ctrlr. 3RV201 or 3RV202	Circuit Breaker		Short Circuit Current	Voltage
	RK5, K5, CC	J		Bkr TM	Bkr I		
3RT6023	-	-	16 A	-	-	5 kA	480 V
	60 A	125 A	12.5 A	70 A	-	5 kA	600 V
3RT6024	-	-	16 A	-	-	5 kA	480 V
	60 A	125 A	12.5 A	70 A	-	5 kA	600 V
3RT6025	-	-	16 A	-	-	5 kA	480 V
	60 A	125 A	12.5 A	70 A	-	5 kA	600 V
3RT6026	-	-	25 A	-	-	5 kA	480 V
	90 A	125 A	12.5 A	70 A	-	5 kA	600 V
3RT6027	-	-	32 A	-	-	5 kA	480 V
	125 A	150 A	12.5 A	70 A	-	5 kA	600 V
3RT6028	-	-	32 A	-	-	5 kA	480 V
	125 A	150 A	12.5 A	70 A	-	5 kA	600 V
3RT6325	-	-	16 A	-	-	5 kA	480 V
	60 A	125 A	12.5 A	70 A	-	5 kA	600 V
3RT6326	-	-	16 A	-	-	5 kA	480 V
	60 A	125 A	12.5 A	70 A	-	5 kA	600 V
3RT6327	-	-	16 A	-	-	5 kA	480 V
	60 A	125 A	12.5 A	70 A	-	5 kA	600 V
3RT6526	-	-	16 A	-	-	5 kA	480 V
	90 A	125 A	12.5 A	70 A	-	5 kA	480 V

High Capacity Short Circuit Ratings:

Type No.	Fuse Class J	Comb. Mot. Ctrl. 3RV201 or 3RV202	Circuit Breaker		Short Circuit	Voltage
			Bkr TM	Bkr I		
3RT6023	60°A	-	-	-	100 kA	600 V
	-	12.5 A	-	-	65 kA	480 V
	-	12.5 A	-	-	30 kA	600 V
3RT6024	60°A	-	-	-	100 kA	600 V
	-	12.5 A	-	-	65 kA	480 V
	-	12.5 A	-	-	30 kA	600 V
3RT6025	60°A	-	-	-	100 kA	600 V
	-	16 A	-	-	65 kA	480 V
	-	12.5 A	-	-	30 kA	600 V
3RT6026	90°A	-	-	-	100 kA	600 V
	-	25 A	-	-	65 kA	480 V
	-	12.5 A	-	-	30 kA	600 V
3RT6027	110°A	-	-	-	100 kA	600 V
	-	32 A	-	-	50 kA	480 V
	-	25 A	-	-	65 kA	480 V
3RT6028	125°A	-	-	-	100 kA	600 V
	-	32 A	-	-	50 kA	480 V
	-	25 A	-	-	65 kA	480 V
3RT6325	60°A	-	-	-	100 kA	600 V
	-	16 A	-	-	65 kA	480 V
	-	12.5 A	-	-	30 kA	600 V
3RT6326	60°A	-	-	-	100 kA	600 V
	-	16 A	-	-	65 kA	480 V
	-	12.5 A	-	-	30 kA	600 V
3RT6327	60°A	-	-	-	100 kA	600 V
	-	16 A	-	-	65 kA	480 V
	-	12.5 A	-	-	30 kA	600 V
3RT6526	90°A	-	-	-	100 kA	600 V
	-	25 A	-	-	65 kA	480 V
	-	12.5 A	-	-	30 kA	600 V

Group Installation:

Maximum Short-circuit rating in Group Installations (only in combination with Manual Motor Controller 3RV2)

Type No.	Man. Mot. Ctrl. 3RV2.1 or 3RV2.2	Short Circuit	Voltage
3RT6023	12.5 A ¹⁾	65 kA	480 V
	12.5 A ²⁾	30 kA	600 V
3RT6024	12.5 A ¹⁾	65 kA	480 V
	12.5 A ²⁾	30 kA	600 V
3RT6025	16 A ¹⁾	65 kA	480 V
	12.5 A ²⁾	30 kA	600 V
3RT6026	25 A ¹⁾	65 kA	480 V
	12.5 A ²⁾	30 kA	600 V
3RT6027	40 A ¹⁾	12 kA	480 V
	32 A ¹⁾	50 kA	480 V
	25 A ¹⁾	65 kA	480 V
3RT6028	12.5 A ²⁾	30 kA	600 V
	40 A ¹⁾	12 kA	480 V
	32 A ¹⁾	50 kA	480 V
	25 A ¹⁾	65 kA	480 V
3RT6325	12.5 A ²⁾	30 kA	600 V
	16 A ¹⁾	65 kA	480 V
3RT6326	12.5 A ²⁾	30 kA	600 V
	16 A ¹⁾	65 kA	480 V
3RT6327	12.5 A ²⁾	30 kA	600 V
	16 A ¹⁾	65 kA	480 V
3RT6526	12.5 A ²⁾	30 kA	600 V
	25 A ¹⁾	65 kA	480 V
	12.5 A ²⁾	30 kA	600 V

1) Branch Circuit Protective Device for 480V-Ratings: The appropriate BCPD need to be determined in accordance with the National Electrical Code, Article 430-53 and the application. The following devices are permitted:

Fuses: Classes RK1, RK5, J, G, T, CC or

Circuit breakers: Listed Siemens type, with a marked short-circuit rating equal or larger than the available short-circuit current rating

These devices were tested for group installation use at the above levels without any upstream branch circuit device.

2) Branch Circuit Protective Device for 600V-Ratings: Max. Class J 100A

NOMENCLATURE BREAKDOWN:

3RT60	23	-1	A	B4	0	-....
I	II	III	IV	V	VI	VII

I. Basic Type

- 3RT60 - 3 main contacts + 2 to 6 auxiliary contacts
- 3RT63 - 4 NO main contacts + 2 to 6 auxiliary contacts
- 3RT65 - 2 NO + 2 NC main contacts + 2 to 6 auxiliary contacts

II. Size

3RT60:

- 23 - rated 5 hp at 480 V
- 24 - rated 7 1/2 hp at 480 V
- 25 - rated 10 hp at 480 V
- 26 - rated 15 hp at 480 V
- 27 - rated 20 hp at 480 V
- 28 - max hp ratings, max FLA ratings

3RT63:

- 25 - rated AC Resistance 30 A at 600 V
- 26 - rated AC Resistance 35 A at 600 V
- 27 - rated AC Resistance 38 A at 600 V

3RT65:

- 26 - rated 15 hp at 480 V

III. Type of Terminals

- 1 - Screw Terminal
- 2 - Spring Terminal
- 4 - Ring lug terminals (wire binding screw)

IV. Operating system

- A - AC operating system
- B - DC operating system
- C - AC operating system with factory assembled EMC protective unit Varistor type 3RT6926 covered in file E44653 Vol. 9 Sec. 3
- D, K - DC operating system with factory assembled EMC protective unit varistor type 3RT6926 covered in file E44653 Vol. 9 Sec. 3
- E - AC operating system with factory assembled EMC protective unit RC combination type 3RT6926 covered in file E44653 Vol. 9 Sec. 3
- F - DC operating system with factory assembled EMC protective unit diode combination type 3RT6926 covered in file E44653 Vol. 9 Sec. 3
- N, X - UC operating system

V. Operating voltage
24 Vac through 600 Vac

12 Vdc through 240 Vdc

VI. Auxiliary Contact Arrangements
0 - 1 normally open and 1 normally closed
1 - 1 normally open, top mounted
2 - 1 normally closed, top mounted
3 - 1 normally open and 1 normally closed, top mounted
4 - 2 normally open and 2 normally closed, top mounted
8 - any other, individual auxiliary contact arrangements

VII. Suffix letters and/or numbers specified commercial variations
-OCC0 - contactor with communication interface
-.... - any other commercial variation

3RT2916-4MA10 - Sealable cover

3RT2926-4EB13 - Cover set for devices with ring lug terminals 3RT602.-4..