

## NKCR7.E44653 Auxiliary Devices Certified for Canada

### **Auxiliary Devices Certified for Canada**

#### See General Information for Auxiliary Devices Certified for Canada

SIEMENS AG E44653

A&D CD CC TS2 WERNER-VON-SIEMENS-STRASSE 48 92220 AMBERG, GERMANY

Acceleration timer, Type No. 3TY6584-0B, followed by additional digits and letters.

AS-interface, Type 3RK1, followed by 1, 2 or 4, followed by 0, followed by 0, 1, 2, 7 or 8, followed by -0, -1, -2, -3 or -8, followed by A thru N, followed by A thru U, may be followed by suffix letters and/or numbers; Type 3RK1901, followed by -0C, -1G, -3A, -3B, -3C, -3D, -3E, -3F or -3G, may be followed by suffix letters and/or numbers; Cat. No. 3RG9 followed by 0, followed by 0, 1, 2, 3, 4, followed by 0, 1, 4, 5 or 8, followed by 0, followed by AA, AB, AC, AD, AE, AF, AG, AH, AJ, AK, SB, SC, followed by 00; Auxiliary device, extender Type 6GK1210-1SA00; Auxiliary device, repeater Type 6GK1210-0SA00.

**AS-Interface adaptor**, Type 3SF, followed by 1., 2., 3., 5., 54, 55, 59 or 7, may be followed by suffix letters and/or numbers.

**Analog interface**, Models 3RS1700-1AD00, 3RS1700-1CD00, 3RS1700-1DD00, 3RS1702-1AD00, 3RS1702-1CD00, 3RS1702-1DD00, 3RS1703-1AD00, 3RS1703-1CD00, 3RS1703-1DD00, 3RS1705-1FD00, 3RS1705-1KD00, 3RS1720-1ET00, 3RS1721-1ET00, 3RS1722-1ET00, 3RS1700-2AD00, 3RS1700-2CD00, 3RS1702-2D00, 3RS1702-2AD00, 3RS1702-2CD00, 3RS1702-2D00, 3RS1703-2AD00, 3RS1703-2CD00, 3RS1703-2FD00, 3RS1705-2FD00, 3RS1705-2FD00, 3RS1705-2ET00, 3RS1721-2ET00, 3RS1722-2ET00.

Analog interface: Open type relay interface, Modules 3TX7014-...00, 3TX7014-...02.

Auxiliary contact blocks, Type 3RH1921, followed by -1 or 2, followed by D, E, J, or K, followed by A or B, followed by 0, 1 or 2, followed by 0, 1, 2; Type 3R41911, followed by -1, followed by A or B, followed by A, followed by 0 or 1, followed by 0 or 1; Type 3RH1911, followed by -1 or 2, followed by F, G, H, L or M, followed by A, B, or C, followed by 0, 1, 2, 3 or 4, followed by 0, 1, 2, 3 or 4; Type 3RH1921, followed by -1 or -2, followed by C, F, H or L followed by A, B, C, E, or J followed by 0, 1, 2, 3 or 4, followed by 0, 1, 2, 3 or 4; Types 3RV19, followed by 01 or 21, followed by 1 or 2, followed by letter A through 6 or M; EMC Protective Unit Type 3TX40 followed by 0, 1 or 10, followed by A, B or G.

Coil assembly resistor, Type 3TX4490-1J

**Auxiliary devices**, Type No. 3RT1926 followed by -2J or -2K followed by a character followed by a number followed by 1 or 2.

Cable connector, Type 3RX98, followed by 0, 1, or 2, followed by a number, followed by -0AA00.

Communications-capable electronic overload relay, (Basic Unit), Type 3UF50, followed by 01, 11, 21, 31, 41 or 51, followed by -3A or -3B, followed by B, J or N, followed by 0 or 1; (Expansion Module), Type 3UF5100-0A followed by B, J or N; (Operator Module), Type 3UF5202-1AA.

Control relay, Type 3RH1, followed by 1, 2, 3 or 8, followed by 0, 1, 2, 3, 4, 5, 6, 7 or 8, followed by 0, 1, 2, 3, 4, 5, 6, 7 or 8, followed by -1, or -2, followed by A, B, C, D, E, F, G, H, J, K, M, N, P, Q, R, S, T, U or W, followed by a character and a number; Type 3RA18 followed by 2 numbers may be followed by suffix letters and/or numbers.

Contact blocks, lamp holders and transformers, Cat. No. 3SB34, followed by 00, 02, 03, 11, 20 or 23, followed by 0A, 0B, 0C, 0D, 0E, 0F, 0G, 0H, 0J, 0K, 1A, 1B, 1C, 1D, 1F, 1G, 1H, 1L, 1M, 1N, 1PA, 1PB, 1PC, 1PD, 1PE, 1QA, 1QB, 1QC, 1QD, 1QE, 1RA, 1RB, 1RC, 1RD, 1RE, 2A, 2D, 2F, 2G, 2H, 3A, 3C, 3E, 3F, 3M, 3P, 3S, 3U, 3W, 5A, 5B, 5C, 5D, 5E, 5F, 5G, 5H, 5J, 6A, 6B, 6C, 6D, 6H, or 6K.

**Converters**, Types 3RS1706, 3RS1705, 3RS1725, followed by -1 or -2, followed by F or K, followed by D, E or W, followed by 00.

Electronic measuring and monitoring relays, Types 3UG3081-1AK20, -1AW30, 3UG3082-1AW30.

Electronic overload relay, Type 3RB12, followed by 46, 53, 57 or 62, followed by 0F, 0K, 0L, 1E, 1P or 1Q, followed by B, G or M, followed by 1, 2, 3 or 4, followed by 0 or 1.

**Interface module**, Type 3TX7090-0D; Type 3TX7, followed by 00, followed by 4 or 5, followed by -1, -2, -3 or -4, followed by A, B, C, G, H, L, M, P or R, followed by B, C, E, F, G, H, M or N, followed by 0, 1, 2, 3, 4, 5, 6 or 7, followed by 0, 2, 3, 4 or 5.

**Electronic timers**, Type Nos. 3RP10, 3RP20, followed by 00, 05, 20 or 25, followed by 1 or 2, followed by A or B, followed by P3, Q3 or W3, followed by a number; Type No. 3RT19 followed by 16, followed by -2B, -2C, -2D, -2E, -2F, -2G, or -2L, followed by C, D, E, G, H, J, K or L, followed by 0, 1, 2 or 3, followed by 1; Type Nos. 7PU1040, -1140, -1540, -1640, -2040, -2540, -2640, -2643, -3020, -3040, -3120, -3140, -3240, -3243, -3320, -3340, -3348, -4020, -4040, -4120, -4140, -4220, -4320, -4340, -4440, -4520, -4540, -4620, -4640, -4720, -5120, -5220, -5340, -5720, -6020, -6040, -6220, -7020, -7220, -7243, -8040, -8043, -8143, -8148, -8340, -8343, -8348, -8540, -8543, -8548, -8640, -863, -8648, -8740, -8748; Type Nos. 7PX1040, -1540, -7040, -7140, -7340, -8220.

**Electronic time relay**, Type 7PV, followed by 40, followed by -7, followed by E, followed by J2 or N2.

EMC protection unit, Type 3RT1916-1P, followed by A, B or D, followed by 1, 2 or 3.

**Emergency - stop modules, open type**, Cat. No. 3SE6806-2CD00.

**Interface modules**, Type No. 3RH1924, followed by -1, followed by G, followed by P, followed by 1, followed by 1; Type 3RK10 followed by 0, followed by 0, 1, 2, 3 or 4, followed by 0A, 0B, 0C, 0D, 0E, 0F or 0J, followed by A, B or C, followed by two numbers, followed by one number, two characters and one number; Type 3TX4 followed by 0 or 1, followed by 80 or 90, followed by 0 or 3, followed by A, C, D or F.

**Indicator Light**, Type 3SB37, followed by 04, 12, 44, 48, 52, 60 or 62, followed by 6B, followed by A2, A3, A4, A5, A6 or A7, followed by 0.

Isolator modules, Types 3RV1928-1A, 3RV1938-1A.

**Latch block**, Types 3TX4185-OB, 3TX4090-0G and 3RT1926-3A.

Limit switches Types 3SE22, 3SE32 followed by 00, 10, 20 or 30, followed by 0, 1, 3, 6, 7 or 8 followed by suffix letters A, AA, C, CV, D, DV, E, EV, F, FV, G, GV, GW, GA, L, M, S, SV, R, RV, U, UW, V, VV, VW, WW, WV, XL, XT, XH, XX may be followed by a suffix of letters and/or numbers up to three digits for manufacturers use.

Type 3SE3160 or 3SE3180, followed by 0 or 1, followed by C, D or G, may be followed by J.

Type Nos. 3SE2 or 3SE3, followed by 1, 3, 4 or 6, followed by 0, 2 or 7, followed by 0, 3, 4, or 6, followed by -0, -1, -3, -6, -7 or -8, followed by suffix letters A thru X, may be followed by W, X or V00.

Type 3SE37 or 3SE38, followed by 5 or 6, followed by 0, 1 or 2, followed by 2, 3, 6, 7 or 8, followed by XX, followed by 00 or 01.

Types 3RG7082-1A and 3RG7182-1A.

Machine operated control switches: enclosed, Type 3TK28 followed by 01 or 02, followed by OAC2, OAG2, OAN2 or ODB4; Type 3TK28 followed by 50, 51, 52, 53, 54, 56, 57 or 58 followed -1 or -2 followed by A, B or C followed by B2, B3, B4, J2 or L2 followed by 0, 1, 2 or 3, may be followed by suffix letters and/or numbers.

**Magnetically operated control switches**, Type 3TH2, followed by 0, 1 or 2, followed by 22, 31, 40, 44, 53, 62, 71 or 80, followed by 0, 1, 3, 4, 5 or 7, followed by A, B, D, E, F, G, J, K, L, P or Q; Type 3TH27 followed by 01 or 10, followed by OA or OB.

**Open type**, Type 3TH40 or 3TH80, followed by 04, 13, 22, 31, 40, 92, 95 or 96, followed by OE, OF, 3E, 3F, 1M, 2M, 3M, 4M, 5M or 6M; Type No. 3TH42 or 3TH82, followed by 44, 53, 62, 71, 74, 75, 80, 83, 84 or 93, followed by OE, OF, 3E, 3F, 1M, 2M, 3M, 4M, 5M or 6M; Type No. 3TH43 or 3TH83 followed by 10, 45, 46, 47, 48, 55, 64, 73, 82, 91 or 94, followed by OE, OF, 3E, 3F, 1M, 2M, 3M, 4M, 5M or 6M.

**Opening delay devices**, Types 3RT1900-2HD81, followed by 0FB0 or 1FB0; Types 3TX4490-1A, 3TX4490-1H, 3TX4701-0AN1, 3TX4701-3AN1.

Overload relays: open, Cat. Nos. 3UA50, 3UA52, 3UR50, 3UR52, 3UW10 or 3UW13, followed by 00, 01 or 40, followed by 0, 1, 2 or 7, followed by A-H incl., J, K or S, may be followed by a combination of letters and numbers with connection supports, Model 3UX1418; Cat. Nos. 3UA54, 3UA553UR54, 3UR55 or 3UW15, followed by 00 or 01 or 40, followed by 0, 1, 2 or 8, followed by A, B, C, D, E, F, G, H, J, K, M, Q or R may be followed by a combination of letters and numbers with connection support, Models 3UX1420, 3UX1425; Cat. No. 3UA58, 3UR58 or 3UW17, followed by 00 or 01 or 40, followed by 1, 2 or 8, followed by A, B, C, D, E, F, G, T, P, U, V or W with connection support, Model 3UX1421; Cat. Nos. 3UA60, 3UA61 or 3UA62, followed by 00, 01 or 40, followed by 2 or 3, followed by H, J, K, L, M, N, W or X; Types 3UA7900-0A, -0B, -0C, 3UA7901-0A; Type 3UA59 followed by 00 or 40, followed by 0, 1, 2 or 7, followed by A-H incl., J, K, M, P, Q or T; Type 3UA66 followed by 00 or 40, followed by 2K, 3B, 3C, 3D or 3E; Type 3UA68 followed by 00, followed by 3F or 3G.

**Pilot light assembly**, Type 3SB1400, followed by 4, 5 or 6, followed by a letter.

Pilot light block, Type 3SB3400, -1R, represents 3SB3400, -1Q and 1-P.

**Pilot light units**, Type 3SB14, followed by 00, followed by -2A, -2B, -2C, -2D, -2E, -2L, -2P or -2Q; Type 3SB14, followed by 20 or 30, followed by -2A, -3A or -3E. BERO Cat. No. 3RG4 followed by 0 or 1, followed by 1, 2, 3, 4, 5, 7 or 8, followed by 0, 1, 2, 3, 4, 5 or 6, followed by 1, 2, 3 or 6, followed by A, C, G, J, K, L or R, followed by A, B, C, D, F or G, followed by two numbers.

**Proximity switch**, Type 3RG4, followed by 0, 1, 7 or 8, followed by 1, 2, 3, 4, 5, 6, 7, or 8, followed by 0, 1, 2, 3, 4, or 8, followed by -0, -1, -2, -3, -6, or -7, followed by A, C, G, J or K, followed by A, B, C, D, F, G, or K, followed by two numbers; Type 3SG followed by 1 thru 4, followed by 1 thru 6, followed by 0, 2, 6 or 7, followed by 0 to 7 incl., followed by 1, followed by A thru F, K or N thru T, followed by H3, J3, J8, R2 thru R8 or SO, followed by 1, 2, 3, 6 or 7. Type 3RG4, followed by 0, 1, 7 or 8, followed by 1, 2, 3, 4, 5, 6, 7 or 8, followed by 0, 1, 2, 3, 4 or 8, followed by -0, -1, -2, -3, -6 or -7, followed by A, C, G, J or K, followed by A, B, C, D, F, G or K, followed by two numbers.

**Push button station plastic enclosure**, Cat. No. 3SB38, followed by 01, 02, 03, 04 or 06 followed by 0, 1 or 4, followed by A or D, followed by a letter.

**Push button Station Metal Enclosures**, Cat. No. 3SB38 followed by 01, 02, 03, 04 or 06, followed by 2 or 3, followed by A or D, followed by a letter, followed by 3.

**Push button Station Metal Enclosures**, Cat. No. 3SB38 followed by 01, 02, 03, 04 or 06, followed by 2 or 3, followed by A or D, followed by a letter, followed by 3.

**Push button units**, Type 3SB1400, followed by 0A, 0B, 0C, 0G, 0H, 0J, 0R, 0S or 0V; Type 3SB1410 followed by 0B; Type 3SB1420 or 3SB1430 followed by 0B or 0C; Type 3SB2, followed by 0, 2, 4, 4 or 9, followed by 0, 1, 2 or

- 5, followed by a number 0 thru 8, may be followed by additional numbers and letters.
- Type 3SB37 followed by 0A, 0D, 2K, 2L, 4A or 4B, followed by A1, A2, A3, A4, A5, A6, D0, D1 or D2, followed by 1.
- Type 3SB38 63-4 may be followed by numbers and/or letters.
- **Push button unit and pilot light unit**, Cat. No. 3SB3, followed by 0, 1, 2, 3, 4, 5 or 6, followed by 00, 03 or 20, followed by 0A, 0B, 0C, 0D, 0E, 0J, 0K, 0H, 1A, 1C, 1F, 1G, 1H, 1R, 1Q, 1P or 1L, 3A, 3C, 3F, 3M, 3P or 3S.
- Remote reset thermal overload relays, Type No. 3RU1900, followed by -1A, -1B, -1C, or -2A, may be followed by a suffix letter and number for operating voltages.
- **Safety relays**, Types 3TK28, followed by 21, 22, 23, 24, 25, 27, 28, 30, 34 or 35 followed by -1 or -2, followed by A, B or C, followed by B2, B3, B4, J2 or L2, followed by O or 1.
- Sensors & reed proximity switch, Model 3SE6604-2BA
- **Solid state coupling relay**, Type 3RS18 followed by 00, followed by -1 or -2, followed by A through H, may be followed by characters and/or numbers.
- **Solid state overload relay**, Type 3RB10, followed by 55, 56, 65 or 66, followed by -1 or -2, followed by F, G, K or L, followed by G0 or W0.
- **Solid state safety combinations**, Type 3TK28, followed by 40, 41 or 42, followed -1 or -2, followed by B, followed by B4, followed by 0, 1 or 2, may be followed by suffix letters and/or numbers.
- Solid state time relay, Type No. 3RP15, followed by 0, 1, 2, 3, 4, 5, 6, 7 or 8, followed by 0, 1, 2, 3, 4, 5, 6, 7 or 8, followed by -1 or -2, followed by A, B, E, N, Q, R or S, followed by a character and a number.
- **Solid state thermal motor protectors**, Type 3RN10, followed by 0, 1, 2 or 6, followed by 0, 1, 2, or 3, followed by -1 or -2, followed by A, B, C, D, F or G, followed by B, C, G, M, K or W, followed by a number, followed by 0 or 1.
- Summation current transformer, Type 3UL22, followed by 01, 02 or 03, followed by 1A, 1B, 2A, 2B, 3A, 3B, 4B or 5B.
- **Synchronous timers**, Type 7PR10, followed by 40, followed by 2 or 7, followed by A to H incl., J to N incl., P to S incl. or T, followed by 0 or 1, followed by 0; Types 7PR40, -41, followed by 40, followed by 0 to 5 incl. or 6, followed by P, followed by B, C, D, F, H, K, M, P, Q, R or S, followed by 0 or 1, followed by 0.
- **Temperature Monitoring Relay**, Type 3RS10, 3RS11, 3RS20 or 3RS21, followed by 0, 1, 2, 3, 4 or 5, followed by a number, followed by -1 or -2, followed by A through H, followed by a character, followed by 0, 1, 2, 3, 4, 5, 6 or 8, followed by suffix numbers and/or characters.
- **Thermal overload relays**, Type No. 3RU1116, followed by combination of 0 or 1 and a letter A through K, followed by B0 or C1; Type No. 3RU1126 followed by combination of 0, 1 or 4 and a letter A through K, followed by B or D, followed by 0 or 1; Type No. 3RU1136 followed by combination of 0, 1 or 4 and a letter A through K, followed by B or D, followed by 0 or 1; Type No. 3RU1146, followed by combination of 4 and a letter D through M, followed by B or D, followed by 0 or 1.
- Three Phase busbar system, Type 3RV1917/27.
- Ultrasonic proximity switches, Cat. No. 3RX2110 may be followed by -1A; Sensor/proximity switch, Cat. No. 3RG6 followed by 0, 1, 2, 3, or 4 followed by 1, 2, 3, 4, 5, 7, or 8, followed by 2, 3, 4, 5, or 6, followed by -0, -3, -4, -6, or -7, followed by A, B, C, D, E, F, G, H, J, L, M, N, P, R, T, U or W, followed by A, B, C, D, E, F, G, H, J, K, M, N or S, followed by 0, 1, 2, 3, or 6, followed by 0 or 1, may be followed by suffix letters or numbers.
- **Undervoltage tripping and shunt release unit**, Type No. 3RV19, followed by 0, 1 or 2, followed by -1, followed by A, B, C or D, followed by a letter and number.

**Universal auxiliary switch**, Type 3TY, followed by 7, followed by 461, 481, 561 or 681, followed by 1 or 2, followed by A, B, E, F, G, K, L, N, P, Q, R, U or V, AA00 or KA00.

**Universal auxiliary switch**, Type 3TY followed by 6, followed by 501, 561 or 581, followed by 1, followed by A, B, C, D, E, F, G or H; Types 3TX4011-8A, 4S5309350-20.

Note: These auxiliary devices were found to comply with the requirements of CAN/CSA Standard for industrial control equipment C22.2 No. 14 M91.

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# NKCR7.GuideInfo Auxiliary Devices Certified for Canada

## [Industrial Control Equipment Certified for Canada] (Motor Controllers Certified for Canada) Auxiliary Devices Certified for Canada

#### See General Information for Motor Controllers Certified for Canada

#### **GENERAL**

This category covers machine-operated switches, magnetically-operated control switches, miscellaneous manually-operated switches, push-button stations (including parts such as pilot lights and selector switches), thermal and magnetic overload relays, and time-delay relays.

These devices are for use in control circuits of magnetic motor controllers and the like. Such devices are marked with the voltage rating and whether they are intended for Standard of Heavy Duty, or with a code designation such as A600, B600, etc. These codes represent the control circuit load which may be controlled by the device. The significance of each code is shown in the tables below. Standard Duty indicates ratings under Codes B and P, and Heavy Duty indicates ratings under Codes A and N for the marked voltage rating.

#### RATING CODES FOR AC CONTROL-CIRCUIT CONTACTS AT 50 AND 60 Hz

Contact Rating Code	Thermal Continuous Test	Max Current Amps <sup>b</sup>							М	ax	
	Current	120 V		240 V		480 V		600 V		Volt-amps	
Dsg <sup>a</sup>	Amps	Make	Break	Make	Break	Make	Break	Make	Break	Make	Break
A150	10	60	6.00	_	_	_	_	_	_	7200	720
A300	10	60	6.00	30	3.00	_		_	_	7200	720
A600	10	60	6.00	30	3.00	15	1.50	12	1.20	7200	720
B150	5	30	3.00	_	_	_		_	_	3600	360
B300	5	30	3.00	15	1.50	_		_	_	3600	360
B600	5	30	3.00	15	1.50	7.5	0.75	6	0.60	3600	360
C150	2.5	15	1.5	_	_	_	_	_	_	1800	180
C300	2.5	15	1.5	7.5	0.75	_		_		1800	180
C600	2.5	15	1.5	7.5	0.75	3.75	0.375	3.00	0.30	1800	180
D150	1.0	3.60	0.60	_						432	72
D300	1.0	3.60	0.60	.180	0.30	_	_	_	_	432	72

E150	0.5	1.80	0.30	_	_	_		_	_	216	36	
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**Note:** aThe numerical suffix designates the maximum voltage design values which are to be 600 V, 300 V and 150 V for suffixes 600, 300 and 150, respectively.

**Note:** bFor maximum ratings at voltages between the maximum design value and 120 V, the maximum make and break ratings are to be obtained by dividing the volt-ampere rating by the application voltage. For voltages below 120 V, the maximum make current is to be the same as for 120 V, and the maximum break current is to be obtained by dividing the break volt-amperes by the application voltage, but are not to exceed thermal continuous test current.

#### RATING CODES FOR DC CONTROL-CIRCUIT CONTACTS

Contact Rating Code	Thermal Continuous Test Current	Ma	ax Make of Current A	Max Make or Break V Amps at 300 V	
Designation <sup>a</sup>	Amps	125 V	250 V	301 to 600 V	or Less
N150	10	2.2		_	275
N300	10	2.2	1.1	_	275
N600	10	2.2	1.1	0.40	275
P150	5.0	1.1		_	138
P300	5.0	1.1	0.55	_	138
P600	5.0	1.1	0.55	0.20	138

**Note:** aThe numerical suffix designates the maximum voltage design values which are to be 600 V, 300 V and 150 V for suffixes 600, 300 and 150, respectively.

**Note:** bFor maximum ratings at 300 V or less, the maximum make and break ratings are to be obtained by dividing the volt-ampere rating by the application voltage, but are not to exceed the thermal continuous test current.

#### ADDITIONAL INFORMATION

For additional information, see Motor Controllers Certified for Canada (<u>NJOT7</u>), Industrial Control Equipment Certified for Canada (<u>NIMX7</u>) and Electrical Equipment for Use in Ordinary Locations Certified for Canada (<u>AALZ7</u>).

#### REQUIREMENTS

The basic standard used to investigate products in this category is CAN/CSA C22.2 No. 14-M91, "Industrial Control Equipment."

#### UL MARK

The UL symbol on the product and the Listing Mark of Underwriters Laboratories Inc. on the smallest unit container in which the product is packaged or the Listing Mark on the product is the only method provided by UL to identify products manufactured under its Listing and Follow-Up Service. The Listing Mark for these products includes the UL Mark for Canada symbol (as illustrated in the Introduction of this Directory) together with the word "LISTED," a control number, and the product name "Industrial Control Equipment" (or "Ind. Cont. Eq.").



## NJOT7.GuideInfo Motor Controllers Certified for Canada

### [Industrial Control Equipment Certified for Canada] Motor Controllers Certified for Canada

#### See General Information for Industrial Control Equipment Certified for Canada

This listing covers the following devices rated 600 v or less, and those rated 701-1500 v:

**Auxiliary Devices** 

Combination Motor Controllers.

Float- and Pressure-Operated Motor Controllers

Magnetic Motor Controllers

Manual Motor Controllers

Miscellaneous Motor Controllers

Power Conversion Equipment

Some Motor Controllers are open type (without enclosures). This means that such devices are for use as parts of Listed equipment where the acceptability of the combination has been determined by Underwriters Laboratories Inc. or where open type devices are acceptable.

This Listing also covers enclosures for housing open type devices. Such enclosures are marked to identify the open type devices which may be suitably installed therein.

Motor Controllers intended for across-the-line starting and for making and breaking the circuit when the motor is stalled are tested at rated voltage and at six times motor full load running current for a-c ratings and at ten times motor full load running current for d-c ratings.

Motor Controllers incorporating thermal cutouts, thermal overload relays or other devices for motor running overcurrent protection are considered to be suitably protected against overcurrent due to short circuits or grounds by motor branch circuit, short circuit and ground fault protective devices selected in accordance with the appropriate electrical code and any additional information marked on the product. Motor Controllers may specify that protection is to be provided by fuses or by an inverse time circuit breaker. If there is no marking on protective device type, controllers are considered suitably protected by either type of device. Motor Controllers may specify a maximum rating of protective device. If not marked with a rating, the controllers are considered suitably protected by a protective device of the maximum rating permitted by the appropriate Electrical Code.

Unless otherwise marked, motor controllers incorporating thermal cutouts or overload relays are considered suitable for use on circuits having available fault currents not greater than:

Rating HP (600 V) Max)	Full Load Current Amps (701-1500v)	RMS Symmetrical Amps			
1 or less	_	1,000			
1-1/2 to 50	0-50	5,000			
51 to 200	51-200	10,000			
201 to 400	201-400	18,000			
401 to 600	401-600	30,000			
601 to 900	601-850	42,000			
901 to 1600	851-1500	85,000			
Note: Motor Controllers which are marked "Suitable For Use On A Circuit Capable Of Delivering Not					

Note: Motor Controllers which are marked "Suitable For Use On A Circuit Capable Of Delivering Not More Than \_\_\_\_\_ RMS Symmetrical Amps, \_\_\_\_\_ Volts Maximum" have been investigated for the additional rating indicated.

**Note:** Motor Controllers for group installations are marked with a maximum rating of fuse which is considered to suitably protect the controller for the group installation. Such fuse ratings may be in excess of the values given above.

**Note:** Controllers for Electric Motor Drive Fire Pumps are listed in the Fire Protection Equipment List under the Pump Controller section.

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## NIMX7.GuideInfo Industrial Control Equipment Certified for Canada

### **Industrial Control Equipment Certified for Canada**

#### Guide Information for Electrical Equipment for Use in Ordinary Locations Certified for Canada

**Industrial Control Panels** 

Motor Control Centers

Motor Controllers

Miscellaneous Apparatus

Programmable Controllers

**Industrial Control Switches** 

Industrial control equipment identified with an enclosure type designation or as "Rain tight" or "Rainproof" is intended for use as indicated in (AALZ7).

Industrial Control Equipment, is for use with copper conductors unless marked to indicate which terminals are suitable for use with aluminum conductors. Such marking is independent of any marking on terminal connectors and is on a wiring diagram or other readily visible location.

Industrial Control Equipment, for which accessory kits are available for the field or distributor modification of the basic product or which may be assembled in many forms from separate components are marked to indicate the suitable accessories or separate components which may be used.

If the sealed rating of the operating coil circuit of a magnetically operated industrial control device exceeds 125 voltamperes, the coil circuit rating is marked on the device.

Overload relays or industrial control equipment incorporating overload relays are identified as to their maximum tripping time at 600 per cent of the overload relay current element trip rating. The designations "Class 10, Class 20, and Class 30" are used to identify the maximum tripping times, with the Class number indicating the maximum tripping time in seconds. Overload relays with maximum tripping times of 10 or 30 seconds are marked Class 10 or Class 30 respectively. Overload relays with a maximum tripping time of 20 seconds may be marked Class 20. Overload relays with tripping times in excess of 30 seconds are marked with their maximum tripping times. All unmarked overload relays have a maximum tripping time of 20 seconds.

There are open, across-the-line starters intended for bolt on mounting to panelboards and dead front switchboards and are so restricted by the Listing Mark. They are provided with a cover or door and the remaining portions of the enclosure are provided by the panel or switchboard enclosure.

Some industrial control equipment is suitable for use as service equipment and may be so marked. Such marking is part of the Listing Mark or is an integral part of other required markings.

Some industrial control equipment incorporates neutrals factory bonded to the frame or enclosure. Such units are marked "Suitable Only For Use As Service Equipment."

Open type across-the-line starters designed only for use in panelboards or dead front switchboards employ Listing Marks with the product identity "INDUSTRIAL CONTROL EQUIPMENT FOR USE IN PANELBOARDS AND DEAD FRONT SWITCHBOARDS" or "IND. CONT. EQ. FOR USE IN PANELBOARDS AND DEAD FRONT SWITCHBOARDS."

For other than industrial control panels, enclosed type product Listing Marks contain the product identity "INDUSTRIAL CONTROL EQUIPMENT" or the abbreviation "IND. CONT. EQ." on the enclosure, or the product identity "INDUSTRIAL CONTROL EQUIPMENT ENCLOSED" on the mechanism mounted within the enclosure. In either case, the Listing Mark indicates that the overall product with its enclosure is Listed.

Enclosures for use with open type products employ Listing Marks with the product identification "Enclosure For Industrial Control Equipment" or "Enclosure For Ind. Cont. Eq." and are marked to specify the Listed open type products to be installed within. Look for a Listing Mark on both the enclosure and the open mechanism.

The "Enclosed Industrial Control Panel" and "Industrial Control Panel" Listing Marks cover both the enclosure and the panel provided with it. Open panels employ the "Open Industrial Control Panel" Listing Mark. The "Industrial Control Panel Enclosure" Listing Mark covers only the enclosure; the compatibility of the enclosure and the installed equipment and associated wiring has not been investigated unless an "Enclosed Industrial Control Panel" Listing Mark is also present.

"Drip-proof" equipment is so constructed that falling moisture or dirt does not interfere with the successful operation of the equipment.

"Watertight" equipment is so constructed that water does not enter the enclosure when subjected to a stream of water.

Equipment classed "Drip-proof" or "Watertight" is marked to indicate this fact.

The basic standard used to investigate products in this category is CAN/CSA C22.2 No. 14-M91, Industrial Control Equipment.

The Listing Mark of Underwriters Laboratories Inc. on the product is the only method provided by UL to identify products manufactured under its Listing and Follow-Up Service. The Listing Mark for these products includes the UL Mark for Canada symbol (as illustrated in the Introduction of this Directory) together with the word "LISTED", a control number, and one of the following product names as appropriate: "Industrial Control Equipment" (or "Ind. Cont. Eq.").

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