



X3-45-000(X3) or 2-5000,								
45-200 or 2-5200,								
45-700(X3) or 2-5700(G)								

3120,	OC	B,D,	0	250AC	0.1-2	2	1	0.2KA,C,1
-X3120-M2,		E,A		250AC	2.5-3	2	1	1KA,C,1
-X3120-S,				250AC	3.5-8	2	1	2KA,C,1
-X3120-N				250AC	9-16	2	1	3.5KA,C,1
-X3120-U				250AC	18-20	2	0	5KA,C,1
				250AC	0.1-4.5(a)	2	1	0.2KA,C,1
				250AC	4.6-10(a)	2	1	2KA,C,1
				250AC	21-30(b)	2	0	5KA,C,1
				125AC	11-14(a)	2	1	1KA,C,1
				50DC	0.1-20	2	0	1KA,C,1

**Note:** (a)-With use of -X3120-M1, magnetic release module.

**Note:** (b)-two single poles connect in parallel.

2210	OC	B,D	3	250AC	0.1-4	2	0	0.2KA,C,1
				250AC	5-8	2	0	1KA,C,1
				250AC	10-16	2	0	2KA,C,1
				250AC	18-25	2	0	3.5KA,C,1
				277AC	0.1-16	2	0	5KA,C,1
				277AC	18-32(c)	2	0	3.5KA,C,1
				125/216AC	18-32(c)	2	0	3.5KA,C,1
				277/480AC	0.1-16(c)	2	0	5KA,C,1
				277AC	6-32	2	0	0.7KA,U,2
				277/480AC	0.1-5	2	0	0.4KA,U,2
				277/480AC	6-32	2	0	0.5KA,U,2
				65DC	0.1-16	2	0	0.2KA,C,1
				65DC	18-32	2	0	2KA,C,1
				65DC	0.1-5	2	0	0.4KA,U,2
				65DC	6-32	2	0	0.8KA,U,2

**Note:** (c)-Single and Multi-pole devices.

8340-F	OC	B,D	0	250AC	0.02-30 (d)	2	0	3.5KA,U,1
				250AC	0.02-30 (e)	2	0	5KA,U,1

				80DC	0.02-50 (k)	2	0	3.5KA,U,1
				80DC	60-100(l)	2	0	3.5KA,U,1
8340-T	OC	B,D	0	250AC	0.02-30 (d)	2	0	3.5KA,U,1
				250AC	0.02-30 (e)	2	0	5KA,U,1
				80DC	0.02-50 (k)	2	0	3.5KA,U,1
				80DC	60-100(l)	2	0	3.5KA,U,1
8340-G1 and G2	OC	B,D	0	250AC	0.02-30	2	0	3.5KA,U,1
				80DC	0.02-30	2	0	2KA,U,2
				80DC	0.02-50 (k)	2	0	3.5KA,U,1
				80DC	60-100(l)	2	0	3.5KA,U,1
<b>Note:</b> (d)-Single Phase.								
<b>Note:</b> (e)-Two and three Phase.								
<b>Note:</b> (k)-50 Amp device subjected to 3000 endurance operations - isolation switch rating only.								
<b>Note:</b> (l)-100 Amp device 2 poles connected in parallel.								
1110	OC	B,D	0	250AC	0.05-6.5	2	0	1KA,C,1
				125AC	7-16	2	0	1KA,U,1
				50DC	0.05-16	2	0	1KA,C,1
1410-LG	OC	B,D	0	250AC	0.63-10	2	0	2KA,C,1
				50DC	0.63-10	2	0	0.2KA,C,1
1410-F	OC	B,D	0	50DC	5.5-8	2	0	0.2KA,C,1
				60DC	0.63-5	2	0	0.2KA,U,1
				250AC	0.63-10	2	0	2KA,C,1
2215	OC	B,D	0	250AC	0.05	2	0	0.2KA,C,1
				250AC	0.1-6.5	2	0	1KA,C,1
				250AC	7-10	2	0	2KA,C,1
				75DC	0.05-12.5	2	0	1.0.KA,U,1
				75DC	20	2	0	0.8.KA,U,1
1140	OC	B	0	250AC	0.05-16	2	0	2KA,C,1
				50DC	0.05-16	2	0	2KA,U,1
48-08 or 808	OC	B,D	0	120AC	0.01-5	2	0	2KA,C,1
				60DC	0.01-5	2	0	1.0.2KA,C,2
48-08 or 808	OC	B,D	0	60DC	0.01-8	2	0	1.0.2KA,C,2

48-09 or 809	OC	B,D	0	120AC	0.006-3	2	0	2KA,C,1
				60DC	0.006-3	2	0	1.0.2KA,C,1
3130	OC	B,D	0	250AC	0.1-16(f)	2	0	3.5KA,C,1
				250AC	0.1-12(g)	2	0	5KA,C,1
				50DC	0.1-16(h)	2	0	2KA,C,1

**Note:** (f)-Single and two phase.

**Note:** (g)-Three phase.

**Note:** (h)-Single, two and three phase.

41-2, 412(G)	OC	B,D	0	28DC	0.1-35	2	0	6KA,U,2
41-3, 413(G)	OC	B,D	0	28DC	30-80	2	0	6KA,U,1
483(G)	OC	B,D	0	250AC	1-25	2	0	1KA,C,1
	OC	B,D	0	60DC	1-35	2	0	3.5KA,C,1
45-2 or 452(G)	OC	A,C	3	28DC	50-100	2	0	6KA,U,2

**Note:** (G)-Reset button seal for Nema Type 4X rating. Cat. Nos. X20080104 thru -08 and X20080110 thru -12 indicates 0.5 mm seal with different hex nuts. Cat. No. X20080113 indicates 0.7 mm seal with different hex nuts.

43-300 or 3300,	OC	A,C	0	250AC	0.05-16	2	0	1KA,U,1
43-400 or 3400,				80DC	0.05-16	2	0	1KA,U,1
43-500 or 3500,								
43-600 or 3600,								
42-01 or 201,								
-2325								

1658	OC	A,C	0	125AC	5-25	1	1	2KA,C,1
				120AC	18-30	1	0	2KA,C,1
				250AC	5-15	1	1	2KA,C,1
				240AC	5-15	1	0	2KA,C,1
				28DC	5-30	1	0	2KA,C,1
91L or H	OC	B,D	0	347/600AC	0.5-32(i)	2	0	2KA,C,1
				240/415AC	0.5-63(i)	2	0	6KA,C,1
				277/480AC	0.5-63(i)	2	0	10KA,C,1
				240/415AC	0.5-50	2	1	6KA,C,1
				110DC	0.5-50(j)	2	0	6KA,C,1
				48DC	0.5-63(i)	2	0	6KA,C,1

**Note:** (i)-1, 2, 3 and 4 Pole.

**Note:** (j)-2 Pole.

44-6 or 446	OC	A	0	28DC	30-400	2	0	10KA,U,2
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44-7 or 447	OC	A	0	28DC	80-400	2	0	10KA,U,2
44-9 or 449	OC	A	0	28DC	100-350	2	0	10KA,U,2
1180	OC	D	0	250AC	0.1-10A	2	0	2.0KA,C,1
				65DC	0.1-10A	2	0	2.0KA,C,1
4130	OC	A	0	240AC	20-70	2	0	1.0KA,C,1
				120AC	20-60	2	0	3.5KA,C,1
				120AC	70	2	0	2.0KA,C,1
				50DC	20-50	2	0	3.5KA,C,1
				50DC	60-70	2	0	2.0KA,C,1
482	OC	AC	0	72DC	0.1-50	2	0	5KA,U,1
520	OC	AC	0	277AC	7-125	2	0	5KA,U,1



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## QVNU2.GuideInfo Protectors, Supplementary - Component

### [Protectors] Protectors, Supplementary - Component

The devices covered under this category are incomplete in certain constructional features or restricted in performance capabilities and are intended for use as components of complete equipment submitted for investigation rather than for direct separate installation in the field. THE FINAL ACCEPTANCE OF THE COMPONENT IS DEPENDENT UPON ITS INSTALLATION AND USE IN COMPLETE EQUIPMENT SUBMITTED TO UNDERWRITERS LABORATORIES INC.

This category covers supplementary protectors for use in electrical equipment, intended to afford overcurrent, over- or under-voltage, or short circuit protection within an appliance but do not provide branch circuit overcurrent protection required by the National Electrical Code.

This category also covers accessory devices, which may be installed in or on the protector to perform a secondary function (e.g. — an alarm or auxiliary switch).

Where only model or type designations are indicated in the individual Recognitions, the ratings and conditions of acceptability are contained in the Component Recognition Report available from the manufacturer.

These supplementary protectors have been tested in accordance with the Standard for Supplementary Protectors, UL-1077, to define performance levels in order to facilitate evaluation of their use in end-use product applications. The supplementary protector types and performance levels are identified using codes for the use group, suitability for factory-wiring only or field wiring, and ratings for maximum voltage, maximum continuous current, tripping current, overload performance and short-circuit current.

The following statements explain the tabular information:

#### Supplementary Protector Type Codes (Type) —

OC — Overcurrent type

OV — Overvoltage type

UV — Undervoltage type

SPOC — Shunt protector, Overcurrent type

SPV — Shunt protector, Voltage type

**Use Group (UG)** — Identifies the type of end-use application for which the spacings of the protector or family of protectors has been evaluated.

Use Group	Application	Max V Rating	Spacing in Inches	
			Through Air or Oil	Over Surface

A	General	51-150	1/8	1/4
	Industrial	151-300	1/4	3/8
		301-600	3/8	1/2
B	Household	51-250	3/32+	3/32+
	Kitchen			
	Appliances			
C	Household	51-250	1/4	3/8
	Appliances			
D	Commercial	51-125	1/16+	1/16+
	Appliances	126-300	3/32+	3/32+
		301-600	3/8	1/2

E ++ UL-840 Pollution Degree 3, Over voltage Category 3

F ++ UL-840 Pollution Degree 3, Over voltage Category 2

#### NOTES:

+ = min. 1/4 in. spacings at field wiring terminals

++ = Codes E and F are followed by additional letter A, B, C or D. The additional letter indicates the minimum spacing from uninsulated live parts to the wall of a metal enclosure based on the above designations. Recognition report contains information regarding conditions and criteria at wiring terminals.

**Terminals (FW)** — Terminals are coded as follows:

- 0 - Suitable for factory wiring only
- 1 - Line terminals evaluated for field wiring
- 2 - Load terminals evaluated for field wiring
- 3 - Line and load terminals evaluated for field wiring

**Max Volts** — This designation is the maximum voltage rating for which a protector or family of protectors has been tested. There may be several voltage ratings that relate to different use groups (UG). Unless specified otherwise, all voltages are alternating current (AC), 50/60 HZ.

**Max Amps (Max Amps)** — This designation is the amp rating for which a protector or family of protectors has been tested.

**Tripping Current (TC)** — Tripping current is coded as a percentage of the amp rating.

- 0 — tripping current is less than 125% of amp rating
- 1 — tripping current is in the range of 125% to 135% of amp rating
- 2 — tripping current is more than 135% of amp rating

**Overload Rating (OL)** — Designates whether the protector or family of protectors has been tested for general use or motor starting applications.

0 - tested at 1.5 times amp rating for general use

1 - tested at 6 times AC rating or 10 times DC rating for motor starting.

**Short-Circuit Current Rating (SC)** — The short-circuit current rating in kiloamperes, is followed by a letter and number designating the test conditions and any calibration following the short-circuit test as defined below.

C — Indicates that short-circuit test was conducted with series overcurrent protection.

U — Indicates that the short-circuit test was conducted without series overcurrent protection.

1 — Indicates that a recalibration was not conducted as part of short-circuit testing.

2 — Indicates that a recalibration was performed as part of short-circuit testing.

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