

DESCRIPTION

PRODUCT COVERED:

USR, CNR Components - Connector, Rapid Lock Series, 510- followed by any number 0000 to 9999, followed by -01100. 512- followed by any number 0000 to 9999, followed by -011XX, where XX is any number 00 to 99; Cat. Nos. 6648221-1, 6648222-1, 6648223-1, 6648224-1, 6648226-1, 6648237-1, 6648237-2, 6648235-1, 6648235-2, 6648236-1, 6648236-2, 6648238-1, 6648238-2, 6648239-1, 6648239-2, 6648234-1, **6648234-2**, **1857547-1**, **1857178-1**, **1766484-1**, **6648228-1**.

ELECTRICAL RATINGS: Rapid Lock Series, Models 510-XXXX-01100, 512-XXXX-011XX:

<u>Contact Size</u>	<u>AWG Size</u>	<u>USR</u>	<u>CNR</u>
2	2	250V, 230 A	250V, 150 A
2	1/0	250V, 275 A	250V, 186 A
4	6	250V, 145 A	250V, 95 A
8	12	250V, 75 A	250V, 55 A
8	8	250V, 110 A	250V, 76 A

<u>Cat. No.</u>	<u>Contact Size</u>	<u>AWG Size</u>	<u>USR</u>	<u>CNR</u>
1857547-1	12 mm	3/0	250V/200 A	250V/200 A
1857178-1	2	2/0	250V/175 A	250V/175 A
1766484-1	8	6 AWG	250V/65 A	250V/65 A
6648228-1	8	8 AWG	250V/110 A	250V/76A

GENERAL:

These devices are multi-pole connectors employing contacts of the crimp, solder cup, and threaded stud termination type for use in electrical equipment where the acceptability of the combination is determined by Underwriters Laboratories Inc.

ENGINEERING CONSIDERATIONS (NOT FOR UL REPRESENTATIVE'S USE):

CNR indicates investigations to Canadian Standard, Special use attachment plugs, Receptacles, and connectors C22/2. MP/ 182.3-M1 987.

USR indicates investigations to UL 1977, Component Connectors for use in Data Signals Control and Power applications.

Use - For use only in or with complete equipment where the acceptability of the combination is determined by Underwriters Laboratories Inc.

Conditions of Acceptability - In order to be judged acceptable as a component of electrical equipment, the following conditions should be met.

1. These devices should be used only where they will not interrupt the current.
2. The suitability of the mounting means shall be determined in the end use.
3. The electrical and mechanical suitability of the wiring terminals shall be determined in the end use.
4. The placement of these devices within the equipment enclosure should be such that spacings between the live parts and the equipment are suitable for the particular application.
5. The factory assembled contacts have been investigated for the following wire ranges (and maximum tensile forces):

<u>Contact Size</u>	<u>Wire Range (AWG)</u>	<u>(Tensile Force (lb))</u>
#2	1/0	20
#2	2	20
#8	8	20
#8	12	20
#4	6	20
#8	6	20
12mm	3/0	350 (%)
#2	2/0	300 (%)

Note: 3/0 AWG and 2/0 AWG pull force per (Per 486A - 486B, 1st Ed, Revised August 25, 2006 / CSA C22.2 No. 65-03, 4th Ed, Revised August 25, 2006)

6. These devices have been investigated for the following current with the following maximum temperature rise:

<u>Contact Size</u>	<u>AWG Size</u>	<u>UL</u>	<u>UL Temp rise</u>	<u>CUL</u>	<u>CUL Temp</u>
2	2	230 A	61°C	150 A	26.4°C
2	1/0	275 A	62.9°C	186 A	28.1°C
4	6	145 A	67.6°C	95 A	29°C
8	12	75 A	58.3°C	55 A	29.4°C
8	8	110 A	60.1°C	76 A	28.6°C
12mm	3/0	200 A	41.3°C	200 A	16.3 °C
2	2/0	175 A	46.7°C	175 A	21.7 °C
8	6	65 A	39.0°C	65 A	14.0 °C
8	8	110 A	79.0°C	76 A	25.0 °C

7. These devices have an optional insulation boot for use in the following contact /AWG size combination:

<u>Contact Size</u>	<u>AWG Size</u>
4	6
8	12
8	8

No testing has been performed on the insulation boot. The maximum temperature rise on the insulation boot shall not exceed 50°C.

8. The temperature test was conducted with two of the same size contacts connected to pins on a bus bar. The contacts have not been evaluated when connected to a bus bar with mixed configurations. These devices are intended to be used with bus bar Cat. Nos. 513-05-01100 or 513-04-01100 (See ILLS. 9 and 10). The need to evaluate the contacts with these bus bars should be considered in the end product.