

File E28476
Project 03ME11019

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REPORT

on

COMPONENT - CONNECTORS FOR USE IN DATA, SIGNAL, CONTROL
AND POWER APPLICATIONS

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Harrisburg, PA

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DESCRIPTION

PRODUCT COVERED:

USR, CNR Component - Series Grace Inertia Connector.

GENERAL:

These devices are multi-pole attachment plug and receptacle connectors employing contacts of the crimp termination type where the acceptability of the combinations is determined by Underwriters Laboratories Inc.

ELECTRICAL RATING:

<u>Wire Size (AWG)</u>	<u>Max Voltage (V)</u>	<u>Max Current (A)</u>
No. 18 str.	300	7.0
No. 20 str.	300	6.0
No. 22 str.	300	4.0
No. 26 str.	300	2.0

USR - Products designated USR have been investigated using US requirements as noted in the Test Record.

CNR - Products designated CNR have been investigated using Canadian requirements as noted in the Test Record.

ENGINEERING CONSIDERATIONS (NOT FOR UL REPRESENTATIVE USE):

Use - For use only in 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. These devices have been investigated for a current of 7 A carried by each pole, when using 18 AWG wire, with a maximum temperature rise of 18.6°C.

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These devices have been investigated for a current of 6 A carried by each pole, when using 20 AWG wire, with a maximum temperature rise of 18.4°C.

These devices have been investigated for a current of 4 A carried by each pole, when using 22 AWG wire, with a maximum temperature rise of 18°C.

These devices have been investigated for a current of 2 A carried by each pole, when using 26 AWG wire, with a maximum temperature rise of 19°C.

3. The suitability of the mounting means shall be determined in the end use.

4. The acceptability of any grounding connection shall be determined by the end product use engineer.

5. The electrical and mechanical suitability of the wiring terminals shall be determined in the end use.

6. 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.

7. The suitability of the min 8.0 mm (0.31 in) spacings between live parts of opposite polarity including adjacent poles and between live parts and exposed dead metal parts shall be determined in the end use.

8. The factory assembled contacts have been investigated for the following wire ranges and maximum tensile forces.

<u>Part No.</u>	<u>Wire Range (AWG)</u>	<u>Tensile Force (lb)</u>
1565079	18	20
1565079	20, 22	8
1612334	22 - 26	8

9. The suitability of the insulating materials used in the molded bodies shall be judged in the end-use equipment.

10. The operating temperature of these devices should not exceed the temperature ratings of the insulating materials. These materials may be used interchangeably at a maximum temperature of 65°C.