

File E28476
Project 12ME07002

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REPORT

on

COMPONENT - Connectors for Use in Data, Signal, Control and Power
Applications - Component

Tyco Electronics Corp
Harrisburg, PA

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DESCRIPTION

PRODUCT COVERED:

USR, Component Connector, Series Power Shielded Connector Cat. Nos. 2173211-1, **2173211-2**, 2173168-1. Series Power Unshielded Cable Connector Cat. Nos. 2173132-1, **2173132-2**, 2173200-1.

GENERAL:

These devices are multi-pole connectors intended for factory assembly on copper wire sizes as indicated in Ratings table below where the acceptability of combinations is determined by UL LLC. The devices are identified as follows:

USR indicates investigation to United States Standards, UL 1977.

RATINGS:

Series	Voltage [Vac/dc]	Ampere (A)	Conductor Sizes, AWG Str
*ALL	500	20	2.5mm ²
ALL	500	25	12 AWG
ALL	500	30	10 AWG

Disconnecting Use - see Sec Gen for required marking

TECHNICAL CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE'S USE):

Use - For use only in or with complete equipment where the acceptability of the combination is determined by UL LLC.

Conditions of Acceptability - The following are among the considerations to be made when evaluating the device in the end-use product.

Interruption of Current

1. These devices are not suitable for interrupting the flow of current by connecting or disconnecting the mating connector.

*

Current-Carrying Capability and Current Ratings

2. These devices have been subjected to the Temperature test with the rated currents and maximum temperature values tabulated below.

Cat. No.	Current, A	Maximum Temperature	
		°C	Rise, °C
2173132-1 (represents 2173211-1, 2173211-2, 2173132-2)	20	54	29
2173200-1 (represents 2173168-1)	20	50.1	25.1
2173132-1 (represents 2173211-1, 2173211-2, 2173132-2)	25	54.5	29.5
2173200-1 (represents 2173168-1)	25	54.4	29.4
2173132-1 (represents 2173211-1, 2173211-2, 2173132-2)	30	54.5	29.5
2173200-1 (represents 2173168-1)	30	51.7	26.7

Insulating Materials

3. These devices employ insulating materials with properties as tabulated below at the minimum thickness employed in the connector housing, the suitability of the insulating materials based on the documented values shall be determined in the end-use application. Please note the values specified in the table when multiple materials are indicated represent the minimum values for the group of materials.

Cat. No.	Insulating Material (#)	Measured Minimum Thickness	Flame Class	HWI	HAI	RTI Elec	Max Operating Temp, °C
2173132-1, 2173211-1, 2173132-2, 2173211-2	A	0.4mm	(+)	-- (++)	-- (++)	130(++)	85
2173168-1, 2173200-1	B	0.725mm	(+)	4(++)	0(++)	130(++)	85

(#) - Code for Insulating Body Material.

(+) - No Flammability rating. Minimum thickness less than the minimum Recognized thickness. UL 746C, 12 mm Flammability testing conducted.

(++) - PLCs based on min Recognized thickness of the material.

*A. Tyco RM No. **1573878**

1. Dielectric strength (kV/mm): 39
2. CTI: 4

B. Tyco RM No. 704032

1. Dielectric strength (kV/mm): --
2. CTI: 2

Mating Connectors

4. These devices have only been assessed for use with specific types of connectors within their product family. They have not been assessed to operate with any other similar devices from any other manufacturer. Cat. No. 2173211-1 is intended to mate with Cat. No. 2173168-1, and Cat. No. 2173132-1 is intended to mate with 2173200-1.