File E66717
Project

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REPORT

on

COMPONENT - ELECTRICAL QUICK-CONNECT TERMINALS

TYCO ELECTRONICS CORP
MIDDLETOWN PA

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D E S C R I P T I O N

PRODUCT COVERED:

USR - Component Positive Lock Quick-Connect Connectors for Steel and Brass Tabs, Cat. Nos. 63097-1, 63097-2, 63119-1, 63119-2, 63195, 63196, 63239, 63232, 63313, 63498, 63811, 63407, 63442, 63809, 1217114-1, 1217114-2.

USR, CNR - Component Positive Lock Quick-Connect Connectors for Brass Tabs, Cat. Nos. 154717, 154718, 160759, 63812, 699174, 2238178-1, 160831-3.

USR, CNR - Component Positive Lock Quick-Connect Connectors for Steel and Brass Tabs, Cat. Nos. 2238155-1, 2238155-2, 2238156-1, 2238156-2, 2238104-1, 2238139-1, 2238278-1, 2238279-1, 2363927-1, 2238283-1, 2238285-1, **2484137-1.**

USR, CNR - Component Flag Positive Lock Quick-Connect Connectors for Steel and Brass Tabs, Cat. Nos. 2238105-1, 2238141-1.

USR, CNR - Component Positive Lock Quick-Connect Connectors for Copper Alloy Tabs, Cat. No. 179973-6.

USR, CNR - Component Positive Lock Quick-Connect Connectors for Copper Alloy Tabs, Cat. Nos. 170266-2, 170234-2, 170234-1.

USR - Component Positive Lock Quick-Connect Connectors for Copper Alloy Tabs, Cat. Nos. 63854-2, 63196-2, 175021-1, 170452-1, 1217580-1.

GENERAL CHARACTER AND USE:

The products covered are quick-connect connectors intended for factory assembly on No. 18-14 AWG (for Cat. Nos. 63097-1, 63097-2), 22-18 AWG for Cat. Nos. 63119-1, 63119-2 and 18-16 AWG or 2 No. 18 AWG for Cat. Nos. 1217114-1, 1217114-2), (2) No. 22 and (2) No. 20 (for Cat. No. 2238283-1), and (2) 14 AWG, No. 14 + No. 16, No. 14 + No. 18 (for Cat. No. 2238285-1), 22-18 AWG for Cat. No. 179973-6, 12-10 AWG for Cat. Nos. 170266-2, 170234-2, 170234-1, 18-14 AWG for Cat. No. 63854-2, 24-20 AWG for Cat. No. 63196-2, 22-18 AWG for Cat. No. 175021-1, 22-20 AWG for Cat. No. 170452-1, 20-16 AWG for Cat. No. 1217580-1 stranded copper wire using this manufacturer's hand tooling. These quick-connect connectors employ a locking mechanism which must be depressed to remove connector from mating male tab. They are intended for use in equipment where strain relief is provided. The quick-connect connectors are for use on the following plated steel production tabs, (not covered by this report) copper wire sizes and tooling.

Cat. No	Wire Size, AWG	No. Strands	Mating Tab Size	Tooling
63097-1, 63097-2	No. 18 No. 16 No. 14	16 26 41	.250 by .032	Part No. 90013 (Hand Power)
63119-1, 63119-2	No. 22 No. 20 No. 18	7 10 16	.250 by .032	
2238155-1, 2238155-2	No. 18 No. 16 No. 14	16 26 41	.250 by .032	Part No. 2150297-2 (Hand Power)
2238156-1, 2238156-2	No. 22 No. 20 No. 18	7 10 16	.250 by .032	Part No. 2150135 (Hand Power)
2238104-1	No. 16 No. 14	26 41	.250 by .032	Part No. 2150135 (Hand Power)
2238105-1	No. 16 No. 14	26 41	.250 by .032	Part No. 2150750 (Power)
2238139-1	No. 20 No. 18	10 16	.250 by .032	Part No. 2150297-2 (Hand Power) **for 18 – 20 AWG only.**
	No. 22 **No. 20** **No. 18**	**7** **10** **16**		**Part No. 4150155 for 18 – 22 AWG**
2238141-1	No. 20 No. 18	10 16	.250 by 0.032	Part No. 2150749 (Power)
63195, 63232, 63811, 63407	No. 20 No. 18 No. 16	10 16 26	.187 by .020	
63196	No. 22 No. 20	7 10		
63239	No. 12 No. 10	65 105	.250 by .032	
63498, 63313	No. 20 No. 18	10 16	.250 by .032	
63442	No. 18 No. 16	16 26		
63809	**No. 18** **No. 16**	**16** **26**		

160759	No. 20 No. 16	10 26		
154717, 154718	No. 14	41	Cat No. 63627-3	
63812, 160831-3	No. 18 No. 17	16	Cat No. 63627-3	
699174	No. 14	41	.250 by .12	
1217114-1, 1217114-2	No. 18 No. 16		.187 by .020	187 MKIII
2238178-1	No. 20 No. 18 No. 16			
2238278-1	(2) No. 18 No. 20 + No. 18 No. 18 + No. 16		.250 by .032	Die ID. 3-1803711-2
2238279-1	No. 20 No. 18 No. 16 (2) No. 22 (2) No. 20		0.187 by .032	3-1803711-1
2363927-1	No. 12		0.312 by .032	4150084-2 (crimp height of 1.96+/-.03mm)
2238283-1	**(2) No. 22** **(2) No. 20**		**.250 x .032**	**3-1803711-3**
2238285-1	**(2) 14 AWG** **No. 14 + No. 16** **No. 14 + No. 18**		**.250 x .032**	**3-1803711-4**

See Ill No. 17 For tooling information.

Cat. No.	AWG Wire Size	No. of Strands	Mates with Male Tab - Size	Tooling Part No.
179973-6	No. 22 No. 20 No. 18	7 10 16	0.250 by 0.032	2150040(ILL. 33)
170266-2	No. 12 No. 10	65 105	0.250 by 0.032	2151724-2(ILL. 34)
170234-2	No. 12 No. 10	65 105	0.250 by 0.032	2151724-2(ILL. 34)
170234-1	No. 12 No. 10	65 105	0.250 by 0.032	2151724-2(ILL. 34)
63854-2	No. 18 No. 16 No. 14	16 26 41	0.250 by 0.032	2150199-1 (ILL. 42)
63196-2	No. 24 No. 22 No. 20	- 7 10	0.187 by 0.020	2836300-2 (ILL. 43)
175021-1	No. 22 No. 20 No. 18	7 10 16	0.250 by 0.032	234618-1 (ILL. 44)
170452-1	No. 22 No. 20	7 10	0.250 by 0.032	2150067-1 (ILL. 45)
1217580-1	No. 20 No. 18 No. 16	10 16 26	0.187 by 0.025	2150186-1 (ILL. 46)
2484137-1	**No. 22 No. 20 No. 18**	**7 10 16**	**0.0250 by 0.032**	**4150155**

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):

These devices are for use in equipment where the acceptability of the combination is determined by Underwriters Laboratories Inc.

Conditions of Acceptability - The following items are to be judged with respect to specific applications in their end use.

1. These devices have not been investigated for current interruption.

2. These devices are for use where strain relief is provided as part of the equipment.

3. These devices are for internal wiring only in electrical equipment.

4. Due to the locking design of these devices, withdrawal force measurements were not considered applicable.

5. Cat. Nos. 154717, 154718, 160759, 63812, and 160831-3 are intended for use with brass tab Cat. No. 63627-3

6. Cat. No. 699174 is intended for use with a 1.2 mm thick tab, the suitability of which shall be an end product consideration.

7. Cat. Nos. 2238104-1, 2238105-1, 2238139-1, 2238141-1, **2484137-1** are for use only in equipment where steel is acceptable for current-carrying parts.

8. Insertion forces for Cat. No. 2363927-1 shall be taken into consideration in the end-product.