File E66717 Project 5562818

October 10, 1990

REPORT

on

QUICK-CONNECT TERMINALS

TYCO ELECTRONICS CORP
MIDDLETOWN PA

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DESCRIPTION

## PRODUCT COVERED:

USL, Insulated copper alloy quick-connect connector for copper alloy or steel tabs, Series ULTRA-POD, Cat. Nos. 1969447-1, 1-1969529-1, 520963-01, -2, 520971-1, -2, -3, -4, 520973-1, -2, 520974-1, -2, 520982-1, -2, -8, 520986-1, 520988-1, -2, -4 521011-2, 521114-1, 521118-2, 521046-1, 521050-1, -2, 521058-1, 521081-1, 521084-2, 521086-1, 521094-1, 5-521094-1, 521293, 521228-1, 521228-2, 521149-2, 521225-1, -2, 521282-1, -2, 521284-1, -2, 521366-1, -2, 521367-1, -2, 521368-1, -2, 521347, 521408-2, 521411-1, -2, 521547-1, 521637-1, -2, 521632-1, -2, 521112-1, -2, 521633-1, -2, 521470-1, -2, 521596-1, -2, 521716 -1 -2, -3, -4, 521722-1, -2, 521723-1, -2, 521567-2, 521600-1, -2, 521451-1, -2, 521586-1, -2, 521830-2, 521848-1, -2, -3, 521973-2, 521583-2, 1969161-5, 521997-3, 521998-3, 1969106-3, 1969107-3, 1969133-3, 1969109-3, 1969110-3, 521995-3, 1969206-1.

USL - Insulated copper alloy quick-connect connector for copper alloy tabs, models 521597-1, 2; 521601-1, -2; 521471-1, -2; 521599-1,-2, 521436-2, 521437-2.

USL, Insulated copper alloy tab for copper alloy quick-connect connectors, series ULTRA-POD, Cat. Nos. 521217-1, -2, 521227-1, -2, 2-2394335-3, 8-2394335-3, 9-2394335-3, 2-2394336-3, 2-2394337-3, 2-2394338-3, 8-2394338-3, 9-2394338-3.

USL/CNL, Insulated copper alloy quick-connect connector for copper alloy or steel tabs, Series ULTRA-POD, Cat. Nos. 520988-3, 1969283-2.

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## GENERAL CHARACTER AND USE:

The products covered are quick-connect connectors and quick-connect tabs intended for assembly of No. 22 to No. 10 AWG stranded copper wire using this manufacturer's power tools. They are intended for factory wiring only. They are for use on stranded copper wire as noted below. For specific wire size and tab size refer to Ills. 5-7, 9, 10-16, 26-36. For ratings for models 521597-1, -2; 521601-1,-2; 521471-1, -2; 521599-1,-2 see table below.

| Wire Siz | ze (AWG) | No. of Strand |
|----------|----------|---------------|
| 22       |          | 7             |
| 20       |          | 10            |
| 18       |          | 16            |
| 16       |          | 26            |
| 14       |          | 41            |
| 12       |          | 65            |
| 10       |          | 105           |

All of the above insulated connectors are rated  $150\,^{\circ}\text{C}$ , 600 V max building wire (1000 V max in signs or fixtures).

Products designated USL and/or CNL have been investigated using requirements contained in the Standards referenced in the Test Record.

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## RATINGS:

The following quick-connect connectors are for use on the following copper wire sizes, copper alloy production tabs, using the specified tooling.

|                             | T   |                   |                                   |                               |
|-----------------------------|---|-------------------|-----------------------------------|-------------------------------|
| Cat. No.                    | Wire Range,<br>AWG                          | No. of<br>Strands | Mates With<br>Male Tabs -<br>Size | Power Tooling                 |
| 521597-1,-2;                | 14-18,<br>(2) No. 20<br>(2) No. 18          | As noted above    | .187 x .020                       | AMP Type F using die 1385724  |
| 521471-1,-2                 | (1) No. 14-18,<br>(2) No. 18,<br>(2) No. 20 | As noted above    | .187 x .020                       | AMP Type F using die 1385724  |
| 521601-1,-2;<br>521599-1,-2 | (1) No. 14-18,<br>(2) No. 18,<br>(2) No. 20 | As noted above    | .187 x .032                       | AMP Type F using die 1385724  |
| 521436-2,<br>521437-2       | 22-18                                       | As noted above    | 2.8 x 0.8                         | AMP Type F using die 1385724  |
| 1969529-1                   | 18-14                                       | As noted above    | 0.250 X 0.032                     | AMP Type F using tool 852293. |
| 1969161-5                   | 18 - 22                                     | As noted above    | 0.250 x 0.032                     | AMP Type F using tool 1852889 |
| 2-2394335-3                 | 18 - 22                                     | As noted above    | 0.250 x 0.032                     | Applicator No. 2402076        |
| 8-2394335-3                 | 18 - 22                                     | As noted above    | 0.250 x 0.032                     | Applicator No. 2402076        |
| 9-2394335-3                 | 18 - 22                                     | As noted above    | 0.250 x 0.032                     | Applicator No. 2402076        |
| 2-2394336-3                 | 14 - 18                                     | As noted above    | 0.250 x 0.032                     | Applicator No. 2402077        |
| 2-2394337-3                 | 14 - 18,<br>2x 18                           | As noted above    | 0.250 x 0.032                     | Applicator No. 2402078        |
| 2-2394338-3                 | 10 - 12                                     | As noted above    | 0.250 x 0.032                     | Applicator No. 2402079        |
| 8-2394338-3                 | 10 - 12                                     | As noted above    | 0.250 x 0.032                     | Applicator No. 2402079        |
| 9-2394338-3                 | 10 - 12                                     | As noted above    | 0.250 x 0.032                     | Applicator No. 2402079        |