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| 8-643813-8 Product Det   | tails  | 🔒 Share 📄 Print 🔤 En   |
|--|--|--|
|  | MTA, CST-100 II, MT-6 and SL<br>Connectors and Headers<br>Always EU RoHS/ELV Compliant<br>(Statement of Compliance)<br>Product Highlights:<br>• MTA-100 Product Line                                   | Quick Links         Pricing & Availability         Search for Tooling         View Mating Products (38)         Product Feature Selector         Contact Us About This Product |
| 3-643813-8<br>TE Internal Number: 3-643813-8   | <ul> <li>MTA Series</li> <li>Wire-to-Post</li> <li>Applies To Wire/Cable</li> <li>Connector</li> <li><u>View all Features</u></li> <li><u>Add to My Part List</u></li> <li><u>Request S</u></li> </ul> | ample Find Similar Products  |
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| Documentation & Additional In  | formation  |  |
| <ul><li>Product Drawings:</li><li>MTA 100 CONNECTOR ASSE</li></ul>   | MBLY, 22 AWG, STANDARD (PDF, English)  | Additional Information:<br>• Product Line Information  |
| Catalog Pages/Data Sheets:<br>• MTA, CST-100 II, SL-156 an<br>English)   | nd AMP Economy Power (EP) C (PDF,  | Related Products:<br>• Tooling<br>• Mating Products (38)   |
| <ul><li>Product Specifications:</li><li>Connector, MTA-100 (PDF, E</li></ul>   | English)   |  |
| Application Specifications:<br>• MTA 100 Connector (PDF, Eu  | nglish)  |  |
| Instruction Sheets:<br>• None Available  |  |  |
| CAD Files: (CAD Format & Compre<br>2D Drawing (DXF, Version K<br>3D Model (IGES, Version K)<br>3D Model (STEP, Version K)  |  |  |
|  | List all Documents   |  |
| Product Fosturos (Ploses uso t   | he Breduct Drawing for all decign activi   | her)   |
| <ul> <li>Series = MTA</li> <li>Product Type = Connector</li> <li>Connector Type = Connector Assembly</li> <li>Termination Method to Wire/Cable = IDC</li> <li>PCB Mount Retention = Without</li> <li>PCB Mount Alignment = Without</li> <li>Centerline</li> <li>Housing Cathering</li> <li>Mating Alig</li> <li>Mating Alig</li> </ul> |  | es:<br>Style = Receptacle<br>(mm [in]) = 2.54 [0.100]<br>tyle = Standard<br>aterial = Nylon  |
| <ul> <li>Wire/Cable Type = Discrete</li> <li>Sealed = No</li> <li>UL File Number = E28476</li> </ul>   | <ul><li>Number of</li><li>Post Numb</li></ul>  | Positions = 8<br>per(s) Omitted = None<br>Post Interruption(s) = Without   |
| • CSA File Number = LR7189   | Number of  | Rows = 1   |

Have a Question? Chat with a Product Information Specialist

- Contact Retention = With
- Mating Retention Type = Locking Ramp
- Panel Mount Retention = Without
- Contact Retention Type = Locking Lance

#### **Electrical Characteristics:**

- Contact Rated Current (A) = 5
- Operating Voltage Reference = AC
- Operating Voltage (VAC) = 250

### **Termination Features:**

- Wire/Cable Size (mm<sup>2</sup>) = 0.3 0.4
- Wire/Cable Size (AWG) = 22

### **Body Features:**

- Wire Type = Stranded
- Mating Retention = With
- Cable Exit Angle = 90°
- Underplate Material Thickness ( $\mu$ m [ $\mu$ in]) = 0.762 [30.000]
- Assembly Integration Feature = Without

### **Contact Features:**

- Contact Type = Socket
- Contact Base Material = Copper Alloy
- Contact Plating, Mating Area, Material = Matte Tin
- Contact Layout = In-Line
- Multiple Contact Types = Without
- Contact Plating, Mating Area, Thickness (μm [μin]) = 2.03 - 5.08 [80 - 200]
- Underplate Material = Nickel

- RoHS/ELV Compliance = RoHS compliant, ELV compliant
- Lead Free Solder Processes = Not relevant for lead free process
- RoHS/ELV Compliance History = Always was RoHS compliant
- Agency/Standard = CSA, UL
- UL Rating = Recognized
- CSA Rating = Certified

## Environmental:

 Operating Temperature (°C [°F]) = -55 - +105 [-67 - +221]

### **Conditions for Usage:**

- Applies To = Wire/Cable
- Accepts Wire Insulation Diameter, Range (mm [in]) = 1.52 [0.060]
- For Use With = MTA .100 Header

# Operation/Application:Application Use = Wire-to-Post

- Packaging Features:
  - Packaging Method = Bag
  - Packaging Quantity = 500

# Other:

Brand = AMPComment = Stripe may run down between ribs

# Corporate Information

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|                 | 4                            |   | 3  | 2   |
|-----------------|------------------------------|---|--|---|
| THIS DRAWING IS |                              | RELEASED FOR PUBLICATION<br>ALL RIGHTS RESERVED.  | -,                                       | LOC DIST REVISIONS  |
| C COPYRIGHT -   | — Ву —                       | ALL RIGHTS RESERVED.                              |  | CMOP LTR DESCRIPTION DATE DWN APVD  |
|                 |                              |   |  | J REVISED PER ECO-12-007492 03AUG12 KH SM   |
|                 |                              |   |  |   |
|                 |                              |   |  | ∠1\ MATERIAL: CONNECTOR - NYLON UL94V-2 .<br>CONTACTS - 0.30[.012] THICK COPPER ALLOY BRIGHT  |
|                 |                              |   |  | TIN-LEAD .00203[.000080] MIN THICKNESS FOR 643813-2   |
| ) YES           | 71.12[2.800]                 | 28 5-643813-                                      | -8                                       | TIN-LEAD .00203[.000080] MIN THICKNESS FOR 643813-2<br>THRU 2-643813-8. MATTE WHISKER MITIGATED TIN .00203[.000080] MIN<br>THICKNESS OVER NICKEL UNDERPLATE FOR 3-643813-2 THRU 5-643813-8.   |
| YES             | 68.58[2.700]                 |   |  | THICKNESS OVER NICKEL UNDERPLATE FOR $3-643813-2$ THRU $5-643813-8$ .   |
| YES             | 66.04[2.600]                 |   |  | 2 CONTACTS ACCEPT 22 AWG WIRE WITH 1.52[.060] MAX   |
| YES             | 63.50[2.500]                 |   | -5                                       | INSULATION DIAMETER.  |
| YES             | 60.96[2.400]                 | 24 5-643813-                                      | - 4                                      |   |
| YES             | 58.42[2.300]                 |   |  | 3 CONTACTS MUST ACCEPT 0.64±0.03[.025±.001]   |
| YES             | 55.88[2.200]                 | 22 5-643813-                                      |  | POST AND REMAIN LOCKED IN POSITION.   |
| YES             | 53.34[2.100]                 |   |  | 4 identification number for last circuit may  |
| YES             | 50.80[2.000]                 |   |  | NOT APPEAR ON ALL ASSEMBLIES.   |
| YES<br>YES      | 48.26[1.900]<br>45.72[1.800] | 19         4-643813           18         4-643813 |  | 5 DIMENSIONS IN BRACKETS ARE IN INCHES.   |
| YES             | 43.18[1.700]                 | 17 4-643813                                       |  |   |
| YES             | 40.64[1.600]                 | 16 4-643813                                       |  | 6 HOUSING FEATURES ARE: CLOSED END WITH   |
| YES             | 38.10[1.500]                 | 15 4-643813-                                      |  | LOCKING RAMP AND WITH POLARIZING TAB.   |
| C YES           | 35.56[1.400]                 | 14 4-643813-                                      | -4                                       | / Obsolete parts: obsolete cis streamlining per d.renaud/d.sinisi C   |
| YES             | 33.02[1.300]                 |   |  |   |
| YES             | 30.48[1.200]                 | 12 4-643813-                                      |  | 8 RED COLOR STRIPE ON HOUSING (NOT SHOWN) MAY RUN DOWN BETWEEN RIBS.  |
| YES             | 27.94[1.100]                 |   |  |   |
| YES             | 25.40[1.000]                 | 10 4-643813-                                      |  |   |
| YES<br>YES      | 22.86[.900]<br>20.32[.800]   | 9 <u>3-643813</u><br>8 <u>3-643813</u>            |  |   |
| YES             | 17.78[.700]                  | 7 3-643813  |  |   |
| YES             | 15.24[.600]                  | 6 3-643813  |  |   |
| YES             | 12.70[.500]                  | 5 3-643813-                                       |  |   |
| YES             | 10.16[.400]                  | 4 3-643813-                                       | -4                                       |   |
| YES             | 7.62[.300]                   | 3 3-643813-                                       | -3                                       |   |
| YES             | 5.08[.200]                   | 2 3-643813-                                       | -2                                       |   |
| NO              | 71.12[2.800]                 |   | -8 SUPERSEDED BY 5-643813-8              |   |
| NO              | 68.58[2.700]                 |   | $-7$ SUPERSEDED BY 5-643813-7 $\sqrt{7}$ | -6.99 $+0.38$   |
| NO              | 66.04[2.600]                 |   | -6 OBSOLETE                              | $\begin{bmatrix} 1 & 2 & 2 \end{bmatrix}$   |
| B NO            | 63.50[2.500]<br>60.96[2.400] |   | -5 SUPERSEDED BY 5-643813-5 $7$          | 0.48±0.08<br>[.019±.003]<br>A +.015   |
| B NO NO         | 58.42[2.300]                 |   | -3 SUPERSEDED BY 5-643813-3              | 010   B   |
| NO              | 55.88[2.200]                 |   | -2 SUPERSEDED BY 5-643813-2 $/7$         | $-1.91 \begin{bmatrix} -2.54 \pm 0.05 \\ [.100\pm.002] \end{bmatrix} =94 \pm 0.08 \\ [.037\pm.003] \end{bmatrix}$   |
| NO              | 53.34[2.100]                 |   | -+ SUPERSEDED BY 5-643813-1 /            |   |
| NO              | 50.80[2.000]                 | 20 2-643813-                                      |  | $ \begin{bmatrix} 1 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\$  |
| NO              | 48.26[1.900]                 | 19 <del>1-643813</del>                            | -9 SUPERSEDED BY 4-643813-9 / 6.99 6.22  |   |
| NO              | 45.72[1.800]                 | 18 1-643813-                                      | -8 [.275] [.245]                         |   |
| NO              | 43.18[1.700]                 | 17 1-643813-                                      |  |   |
|                 | 40.64[1.600]                 | 16 1-643813-                                      |  |   |
| NO<br>NO        | 38.10[1.500]<br>35.56[1.400] | 15 1-643813<br>14 1-643813                        |  |   |
| NO              | 33.02[1.300]                 | 13 1-643813                                       |  |   |
| NO              | 30.48[1.200]                 | 12 1-643813                                       |  |   |
| NO              | 27.94[1.100]                 | 11 1-643813-                                      |  | [.520]  |
| NO              | 25.40[1.000]                 | 10 1-643813-                                      |  |   |
| NO              | 22.86[.900]                  | 9 643813 -  | 9  |   |
| NO              | 20.32[.800]                  | 8 643813-   |  | This drawing is a controlled document. DWN 11jun2003<br>S. CARPENTER<br>CHK 11jun2003 TE Connectivity   |
| A NO            | 17.78[.700]                  | 7 643813 -  |  | CHK 11JUN2003 CHK 11JUN2003   |
| NO              | 15.24[.600]                  | 6 643813-   |  | mm [INCHES]   |
| NO              | 12.70[.500]                  | 5 643813-   |  | $\begin{array}{cccc} 0 & \text{PLC} & \pm & \text{PRODUCT SPEC} \\ 1 & \text{PLC} & \pm & \text{PRODUCT SPEC} \end{array} $   |
| NO<br>NO        | 10.16[.400]                  | 4         643813 -           3         643813 -   |  | 3 PLC ± 0.13 [.005] APPLICATION SPEC  |
| NO              | 5.08[.200]                   | 2 643813 -  |  | Imaterial     Imate   |
| LEADFREE        |                              | NO. OF CIRCUITS PART NO                           |  | Image: Comparison of the second se |
| 1471-9 (3/11)   |                              |   |  |   |

1471-9 (3/11)

|     | THIS DRAWING IS A CO | ONTROLLED DOCUMENT.                        | DWN 11JUN2003<br>S. CARPENTER<br>CHK 11JUN2003 | TE Connectivity                         |  |
|-----|----------------------|--|--|---|--|
|     | DIMENSIONS:          | TOLERANCES UNLESS<br>OTHERWISE SPECIFIED:  | D. BOSSI<br>APVD 11JUN2003                     | NAME                                    |  |
|     | mm [INCHES]          | 0 PLC ±                                    | D. BOSSI<br>PRODUCT SPEC                       | MTA 100 CONNECTOR ASSEMBLY,             |  |
| 1   |                      | 1 PLC ±<br>2 PLC ±                         | 108-1050<br>Application spec                   | 22 AWG, STANDARD                        |  |
|     | $\downarrow$ $\neg$  | 3 PLC ± 0.13 [.005]<br>4 PLC ±<br>ANGLES ± | 114-1019                                       | SIZE CAGE CODE DRAWING NO RESTRICTED TO |  |
| JUC | MATERIAL             | FINISH                                     | WEIGHT   | A2 00779 <b>C=</b> 643813 -             |  |
| ]   |                      |  | CUSTOMER DRAWING                               | SCALE 5:1 SHEET 1 OF 1 REV              |  |