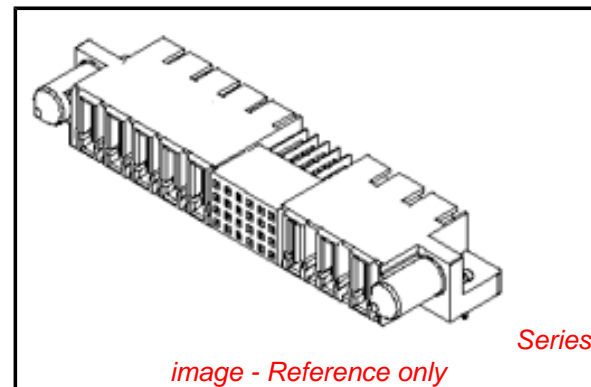


PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: [0876642004](#)
Status: **Active**
Overview: [extreme_powerplus_ssi](#)
Description: 6.35mm (.250") and 7.62mm (.300") Pitch Power, 2.54mm (.100") Pitch Signal, EXTreme PowerPlus™ AC/DC Receptacle, Through Hole, Right Angle, 31 Circuits, Power Beta 4, Signal 24, Power Alpha 3, Recessed Power Circuits Positions A2, A3, Leadfree

Documents:

[3D Model](#) [Product Specification PS-87663-006 \(PDF\)](#)
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)



Agency Certification

UL E29179

General

Product Family PCB Receptacles
 Series [87664](#)
 Application Board-to-Board
 Comments Recessed Power Circuit Position: A2,A3
 Overview [extreme_powerplus_ssi](#)
 Product Literature Order No 987650-3002
 Product Name EXTreme PowerPlus™

Physical

Circuits (Loaded) 31
 Circuits Detail Power Beta 4, Signal 24, Power Alpha 3
 Color - Resin Black
 Flammability 94V-0
 Glow-Wire Compliant No
 Guide to Mating Part Yes
 Lock to Mating Part None
 Material - Metal Copper Alloy
 Material - Plating Mating Gold
 Material - Plating Termination Tin
 Material - Resin High Temperature Thermoplastic
 Number of Rows 4
 Orientation Right Angle
 PC Tail Length (in) 0.135 In
 PC Tail Length (mm) 3.43 mm
 PCB Locator Yes
 PCB Retention Yes
 PCB Thickness Recommended (in) 0.062 In
 PCB Thickness Recommended (mm) 1.60 mm
 Packaging Type Tray
 Pitch - Mating Interface (in) 0.100 In, 0.250 In, 0.300 In
 Pitch - Mating Interface (mm) 2.54 mm, 6.35 mm, 7.62 mm
 Plating min: Mating (µin) 30
 Plating min: Mating (µm) 0.76
 Plating min: Termination (µin) 100
 Plating min: Termination (µm) 2.54
 Polarized to Mating Part Yes
 Polarized to PCB Yes
 Stackable No
 Temperature Range - Operating -20°C to +105°C
 Termination Interface: Style Through Hole

EU RoHS

ELV and RoHS Compliant
REACH SVHC
 Not Reviewed
Halogen-Free Status
Not Reviewed

China RoHS



Need more information on product environmental compliance?

Email productcompliance@molex.com
 For a multiple part number RoHS Certificate of Compliance, [click here](#)

Please visit the [Contact Us](#) section for any non-product compliance questions.

Search Parts in this Series

[87664Series](#)

Mates With

[87663 PCB Header with Beveled Metal Pins](#)

Electrical

Current - Maximum per Contact 2.5A, 30A, 50A
Voltage - Maximum 250V (RMS)

Solder Process Data

Duration at Max. Process Temperature (seconds) 10
Lead-free Process Capability SMC & Wave Capable (TH only)
Max. Cycles at Max. Process Temperature 3
Process Temperature max. C 260

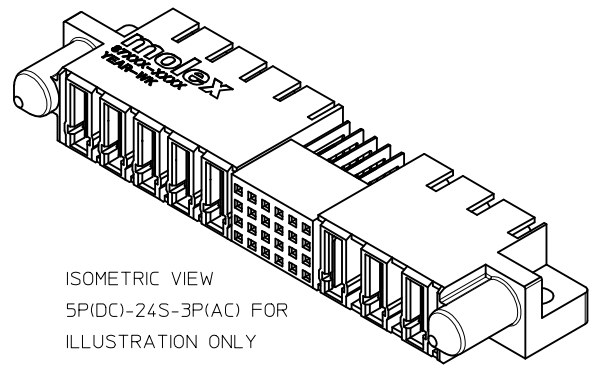
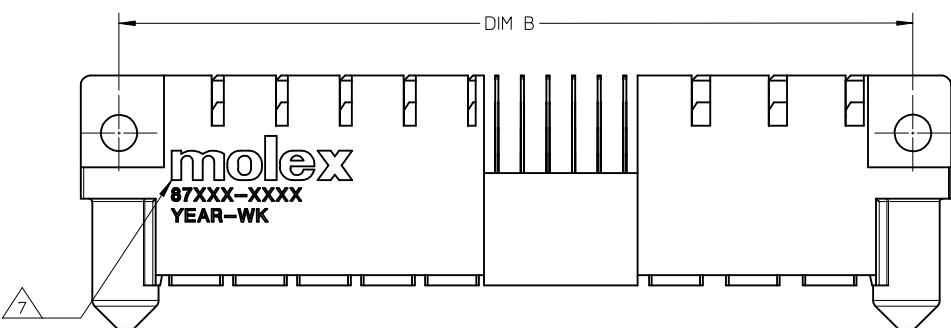
Material Info**Reference - Drawing Numbers**

Application Specification AS-87631-018
Product Specification PS-87663-006
Sales Drawing SD-87664-021

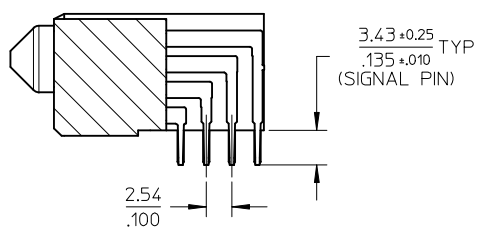
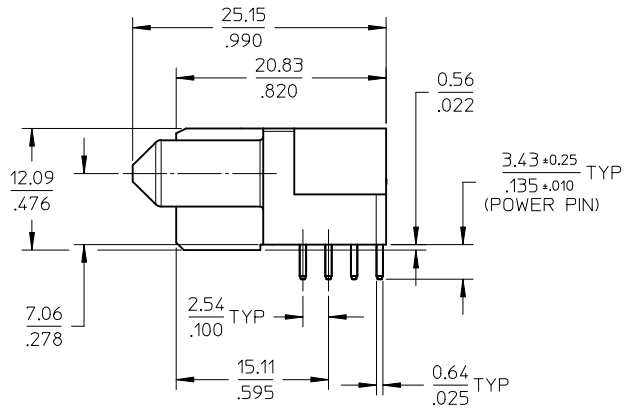
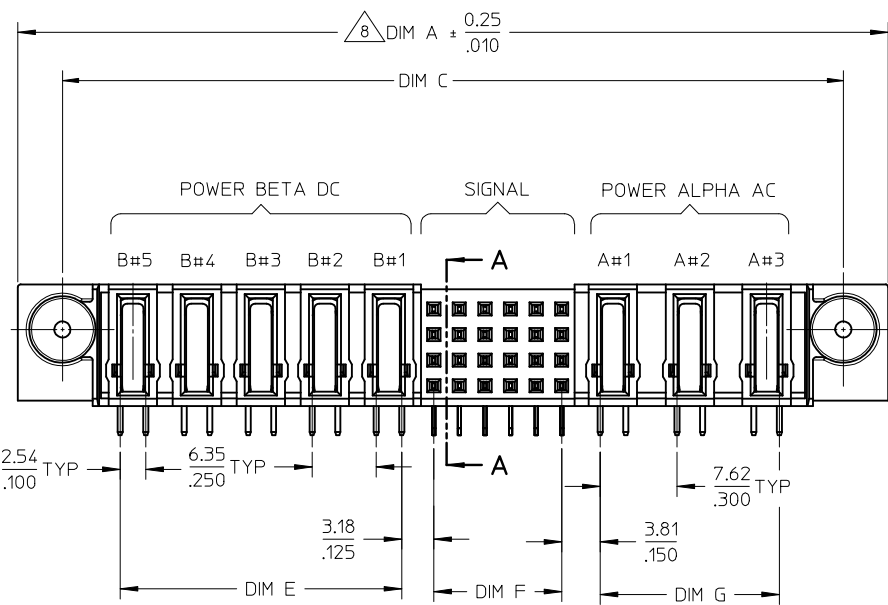
This document was generated on 06/02/2010

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10 9 8 7 6 5 4 3 2 1



ISOMETRIC VIEW
5P(DC)-24S-3P(AC) FOR
ILLUSTRATION ONLY



SECTION A-A

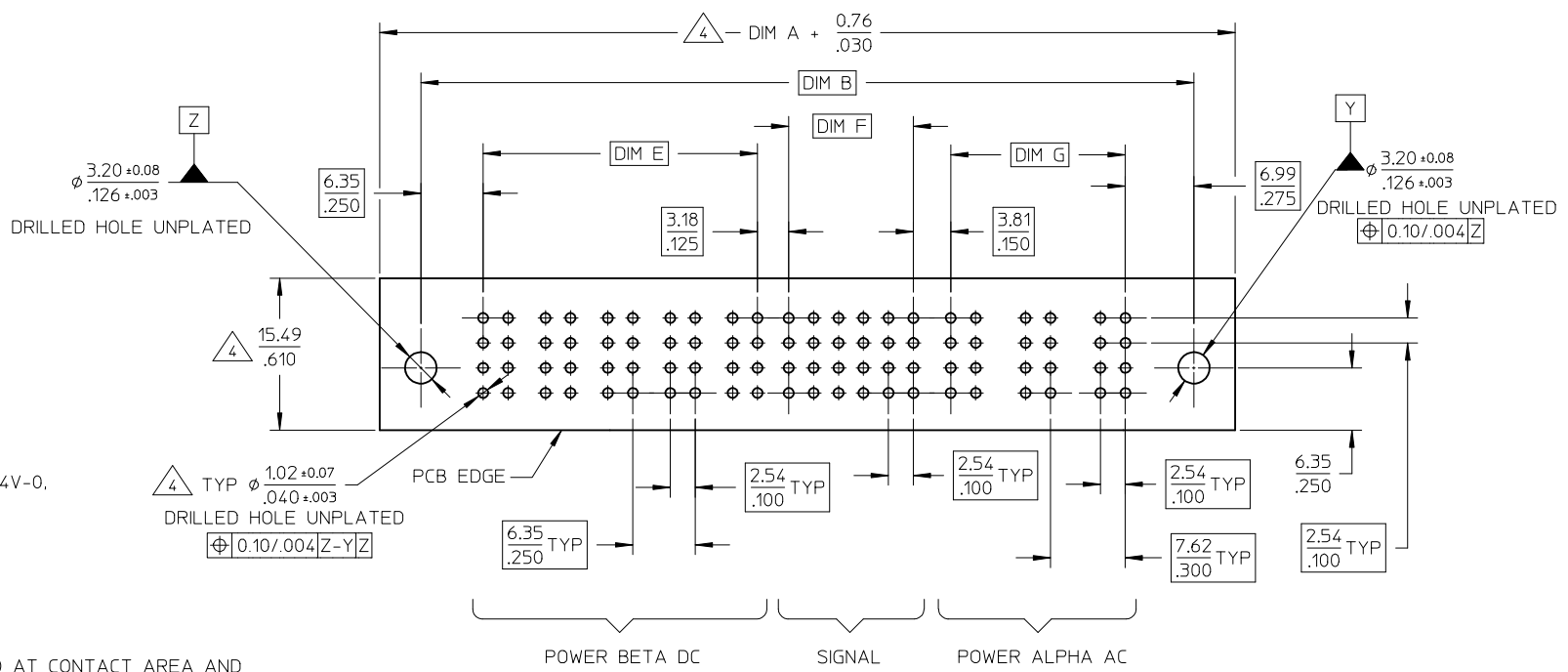
| | | | |
|-----------------------|-------------------|-------------|---------------------------------|
| CORRECT PCB HOLE SIZE | EC NO: S2009-0841 | 2009/05/06 | QUALITY SYMBOLS |
| | DRWN:SKANG | 2009/05/08 | |
| | CHKD:ATSEE | 2009/05/11 | |
| | APPR:MLONG | 2009/05/11 | |
| REV | C1 | DESCRIPTION | $\nabla=0$ $\sphericalcap=0$ |

| | | | | |
|--|----------|--------|--------|--|
| GENERAL TOLERANCES (UNLESS SPECIFIED) | mm | | INCH | |
| | 4 PLACES | ± --- | ± --- | |
| | 3 PLACES | ± --- | ± .005 | |
| | 2 PLACES | ± 0.13 | ± .010 | |
| | 1 PLACE | ± 0.25 | ± --- | |
| ANGULAR ± 3 ° | | | | |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | | | |

| | | | | |
|-----------------|---|-------------------------|--------------|------------------------|
| DIMENSION STYLE | | SCALE | DESIGN UNITS | THIRD ANGLE PROJECTION |
| MM/IN | | NTS | METRIC | |
| DRAWN BY | DATE | TITLE | | |
| NRVIT TAP | 2004/06/15 | AC/DC POWER RECEPTACLE | | |
| CHECKED BY | DATE | P(A)AC-S-P(B)DC CONFIG. | | |
| PTL IM | 2004/06/25 | R/A, T/H, S/M | | |
| APPROVED BY | DATE | MOLEX INCORPORATED | | |
| SKTOH | 2004/06/29 | MOLEX INCORPORATED | | |
| MATERIAL NO. | DOCUMENT NO. | SHEET NO. | | |
| SEE TABLE | SD-87664-021 | 1 OF 2 | | |
| SIZE | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | | |
| A3 | | | | |

9 8 7 6 5 4 3 2 1

| | | | | | | | | | | | | | |
|---|---------------------|---------------|--------|----------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------------|----------------------|-----------------------------|-----------|
| | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | | | |
| | P-S-P CONFIGURATION | | | | | | | | | | | | |
| | PART NUMBER | POWER BETA DC | SIGNAL | POWER ALPHA AC | DIM A | DIM B | DIM C | DIM D | DIM E | DIM F | DIM G | RECESSED POWER PIN LOCATION | PACKAGING |
| F | 87664-2004 | 4 | 24 | 3 | $\frac{80.01}{3.150}$ | $\frac{72.39}{2.850}$ | $\frac{71.12}{2.800}$ | $\frac{56.52}{2.225}$ | $\frac{21.59}{0.850}$ | $\frac{12.70}{.500}$ | $\frac{17.78}{.700}$ | A 2, 3 B ----- | TRAY |



- NOTES:
1. MATERIALS:-
HOUSING - LCP, GLASS FILLED, UL94V-0,
COLOUR: BLACK.
SIGNAL TERMINAL - COPPER ALLOY
POWER TERMINAL - COPPER ALLOY
 2. FINISH :-
SIGNAL & POWER CONTACTS
0.76 MICROMETER MINIMUM GOLD (Au) AT CONTACT AREA AND
2.54 MICROMETER MINIMUM TIN AT SOLDER TAIL AREA
OVER 1.27 MICROMETER MINIMUM NICKEL (Ni) UNDERPLATE.
 3. PRODUCT SPECIFICATION : PS-87663-006.

4. COMPONENT STAY AWAY FROM CONNECTOR.
5. PCB NOTE FOR DIAMETER 1.02/.040 PLATED HOLE.
- DRILLED HOLE SIZE IS 1.15/ .0453.
- PLATE WITH 0.007 / .0003 MINIMUM TIN OVER 0.03/.001
TO 0.08/.003 COPPER PLATING TO ACHIEVE 1.02+0.07/.040±.003 HOLE.
6. ALL TERMINAL TIPS ARE DESIGNED WITH EXPOSE BASE COPPER.
THIS IS CREATED BY FINAL CUTTING PROCESS AFTER PLATING.
MANUFACTURING LOGO, PART NUMBER AND YEAR-WEEK CODE.
5P(DC)-24S-3P(AC) IS SHOWN FOR ILLUSTRATION.
CONNECTOR CONFIGURATION IS AVAILABLE UP TO 203MM/8INCH.
PLEASE CONTACT MOLEX SALES PERSONNEL FOR OTHER
CONFIGURATION AND OPTION NEEDED.

| | | | | | | | | | |
|---|-----------------|--|-----------------------|-----------------|--|--|--------------|------------------------|-----------|
| CORRECT PCB HOLE SIZE EC NO: S2009-0841 DRWN:SKANG 2009/05/06 CHKD:ATSEE 2009/05/08 APPR:MLONG 2009/05/11 | QUALITY SYMBOLS | GENERAL TOLERANCES (UNLESS SPECIFIED) | | DIMENSION STYLE | | SCALE | DESIGN UNITS | THIRD ANGLE PROJECTION | |
| | ▽=0 ∇=0 | mm | INCH | MM/IN | | NTS | METRIC | | |
| | | 4 PLACES ± --- ± --- | 3 PLACES ± --- ± .005 | DRAWN BY | DATE | TITLE | | | |
| | | 2 PLACES ± 0.13 ± .010 | 1 PLACE ± 0.25 ± --- | CHECKED BY | DATE | AC/DC POWER RECEPTACLE P(A)AC-S-P(B)DC CONFIG. R/A, T/H, S/M | | | |
| | ANGULAR ± 3 ° | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | APPROVED BY | DATE | MOLEX INCORPORATED | | | |
| | | | | SKTOH | 2004/06/29 | DOCUMENT NO. | | SD-87664-021 | |
| | | | | MATERIAL NO. | SEE TABLE | | | | SHEET NO. |
| | | | | SIZE | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | | | 2 OF 2 |