

# CoolPower®



**Amphenol®**  
Now you're connected!



# Table of Contents

CoolPower <sup>®</sup> Overview .....	Page 3
CoolPower <sup>®</sup> Slim Drawer - DWR Series .....	Page 4
CoolPower <sup>®</sup> D-Sub - LCC17 Series .....	Page 7
Amphenol Power Solutions .....	Page 9
Other Amphenol Commercial Products .....	Page 11

## Amphenol Commercial Products

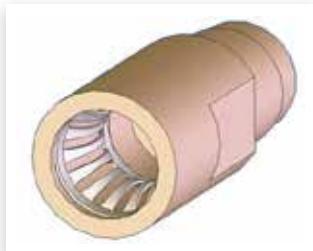


Amphenol is a global provider of interconnect solutions to the designers and manufacturers of electronic equipment worldwide. With our design creativity and cost effectiveness, Amphenol leads the way in interconnect development for internet and wireless infrastructure, enterprise networks, industrial and medical electronics and storage appliances. Whether industry standard or specific designs are required, Amphenol provides customers with products capable of performing at the leading edge of today's technology. Our expertise in understanding and supporting our customers' various design needs has earned Amphenol a reputation of excellence and quality among the world's technology leaders.

## CoolPower<sup>®</sup> Overview

Amphenol CoolPower<sup>®</sup> connectors are intended for medium and high current applications where cost and space are as critical as performance. The CoolPower<sup>®</sup> family is comprised of multiple product series with both standardized and application-specific designs. Amphenol offers a range of contact performance levels, termination styles and mechanical features.

### CoolBand



Available in sizes # 4 -16

At the heart of CoolPower<sup>®</sup> is the contact technology:

- CoolBand - High performance, cost-effective
- RADSOK<sup>®</sup> - State-of-the-art socket technology
- Low temperature rise, low contact resistance, low voltage drop
- Up to 250A per contact
- Standard gold plating or silver plating for true hot plug capabilities

### RADSOK<sup>®</sup>



## CoolPower® Slim Drawer - DWR Series

Amphenol CoolPower® Slim Drawer connectors combine performance, reliability and design flexibility with cost-sensitive features critical in today's applications. This robust blind mating interconnect solution can be made to accommodate a variety of mixed power and signal arrangements which may also require sequential mating and true hot plug capabilities. A number of mounting and termination options are also available.

### Slim Drawer features and options include:

- Power, signal and mixed contact combinations up to 8 power + 40 signal
- High current CoolBand or RADSOK® power contacts for maximum performance
- Optional sequential contact engagement (first make / last break)
- UL 1977 compliance
- Integrated alignment correction
- Available metal guide pin / float mount system for additional mating reliability
- PCB orientation features and keying to prevent improper mounting and mating



## CoolPower® Slim Drawer Ordering Code

DWR - T 8 18 P - V 2 3 3 - 0 4

Series \_\_\_\_\_  
 Product Type \_\_\_\_\_  
 T = Slim Drawer  
 Number of Power Contact Positions\* \_\_\_\_\_  
 0, 2, 4, 6, or 8  
 Number of Signal Contact Positions\* \_\_\_\_\_  
 00, 02, 04, 06, 08, 10 ... 40  
 Gender \_\_\_\_\_  
 P = Pin (Plug)  
 S = Socket (Receptacle)  
 Orientation \_\_\_\_\_  
 V = Vertical  
 R = Right Angle  
 Contact Features \_\_\_\_\_  
 2 = Coolband Size CB8, standard signal (use for signal-only arrangements)  
 3 = Coolband Size CB10, standard signal

Contact Termination \_\_\_\_\_  
 1 = Solder Cup (8 AWG power, 20 AWG signal; vertical only)  
 3 = PCB Solder Tail, .150" tail length ( $\varnothing$ .148" [3.75mm] power)  
 4 = Crimp Barrel (8 AWG power, 20 AWG solder cup signal; vertical only)  
 6 = Press-fit (for .093" PCB thickness; vertical only)

### Panel Mounting Option

- 0 = No mounting feature
- 1 = No mounting ears
- 2 =  $\varnothing$ .128" [3.25mm] clear hole
- 4 = #4-40 Threaded hole
- 6 = M3 Threaded hole

### PCB Mounting Option

- 0 = No mounting feature (vertical orientation)
- A = Bracket with  $\varnothing$ .128" [3.25mm] clear hole (right angle only)
- B = Bracket with arrow-head board lock (right angle only)

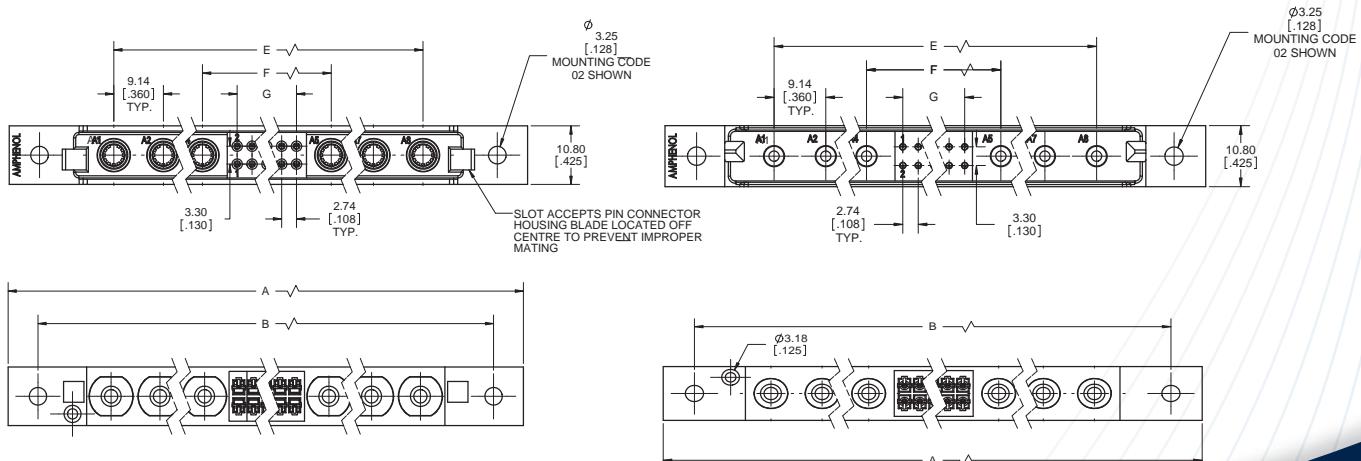
### Plating Options

- 2 =  $15\mu$ " gold
- 3 =  $30\mu$ " gold
- 6 =  $200\mu$ " silver power,  $15\mu$ " gold signal

\* A minimum of 2 power contacts or 10 signal contacts are required in non-mixed contact arrangements  
 Consult factory for additional options

Number of Positions		Maximum Dimension (inch [mm])						
Power	Signal	A	B	C	D	E	F	G
2		4.07 [103.48]	3.63 [92.30]	3.37 [85.52]	3.14 [79.76]	2.56 [64.92]		
4		4.79 [121.77]	4.35 [110.59]	4.09 [103.81]	3.86 [89.04]	3.28 [83.21]		
6	Up to 40	5.51 [140.06]	5.07 [128.88]	4.81 [122.10]	4.58 [116.33]	4.00 [101.50]		
8		6.23 [158.34]	5.79 [147.17]	5.53 [140.39]	5.30 [134.62]	4.72 [119.79]	2.56 [64.92]	2.05 [52.12]

Consult factory for detailed specifications and dimensions



## CoolPower® Slim Drawer Specifications

### Materials

Housing: High temperature thermoplastic, UL 94V-0

Contacts: PhBz signal, gold over nickel on mating area, matte tin on termination end

Copper alloy power pins, gold or silver over nickel all over BeCu / TeCu sockets, gold or silver over nickel all over

Hardware: Steel or brass, nickel plated

### Available Documentation:

Product Specification S6031C

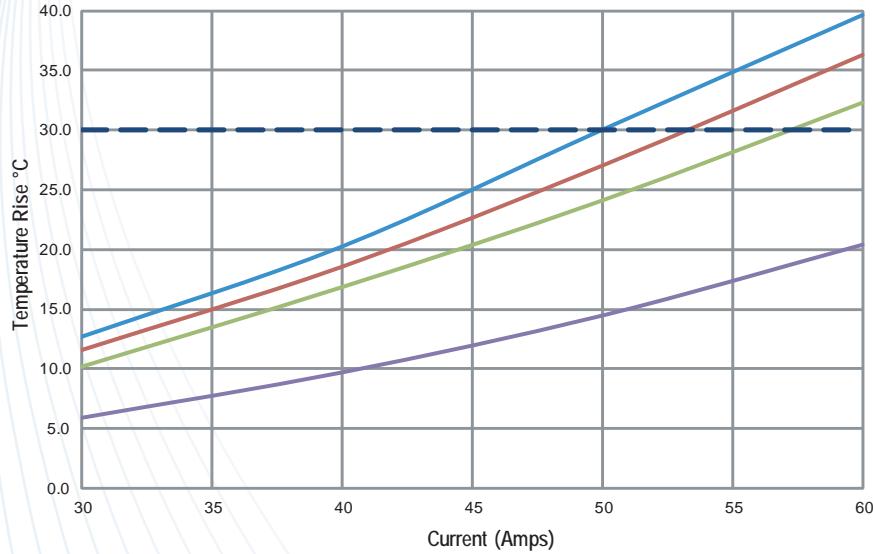
QTP 9300444

QTR 9300444

### Performance Ratings

Current Rating:	Power up to 60 A
	Signal 5 A
Contact Resistance:	Power 0.25 mΩ max
	Signal 20 mΩ max
Insulation Resistance:	5000 MW max
Dielectric Withstanding Voltage:	2500 V DC
Operating Temperature:	-55°C to 105°C
Durability:	250 mating cycles
UL File:	E64911
CSA / TÜV:	Pending

### CoolPower® Slim Drawer - Temperature Rise vs. Current



## CoolPower® D-Sub - LCC17 Series

Amphenol CoolPower® D-sub connectors offer the familiar shape and functionality of a combination D-subminiature connector with high current, high performance Amphenol CoolBand contact technology. The LCC17 series is intended for use in higher amperage power supply and distribution applications where the current handling capabilities of typical combo D-sub connectors is insufficient.

LCC17 features and options include:

- Fully interchangeable with standard D-subs\*
- High current CoolBand or RADSOK® power contacts for maximum performance
- 3W3 contact arrangements, male and female
- PCB solder tail, solder cup, crimp terminations

\* CoolPower D-sub male and female connectors must be used together.



## CoolPower® D-Sub Ordering Code

LCC17 - A3W3 P A - 2 N 0

Series \_\_\_\_\_

Shell Size and Contact Arrangement  
A3W3 = 3W3 Arrangement

Gender \_\_\_\_\_  
P = Pin (Plug)  
S = Socket (Receptacle)

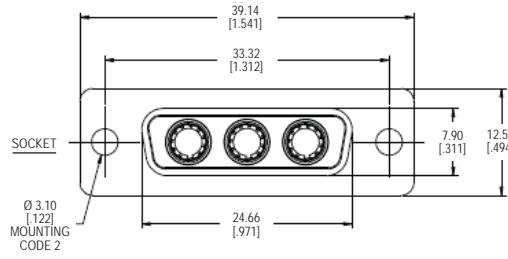
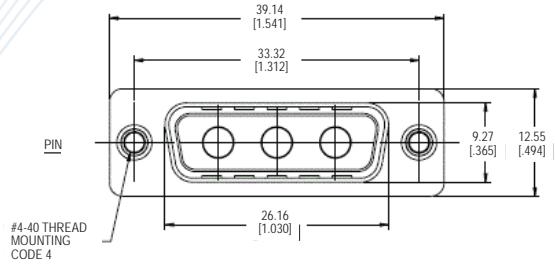
Contact Termination \_\_\_\_\_  
A = Right Angle PC Tail  
E = Vertical PC Tail  
F = Crimp  
M = Solder Cup

Modifier  
0 = Standard

Special Identifier  
N = Standard / Non-filtered

Mounting Option  
2 = .122" [3.10mm] Diameter clear mounting hole  
4 = # 4-40 threaded mounting hole  
A = # 4-40 threaded stand-off with board lock  
(vertical PCB mount only)

Consult factory for additional options and detailed specifications



## CoolPower® D-Sub Specifications

### Materials

Housing: High temperature resistant nylon, UL 94V-0, black

Contacts: Power - Copper alloy, gold over nickel

Signal\* - PbBz, gold over nickel on mating area

Hardware: Nickel Plated Steel or Brass

### Performance Ratings

Current Rating: Power 55 A

Signal\* 5 A

Contact Resistance: Power 0.25 mΩ max

Signal\* 20 mΩ max

Insulation Resistance: 5000 MΩ max

Dielectric Withstanding Voltage: 1500 V DC

Operating Temperature: -55°C to 105°C

Durability: 250 mating cycles

\*First available LCC17 part numbers are 3W3 arrangements without signal contacts  
UL, CSA, TÜV approvals pending

## Amphenol Power Solutions



Amphenol offers a variety of standard and application-specific power interconnect solutions for different mechanical and electrical needs. Amphenol Power Solutions design capabilities are both flexible and cost sensitive. Available products can be modified to fulfill virtually any requirement. Unique solutions are always considered. Please contact your local Amphenol representative for more information.

### Specialized Drawer Connectors

Amphenol's design flexibility allows us to offer non-standard variations of Slim Drawer. Modifications may include larger diameter power contacts, atypical contact arrangements or enhanced mechanical features. We also have the ability to develop unique solutions with either CoolBand or RADSOK® power contacts and competitive equivalents to legacy Drawer connectors.



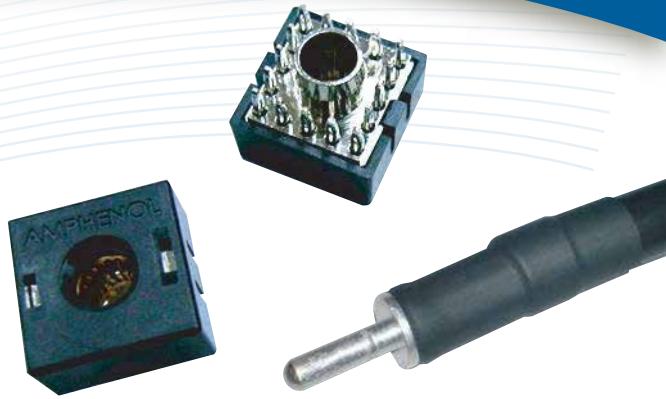
### FCC22 Line Card Power

Amphenol Line Card power connectors are a cost effective, efficient power distribution interconnect solution bringing power from the supply to the line card. FCC22 is intended to meet very specific application requirements at minimal cost.



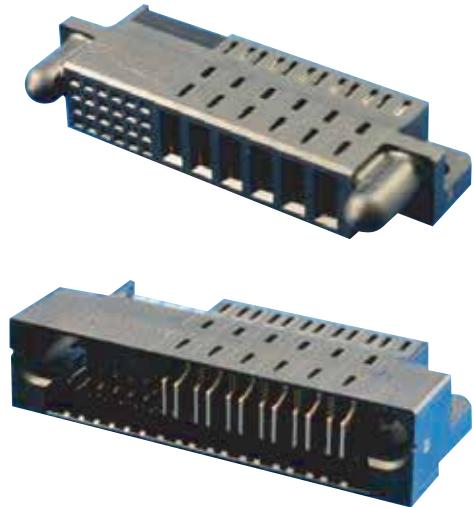
## RPS Power Block

The RPS Power Block system is an application-specific, variable height board-to-board solution for power distribution and control. RPS is designed for current handling requirement between 15 and 150 amperes.



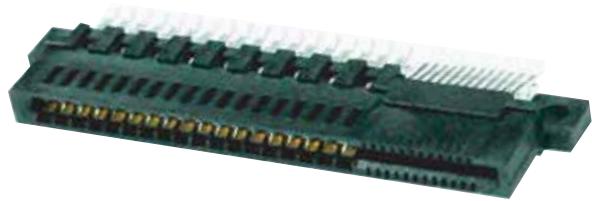
## Energy Razor®

Intended for power supply, distribution and control in server, storage and telecommunications applications, Energy Razor® is a competitive mixed power and signal solution designed to handle up to 30 amperes per blade contact.



## Energy Edge®

Amphenol's card edge power connector series is designed to handle up to 9 amperes per power contact. Like Razor®, the Edge® series is intended for server, storage and networking & telecom applications.



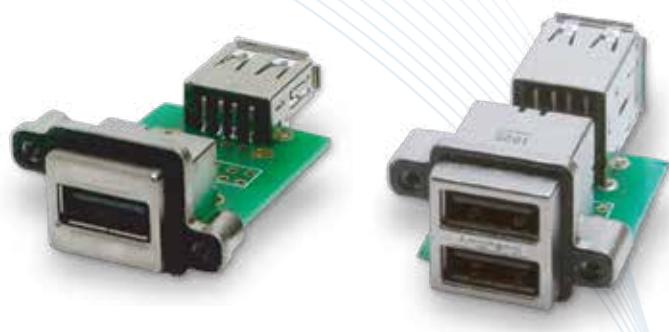
## Amphenol Commercial Products



Amphenol Commercial Products/Amphenol Canada Corp. offers a wide range of commercial products in order to get you connected. Our activities are dedicated to the design, development and manufacturing of interconnect products intended for use in various electrical and electronic devices. For more information on other Amphenol Commercial Products such as Harsh Environment Connectors, Modular Jacks and Filtered Connectors, please visit [www.amphenolcanada.com](http://www.amphenolcanada.com) for details.

### Harsh Environment Connectors

Amphenol offers superior harsh environment connectors for use in the data communications and telecommunication markets. Discover how you can provide your customers with the needed environmental sealing on the widely used connector standard for RJ, all within the standard package size.



### Modular Jacks

Amphenol's broad range of I/O registered jacks (RJ) offer solutions to meet the increasing demand for faster speeds and greater bandwidth required by telecom & networking markets for VoIP, Ethernet, WLAN, and other applications. With the variety of available options coupled with exceptional performance and reliability, Amphenol has the solution for your RJ requirements.



### Filtered Connectors

Amphenol manufactures a complete line of filter D subs used in all market segments. Our filter connectors are unique, offering stress-isolated, solder-less technology in the chip capacitor design. Our expertise in understanding and supporting our customer's filter connect needs has earned us a reputation of quality and excellence among the world's leading users of electronic components.



## **CoolPower® Connectors**

Phone: 416.291.4401

Fax: 416.754.8668

E-mail: [sales@amphenolcanada.com](mailto:sales@amphenolcanada.com)

[www.amphenolcanada.com](http://www.amphenolcanada.com)

605 Milner Avenue, Toronto, ON M1B 5X6

**Amphenol®**  
Now you're connected!

