

# AMPHENOL INDUSTRIAL OPERATIONS POWER SOLUTION



### Pre Gen Design

- Brass Construction
- 80A/700V
- **120K** pcs shipped

2008-2014

TVS

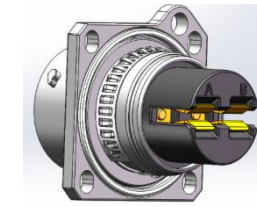


### First Gen Design

- Brass Construction
- 26A/60V & 10A/400V
- **5.9M** pcs shipped

2011-2018

BTS

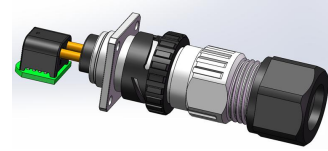


2014-2022

OBTS

#### Optimization

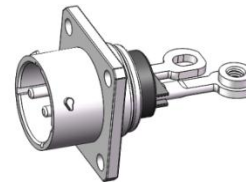
- Zinc-Cast Construction
- 26A/60V & 10A/400V
- IP65 mating
- **13.5M+** pieces shipped



2017-2023

**5G OBTS**  
High power

- RADSOK utilized
- IP65 un-mating
- 55A/60V & 70A/60V
- **5.3M** pieces



2021-2025

OBTS

**Simplified**

#### Easy installation

- installation cost reduction
- wire consolidation
- backward high/low power compatible
- Commercialization 2<sup>nd</sup> half 2021

Ongoing

2021-2025

**Small cell BTS**  
Low power

- installation cost reduction
- Small size
- wire consolidation
- 2 and 3 wire consolidation

**80A high power**

- installation cost reduction
- Radsok utilized

**Alu wire DC plug**

- installation cost reduction
- consolidation

Total **24.5M** pcs shipped Average annual **2.5M** pcs Peak level **4.6M** pcs(2018)

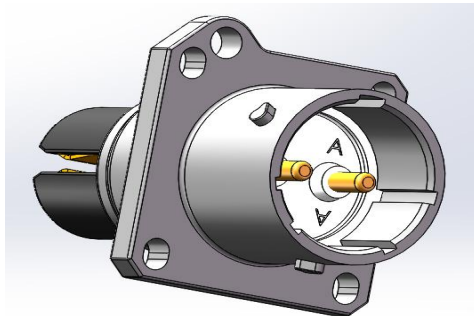
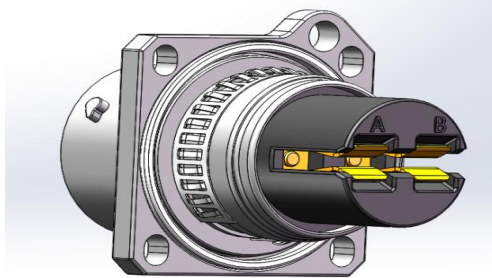
 Telecom Market Connection Solution

# O-BTS Series 4G low power

## Features & Benefits

- Circular connector, based on mil-c-26482
- Bayonet locking mechanism, guarantees strong vibration and shock resistance
- Tin over nickel plated finish version provides 360 degree EMI shielding with grounding fingers
- Working temperature of -40c to + 120c
- 30u" gold plated crimp contacts or silver plating depending current
- Receptacles supplied with various termination version
- Excellent lightning performance due to low resistance of the connector body
- High salt spray resistance according to iso21207 method b 5
- IP67 rated in mated condition
- Min 500 mating cycles guaranteed
- Plugs use screw termination contacts for field installation
- UL approved according to UL1977
- TUV approved according to iec-61984 and iec-60950-22

## CHASIS 2 WAY CONNECTOR GOLDEN FINGER



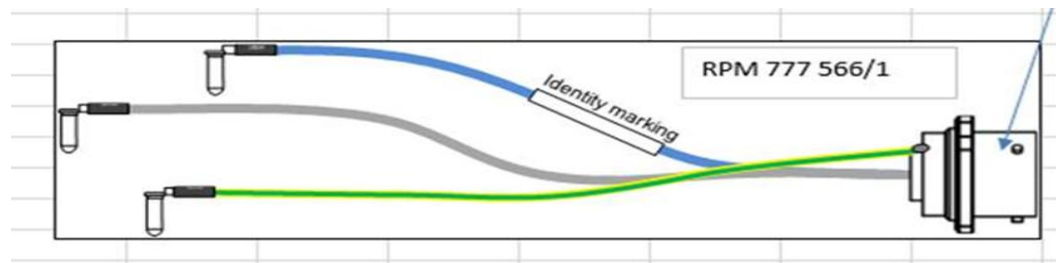
### Features& Benefit:

- 35A
- IP65 unmated
- Backward compatible for low current plug
- Goldfinger direct mating connection to PCB

# CHASSIS CONNECTOR-CABLE TERMINATION

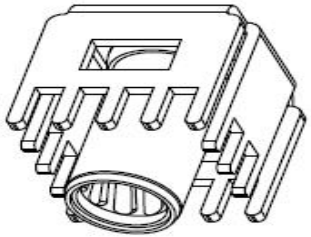


- TVS/BTS 2 WAY CHASSIS RECEPTACLE
- JONSON RING AND ROUND ORING
- 31x31MM FLANGE
- IP65 SEALED UNMATED IF NECESSARY
- IP67 IN MATED CONDITION IP65 UN-MATED
- CRIMP CONTACTS FOR 6MM<sup>2</sup>
- 3<sup>RD</sup> WIRE SOLDERED TO SHELL OR OPTION TO TERMINATE A 3<sup>RD</sup> WIRE THROUGH SOME KIND OF RING

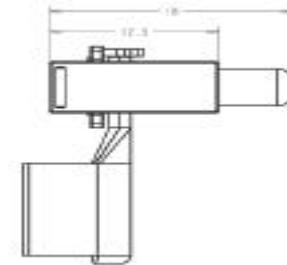
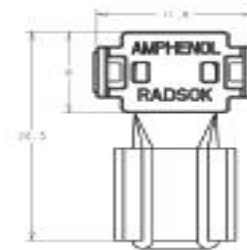




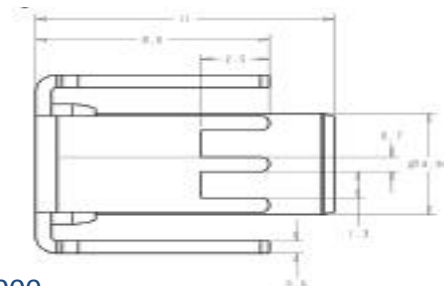
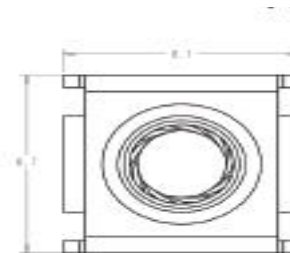
# PCB CONNECTOR



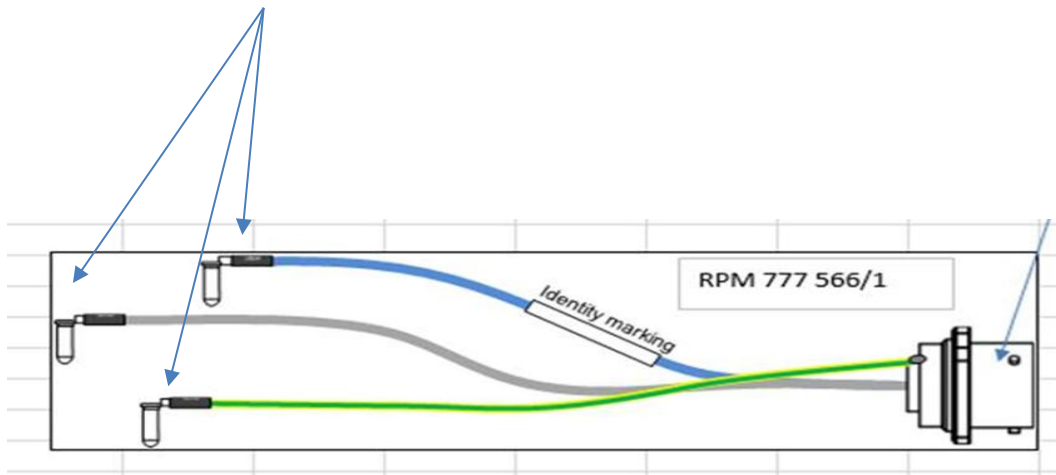
- WTD RADSOK 3,6MM
- WTB PIN CRIMP



10-729922-000



10-7299230-000

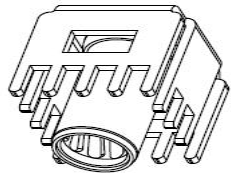


# DESIGN PROPOSAL

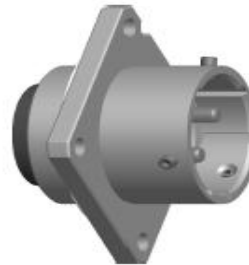
- 3 X PCB CONNECTOR 3,6MM RADSOK® WTD TYPE
- CHASSIS RECEPTACLE WITH JONSON RING AND O-RING
- SPECIAL KEYING TO AVOID CROSS MATING



WTB CRIMP PIN CONTACTS WHICH  
MATE TO 3,6MM WTB SOCKET



WTB RADSOK PCB CONTACTS  
3,6MM RADSOK



RECEPTACLE PANEL CONNECTOR  
WITH JONSON RING, ORING AND  
CRIMP CONTACTS FOR 6MM<sup>2</sup>  
OPTION FOR RD WIRE TERMINATION  
OR SOLDERED TO SHELL

# STANDARD 2 WAY CABLE PLUG



## Features& Benefit:

- 60VDC&26A WITH HOT PLUG/40 A WITHOUT HOT PLUG
- STANDARD 2 TINES SOCKET
- SCREW FIELD INSTALLABLE
- WIRE 2,5-10MM<sup>2</sup> OR 10-16MM<sup>2</sup> WITH LARGER BACKSHELL
- CABLE SEALING OD FROM 6-18MM



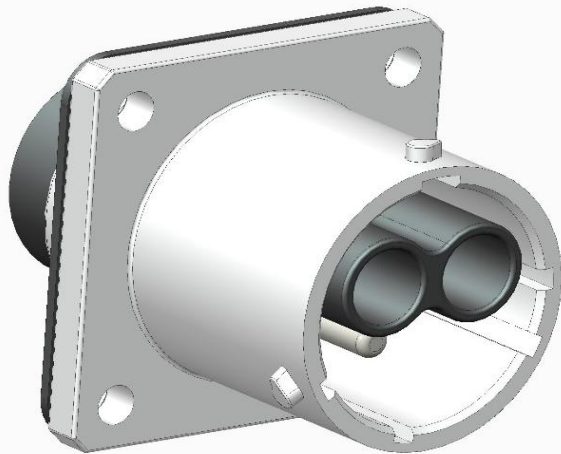
# STANDARD 3 WAY CABLE PLUG



## Features& Benefit:

- Up to 26A/250V AC 400V DC
- IP67 MATED
- Cable crimp termination 10-16 AWG

# STANDARD 3 WAY CHASSIS RECEPTACLE



## Features& Benefit:

- Up to 26A/250VAC 400V DC
- IP67 mated
- Cable crimp termination 12-18 AWG

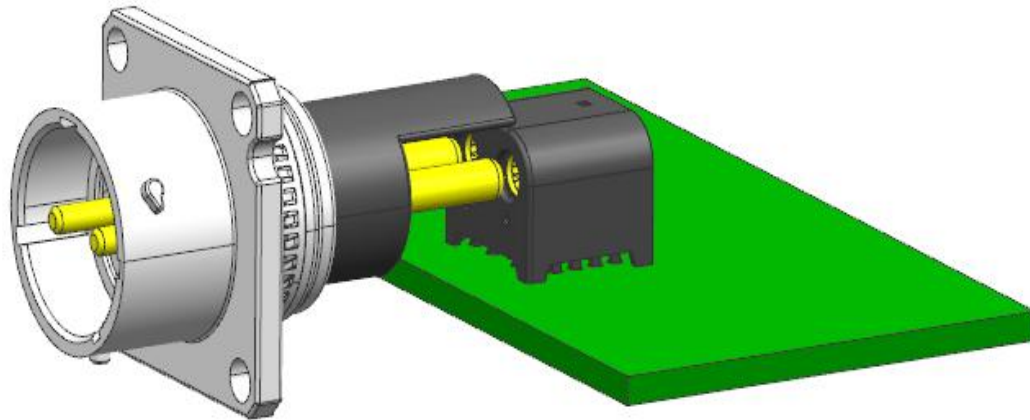
 Telecom Market Connection Solution

# O-BTS High Power Series

## Features & Benefits

- ☐ Circular connector, based on mil-c-26482
- ☐ **High current capability up to 80A**
- ☐ Bayonet locking mechanism, guarantees strong vibration and shock resistance
- ☐ Tin over nickel plated finish version provides 360 degree EMI shielding with grounding fingers
- ☐ Working temperature of -55c to + 105c
- ☐ **Sliver plating contacts**
- ☐ **Excellent lightning performance 20KA**
- ☐ **High salt spray resistance according to GR-3108-Core R6-4**
- ☐ **85/85 test according to IEC-68-2-67 2000 hours**
- ☐ **IP67 rated in mated condition IP65 un-mating condition**
- ☐ Min 500 mating cycles guaranteed
- ☐ Plugs use screw termination contacts for field installation
- ☐ UL approved according to UL1977
- ☐ TUV approved according to iec-61984 and iec-60950-22

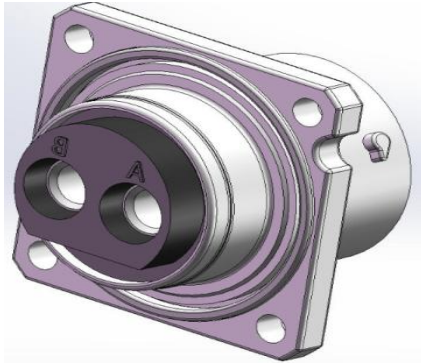
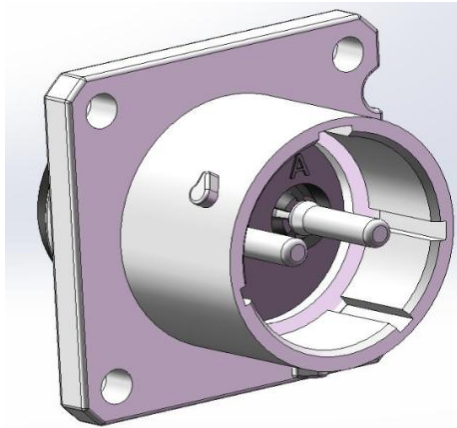
# DOUBLE MATE DIRECT TO BOARD CONNECTOR



## Features& Benefit:

- 55A
- Backward compatible for low/high current
- Termination: direct to Board
- Mate pair( chassis connector+ PCB connector)

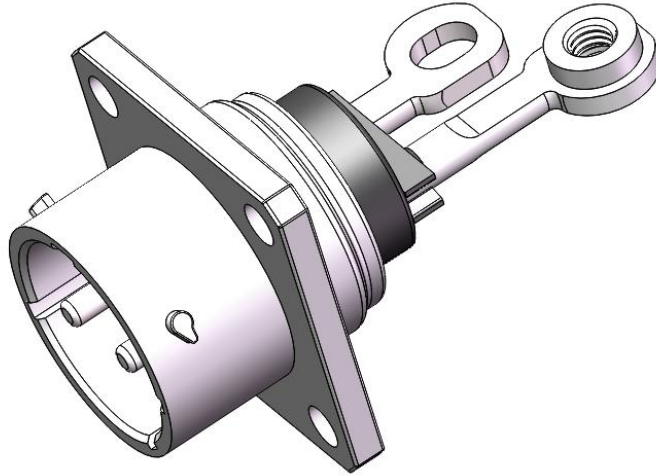
# 2 WAY CHASSIS RECEPTACLE



## Features& Benefit:

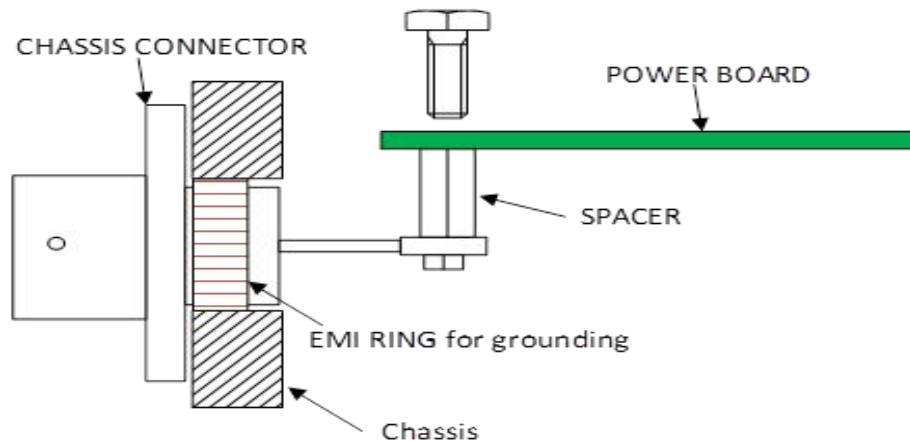
- 55A and 70A
- IP65 unmated
- Backward compatible for low/high current
- Cable crimp termination 6-10mm<sup>2</sup>

## BUSBAR VERSION



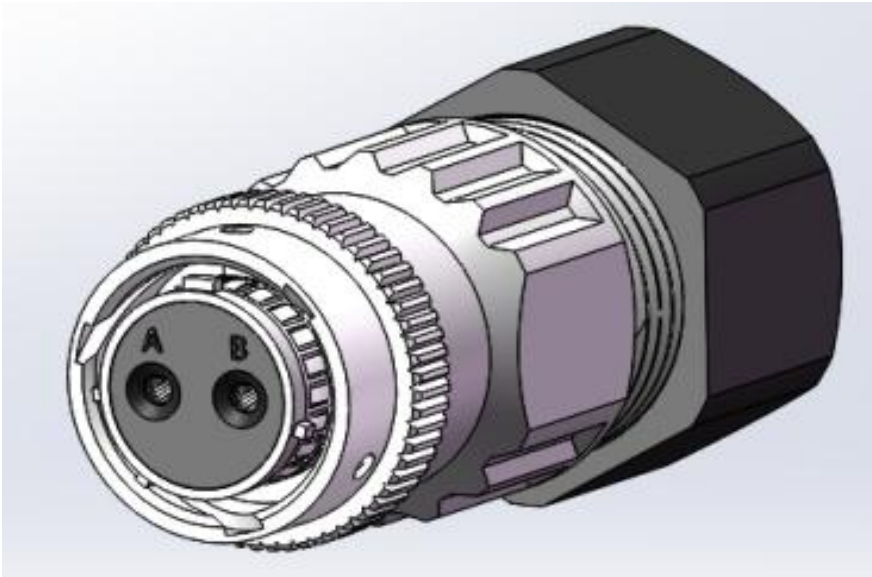
### Features& Benefit:

- 55A/70A
- IP65 unmated
- Backward compatible for low/high current
- Termination: Busbar





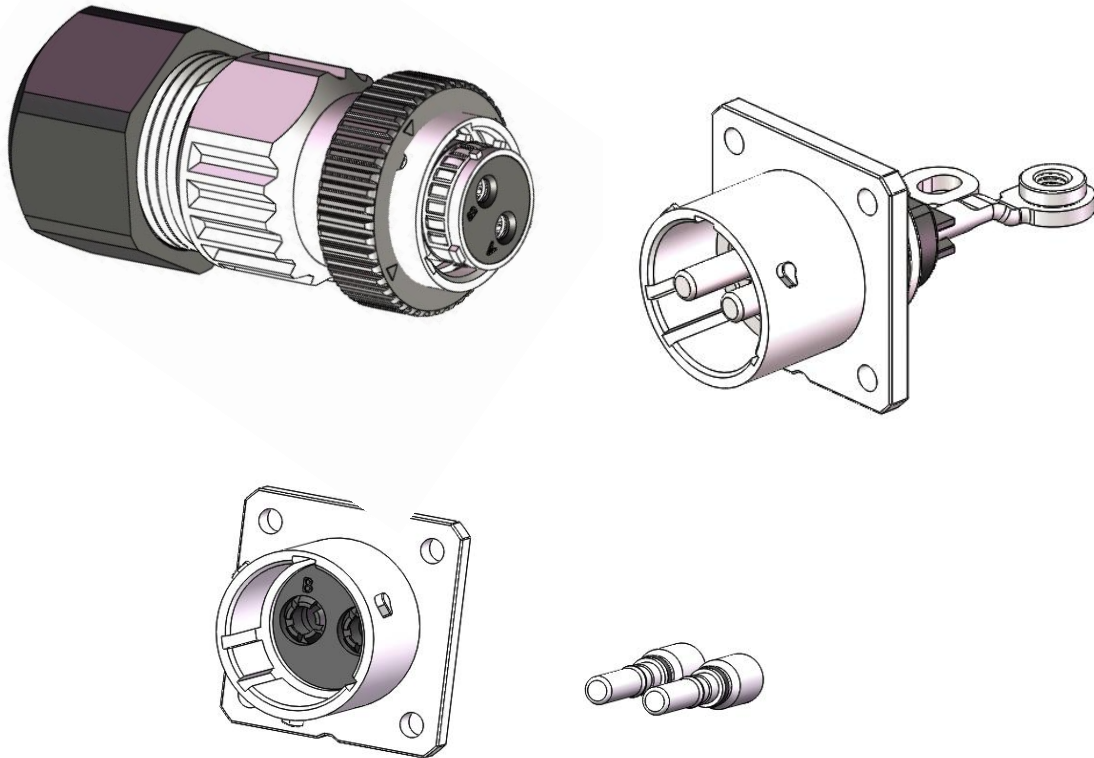
# High power 2 way cable plug



## Features& Benefit:

- 55A/ 60 VDC
- 2,4 MM RADSOK® SOCKET SCREW CONTACT
- FIELD INSTALLABLE
- WIRE 6-10 MM<sup>2</sup>OR 10- 16MM<sup>2</sup> UNDER EVALUATION
- CABLE SEALING FROM 6-21.5MM OD
- SPECIAL KEYWAY TO AVOID CROSS MATING

# 70A HIGH POWER CONNECTOR

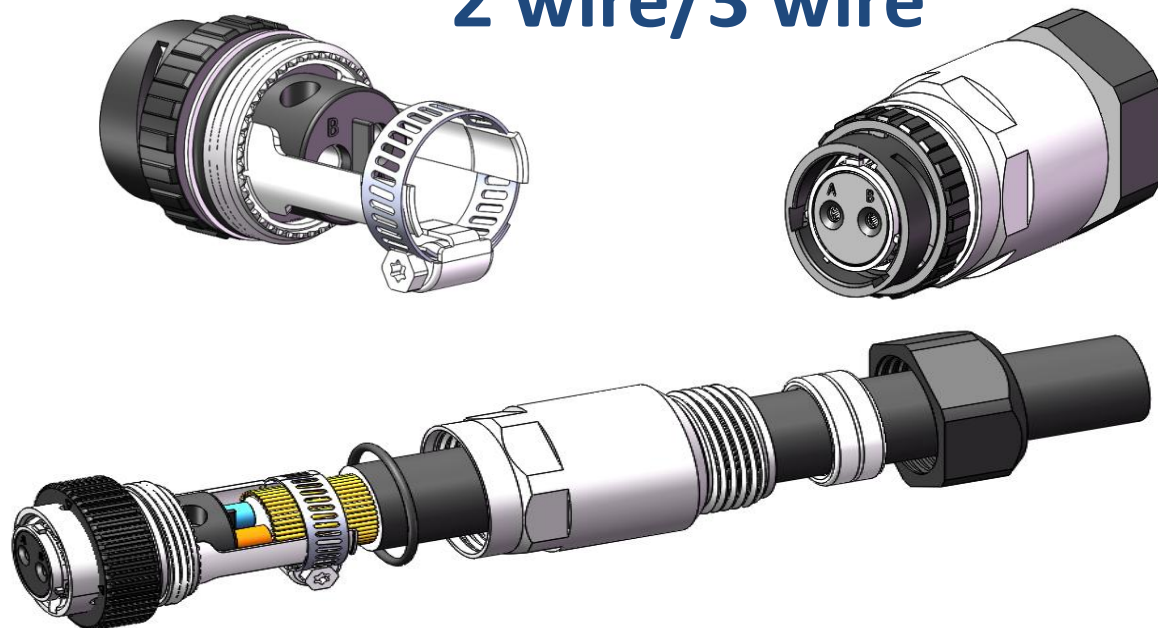


## FEATURE & BENEFIT

- 70A / 60 VDC
- 3.6MM RADSOK® SOCKET SCREW CONTACT
- FIELD INSTALLABLE
- WIRE 10- 16MM<sup>2</sup>
- SIMPLIFIED SHIELDING FIELD INSTALLATION
- CABLE SEALING FROM 10-21.5MM OD
- BUSBAR OR CRIMP TERMINATION

# 5G High Power Plug

## 2 wire/3 wire

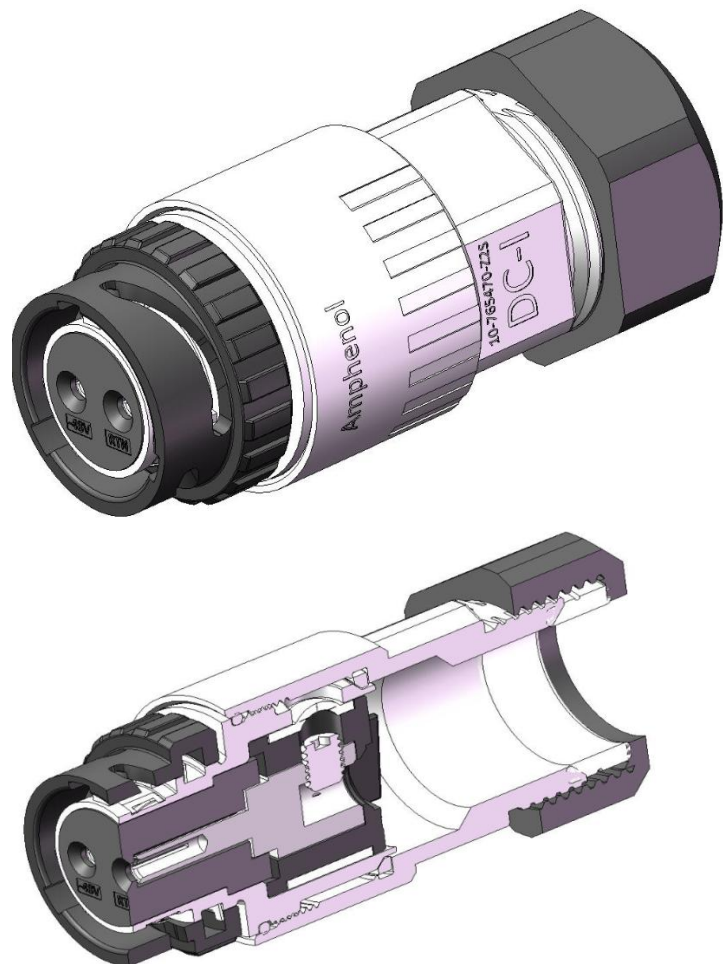


### Features& Benefit:

- Simplified field installation
- 60% Faster and easier to assemble
- Excellent Shielding performance
- Size consolidation to accommodate wire gauge **2.5-16mm<sup>2</sup>**

Items	Advantage VS Current Version
Cable retention force	50% better due to hose clamp strength
Installation time	25% quicker
Shielding braid handle	No need to splay the shield No need to carefully align
Short circuit risk	Much lower
Size & length	10%+ saving
contact configuration	1 piece design less production variation

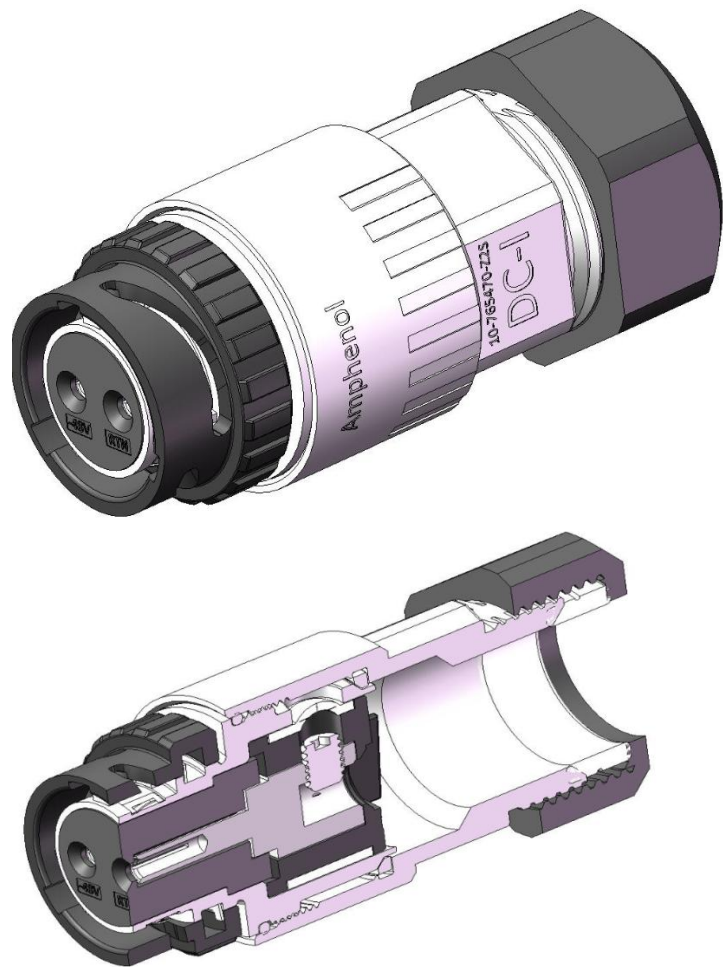
# 55A DC POWER PLUG



## Features& Benefit:

- Easy to install in the field and site
- Hot plug is accepted
- Mistake proof due to flexible silicone rubber feature
- Size consolidation to accommodate wide range of wire gauge **2.5-16 mm<sup>2</sup>**
- Backward compatible for low/high current
- Up to 65A with changing contact material

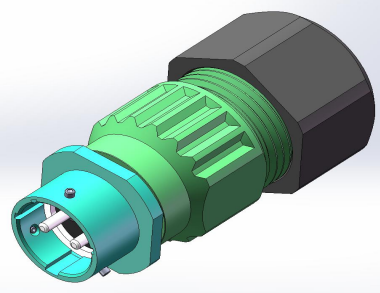
# 55A DC POWER PLUG



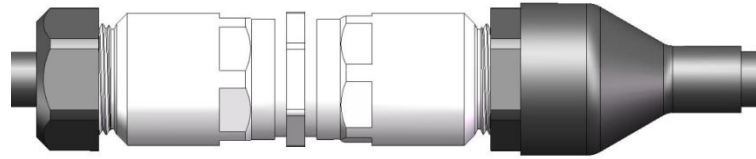
## Features& Benefit:

- Easy to install in the field and site
- Hot plug is accepted
- Mistake proof due to flexible silicone rubber feature
- Size consolidation to accommodate wide range of wire gauge **2.5-16 mm<sup>2</sup>**
- Backward compatible for low/high current
- Up to 65A with changing contact material

# OTHER APPROACHES



Inline  
receptacle

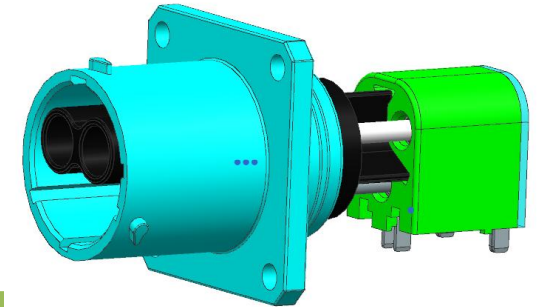


Inline splice

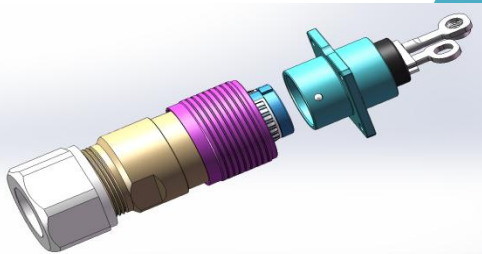
## Features & Benefit:

- Simplified field installation
- Various interfaces and mating styles
- Compact design to save space/weight
- Size consolidation for wider range of wire gauge
- Alu wire is accepted

Double mate 3 way

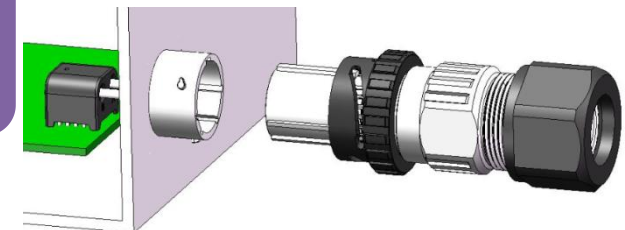


Push pull coupling



Feed through

## Dummy receptacle





תודה  
Dankie Gracias  
Спасибо شكراً  
Merci Takk  
Köszönjük Terima kasih  
Grazie Dziękujemy Děkojame  
Ďakujeme Vielen Dank Paldies  
Kiitos Täname teid 谢谢  
**Thank You** Tak  
感謝您 Obrigado Teşekkür Ederiz  
Σας Ευχαριστούμ 감사합니다  
Бодхон  
Bedankt Děkuje vám  
ありがとうございます  
Tack