

SPEC PAK[®]

Solar 5 Position Mid Power

- Solar Power • Wind Power • DC Lighting • Inverters • Battery Backup • IP68 Rated
- LED Lighting • Solar Panels • Combiner Boxes • Hydro-Electricity • Micro Inverters



APP
Anderson Power Products[®]

An **IDEAL** Company

SPECIFICATIONS

UL6703 MECHANICAL

| | | | |
|------------------------------|---------|-------------|--------------|
| Operating Temperature | UL 6703 | -40 to 90°C | -40 to 194°F |
|------------------------------|---------|-------------|--------------|

Electrical

| | | | |
|---------------------------------|-------------------|-------------------|--|
| Current Rating (Amperes) | UL 6703 | | |
| 8 AWG | 37A | | |
| Voltage Rating | 600V | | |
| Grounding | UL 2238, Sec 37.8 | UL Tested | |
| Environmental Seal | UL6703 | IP68 (mated only) | |

UL1977 MECHANICAL

| | | | |
|--------------------------------------|--------------------------|---------------------|--------------|
| Environmental Seal | IEC 60529 | IP 68 | |
| | UL 50E | UL Approved | |
| Wire Size | 8 AWG | 8.4 mm ² | |
| Operating Temperature | UL 1977 | -40 to 105°C | -40 to 221°F |
| Mating Cycles (no load) | 250 min | | |
| Mating Force (nominal) | 28 lbf | 125 N | |
| Unmating Force | 12 lbf | 53 N | |
| Contact Retention Force (min) | 50 lbf | 222 N | |
| Touch Safe (IEC 60529) | IP 20 (female side only) | | |
| Enclosure Ratings | UL 50E 4/4x * | | |

Electrical

| | | |
|-------------------------------------|-------------------|-----------|
| Current Rating (Amperes) | UL 1977 | CSA |
| 8 AWG | 60A | 40A |
| Voltage Rating | UL 1977 (AC/DC) | 600V |
| Grounding | UL 2238, Sec 37.8 | Impedance |
| Contact Resistance (average) | 0.300 Milliohms | |

* Need stainless hardware- type 304 or 316

MATERIALS

| | |
|---|------------------------------|
| Shell, Housing & Sealing Nut | PC / PBT |
| Lanyard | Nylon / Polyester |
| Contact Holders | PBT- GF |
| Contact Retention Clip | Be-Cu |
| Latch / Screws | Stainless Steel |
| Panel Gasket | Silicone |
| Sealing Gland | EPDM |
| Flammability | UL94 V-0 |
| Glow Wire | 960°C (GWFI) 825°F (GWIT) |
| Weatherability | UL 746C F1 |
| Sockets | Copper |
| SC08-GH | Ag plating over Ni |
| SC08-SN | Ag plating over Ni |
| Pins | Copper |
| PP08SGH | Ag plating over Ni |
| PC08SSN | Ag plating over Ni |

Silver = Ag Nickel = Ni

IEC 61984

ATTRIBUTES

| | |
|--|--|
| AMP Rating AC | 60A |
| Voltage Rating AC | 800V AC (operational) |
| Finger Safety ** | IEC 60529 |
| Protection Degree | IP20 Unmated, IP68 Mated |
| Wire Size Tested | 8 AWG |
| Contact Series Tested | PC08SSN, PP08SGH SC08-SN, SC08-GH |
| Climatic Testing (Cold, Heat & MFG) | IEC 60512 Test -11j, 11i & 11g |
| Cycle Life | IEC 60512 Test 9A- 5000 Cycles |
| Mechanical Strength Impact | IEC 60512 @ 29.5 Inches - dropped 8 times |
| Temperature Range | -40 to 105°C, -40 to 221°F |

PROTECTION

Touch Safety with Finger Proof Housings & Wire Contacts

* In mated and unmated condition, for standard 8 AWG wire contacts (only)

** Female side unmated

IEC 60950-1

| | |
|---|-------------------------|
| Creepage / Clearance per IEC 60950-1 | 9.55 (mated or unmated) |
| Material Group | IIIa |

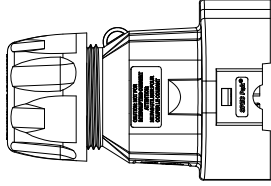
* In mated and unmated condition, for standard 8 AWG wire contacts (only)

** Female side unmated

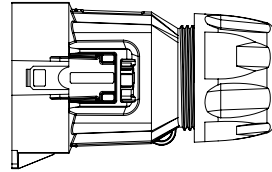
ORDERING INFORMATION

SPEC Pak® is a highly configurable environmentally sealed connector. For convenience, follow the steps below to determine component part numbers.

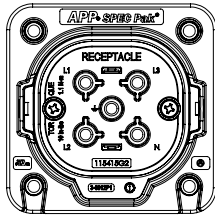
Step 1: Select Shell



PK1-076D05
Inline Receptacle Shell



PK6-076D05
Plug Shell

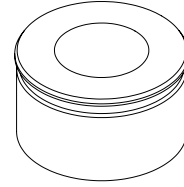


PK2-076D05
Panel Mount Receptacle & Gasket

| Description | Part Numbers |
|---------------------------------|-------------------------------|
| Minimum Quantity | 25 |
| Inline Receptacle Shell | PK1-076D05 |
| Plug Shell | PK6-076D05 |
| Panel Mount Receptacle & Gasket | PK2-076D05 |
| Receptacle Cover Kit | PK9-076 (shown on back page) |
| Plug Cover Kit | PK9P-076 (shown on back page) |

- Contact holders are available with multiple keys, please inquire.

Step 2: Select Sealing Gland



* Define:

| | Number of Wires | Wire OD |
|------------|-----------------|---------|
| Wires | | |
| - Discrete | _____ | _____ |
| - Bundled | _____ | _____ |

- * Select wire protection that will accommodate the number of wires and outer diameter (OD) of the wire used in your application.
- * Wire protection is required for use with inline receptacle shell (PK1-076D05) and plug shell (PK6-076D05) to obtain IP68 seal.

| Number of Holes | Cable Range Wire Outer Diameter mm (in) | Sealing Grommet Part Number Only |
|------------------|---|----------------------------------|
| Minimum Quantity | | 10 |
| 1 | 20 mm (0.79) | B02266P7 |

- For other wire configurations contact manufacturer

Wire Test Approval

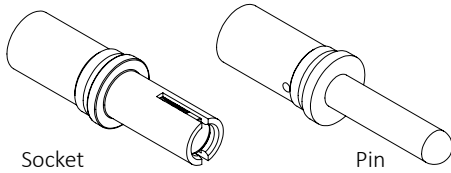
- Type TC-ER, 8 AWG 5/C sunlight resistant
- Rated minimum 90°C dry: 90°C wet
- 600V with outer diameter of cord 20 mm (0.79)

Torque Requirements

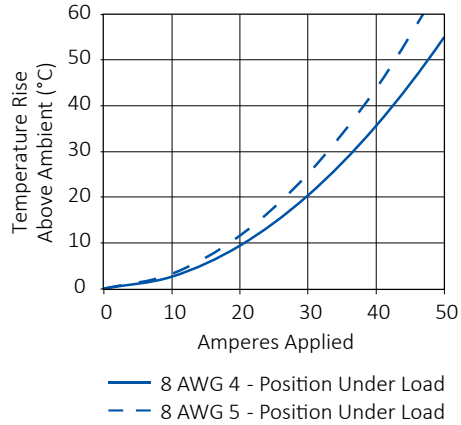
- Hand tighten. Using a 44 mm wrench or strap wrench, tighten an additional 3/4—1 turn.
- 7.9 Nm (70 in-lb)

Step 3: Select Contacts

TEMPERATURE CHART - PER UL 1977



Solar 5 Position Mid Power SPEC Pak®
Temperature Rise at Constant Current



* Define:

| | Number of Circuits | Wire Gauge |
|----------|--------------------|------------|
| Contacts | | |
| - Power | _____ | _____ |
| - Other | _____ | _____ |

Amps (continuous): ____ Max amps at ____ Volts

* Select power and/or ground contacts appropriate for your wire size (AWG or mm²)

- Sockets are used in the receptacles (part numbers PK1-076D05 & PK2-076D05)
- Pins are used in the plug (part number PK6-076D05)
- Solid wires not recommended

| Description | Part Numbers |
|---|--------------|
| Minimum Quantity | 10 |
| Power Drawer® 8 AWG Socket Crimp, Hot Plug/Ground | SC08-GH |
| Power Drawer® 8 AWG Socket Crimp, Standard Mate | SC08-SN |
| Power Drawer® 8 AWG Pin Crimp, Hot Plug/Ground | PP08SGH |
| Power Drawer® 8 AWG Pin Crimp, Standard Mate | PC08SSN |

TOOLING INFORMATION

| Wire Size | | Part Number | Description | Crimp Tools | | | | | | |
|-----------|-----------------|---------------|---|----------------------|--------|-----------|----|--------------------|-------------|-------------|
| AWG | MM ² | Power Contact | | Pneumatic Bench Tool | + Die | + Locator | OR | Daniels Mfg Tool * | | |
| | | | | | | | | Tool | Die | Locator |
| 8 to 10 | 8.4 to 6.0 | SC08-GH | POWER DRAWER CONT. 8 AWG SOC.CRIMP, FIRST MATE GROUND | 1387G1 | 1388G6 | 1389G19 | OR | M22520/23-01 | M22520/23-2 | M22520/23-9 |
| | | SC08-SN | POWER DRAWER CONT. 8 AWG SOC.CRIMP, STD.MATE | | | | | M22520/23-01 | M22520/23-2 | M22520/23-9 |
| | | PP08SGH | POWER DRAWER CONT. 8 AWG PIN,CRIMP, STD.MATE, FIRST MATE GROUND | | | | | M22520/23-01 | M22520/23-2 | M22520/23-9 |
| | | PC08SSN | POWER DRAWER CONT. 8 AWG PIN,CRIMP, STD.MATE | | | | | M22520/23-01 | M22520/23-2 | M22520/23-9 |
| | | M81969/14-06 | INSERT AND EXTRACT TOOL | | | | | | | |
| N/A | | PKT-076TO1 | MID POWER SOLAR SPEC PAK RELEASE TOOL | | | | | | | |

* Must contact Daniels directly for this tooling option, www.dmctools.com



Pneumatic Bench Tool
1387G1

Locator **1389G19**
Die **1388G6**

Slide posts into the holes on the side

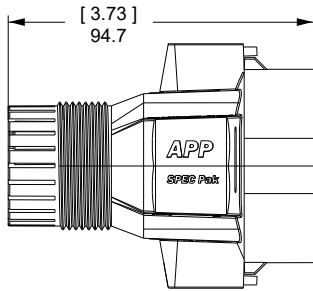
Release Tool
PKT-076TO1

Insert & Extract Tool
M81969/14-06

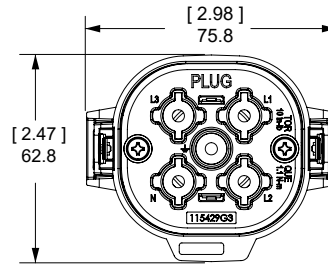
DIMENSIONS

Plug Shell | PK6-076D05

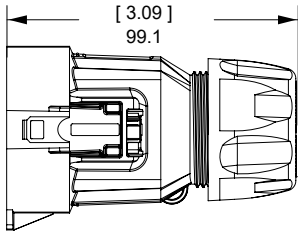
Top View



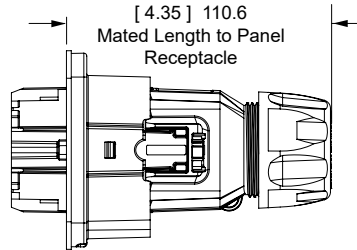
Front View



Side View

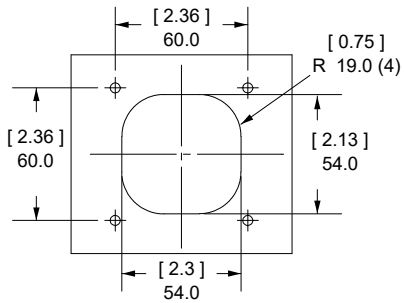


Mated View

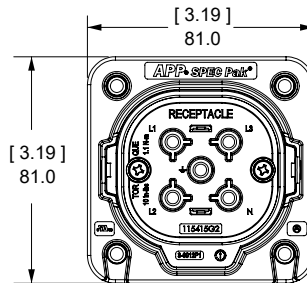


Panel Mount Receptacle & Gasket | PK2-076D05

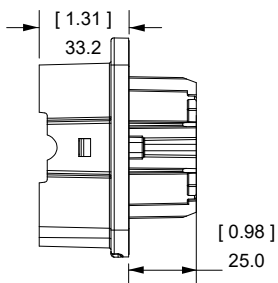
Panel Cut Out



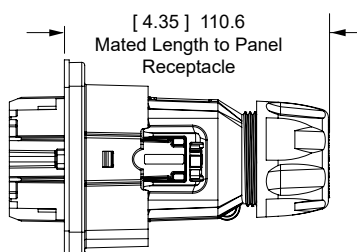
Front View



Side View

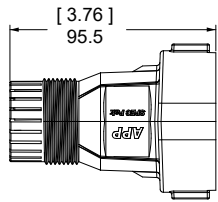


Mated View

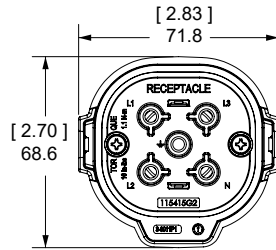


Inline Receptacle Shell | PK1-076D05

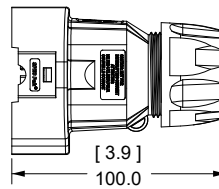
Top View



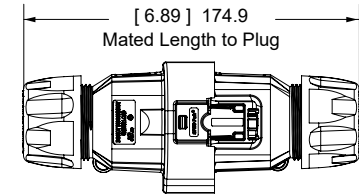
Front View



Side View

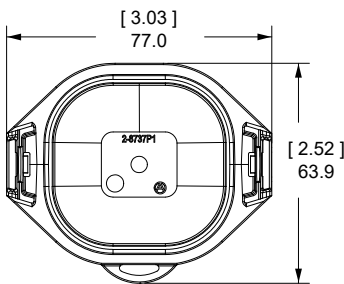


Mated View



Plug Cover Kit | PK9P-076

Front View

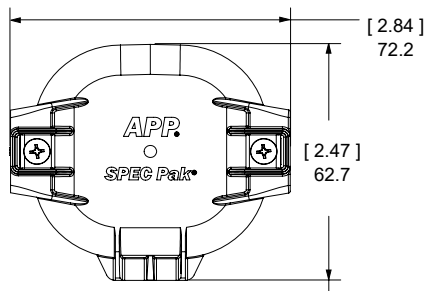


Side View

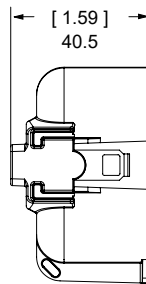


Receptacle Cover Kit | PK9-076

Front View



Side View



* Covers are only for transporting conditions; not UL6703 approved.

Your Best Connection™

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