

The APP Saf-D-Grid plug and receptacle provide for the direct connection of DC electronic devices to a DC micro-grid powered by renewable energy or high efficiency DC sources. The connector meets international safety requirements for hazardous, low voltage applications including UL 950 and IEC 60950.

The receptacle connector is designed to replace the IEC320 C14 inlet connector for DC power sources up to 600 volts. The APP Saf-D-Grid receptacle has the same height and width as the IEC320 C14 inlet connector and snaps into the standard 19.9mm by 26.8mm panel cut-out. The depth of the receptacle has been increased to provide touch safety, voltage clearance and arc protection.

### Features

#### • Touch Safe

Minimizes the risk of personal contact with a hazardous voltage. Passes UL & IEC finger probe (plug & receptacle) and 3mm probe tests (receptacle).

#### • Arcing Protection

Housings contain the arc if connectors are mated or unmated while under load minimizing risk to personnel.

#### • Hot Plug Rated

The connectors are hot plug rated for both electronic (capacitive) and electrical (resistive) loads.

#### • First Mate, Last Break Ground Contact

Provides the safety of an earthing path before engagement of the power contacts.

#### • Integral Latch

Connectors cannot be accidentally unmated, preventing unwanted power loss to critical equipment.



## SPECIFICATIONS

Electrical		Mechanical	
Voltage (AC/DC)		Contact Retention (lbf)	20
• UL 1977 / CSA 22.2	600	(N)	89
• IEC	400	Latch Retention (lbf)	20
Current Rating (Amperes)	20	(N)	89
Wire Range (AWG)	#12 to #18	Durability	5,000 cycles - no load
(mm <sup>2</sup> )	2.5 to 0.75		1,000 cycles - 6.25A load
Hot Plug Rated			
• 250 cycles	400V @ 300A in-rush		
• 250 cycles (UL)	400V @ 20A load		
Dielectric Withstanding Voltage	3,300		
Operating Temperature (°C)	-20° to 80°		
(°F)	-4° to 176°		
Creep & Clearance per UL & IEC 60950			
• 8.0mm between live parts of different polarity, earthing circuit and the mating surface			
		<b>Materials (RoHS Compliant)</b>	
		Housings	Polycarbonate UL94 V-0
		Springs	Stainless Steel
		Contacts	Copper, Silver Plate
		Cable / Strain Relief	Thermoplastic UL94 V-2



## ORDERING INFORMATION

### Receptacle

Part Number	Description
2002G1	Standard housing for 0.8mm panel
2002G2	Standard housing for 1.2mm panel
2002G3	Standard housing for 1.0mm panel
2005G1	Short depth housing for 0.8mm panel
2005G3	Short depth housing for 1.0mm panel
2003G1	Contact, 2,500 reel, 12 to 18 AWG
2003G1-LPBK	Contact, loose piece, 12 to 18 AWG
2002G1KIT	2002G1 with 3 #16AWG contacts crimped to 12 inch wires
2002G2KIT	2002G2 with 3 #16AWG contacts crimped to 12 inch wires
2002G3KIT	2002G3 with 3 #16AWG contacts crimped to 12 inch wires
2005G1KIT	2005G1 with 3 #16AWG contacts crimped to 12 inch wires
2005G3KIT	2005G3 with 3 #16AWG contacts crimped to 12 inch wires

NOTE 1: **Shading** indicates stock item

NOTE 2: For additional wire sizes please contact customer service

NOTE 3\*: Consult factory for non-halogen construction

### Plug Power Cord

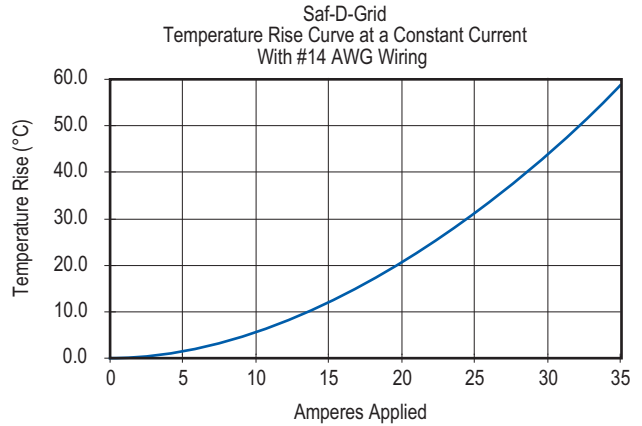
Single Ended Part Number	Double Ended Part Number	- Length -		Description
		M	FT	
—	2001G2	2.0	6.56	14 AWG SOOW UL 600V 90C *
2000G3	2001G3	3.0	9.84	14 AWG SOOW UL 600V 90C *
2000G6	2001G6	6.0	19.68	14 AWG SOOW UL 600V 90C *
2020G1	—	1.5	4.92	2.0 mm <sup>2</sup> PSE (Japan) 600V 75C
2020G3	2021G3	3.0	9.84	2.0 mm <sup>2</sup> PSE (Japan) 600V 75C
2020G6	2021G6	6.0	19.68	2.0 mm <sup>2</sup> PSE (Japan) 600V 75C
—	2031G2	2.0	6.56	14 AWG ST UL 600V 90C
2030G3	2031G3	3.0	9.84	14 AWG ST UL 600V 90C
2030G6	2031G6	6.0	19.68	14 AWG ST UL 600V 90C
—	2033G2	2.0	6.56	18 AWG ST UL 600V 90C
2032G3	2033G3	3.0	9.84	18 AWG ST UL 600V 90C
2032G6	2033G6	6.0	19.68	18 AWG ST UL 600V 90C
—	2041G2	2.0	6.56	1.5mm <sup>2</sup> H05VVF CE 500/300V 70C
2040G3	2041G3	3.0	9.84	1.5mm <sup>2</sup> H05VVF CE 500/300V 70C
2040G6	2041G6	6.0	19.68	1.5mm <sup>2</sup> H05VVF CE 500/300V 70C

## ORDERING INFORMATION

### Tooling

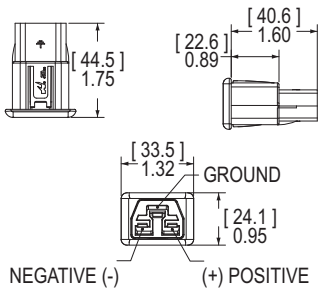
Part Number	Description
<b>Hand Crimp Tool</b>	
1309G9	Hand crimp tool for 2003G1-LPBK
<b>Semi-automatic Application Crimp Tool</b>	
354500-1	Press for 2003G1
354578-1	Air feed for 2003G1 applicator
1852859-3	Applicator for 2003G1

## TEMPERATURE CHART

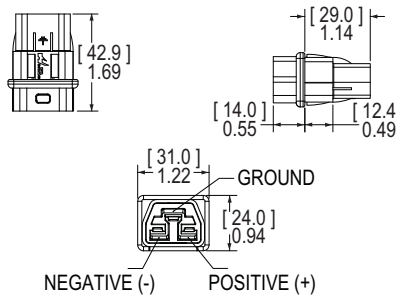


## DIMENSIONS

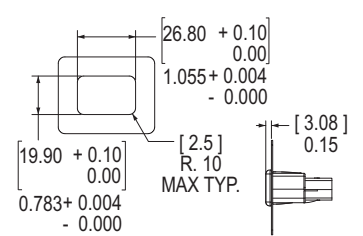
### Receptacle 2002 Series



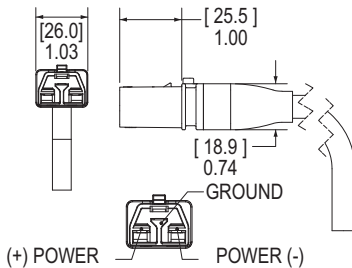
### Receptacle 2005 Series



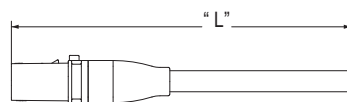
### Panel Cut-out



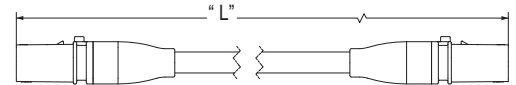
### Plug



### Single Ended Power Cord



### Double Ended Power Cord



### Plug Power Cords

Single Ended Part Number	Double Ended Part Number	- Length -	
		M	FT
2000G2	2001G2	2.0	6.56
2000G3	2001G3	3.0	9.84
2000G5	2001G5	5.0	16.40
2020G1	—	1.5	4.92
—	2021G1	3.0	9.84
2020G3	2021G3	3.0	9.84
2020G6	2021G6	6.0	19.68
—	2031G2	2.0	6.56
2030G3	2031G3	3.0	9.84
2030G6	2031G6	6.0	19.68