

# Amphenol®



## UPC Connectors for HEV

UPC (Ultimate Power Connector) is a plastic power connector series especially designed to be used in the hybrid electric vehicle market. The 2-pole and 3-pole connectors incorporate the patented RADSOK® technology for higher amperage, lower T-rise and voltage drop, and less resistance. RADSOK's twisted grid configuration allows for up to 50% more current to pass through the same size pin, while providing increased reliability and cycle durability, as well as lower mating forces.

The compact, plastic shell structure is light weight with a small footprint, has continuous power at 200 A or 400 A, and is field installable and repairable. These attributes make UPC robust and the interconnect of choice for the EV and Hybrid markets.

### Features and Benefits:

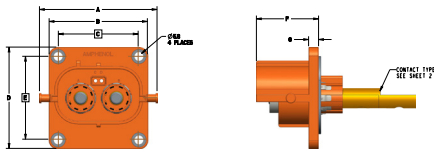
- Plastic shell, light weight
- Compact design for space considerations with EVs
- Wide amperage range (200-400A)
- Low mating/un-mating force
- Durability: 500 cycles
- Touch-Proof: UL 2251
- Flammability: UL 94V-0
- HVIL
- EMI Shielding (60db/100M)
- IP67 & IP69k when mated
- RoHS Compliant

[www.amphenol-industrial.com](http://www.amphenol-industrial.com)



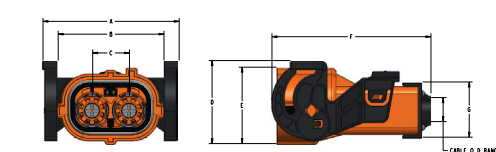
Technical Data							
Current Rating	Up to 400A (200A max 9.1mm w/50mm <sup>2</sup> cable)	Test Voltage (sea level)	3000 VAC RMS	Waterproof	IP67 & IP69k (Mated)	Finger Proof	YES
Contact Size	9.1mm / 12mm RADSOK®	Operating Temperature	-40 °C to 125°C	EMI	360° (60db/100M)	HVIL	Integrated
Operating Voltage	1000V	Durability	500 (Min) Mating Cycles	Flammability	UL 94 V-0	Recommended Torque	M5.6~8N.M

### 2-Pole Receptacle



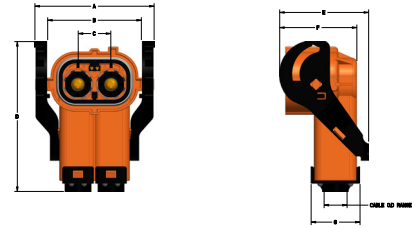
Size	2-Pole Receptacle Dimensions						
	A	B	C	D	E	F	G
9.1mm	76.6	64	52	66	54	40.5	6.5

### 2-Pole Plug



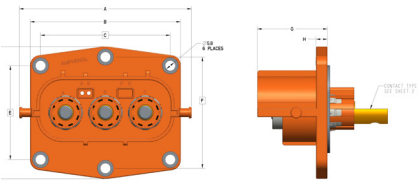
Size	2-Pole Plug Dimensions							
	A	B	C	D	E	F	G	Cable O.D. Range
9.1mm	85	66	23	51.9	47.8	99.4	34.5	Ø15~17

### 90° Angular 2-Pole Plug



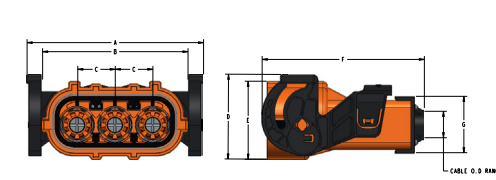
Size	90° Angular 2-Pole Plug Dimensions								
	A	B	C	D	E	F	G	H	Cable O.D. Range
9.1mm	64	66	23	106	63	54	34.5	106	Ø15~16

### 3-Pole Receptacle



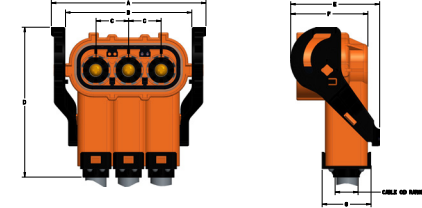
Size	3-Pole Receptacle Dimensions							
	A	B	C	D	E	F	G	H
9.1mm	100	87	75	76	54	64	40.5	6.5

### 3-Pole Plug



Size	3-Pole Plug Dimensions							
	A	B	C	D	E	F	G	Cable O.D. Range
9.1mm	108	89	23	51.9	47.8	99.4	34.5	Ø15~17

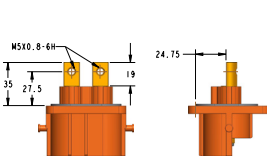
### 90° Angular 3-Pole Plug



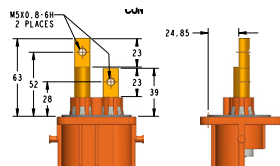
Size	90° Angular 3-Pole Plug Dimensions								
	A	B	C	D	E	F	G	Cable O.D. Range	
9.1mm	109	89	23	106	63	54	34.5	Ø15~16	

### 2-Pole Receptacle Termination

#### Busbar Type 1

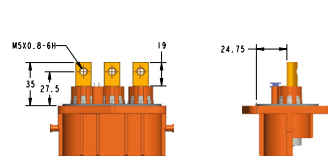


#### Busbar Type 2



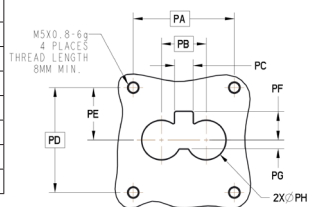
### 3-Pole Receptacle Termination

#### Busbar Type 1



### Cut-Out Panel Layout of 2-Pole

Size	9.1mm
PA	52
PB	23
PC	9.5
PD	54
PE	27
PF	14.7
PG	4.5
PH	22.5



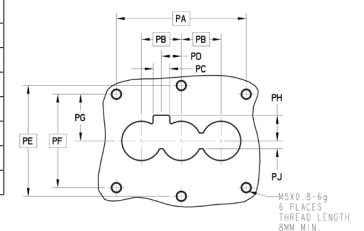
### How To Order

RECEPTACLE	Product Series: UPC	Connector Type	RADSOK® Contact Size	Pole Number	Coding Selection	HVIL Selection	EMI Selection	Contact Type
	UPC	R	Box Mount Receptacle	01 9.1mm	2 2-Pole	A Code A	L HVIL	S W/ Shielding Shell
			02 12.0mm	3 3-Pole	B Code B	N No HVIL	N W/O Shielding Shell	2 Busbar type 2
					C Code C			
					D Code D			

PLUG	Product Series: UPC	Connector Type	RADSOK® Contact Size	Pole Number	Coding Selection	HVIL Selection	EMI Selection	Crimp Wire Size
	UPC	P	90° Angular Plug	01 9.1mm	2 2-Pole	A Code A	L HVIL	S W/ Shielding Shell
	IP	Straight Plug	02 12.0mm	3 3-Pole	B Code B	N No HVIL	N W/O Shielding Shell	2 50mm <sup>2</sup> (9.1mm Only)
					C Code C			3 70mm <sup>2</sup> (12.0mm Only)
					D Code D			4 95mm <sup>2</sup> (12.0mm Only)
								5 25mm <sup>2</sup> (9.1mm Only)

### Cut-Out Panel Layout of 3-Pole

Size	9.1mm
PA	75
PB	23
PC	9.5
PD	11.5
PE	54
PF	64
PG	27
PH	14.7
PJ	4.5



Notice: Specifications are subject to change without notice. Contact your nearest Amphenol Corporation Sales Office for the latest specifications. All statements, information and data given herein are believed to be accurate and reliable but are presented without guarantee, warranty, or responsibility of any kind, expressed or implied. Statements of suggestions concerning possible use of our products are made without representation or warranty that any such use is free of patent infringement and are not recommendations to infringe any patent. The user should assume that all safety measures are indicated or that other measures may not be required. Specifications are typical and may not apply to all connectors.

For further information on your individual application requirements, contact: Amphenol Corporation

North America:  
Amphenol Industrial Operations  
180 N. Freepoint Drive, Plant 4  
Nogales, AZ 85621  
Tel: (888) 364-9011  
Fax: (520) 285-5134

Europe:  
Amphenol Industrial Operations Europe  
Via Barbaiana 5  
1-20020 Lainate (MI) Italy  
Tel: +39 02 93254.204  
Fax: +39 02 93254.444

Middle East:  
Amphenol Middle East Enterprises FZE  
Office C-37 PO Box 21107  
Ajman Free Zone, UAE  
Tel: +9 716-7422494  
Fax: +9 716-7422941

Asia:  
Amphenol Technology (Zhuhai) Co., Ltd.  
No. 63 Xing Han Road, San Zao Town  
Jin Wan District, Zhuhai City, China 519040  
Tel: +86 756-3989760  
Fax: +86 756-3989768

Email: tech@amphenol-aio.com

Email: info@amphenol-aio.com

Email: jhussain@amphenol-industrial.com

Email: enquiry@amphenol-aio.com