

Amphenol



ePower-Lite Series

www.amphenol-industrial.com



ABOUT US

Amphenol Industrial Operations

Amphenol Industrial Operation (AIO), a division of the Amphenol Corporation, is a prominent manufacturer of cylindrical connectors known around the world. Amphenol Industrial's product lines consist of rectangular, standard miniature, fiber optic, EMI/EMP filter, and a variety of special application connectors.

Manufacturing connectors since 1932, we take pride that Amphenol Industrial Operations is the undisputed leader in interconnect systems for harsh environment applications. Innovations like our RADSOK® contact technology can provide roughly 50% more current through the same size pin. Connectors utilizing the RADSOK® technology will outperform similar products in the market hands down.

The Sidney, NY facility, nestled at the foothills of the Catskill Mountains, is over 307,000 square feet. This complex houses over 10000+ employees incorporating state-of-the-art manufacturing technologies. The facility is both ISO9001 certified and qualified to MIL-STD-790 requirements.



Sidney Factory

Amphenol is one of the largest manufacturers of interconnect products in the world

The company designs, manufactures and markets electrical, electronic and fiber optic connectors, coaxial and flat-ribbon cable, and interconnect systems. Amphenol has long been the accepted leader in providing quality connectors and interconnect systems to the Industrial, Military and Telecommunication markets.



Zhuhai Factory 1

Amphenol Technology (Zhuhai) Co., Ltd.

Established in 2007, Amphenol Technology (Zhuhai) Co., Ltd. is a manufacturing facility for Amphenol Industrial Operations, which serves a number of industrial markets, included but not limited to Factory Automation, Transportation, Heavy Equipment, Alternative Energy, Energy Storage, Server/Data Comm and Power Distribution.

Amphenol Technology (Zhuhai) Co., Ltd. covers an area of 28,470m² and is equipped with CNC, plating, injection molding and assembly workshops. This plant specializes in the design and manufacturing of industrial connectors featuring high power, high density, medium to high voltage electrical properties, and harsh environment applications.

With industry leading engineering, design, and manufacturing expertise, Amphenol Technology (Zhuhai) Co., Ltd. has earned more than 30 utility patents on its innovative interconnects. Many of the products produced have been certified by independent standards including UL, IEC/TUV, ATEX, IECEX and MA. The facility is also certified to ISO 9001, ISO 14001 and IATF 16949.



Zhuhai Factory 2

ePower-Lite Connector

ePower-Lite is a plastic power connector series designed to be used in the hybrid electric vehicle and heavy equipment markets. The 2-pole, 3-pole and 4-pole connectors incorporate patented RADSOK® technology which provides 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. There is a 3.6mm and 5.7mm version which can carry current up to 70A to 120A, field installable and repairable. We also offer a low cost alternative as our ePower-Lite Mini version which is a fit for low speed markets and low cost requirements. These attributes make the ePower-Lite robust and the interconnect of choice for the EV and Hybrid markets.



Markets and Applications

- Hybrid/ Electric Vehicle
- Heavy Equipment
- Battery Pack
- PDU
- Air Compressor Controller (Fuel Cell Application)



3.6mm ePower-Lite Series

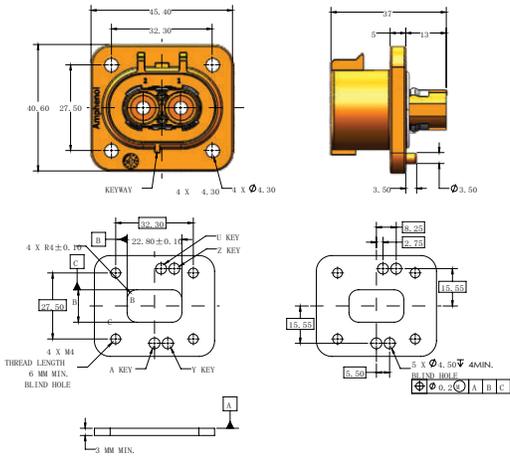


- Plastic shell, light weight
- Compact design for space considerations with EVs
- Wide amperage range up to 70A
- Low mating/un-mating force
- Durability: 100min. cycles
- Touch-proof: IP 2XB (IEC 60529)
- Flammability: UL 94V-0
- HVIL (High Voltage Interlock Loop)
- EMI Shielding
- IP67 & IP69k when mated
- RoHS Compliant
- 2-pole,3-pole, 4-pole version

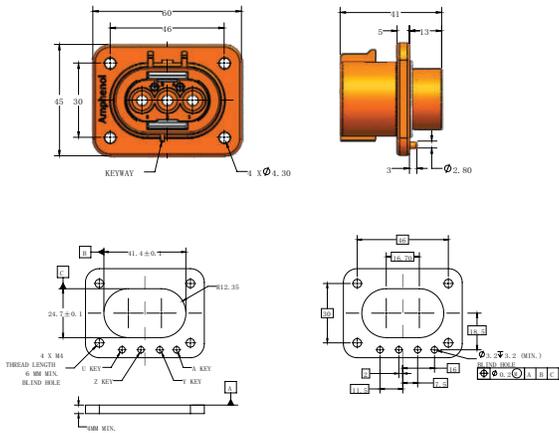
Technical Data

Current Rating	25A (2.5mm ²) 35A (4mm ²) 50A (6mm ²) 70A (10mm ²)	Test Voltage (See Level)	3000V AC (RMS)	Ingress Protection	IP67 & IP69K (Mated)	Touch-Proof	Yes
Contact Size	3.6mm	Operating Temperature	-40°C to 125°C	EMI	360 degree.	HVIL	Yes
Operating Voltage	860V AC(Max.) 1000V DC(Max.)	Durability	100 (Min.) Mating Cycles	Flammability	UL94V-0	Recommended Torque	Receptacle assembly to panel:0.5~0.7N.M

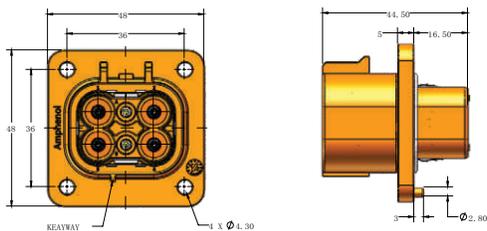
2-Pole Electrical Receptacle with HVIL & Shielding Shell



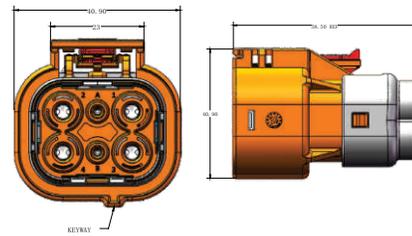
3-Pole Electrical Receptacle with HVIL & Shielding Shell



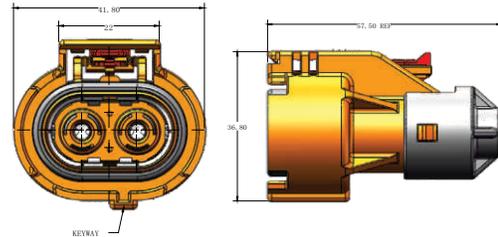
4-Pole Electrical Receptacle with HVIL & Shielding Shell



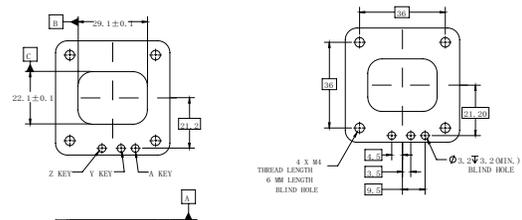
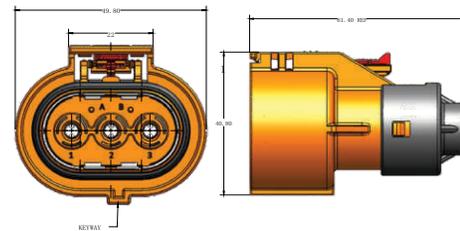
4-Pole Electrical Plug with HVIL & Shielding Shell



2-Pole Electrical Plug with HVIL & Shielding Shell



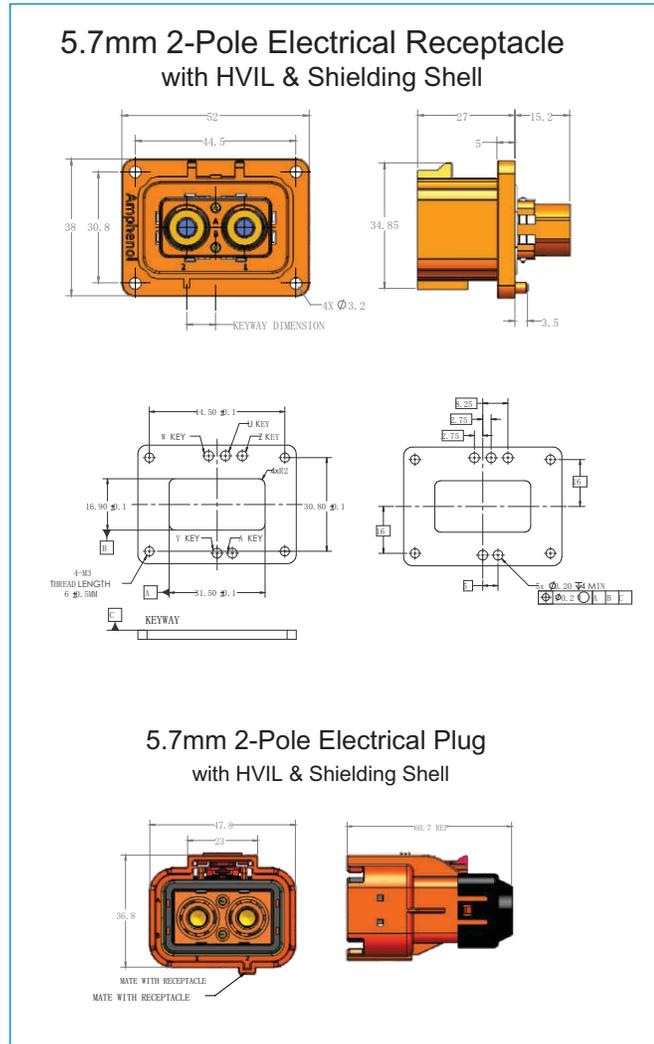
3-Pole Electrical Plug with HVIL & Shielding Shell



5.7mm ePower-Lite



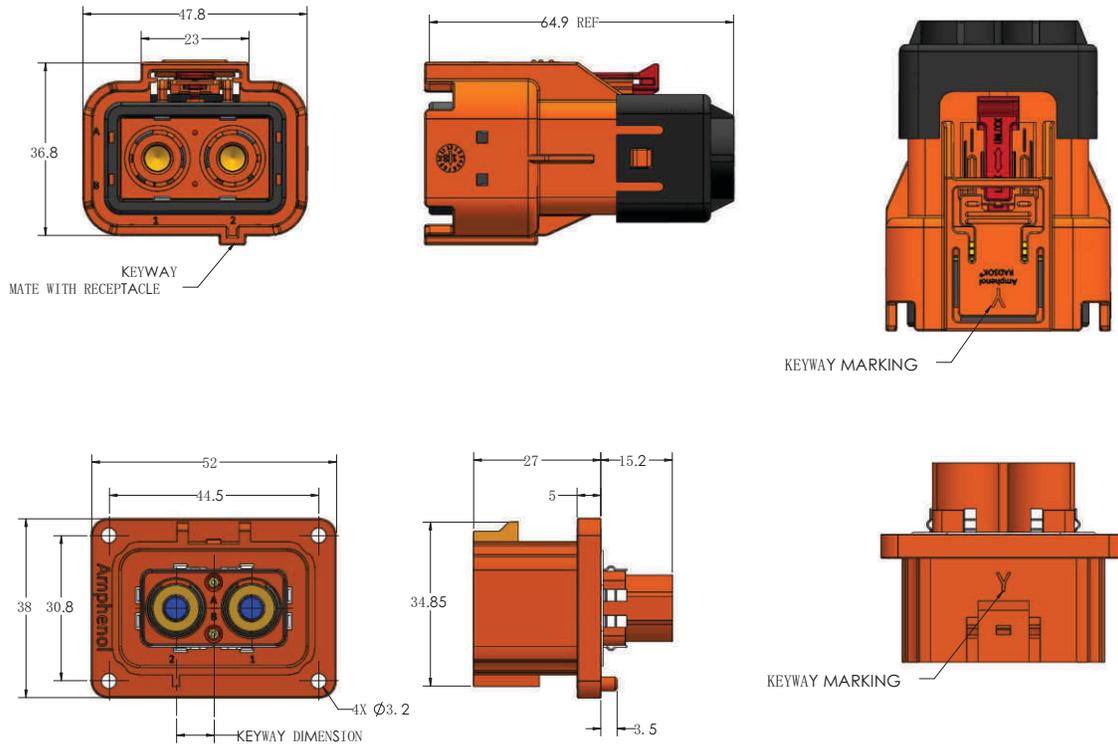
- High current, 120A Max rated current
- EMI Shielding
- HVIL (High Voltage Interlock Loop)
- Secondary Lock design
- R4 RADSOK® Technology
- IP67 (when mated)
- Quick lock and push to release design
- Keyway design to prevent incorrect mating
- Compact Robust Design
- UL94 V-0 (self extinguishing)
- Wide operating temperature range (-40°C to 125°C)



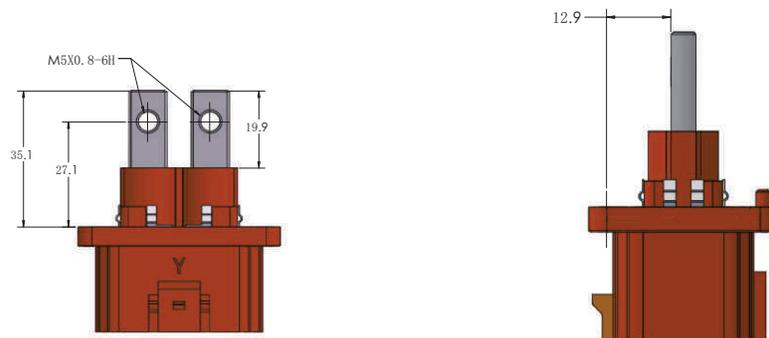
Technical Data			
Contact Test Current	16mm ² (Max.100A) 25mm ² (Max.120A)	Test Voltage (Sea Level)	2500V AC(RMS)
		Operating Temperature	-40°C to 125°C
		Operating Voltage	600V AC or 800V DC
Number of Pole	2-Pole	Touch-Proof	IEC 60529
		Durability	100(Min.) Matting Cycles
Contact Size	5.7mm	Salt Spray	IP67 Mated
		HVIL	96H
		Recommended Torque	M3:0.3~0.6N.M

Termination Type

Crimp Type



Busbar Type



How to Order

3.6mm ePower-Lite

Product Series	Connector Type		RADSOK® Size		Pole Number		Keyway		Crimped Wire Size		EMI & HVIL (Omit for EMI & HVIL option)	
	EL	P	Plug	Omit for 3.6mm		2	2-Pole	A	Key A	01	2.5mm ²	
R		Receptacle	3			3-Pole	Y	Key Y	02	4mm ²	01	Yes EMI & No HVIL
			4			4-Pole	Z	Key Z	03	6mm ²	10	No EMI & Yes HVIL
							U	Key U	04	10mm ²	11	No EMI & HVIL

5.7mm ePower-Lite

Product Series	Connector Type		RADSOK® Size		Pole Number		Keyway		Crimped Wire Size		EMI & HVIL (Omit for EMI & HVIL option)	
	EL	P	Plug	A	5.7mm	2	2-Pole	A	Key A	16	16mm ² (For plug & receptacle)	
R		Receptacle					Y	Key Y	25	25mm ² (For plug & receptacle)	01	Yes EMI & No HVIL
							Z	Key Z	03	Busbar (For receptacle)	10	No EMI & Yes HVIL
							U	Key U			11	No EMI & No HVIL
							W	Key W				

North America

Amphenol Industrial Operations
191 Delaware Avenue
Sidney, NY 13838-1395
USA
Tel: +1-888-364-9011
Fax: +1-520-397-7169
www.amphenol-industrial.com
Email: tech@amphenol-aio.com

Asia

Amphenol Technology(Zhuhai) Co., Ltd.
No.63, Xinghan Road, Sanzao Town,
Jinwan, Zhuhai, 519040
China
Tel: +86-756-398 9725
Fax: +86-756-398 9768
www.amphenol-industrial.com
Email: tech@amphenol-aio.com

IB-13

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 or 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 not 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.