

# Amphenol

## EV SERIES POWER CONNECTORS



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# Amphenol



## Introduction

The **EV Series** Connector line is specifically designed for connecting the Power Cables within a mobile or stationary power supply. The power supplies may be used with vehicle drives systems or stationary power. The connectors meet the necessary specifications for commercial transportation requirements.

The **IP2X** or **TUV Fingerproof** design on both the plug and receptacle allow much greater flexibility when connectorizing 'always hot' systems such as battery packs, fuel cells, capacitor packs etc.

### Features of the EV Series Connectors.

Utilizing RADSOK® contact technology.

- ◆ High reliability
- ◆ Low insertion/extraction force
- ◆ Low contact resistance, high current in smaller package
- ◆ High mating cycles

The design is based on the Military 5015 and Amphenol GT Reverse Bayonet series connectors assuring a proven rugged metal design. Wide range of current capacities from 120A to 500A. Built in HVIL or interlock sensing circuit for safety. Six keyed and color coded plug positions to prevent misconnections. Continuous through connector shielding, both Overmolded and Mechanical Backshell, FMLB capable.

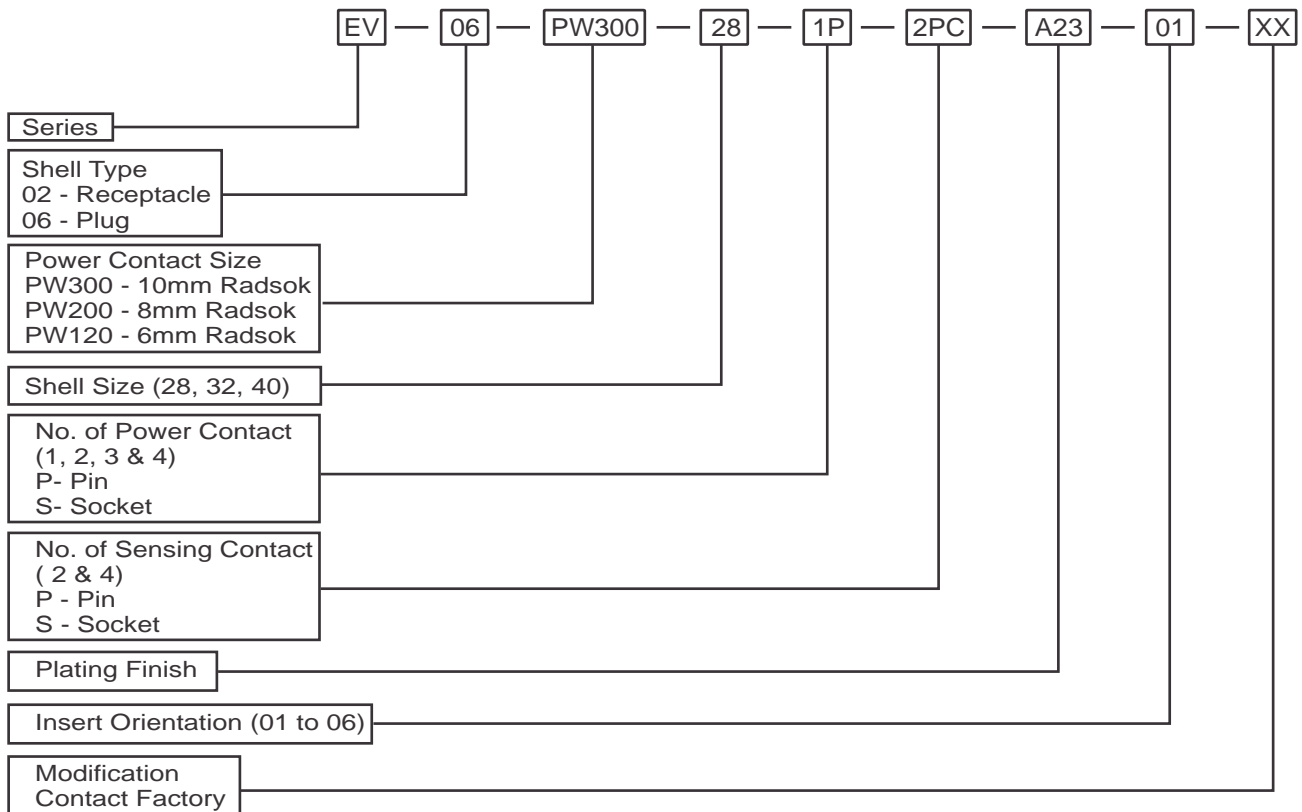
### Features:

- ◆ IP2X Fingerproof on both Plug & Receptacle
- ◆ Up to 500A with RADSOK® Contacts
- ◆ IP67 Rating
- ◆ Keyed & Color Coded

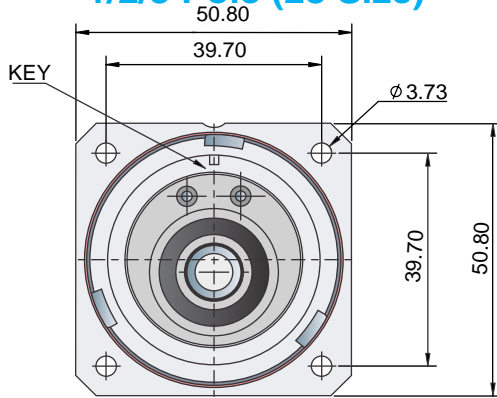


Voltage	1000V DWV 3000V
Current	6mm 120A, 8mm 200A, 10mm 300A, 14mm 500A
Cable	5 ga to 350MCM, 10 to 185 mm <sup>2</sup>
Termination	Crimp or Threaded Stud or Bolt
Interlock	Isolated FBLM HVIL within plug and receptacle
Finger Proof	Plug and Receptacle fully IP2X or TUV fingerproof
Sealing	IP67
Housing	Shielded Metallic
Backshell	Shielded with Overmold or Mechanical assembly
Backshell	180° or optional 90°
Minimum Ambient	-40°C
Maximum Ambient	+90°C
Connection	Low insertion 1/4 turn with distinct click
Service	Field service kits available
Keying	6 key selections with color coding
Interlock Creepage	> 8mm high voltage to low voltage contacts
Interlock Clearance	>6.4mm high voltage to shell
Altitude	7000 to 12,000 feet above sea level

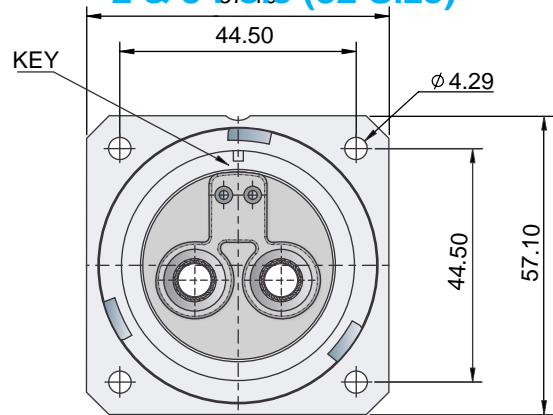
### Ordering Information



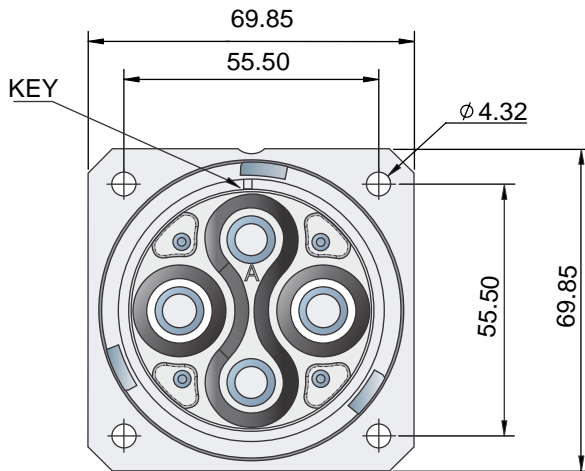
## 1/2/3 Pole (28 Size)



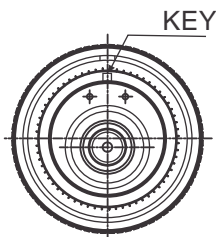
## 2 & 3 Pole (32 Size)



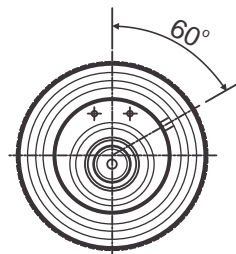
## Four Pole (40 Size)



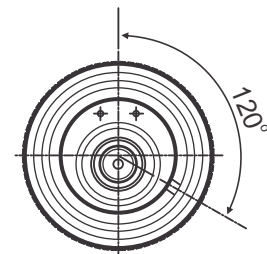
## Key Rotation



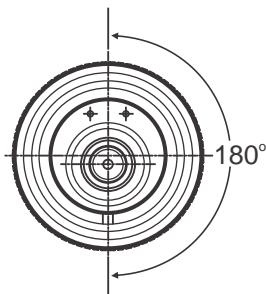
Normal 0°



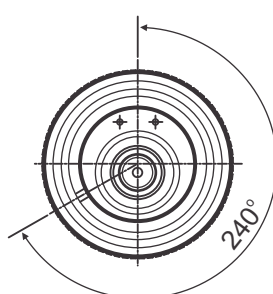
60°



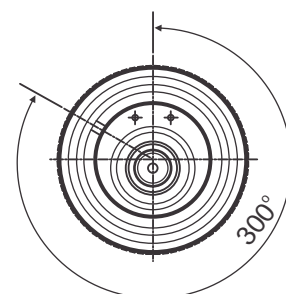
120°



180°



240°



300°

All dimensions are in mm

## Overmolded Cable Connector



CONNECTOR NO.	KEY ROTATION
EV-06-PW300-28-1P-2PC-A23-01	0
EV-06-PW300-28-1P-2PC-A23-02	60
EV-06-PW300-28-1P-2PC-A23-03	120
EV-06-PW300-28-1P-2PC-A23-04	180
EV-06-PW300-28-1P-2PC-A23-05	240
EV-06-PW300-28-1P-2PC-A23-06	300

## Mechanical Backshell Cable Connector



CONNECTOR NO.	KEY ROTATION
EV-06-PW300-28-1P-2PC-A23-01-SB	0
EV-06-PW300-28-1P-2PC-A23-02-SB	60
EV-06-PW300-28-1P-2PC-A23-03-SB	120
EV-06-PW300-28-1P-2PC-A23-04-SB	180
EV-06-PW300-28-1P-2PC-A23-05-SB	240
EV-06-PW300-28-1P-2PC-A23-06-SB	300

## Receptacle With Crimp Contact Connector



CONNECTOR NO.	KEY ROTATION
EV-02-PW300-28-1S-2SC-A23-01	0
EV-02-PW300-28-1S-2SC-A23-02	60
EV-02-PW300-28-1S-2SC-A23-03	120
EV-02-PW300-28-1S-2SC-A23-04	180
EV-02-PW300-28-1S-2SC-A23-05	240
EV-02-PW300-28-1S-2SC-A23-06	300

## Receptacle With M12 Stud



CONNECTOR NO.	KEY ROTATION
EV-02-PW300-28-1S-2SC-A23-01-M12	0
EV-02-PW300-28-1S-2SC-A23-02-M12	60
EV-02-PW300-28-1S-2SC-A23-03-M12	120
EV-02-PW300-28-1S-2SC-A23-04-M12	180
EV-02-PW300-28-1S-2SC-A23-05-M12	240
EV-02-PW300-28-1S-2SC-A23-06-M12	300



## EV Series 2 Pole Receptacle Connector



CONNECTOR NO.	KEY ROTATION
EV-02-PW120-28-2S-4PC-A23-01	0
EV-02-PW120-28-2S-4PC-A23-02	60
EV-02-PW120-28-2S-4PC-A23-03	120
EV-02-PW120-28-2S-4PC-A23-04	180
EV-02-PW120-28-2S-4PC-A23-05	240
EV-02-PW120-28-2S-4PC-A23-06	300

## EV Series 2 Pole Plug Connector



CONNECTOR NO.	KEY ROTATION
EV-06-PW120-28-2P-4SC-A23-01	0
EV-02-PW120-28-2P-4SC-A23-02	60
EV-02-PW120-28-2P-4SC-A23-03	120
EV-02-PW120-28-2P-4SC-A23-04	180
EV-02-PW120-28-2P-4SC-A23-05	240
EV-02-PW120-28-2P-4SC-A23-06	300

## EV Series 3 Pole Receptacle Connector



CONNECTOR NO.	KEY ROTATION
EV-02-PW120-32-3S-4PC-A23-01	0
EV-02-PW120-32-3S-4PC-A23-02	60
EV-02-PW120-32-3S-4PC-A23-03	120
EV-02-PW120-32-3S-4PC-A23-04	180
EV-02-PW120-32-3S-4PC-A23-05	240
EV-02-PW120-32-3S-4PC-A23-06	300

## EV Series 3 Pole Plug Connector



CONNECTOR NO.	KEY ROTATION
EV-06-PW120-32-3P-4SC-A23-01	0
EV-06-PW120-32-3P-4SC-A23-02	60
EV-06-PW120-32-3P-4SC-A23-03	120
EV-06-PW120-32-3P-4SC-A23-04	180
EV-06-PW120-32-3P-4SC-A23-05	240
EV-06-PW120-32-3P-4SC-A23-06	300

## EV Series 2 Pole Receptacle Connector



CONNECTOR NO.
EV-02-PW200-32-2S-2SC-A23-01
EV-02-PW200-32-2S-2SC-A23-02
EV-02-PW200-32-2S-2SC-A23-03
EV-02-PW200-32-2S-2SC-A23-04
EV-02-PW200-32-2S-2SC-A23-05
EV-02-PW200-32-2S-2SC-A23-06

KEY ROTATION
0
60
120
180
240
300

## EV Series 2 Pole Plug Connector



CONNECTOR NO.
EV-06-PW200-32-2P-2PC-A23-01
EV-06-PW200-32-2P-2PC-A23-02
EV-06-PW200-32-2P-2PC-A23-03
EV-06-PW200-32-2P-2PC-A23-04
EV-06-PW200-32-2P-2PC-A23-05
EV-06-PW200-32-2P-2PC-A23-06

KEY ROTATION
0
60
120
180
240
300

## EV Series 3 Pole Receptacle Connector



CONNECTOR NO.
EV-02-PW200-32-3S-2SC-A23-01
EV-02-PW200-32-3S-2SC-A23-02
EV-02-PW200-32-3S-2SC-A23-03
EV-02-PW200-32-3S-2SC-A23-04
EV-02-PW200-32-3S-2SC-A23-05
EV-02-PW200-32-3S-2SC-A23-06

KEY ROTATION
0
60
120
180
240
300

## EV Series 3 Pole Plug Connector



CONNECTOR NO.
EV-06-PW200-32-3P-2PC-A23-01
EV-06-PW200-32-3P-2PC-A23-02
EV-06-PW200-32-3P-2PC-A23-03
EV-06-PW200-32-3P-2PC-A23-04
EV-06-PW200-32-3P-2PC-A23-05
EV-06-PW200-32-3P-2PC-A23-06

KEY ROTATION
0
60
120
180
240
300



## EV Series 4 Pole Power Connector



CONNECTOR NO.	KEY ROTATION
EV-02-PW300-40-4S-4SC-A23-01	0
EV-02-PW300-40-4S-4SC-A23-02	60
EV-02-PW300-40-4S-4SC-A23-03	120
EV-02-PW300-40-4S-4SC-A23-04	180
EV-02-PW300-40-4S-4SC-A23-05	240
EV-02-PW300-40-4S-4SC-A23-06	300

## Receptacle 4 Pole Connector With Crimp Contact

### Overmolded Cable Connector



CONNECTOR NO.	KEY ROTATION
EV-06-PW300-40-4PC-A23-01	0
EV-06-PW300-40-4PC-A23-02	60
EV-06-PW300-40-4PC-A23-03	120
EV-06-PW300-40-4PC-A23-04	180
EV-06-PW300-40-4PC-A23-05	240
EV-06-PW300-40-4PC-A23-06	300

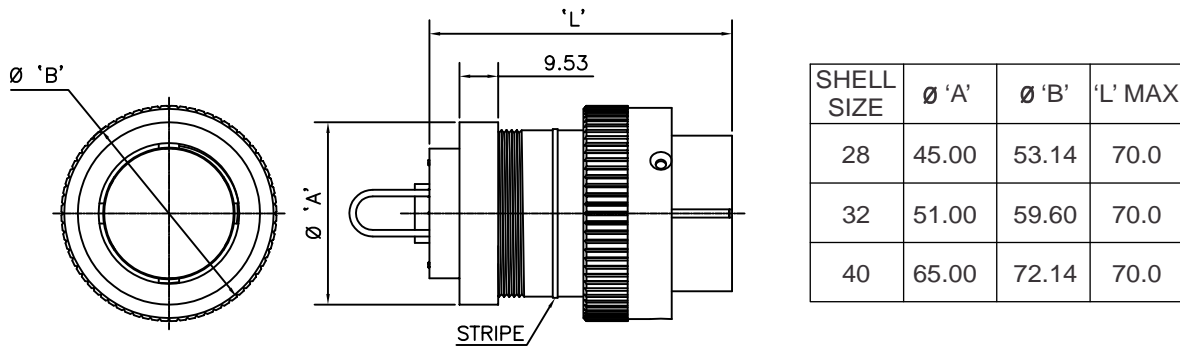
## Dust Cap With Sense Circuit Shorting (For 320 Amp Single Pole)



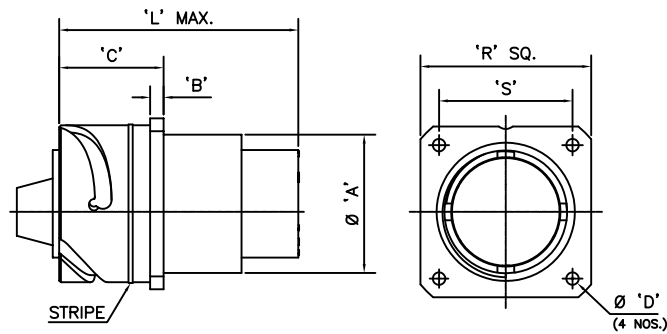
CONNECTOR NO.	KEY ROTATION
EV-06-PW-28-2PC-A23-01-DC	0
EV-06-PW-28-2PC-A23-02-DC	60
EV-06-PW-28-2PC-A23-03-DC	120
EV-06-PW-28-2PC-A23-04-DC	180
EV-06-PW-28-2PC-A23-05-DC	240
EV-06-PW-28-2PC-A23-06-DC	300

Notice : All information, including illustrations given herein is believed to be accurate at the time of printing. In lieu of design advances, Amphenol reserves the right to change specifications without notice. This publication Series EV Connector 15-10-11 supercedes all existing Amphenol literature on Series EV Connector.

## Over Molding Connector

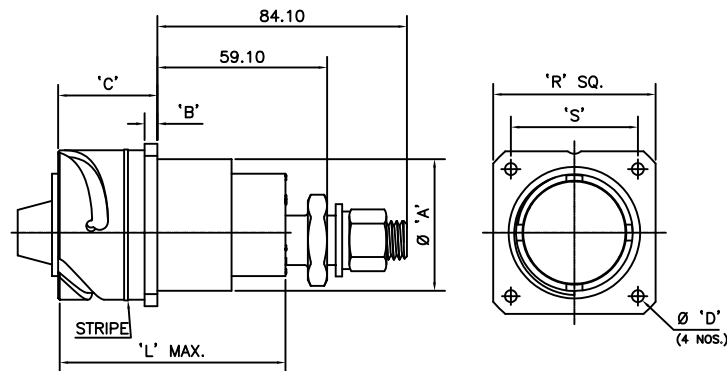


## Receptacle With Crimp Contact



SHELL SIZE	Ø 'A'	'B'	'C'	'D'	'L' MAX	'R' SQ	'S' SQ
28	41.10	4.0	31.05	3.73	73.0	50.80	39.70
32	47.52	4.0	31.05	4.29	59.0	57.10	44.50
40	65.00	6.0	33.05	4.32	80.0	69.85	55.50

## Receptacle With Metric Stud



SHELL SIZE	Ø 'A'	'B'	'C'	'D'	'L' MAX	'R' SQ	'S' SQ
28	41.10	4.0	31.05	3.73	73.0	50.80	39.70

# Amphenol

*A Global Company*



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