

# DURASWAP™ Concentric Connectors

## HIGHLY DURABLE SWAPPABLE DOCKING CONNECTOR

The swappable custom battery connector solutions with cable assemblies are offered in 2 power & 6 signal configurations. These connectors can carry a continuous current up to 100A with 10,000 mating cycles. They are IP67-rated in mated condition and can be mated in two directions (bi-directional mating).

- Contact system can carry upto 100A continuous current and withstands 10,000 mating cycles
- Connector facilitates bi-directional mating
- Connector supports mating misalignment of  $\pm 1\text{mm}$  radially
- IP67 rated in mated condition
- FMLB for power terminals to prevent hot plugging
- Provision for Solenoid lock
- Field terminated power terminals
- Provision to attach NTC (Temperature sensor)
- Drain hole provision for water drainage
- Finger protection for power terminals
- Compact size of 50mm x 50mm



### TARGET MARKETS



### FEATURES

- Supports 10,000 mating cycles
- Up to 100A of continuous rated current
- Bi-directional mating
- UL94V-0-rated housing materials
- Finger protection for power terminals
- Operating temperature from  $-20^{\circ}\text{C}$  to  $+90^{\circ}\text{C}$
- Metal bush for panel fastening
- Field terminated power terminals

### BENEFITS

- Highly durable
- Efficient charging
- Application flexibility
- Ensures application safety
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- Suitable for wide range of application environments
- Takes torque loads for efficient panel IP sealing
- Application flexibility

## TECHNICAL INFORMATION

### MATERIAL

- Housings: PBT GF30 UL94V-0 rated
- Material for Seal: Silicone Rubber, UL94 rated
- Terminals: High-Performance Copper Alloy

### MECHANICAL PERFORMANCE

- Mating Cycles: 10000 cycles
- Operating Temperature Range: -20°C to 90°C

### ELECTRICAL PERFORMANCE

- Rated Current: 100A (4AWG)
- Dielectric Withstanding Voltage: 500VDC
- Insulation Resistance: >1GΩ

### PACKAGING

- Bulk Packaging

### ENVIRONMENTAL

- IP67 (Mated condition)

### APPROVALS AND CERTIFICATIONS

- UL94V-0 (employed UL-certified material)

### SPECIFICATION

- Amphenol Product Specification: GS-12-1936
- Amphenol Application Specification: GS-20-0895
- Tested as per IEC TS 63066

### TARGET MARKETS/APPLICATIONS



Swappable Battery

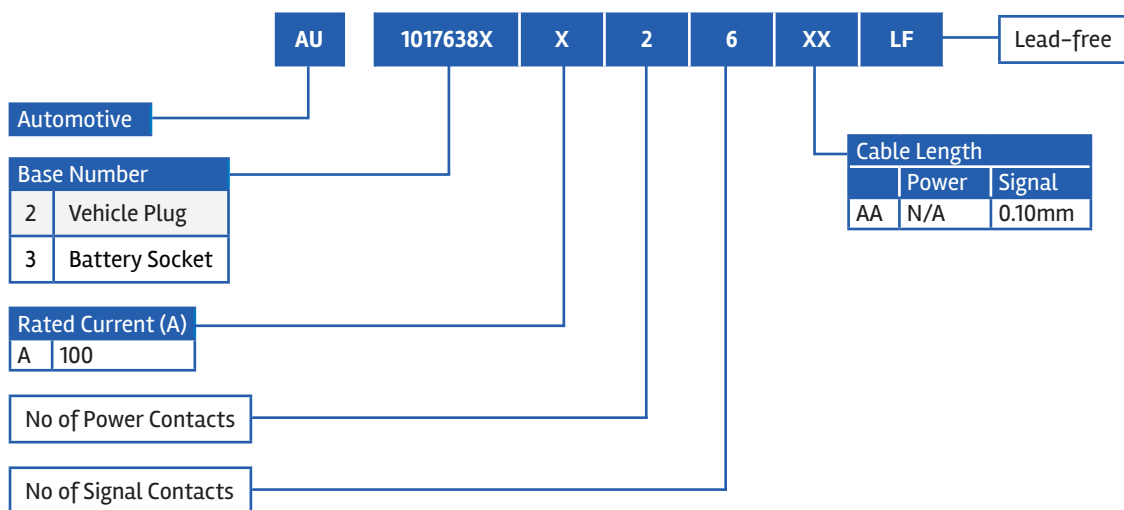


Warehouse



Robotics  
Drone

## PART NUMBER SELECTOR



## PRODUCTS AVAILABLE

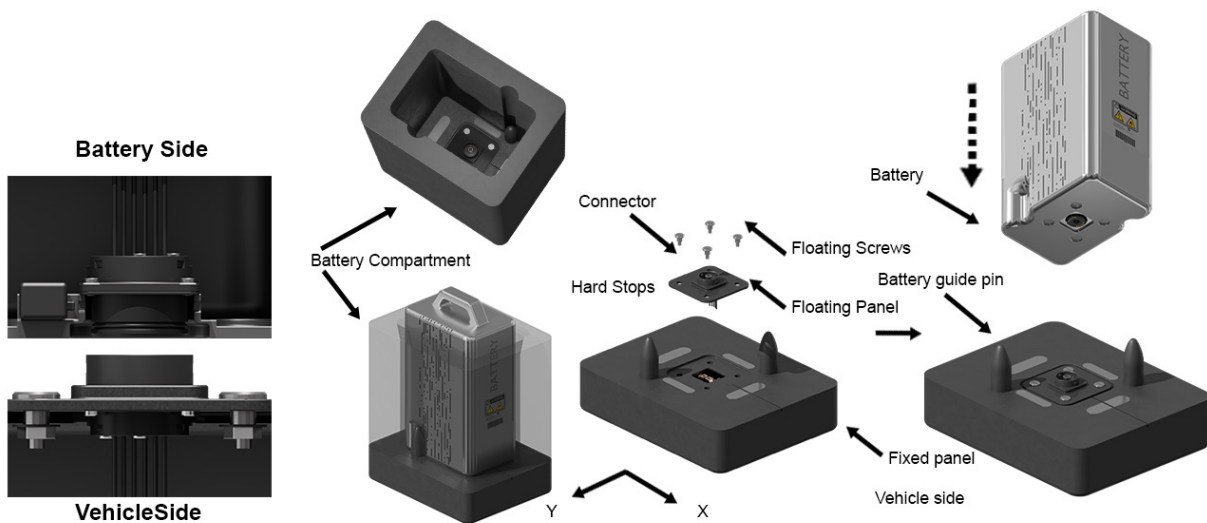
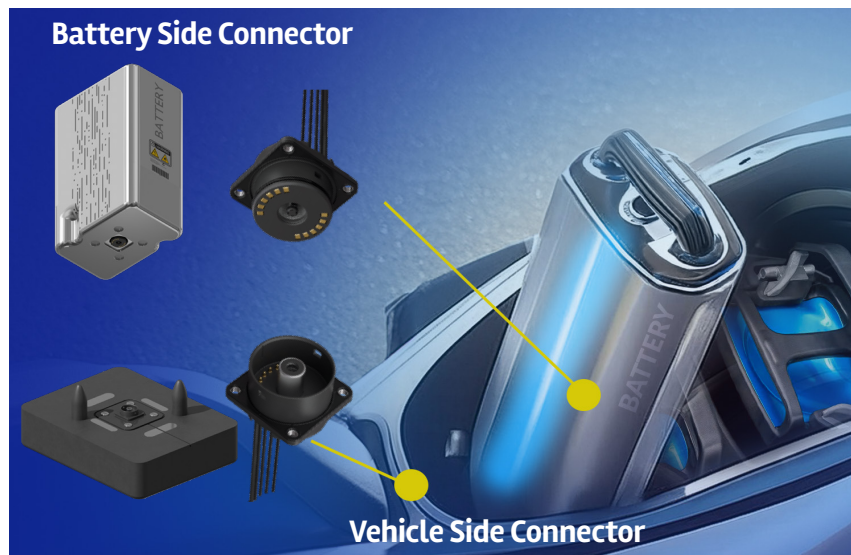
### DURASWAP Concentric™



## APPLICATION – EV BATTERY CHARGING AND DISCHARGING

### Specifications

- Used in areas where batteries are swappable
- Mating parts will be on the battery surface and vehicle/charging station
- Mating Cycles: 10000
- Power: 2-pin 100A continuous
- Signal: 6-pins



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