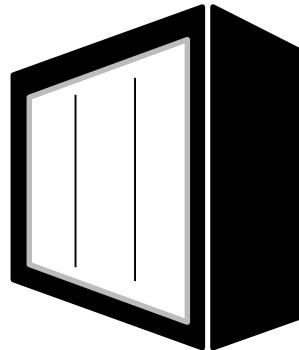


# JAE DW Series

## Energy Storage Battery Connector

### Application Examples

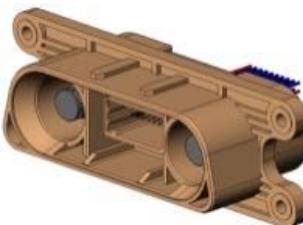
- UPS Equipment
- Energy Storage Systems
- Power Generation Systems



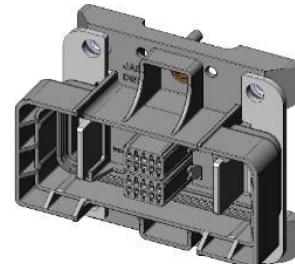
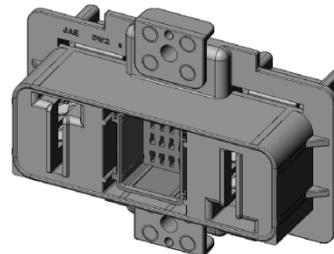
# DW Series Overview

The DW Series are an array of high power connectors that make connecting energy storage batteries easier and more efficient. They range from large-scale energy storage to mid-range energy storage battery connectors. It is ideal for these connectors to be used in plant buildings, industrial locations and offices.

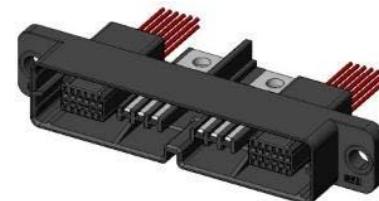
**DW1**



**DW2**



**DW3**



# DW Series Features

## Features

- Power and signal contacts in one robust insulator
- Easy to harness signal contact unit
- High-reliability 2 points of contact (similar to automotive contacts)
- One side floats when mounted for easy mating
- Electric shock prevention (DW1 plug, DW2 rec, DW3 plug and rec)
- Bus-bar or ring terminal harnessed cable to connect battery modules
- Mold and rubber flame retardant 94-V0

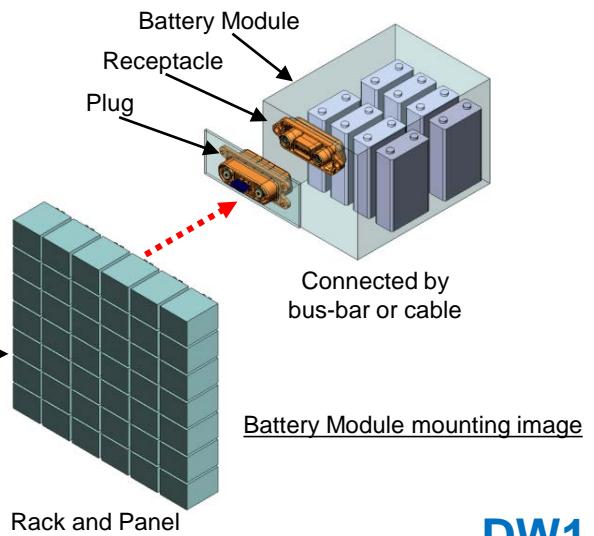


# DW Series Features

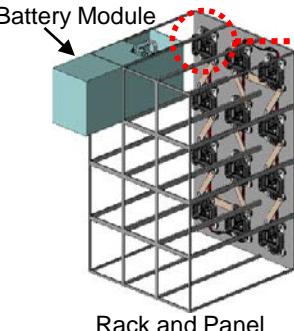
## Application Examples



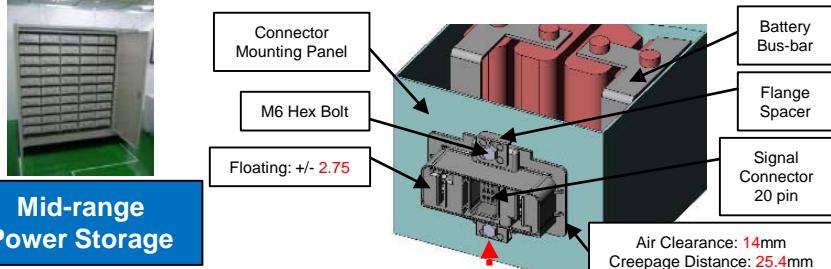
**Large-scale Power Storage**



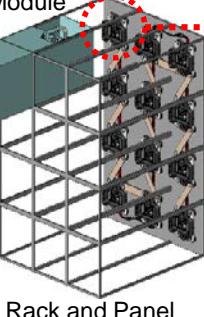
**Mid-range Power Storage**



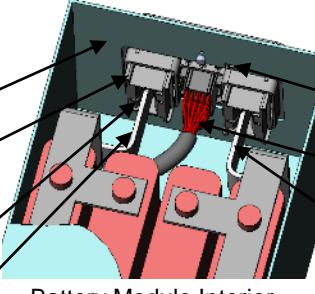
**DW1**



**DW2**

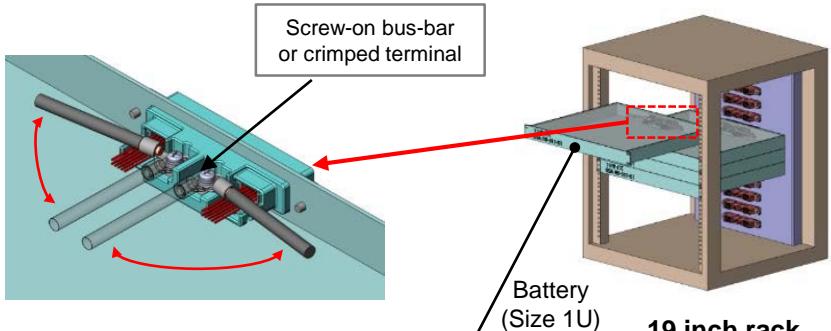


Battery Module Exterior



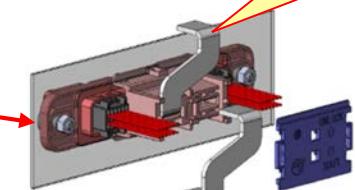
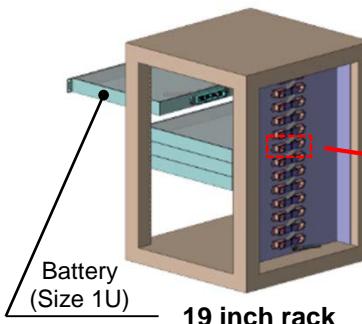
Can connect bus-bar with fingers  
Screw or harness not necessary

## Receptacle



**DW3**

## Plug

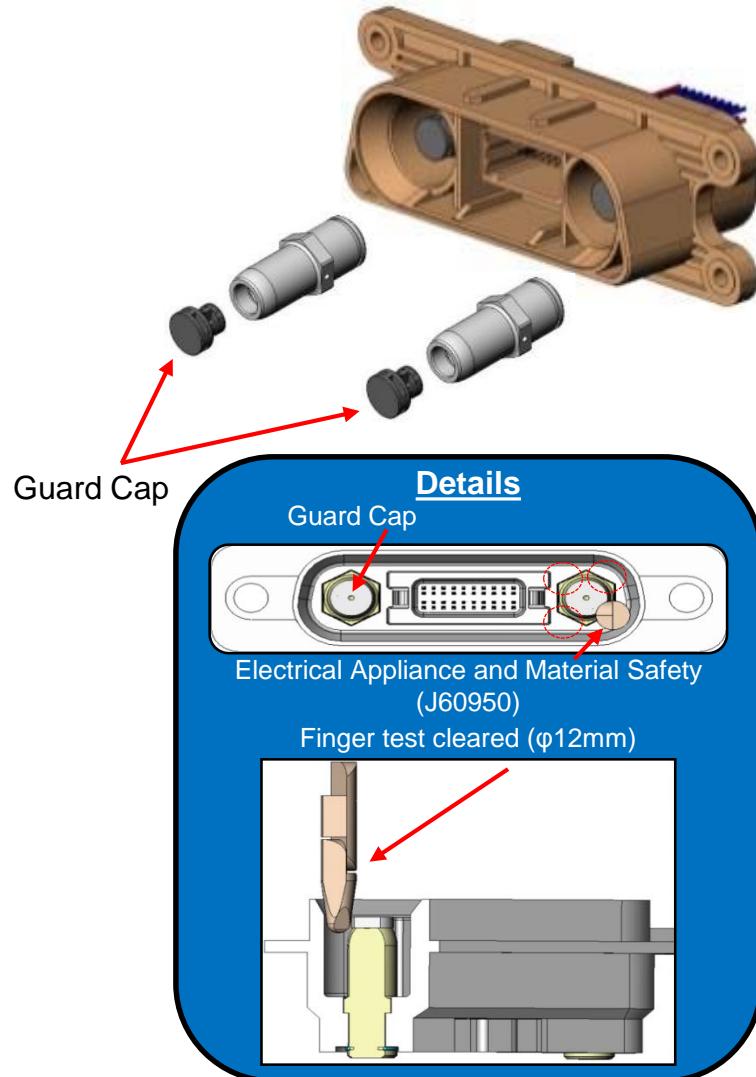


After connecting bus-bar, mount cover

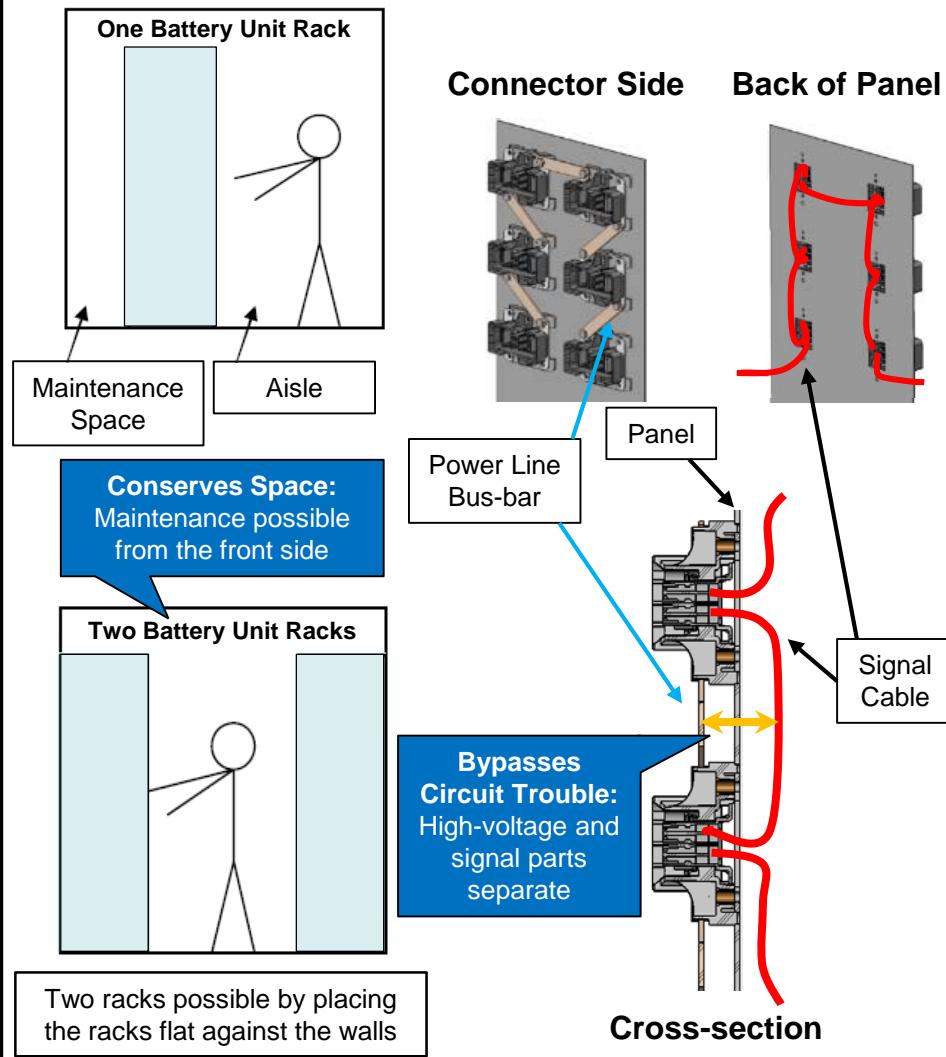
Workability made easy by direct connect to bus-bar (plug)

# DW Series Features

## DW1: Electric Shock Prevention



## DW2: Mounting Features



# DW Series Connector Parts

**DW1**

Receptacle

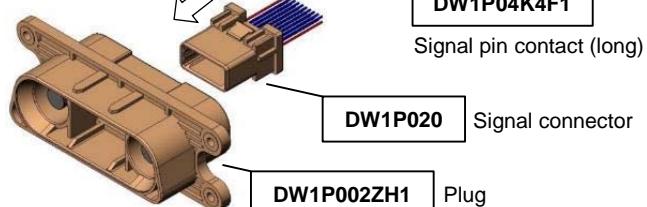
D250-50632  
Shoulder bolt



DW1S04KF1

Signal socket contact  
DW1R020 Signal connector

Plug



DW1P04K4F1

Signal pin contact (long)

DW1P020

Signal connector

DW1P002ZH1

Plug

**DW2**

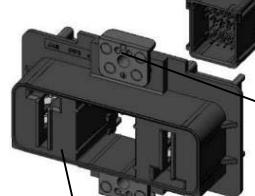
Signal pin contact (long)

DW1P04KF1

Receptacle

Signal connector

DW2P020



\*Note\* - Contacts are packaged in reels

Signal socket contact

DW1S04KF1

Signal connector A

DW2R0101

DW1P04KF2

Signal pin contact (short)

DW2R0102

Signal connector B

Plug

DW2P002ZH1

Plug

**DW3**

Plug

Signal connector B

DW3P012B

Bus-bar cover  
DW3R002-CV

DW3P04K4F1  
DW1P04K4F1  
DW1P04K4F2

Signal pin contact  
Signal pin contact (long)  
Signal pin contact (short)

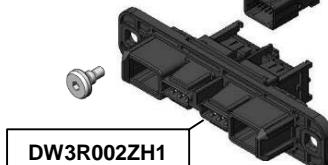
Signal socket contact  
DW1S04K4F1

Receptacle

Signal connector A

DW3R012A

Signal connector A



DW3P012A

Signal connector A

D250-50690

Shoulder bolt

DW3P002ZH1

DW3R012B

Signal connector B

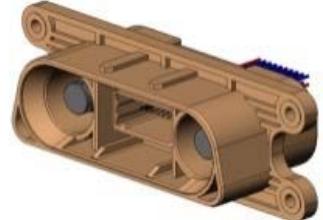
# General Specifications

Item	DW1	DW2
<b>Power pins</b>	2	2
<b>Signal pins</b>	20	20
<b>Rated Current</b>	<b>Power</b>	500 A
	<b>Signal</b>	2 A
<b>Rated Voltage</b>	<b>Power</b>	600 V
	<b>Signal</b>	100 V
<b>Overvoltage category</b>	4	4
<b>Pollution grade</b>	3	3
<b>Temperature increase at power portion</b>	45°C	45°C
<b>Ambient temperature</b>	-25 to +60°C	-25 to +60°C
<b>Allowable temp at power portion</b>	105°C	105°C

DW1

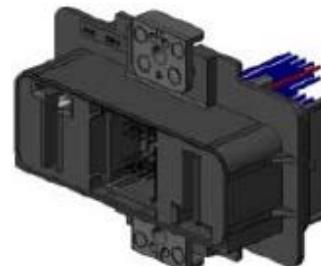


Receptacle

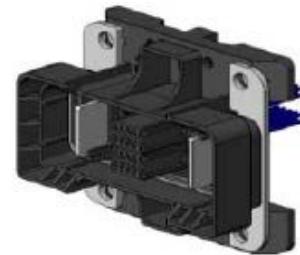


Plug

DW2



Movable side  
(battery side)

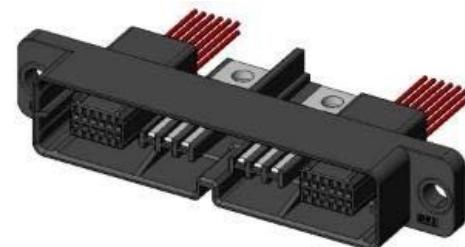


Fixed side  
(panel side)

# General Specifications

Item	Power	Signal
<b>Pin Count</b>	2 pins	24 pins
<b>Rated Current</b>	150 A	2 A
<b>Rated Voltage</b>	1,000 V	100 V
<b>Contact Resistance</b>	Initial: Max. 0.2	Initial: Max. 20 After evaluation: Max. 30
<b>Cable</b>	Bus Bar: Width 15 +/- 1mm Thickness 3 +/- 0.1mm	AWG22 (0.3mm <sup>2</sup> ) Outer diameter of coated cable: 1.5mm
<b>Durability</b>	100 times	
<b>Overvoltage Category</b>	4	
<b>Pollution Grade</b>	3	
<b>Ambient Temperature</b>	-25 to +60°C	
<b>Temperature increase at power contact</b>	Max. 45°C	
<b>Allowable temp at power portion</b>	Max. 105°C	

DW3



Receptacle



Plug

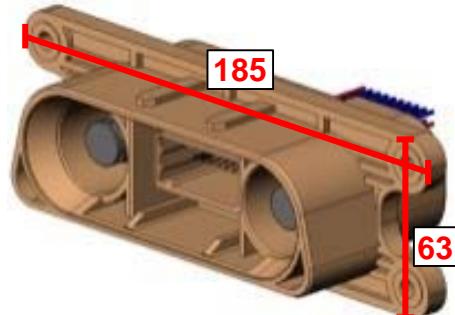
# Mounting Dimensions

\*Unit: mm\*

DW1

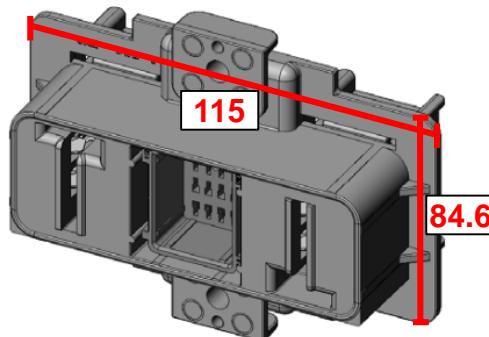


Receptacle

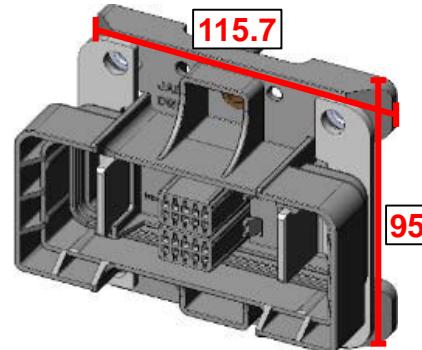


Plug

DW2

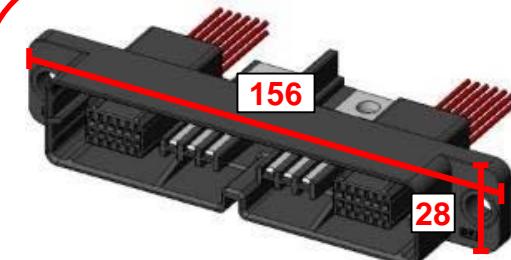


Receptacle

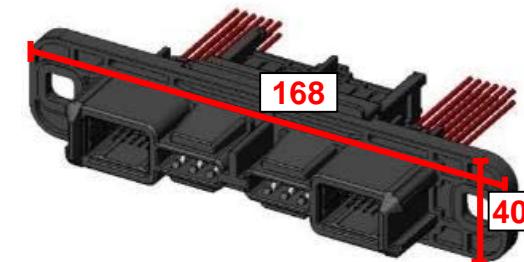


Plug

DW3



Receptacle



Plug

\*Ideal for 1U Racks

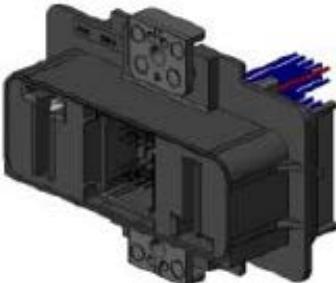
# Materials and Finishes

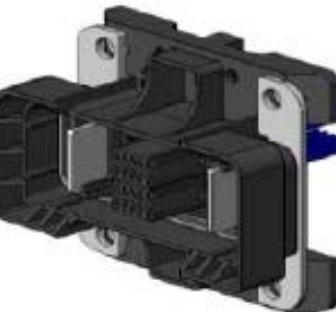
DW1

Receptacle	Description	Material/Finish
 DW1R002ZH1	Receptacle Housing	Polyphenylene Sulfide / Color: Brown (UL94V-0)
	Socket Contact	Copper Alloy / Ag plating
	C Snap Ring	Stainless steel / None
	Spring Contact	Copper Alloy / Ag plating
	Seal Ring	Silicon Rubber / Color: Gray (UL94V-0)
Plug	Description	Material/Finish
 DW1P002ZH1	Plug Housing	Polyphenylene Sulfide / Color: Brown (UL94V-0)
	Pin Contact	Copper Alloy / Ag plating
	C Snap Ring	Stainless steel / None
	Cover Cap	Polyphenylene Sulfide / Color: Black (UL94V-0)

# Materials and Finishes

DW2

Receptacle	Description	Material/Finish
 DW2R002ZH1	Outer Housing	Polyphenylene Sulfide / Color: Black
	Floating Contact	Copper Alloy / Ag plating
	Helical Extension Spring	Stainless steel / None
	Rear Housing	Polybutylene Terephthalate / Color: Black

Plug	Description	Material/Finish
 DW2P002ZH1	Outer Housing	Polyphenylene Sulfide / Color: Black
	M8 Hexagon Nut	Brass / Ni plating
	Pin Contact	Copper Alloy / Ag plating
	Spring Pin	Stainless steel / None
	Sleeve	Brass / None
	Gasket	Silicon Rubber / Color: Grey

# Materials and Finishes

DW3

Receptacle	Description	Material/Finish
 DW3R002ZH1	Base Housing	Polybutylene Terephthalate / Color: Black
	Floating Housing	Polybutylene Terephthalate / Color: Black
	Floating Contact	Copper Alloy / Ag plating
	Helical Extension Spring	Stainless steel / None
	Spring Pin	Stainless steel / None

Plug	Description	Material/Finish
 DW3P002ZH1	Base Housing	Polybutylene Terephthalate / Color: Black
	Pin Contact	Copper Alloy / Ag plating
	Hexagon Nut M6	Brass / Ni plating
	Spring Pin	Stainless steel / None

# Summary

- High power connectors that make connecting energy storage batteries easier and more efficient.
- Range from large-scale to mid-range energy storage battery connectors
- Power and signal contacts in one robust insulator
- Easy to harness signal contact unit
- High-reliability 2 points of contact (similar to automotive connectors)
- One side floats when mounted for easy mating
- Electric shock prevention (DW1 plug, DW2 rec, DW3 plug and rec)
- Bus-bar or ring terminal harnessed cable to connect battery modules