



## BESS STACKED HYBRID CONNECTOR

TE Connectivity, a global leader in connectivity and sensing, introduces the new product of Heavy Duty Connectors, the HDC BPSC Stacked Hybrid Connector for BESS Battery Energy Storage application. With its smart hybrid design, it provides a safer, more reliable and more flexible residential BESS power & signal stacked connectivity connection.

The new generation of BPSC hybrid stacked connector uses materials with excellent electrical conductivity and composite terminal technology. It provides outstanding terminal conductive efficiency and excellent lower temperature rise control. This supports the safety and reliability of the system's life cycle.

### BENEFITS

- Hybrid design to integrate more pins of power & signal
- Higher safety: Uses excellent conductivity contact to provide low temperature rise performance
- Excellent reliability design to enable greater manufacturing tolerance
  - Contact insertion with  $\geq 5$  mm overlap
  - Floating design to automatically correct position in the  $\pm 2.4$  mm circle
- Higher reliability signal transmission performance with golden plating
- Flexible platform compatibility with high power voltage 1000V solution
- Improved operational efficiencies: The S&F female contact design enables crimping with automotive machine to improve cycle time & quality consistency
- Environmental inclusiveness: High anti corrosion screw with 120 hrs salt spray resistance (RP & RA =level 10 \_ highest level)

## BESS Stacked Hybrid Connector

### FEATURES

- Hybrid design
  - Power: 70A/ 1000V \*4 pins
  - Power: 20A/ 400V \*2 pins
  - Signal: 5A/ 25V \*12 pins
- Mating cycle: up to 500 cycles
- Floating design:  $\pm 2.4$  mm floating
- Contact insertion overlap  $\geq 5$  mm
- Screw with 120 hrs salt spray resistance (RP & RA =level 10 \_ highest level)

### APPLICATIONS

- BESS application

### ELECTRICAL

- 70A 1000V
- 20A 400V
- 5A 25V

### MECHANICAL

- Floating  $\pm 2.4$  mm
- Contact overlap dimension:  $\geq 5$  mm

### MATERIAL

- PET
- Cu
- SUS

### STANDARD

- UL 4128: Outline of investigation for intercell and intertier connectors for use in electrochemical battery system applications
- EN 61984: Connectors - safety requirements and tests
- IEC 60068: Environmental testing
- IEC 60512: Connectors for electronic equipment - test and measurements
- IEC 60664-1: Insulation coordination for equipment within low-voltage systems (Part 1)
- EN 61373: Railway application - rolling stock equipment - shock and vibration test
- ISO 6988: Metallic and other non-organic coatings - sulfur dioxide test with general condensation of moisture

### SPECIFICATIONS

- 108-137664
- 501-137664
- 114-137664

### CERTIFICATIONS

- UL4128
- TUV
- CE
- Rohs

### PARTNUMBER LIST

Type	Part Number	Part Description	Part Name
Male insert	<a href="#">T2100182101-000</a>	BPSC-12/2/4-M	BPSC-12/2/4 male insert
Male contact	<a href="#">T2410001160-000</a>	MCSM10-12	$\varnothing 5$ mm male contact, silver plated, 10-12mm <sup>2</sup>
	<a href="#">T2031001040-000</a>	MCEM-4.0	$\varnothing 2.5$ mm male contact, silver plated, 4mm <sup>2</sup>
	<a href="#">T3020001005-000</a>	MDAM-0.5	$\varnothing 1$ mm male contact, gold plated, 0.5mm <sup>2</sup>
Female insert	<a href="#">T2100182201-000</a>	BPSC-12/2/4-F	BPSC-12/2/4 female insert
Female contact	<a href="#">T2240002120-001</a>	SCSF10-12	$\varnothing 5$ mm female stamping contact, silver plated, 10-12mm <sup>2</sup>
	<a href="#">T2220002040-001</a>	SCEF2.5-4.0	$\varnothing 2.5$ mm female stamping contact, silver plated, 2.5-4mm <sup>2</sup>
	<a href="#">T2210002010-001</a>	SDAF0.5-0.75	$\varnothing 1$ mm female stamping contact, gold plated, 0.5-0.75mm <sup>2</sup>
Floating screw	<a href="#">T0931000408-000</a>	M4 stainless steel screw, flat head	-

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