

## IPT-HD POWER BOLT HIGH-VOLTAGE CONNECTORS

Increase Connector EMC Performance and Assembly Efficiency

### BENEFITS

#### ENHANCED EMC PERFORMANCE

- Low-contact resistance shielding
- Handles excessive engine-level vibrations
- IP67, IP68 and IP6K9K sealing rated

#### INCREASED ASSEMBLY EFFICIENCY

- Flexible assembly with single wiring harness
- Quick, easy machining of mounting holes

#### BROADER RANGE OF APPLICATIONS

- 50/70/95 mm<sup>2</sup> conductor cross-sections
- ISO Compliant/LV216
- MCU, E-axle, and E-motor applications

With the global drive to protect the environment and conserve energy, alternatives to fossil fuel are spearheading the demand for advanced, alternative energy vehicles. After years of development, manufacturers are continuously looking for ways to ensure the quality and safety of hybrid and electric vehicles – especially for vibration and shielding performance.

With a new shielding design, easy mounting holes, and flexible assembly connectivity, TE Connectivity's (TE) new IPT-HD power bolt series meets the need! Complying with ISO and LV standards the new IPT-HD power bolt high-voltage connector offers a new shielding design, providing low-contact resistance and thicker options for conductor cross-sections used in MCU (Motor Control Unit), E-axle, and E-motor applications for renewable energy vehicles operating in demanding environments.

Providing low-contact resistance – even after the vibration – with 1-,2- and 3-position, IPT-HD power bolt connector can be used in environments exposed to extreme temperatures (-40°C to +125°C) and excessively high engine-level vibrations.



E-motor



MCU

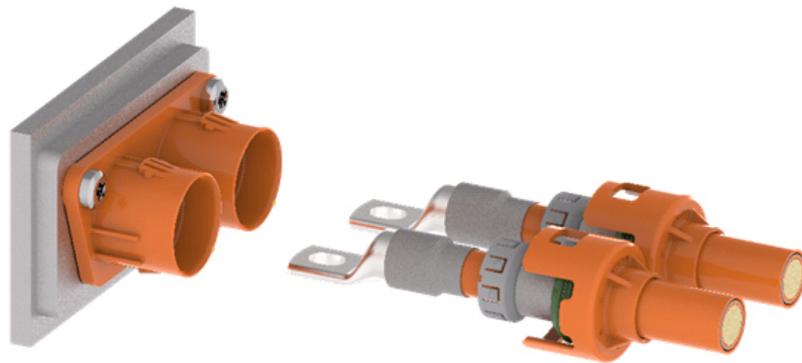


E-axle

With an ever-increasing demand for low-contact resistance and flexible assembly options for a wide range of diverse applications, the IPT-HD power bolt high-voltage connector comes in 50 mm<sup>2</sup>, 70 mm<sup>2</sup> and 95 mm<sup>2</sup> conductor cross-sections. In addition to the traditional integral wiring harness assembly and an easy machining process for mounting holes, the IPT-HD power bolt high-voltage connector provides a separate, single wiring harness for increased assembly flexibility.

## IPT-HD Power Bolt High-Voltage Connectors

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The IPT-HD power bolt high-voltage connectors are widely used for a range of applications in demanding, high-current, high-vibration environments, such as bus, truck, agricultural, construction, and passenger vehicles.

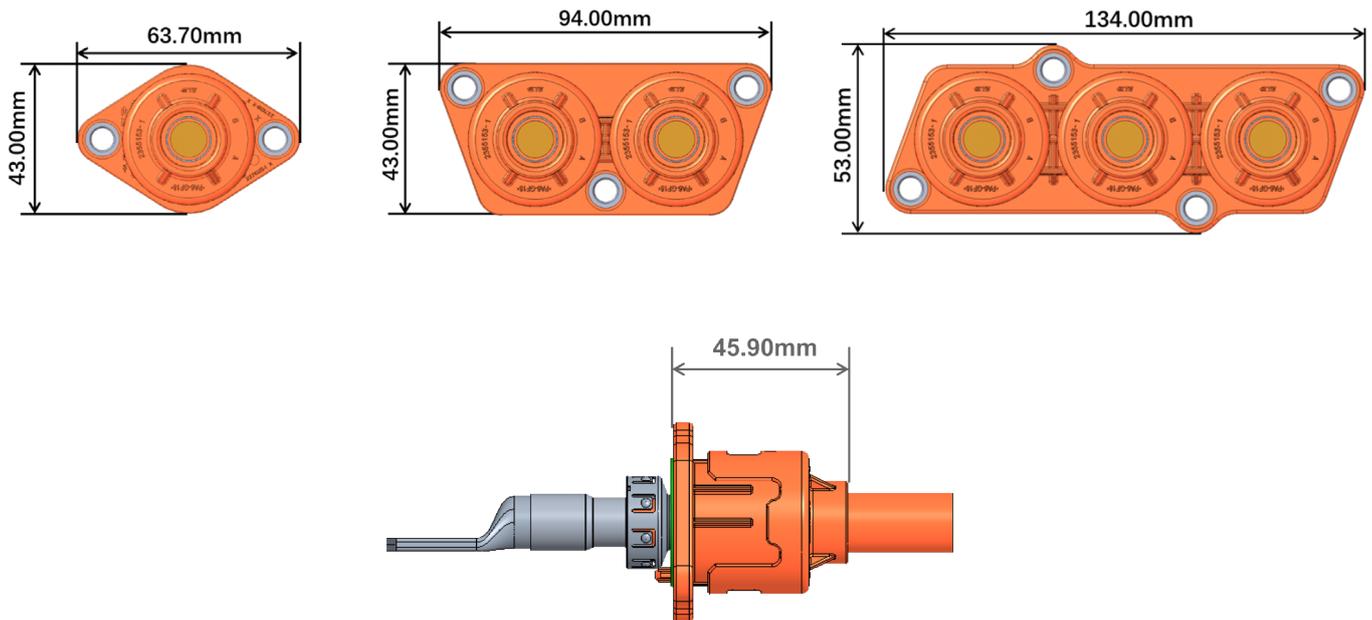
### PART NUMBERS

IPT-HD Power Bolt Connector Housing					Cable Assembly Components							
Cavity	Picture	With Shipping Cap	Without Shipping Cap	QPA	Description	QPA	LV216 Cable			ISO Cable		
							50 mm <sup>2</sup> Solution	70 mm <sup>2</sup> Solution	95 mm <sup>2</sup> Solution	50 mm <sup>2</sup> Solution	70 mm <sup>2</sup> Solution	95 mm <sup>2</sup> Solution
3		2355146-1	2355146-2	1	Shielding	3	2355150-4	2355150-2	2355150-8	2355150-4	2355150-2	2355150-8
					Shielding Sleeve	3	2355148-2	2355148-1	2355148-4	2355148-3	2355148-1	2355148-5
					Single Wire Seal	3	2355151-2	2355151-1	2355151-3	2355151-2	2355151-1	2355151-3
					Seal Cover	3	2355153-2	2355153-1	2355153-5	2355153-4	2355153-3	2355153-6
					Ring Tongue Terminal	3	3-2177380-1	2365737-1	2365737-2	3-2177380-1	2365737-1	2365737-2
2		2371017-1	2371017-2	1	Shielding	2	2355150-4	2355150-2	2355150-8	2355150-4	2355150-2	2355150-8
					Shielding Sleeve	2	2355148-2	2355148-1	2355148-4	2355148-3	2355148-1	2355148-5
					Single Wire Seal	2	2355151-2	2355151-1	2355151-3	2355151-2	2355151-1	2355151-3
					Seal Cover	2	2355153-2	2355153-1	2355153-5	2355153-4	2355153-3	2355153-6
					Ring Tongue Terminal	2	3-2177380-1	2365737-1	2365737-2	3-2177380-1	2365737-1	2365737-2
1		2371019-1	2371019-2	1	Shielding	1	2355150-4	2355150-2	2355150-8	2355150-4	2355150-2	2355150-8
					Shielding Sleeve	1	2355148-2	2355148-1	2355148-4	2355148-3	2355148-1	2355148-5
					Single Wire Seal	1	2355151-2	2355151-1	2355151-3	2355151-2	2355151-1	2355151-3
					Seal Cover	1	2355153-2	2355153-1	2355153-5	2355153-4	2355153-3	2355153-6
					Ring Tongue Terminal	1	3-2177380-1	2365737-1	2365737-2	3-2177380-1	2365737-1	2365737-2

## IPT-HD Power Bolt High-Voltage Connectors

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### DIMENSIONS



### SPECIFICATIONS

#### Operating Temperature

- -40°C - +125°C

#### Voltage Range

- 1000V

#### Conductor Cross-sections

- 50/70/95 mm<sup>2</sup>

#### Current Carrying Capacity

- 250A/300A/400A@85°C

#### Vibration Level

- ISO 16750-3/LV214-S4/USCAR V3

#### Fire Classification

- UL94-V0

#### Shielding

- 360° with low contact resistance

#### IP Rating

- IP67, IP68, IP6K9K

#### Product Specification

- 108-160140, 108-160480

#### Application Specification

- 114-160083, 114-160263

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