	product name	ESC-HPB250 connector	File No	/
	product code	/	Version	A6


ESC-HPB250 connector Technical Specification

Compilation/Date Zhang Heng 202 4. 2. 28

Review / Date Yu Zonghai 202 4.2.28

Approval / Date Wu Hong 202 4.2.28

Form Number	department	page number
J3-7.3-48	Vehicle Product Center	page 1of 8


	product name	ESC-HPB250 connector	File No	/
	product code	/	Version	A6

Changes and Revisions

<input type="checkbox"/> Change <input type="checkbox"/> Revision	Date	Change or revise major matters	Modified/Revised	approver
<input type="checkbox"/> Change <input checked="" type="checkbox"/> revision	2023.08.01	Technical parameter corrections, model additions, and overall dimensions corrections and additions	Zhang Heng	Wu Hong
<input type="checkbox"/> Change <input checked="" type="checkbox"/> revision	2023.08.15	Add product code	Zhang Heng	Wu Hong
<input type="checkbox"/> Change <input checked="" type="checkbox"/> revision	2023.10.17	The waterproof packaging is changed to: carton packaging, moisture-proof treatment	Zhang Heng	Wu Hong
<input type="checkbox"/> Change <input checked="" type="checkbox"/> revision	2023.11.1	Increase the torque requirements at the receptacle end pin connecting to the copper bar	Zhang Heng	Wu Hong
<input type="checkbox"/> Changes <input checked="" type="checkbox"/> revisions	2023.11.20	ESC-HPB250-061 (waist-shaped hole) is adjusted to ESC-HPB250-062 (threaded hole), and the positive and negative pole key positions are added.	Zhang Heng	Wu Hong
<input type="checkbox"/> Changes <input checked="" type="checkbox"/> revisions	2024.2.28	Mounting opening: through hole changed to threaded hole (blind hole)	Zhang Heng	Wu Hong

Send

No.	Name	department	Position	Contact information
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

	product name	ESC-HPB250 connector	File No	/
	product code	/	Version	A6

1. Product model and code (Model and Order No)


serial number (No.)	Product number (Product Model)	product code (Order No)	Wire gauge (Cable specification)	Plug-in key position (Insert key position)	Remark (Note)
1	ESC-HPB250-035 - P Y plug	112030107229	35 mm ²		Positive pole-orange Positive-Orange
2	ESC-HPB250-050 - P Y plug	112030107231	50 mm ²		
3	ESC-HPB250-070 - P Y plug	112030106972	70 mm ²		
4	ESC-HPB250-035 - P B plug	112030107230	35 mm ²		Negative pole - black Negative-Black
5	ESC-HPB250-050 - P B plug	112030107232	50 mm ²		
6	ESC-HPB250-070 - P B plug	112030106973	70 mm ²		
7	ESC-HPB250- 0 6 2 - RY receptacle	112040107729	M6 threaded hole		Positive pole-orange Positive-Orange
8	ESC- HPB250-082 - RY receptacle	112040107162	M8 threaded hole		
9	ESC-HPB250-06 2 - RY A receptacle	112040107728	M6 threaded hole		
10	ESC-HPB250- 0 8 2 - RY A receptacle	112040107419	M8 threaded hole		
11	ESC-HPB250- 0 6 2 - RB receptacle	112040107727	M6 threaded hole		Negative pole - black Negative-Black
12	ESC- HPB250-082 - RB receptacle	112040107163	M8 threaded hole		
13	ESC-HPB250- 0 6 2 - RB A receptacle	112040107726	M6 threaded hole		
14	ESC-HPB250- 0 8 2 - RB A receptacle	112040107420	M8 threaded hole		

Note: The thread specifications of the receptacle tail can be customized.

2. Specification

2.1. Electrical Characteristics:

Form Number	department	page number
J3-7.3-48	Vehicle Product Center	page 3of 8

	product name	ESC-HPB250 connector	File No	/
	product code	/	Version	A6

Number of Pins	1
Terminal specifications	∅ 8 mm
Rated Current	150A (35mm ²) / 200A (50mm ²) / 250A (70mm ²)
Rated Voltage	1500V DC
Voltage Proof	6800V AC 50Hz
Contact Resistance	≤0.3 mΩ
Insulation Resistance	≥100MΩ
Temperature Rise	≤45K

2.2. Mechanical Characteristics:

Mechanical life Durability	≥100 cycles
Protection Class	IP67 (Mated)
Flame Rating	UL94 V0 (Bulk Material)

2.3. Material and Finish:

Material	Insulator: Engineering plastics Rubber parts: Silicon rubber Contact: Copper alloy
Surface Treatment	Silver / Tin


2.4. Working environment (Environmental data):

Operating Temperature	-40°C ~ +125°C
Relative Humidity	5% ~ 95%
Vibration/Shock	QC/T 1067.1-2017 Vibration level V1

3. Introduction

Cable specification	35 mm ² / 50 mm ² / 70 mm ²
Cable Diameter OD	11.50±0.2 mm / 13.50±0.3 mm / 15.50±0.3 mm
Termination Method	Plug: Double B type crimping / hexagonal crimping Double B-type crimping / Hexagonal crimping receptacle: Thread locking M6/M 8 Thread termination Torque: M6: 5N•m-5.5N•m, M8: 10N•m-12N•m

Form Number	department	page number
J3-7.3-48	Vehicle Product Center	page 4 of 8

	product name	ESC-HPB250 connector	File No	/
	product code	/	Version	A6

Installation Method	Screw M3 / M4 Screw
Installation Torque	M3: 0.6-0.8N•m / M4: 1.8-2.2N•m
Locking Method	CPA (Connector Position Assurance)
Preventing Misinsertion	Color Preventing Mechanical Preventing


3.1. Application: Power transmission of energy storage system (battery pack)

3.2. According To Standards: UL4128, QC/T 1067.1-2017

3.3. Environmental Protect Data: RoHS 2.0

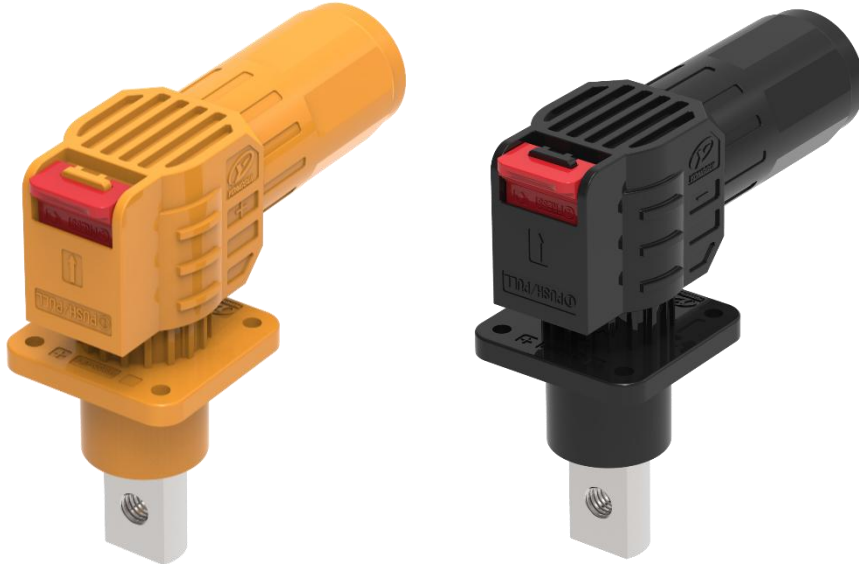
3.4. Security Authentication: CE, UL4128 , TUV

Form Number	department	page number
J3-7.3-48	Vehicle Product Center	page 5of 8

	product name	ESC-HPB250 connector	File No	/
	product code	/	Version	A6

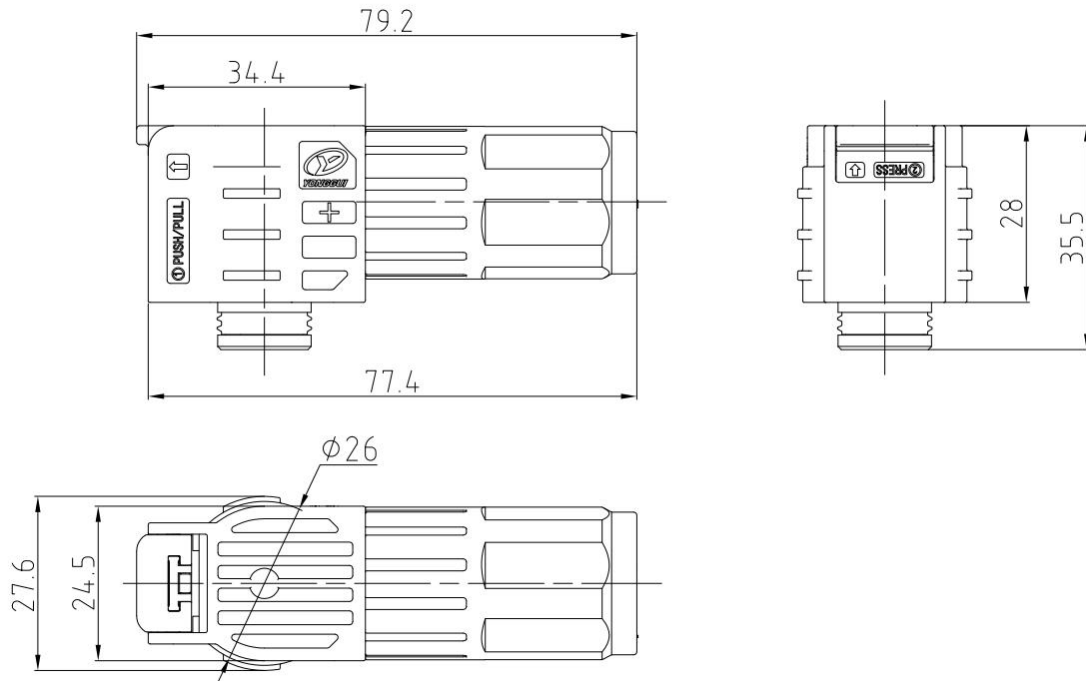
4. Outline Dimension

4.1. Product Outline:




4.2. Product Outline Dimension:

4.2.1. Plug Outline Dimension



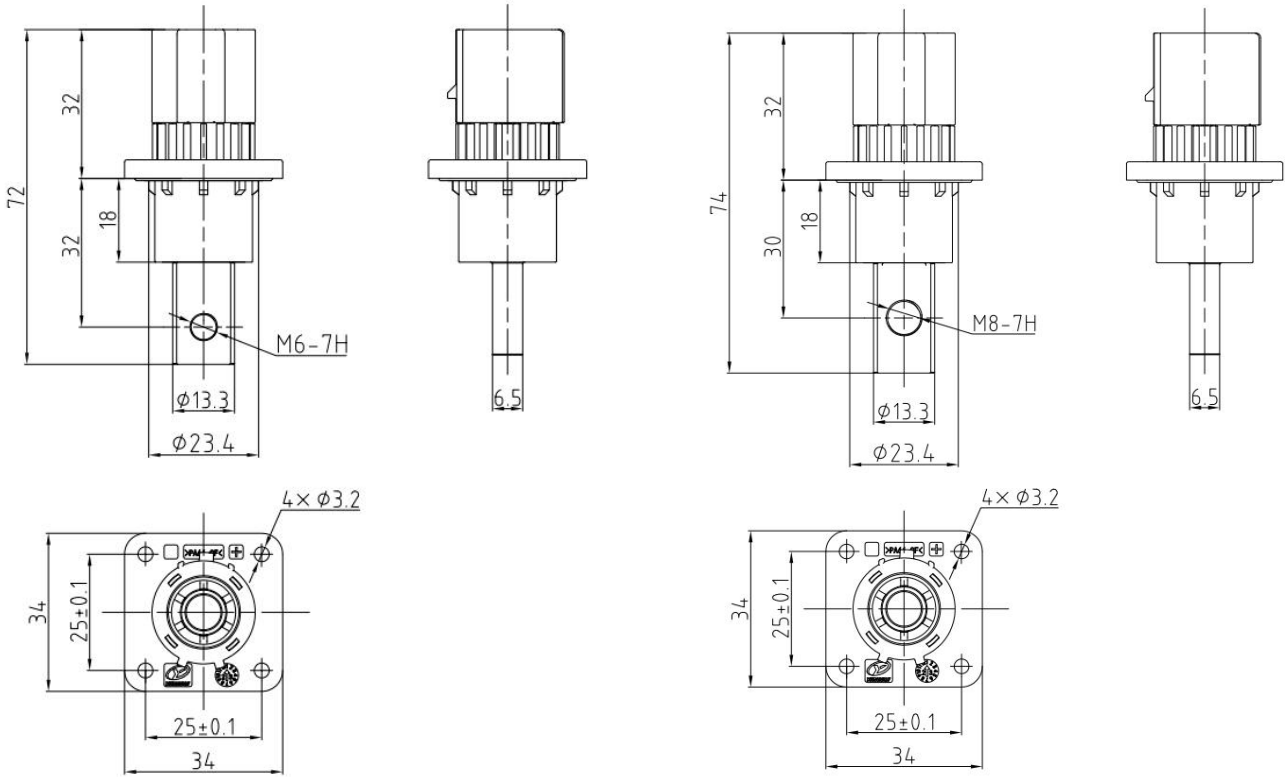
Form Number	department	page number
J3-7.3-48	Vehicle Product Center	page 6 of 8

	product name	ESC-HPB250 connector	File No	/
	product code	/	Version	A6

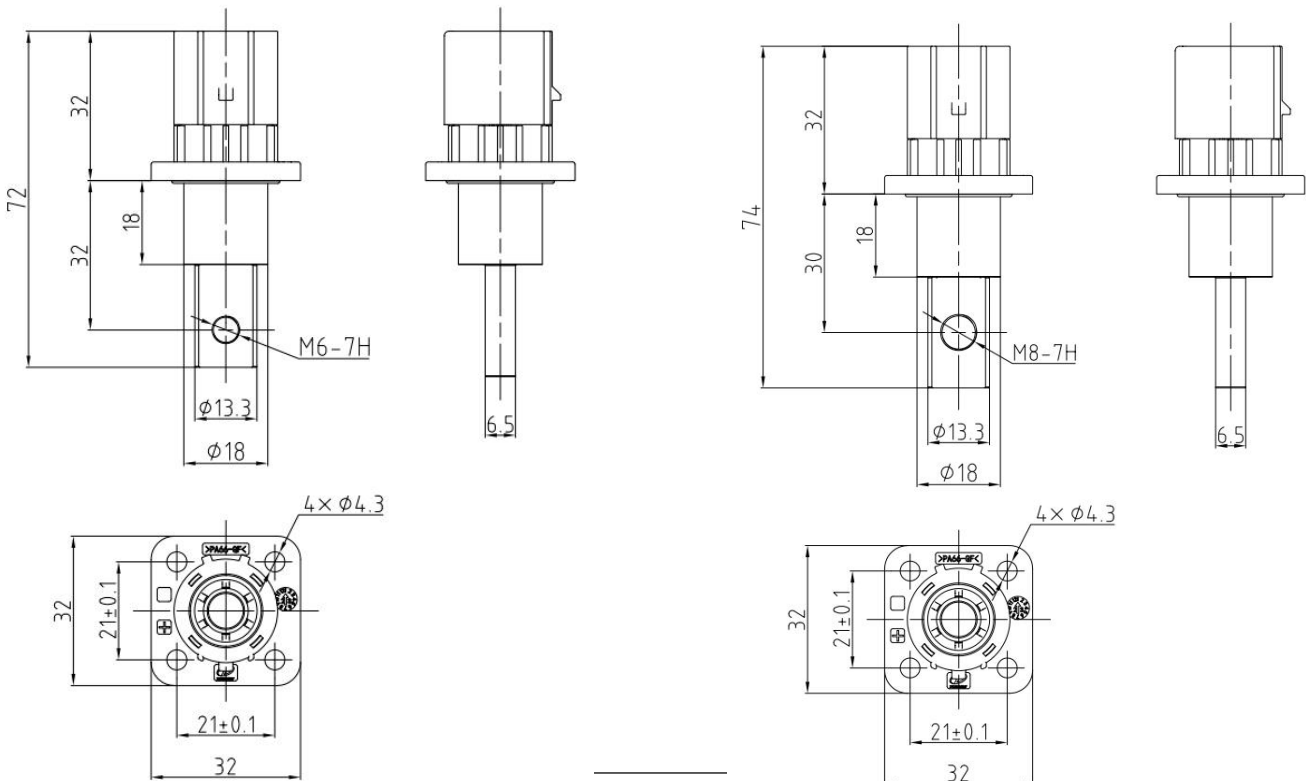
4.2.2. receptacle Outline Dimension


(1). ESC - HPB250 -062 receptacle series

(2). ESC- HPB250-082



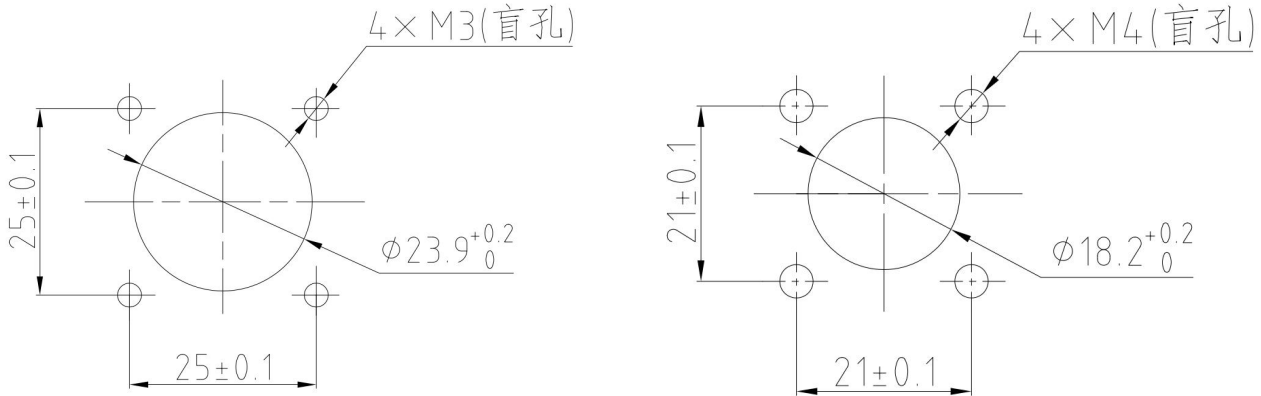
(3). ESC- HPB250 -062 -A receptacle series (4). ESC- HPB250 -082-A receptacle series



	product name	ESC-HPB250 connector	File No	/
	product code	/	Version	A6

4.2.3. Installing Holes Dimension

(1) E SC- HPB250 -0 62 /082 receptacle series (2) E SC- HPB250 -0 62 /082-A receptacle



5. Description and Packaging Storage

5.1. The connector should be used within the provided technical parameters, and the product should be installed, used and maintained in strict accordance with the product instruction manual.

Connectors should be used within the specification that provided,

Install, use and maintain the products according to the documents.

5.2. Packaging: Carton packing, moisture-proof treatment.

5.3 Storage Requirements (Storage Spec):

Products packed into boxes should be stored in a warehouse with an ambient temperature of -10°C to $+40^{\circ}\text{C}$, a relative humidity below 80%, and no acidic, alkaline or other corrosive gases in the surrounding air. The storage period shall not exceed two years from the date of production. .

The packaged products shall be stored in the warehouse within the temperature of $-10^{\circ}\text{C}\sim+40^{\circ}\text{C}$, relative humidity less than 80%, and no acid, alkaline or other corrosive gases in the surrounding air. The storage period shall not exceed two years from the production date.

Form Number	department	page number
J3-7.3-48	Vehicle Product Center	page 8 of 8