	product name	ESC-HPB400 Connector	File No	/
	product code	/	Version	B0


ESC-HPB400 Connector Technical Specification

Prepared/Date Zhang Tao 202 4 . 02 . 28

Review/Date : 202 4 . 02 . 28

Approval/Date Wu Hong 202 4 . 02 . 28

Form Number	department	page number
J3-7.3-48	Vehicle Product Center	page 1of 9

	product name	ESC-HPB400 Connector	File No	/
	product code	/	Version	B0


Changes and Revisions

<input type="checkbox"/> Change <input type="checkbox"/> Revision	date	Change or revision of major matters	Modified/revised	Approver
<input type="checkbox"/> Changes <input checked="" type="checkbox"/> revisions	2 3.8.24	9.5 mm ² cable corresponding to rated current 3.50A changed to 3.00A	Zhang Tao	Wu Hong
<input type="checkbox"/> Changes <input checked="" type="checkbox"/> revisions	2 3.9.18	Modify the dimensions	Zhang Tao	Wu Hong
<input type="checkbox"/> Changes <input checked="" type="checkbox"/> revisions	2 3.10.17	The contact resistance was changed from 0.3 mΩ to 0.2 mΩ Packaging method changed to: carton packaging, moisture-proof treatment	Zhang Tao	Wu Hong
<input type="checkbox"/> Changes <input checked="" type="checkbox"/> revisions	2 3.10.25	Modify dimensions	Zhang Tao	Wu Hong
<input type="checkbox"/> Change <input checked="" type="checkbox"/> revision	2 3.11.06	Model compliance changes	Zhang Tao	Wu Hong
<input type="checkbox"/> Change <input checked="" type="checkbox"/> revision	2 4.02.28	Installation hole size adjustment: from diameter to thread specification	Zhang Tao	Wu Hong

send

number	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				

Form Number	department	page number
J3-7.3-48	Vehicle Product Center	page 2 of 9

	product name	ESC-HPB400 Connector	File No	/
	product code	/	Version	B0

1. Product model and code


No.	Product Model	Order No.	Cable specification	Note
1	ESC-HPB 400-095 -PY plug	112030106986	95 mm ²	Positive-Orange
2	ESC-HPB 400-120 -PY plug	112030106988	120 mm ²	
3	ESC-HPB 400-095 -PB plug	112030106985	95 mm ²	Negative-Black
4	ESC-HPB 400-120 -PB plug	112030106987	120 mm ²	
5	ESC- HPB400-081 - RY receptacle	112040107421	M8 waist hole	Positive-Orange
6	ESC- HPB400-082 - RY receptacle	112040107164	M8 threaded hole	
7	ESC-HPB400-081 - RB receptacle	112040107422	M8 waist hole	Negative-Black
8	ESC-HPB400-082 - RB receptacle	112040107165	M8 threaded hole	

2. Specification

2.1. Electrical Characteristics:

Number of Pins	1
Terminal specifications	∅ 14 mm
Rated Current	300A (95mm ²) / 400A (120mm ²)
Rated Voltage	1500V DC
Voltage Proof	6800V AC 50Hz
Contact Resistance	≤0.2 mΩ
Insulation Resistance	≥100MΩ
Temperature Rise	≤45K

Form Number	department	page number
J3-7.3-48	Vehicle Product Center	page 3 of 9

	product name	ESC-HPB400 Connector	File No	/
	product code	/	Version	B0

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	95 mm ² / 120 mm ²
Cable Diameter OD	18.70 ± 0.5 mm / 20.50 ± 0.5 mm
Termination Method	Plug: Double B type crimping or hexagonal crimping receptacle: thread locking M 8 torque 10N•m-12N•m
Installation Method	Screw M 4 Screw
Installation Torque	2 ± 0.2 N•m
Locking Method	CPA (Connector Position Assurance)
Preventing Misinsertion	Color Preventing Mechanical Preventing

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

Form Number	department	page number
J3-7.3-48	Vehicle Product Center	page 4 of 9


	product name	ESC-HPB400 Connector	File No	/
	product code	/	Version	B0

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

3.3. Environmental Protect Data: RoHS 2.0

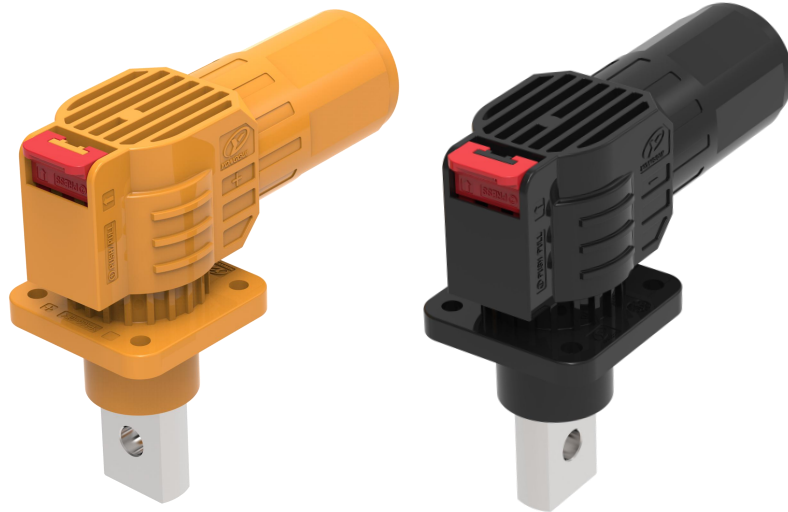
3.4. Security Authentication: CE, UL4128, T UV

Form Number	department	page number
J3-7.3-48	Vehicle Product Center	page 5 of 9

	product name	ESC-HPB400 Connector	File No	/
	product code	/	Version	B0

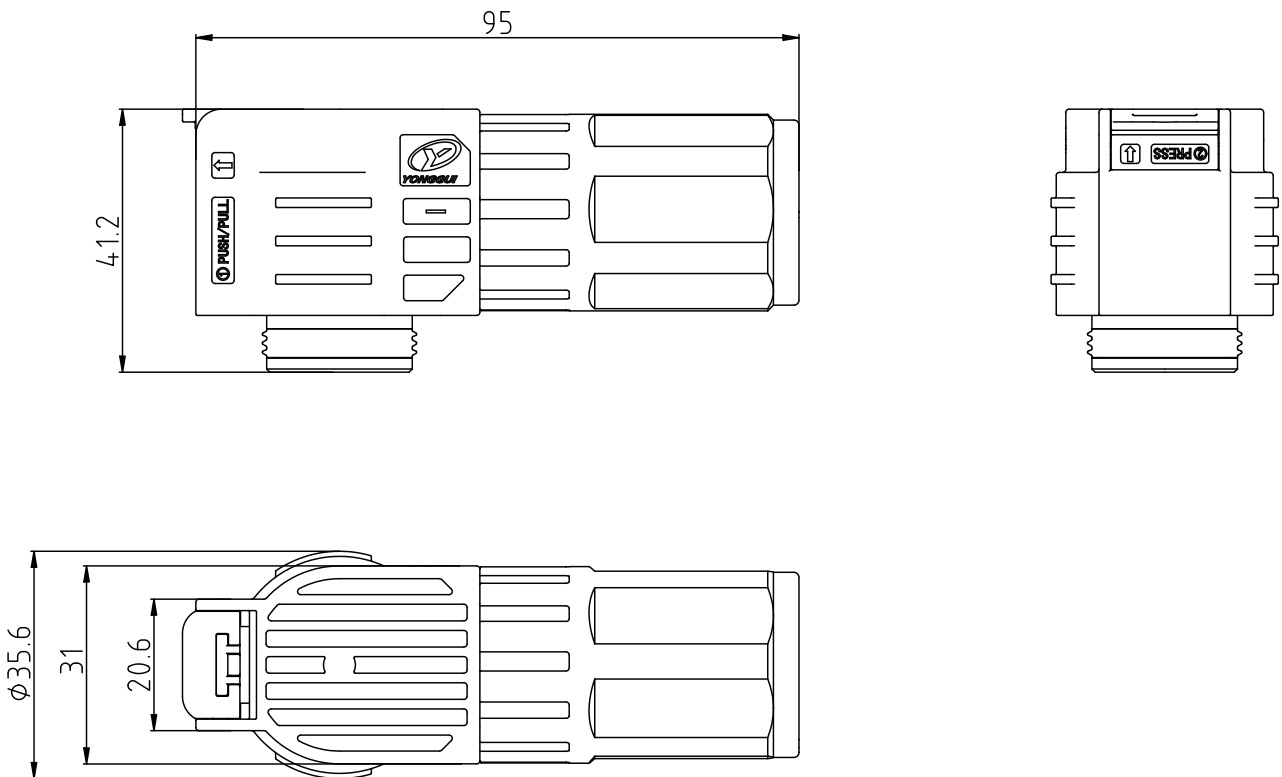
4. Outline Dimension

4.1. Product Outline:




4.2. Product Outline Dimension:

4.2.1. Plug Outline Dimension

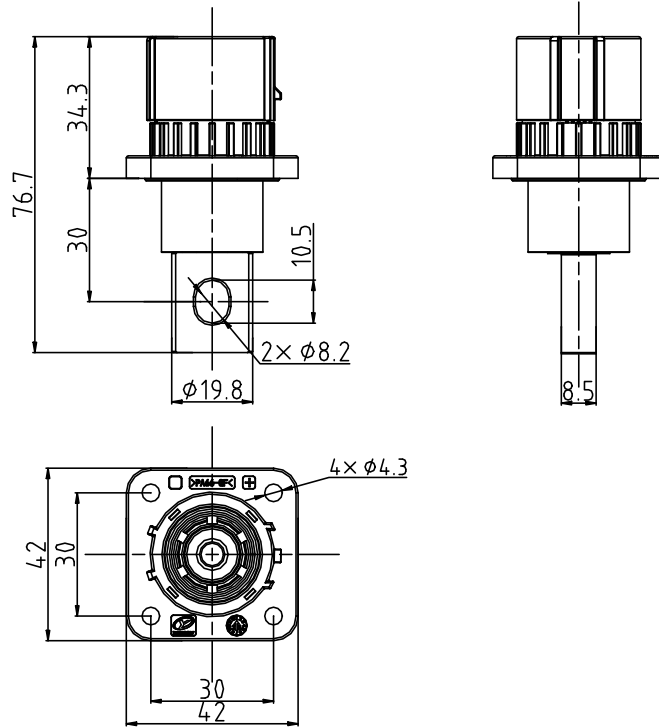


Form Number	department	page number
J3-7.3-48	Vehicle Product Center	page 6 of 9

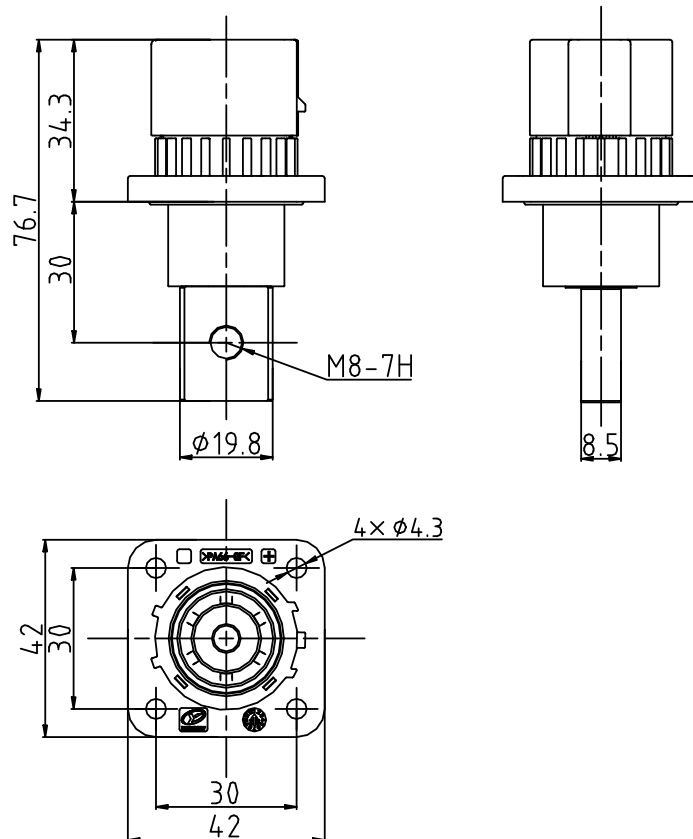
	product name	ESC-HPB400 Connector	File No	/
	product code	/	Version	B0

4.2.2. receptacle Outline Dimension


(1) .ESC- HPB400 -081 receptacle series



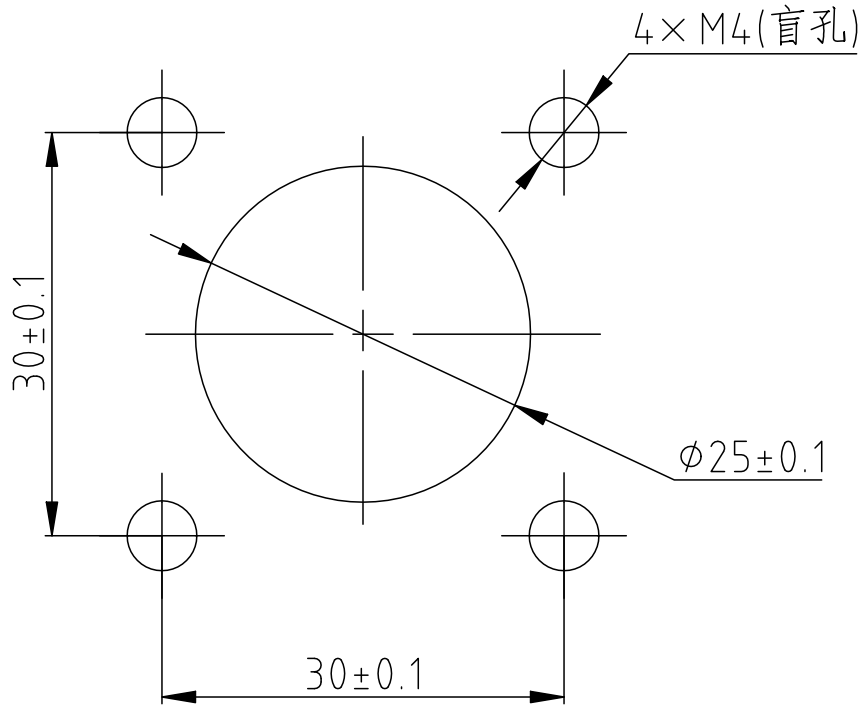
(1) .ESC- HPB400-082 receptacle series




Form Number	department	page number
J3-7.3-48	Vehicle Product Center	page 7 of 9

	product name	ESC-HPB400 Connector	File No	/
	product code	/	Version	B0

4.2.3. Installing Holes Dimension



Form Number	department	page number
J3-7.3-48	Vehicle Product Center	page 8 of 9

	product name	ESC-HPB400 Connector	File No	/
	product code	/	Version	B0

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.

Connecters 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 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 9 of 9