	Product Name	ESC-HP120 Connector	Docu NO.	/
	Part NO.	/	Version	A4

ESC-HP120 Energy storage connector


Technical Specification

Edited by/Date Ping Tan 2023. 8. 1

Audited by/Date Zonghai Yu 2023. 8. 1

Approved by/Date Hong Wu 2023. 8. 1

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Changes & Revisions

<input type="checkbox"/> Change <input type="checkbox"/> Revise	Date	Major items	Revised by	Approved by
<input type="checkbox"/> Change <input checked="" type="checkbox"/> Revise	2023-02-15	1. Add threaded hole receptacle series	Tao Zhang	Hong Wu
<input type="checkbox"/> Change <input checked="" type="checkbox"/> Revise	2023.08.01	Added flame retardant grade, prevention of misinsertion and other instructions	Ping Tan	Hong Wu

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1. 产品型号及编码 (Model and Order No)

类型 (Type)	序号 (No.)	产品型号 (Product Model)	产品编码 (Order No.)	端接形式 (Terminal Form)	备注 (Note)
插头 Plug	1	ESC-HP120-025-PY Plug	111000405150	25mm ²	正极-橙色 Positive-Orange
	2	ESC-HP120-016-PY Plug	111000405106	16mm ²	
	3	ESC-HP120-025-PB Plug	111000405148	25mm ²	负极-黑色 Negative-Black
	4	ESC-HP120-016-PB Plug	111000405145	16mm ²	
插座 Receptacle	1	ESC-HP120-051-RY Receptacle	111000502632	Through hole	正极-橙色 Positive-Orange
	2	ESC-HP120-052-RY Receptacle	111000502635	Threaded hole	
	3	ESC-HP120-051-RB Receptacle	111000502630	Through hole	负极-黑色 Negative-Black
	4	ESC-HP120-052-RB Receptacle	111000502633	Threaded hole	

2. 技术参数 (Specification)

2.1. 电气特性 (Electrical Characteristic):

芯数 Pins	1
端子规格 Terminal specifications	Φ5.75mm
额定电流 Rated Current	120A (25mm ²) / 80A (16mm ²)
额定电压 Rated Voltage	1500V DC
耐电压 Voltage Proof	6800V AC 50Hz
接触电阻 Contact Resistance	≤0.5mΩ
绝缘电阻 Insulation Resistance	≥100MΩ
温升 Temperature Rise	≤45K


2.2. 机械特性 (Mechanical Characteristic):

机械寿命 Durability	≥100 Cycles
防护等级 Protection Class	IP67

2.3. 材料及表面处理 (Material and Finish):

材料 Material	绝缘体 Insulator: 工程塑料 Engineering plastics 橡胶件 Rubber parts: 硅橡胶 Silicon rubber
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	接触件 Contact parts: 铜合金 Copper alloy
表面处理 Surface Treatment	镀银/锡 Silver/Tin
阻燃等级 Flame Rating	UL94 V0(Bulk Material)

2.4. 工作环境(Environmental data):

工作温度 Operating Temperature	-40℃ ~ +125℃
允许湿度 Relative Humidity	5%~95%
振动 Vibration/冲击 Shock	QC/T 1067.1-2017 Vibration level V1

3. 物料简介(Introduction)

线缆规格 Cable specification	25mm ² /16mm ²
线缆外径 Cable Diameter OD	10.20±0.2mm/8.10±0.2mm
端接方式 Termination Method	插头 Plug: 双 B 型压接 Crimp termination (Double "B") 插座 Receptacle: 螺纹锁紧 M5 Thread termination
安装方式 Installation Method	螺钉 (M3) Screw (M3)
安装扭矩 Installation Torque	1.2±0.2N•m
锁紧方式 Locking method	锁扣锁紧 Spring locking
防误插 Preventing Misinsertion	颜色防误 Color Preventing 机械防误 Mechanical Preventing


3.1. 应用场景(Application): 储能系统 (电池) 的功率传输(Power transmission of energy storage system (battery pack))

3.2. 执行标准(According To Standards): UL4128、QC/T 1067.1-2017

3.3. 环保信息(Environment Protect Data): RoHS 2.0

3.4. 安规信息(Security Authentication): CE、UL4128

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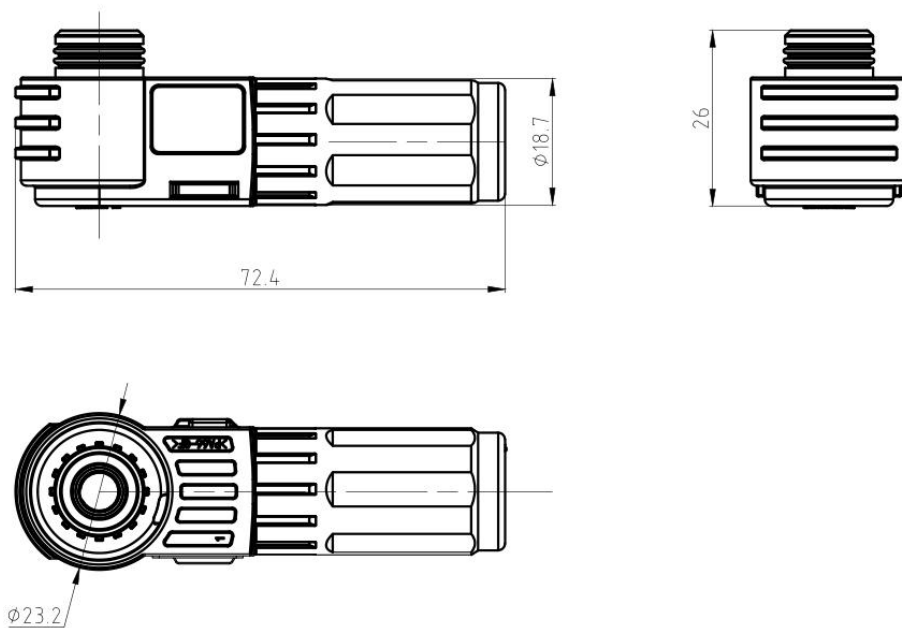
4. 外形尺寸(Outline Dimension)

4.1. 产品外形 Product Outline:




4.2. 产品外形尺寸 Product Outline Dimension:

4.2.1. 插头外形尺寸 Plug Outline Dimension

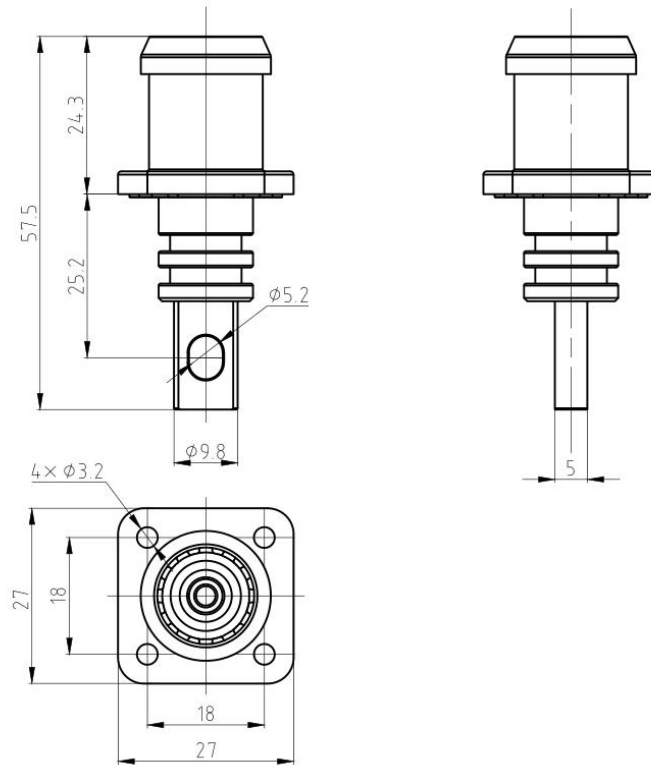


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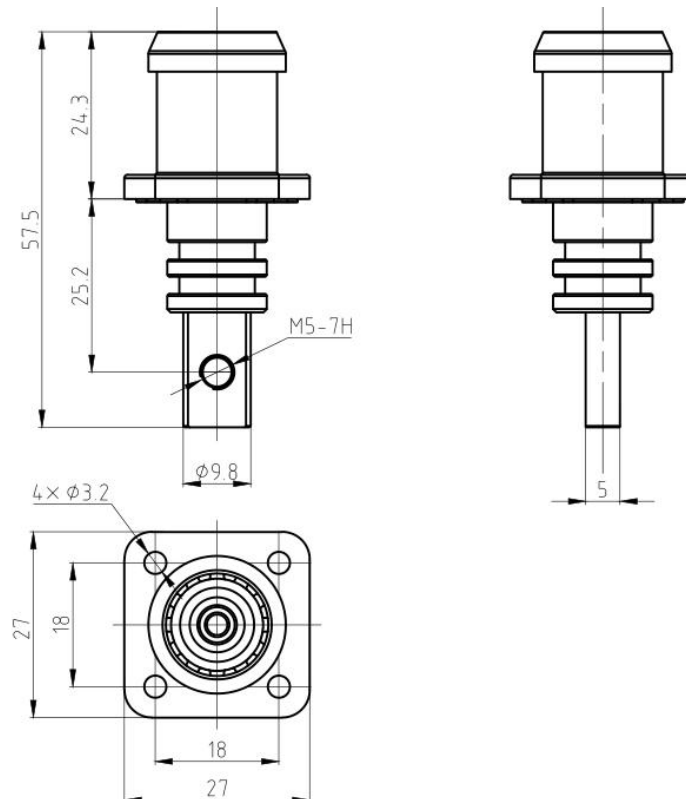
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4.2.2. 插座外形尺寸 Socket Outline Dimension


4.2.2.1. ESC-HP120-051 Series Receptacle



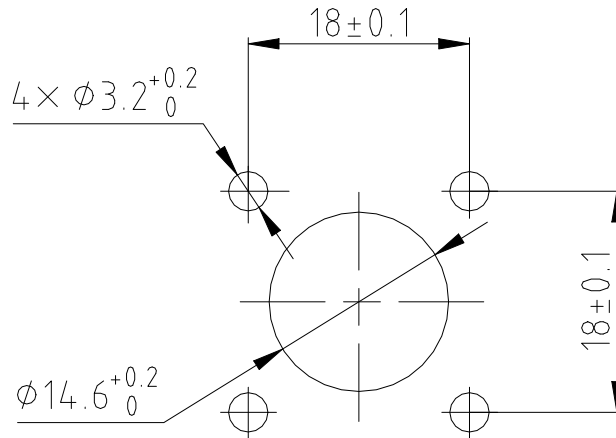
4.2.2.2. ESC-HP120-052 Series Receptacle



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4.2.3. 安装开孔尺寸 Installing Holes Dimension



5. 说明及包装存储 (Description and Packaging Storage)

5.1. 连接器应在提供的技术参数范围内使用，并严格遵照产品使用说明书，对产品进行安装、使用、维护。

Connectors should be used within the specification that provided, Install, use and maintain the products according to the documents.

5.2. 包装 (Package): 防潮气泡袋及纸盒包装

Packaging: moisture-proof bubble bag and carton.

5.3. 存储要求 (Storage Spec):

包装成箱的产品应在环境温度 $-10^{\circ}\text{C} \sim +40^{\circ}\text{C}$ ，相对湿度 80% 以下，周围空气中无酸性，碱性或其它腐蚀性气体的库房里贮存，贮存期自生产日期不超过两年。

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.

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