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	Part NO.	/	Version	B1

ESC-HP300 Energy storage connector


Technical Specification

Edited by/Date Tao Zhang 2023.04.06

Audited by/Date Zonghai Yu 2023.04.06

Approved by/Date Hong Wu 2023.04.06

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Changes & Revisions

<input type="checkbox"/> Change <input type="checkbox"/> Revise	Date	Major items	Revised by	Approved
<input type="checkbox"/> Change <input checked="" type="checkbox"/> Revise	2022.10.15	1. The product code is changed; 2. The withstand voltage DC is changed to AC	Jie Yao	Hong Wu
<input type="checkbox"/> Change <input checked="" type="checkbox"/> Revise	2023.02.23	Product name modification	Tao Zhang	Hong Wu
<input type="checkbox"/> Change <input checked="" type="checkbox"/> Revise	2023.03.01	Add new receptacle series	Tao Zhang	Hong Wu
<input type="checkbox"/> Change <input checked="" type="checkbox"/> Revise	2023.04.06	Add plating information	Tao Zhang	Hong Wu

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1. 产品型号及编码 (Model and Order No.)

序号 (No.)	产品型号 (Product Model)	产品编码 (Order No)	线规 (Cable specification)	备注 (Note)	防护等级 (Protection Class)
1	ESC-HP300-095-PY 插头	112030106404	95mm ²	正极-橙色-16 键位 Positive-Orange-16Keyway	IP67
2	ESC-HP300-070-PY 插头	112030106408	70mm ²		
3	ESC-HP300-095-PB Plug	112030106405	95mm ²	负极-黑色-20 键位 Negative-Black-20Keyway	
4	ESC-HP300-070-PB Plug	112030106409	70mm ²		
5	ESC-HP300-095-PYN Plug	112030106406	95mm ²	正极-橙色-16 键位 Positive-Orange-16Keyway	IP2XB
6	ESC-HP300-070-PYN Plug	112030106241	70mm ²		
7	ESC-HP300-095-PBN Plug	112030106407	95mm ²	负极-黑色-20 键位 Negative-Black-20Keyway	
8	ESC-HP300-070-PBN Plug	112030106242	70mm ²		
9	ESC-HP300-081-RY Receptacle	112040106500	Through hole	正极-橙色-16 键位 Positive-Orange-16Keyway	IP67
10	ESC-HP300-082-RY Receptacle	112040106783	Threaded hole		
11	ESC-HP300-081-RB Receptacle	112040106501	Through hole	负极-黑色-20 键位 Negative-Black-20Keyway	
12	ESC-HP300-082-RB Receptacle	112040106782	Threaded hole		
13	ESC-HP300-081-RYN Receptacle	112040106337	Through hole	正极-橙色-16 键位 Positive-Orange-16Keyway	IP2XB
14	ESC-HP300-082-RYN Receptacle	112040106784	Threaded hole		
15	ESC-HP300-081-RBN Receptacle	112040106338	Through hole	负极-黑色-20 键位 Negative-Black-20Keyway	
16	ESC-HP300-082-RBN Receptacle	112040106781	Threaded hole		

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2. 技术参数 (Specification)

2.1. 电气特性 (Electrical Characteristic):

芯数 Pins	1
端子规格 Terminal specifications	Φ12mm
额定电流 Rated Current	300A (95mm ²) / 250A (70mm ²)
额定电压 Rated Voltage	1500V DC
耐电压 Voltage Proof	6800V AC 50Hz
接触电阻 Contact Resistance	≤0.2mΩ
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	≥200 cycles
防护等级 Protection Class	IP67/IP2XB


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 接触件 Contact parts: 铜合金 Copper alloy
表面处理 Surface Treatment	镀银/锡 Silver/Tin

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

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3. 物料简介(Introduction)

线缆规格 Cable specification	95mm ² /70mm ²
线缆外径 OD Cable Diameter OD	18.7±0.5mm/15.5±0.3mm
端接方式 Termination Method	插头：双 B 型压接 Crimp termination(Double “B”) 插座：螺钉锁紧 M8 Thread termination
安装方式 Installation Method	螺钉 M4 Screw
安装扭矩 Installation Torque	2±0.2N•m
锁紧方式 Locking method	锁扣锁紧 Spring locking

- 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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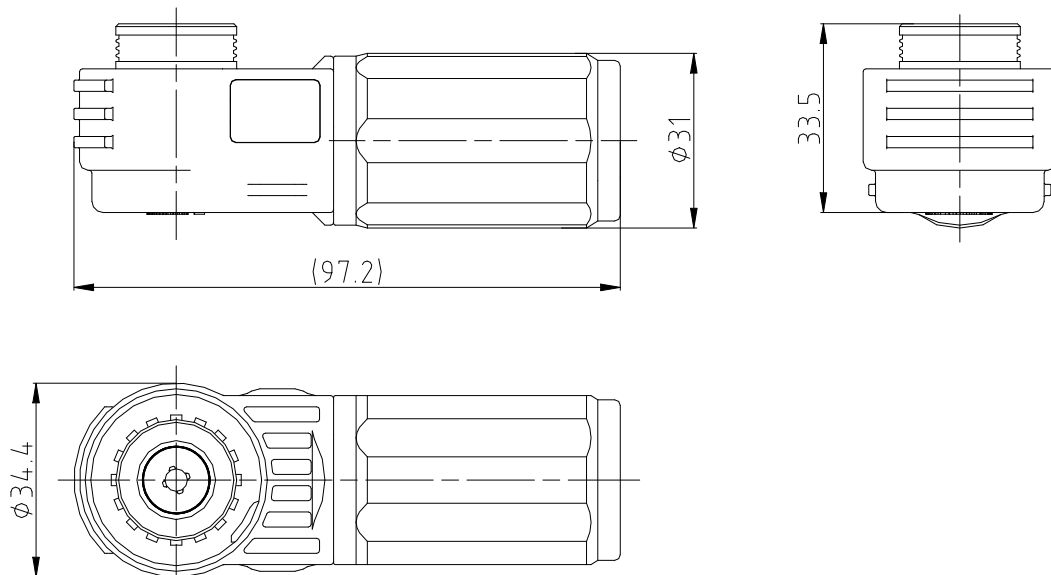
4. 外形尺寸(Outline Dimension)

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

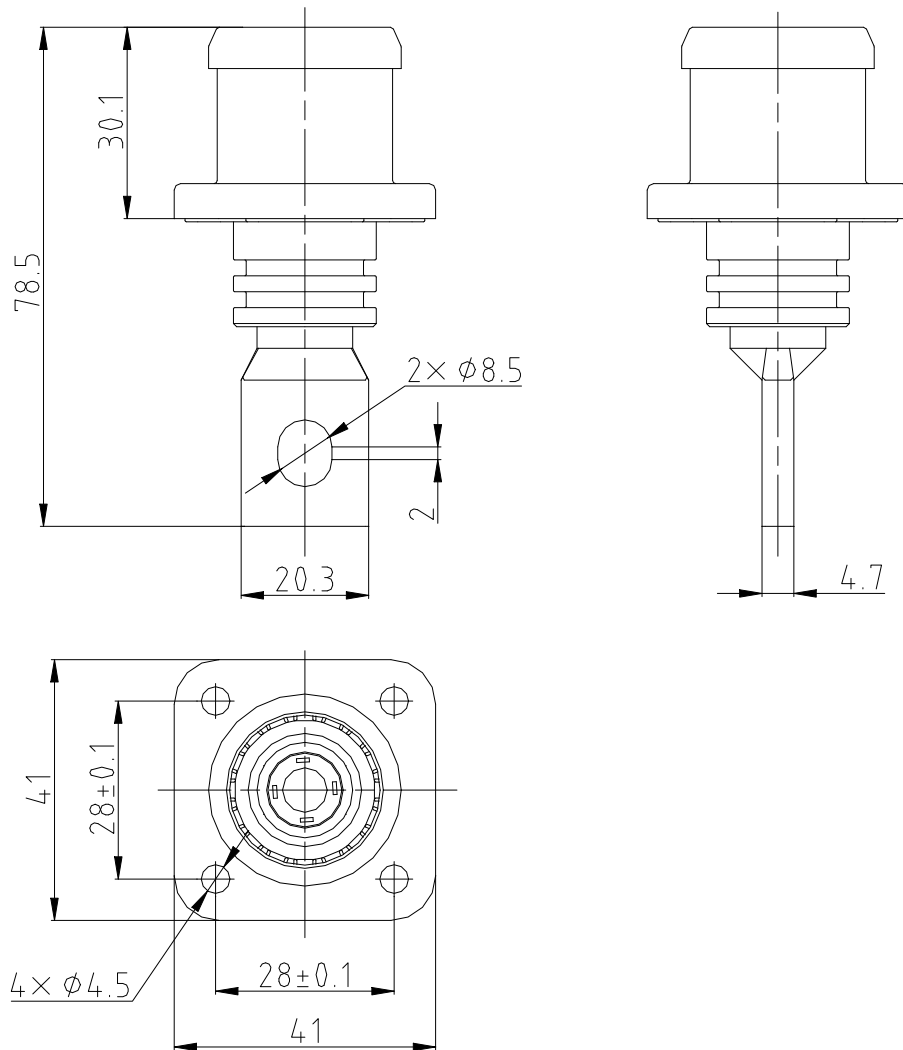


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4.2.2. 插座外形尺寸 Socket Outline Dimension

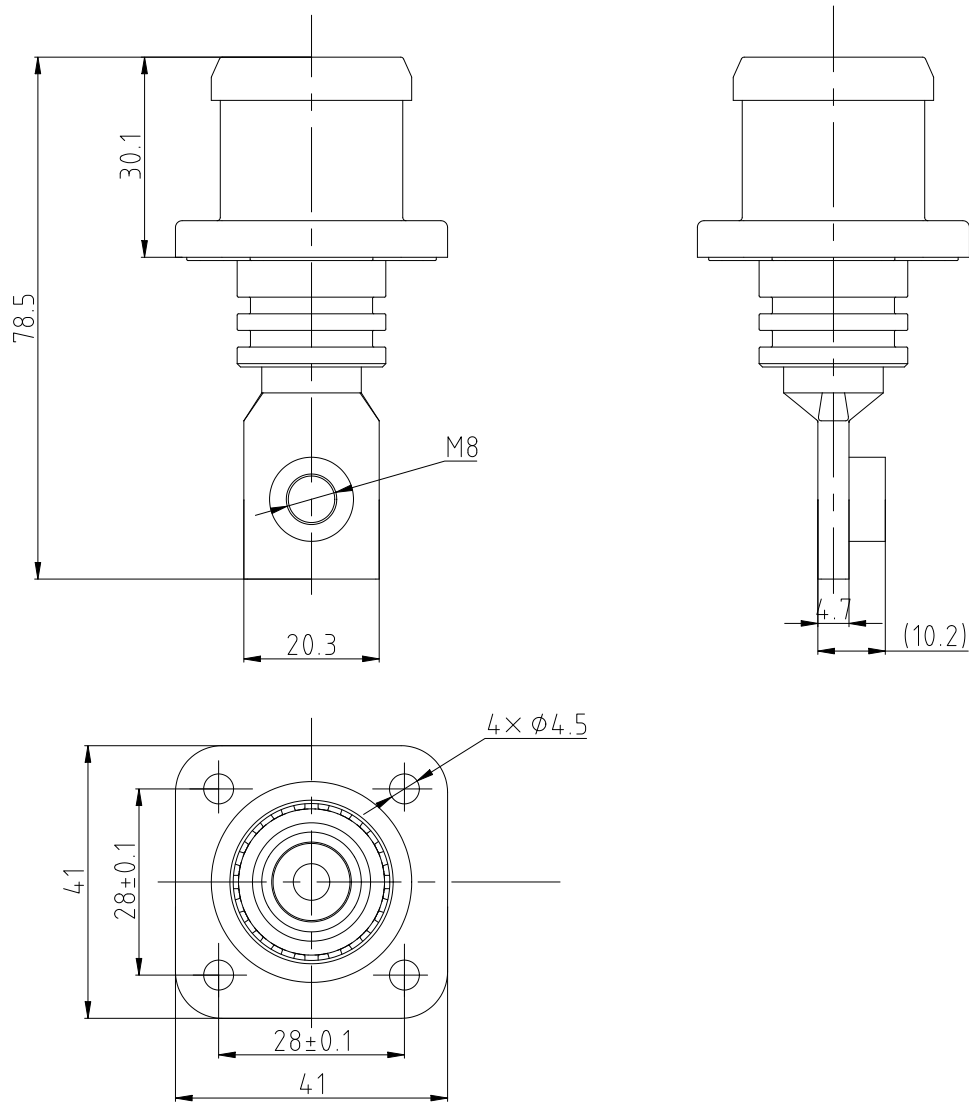
4.2.2.1. ESC-HP300-081-Series Receptacle



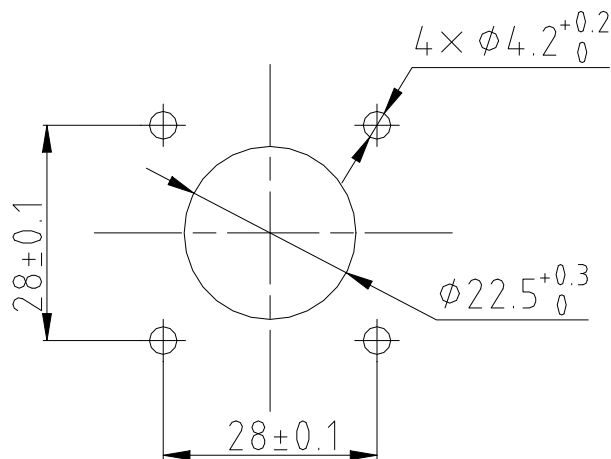
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4.2.2.2. ESC-HP300-082-Series Receptacle



4.2.3. 安装开孔尺寸 Installing Holes Dimension



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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。

Connecters 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 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℃~+40℃,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 °C~+ 40 °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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