

## 技术规格书B7/Technical Specification B7

### ESC-HPB400连接器 / ESC-HPB400 Connector

#### • 产品概述/Product instruction

 <p><b>应用场景/Application</b></p> <p>主要应用于箱式大储能、工商业储能、户用储能等领域，为储能系统的电池PACK、PCS等器件提供功率传输。</p> <p>Primarily used in fields such as large containerized energy storage, commercial &amp; industrial energy storage, and residential energy storage, providing power transmission for components like battery PACKs and PCS within the energy storage system.</p>	<p><b>优势/Advantages</b></p> <ul style="list-style-type: none"> <li>✓ 可360°旋转对插，释放线缆应力</li> <li>360° rotatable mating to release cable stress</li> <li>✓ 二次锁防止意外松脱</li> <li>The secondary lock prevents accidental loosening.</li> <li>✓ 颜色/键位防呆</li> <li>Color/key position error-proofing</li> <li>✓ 一体式弯式端子，避免转接不良</li> <li>One-piece right-angle terminal to prevent poor connections</li> </ul>
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#### • 订货信息/Ordering information

订货信息/Ordering information						
序号/ No.	产品名称/ Product name	产品编号/ Product code	颜色/ Color	对插键位/ Mating key position	线规/ Cable specification	备注/ Remarks
1	ESC-HPB400-095-PY插头 ESC-HPB400-095-PY plug	112030106986	橙色 / Orange	40°	95mm <sup>2</sup>	产品尺寸图及头座对插键位图详情见：产品尺寸图及安装开孔尺寸处/ For detailed product dimension drawings and plug-receptacle mating keying diagrams, please refer to: Product dimension drawings & Mounting hole dimensions
2	ESC-HPB400-095-PB插头 ESC-HPB400-095-PB plug	112030106985	黑色 / Black	70°		
3	ESC-HPB400-120-PY插头 ESC-HPB400-120-PY plug	112030106988	橙色 / Orange	40°	120mm <sup>2</sup>	
4	ESC-HPB400-120-PB插头 ESC-HPB400-120-PB plug	112030106987	黑色 / Black	70°		
5	ESC-HPB400-081-RY插座 ESC-HPB400-081-RY receptacle	112040107421	橙色 / Orange	40°	M8通孔/ M8 through hole	
6	ESC-HPB400-081-RB插座 ESC-HPB400-081-RB receptacle	112040107422	黑色 / Black	70°		
7	ESC-HPB400-082-RY插座 ESC-HPB400-082-RY receptacle	112040107164	橙色 / Orange	40°	M8螺纹孔/ M8 threaded hole	
8	ESC-HPB400-082-RB插座 ESC-HPB400-082-RB receptacle	112040107165	黑色 / Black	70°		
9	ESC-HPB400-082-RY4插座 ESC-HPB400-082-RY4 receptacle	112040109194	橙色 / Orange	40°		

10	ESC-HPB400-082-RB4插座 ESC-HPB400-082-RB4 receptacle	112040109195	黑色 / Black	70°		
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### • 可选配套零件 Optional accessories

可选配套零件/Optional accessories					
序号/ No.	产品名称/ Product name	产品编号/ Product code	颜色/ Color	尺寸示意图/ Dimension diagram	安装示意/ Installation diagram
1	ESC-HP400插座防护盖/ ESC-HP400 receptacle protective cover	114069805736	红色/ Red		
2	ESC-HPB400插座防护盖 P(红)/ ESC-HPB400 receptacle protection cover P (red)	114059800980	红色/ Red		

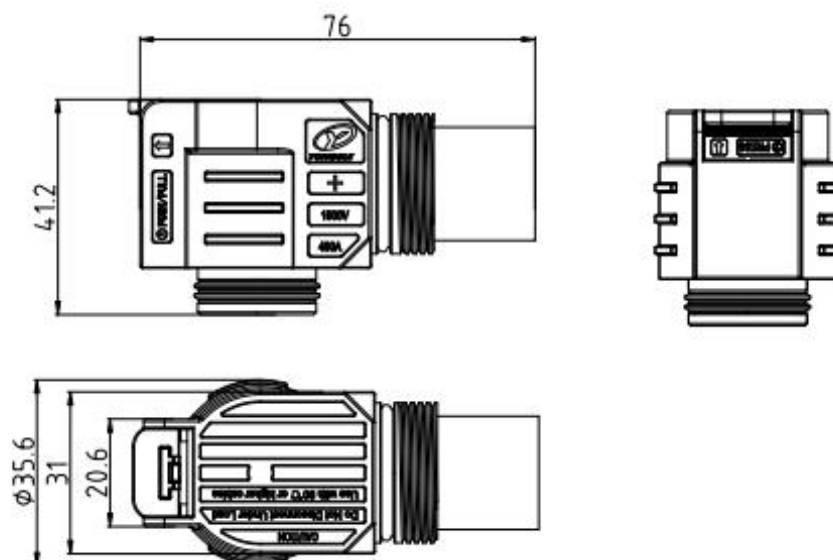
基本信息/Basic information	
芯数/Numbers of pins	1
端子规格/Terminal specifications	Φ14
电气性能/Electrical specification	
额定电压/Rated voltage	1500V DC
额定电流/Rated current	300A(95mm <sup>2</sup> )/400A(120mm <sup>2</sup> )
绝缘电阻/Insulation resistance	≥100MΩ
耐电压/Withstand voltage	6800V AC 50Hz
接触电阻/Contact resistance	≤0.2mΩ
温升/Temperature rise	≤45K
端接方式 /Termination method	
端接方式/Termination method	插头: 双B型压接或六方压接/ Plug: Double B-crimp or hexagonal crimp 插座: 螺纹锁紧M8 扭矩 10N•m-12N•m; 螺纹锁紧M6 扭矩5N•m-5.5N•m/ Receptacle: Threaded locking M8 torque 10N•m-12N•m; Threaded locking M6, torque 5 N•m - 5.5 N•m
线缆规格/Cable specifications	95mm <sup>2</sup> / 120mm <sup>2</sup>
线缆外径OD/Cable outer diameter	18.70±0.5mm/20.50±0.5mm
机械性能/Mechanical specification	
机械寿命/Life cycle	≥100 次/cycles
振动/冲击 /Vibration and shock	QC/T 1067.1-2017 Vibration level V1
耐环境性能/Environmental resistance specification	
工作温度/Ambient temperature	-40°C ~ +125°C
相对湿度/Humidity range	5% ~ 95%
盐雾/Salt spray	96 H

防护等级/IP rating	IP67(对插后/after mating)
材料/涂覆/外观/Materials/Finish/Outline	
绝缘体/Insulator	工程塑料/ Engineering plastic
橡胶件/Rubber part	硅橡胶/Silicone rubber
接触件 /Contacts	铜合金 镀银/锡 Copper alloy Silver-plated/Tin-plated
标准及认证/Standards and certifications	
阻燃等级/Flame retardant rating	UL94 V0 (主体材料)/ UL94 V0 (main material)
环保要求/Environment requirements	RoHS 2.0
产品认证/certification	CE、UL4128、TUV
参考标准 /Reference standard	UL4128、QC/T 1067.1-2017

- 技术数据/Technical data
- 产品尺寸图及安装开孔尺寸/Product size & mounting hole dimension

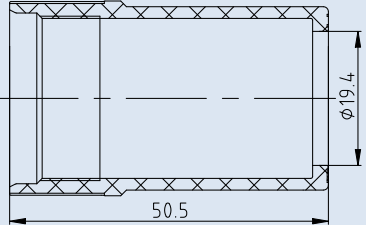
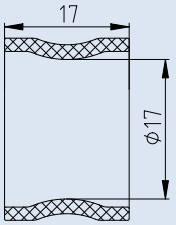
插头外形尺寸:

Plug outline dimensions:



插头配套发货零件尺寸:

Plug accessory and dimensions:

订货信息/ Ordering information	配套信息/ Supporting information		
产品名称/产品编号 Product name/Product number	M27尾螺母 M27 Tail nut	封线体 Cable seal	Φ22.6尾盖(黑)/ Φ22.6 Tail cover (black)
ESC-HPB400-095-PY插头/ ESC-HPB400-095-PY plug 112030106986	 114069805422(橙色 /Orange )	 114050501767	

<p>ESC-HPB400-095-PB插头/ ESC-HPB400-095-PB plug 112030106985</p>	<p>114069805423(黑色 /Black)</p>	<p>115980051401</p>
<p>ESC-HPB400-120-PB插头/ ESC-HPB400-120-PB plug 112030106987</p>	<p>114069805421(黑色 /Black)</p>	
<p>ESC-HPB400-120-PY插头/ ESC-HPB400-120-PY plug 112030106988</p>	<p>114069805418(橙色 /Orange)</p>	

**插座外形尺寸:**

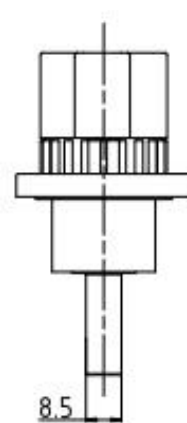
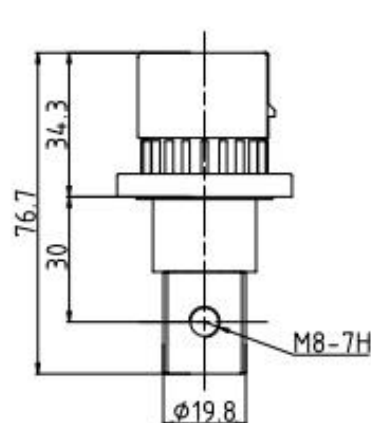
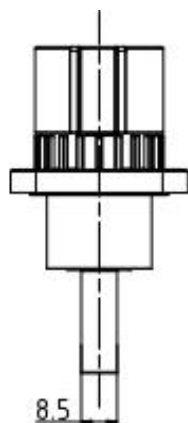
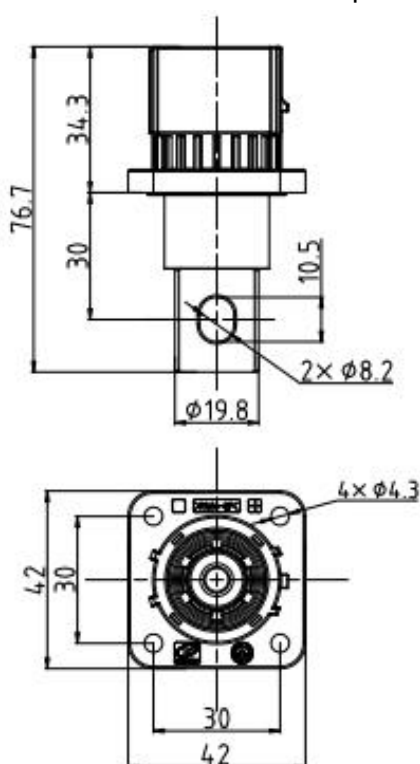
**Receptacle outline dimension:**

(1).ESC-HPB400-081 插座系列:

ESC-HPB400-081 receptacle series

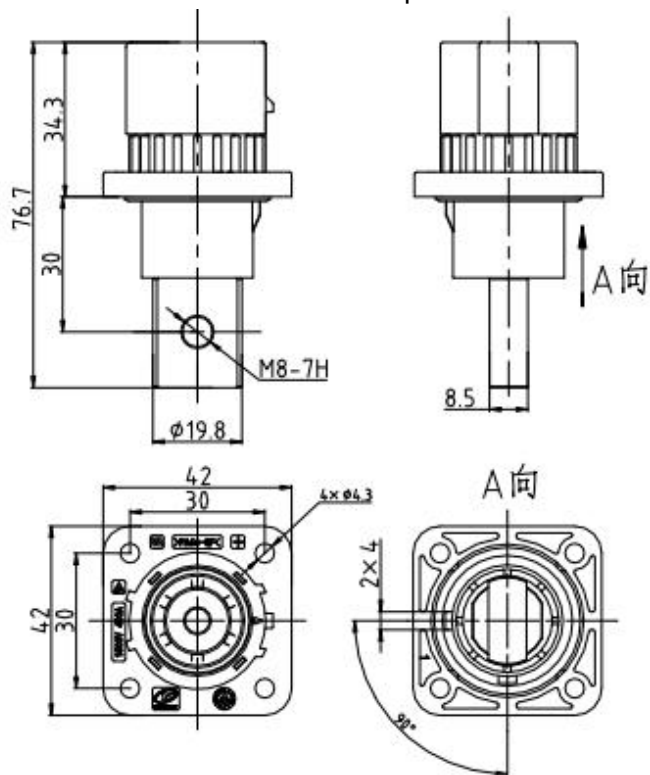
(2).ESC-HPB400-082-RY/B 插座系列:

ESC-HPB400-082-RY/B receptacle series



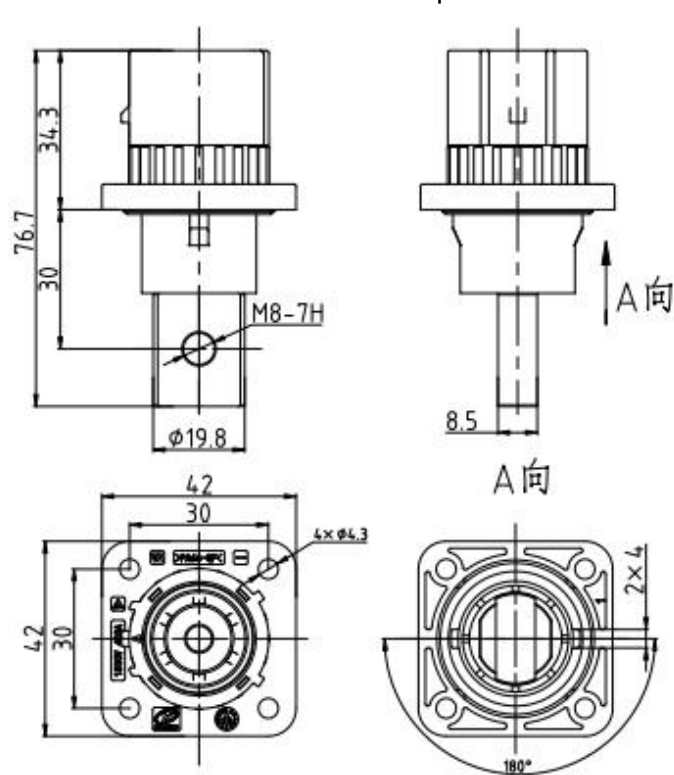
(3).ESC-HPB400-082-RY4 插座系列:

ESC-HPB400-082-RY4 receptacle series



(4).ESC-HPB400-082-RB4 插座系列:

ESC-HPB400-082-RB4 receptacle series



对插键位尺寸:

Mating keying dimensions:

(1)橙色插头键位 40°

(1) Orange plug key position 40°

(2)橙色插座键位 40°

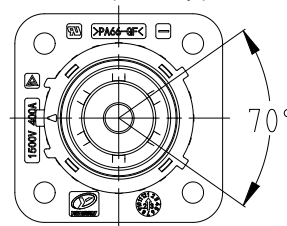
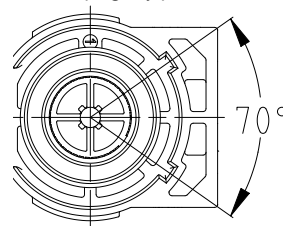
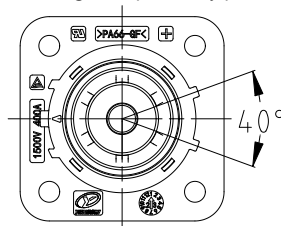
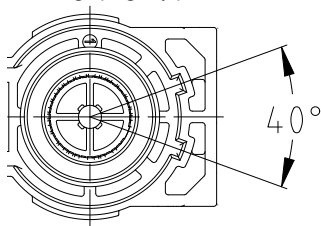
(2) Orange receptacle key position 40°

(3)黑色插头键位 70°

(3) Black plug key position 70°

(4)黑色插座键位 70°

(4) Black receptacle key position 70°



安装开孔尺寸:

Mounting hole dimension:

(1)ESC-HPB400-081/2-RY/B 插座

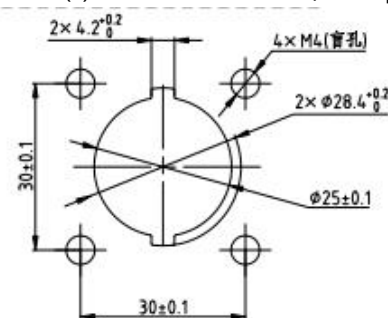
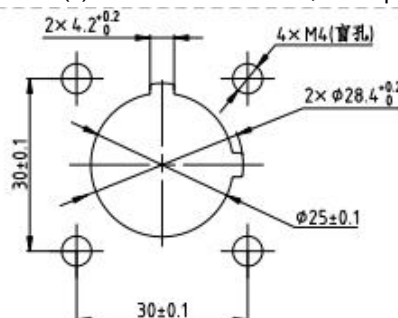
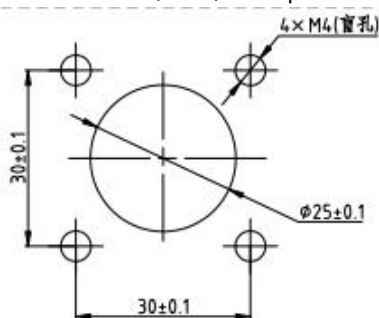
(1)ESC-HPB400-081/2-RY/B receptacle

(2)ESC-HPB400-082-RY3/4 插座

(2)ESC-HPB400-082-RY3/4 receptacle

(3)ESC-HPB400-082-RB3/4 插座

(3)ESC-HPB400-082-RB3/4 receptacle



## • 包装/储存/使用/Packaging/Storage/Usage

包装储存说明 /Instructions for packaging and storage	
包装方式/ Packaging method	纸箱包装, 防潮处理. Carton packaging, moisture-proof treatment
存放要求/ Storage requirements	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1年, 注意尾数使用后请及时封存。 Products packed in boxes should be stored in a warehouse with an ambient temperature of -10℃ ~ +40℃, a relative humidity of less than 80%, and no acidic, alkaline or other corrosive gases in the surrounding air. The storage period shall not exceed 1 year from the date of production. Please note that the remaining products should be sealed in time after use.
使用说明/ Instructions for use	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 provided technical parameter range and strictly in accordance with the product instruction manual for installation, use, and maintenance of the product.