

技术规格书A1/Technical Specification A1

YG939 系列电连接器/YG939 Series Electrical Connector

• 产品概述/Product instruction

 应用场景/Application 适用于电动汽车空调压缩机、PTC、充电机、DCDC、高压盒等的电气连接。 Suitable for electrical connections of electric vehicle air conditioning compressors, PTCs, chargers, DC-DC converters, high-voltage boxes, etc.	优势/Advantages ✓ 该产品可实现 360 度全屏蔽； The product can achieve 360-degree full shielding; ✓ 该产品可实现二次互锁及解锁； The product can realize secondary interlocking and unlocking; ✓ 该产品具有延时高压互锁功能； The product has a delayed high voltage interlocking function; ✓ 两端防呆键位采用 4 种不同组合实现防错插功能； The foolproof key positions at both ends adopt 4 different combinations to achieve the anti-mating function; ✓ 插头与插座连接形式为直插锁紧； The plug and receptacle utilize a direct plug-in locking mechanism for connection. ✓ 插头插座采用端子压接。 Plugs and receptacles adopt terminal crimping.
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• 订货信息/Ordering information

订货信息/Ordering information					
键位 Key position	I		II	III	IV
产品名称/ Product name	YGC939-EV-S2P 插头/ YGC939-EV-S2P plug		YGC939-EV-S2PB 插头/ YGC939-EV-S2PB plug	YGC939-EV-S2PC 插头/ YGC939-EV-S2PC plug	YGC939-EV-S2PD 插头/ YGC939-EV-S2PD plug
产品编号/ Product code	112010101848		112010102048	112010102053	112010102057
对插端名称/ Receptacle name	YGC939-EV-P2R 插座/ YGC939-EV-P2R receptacle	YGC939-EV-P2RA 插座/ YGC939-EV-P2RA receptacle	YGC939-EV-P2RB 插座/ YGC939-EV-P2RB receptacle	YGC939-EV-P2RC 插座/ YGC939-EV-P2RC receptacle	YGC939-EV-P2RD 插座/ YGC939-EV-P2RD receptacle
对插端编号/ Receptacle code	112020102083	112020102529	112020102282	112020102285	112020102286

注：端子需单独采购，具体采购信息见下针孔件订货信息表/

Note: Terminals need to be purchased separately. Refer to the Contacts Ordering Information table below for details.

订货信息（总成）/Ordering information (assembly)		订货信息（零部件明细，可单独采购）/Ordering information (parts details, can be purchased separately)				
		产品名称/ Product name	产品编码/ Product code	数量 / Qty	接线规格/ Wiring specification	图示（参考）/ Diagram (for reference)
YGC939-EV-S2P 插头/ YGC939-EV-S2P plug	112010101848	YG939 插头组件/ YG939 plug assembly	113990001412	1	/	
		YG582 内套管/ YG582 inner sleeve	114022500004	2	2.5mm ² Φ5.8±0.3mm/ 4mm ² (LV216) Φ5.8 (0, -0.5) mm	
		YG582 外套管/ YG582 outer sleeve	114022500006	2		
		YG582 挡板/ YG582 baffle	114069801481	2		
		YG582 封线体/ YG582 cable seal	114050500132	1		
		YG939 尾夹/ YG939 cable clamp	114060101674	1		
YGC939-EV-S2PB 插头/ YGC939-EV-S2PB plug	112010102048	YG939B 插头组件/ YG939B plug assembly	113990001413	1	/	
		YG582 内套管/ YG582 inner sleeve	114022500004	2	2.5mm ² Φ5.8±0.3mm/ 4mm ² (LV216) Φ5.8 (0, -0.5) mm	
		YG582 外套管/ YG582 outer sleeve	114022500006	2		
		YG582 挡板/ YG582 baffle	114069801481	2		
		YG582 封线体/ YG582 cable seal	114050500132	1		
		YG939 尾夹/ YG939 cable clamp	114060101674	1		

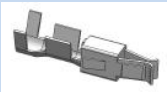
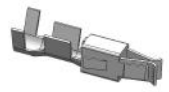
订货信息（总成）/Ordering information (assembly)		订货信息（零部件明细，可单独采购）/Ordering information (parts details, can be purchased separately)				
		产品名称/ Product name	产品编码/ Product code	数量 / Qty	接线规格/ Wiring specification	图示（参考）/ Diagram (for reference)

YGC939-EV-S2PC 插头/ YGC939-EV-S2PC plug	112010102053	YG939C 插头组件/ YG939C plug assembly	113990001411	1	/	
		YG582 内套管/ YG582 inner sleeve	114022500004	2	2.5mm ² Φ5.8±0.3mm/ 4mm ² (LV216) Φ5.8 (0, -0.5) mm	
		YG582 外套管/ YG939C plug assembly YG582 inner sleeve YG582 outer sleeve	114022500006	2		
		YG582 挡板/ YG582 baffle	114069801481	2		
		YG582 封线体/ YG582 cable seal	114050500132	1		
		YG939 尾夹/ YG939 cable clamp	114060101674	1		
YGC939-EV-S2PD 插头/ YGC939-EV-S2PC plug	112010102057	YGC939-EV-S2PD 插头组件/ YGC939-EV-S2PD plug assembly	/	1	/	
		YG582 内套管/ YG582 inner sleeve	114022500004	2	2.5mm ² Φ5.8±0.3mm/ 4mm ² (LV216) Φ5.8 (0, -0.5) mm	
		YG582 外套管/ YG582 outer sleeve	114022500006	2		
		YG582 挡板/ YG582 baffle	114069801481	2		
		YG582 封线体/ YG582 cable seal	114050500132	1		
		YG939 尾夹/ YG939 cable clamp	114060101674	1		

订货信息 (总成) /Ordering information (assembly)		订货信息 (零部件明细, 可单独采购) /Ordering information (parts details, can be purchased separately)				
		产品名称/ Product name	产品编码/ Product code	数量 / Qty	接线规格/ Wiring specification	图示 (参考) / Diagram (for reference)
YGC939-EV-P2R 插座/ YGC939-EV-P2R receptacle	112020102083	YGC939-EV-P2R 插座/ YGC939-EV-P2Rreceptacle	112020102083	1	/	
YGC939-EV-P2RB 插座/ YGC939-EV-P2RBreceptacle	112020102282	YGC939-EV-P2RB 插座/ YGC939-EV-P2RBreceptacle	112020102282	1	/	

P2RB receptacle						
YGC939-EV-P2RC 插座/ YGC939-EV-P2RC receptacle	112020102285	YGC939-EV-P2RC 插座/ YGC939-EV-P2RCreceptacle	112020102285	1	/	
YGC939-EV-P2RD 插座/ YGC939-EV-P2RD receptacle	112020102286	YGC939-EV-P2RD 插座/ YGC939-EV-P2RDreceptacle	112020102286	1	/	
YGC939-EV-P2RA 插座 (移动式插座) / YGC939-EV-P2RA receptacle (portable receptacle)	112020102529	YGC939-EV-P2RA 插座组件/ YGC939-EV-P2RA receptacle assembly	/	1	/	
		YG582 内套管/ YG582 inner sleeve	114022500004	2	2.5mm ² Φ5.8±0.3mm/ 4mm ² (LV216) Φ5.8 (0, -0.5) mm	
		YG582B 屏蔽件-外/ YG582B outer shielding	114022600064	2		
		YG939A 挡板	114060201576	2		
		YG939A 封线体/ YG939A baffle	114050200610	1		
		YG939A 尾夹/ YG939A cable seal	114060201577	1		

订货信息 (针孔件, 需单独采购) / Order information (Contacts, need to be purchased separately)

对应头座/ Plug & Receptacle	插头端/ Plug		插座端/ Receptacle		
产品名称/ Product name	YG939 功率插孔/ YG939 power socket (2.5mm ²)	YG939 功率插孔/ YG939 power socket (4mm ²)	YG939 功率插针/ Yg939 power pin (2.5mm ²)	YG939 功率插针/ YG939 power pin (4mm ²)	YG939 信号插孔/ YG939 signal socket
产品编号/ Product code	501021400357	501021401213	501021400216	501021401255	501021600128
接线规格/ Wiring specification	2.5mm ² Φ5.8±0.3mm	4mm ² (LV216) Φ5.8 (0, -0.5) mm	2.5mm ² Φ3.5±0.2mm	4mm ² (LV112) Φ3.7 (0, -0.3) mm	0.5mm ² Φ1.5±0.2mm
图示 (参考) / Diagram (for reference)					

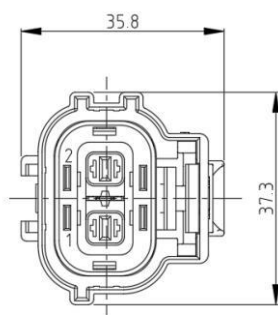
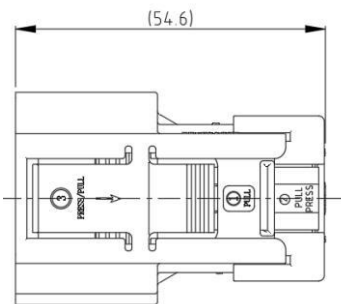
• **技术数据/Technical data**

基本信息/Basic information	
PIN 距/PIN pitch	10.4mm
芯数/Numbers of pins	2pin
出线方向/Cable outlet direction	180°
壳体材质/Shell material	塑料/Plastic
电气性能/Electrical specification	
额定电压/Rated voltage	800 V DC (功率/power) , 24 V DC (信号/signal)
额定电流/Rated current	16A (2.5mm ²) 、20A (4mm ²)
绝缘电阻/Insulation resistance	≥100MΩ
耐电压/Withstand voltage	3000 V AC (功率/power) , 1000 V AC (信号/signal)
HVIL	是/Yes
机械性能/Mechanical specification	
机械寿命/Life cycle	≥50 次/Times
振动/Vibration	LV214 S2
冲击/Shock	LV214 S2
耐环境性能/Environmental resistance specification	
工作温度/Ambient temperature	-40℃ ~ +125℃
相对湿度/Humidity range	95% (40℃时) /95% (at 40℃)
盐雾/Salt spray	96h
防护等级/IP rating	IP67、IP6K9K (头座对插) /IP67, IP6K9K (When plug and receptacle mated)
污染等级/Pollution level	2
海拔高度/Altitude	≤5000m
材料/涂覆/外观/Materials/Finish/Outline	
壳体/Shell	PA66-GF
屏蔽/Shielding	铜合金/Copper alloy
标准及认证/Standards and certifications	
阻燃等级/Flame retardant rating	UL94 V-0(塑料/plastic)、HB(橡胶/rubber)
环保要求/Environment requirements	RoHS 2.0

• **产品尺寸图及安装开孔尺寸/Product size & mounting hole dimension**

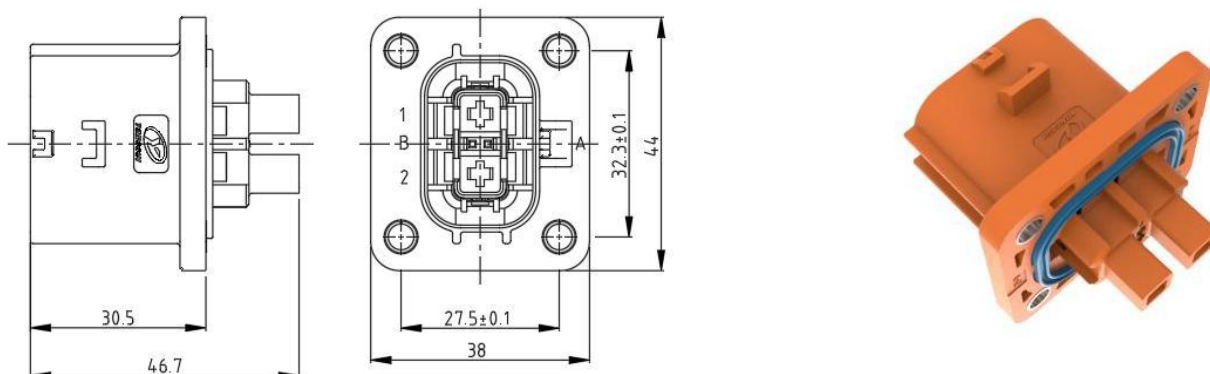
1.YGC939-EV-S2P 系列插头总成外形(未注公差: ±0.5)

YGC939-EV-S2P series plug assembly outline (unspecified tolerance: ±0.5)



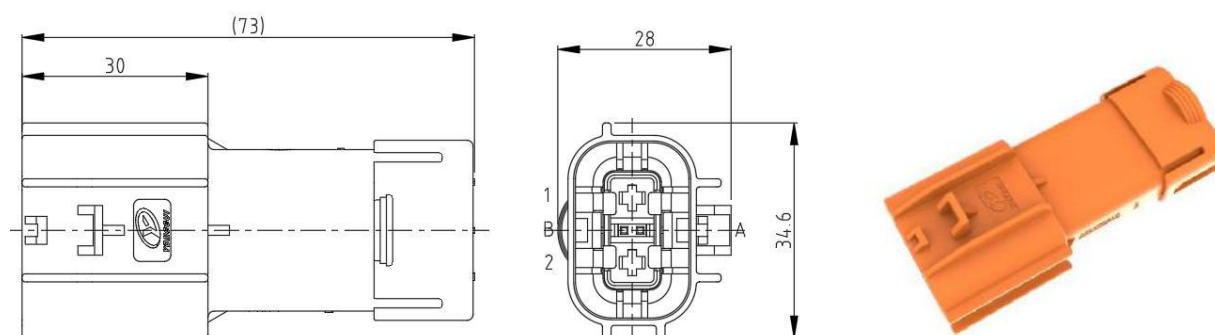
2.YGC939-EV-P2R 系列插座总成外形(未注公差: ± 0.5)

YGC939-EV-P2R series receptacle assembly outline (unspecified tolerance: ± 0.5)



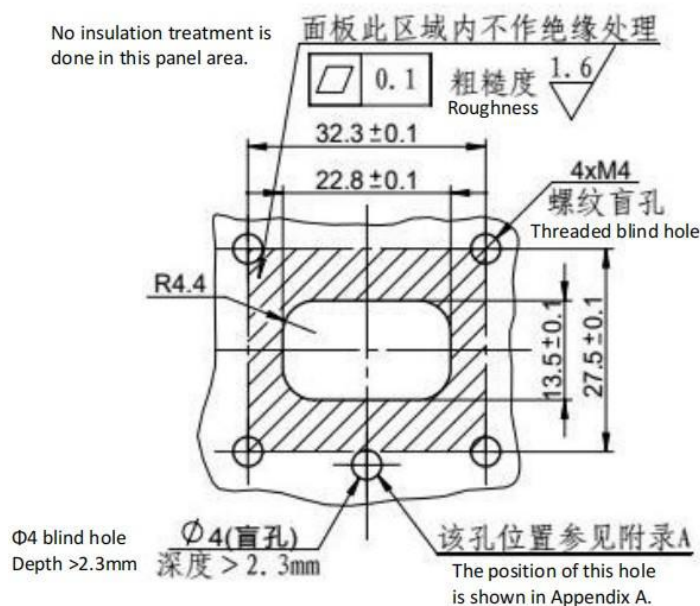
3.YGC939-EV-P2RA 系列插座总成外形(未注公差: ± 0.5)

YGC939-EV-P2RA series receptacle assembly outline (unspecified tolerance: ± 0.5)



4.YGC939-EV-P2R 系列插座安装开孔尺寸(未注公差: ± 0.1)

YGC939-EV-P2R series receptacle mounting hole dimensions (unspecified tolerance: ± 0.1)



附录 A
Appendix A

防呆键位型号/ Fool-proof key position model	I 型 Model I	II型 Model II	III型 Model III	IV型 Model IV
连接器插头视图/ Plug diagram				
连接器插座视图/ Receptacle diagram				
插座安装防呆孔位置尺寸/ Receptacle mounting fool-proof hole position dimensions				

• 安装说明/Installation

专用工具/Special tools	
拆卸工具/ Disassembly tool	功率插孔拆卸辅助工具（GZ939-01-01-00 拆卸工具）/Power socket disassembly tool (GZ939-01-01-00 disassembly tool) 功率插针拆卸辅助工具（RTSCC-04(2.8×0.8)拆卸工具）/Power pin disassembly tool (RTSCC-04(2.8×0.8) disassembly tool) 信号插针拆卸辅助工具（GZ939-02-03-00 拆卸工具）/Signal pin disassembly tool (GZ939-02-03-00 disassembly tool)

• 储存/Storage

包装储存&转运说明/Storage& transportation	
存放要求/ Storage requirement	接触件（镀金、镀银）类零部件必须单独保存，保持整洁、干净、通风。存储环境应控制在湿度≤60%、温度在5~30℃。参考保存期 6 个月。 Components with contact elements (gold-plated, silver-plated) must be stored separately, kept clean, tidy and in a well-ventilated environment. The storage environment shall be controlled with a humidity of ≤60% and a temperature ranging from 5°C to 30°C. The reference storage period is 6 months.
运输要求/ Transportation requirement	端子在包装、运输、转运和生产、装配过程中应避免碰撞、接触腐蚀性气体和液体、以及手直接接触等，以保证端子接触表面良好。 During packaging, transportation, transfer, production, and assembly processes, terminals shall be protected from collisions, contact with corrosive gases and liquids, and direct hand contact, so as to ensure the good condition of the terminal contact surfaces.