

技术规格书A3.1/Technical Specification A3.1

YGEV2-3pin系列连接器/YGEV2-3Pin Series Electrical Connectors

• 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 components such as air conditioning compressors, PTC heaters, chargers, DC/DC converters, and high-voltage boxes.

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 key positions at both ends adopt 4 different combinations to realize the function of preventing wrong insertion;
- ✓ 插头与插座的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。
The plug and receptacle adopt terminal crimping.

• 订货信息/Ordering information

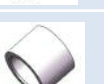
订货信息(总成)/Ordering information(assembly)

键位/ Key position	A	B	A	B	A	B
产品名称/ Product name	YGEV2-S3PA 插头 YGEV2-S3PA plug (2.5mm ²)	YGEV2-S3PB 插头 YGEV2-S3PB plug (2.5mm ²)	YGEV2-S3PA 插头 YGEV2-S3PA plug (4mm ²)	YGEV2-S3PB 插头 YGEV2-S3PB plug (4mm ²)	YGEV2-S3PA 插头 YGEV2-S3PA plug (6mm ²)	YGEV2-S3PB 插头 YGEV2-S3PB plug (6mm ²)
产品编号/ Product code	111000405923	111000405926	111000405924	111000405927	111000405925	111000405928
对插端名称/ Receptacle name	YGEV2-P3RA 插座 YGEV2-P3RA receptacle (2.5mm ²)	YGEV2-P3RB 插座 YGEV2-P3RB receptacle (2.5mm ²)	YGEV2-P3RA 插座 YGEV2-P3RA receptacle (4-6mm ²)	YGEV2-P3RB 插座 YGEV2-P3RB receptacle (4-6mm ²)	YGEV2-P3RA 插座 YGEV2-P3RA receptacle (4-6mm ²)	YGEV2-P3RB 插座 YGEV2-P3RB receptacle (4-6mm ²)
对插端编号/ Receptacle code	111000502908	111000502910	111000504256	111000502911	111000504256	111000502911

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)
YGEV2-S3PA 插头 YGEV2-S3PA plug (2.5mm ²)	111000405923	YGEV2-S3PA 插头组件 YGEV2-S3PA plug assembly	112010105975	1	/	
		Φ4.9 尾盖组件(黑)-3 Φ4.9 rear cover assembly (black) - 3	113990001598	1	2.5mm ² (LV216) Φ4.7(0, -0.5) mm	
		5.8×0.8 插孔 5.8×0.8 socket(2.5mm ²)	110010400999	3		
		YG1467 屏蔽件-外-4 YG1467 shielding-outer-4	114022500495	3		
		YGEV2 屏蔽件-内-2.5 YGEV2 shielding -inner -2.5	114022500523	3		
YGEV2-S3PB 插头 YGEV2-S3PB plug (2.5mm ²)	111000405926	YGEV2-S3PB 插头组件 YGEV2-S3PB plug assembly	112010105976	1	/	
		Φ4.9 尾盖组件(黑)-3 Φ4.9 rear cover assembly (black) - 3	113990001598	1	2.5mm ² (LV216) Φ4.7(0, -0.5) mm	
		5.8×0.8 插孔 5.8×0.8 socket(2.5mm ²)	110010400999	3		
		YG1467 屏蔽件-外-4 YG1467 shielding -outer- 4	114022500495	3		
		YGEV2 屏蔽件-内-2.5 YGEV2 shielding - inner - 2.5	114022500523	3		

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)
YGEV2-S3PA 插头 YGEV2-S3PA plug (4mm ²)	111000405924	YGEV2-S3PA 插头组件 YGEV2-S3PA plug assembly	112010105975	1	/	
		Φ6 尾盖组件(黑)-3 Φ6 rear cover assembly(black)-3	113990001597	1	4mm ² (LV216) Φ5.8(0, -0.5) mm	
		5.8×0.8 插孔 5.8×0.8 socket(4~6mm ²)	501021401790	3		
		YG1467 屏蔽件-外-4 YG1467 shielding - outer - 4	114022500495	3		
		YG1467 屏蔽件-内-4 YG1467 shielding - inner - 4	114022500492	3		
YGEV2-S3PB 插头	111000405927	YGEV2-S3PB 插头组件 YGEV2-S3PB plug assembly	112010105976	1	/	

YGEV2-S3PB plug (4mm ²)		Φ6 尾盖组件(黑)-3 Φ6 rear cover assembly(black)-3	113990001597	1	4mm ² (LV216) Φ5.8(0, -0.5) mm	
		5.8×0.8 插孔 5.8×0.8 socket(4~6mm ²)	501021401790	3		
		YG1467 屏蔽件-外-4 YG1467 shielding - outer - 4	114022500495	3		
		YG1467 屏蔽件-内-4 YG1467 shielding - inner - 4	114022500492	3		

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)
YGEV2-S3PA 插头 YGEV2-S3PA plug (6mm ²)	111000405925	YGEV2-S3PA 插头组件 YGEV2-S3PA plug assembly	112010105975	1	/	
		Φ6.7 尾盖组件(黑)-3 Φ6.7 rear cover assembly(black)-3	113990001596	1	6mm ² (LV216) Φ6.5(0, -0.5) mm	
		5.8×0.8 插孔 5.8×0.8 socket(4~6mm ²)	501021401790	3		
		YG1467 屏蔽件-外-6 YG1467 shielding - outer - 6	114022500496	3		
		YG1467 屏蔽件-内-6 YG1467 shielding - inner - 6	114022500494	3		
YGEV2-S3PB 插头 YGEV2-S3PB plug (6mm ²)	111000405928	YGEV2-S3PB 插头组件 YGEV2-S3PB plug assembly	112010105976	1	/	
		Φ6.7 尾盖组件(黑)-3 Φ6.7 rear cover assembly(black)-3	113990001596	1	6mm ² (LV216) Φ6.5(0, -0.5) mm	
		5.8×0.8 插孔 5.8×0.8 socket(4~6mm ²)	501021401790	3		
		YG1467 屏蔽件-外-6 YG1467 shielding - outer - 6	114022500496	3		
		YG1467 屏蔽件-内-6 YG1467 shielding - inner - 6	114022500494	3		

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)

YGEV2-P3RA 插座 YGEV2-P3RA receptacle (2.5 mm ²)	111000502908	YGEV2-P3RA 插座组件 YGEV2-P3RA receptacle assembly	112020106779	1	/	
		5.8×0.8 插针 5.8×0.8 pins (2.5 mm ²)	113020101581	3	Φ3.5± 0.2mm(2.5mm ²)	
		YGEV2-Φ3.2 护线套 YGEV2-Φ3.2 cable sheath	114059801037	3	Φ3.5± 0.2mm(2.5mm ²)	
		0.63×0.63 插针 0.63×0.63 pins	110010401011	2	Φ1.3± 0.1mm(0.35mm ²)	
YGEV2-P3RB 插座 YGEV2-P3RB receptacle (2.5 mm ²)	111000502910	YGEV2-P3RB 插座组件 YGEV2-P3RB receptacle assembly	112020106780	1	/	
		5.8×0.8 插针 5.8×0.8 pins (2.5 mm ²)	113020101581	3	Φ3.5± 0.2mm(2.5mm ²)	
		YGEV2-Φ3.2 护线套 YGEV2-Φ3.2 cable sheath	114059801037	3	Φ3.5± 0.2mm(2.5mm ²)	
		0.63×0.63 插针 0.63×0.63 pins	110010401011	2	Φ1.3± 0.1mm(0.35mm ²)	
YGEV2-P3RA 插座 YGEV2-P3RA receptacle (4-6 mm ²)	111000504256	YGEV2-P3RA 插座组件 YGEV2-P3RA receptacle assembly	112020106779	1	/	
		5.8×0.8 插针 5.8×0.8 pins (4~6 mm ²)	113020101520	3	Φ4.5± 0.2mm(4mm ²) Φ4.9± 0.2mm(6mm ²)	
		0.63×0.63 插针 0.63×0.63 pins	110010401011	2	Φ1.3± 0.1mm(0.35mm ²)	
YGEV2-P3RB 插座 YGEV2-P3RB receptacle (4-6 mm ²)	111000502911	YGEV2-P3RB 插座组件 YGEV2-P3RB receptacle assembly	112020106780	1	/	
		5.8×0.8 插针 5.8×0.8 pins (4~6 mm ²)	113020101520	3	Φ4.5± 0.2mm(4mm ²) Φ4.9± 0.2mm(6mm ²)	
		0.63×0.63 插针 0.63×0.63 pins	110010401011	2	Φ1.3± 0.1mm(0.35mm ²)	

• 技术数据/Technical data

基本信息/Basic information

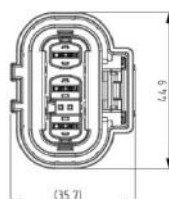
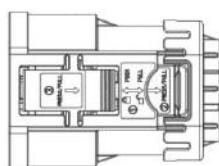
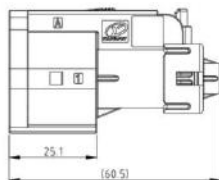
PIN 距/PIN pitch	9.6mm & 10.7mm
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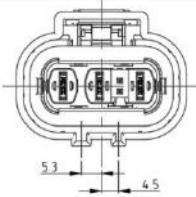
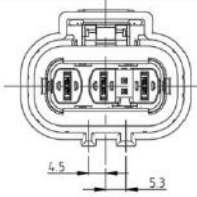
芯数/Numbers of pins	3pin
出线方向/Cable outlet direction	180°
壳体材质/Shell material	塑料/plastic
屏蔽功能/Shielding function	是/yes
电气性能/Electrical properties	
额定电压/Rated voltage	1000 V DC(功率/power), 24 V DC(信号/signal)
额定电流/Rated current	20A(2.5mm ²)、32A(4mm ²)、40A(6mm ²)
绝缘电阻/Insulation resistance	≥100MΩ
耐电压/Withstand voltage	3000 V AC(功率/power), 1000 V AC(信号/signal)
HVIL	是/yes
机械性能/Mechanical properties	
机械寿命 /Life cycles	≥50 次/times
振动/Vibration	USCAR-2 V2,LV214 S2
冲击/Shock	USCAR-2 V2,LV214 S2
耐环境性能/Environmental resistance properties	
工作温度/Ambient temperature	-40℃ ~ +125℃
相对湿度/Humidity range	95%(40℃时/at 40℃)
盐雾/Salt spray	720h
防护等级/IP rating	IP68(1m 水深, 48h)、IP6K9K(头座对插) IP68 (1m water depth, 48h),IP6K9K (plug-receptacle mated)
污染等级/Pollution level	2
海拔要求/Altitude requirements	≤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/Environmental requirements	RoHS 2.0

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

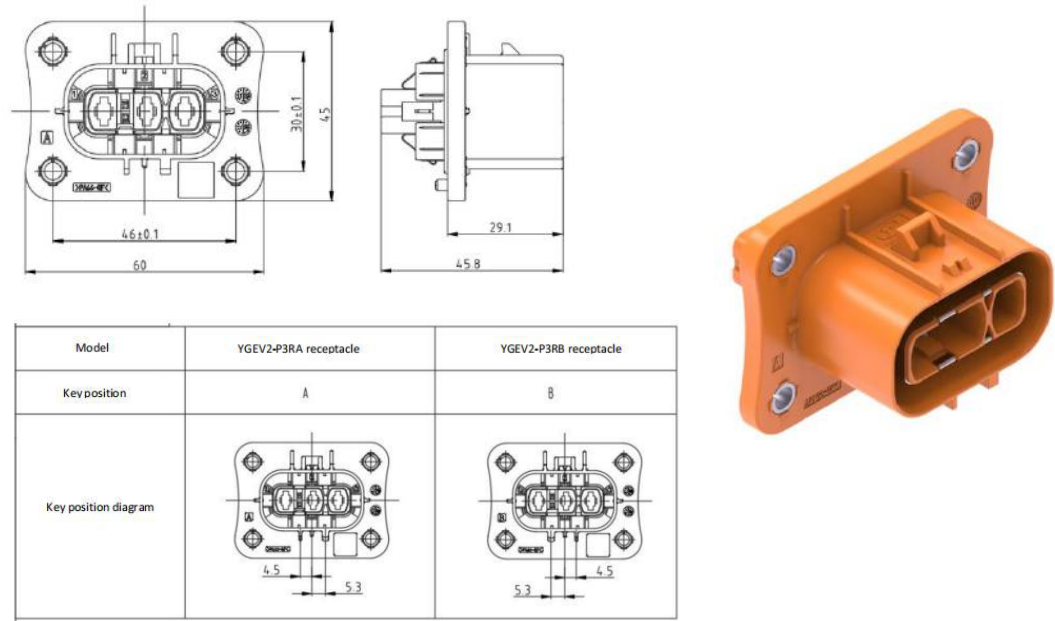
1.YGEV2-S3P 系列插头总成外形(未注公差: ±0.5)

YGEV2-S3P series plug assembly outline (unspecified tolerance: ±0.5)

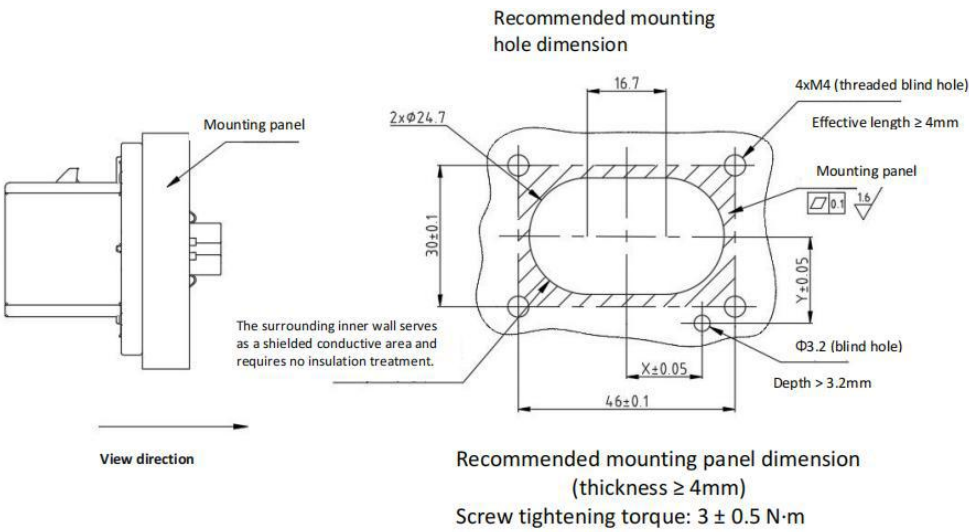


型号	YGEV2-S3PA插头	YGEV2-S3PB插头
键位	A	B
对插键位图示		

2.YGEV2-P3R 系列插座总成外形(未注公差：±0.5)
YGEV2-P3R series socket assembly outline (unspecified tolerance: ±0.5)



3.YGEV2-P3R 系列插座安装开孔尺寸(未注公差：±0.1)
YGEV2-P3R series socket mounting hole dimensions (unspecified tolerance: ±0.1)



型号 Model	X	Y	备注 Remarks
YGEV2-P3RA	16	-18.50	防错凸台孔位尺寸按图示(按平面直角坐标系, 原点为安装面板正中心) The dimension of the fool-proofing lugs shall be in accordance with the drawing (based on the Cartesian coordinate system, with the origin at the geometric center of the mounting panel).
YGEV2-P3RB	750	-18.50	

• 安装说明/Installation

专用工具/Special tools	
拆卸工具/Disassembly tool	功率插针拆卸辅助工具(532031201008)Power pin disassembly tool (532031201008) 功率插孔拆卸辅助工具(532031201010)Power socket disassembly tool (532031201010) 信号插针拆卸辅助工具(532031201009)Signal pin disassembly tool (532031201009)

• 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 $\leq 60\%$ 、温度在 $5\sim 30^{\circ}\text{C}$ 。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 $\leq 60\%$ 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.