



# Electric Vehicle Plugs Receptacles and Couplers - Component



## Electric Vehicle Plugs, Receptacles and Couplers - Component

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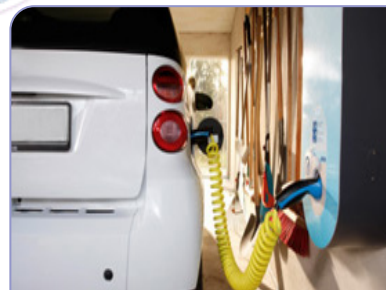
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# EV Charging Connections systems

## FUTURE MOBILITY: Electric Vehicles-Charging into the Future



Well Shin Technology offers Complete Solution for Electric Vehicle Charging Requirements. Standard and Custom EV charging solution for Hybrid and Electric Cars and Equipment. Design and prototyping services with professional guidance are offered by WellShin Technology.

- North American Charging standards:
  - Connectors - SAE J1772 Connectors with locking feature and LED power indicator light
  - Cables - 300V EVJE(TPE) cables, 600V EVE(TPE) cables, 300V EVJT(PVC) cables and 600V EVT(PVC) cables. UL Approved and NEC Compliant, Compatible with SAE J1772 connectors.
- European Charging standards:
  - Connectors - IEC 62196-1 & IEC 62196-2 Connectors with or without LED power indicator light.
  - Cables - 450/750V H07BB-F and H07RN-F cables. VDE Approved cables.
- China Charging standards:
  - Connectors - GB/T Connectors with or without LED power indicator light
  - Cables - 450/750V 245 IEC 53(YZ), 245 IEC 57(YZW), 245 IEC 66(YCW) cables. CCC Approved cables.





## A . Taiwan / USA / Canada

WS-420 台、美規充電槍（帶防塵蓋）

SAE J1772 Level 2 5Pin Plug Connector  
(CNS 15511)



Cat. No.: WS-420

充電柱用交流充電連接器 AC Charge for charger station :	SAE J1772 Level 2
充電輸入電壓 Charger Input Voltage :	220V AC / Single phase
充電輸出電流 Charger Output Current :	32A
介面標準 Interface Standard :	SAE J1772 , CNS 15511-2
安全 Safety :	UL 2594, UL2231-1, CNS 15511-3
防護等級 Degrees of Protection :	IP54

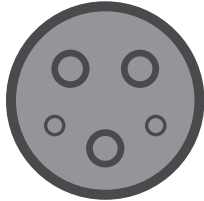
Electric Vehicle Plug Connector & Outlet



WS-425 台、美规、加拿大充电连接器公插(带防尘盖)  
 SAE J1772 (CNS 15511) SAE J1772 (UL 2251)



Cat. No.: WS-425



### SAE J1772 Level 2 5Pin Outlet

Cat. No. : WS-425(With Waterproof Cover )  
 Screw pitch dimensions are 53mm.  
 Periphery dimensions are 70mm

AC 30A 120/240V 50-60Hz Type 3S  
 CAUTION -Risk of Electric Shock,Do Not Disconnect Under Load For disconnecting use only  
 Attention -Risque de choc électrique,Ne pas débrancher soue charge Pour deconnecter utilisation seulement.

Model No.	Applicable Cable	Rating		Approval
WS-420	EVJT(EVJE) or EVT(EVE) 14AWG	15A	200~250V, AC	CNS
	EVJT(EVJE) or EVT(EVE) 12AWG	20A		
	EVT(EVE) 10AWG	30A		
	EVT(EVE)8AWG	40A		
	EVT(EVE) 6AWG	50A		
	EVT(EVE) 4AWG	60A		
	EVT(EVE) 2AWG	80A		
WS-425	EVJT(EVJE) or EVT(EVE) 14AWG	15A	200~250V, AC	CNS UL/CUL
	EVJT(EVJE) or EVT(EVE) 12AWG	20A		
	EVT(EVE) 10AWG	30A		
	EVT(EVE)8AWG	40A		
	EVT(EVE) 6AWG	50A		
	EVT(EVE) 4AWG	60A		
	EVT(EVE) 2AWG	80A		

Pilot contacts: 2~3A, 30V, DC

\* Under Application for Approval



# Electric Vehicle Plug Connector & Outlet



Electric Vehicle Plug Connector & Outlet



## WS-399 汽車充電連接控制器



家用型交流充電連接器 AC charge for home application :	SAE J1772 Level 1
充電輸入電壓 Charger Input Voltage :	110VAC / 220VAC / Single phase
充電輸出電壓 Charger Output Voltage :	110VAC / 220VAC / Single phase
充電輸出電流 Charger Output Current :	12 A / 16A
介面標準 Interface Standard :	SAE J1772 , CNS 15511-2
安全 Safety :	UL 2594, UL2231-1, CNS 15511-3
防護等級 Degrees of Protection :	IP54



# Electric Vehicle Plug Connector & Outlet

## WS-428 美規、加拿大二代充電槍（不帶防塵蓋） SAE J1772 (UL 2251)



Cat. No.: WS-428 (40A)

規格参数：

電壓：120V/240V AC

電流：40A (慢充)

防護等級：TYPE 1 (等同 IP10)

安規：美規

接線規格：EVE 8AWG\*2C+10AWG\*1C+18AWG\*1C

說明：外殼材質選用 PBT, 具有高耐熱性, 耐酸, 耐碱, 耐油, 防凍, 防水, 電氣絕緣性高

CAUTION:

Not for current interrupting.

Do not use this product if there is any damage to the EV cable or the EV connector.

To maintain enclosure rating, use only with a device with identical marking 3S.

ATTENTION:

Ne s'applique pas aux interruptions de courant.

Ne pas utiliser ce produit si le câble EV ou le connecteur est endommagé.

Pour conserver la valeur nominale du boîtier, on ne peut l'utiliser qu'avec des dispositifs ayant la même marque 3S.







## Electric Vehicle Plug Connector & Outlet

WS-428-1 美規、加拿大二代充電槍（不帶防塵蓋）  
SAE J1772 (UL 2251)



Cat. No.: WS-428-1 (40A)

規格參數：

電壓：120V/240V AC

電流：40A (慢充)

防護等級：TYPE 3S (等同 IP54)

安規：美規

接線規格：EVE 8AWG\*2C+10AWG\*1C+18AWG\*1C

說明：外殼材質選用 PBT, 具有高耐熱性, 耐酸, 耐鹼,  
耐油, 防凍, 防水, 電氣絕緣性高

### CAUTION:

Not for current interrupting.

Do not use this product if there is any damage to the EV cable or the EV connector.

To maintain enclosure rating, use only with a device with identical marking 3S.

### ATTENTION:

Ne s'applique pas aux interruptions de courant.

Ne pas utiliser ce produit si le câble EV ou le connecteur est endommagé.

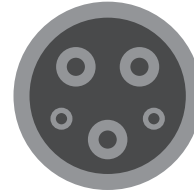
Pour conserver la valeur nominale du boîtier, on ne peut l'utiliser qu'avec des dispositifs ayant la même marque 3S.





# Electric Vehicle Plug Connector & Outlet

WS-420A 美规、加拿大充电枪（带防尘盖 / 无防尘盖）  
SAE J1772 (UL 2251)



Cat. No.: WS-420A (30A)  
AC 30A 120/240V 50-60Hz Type 3S  
CAUTION -Risk of Electric Shock,  
Do Not Disconnect Under Load  
-For disconnecting use only

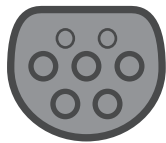
Electric Vehicle Plug Connector & Outlet



## B . Europe

WS-400 歐規充電槍公插(帶防尘盖)

IEC 62196-1 & IEC 62196-2 5 Pin Plug Connector



CE EVP32-2  
32A/400V~  
3P+N+E

CE EVP32-2  
32A/250V~  
2P+E

CE EVP32-2  
16A/400V~  
3P+N+E

CE EVP32-2  
16A/250V~  
2P+E



Cat. No. : WS-400 (With Waterproof Cover, LED & 680 Ohm Resistor)

Customer exclusive

Cat. No.: WS-400

技術要求：

接線規格

1. 4 芯線材規格 :H07BQ-F 3C[2.5mm<sup>2</sup>]+1C[0.5mm<sup>2</sup>].
2. 5 線材規格 :H07BQ-F 3C[2.5mm<sup>2</sup>]+2C[0.5mm<sup>2</sup>].
3. 6 芯線材規格 :H07BQ-F 5C[2.5mm<sup>2</sup>]+1C[0.5mm<sup>2</sup>], 直徑為 Ø13.8-13.9mm
4. 680R 電阻接在 PP 與 PE(地線)之間.

插頭 / 插座分配：	Plug connector & Outlet
相數：	IEC 62196-1 & IEC 62196-2 1-Phase/3-Phase
端子數：	1 ph+N+Gnd+ 2 pilot contacts
充電器：	Onboard
壽命：	>10,000 cycles
插拔力：	<=80 N
IP 保護：	Separated with cap: IP54; mated: IP55



## WS-401 歐規充電槍母插(帶防尘盖) IEC 62196 type 2



CE EVP32-2  
32A/400V~  
3P+N+E

CE EVP32-2  
32A/250V~  
2P+E

CE EVP32-2  
16A/400V~  
3P+N+E

CE EVP32-2  
16A/250V~  
2P+E  
KEMA  
KEUR

Cat. No.: WS-401

技術要求:

接線規格

1. 4 芯線材規格 :H07BQ-F 3C(2.5mm<sup>2</sup>)+1C(0.5mm<sup>2</sup>).
2. 6 芯線材規格 :H07BQ-F 5C(2.5mm<sup>2</sup>)+1C(0.5mm<sup>2</sup>), 直徑為 Ø13.8~13.9mm
3. 680R 電阻接在 PP 與 PE(地線)之間.



Cat. No.: WS-401

Cat. No.: WS-400





## WS-404 歐規充電槍



Cat. No.: WS-404 (32A)

規格参数：

電壓：480V AC

電流：32A(慢充)

防護等級：IP54

安規：歐規

接線規格：H07BZ5-F 5x6.0mm<sup>2</sup>+2x0.5mm<sup>2</sup>

說明：外殼材質選用PC，具有高耐熱性，耐酸，耐鹼，耐油，防凍，防水，電氣絕緣性高（開發中）



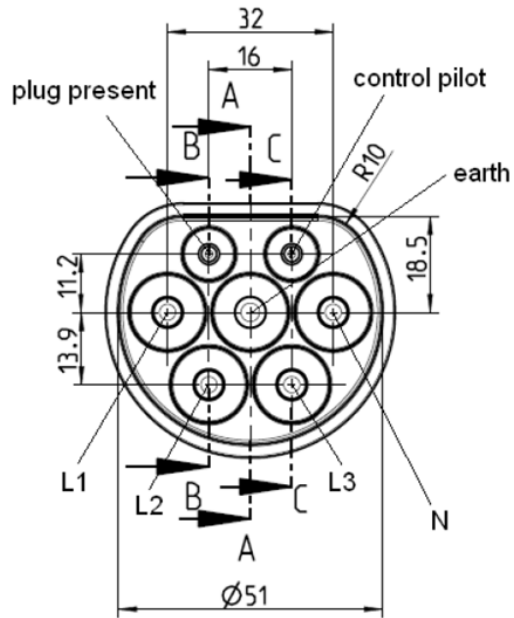
## WS-402 歐規充電槍一直流



規格參數：  
電壓：1000V DC  
電流：250A(快充)  
防護等級：IP44  
安規：歐規  
接線規格：2x25mm<sup>2</sup>+1x16mm<sup>2</sup>+6x1mm<sup>2</sup>  
說明：外殼材質選用 PC, 具有高耐熱性, 耐酸, 耐鹼, 耐油, 防凍, 防水, 電氣絕緣性高 (開發中)



## IEC 62196-1 & IEC 62196-2 5Pin Outlet



Model No.	Applicable Cable	Rating	Approval
WS-400	H07RN-F/H07BB-F 3*6.00mmsq + 2C 0.5MMSQ H07RN-F/H07BB-F 3*10.00mmsq + 2C 0.5MMSQ	32A 1P+N+G 200-250V, AC 63A 1P+N+G 200-250V, AC Pilot contacts: 2-3A, 30V, DC	*
*	H07RN-F/H07BB-F 5*2.50mmsq + 2C 0.5MMSQ H07RN-F/H07BB-F 5*6.00mmsq + 2C 0.5MMSQ H07RN-F/H07BB-F 5*10.00mmsq + 2C 0.5MMSQ	16A 3P+N+G 200/346V 240/415V, AC 32A 3P+N+G 200/346V 240/415V, AC 63A 3P+N+G 200/346V 240/415V, AC Pilot contacts: 2-3A, 30V, DC	*

\* Under Application for Approval



## C . China

### 5 Pin Plug Connector

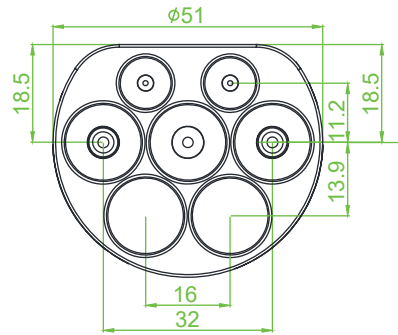


插頭 / 插座分配 :	Plug connector & Outlet
相數 :	GB/T xxxxx—xxxx 1-Phase
端子數 :	1 ph+N+Gnd+ 2 pilot contacts
充電器 :	Onboard
壽命 :	>10,000 cycles
插拔力 :	<=80 N
IP 保護 :	Separated with cap: IP54; mated: IP55





# Electric Vehicle Plug Connector & Outlet



## WS-481 中規充電枪 (帶防尘盖)

Cat. No.: WS-481 (16A)

規格参数:

電壓: 250V AC

電流: 16A(慢充)

防護等級: IP54

安規: 中規

接線規格: EV-SS 3\*2.5mm<sup>2</sup>+1\*0.75mm<sup>2</sup>

說明: 外殼材質選用 PC, 具有高耐熱性, 耐酸, 耐碱, 耐油, 防凍, 防水, 電氣絕緣性高

## WS-481-1 中規充電枪 (帶防尘盖)

Cat. No.: WS-481-1 (32A)

規格参数:

電壓: 250V AC

電流: 32A(慢充)

防護等級: IP54

安規: 中規

接線規格: 3x6.0mm<sup>2</sup>+1x0.75mm<sup>2</sup>

說明: 外殼材質選用 PC, 具有高耐熱性, 耐酸, 耐碱, 耐油, 防凍, 防水, 電氣絕緣性高

Model No.	Applicable Cable	Rating	Approval
WS-481 (16A) WS-481-1 (32A)	EV-SS 3*2.5 MMSQ+1*0.75 MMSQ+1*0.75 MMSQ	16A	220V, AC *
	EV 3*6.0 MMSQ+1*0.75 MMSQ+1*0.75 MMSQ	32A	
	450/750V 245 IEC 53(YZ) 5*2.50mmsq + 2C 0.5MMSQ	16A	
	450/750V 245 IEC 53(YZ) 3*6.00mmsq + 2C 0.5MMSQ	32A	
	450/750V 245 IEC 53(YZ) 5*6.00mmsq + 2C 0.5MMSQ	32A	
	450/750V 245 IEC 53(YZ) 3*10.00mmsq + 2C 0.5MMSQ	63A	
	450/750V 245 IEC 53(YZ) 5*10.00mmsq + 2C 0.5MMSQ	63A	
	245 IEC 57(YZW) 5*2.50mmsq + 2C 0.5MMSQ	16A	
	245 IEC 57(YZW) 3*6.00mmsq + 2C 0.5MMSQ	32A	
	245 IEC 57(YZW)5*6.00mmsq + 2C 0.5MMSQ	63A	
	245 IEC 57(YZW) 3*10.00mmsq + 2C 0.5MMSQ	63A	
	245 IEC 57(YZW) 5*10.00mmsq + 2C 0.5MMSQ	63A	
	245 IEC 66(YCW) 5*2.50mmsq + 2C 0.5MMSQ	16A	
	245 IEC 66(YCW) 3*6.00mmsq + 2C 0.5MMSQ	32A	
	245 IEC 66(YCW) 5*6.00mmsq + 2C 0.5MMSQ	32A	
	245 IEC 66(YCW) 3*10.00mmsq + 2C 0.5MMSQ	63A	
	245 IEC 66(YCW) 5*10.00mmsq + 2C 0.5MMSQ	63A	

Pilot contacts: 2-3A, 30V, DC

\* Under Application for Approval

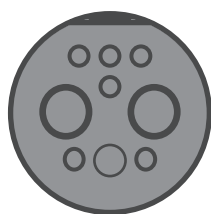


## Electric Vehicle Plug Connector & Outlet



**WS-481-A 中規充电枪(带防尘盖)**

Cat. No.: WS-481-A (7pin 250V 16A Assembly)



**WS-482-A 中規充电枪(带防尘盖)**

Cat. No.: WS-482-A (9pin 400V 125A Assembly)



維爾斯開發的WS-481-A, WS-482-A，未出三視圖，上面Proe圖僅供參考。具體以發行的圖面為主。














## Electric Vehicle Plug Connector & Outlet



WS-403 中規充電槍



規格參數：  
電壓：440V AC  
電流：32A (慢充)  
防護等級：IP54  
安規：中規  
接線規格：H07BZ5-F 5x6.0mm<sup>2</sup>+2x0.5mm<sup>2</sup>  
說明：外殼材質選用PC，具有高耐熱性，耐酸，  
耐鹼，耐油，防凍，防水，電氣絕緣性高  
(開發中)

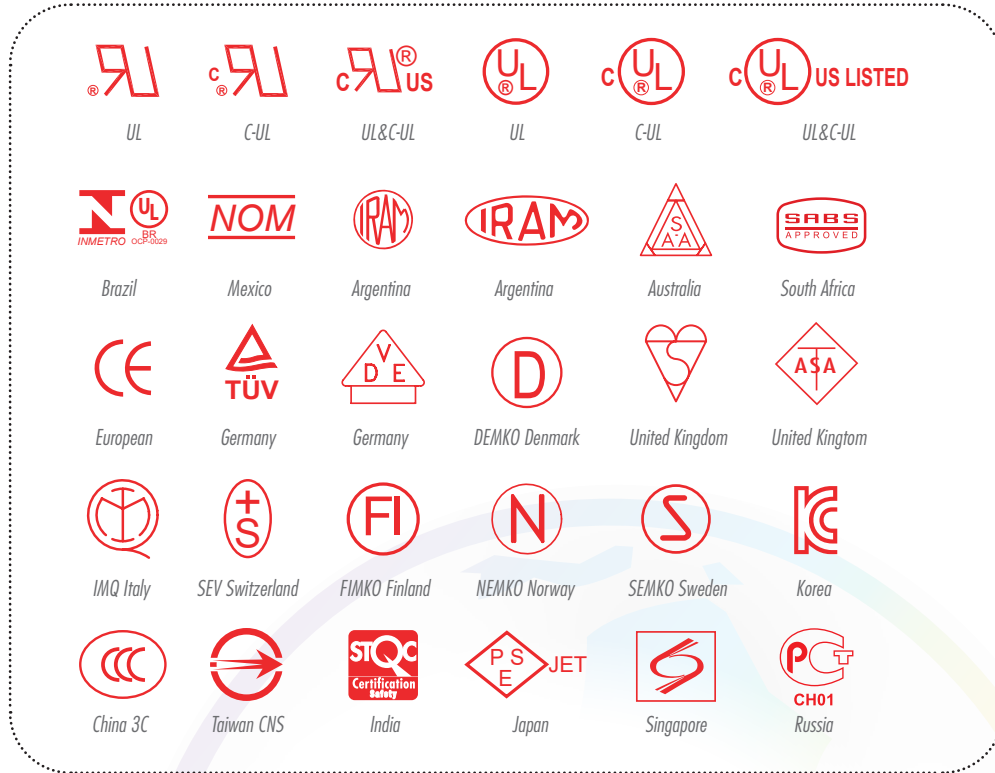
## 车充接口介绍

Area	N. America	Japan	EU and the rest of markets	China	all markets except EU
AC	 J1772 (Type 1)	 J1772 (Type 1)	 Mennekes (Type 2)	 BG/T	 Tesla
DC	 CCS1	 CHAdEMO	 CCS2	 BG/T	

Connector / Socket 连接器 / 插座接口	Type 型号	Applicable Standards 适用标准	Area 适用国家 / 区域	Current range 电流范围	Wire specification 接线规格 / 线材截面	Standards 测试法规
	Type1	SAE J1772	N. America Japan	AC 15-40A	3x8AWG+2x18AWG 	UL 62
	Type2	IEC 62196-2	Europe	AC 20-32A	5x6.0mm <sup>2</sup> +2x0.75mm <sup>2</sup> 	IEC 62893
	NA	GB/T 20234.2	China	AC 16-32A	5x6.0mm <sup>2</sup> +2x0.75mm <sup>2</sup> 	GB/T 33594
	BB	GB/T 20234.3	China	DC 80-250A	2x95+25+2x4+6x0.75mm <sup>2</sup> 	GB/T 33594
	AA	CHAdEMo	Japan	DC 200A	2x70mm <sup>2</sup> +1x35mm <sup>2</sup> +6x0.75mm <sup>2</sup> 	JCS4522
	EE	SAE J1772	USA Canada	AC&DC 40-500A	2x1AWG+1x3AWG+6x18AWG 	UL 62 CSA C22.2 No.49
	FF	IEC 62196-3 IEC 62196-3-1	Europe	AC&DC 40-500A	2x70mm <sup>2</sup> +1x35mm <sup>2</sup> + 6x0.75mm <sup>2</sup> 	IEC 62893

# Technical Information

- We gained Safety Standard approval of different country



**ISO 9001:2000  
REGISTERED**



**ISO 14001:2004  
REGISTERED**

Quality Manufacturer and Green Partner  
Awarded Sony Green Partner Certification in 2005.



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Dong Guan Well Shin Electronic Products Co., Ltd.



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Dongguan Plant



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