

HIGHPOWER @ AMPHENOL
TRUSTED GLOBALLY

AMPHENOL PCD SHENZHEN



青岛岳洋科技股份有限公司

GLOBALLY TRUSTED

Amphenol PCD Shenzhen

General Information

Founded in 2006

Started in Amphenol
International Mil & Aero group.
Transferred to Amphenol AIPG
Group from January1, 2016

Employees: 480

10,000 sqm

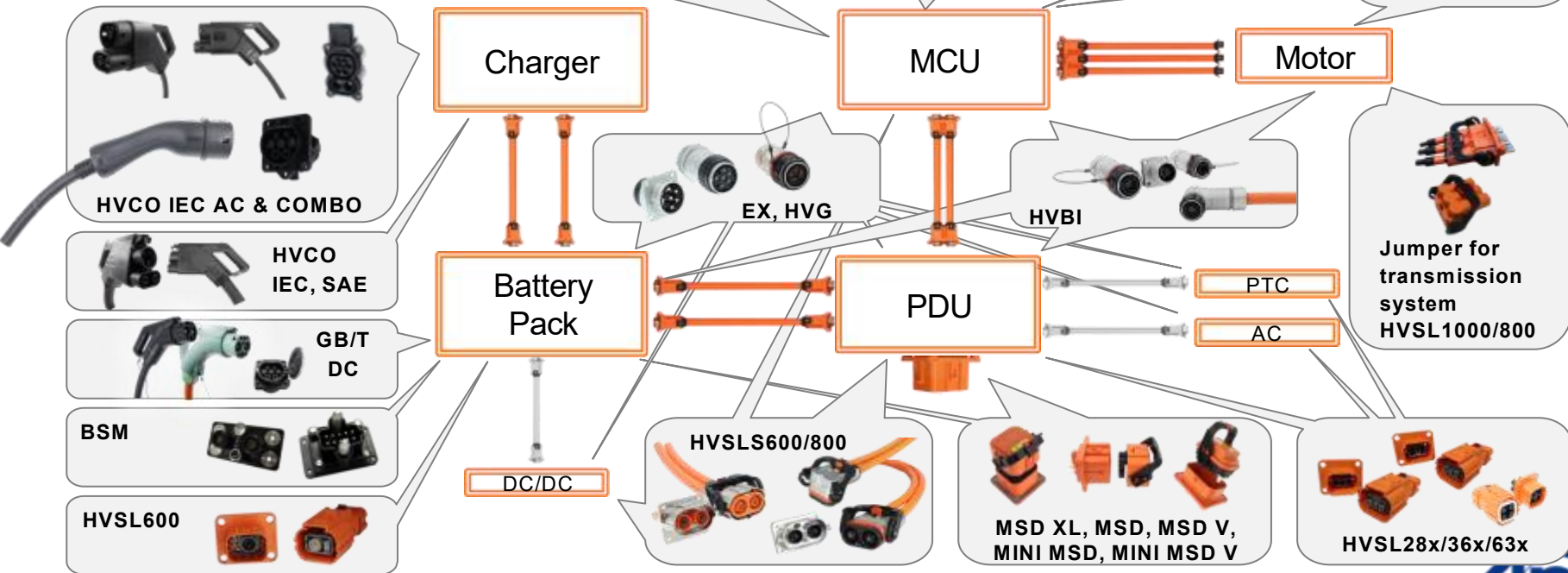
EV SPECIFIC Products

The rated current of the following products are on the basis of **@Ambient70°C** (158° F)



AMPHENOL PCD SHENZHEN

Providing a total HEV
Solution



	GB/T AC SOCKET	GB/T COMBO	GB/T DC SOCKET	GB/T DC SOCKET RA	GB/T AC PLUG	GB/T DC PLUG
						
Rated voltage (Max)	500V AC	AC + DC	1000V DC	500V AC	1000V DC	
		500V 1000V				
Rated current	16A, 32A	32A 180A	125A, 200A, 250A	16A 32A	80A, 125A, 250A	
Cable range for power	2.5 to 10mm ²	6 + 50mm ²	50, 70mm ²	2.5 to 6mm ²	70mm ²	
Protection degree	IP55 (mated)					
Touch-proof	IP2XB	IP2XB	N/A	IP2XB	N/A	
Certification	GB/T20234					
Ambient temperature	-30℃ to 50℃					

	IEC Type 2 Basic Socket-outlet	IEC Type 2 Standard socket-outlet	IEC Type 2 Socket-inlet	IEC Type 2 Vehicle connector	IEC Type 2 Plug	IEC Type 2 Mode 3 Connector	IEC Type 1 SAE Plug
							
Rated voltage (Max)	500V AC						240V AC
Rated current	16A, 32A 1 & 3 Phase		16A, 32A 1 & 3 Phase	16A, 32A 1 & 3 Phase			16/20A, 32A 48A
Protection degree	IP44 (mated)	IP54 (with cap)	IP55 (mated)	IP55 (mated)			Type 3S
Touch-proof	IP2XB						
Certification	TUV		TUV	TUV, EN17186, EV Ready	TUV, EN17186	TUV	UL
Cable range for power	2.5 to 10mm ²		2.5 to 6mm ²				14 to 8AWG
Ambient temperature	-30℃ to 50℃						

	IEC Combo 2 CCS2 Vehicle inlet	IEC Combo 2 CCS2 Vehicle connector	SAE Combo 1 CCS1 Vehicle connector	SAE Socket	IEC Combo Vehicle connector Plus	SAE Combo Vehicle connector Plus
					 w/ removable contacts	
Rated voltage (Max)	480V AC 1000V DC	1000V DC	1000V DC	480V AC 1000V DC	1000V DC	1000V DC
Rated current	32A AC 350A DC w/ plug cooling system	65A, 125A, 200A	65A, 125A, 150A,200A, 250A	48 AC 300A DC w/ plug cooling sys.	300A	
Cable range for power	50 to 95mm ²	16 to 70mm ²		16 to 95mm ²	70 to 100mm ²	
Touch-proof	IP2XB					
Certification	TUV	TUV, EN17186	UL		Tooling sample: July 2021	Tooling sample October 2021
Protection degree	IP44 (mated) / Type 3R					
Ambient temperature	-30℃ to 50℃					



CHARGING STATION SIDE

VEHICLE SIDE



VEHICLE CONNECTOR

COMBO

PLUG



HIGHPOWER @ AMPHENOL
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 **EN17186**

Our new charging connectors
all comply with the latest
European standard EN17186.

EV Ready Certification



VEHICLE
CONNECTOR



* 1 and 3-phase: 32A
3-phase: 16A



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* In case of discrepancies,
specifications from the customer drawings shall prevail.

HVCO SAE AC Plug

Mating cycles Up to 10,000

Insertion/withdrawal force 75N Max

Rated current 48A Max

Rated voltage 240V

Degree of protection Type 3S

Ambient temperature -30°C to 50°C



CABLE SIZE	CURRENT			
	48A	32A	20A	16A
L1, L2/N	8AWG	10AWG	12AWG	14AWG
PE	10AWG	10AWG	12AWG	14AWG
CS & CP	18AWG			



White version on request only

HVCO CCS1/Combo1 Socket-inlet & Plug

Mating cycles **Up to 10,000**

Insertion/withdrawal force **100N Max**

Socket Configuration

Rated current	48A Max (R3.6)
	300A Max (R8)
Rated voltage	480V Max AC (R6)
	1000V Max DC (R8)

Plug Configuration

Rated current	300A Max
Rated voltage	1000V DC
Degree of protection	Type 3R
Ambient temperature	-30°C to 50°C
Charging mode	Mode 2, 3, 4

Temperature sensor optional



Up to 95mm² for Plus version

Up to 100mm² for Plus version

SAE CCS1/Combo1 Vehicle Connectors

Standard version

Mating cycles	Up to 10,000
Cable range for power	16 to 70mm ²
Rated current	65A, 125A, 150A , 200A, 250A
Rated voltage	1000V DC
Degree of protection	Type 3R
Ambient temperature	-30°C to 50°C



150A, 250A
December 2021

“Plus” version

Mating cycles	Up to 10,000
Cable range for power	100mm ²
Rated current	300A
Rated voltage	1000V DC
Degree of protection	Type 3R
Ambient temperature	-30°C to 50°C



300A
Q2 2022

IEC Type 2 Coupler For EVSE Side Socket-outlet

Compliant with IEC 62196-2 standard 2-II a

Mating cycles Up to 10,000

Configuration 250V | (16A), 20A, 32A | 1-phase
480V | (16A), 20A, 32A | 3-phase

Cable range for power.. 6mm²
Cost-effective version: 6mm² (July, 2021)

Ambient temperature.... -30°C to 50°C

Electronic lock and **Solenoid lock** both available

More features:

Protection cap, water drainage design, rear mounting



IEC Coupler

Compliant with **IEC 62196-1/2/3**

Mating cycles **Up to 10,000**

AC

Configuration..... **250V | (16A), 20A, 32A | 1-phase**
480V | (16A), 20A, 32A | 3-phase

Cable range for power..... **6mm²**

DC

Configuration..... **250V | 32A | 1-phase**
480V | 32A | 3-phase
1000V | 65A, 125A or 200A

Cable range for power..... **70mm²**



Up to 95mm² for Plus version

Up to 100mm² for Plus version

Types of Protection Cap

Combo 1/Combo2 Vehicle- inlet



Combo2/CCS2 holder



Combo1/CCS1 holder



IEC Type 2 Socket-inlet



IEC Type 2 Vehicle-connector



SAE J1772 AC Plug



IEC Type 2 Socket-outlet 1



▲ Press

IEC Type 2 Socket-outlet 2



▲ Pull

EXCEL|MATE CC IEC62196-3 E-lock

Contact switch is normally closed

Unlock: $1K\Omega$

Lock: $11K\Omega$

1.Voltage supply at motor: 12V

2.Possible Voltage supply at motor: 9V~12V

3.Typical motor current for locking: 200mA

4.Maximal motor current for locking: 1000mA

5.Maximal voltage for locking detection: 20V

6.Maximal dwell period with blocking current: 1000ms

7.Suggested adjustment time: 600ms

8.Durability (In load cycles): >10000

9.Ambient temperature (in operation): $-30^{\circ}\text{C}\sim+50^{\circ}\text{C}$

10.Ambient temperature (storage): $-40^{\circ}\text{C}\sim+85^{\circ}\text{C}$

11.Length of the actuator cables: 500mm

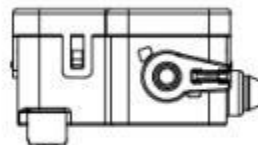
12.Minlimum bending radlus: 30mm

13.Specification of the actuator cables: 4 X 0.5mm^2

14.IP-Class: IP65

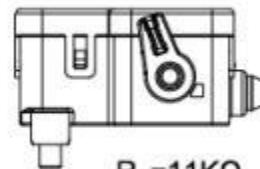


UNLOCK



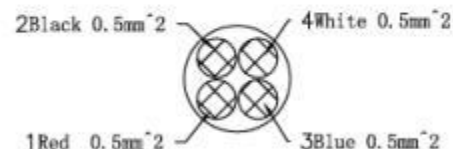
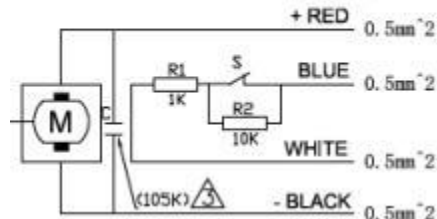
$R_U=1K\Omega$

LOCK



$R_L=11K\Omega$

Emergency unlocking of the 12V locking actuator
Schematic diagram



EXCEL|MATE CC IEC62196-3 E-lock

Contact switch is normally open

Unlock: $+\infty K\Omega$

Lock: $0 K\Omega$

1.Voltage supply at motor: 24V

2.Possible Voltage supply at motor: 20V~24V

3.Typical motor current for locking: 50mA

4.Maximal motor current for locking: 1000mA

5.Maximal voltage for locking detection: 20V

6.Maximal dwell period with blocking current: 800ms $\triangle 3$

7.Suggested adjustment time: 600ms $\triangle 3$

◎8.Durability (In load cycles): >10000

9.Ambient temperature (In operation): $-30^{\circ}\text{C}\sim+50^{\circ}\text{C}$

10.Ambient temperature (storage): $-40^{\circ}\text{C}\sim+85^{\circ}\text{C}$

11.Length of the actuator cables: Optional

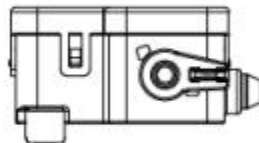
12.Minimum bending radius: 30mm

13.Specification of the actuator cables: $4 \times 0.5\text{mm}^2$

✦14.IP-Class: IP65

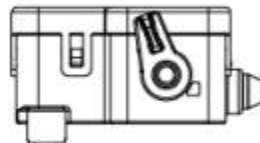


UNLOCK



$R_U = +\infty \Omega$

LOCK



$R_L = 0 K\Omega$

Emergency unlocking of the 24V locking actuator
Schematic diagram

