

EXCEL | MATE CC (Charging Coupler)













Ref. No: HVCO-0426

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PRODUCTS INTRODUCTION

EV Plug / Vehicle Connector													
REGION	EU			•	•	•						•	•
	US	•	•				•	•	•	•	•		
NAME		CCS1 HPC	NACS DC	CCS2 HPC	CCS2 COMBO	CCS2 THIN HANDLE	MCS	CCS1 COMBO	CCS1 THIN HANDLE	EV TYPE 1 (Potting)	NACS AC	EV TYPE 2 (Potting)	EV TYPE 2
RATED VOLTAGE (Max.)		1000V DC	1000V DC	1000V DC	1000V DC	1000V DC	1500V DC	1000V DC	1000V DC	240V AC	600V AC	480V AC	480V AC
RATED CURRENT	16A												
	20A											•	•
	32A									•		•	•
	40A					•			•		•		
	48A												
	50A									•	•		
	65A				•	•			•	•			
	80A					•			•	•	•		
	125A				•				•				
	150A				•				•				
	200A		•		•				•				
	250A		•		•				•				
	300A				•				•				
	350A							•	•				
	380A		•		•								
	400A				•				•				
500A 600A	•	•	•				•						
1500A							•						
PROTECTION DEGREE		TYPE 3S IP67	TYPE 3R IP67	IP67 IP69	IP67	IP55 (mated)	IP67	TYPE 3S	TYPE 3S	TYPE 3S	TYPE 3S IP67	IP67	IP67
TOUCH-PROOF		IP2XB	IP2XB	IP2XB	IP2XB	IP2XB	IP2XB	IP2XB	IP2XB	IP2XB	IP2XB	IP2XB	IP2XB
CERTIFICATION	CE			•	•	•	•	•				•	•
	EN 17186			•	•							•	•
	EV READY											•	
	UKCA			•	•							•	•
	UL	•	•					•	•	•			
CABLE RANGE (Power)		2 (AWG)	2x3 to 2x1/0	25 to 35 (mm ²)	16 to 100 (mm ²)	6 to 16 (mm ²)	2x35 to 2x50mm ²	8 to 2x1/0 (AWG)	10 to 6 (AWG)	10 to 6 (AWG)	10 to 6 (AWG)	2.5 to 6 (mm ²)	2.5 to 6 (mm ²)
AMBIENT TEMPERATURE		-30 to 50°C	-40 to 50°C	-30 to 50°C	-30 to 50°C	-30 to 50°C	-40 to 50°C	-40 to 55°C	-30 to 50°C	-30 to 50°C	-40 to 50°C	-30 to 50°C	-30 to 50°C



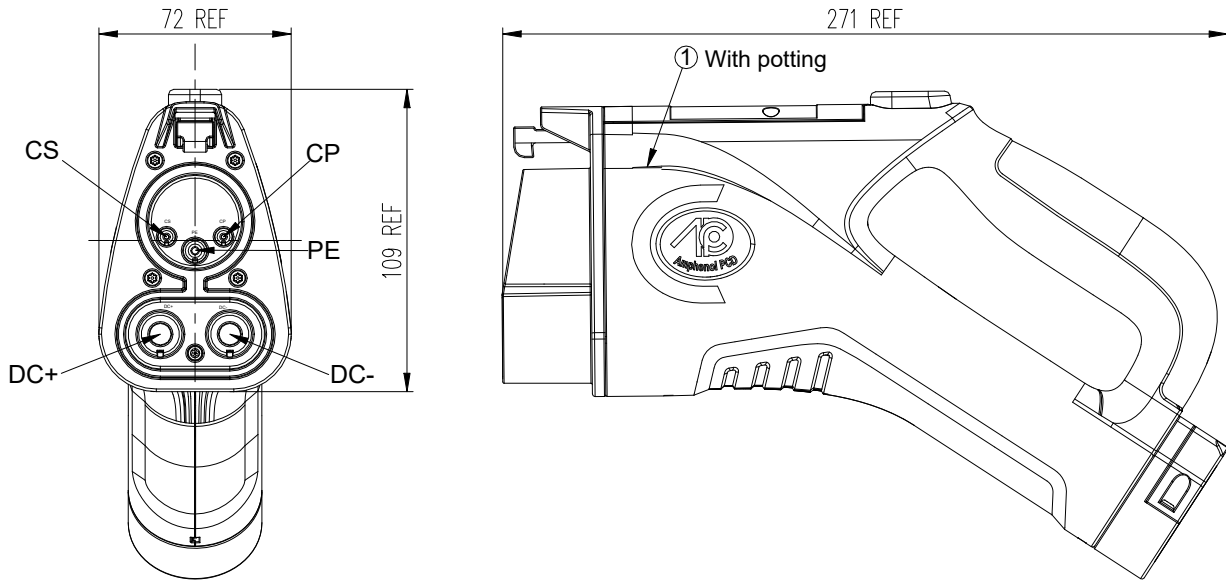
KEY FEATURES:
 Replaceable contacts

Compliant with:
 SAE J1772
 UL2251

Cooling system:
 2 feed pipes and 2 outlet pipes
 Working pressure: 0 to 7bar

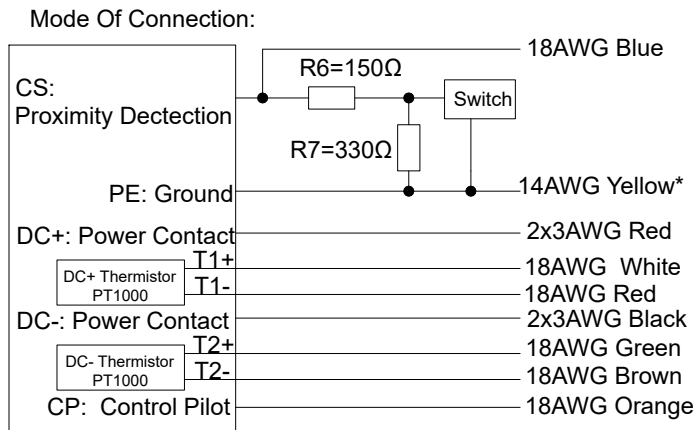
MECHANICAL	
Mating cycles	> 20,000 cycles (unloaded)
Insertion / withdrawal force	< 100N
ELECTRICAL	
Rated current	600A Max. 1050A (Peak)
Rated voltage	1000V DC
Temperature sensor	PT1000 The two power contacts DC+ and DC- are monitored by temperature-dependent resistor sensors
ENVIRONMENTAL	
Protection degree	Type 3S IP67 (enclosure)
Ambient temperature	-30°C to 50°C
MATERIAL	
Shell	Thermoplastic
Contact	Copper alloy
Inserts	Thermoplastic
Sealing gasket	Rubber or silicon rubber
Insulator inflammability	UL94V0

GEN3 CCS1 VEHICLE CONNECTOR DIMENSIONS



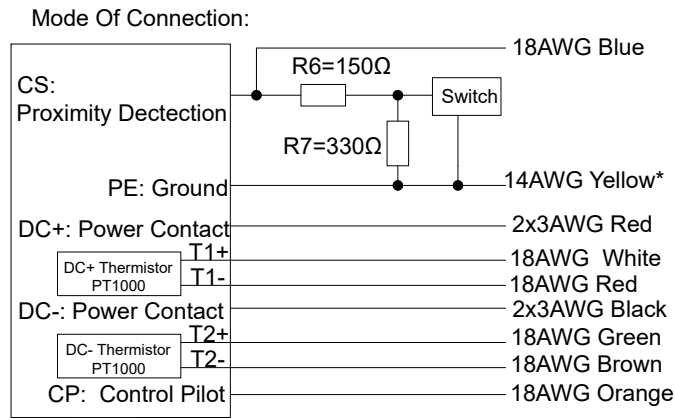
GEN3 CCS1 VEHICLE CONNECTOR - CIRCUIT DIAGRAMS

200A

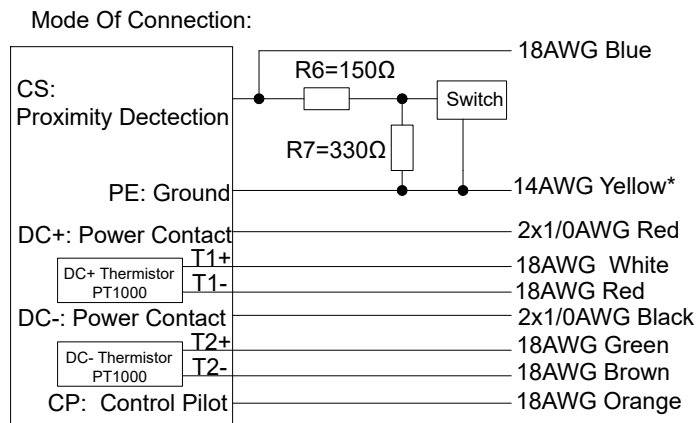


GEN3 CCS1 VEHICLE CONNECTOR - CIRCUIT DIAGRAMS

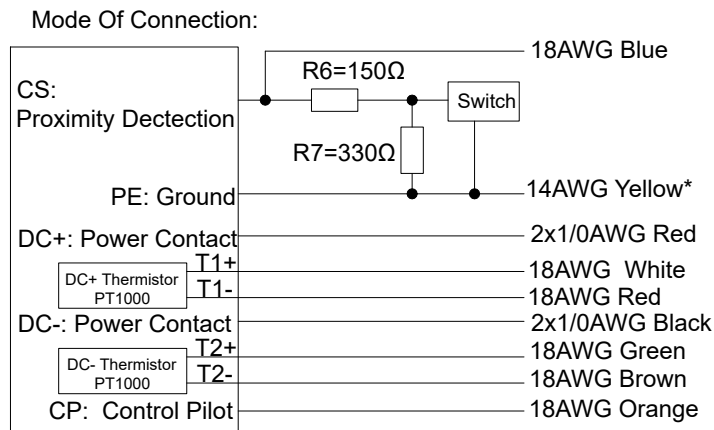
250A



350A

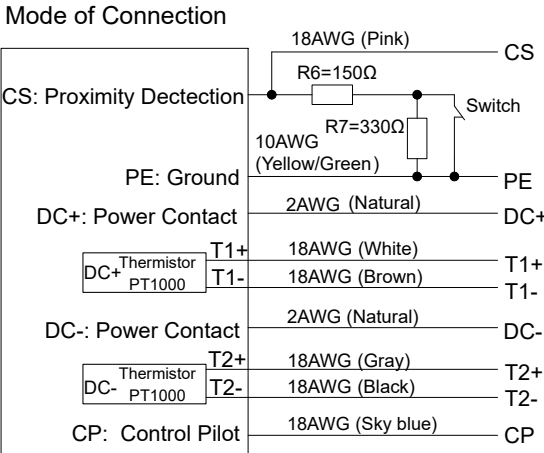


400A



GEN3 CCS1 VEHICLE CONNECTOR - CIRCUIT DIAGRAMS

600A



HOW TO ORDER | GEN3 CCS1 VEHICLE CONNECTOR

P/N	Rated current (DC)	DC cable size	PE cable size
HVCO1N112LXXXX	200A	4 x 3 AWG	14 AWG
HVCO1N212LXXXX	250A	4 x 3 AWG	14 AWG
HVCO1N312LXXXX	350A	4 x 0 AWG	14 AWG
HVCO1N412LXXXX	400A	4 x 0 AWG	14 AWG
HVCO12012LXXXX	600A / LCC	2 x 2 AWG	10 AWG

EXCEL|MATE GEN3 CCS2 VEHICLE CONNECTOR - TECHNICAL CHARACTERISTICS



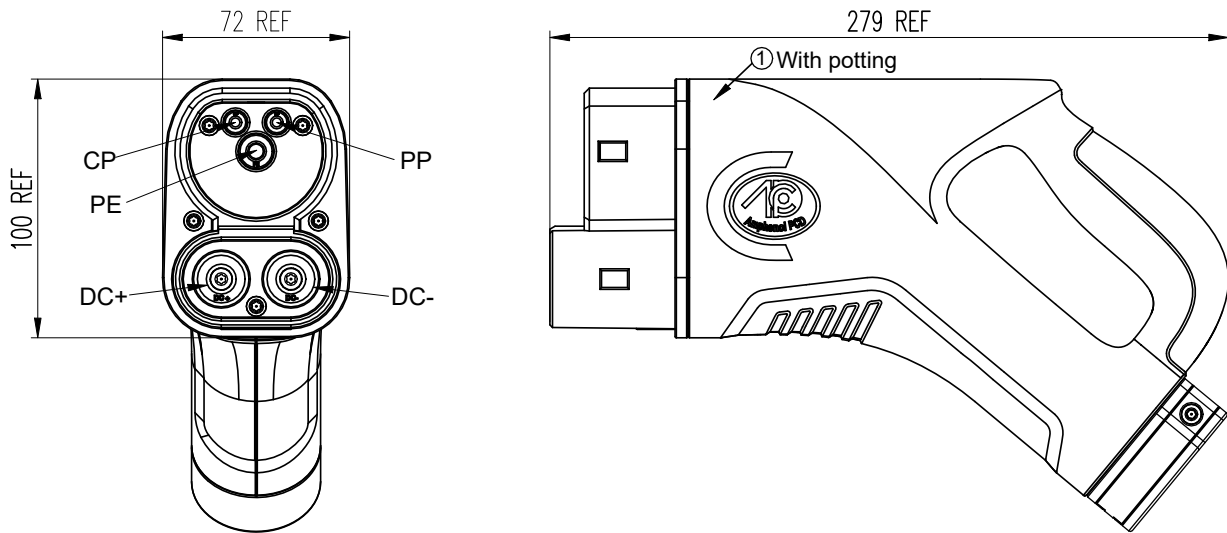
KEY FEATURES:
Replaceable contacts

Compliant with:
IEC 62196-2
IEC 62196-3

Cooling system:
2 feed pipes and 2 outlet pipes
Working pressure: 0 to 7bar

MECHANICAL	
Mating cycles	> 20,000 cycles (unloaded)
Insertion / withdrawal force	< 100N
ELECTRICAL	
Rated current	600A Max. 1050A (Peak)
Rated voltage	1000V DC
Temperature sensor	PT1000 The two power contacts DC+ and DC- are monitored by temperature-dependent resistor sensors
ENVIRONMENTAL	
Protection degree	IP67 (enclosure) IP55 (mated)
Ambient temperature	-40°C to 50°C
MATERIAL	
Shell	Thermoplastic
Contact	Copper alloy
Inserts	Thermoplastic
Sealing gasket	Rubber or silicon rubber
Insulator inflammability	UL94V0

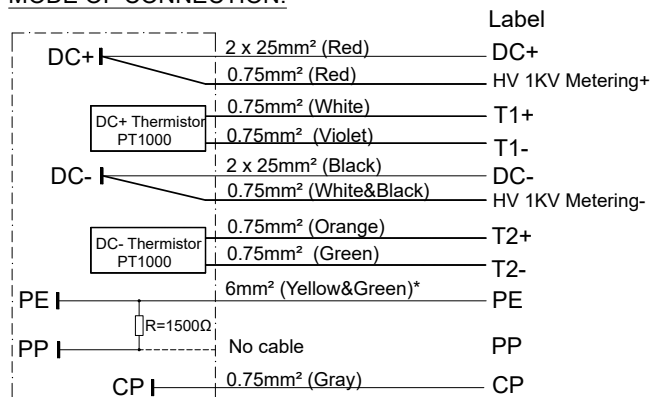
GEN3 CCS2 VEHICLE CONNECTOR DIMENSIONS



GEN3 CCS2 VEHICLE CONNECTOR - CIRCUIT DIAGRAMS

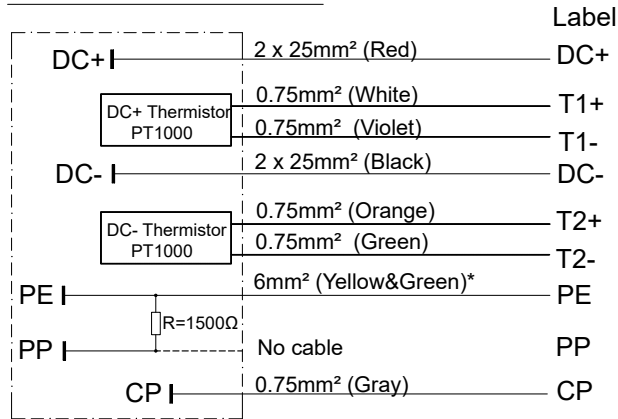
200A WITH METERING

MODE OF CONNECTION:



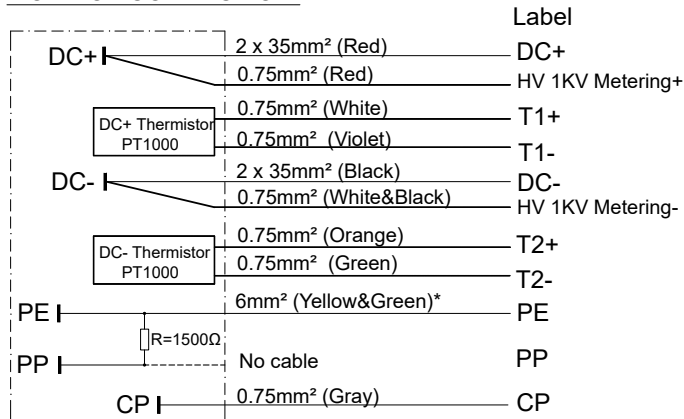
200A WITHOUT METERING

MODE OF CONNECTION:



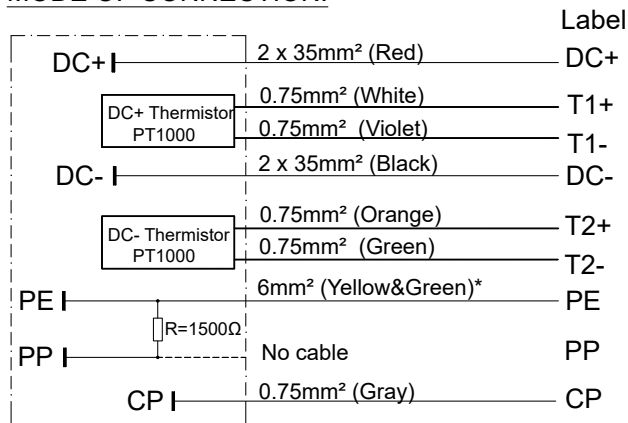
250A WITH METERING

MODE OF CONNECTION:



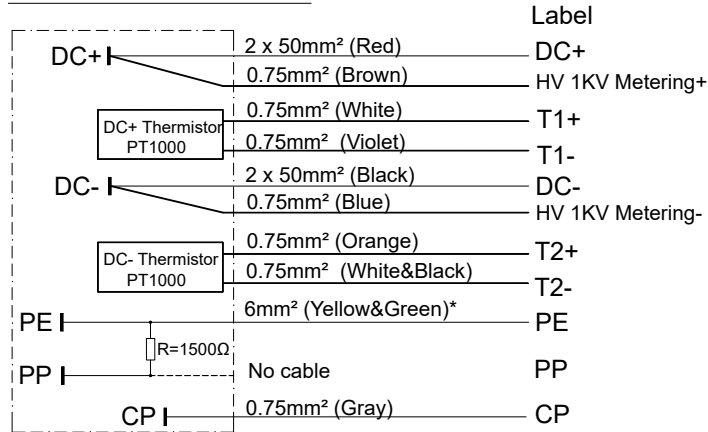
250A WITHOUT METERING

MODE OF CONNECTION:



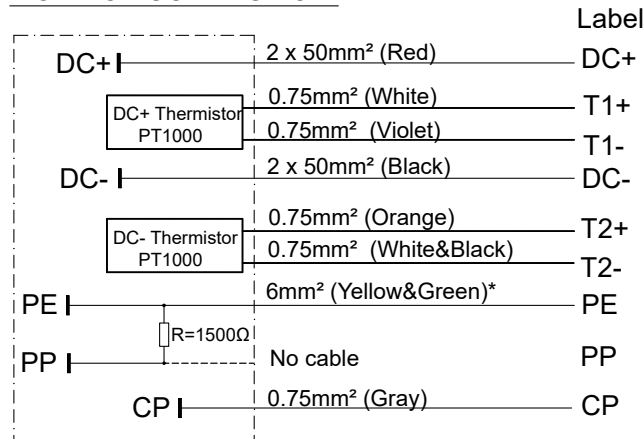
300A / 350A WITH METERING

MODE OF CONNECTION:



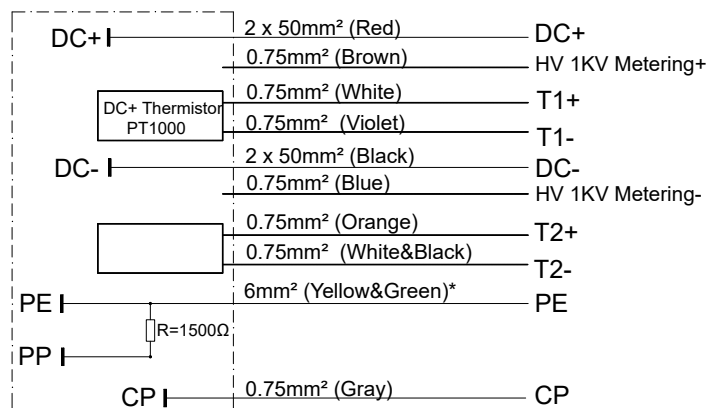
300A / 350A WITHOUT METERING

MODE OF CONNECTION:



380A WITH METERING

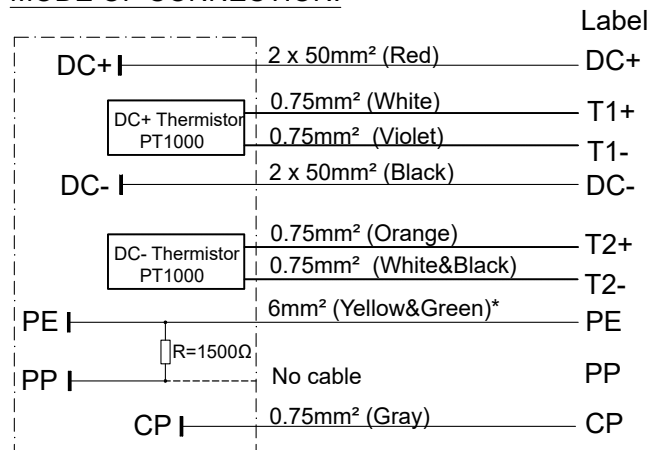
MODE OF CONNECTION:



GEN3 CCS2 VEHICLE CONNECTOR - CIRCUIT DIAGRAMS

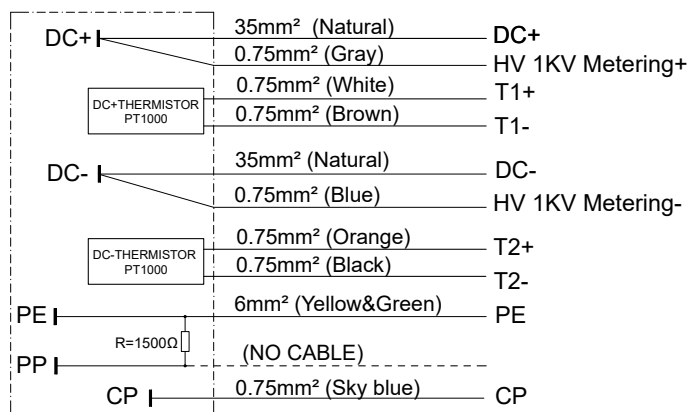
380A WITHOUT METERING

MODE OF CONNECTION:



500A LIQUID COOLING

Mode of Connection



GEN3 CCS2 VEHICLE CONNECTOR - PART NUMBER

P/N	Metering Cable	Rated current (DC)	DC cable size	PE cable size
HVCO2N111LXXXX	Yes	200A	4 x 25mm ²	6mm ²
HVCO2N112LXXXX	No	200A	4 x 25mm ²	6mm ²
HVCO2N211LXXXX	Yes	250A	4 x 35mm ²	6mm ²
HVCO2N212LXXXX	No	250A	4 x 35mm ²	6mm ²
HVCO2N311LXXXX	Yes	300A / 350A	4 x 50mm ²	6mm ²
HVCO2N312LXXXX	No	300A / 350A	4 x 50mm ²	6mm ²
HVCO2N411LXXXX	Yes	380A	4 x 50mm ²	6mm ²
HVCO2N412LXXXX	No	380A	4 x 50mm ²	6mm ²
HVCO22011LXXXX	Yes / LCC	500A	4 x 35mm ²	6mm ²



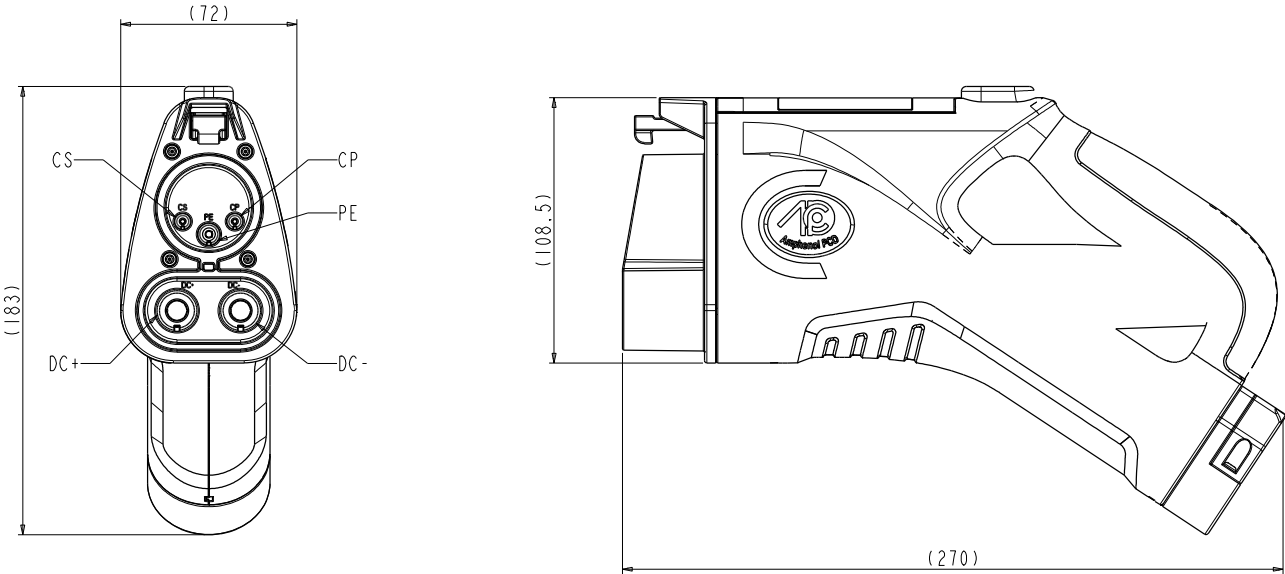
KEY FEATURES:

Compliant with:
SAE J1772
IEC 62196-3
UL2251

Cooling system:
2 feed pipes and 2 outlet pipes
Working pressure: 0 to 7bar

MECHANICAL	
Mating cycles	> 20,000 cycles (unloaded)
Insertion / withdrawal force	< 100N
ELECTRICAL	
Rated current	600A Max. 1050A (Peak)
Rated voltage	1000V DC
Temperature sensor	PT1000 The two power contacts DC+ and DC- are monitored by temperature-dependent resistor sensors
ENVIRONMENTAL	
Protection degree	Type 3S IP67 (enclosure)
Ambient temperature	-30°C to 50°C
MATERIAL	
Shell	Thermoplastic
Contact	Copper alloy
Inserts	Thermoplastic
Sealing gasket	Rubber or silicon rubber
Insulator inflammability	UL94V0

GEN2 HPC CCS1 VEHICLE CONNECTOR DIMENSIONS



GEN2 HPC CCS1 VEHICLE CONNECTOR - PART NUMBER

P/N	Rated current
HVCO11012	600A



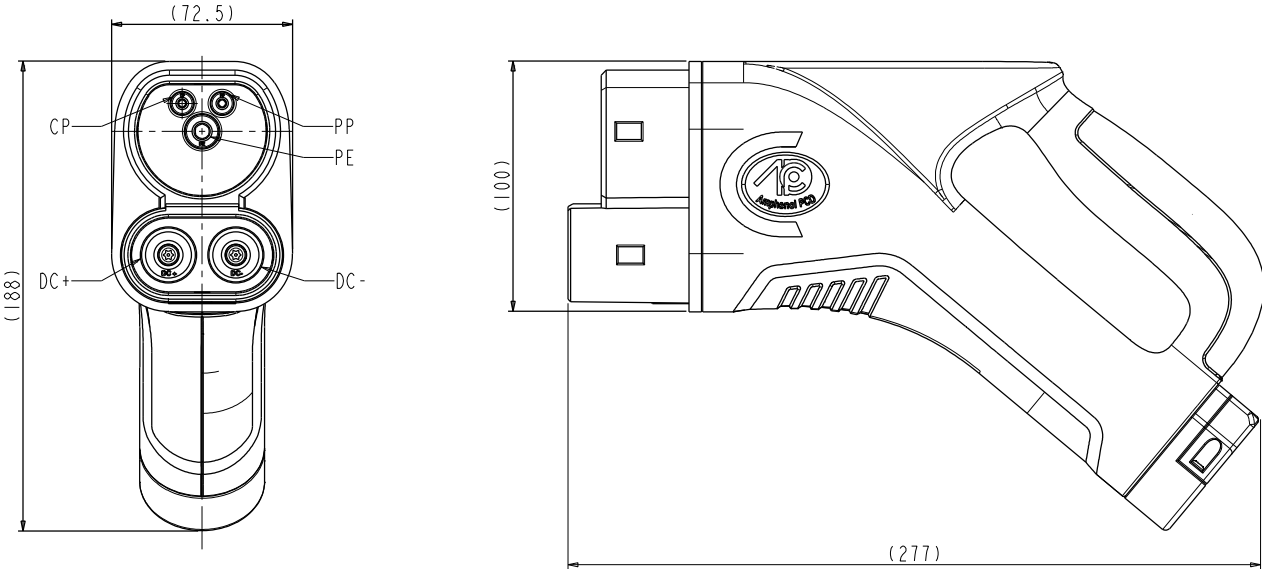
KEY FEATURES:

Compliant with:
IEC 62196-2
IEC 62196-3

Cooling system:
2 feed pipes and 2 outlet pipes
Working pressure: 0 to 7bar

MECHANICAL	
Mating cycles	> 20,000 cycles (unloaded)
Insertion / withdrawal force	< 100N
ELECTRICAL	
Rated current	600A Max. 1050A (Peak)
Rated voltage	1000V DC
Temperature sensor	PT1000 The two power contacts DC+ and DC- are monitored by temperature-dependent resistor sensors
ENVIRONMENTAL	
Protection degree	IP67/IP69 (enclosure) IP55 (mated)
Ambient temperature	-30°C to 50°C
MATERIAL	
Shell	Thermoplastic
Contact	Copper alloy
Inserts	Thermoplastic
Sealing gasket	Rubber or silicon rubber
Insulator inflammability	UL94V0

HPC CCS2 VEHICLE CONNECTOR DIMENSIONS



GEN2 HPC CCS2 VEHICLE CONNECTOR - PART NUMBER

P/N	Rated current
HVCO21011	600A



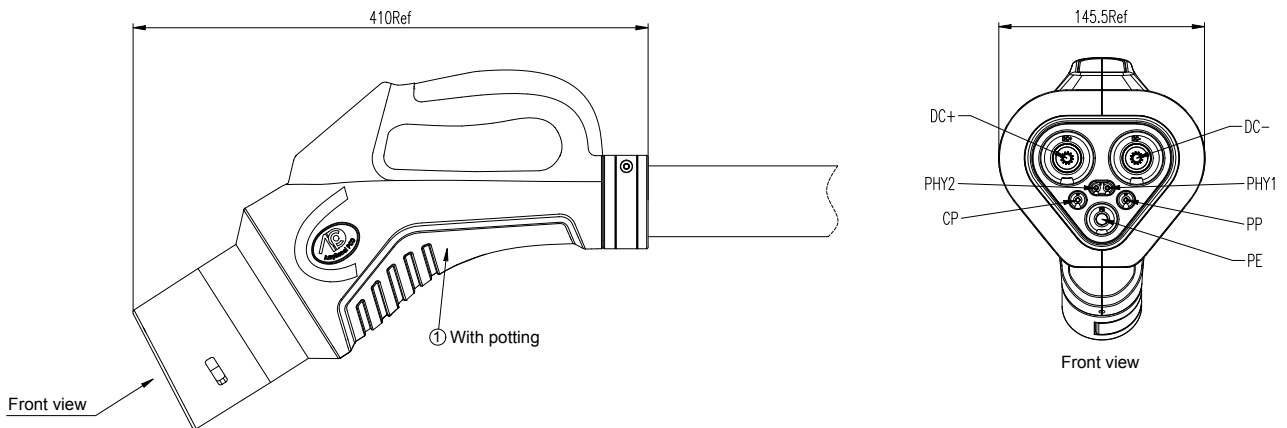
KEY FEATURES:

Compliant with:
IEC TS 63379
IEC 61851-23-3

Cooling system:
2 feed pipe and 4 outlet pipes
Working pressure: 0 to 7bar

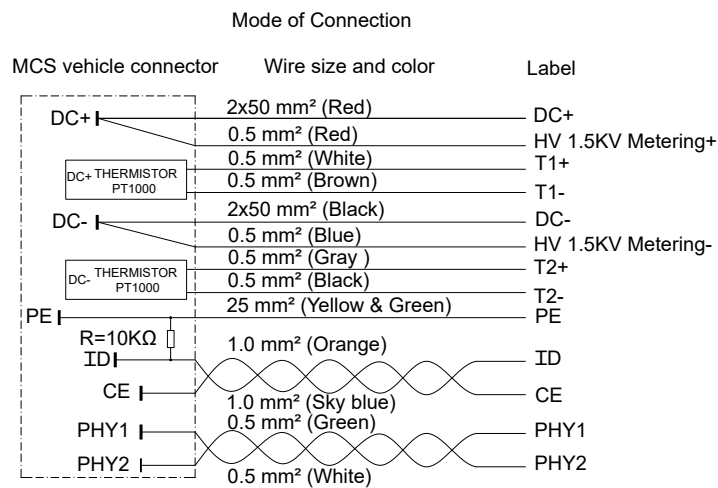
MECHANICAL	
Mating cycles	> 20,000 cycles (unloaded)
Insertion / withdrawal force	< 100N
ELECTRICAL	
Rated current	500A, 1500A
Rated voltage	1500V DC
ENVIRONMENTAL	
Protection degree	IP67 (enclosure), IP44 (mated)
Ambient temperature	-40°C to 50°C
MATERIAL	
Shell	Thermoplastic
Contact	Copper alloy
Inserts	Thermoplastic
Sealing gasket	Rubber or silicon rubber
Insulator inflammability	UL94V0

MCS VEHICLE CONNECTOR DIMENSIONS

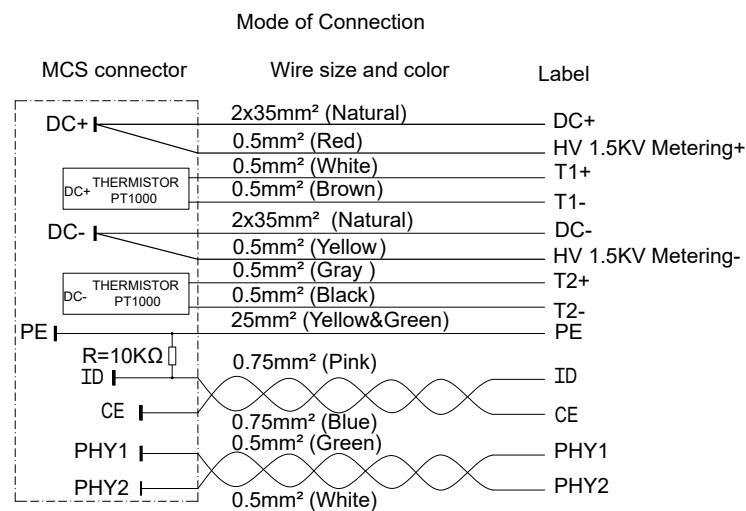


MCS VEHICLE CONNECTOR - CIRCUIT DIAGRAM

500A



1500A



MCS VEHICLE CONNECTOR - PART NUMBER

P/N	Wire size for DC pin	Rated current
HVCO4MN002LXXXX	4x50+mm ²	500A
HVCO4M1001LXXXX	4x35mm ²	1500A



KEY FEATURES:

Compliant with:
IEC TS 63379
IEC 61851-23-3
SAE J1772

MECHANICAL	
Mating cycles	> 20,000 cycles (unloaded)
Insertion / withdrawal force	< 100N
ELECTRICAL	
Rated current	1000A (natural cooling copper bar) 3000A (liquid cooling copper bar)
Rated voltage	1500V DC
ENVIRONMENTAL	
Protection degree	IP67 IP44 (mated), IP55 (with cap)
Ambient temperature	-30°C to 50°C
MATERIAL	
Shell	Thermoplastic
Contact	Copper alloy
Inserts	Thermoplastic
Sealing gasket	Rubber or silicon rubber
Insulator inflammability	UL94V0



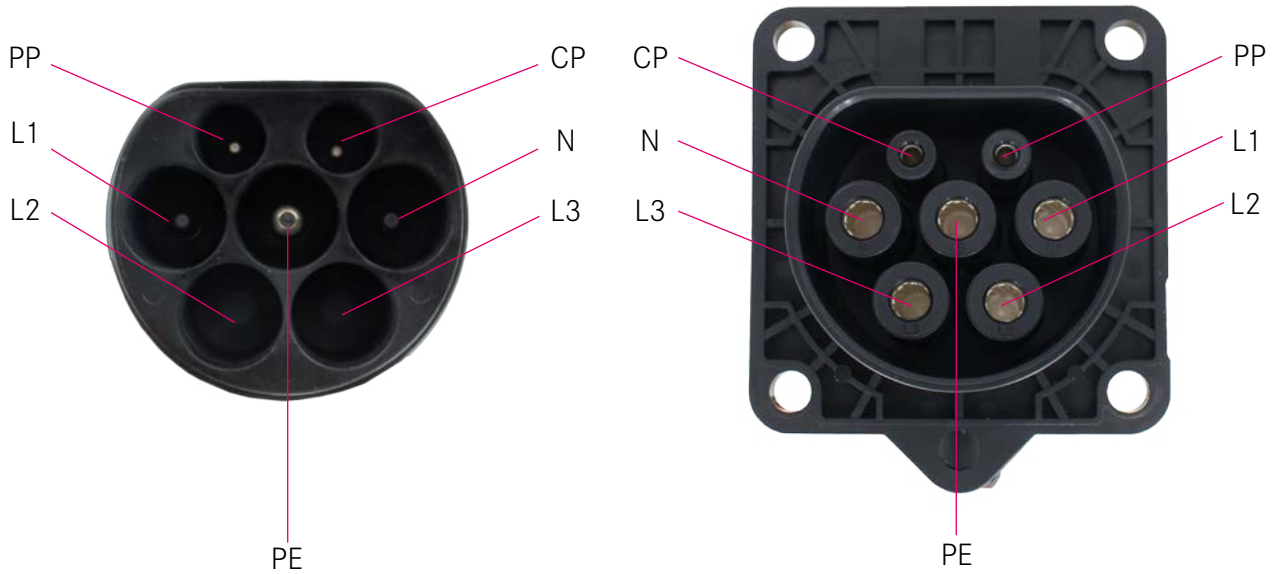
KEY FEATURES:

Compliant with:
IEC 62196-2
IEC 61851-1

Plug: EN17186
Vehicle connector:
CE, EV Ready & UKCA

MECHANICAL	
Mating cycles	> 10,000 cycles (unloaded)
ELECTRICAL	
Rated current	See page 15 & 16
Rated voltage	See page 15 & 16
ENVIRONMENTAL	
Protection degree	IP54 (with lids) IP55 (mated) IP67 (enclosure)
Ambient temperature	-30°C to 50°C
MATERIAL	
Shell	Thermoplastic
Contact	Copper alloy
Inserts	Thermoplastic
Sealing gasket	Rubber or silicon rubber
Insulator inflammability	UL94V0

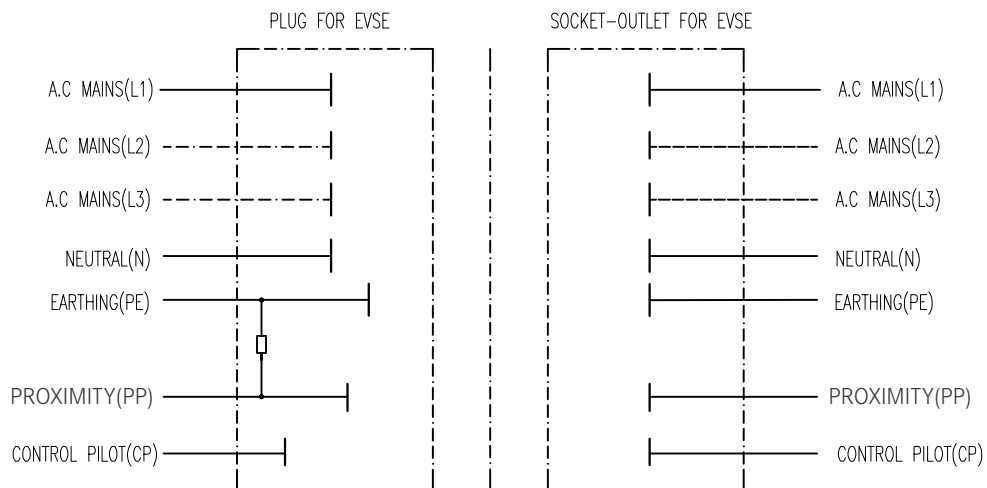
INSERT ARRANGEMENTS



CONFIGURATION

A.C. Type 2		Functions
1-Phase	3-Phase	
250V 20A, 32A	480V 20A, 32A	L1 (Mains 1)
-	480V 20A, 32A	L2 (Mains 2)
-	480V 20A, 32A	L3 (Mains 3)
250V 20A, 32A	480V 20A, 32A	N (Neutral)
Rated for fault		PE (Protective Ground/Earth)
30V 2A		CP (Control pilot)
30V 2A		PP (Proximity)

Circuit diagram



AC TYPE 2 COUPLER FOR EVSE SIDE

Charging components

LXXXX: Cable length (unit in mm)



Type 2 / Mode 3	Socket-outlet (Shutter version)			
	32A	3-Phase	HVCOSFS706LXXXX	-
	32A	1-Phase	HVCOSFS506LXXXX	-
	32A	3-Phase	HVCOSFS706NTLXXXX	NTC
	32A	1-Phase	HVCOSFS506NTLXXXX	NTC
	32A	3-Phase	HVCOSFS706PTLXXXX	PT1000
	32A	1-Phase	HVCOSFS506PTLXXXX	PT1000



Type 2 / Mode 3	Socket-outlet			
	32A	3-Phase	HVCOIFS706LXXXX	-
	32A	1-Phase	HVCOIFS506LXXXX	-
	32A	3-Phase	HVCOIFS706NTLXXXX	NTC
	32A	1-Phase	HVCOIFS506NTLXXXX	NTC
	32A	3-Phase	HVCOIFS706PTLXXXX	PT1000
	32A	1-Phase	HVCOIFS506PTLXXXX	PT1000

Compliant with IEC 62196-2 standard 2-II a. Electric lock available

Configuration:

250V | 32A | 1-phase
480V | 32A | 3-phase

More features: Protection cap, water drainage design, rear mount



Type 2 / Mode 3	Rear Flange Socket-outlet (Shutter version)			
	32A	1-Phase	HVCOSLFS506LXXXX	-
	32A	3-Phase	HVCOSLFS706LXXXX	-
	32A	1-Phase	HVCOSLFS506NTLXXXX	NTC
	32A	3-Phase	HVCOSLFS706NTLXXXX	NTC
	32A	1-Phase	HVCOSLFS506PTLXXXX	PT1000
	32A	3-Phase	HVCOSLFS706PTLXXXX	PT1000



Type 2 / Mode 3	Rear Flange Socket-outlet			
	32A	3-Phase	HVCOILFS706LXXXX	-
	32A	1-Phase	HVCOILFS506LXXXX	-
	32A	3-Phase	HVCOILFS706NTLXXXX	NTC
	32A	1-Phase	HVCOILFS506NTLXXXX	NTC
	32A	3-Phase	HVCOILFS706PTLXXXX	PT1000
	32A	1-Phase	HVCOILFS506PTLXXXX	PT1000

Compliant with IEC 62196-2 standard 2-II a. Electric lock available

Configuration:

250V | 32A | 1-phase
480V | 32A | 3-phase

More features: Protection cap, water drainage design, rear mount



Type 2 / Mode 3	Plug			
	20A	1-Phase	HVCOIMBSR6PS502LXXXX	
	20A	3-Phase	HVCOIMBSR6PS702LXXXX	
	32A	1-Phase	HVCOIMBSR6PF504LXXXX	
	32A	3-Phase	HVCOIMBSR6PF704LXXXX	
	32A	1-Phase	HVCOIMBSR6PF506LXXXX	
	32A	3-Phase	HVCOIMBSR6PF706LXXXX	

Compliant with IEC 62196-2 standard sheet 2-II b & EN17186.

Configuration:

250V | 20A or 32A | 1-phase
480V | 20A or 32A | 3-phase

AC TYPE 2 COUPLER FOR EVSE SIDE

Charging components - PCBA Version



Socket-outlet (Shutter version)			
Type 2 / Mode 3	32A	3-Phase	P02B000774 P08B007600(With ELock)
	32A	1-Phase	P02B000775 P08B007601(With ELock)



Socket-outlet			
Type 2 / Mode 3	32A	3-Phase	P02B000776 P08B007602(With ELock)
	32A	1-Phase	P02B000777 P08B007603(With ELock)

Compliant with IEC 62196-2 standard 2-II a. Electric lock available

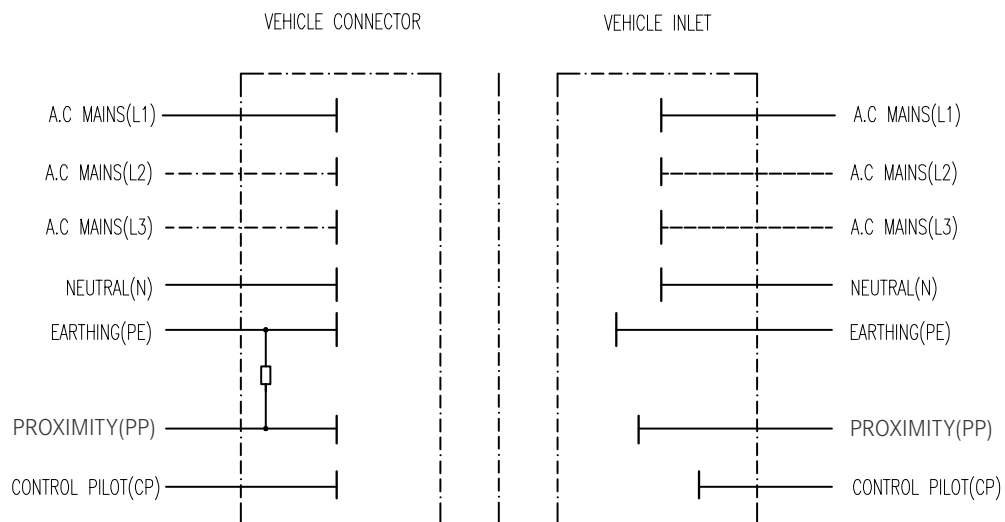
Configuration:

250V | 32A | 1-phase
480V | 32A | 3-phase

More features: Protection cap,
water drainage design, rear mount

AC TYPE 2 COUPLER FOR EV SIDE

Circuit diagram



Charging components FOR EV SIDE

LXXXX: Cable length (unit in mm)



Socket-inlet		
32A	3-Phase	HVCOIFR6SF706NTLXXXX
32A	1-Phase	HVCOIFR6SF506NTLXXXX
20A	3-Phase	HVCOIFR6SS702NTLXXXX
20A	1-Phase	HVCOIFR6SS502NTLXXXX

Compliant with IEC 62196-2 standard sheet 2-II b.

Configuration:

250V | 20A or 32A | 1-phase
480V | 20A or 32A | 3- phase



Vehicle connector				
Type 2 / Mode 3	20A	1-Phase	2.5mm ²	HVCOIMBR6PS502LXXXX
	20A	3-Phase	2.5mm ²	HVCOIMBR6PS702LXXXX
	32A	1-Phase	6mm ²	HVCOIMBR6PF506LXXXX
	32A	3-Phase	6mm ²	HVCOIMBR6PF706LXXXX
	32A	1-Phase	4mm ²	HVCOIMBR6PF504LXXXX
	32A	3-Phase	4mm ²	HVCOIMBR6PF704LXXXX

Compliant with IEC 62196-2 standard sheet 2-II e & EN17186.

Configuration:

250V | 20A or 32A | 1-phase
480V | 20A or 32A | 3- phase

















Vehicle connector (Shutter version)				
Type 2 / Mode 3	20A (Potted)	1-Phase	2.5mm ²	HVCOSMR6PS502LXXXX
	32A (Potted)	1-Phase	4mm ²	HVCOSMR6PF504LXXXX
	32A (Potted)	1-Phase	6mm ²	HVCOSMR6PF506LXXXX
	20A (Potted)	3-Phase	2.5mm ²	HVCOSMR6PS702LXXXX
	32A (Potted)	3-Phase	4mm ²	HVCOSMR6PF704LXXXX
	32A (Potted)	3-Phase	6mm ²	HVCOSMR6PF706LXXXX

Compliant with IEC 62196-2 standard sheet 2-II e & EN17186.

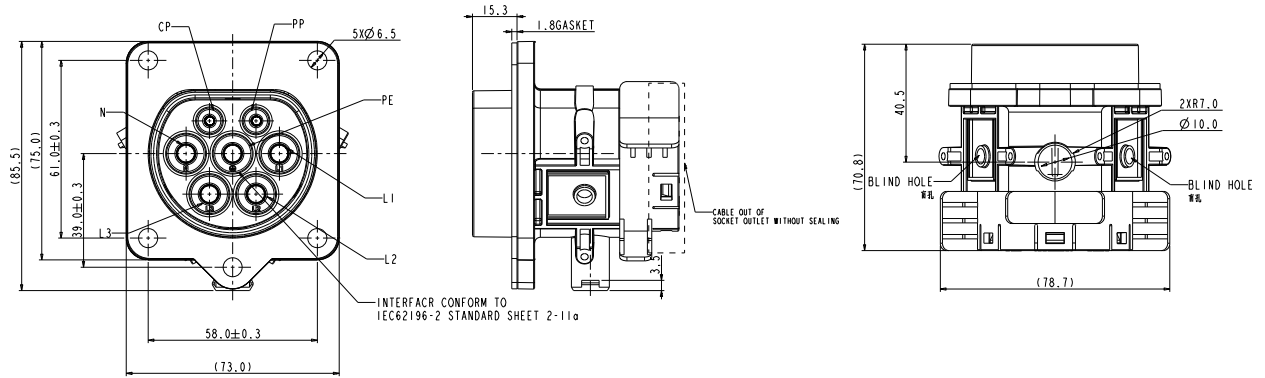
Configuration:

250V | 32A | 1-phase
480V | 32A | 3- phase

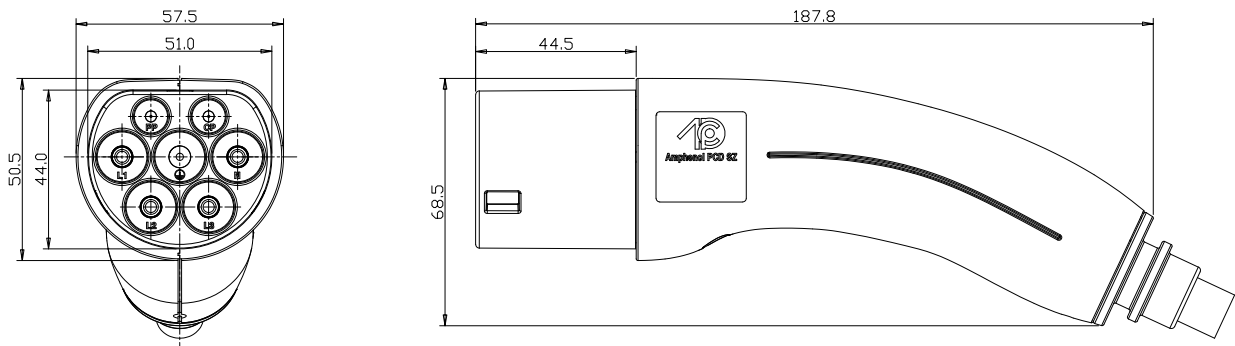
LID & ELOCK GUIDE FOR EVSE SIDE

Lid / P/N	Type2 outlet	Mini E Lock 12V	E Lock	Solenoid Lock
 HVCOISLIDXBX Press	PCBA Version  P02B0007764/5/6/7	 HVEL12ES001	N/A	N/A
 HVCOISLIDXCX Pull	 P/N on Page 23	 HVEL12ES003	 NEVDCB12VELOCK NEVDCB24VELOCK	 HVCOSELOCK
 P02B000446XX Pull				
 P02B000700XX Pull	Rear flange Version  P/N on Page 23	 HVEL12ES003	 NEVDCB12VELOCK NEVDCB24VELOCK	 HVCOSELOCK

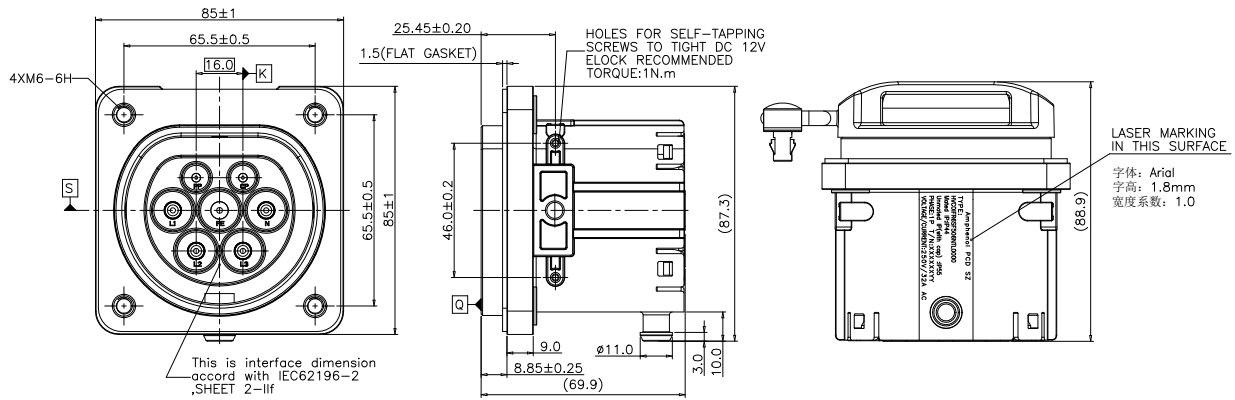
SOCKET-OUTLET DIMENSIONS (EVSE)



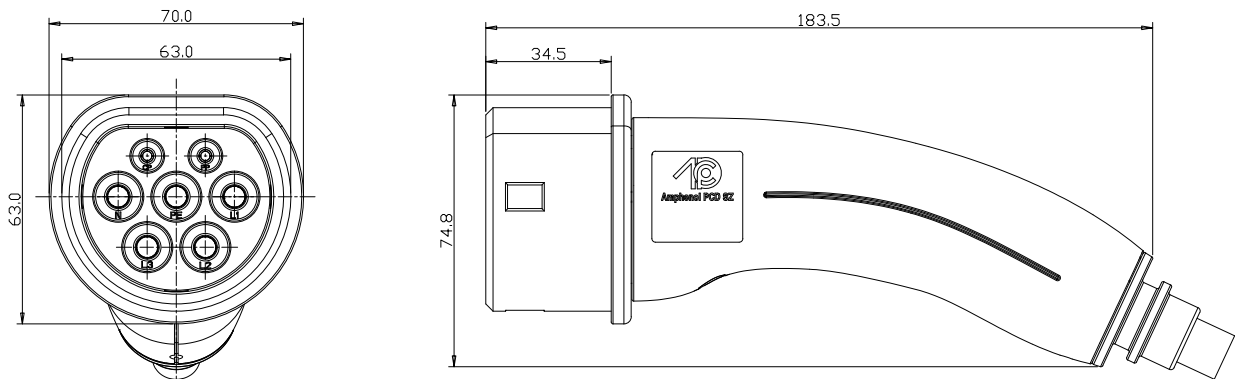
PLUG DIMENSIONS (EVSE)



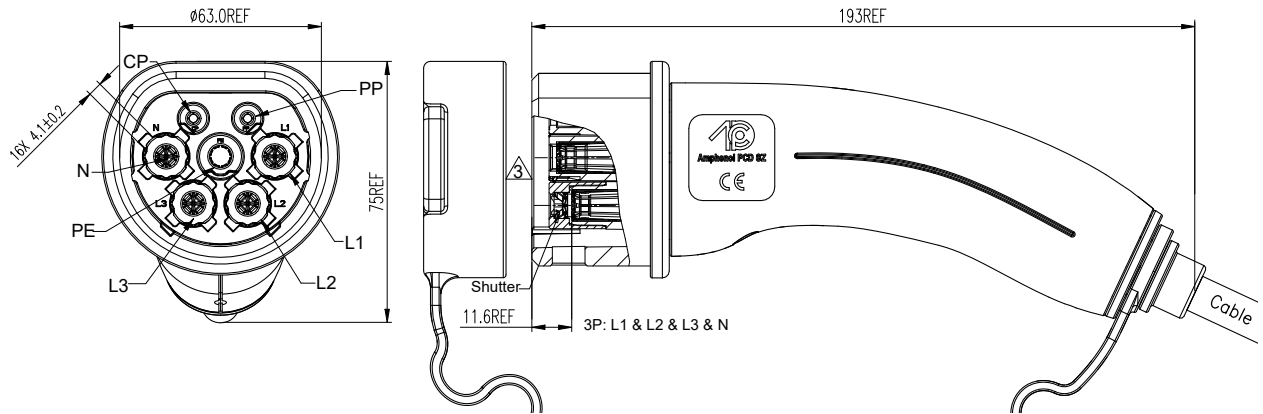
SOCKET-INLET DIMENSIONS



VEHICLE CONNECTOR DIMENSIONS



POTTED VEHICLE CONNECTOR DIMENSIONS

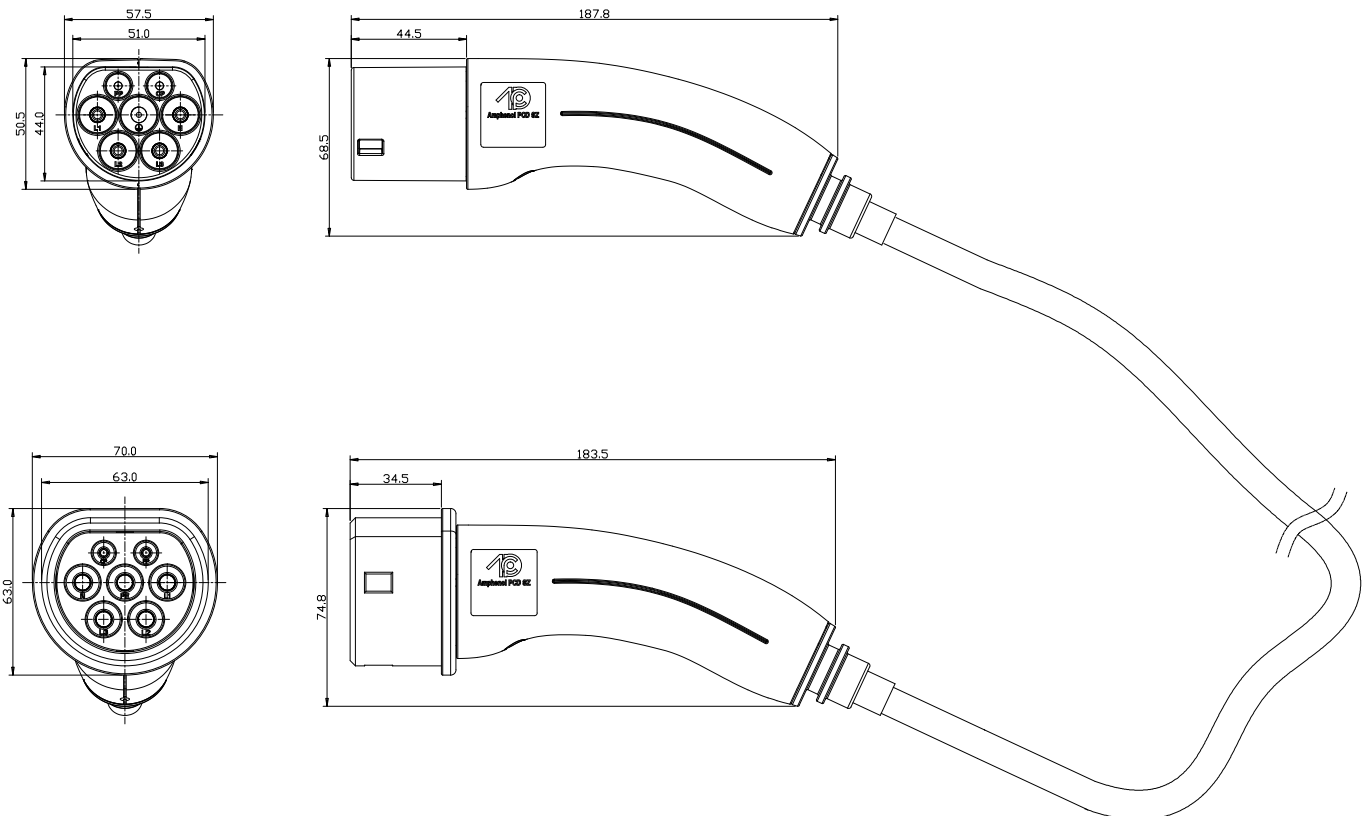


PLUG (EVSE) + VEHICLE CONNECTOR (EV) DIMENSIONS - MODE 3



Part Number		
16/20A	1-Phase	HVCOIMBSCR6PS502LXXXX
16/20A	3-Phase	HVCOIMBSCR6PS702LXXXX
32A	1-Phase	HVCOIMBSCR6PF504LXXXX
32A	3-Phase	HVCOIMBSCR6PF704LXXXX
32A	1-Phase	HVCOIMBSCR6PF506LXXXX
32A	3-Phase	HVCOIMBSCR6PF706LXXXX

LXXXX: Cable length (unit in mm)





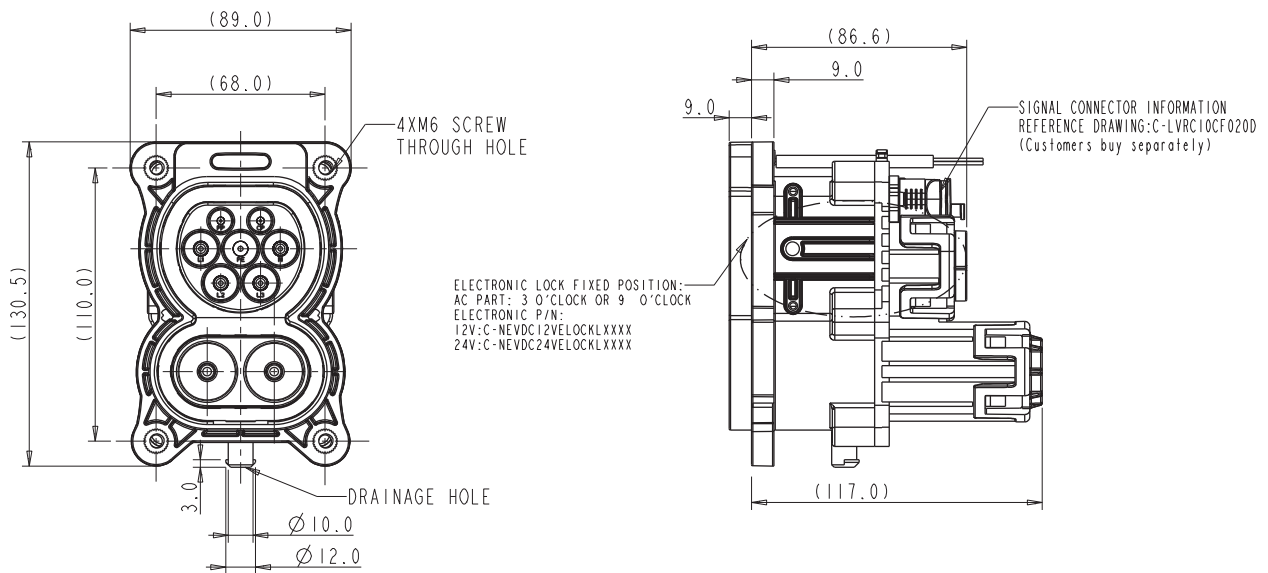
KEY FEATURES:

Compliant with:
IEC 62196-2
IEC 62196-3

Vehicle connector:
EN17186, CE, UKCA

MECHANICAL	
Mating cycles	Inlet: > 10,000 cycles (unloaded) Vehicle Connector: > 20,000 cycles (unloaded)
Insertion / withdrawal force	< 100N
ELECTRICAL	
Rated current	See page 23 and 25
Rated voltage	See page 23 and 25
Temperature sensor (Optional)	The two power contacts DC+ and DC- are monitored by temperature-dependent resistor sensors
ENVIRONMENTAL	
Protection degree	IP44 (mated) IP55 (with lids) IP67 (enclosure)
Ambient temperature	-40°C to 50°C -40°C to 45°C (400A)
MATERIAL	
Shell	Thermoplastic
Contact	Copper alloy
Inserts	Thermoplastic
Sealing gasket	Rubber or silicon rubber
Insulator inflammability	UL94V0

GEN3 IEC COMBO VEHICLE INLET DIMENSIONS



IEC COMBO ELECTRICAL SPECIFICATIONS

Combined interface		Functions
1-phase	3-phase	
250V 32A, 63A	480V 32A, 63A	L1 (Mains 1) - Optional
-	480V 32A, 63A	L2 (Mains 2) - Optional
-	480V 32A, 63A	L3 (Mains 3) - Optional
250V 32A, 63A	480V 32A, 63A	N (Neutral) - Optional
Rated for fault		PE (Protective Ground/Earth)
30V 2A		CP (Control pilot)
30V 2A		PP (Proximity)
1000V 150A, 200A, 250A, 300A		DC+ (High power d.c.)
1000V 150A, 200A, 250A, 300A		DC- (High power d.c.)

GEN2 IEC COMBO VEHICLE INLET WITH LED DIMENSIONS (GEN2 - PCBA)

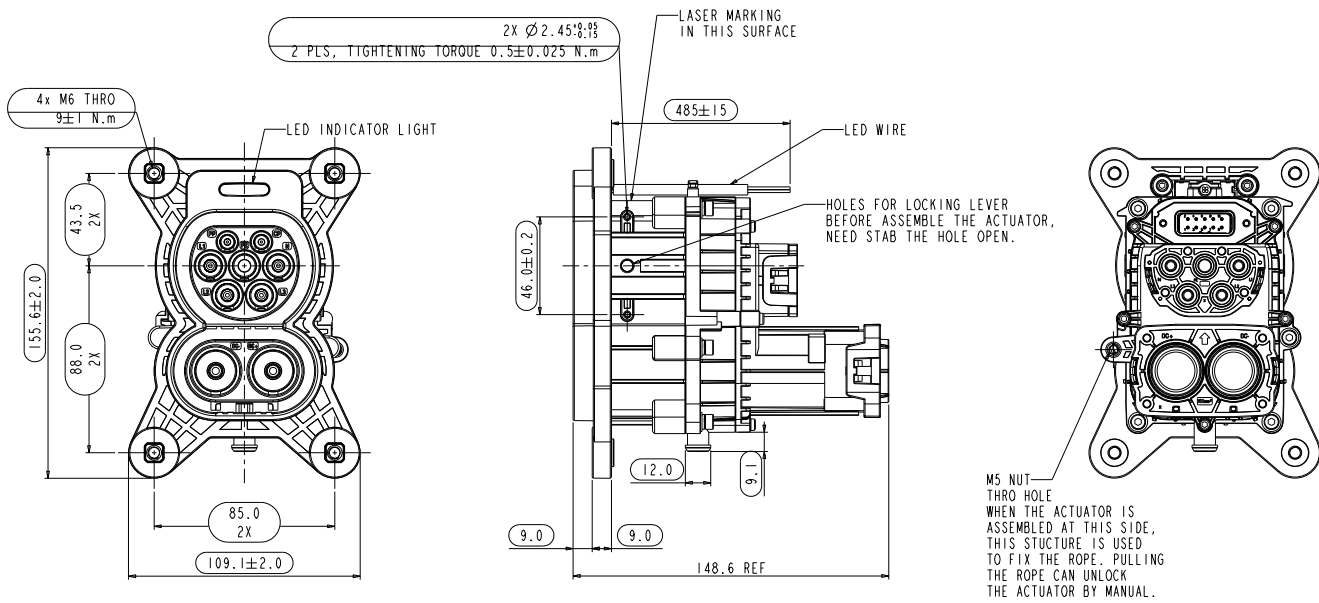
Rear mount without protection cap



Rear mount with protection cap



Part Number:
P02B000051



Signal connector with cable assembly



P/N	Positions
P08B002345	5 POS
P08B002344	8 POS
P08B002343	9 POS

GEN3

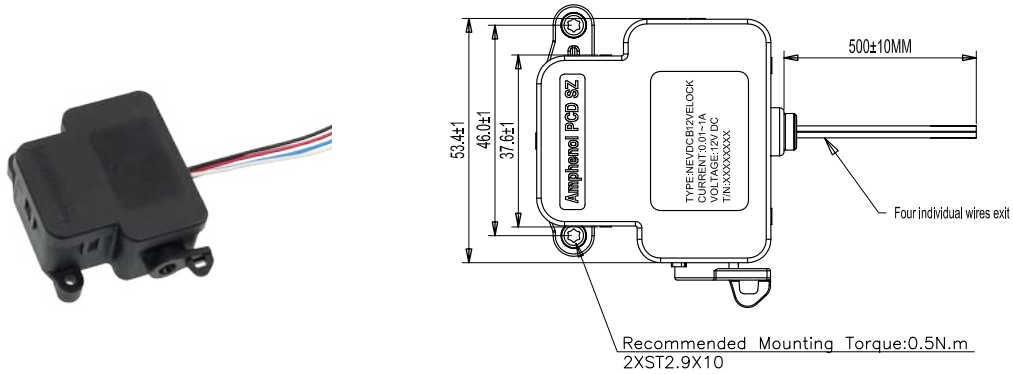
P/N	AC		DC		LED	Thermistor
	Rated current (A)	Cable size (mm ²)	Rated current (A)	Cable size (mm ²)		
HVCOCFC11A	1 x 32	6	150	35	12V	PT1000(DC)+NTC(AC)
HVCOCFD11A	3 x 32	6	150	35	12V	PT1000(DC)+NTC(AC)
HVCOCFC08A	1 x 32	6	200	50	12V	PT1000(DC)+NTC(AC)
HVCOCFD08A	3 x 32	6	200	50	12V	PT1000(DC)+NTC(AC)
HVCOCFC05A	1 x 32	6	250	70	12V	PT1000(DC)+NTC(AC)
HVCOCFD05A	3 x 32	6	250	70	12V	PT1000(DC)+NTC(AC)
HVCOCFC02A	1 x 32	6	300	95	12V	PT1000(DC)+NTC(AC)
HVCOCFD02A	3 x 32	6	300	95	12V	PT1000(DC)+NTC(AC)

GEN2 - PCBA

P/N	Rated current (AC)	Rated current (DC)	Phase	AC cable size	DC cable size	Temperature sensor (DC) Recommended
HVCOCF0210DN	32A	500A	3	6mm ²	150mm ²	PT1000
HVCOCF0212DN	63A	500A	3	16mm ²	150mm ²	PT1000
HVCOCF0213DN	32A	400A	3	6mm ²	120mm ²	PT1000
HVCOCF0215DN	63A	400A	3	16mm ²	120mm ²	PT1000
HVCOCF0216DN	32A	300A	3	6mm ²	95mm ²	PT1000
HVCOCF0218DN	63A	300A	3	16mm ²	95mm ²	PT1000
HVCOCF0219DN	32A	200A	3	6mm ²	70mm ²	PT1000
HVCOCF0221DN	63A	200A	3	16mm ²	70mm ²	PT1000
HVCOCF0222DN	32A	500A	1	6mm ²	150mm ²	PT1000
HVCOCF0224DN	63A	500A	1	16mm ²	150mm ²	PT1000
HVCOCF0225DN	32A	400A	1	6mm ²	120mm ²	PT1000
HVCOCF0227DN	63A	400A	1	16mm ²	120mm ²	PT1000
HVCOCF0228DN	32A	300A	1	6mm ²	95mm ²	PT1000
HVCOCF0230DN	63A	300A	1	16mm ²	95mm ²	PT1000
HVCOCF0231DN	32A	200A	1	6mm ²	70mm ²	PT1000
HVCOCF0233DN	63A	200A	1	16mm ²	70mm ²	PT1000
HVCOCF0234DN	-	500A	-	-	150mm ²	PT1000
HVCOCF0235DN	-	400A	-	-	120mm ²	PT1000
HVCOCF0236DN	-	300A	-	-	95mm ²	PT1000
HVCOCF0237DN	-	200A	-	-	70mm ²	PT1000

Electric lock | AMPHENOL PCD SHENZHEN (12V, 24V)

4-wire solution is available for both 12V and 24V.



P/N (12V): **NEVDCB12VELOCK**

TYPE	RED	BLACK	WHITE	BLUE
UNLOCKING	+	-	SIGNAL($R_U=1k\Omega$)	
LOCKING	-	+	SIGNAL($R_L=11k\Omega$)	

P/N (24V): **NEVDCB24VELOCK**

TYPE	RED	BLACK	WHITE	BLUE
UNLOCKING	+	-	SIGNAL($R_U=+\infty\Omega$)	
LOCKING	-	+	SIGNAL($R_L=0\Omega$)	



9 o'clock



3 o'clock

IEC COMBO VEHICLE CONNECTOR



P/N	Rated current (DC)	DC cable size	PE cable size
HVCOCMTR8PF200AML	200A	2 x 2 x 25mm ²	4mm ² , 6mm ²
HVCOCMTR8PF250AML	250A	2 x 2 x 35mm ²	4mm ² , 6mm ²
HVCOCMTR8PF350AML	350A	2 x 2 x 50mm ²	4mm ² , 6mm ²
HVCOCMTR8PF380AML	380A	2 x 2 x 50mm ²	6mm ²
HVCOCMTR8PF400AML	400A	2 x 2 x 50mm ²	6mm ²
HVCOCMTR8PF150AL	150A	2 x 35mm ²	16mm ²
HVCOCMTR8PF125AL	125A	2 x 50mm ²	25mm ²

IEC COMBO VEHICLE CONNECTOR - 40A, 65A, 80A



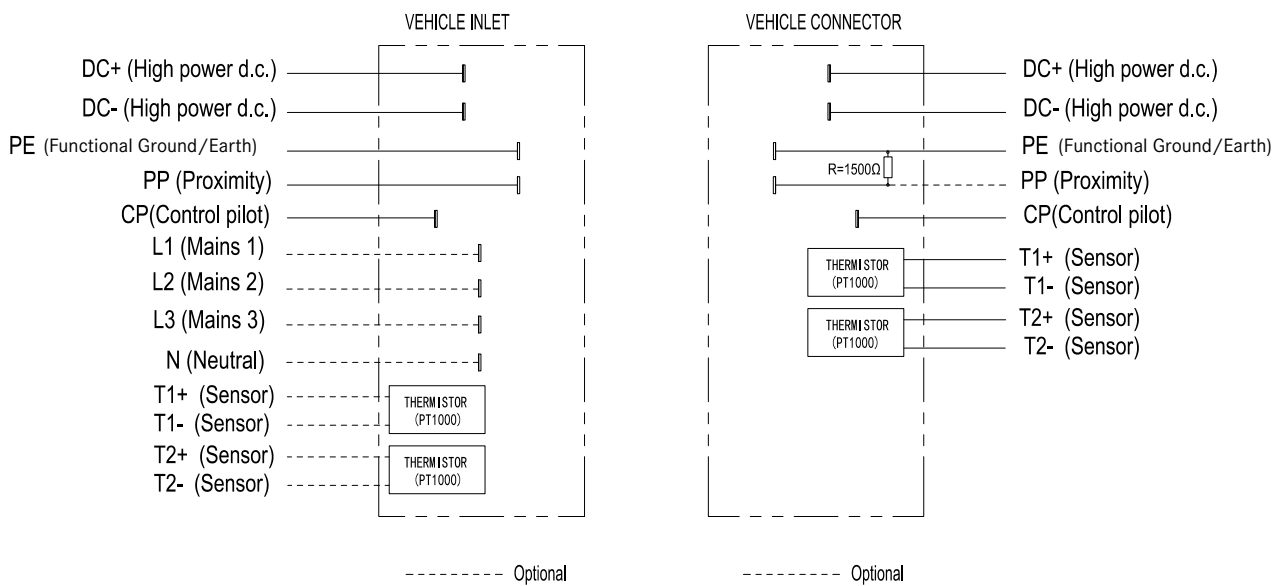
Mating cycles:	> 10,000 cycles (unloaded)
Insertion / withdrawal force:	< 100N
Rated current:	80A@16mm ²
	65A@10mm ²
	40A@6mm ²
Rated voltage:	1000V (DC)
Standards:	IEC62196.1, IEC62196.3
Temperature sensor:	PT1000
Waterproof:	IP55 (mated)
Ambient temperature:	-30 to 50°C
ROHS:	Yes

P/N	Rated current
HVCOCMCTR8PF506LXXXX	40A
HVCOCMCTR8PF510LXXXX	65A
HVCOCMCTR8PF516LXXXX	80A

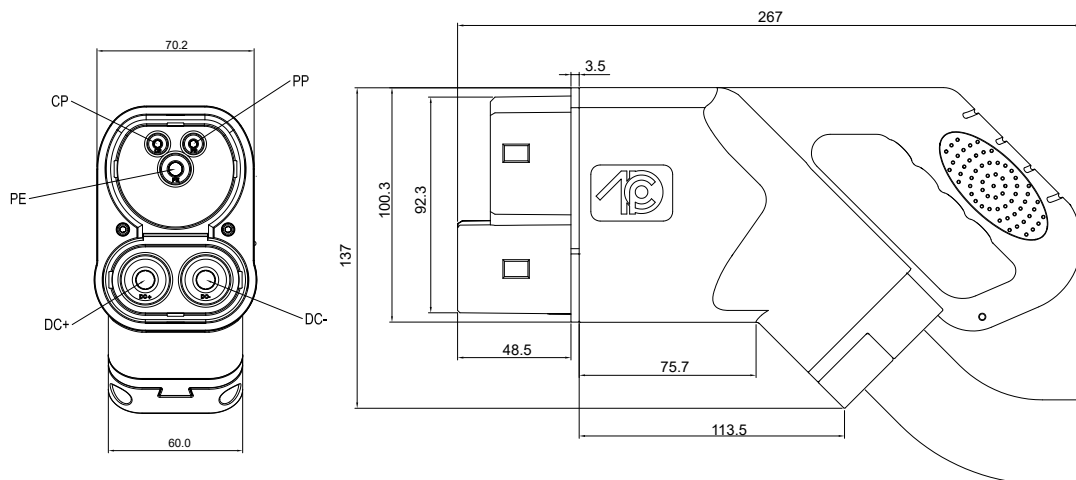
IEC COMBO ELECTRICAL SPECIFICATIONS

Combined interface	Functions
Rated for fault	PE (Functional Ground/Earth)
30V 2A	CP (Control pilot)
30V 2A	PP (Proximity)
1000V 200A, 250A, 300A, 350A, 380A, 400A	DC+ (High power d.c.)
1000V 200A, 250A, 300A, 350A, 380A, 400A	DC- (High power d.c.)

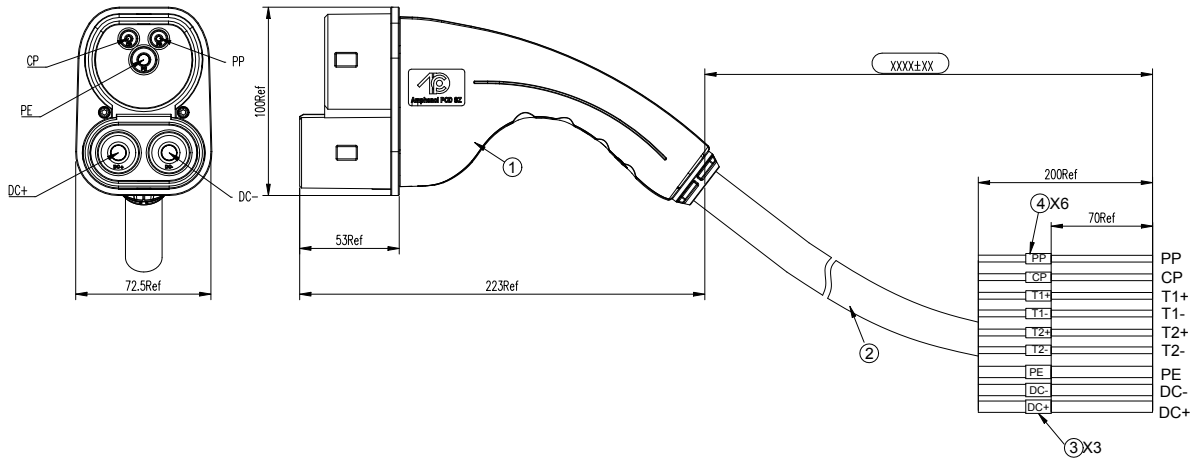
CIRCUIT DIAGRAMS



IEC COMBO VEHICLE CONNECTOR DIMENSIONS



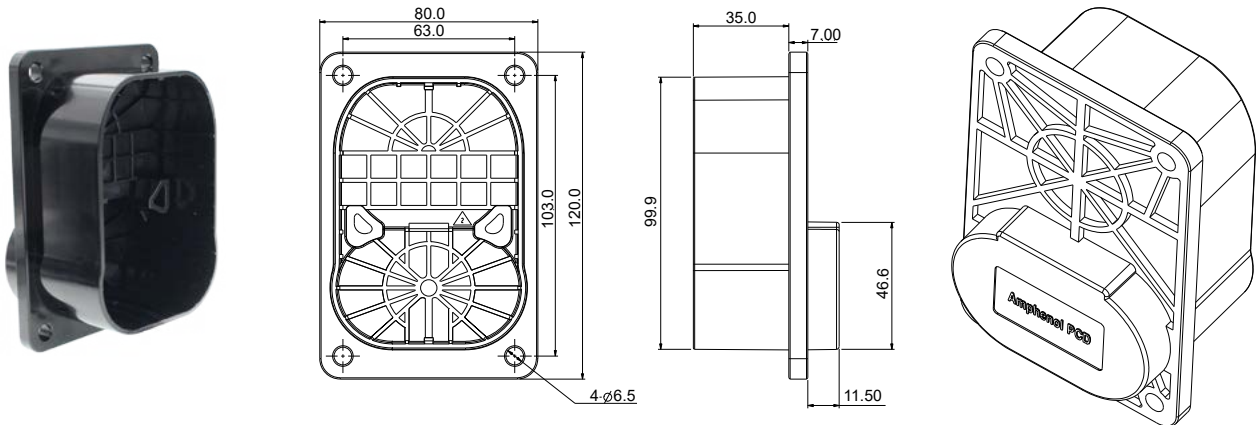
IEC COMBO VEHICLE CONNECTOR - 40A, 80A



HOLDER FOR PLUG

P/N: **C-C220027208**

(Connectors do not include, please order seperately)



EXCELIMATE CC SAE TYPE1 AC CONNECTOR - TECHNICAL CHARACTERISTICS

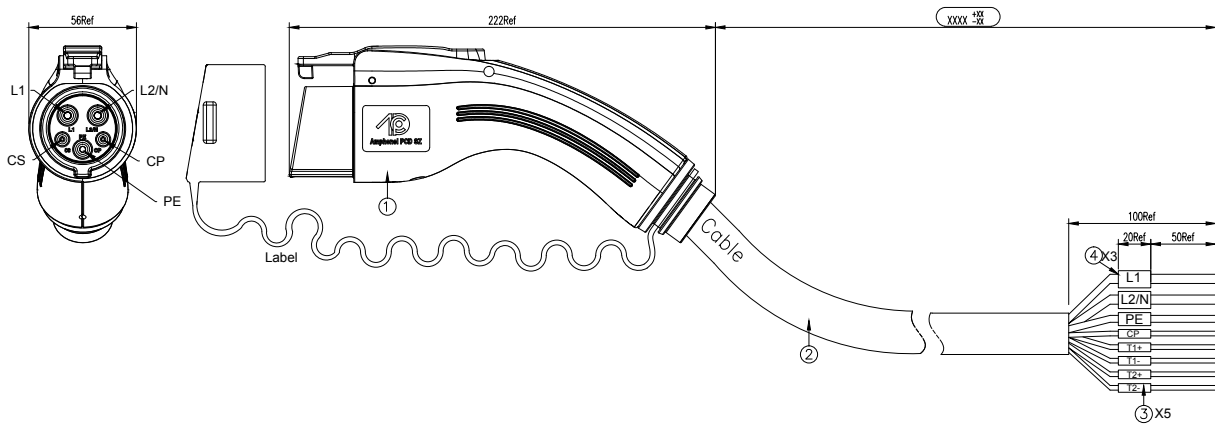


KEY FEATURES:

Compliant with:
SAE J1772, IEC 62196-1

MECHANICAL	
Mating cycles	> 10,000 cycles
Insertion / withdrawal force	100N Max
ELECTRICAL	
Rated current	L1, L2 : 16A, 32A, 48A/50A, 80A CS, CP: 2A
Rated voltage	L1, L2 : 240V AC CS, CP: 30V
Withstand voltage	2000V AC
Insulation resistance	> 100MΩ (500V DC)
ENVIRONMENTAL	
Protection degree	Type 3S
Ambient temperature	-30°C to 50°C
MATERIAL	
Shell	Thermoplastic
Shell color	Black
Contact	Copper alloy
Inserts	Thermoplastic
Sealing gasket	Rubber or silicon rubber
Insulator inflammability	UL94V0

SAE TYPE1 AC CONNECTOR DIMENSIONS



SAE TYPE1 AC CONNECTOR - PART NUMBER

Shell color: Black

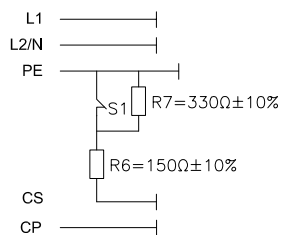
LXXXX: Cable length (unit in mm)



POTTED VERSION

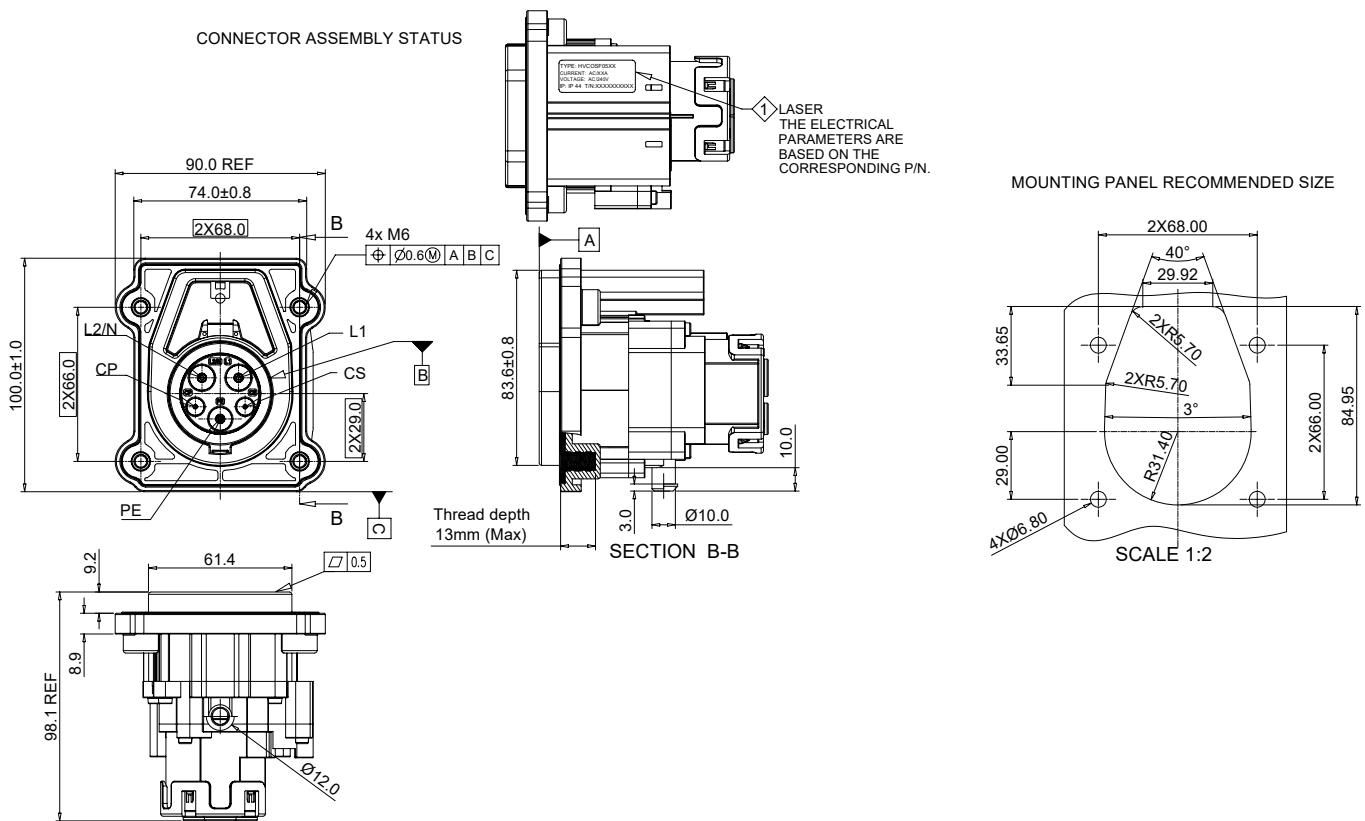
	Part Number	Sensor
32A	HVCOSAEMACBPF506LXXXX	N/A
32A	HVCOSAEMACBPF506NLXXXX	NTC
32A	HVCOSAEMACBPF506PLXXXX	PT1000
50A	HVCOSAEMACBPF510NLXXXX	NTC
50A	HVCOSAEMACBPF510PLXXXX	PT1000
80A	HVCOSAEMACBPF516NLXXXX	NTC
80A	HVCOSAEMACBPF516PLXXXX	PT1000

CIRCUIT DIAGRAMS & CABLE SIZE



	Cable size		
Current	80A	50A	32A
L1,L2/N	6 AWG	8 AWG	10 AWG
PE	8 AWG	10 AWG	10 AWG
CS,CP	18 AWG		

SAE TYPE1 AC SOCKET DIMENSIONS



SAE TYPE1 AC SOCKET - PART NUMBER



ELECTRIC LOCK

P/N (12V): HVEL12GS002S2



Part Number	Rated Current	Cable Spec for L1 & L2/N PIN	Cable Spec for PE PIN
HVCOSF0500	L1 & L2/N : 16A	2.5mm ² (14AWG) shielded cable O.D.: 4.2 to 4.7mm	2.5mm ² (14AWG) unshielded cable O.D.: 3.3 to 3.6mm
HVCOSF0500S1	L1 & L2/N : 16A	2.5mm ² (14AWG) shielded cable O.D.: 4.8 to 5.2mm	2.5mm ² (14AWG) shielded cable O.D.: 4.8 to 5.2mm
HVCOSF0501	L1 & L2/N : 32A	6mm ² (10AWG) shielded cable O.D.: 6.0 to 6.5mm	6mm ² (10AWG) unshielded cable O.D.: 4.6 to 5.3mm
HVCOSF0502	L1 & L2/N : 48A	10mm ² (8AWG) shielded cable O.D.: 8.2 to 8.8mm	10mm ² (8AWG) unshielded cable O.D.: 5.9 to 6.5mm
HVCOSF0503	L1 & L2/N : 80A	16mm ² (6AWG) shielded cable O.D.: 9.6 to 10.2mm	16mm ² (6AWG) unshielded cable O.D.: 7.7 to 8.3mm
HVCOSF0504	L1 & L2/N : 80A	25mm ² (4AWG) shielded cable O.D.: 11.6 to 12.2mm	25mm ² (4AWG) unshielded cable O.D.: 9.4 to 10mm

Both processes, **crimping** and **ultrasonic welding** are available.

EXCEL|MATE NACS AC - TECHNICAL CHARACTERISTICS

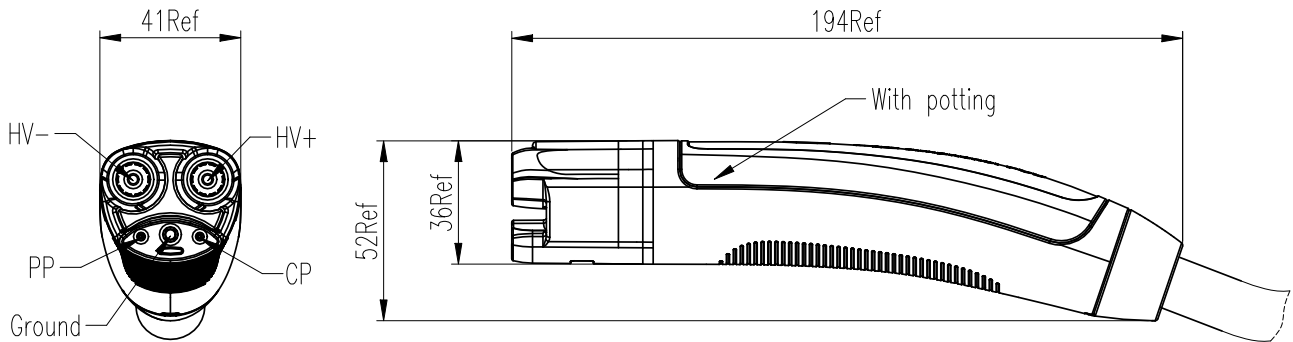


KEY FEATURES:

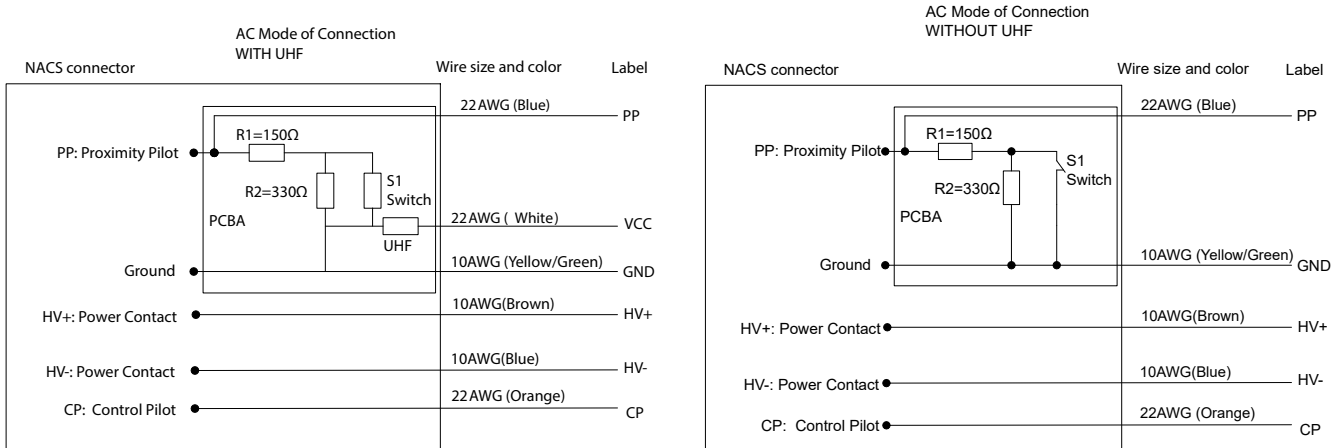
Compliant with:
SAE J1772
SAE J3400
UL2251

MECHANICAL	
Mating cycles	> 10,000 cycles (unloaded)
Insertion / withdrawal force	< 100N
ELECTRICAL	
Rated current	40A, 50A, 80A
Rated voltage	600V AC
ENVIRONMENTAL	
Protection degree	Type 3S IP67 (enclosure)
Ambient temperature	-40°C to 50°C
MATERIAL	
Shell	Thermoplastic
Contact	Copper alloy
Inserts	Thermoplastic
Sealing gasket	Rubber or silicon rubber
Insulator inflammability	UL94V0

NACS AC VEHICLE CONNECTOR DIMENSIONS



NACS AC VEHICLE CONNECTOR - CIRCUIT DIAGRAMS



NACS AC VEHICLE CONNECTOR - PART NUMBER

	HVCO	N1MA	XXA	X	LXXXX	X
NACS AC Vehicle Connector						
Rated current AC:						
40A: 40A						
50A: 50A						
80A: 80A						
Temperature sensor:						
N: NTC						
P: PT1000						
N/A: No sensor						
Cable length:						
LXXXX: Cable length (Unit in mm)						
UHF:						
U: Yes (315MHZ)						
N/A: No						

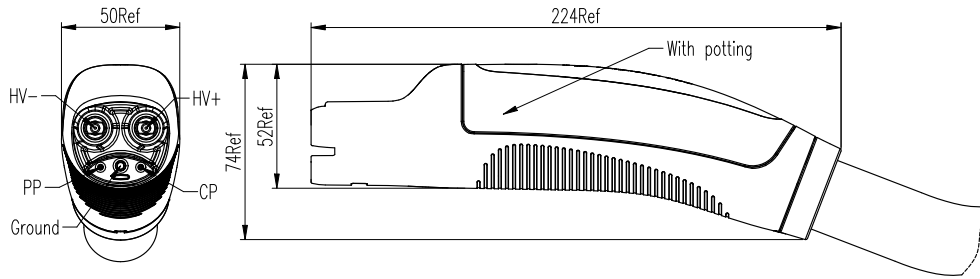


KEY FEATURES:

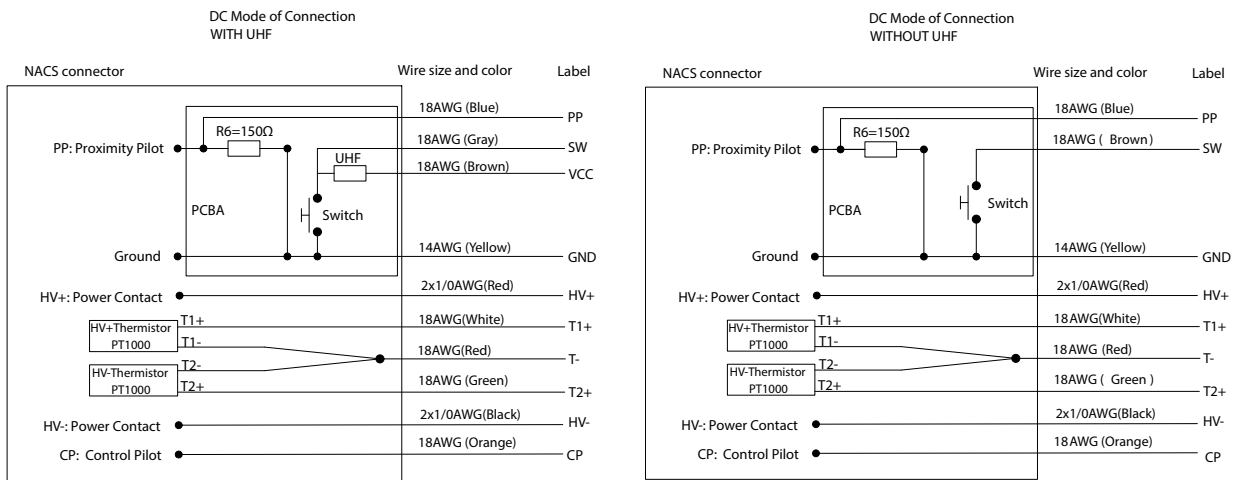
Compliant with:
SAE J3400
UL2251

MECHANICAL	
Mating cycles	> 20,000 cycles (unloaded)
Insertion / withdrawal force	< 100N
ELECTRICAL	
Rated current	200A, 250A, 380A, 600A
Rated voltage	1000V DC
ENVIRONMENTAL	
Protection degree	Type 3R IP67 (enclosure)
Ambient temperature	-40°C to 50°C -40°C to 40°C (for 380A)
MATERIAL	
Shell	Thermoplastic
Contact	Copper alloy
Inserts	Thermoplastic
Sealing gasket	Rubber or silicon rubber
Insulator inflammability	UL94V0

GEN2 NACS DC VEHICLE CONNECTOR DIMENSIONS



NACS DC VEHICLE CONNECTOR - CIRCUIT DIAGRAMS



NACS DC VEHICLE CONNECTOR - PART NUMBER

	HVCO	N1M	X	XXA	X	LXXXX	X
NACS DC Vehicle Connector							
PCBA:							
B: Electric circuit B							
C: Electric circuit C							
Rated current DC:							
80A: 80A							
200A: 200A							
250A: 250A							
380A: 380A							
Temperature sensor:							
N: NTC							
P: PT1000							
N/A: No sensor							
Cable length:							
LXXXX: Cable length (Unit in mm)							
UHF:							
U: Yes (315MHZ)							
N/A: No							

LXXXX: Cable length (unit in mm)

Liquid-cooled NACS 600A	Standard	UHF	Temperature sensor
HVCON2MB600APLXXXX	SAE J3400 Diagram 4	-	PT1000
HVCON2MB600APLXXXXU	SAE J3400 Diagram 4	315MHZ	PT1000
HVCON2MC600APLXXXX	SAE J3400 Diagram 3	-	PT1000

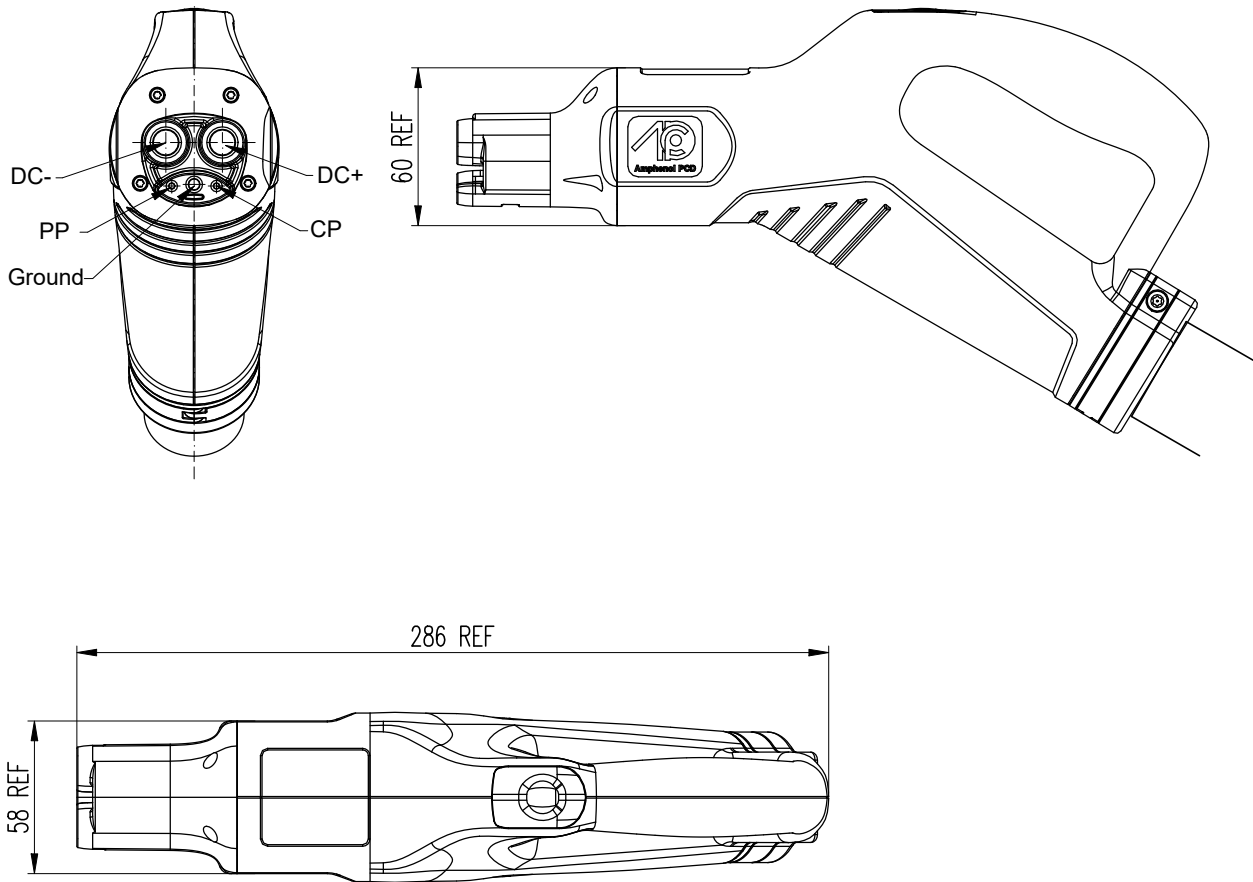


KEY FEATURES:
Replaceable contact

Compliant with:
SAE J3400
UL2251

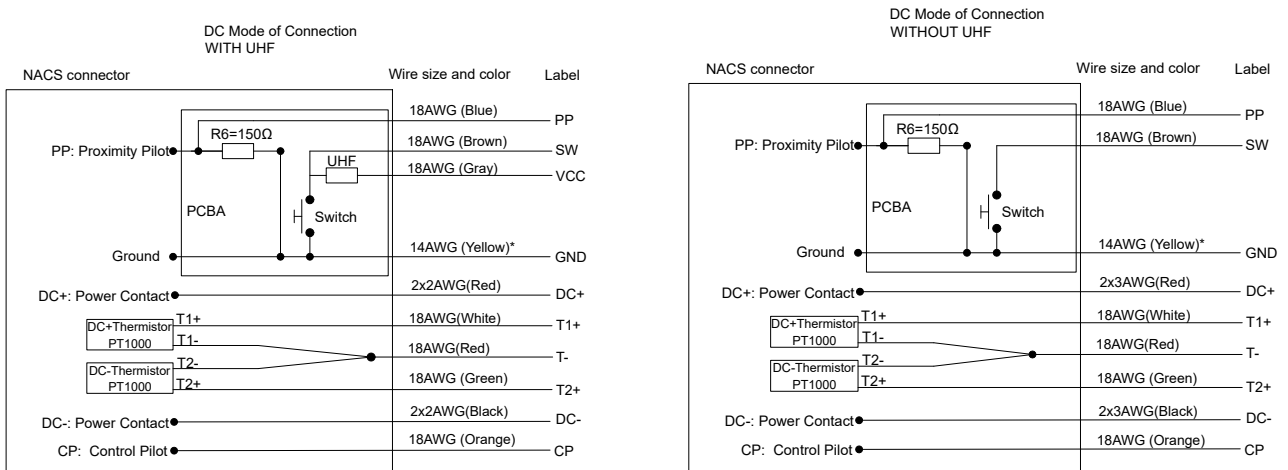
MECHANICAL	
Mating cycles	> 20,000 cycles (replaceable)
Insertion / withdrawal force	< 100N
ELECTRICAL	
Rated current	250A, 360A, 400A, 600A
Rated voltage	1000V DC
ENVIRONMENTAL	
Protection degree	Type 3S IP67 (enclosure)
Ambient temperature	-40°C to 50°C
MATERIAL	
Shell	Thermoplastic
Contact	Copper alloy
Inserts	Thermoplastic
Sealing gasket	Rubber or silicon rubber
Insulator inflammability	UL94V0

GEN3 NACS DC WITH HANDLE VEHICLE CONNECTOR DIMENSIONS



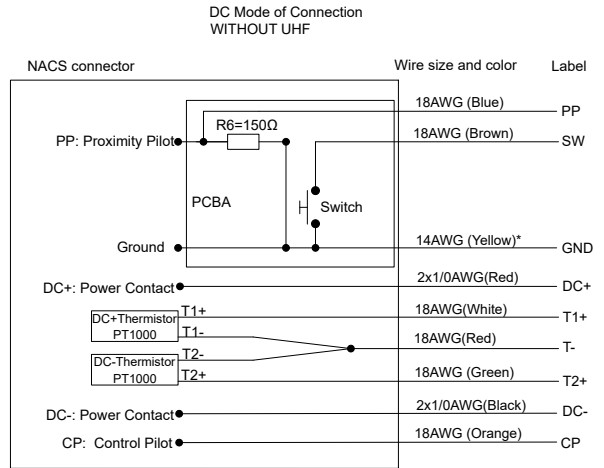
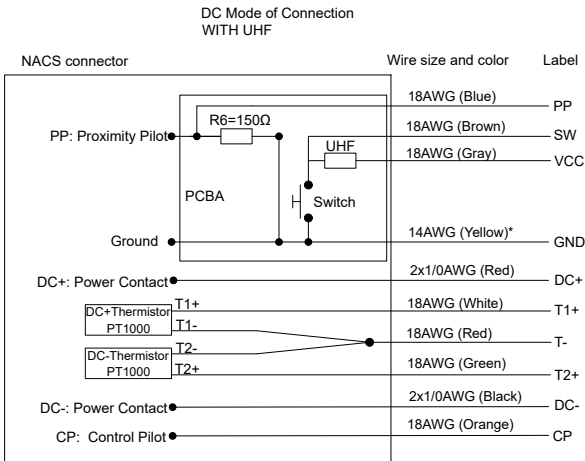
GEN3 NACS DC WITH HANDLE VEHICLE CONNECTOR - CIRCUIT DIAGRAMS

250A WITH / WITHOUT UHF

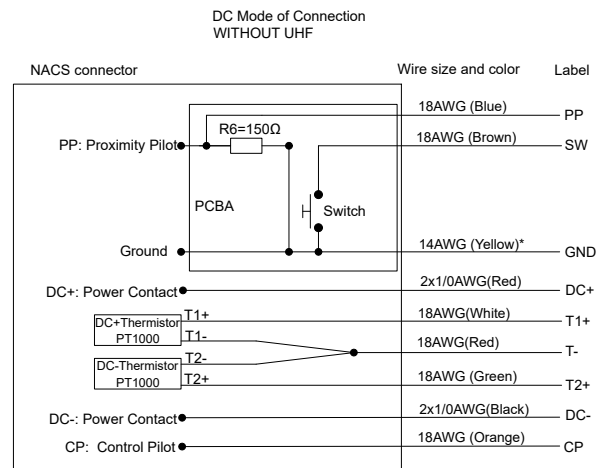
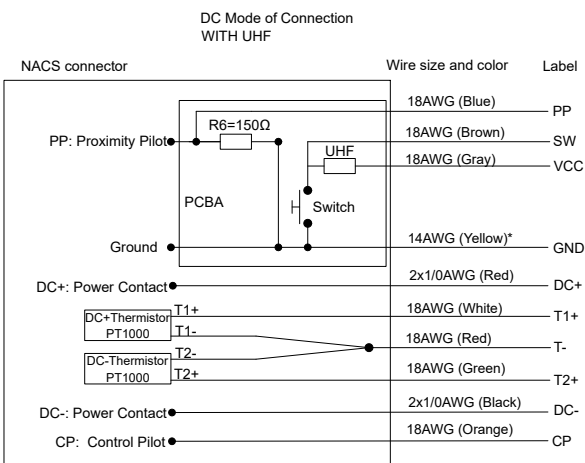


GEN3 NACS DC WITH HANDLE VEHICLE CONNECTOR - CIRCUIT DIAGRAMS

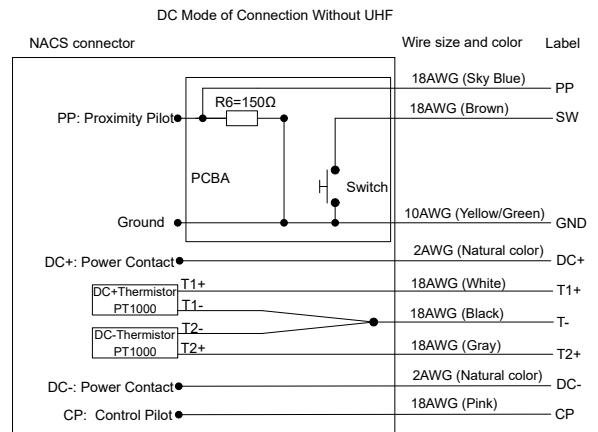
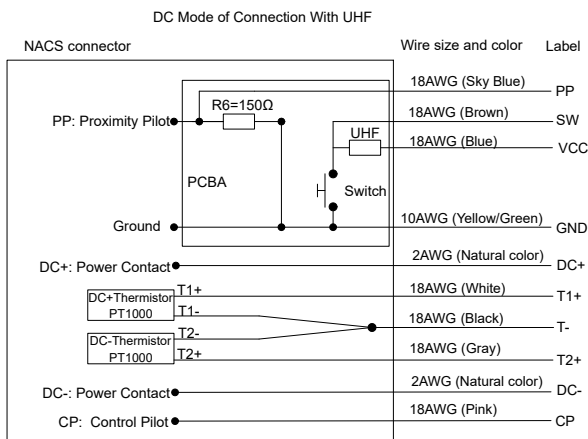
360A WITH / WITHOUT UHF



400A WITH / WITHOUT UHF



600A LIQUID-COOLED WITH / WITHOUT UHF



GEN3 NACS DC WITH HANDLE VEHICLE CONNECTOR - PART NUMBER

HVCO	N3MB	250A	P	LXXXX	U
GEN3 NACS DC Vehicle Connector					
Rated current :					
250A: 250A					
360A: 360A					
400A: 400A					
Temperature sensor:					
P: PT1000					
Cable length:					
XXXX: Cable length (Unit in mm)					
UHF:					
U: Yes (315MHZ)					
N/A: No					

LXXXX: Cable length (unit in mm)

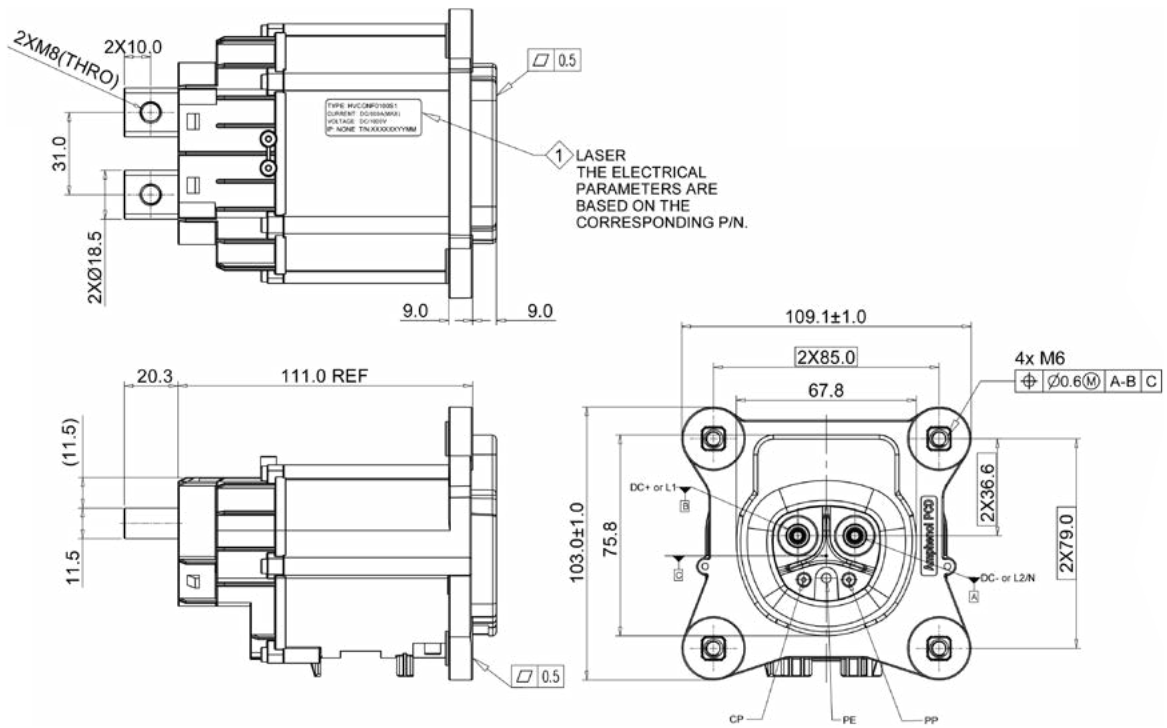
Liquid-cooled NACS 600A	Standard	UHF	Temperature sensor
HVCON4MB600APLXXXXU	SAE J3400	315MHZ	PT1000
HVCON4MB600APLXXXX	SAE J3400	-	PT1000



KEY FEATURES:
 Compliant with:
 UL2251
 SAE J3400

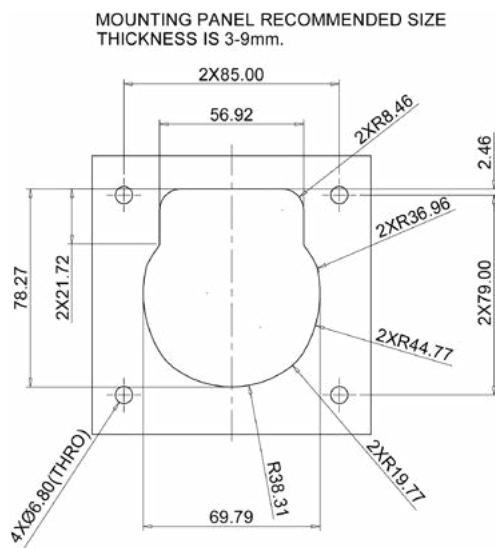
MECHANICAL	
Mating cycles	> 10,000 cycles (unloaded)
Insertion / withdrawal force	< 100N
ELECTRICAL	
Rated current	600A Max
Rated voltage	1000V DC
Temperature sensor	PT1000 The two power contacts DC+ and DC- are monitored by temperature-dependent resistor sensors
ENVIRONMENTAL	
Ambient temperature	-30°C to 50°C
MATERIAL	
Shell	Thermoplastic
Contact	Copper alloy
Inserts	Thermoplastic
Sealing gasket	Rubber or silicon rubber
Insulator inflammability	UL94V0

NACS INLET BUSBAR VERSION | DIMENSIONS



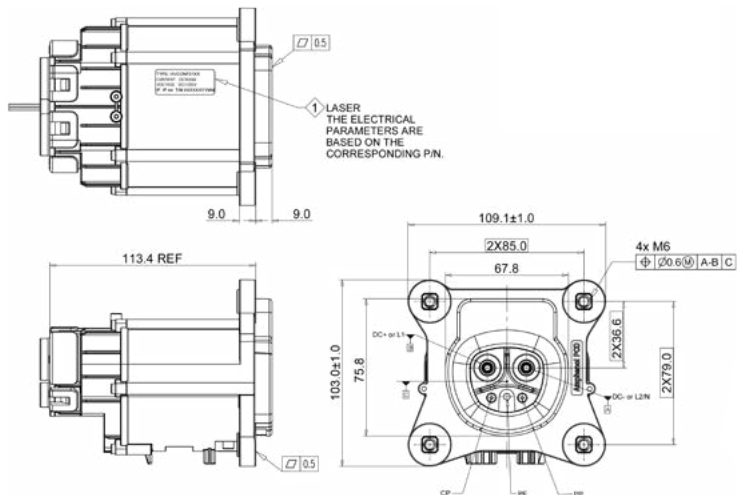
MOUNTING PANEL

PART NUMBER



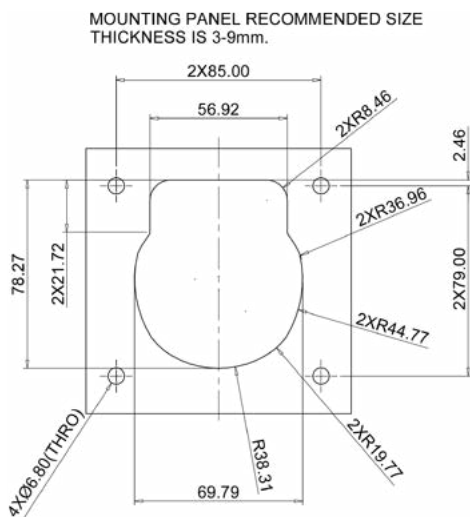
Part Number
HVCONF0100S1

NACS INLET CRIMPING VERSION | DIMENSIONS



MOUNTING PANEL

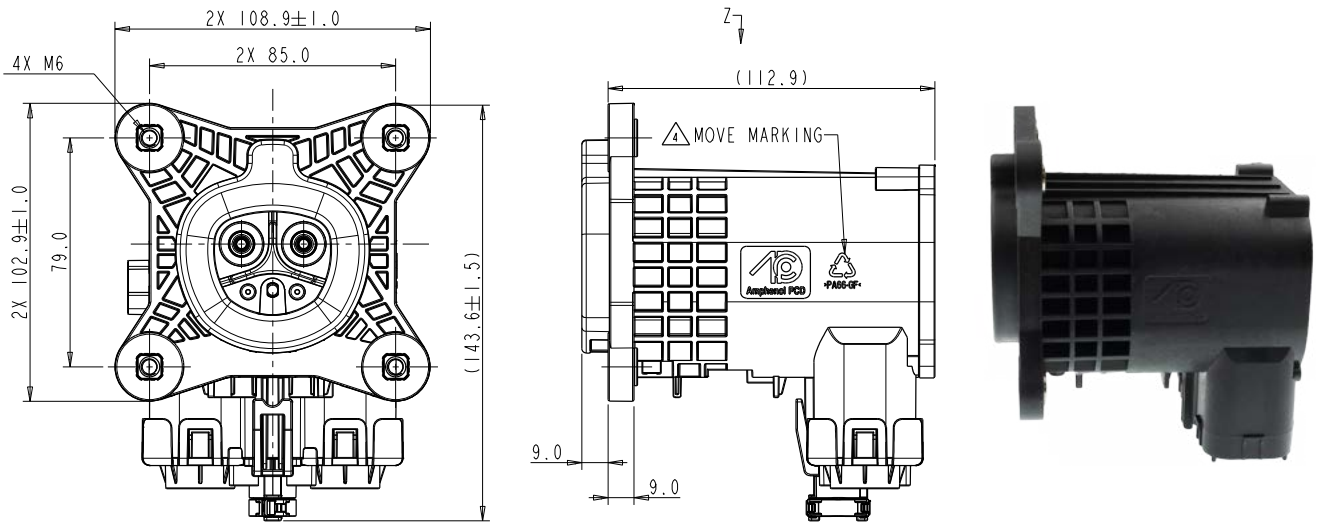
PART NUMBER



Part Number
HVCONF01XX

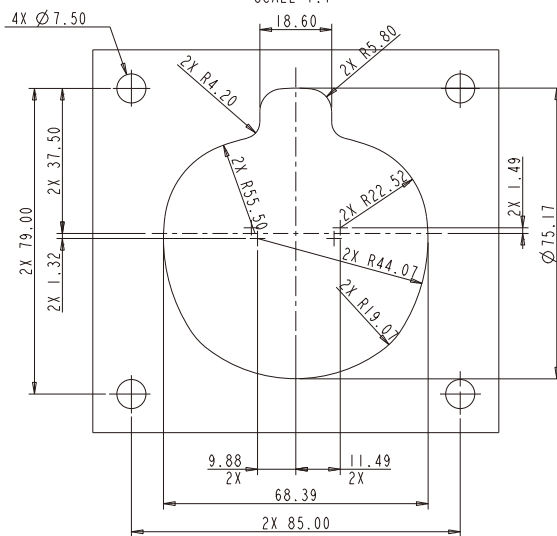
Item	Part number	Rated current & voltage	Cable specification for power pin	Cable specification for PE pin
1	HVCONF0101	200A,1000V DC	50mm ² (1/0 AWG) shield cable OD:15.5 ± 0.3mm	10mm ² (8 AWG) Unshield cable OD: 5.9 to 6.5mm
2	HVCONF0102	250A,1000V DC	70mm ² (2/0 AWG) shield cable OD:17.8 ± 0.4mm	
3	HVCONF0103	350A,1000V DC	95mm ² (3/0 AWG) shield cable OD:20.5 ± 0.4mm	
4	HVCONF0104	40A DC/AC , 1000V DC / 240V AC	6mm ² (10 AWG) shield cable OD:6.25 ± 0.25mm	6mm ² (10 AWG) Unshield cable OD: 4.6 to 5.3mm
5	HVCONF0105	45A DC/AC , 1000V DC / 240V AC	10mm ² (8 AWG) shield cable OD:8.5 ± 0.3mm	10mm ² (8 AWG) Unshield cable OD: 5.9 to 6.5mm
6	HVCONF0106	80A DC/AC , 1000V DC / 240V AC	16mm ² (6 AWG) shield cable OD:9.9 ± 0.3mm	16mm ² (6 AWG) Unshield cable OD: 7.7 to 8.3mm

NACS INLET 90° DOWN ENTRY | DIMENSIONS



MOUNTING PANEL

THICKNESS OF BRACKET: 3 mm TO 8.5 mm
TOLERANCE: ± 0.1 mm
SCALE 1:1



PART NUMBER

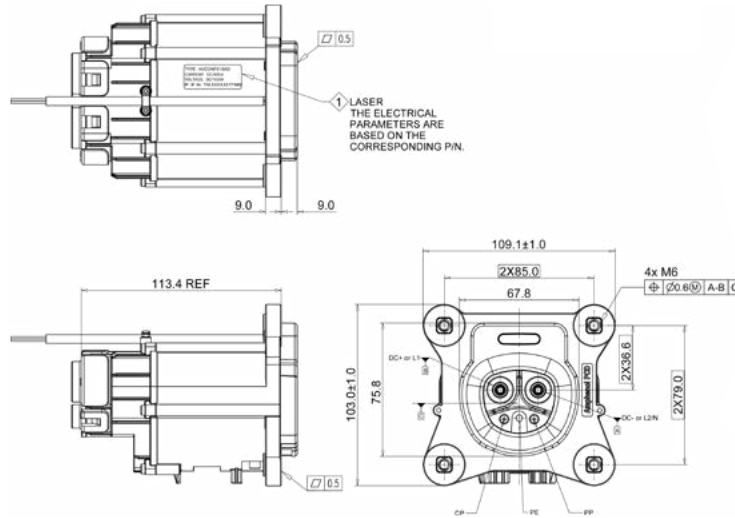


Part Number

HVCONF02XX

Item	Part number	Rated current & voltage	Cable specification for power pin	Cable specification for PE pin
1	HVCOCNF0201	200A,1000V DC	50mm ² (1/0 AWG) shield cable OD:15.5 ± 0.3mm	10mm ² (8 AWG) Unshield cable OD: 6.2 ± 0.25mm
2	HVCOCNF0202	250A,1000V DC	70mm ² (2/0 AWG) shield cable OD:17.8 ± 0.4mm	
3	HVCOCNF0203	350A,1000V DC	95mm ² (3/0 AWG) shield cable OD:20.5 ± 0.4mm	

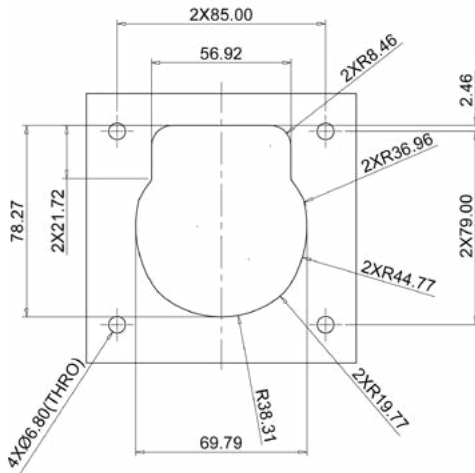
NACS INLET CRIMPING VERSION | WITH LED DIMENSIONS



MOUNTING PANEL

PART NUMBER

MOUNTING PANEL RECOMMENDED SIZE
THICKNESS IS 3-9mm.



Part Number
HVCONF01XXD



Item	Part number	Rated current & voltage	Cable specification for power pin	Cable specification for PE pin
1	HVCONF0101D	200A, 1000V DC	50mm ² (1/0 AWG) shield cable OD: 15.5 ± 0.3mm	10mm ² (8 AWG) Unshield cable OD: 5.9 to 6.5mm
2	HVCONF0102D	250A, 1000V DC	70mm ² (2/0 AWG) shield cable OD: 17.8 ± 0.4mm	
3	HVCONF0103D	350A, 1000V DC	95mm ² (3/0 AWG) shield cable OD: 20.5 ± 0.4mm	
4	HVCONF0104D	40A DC/AC , 1000V DC / 240V AC	6mm ² (10 AWG) shield cable OD: 6.25 ± 0.25mm	6mm ² (10 AWG) Unshield cable OD: 4.6 to 5.3mm
5	HVCONF0105D	45A DC/AC , 1000V DC / 240V AC	10mm ² (8 AWG) shield cable OD: 8.5 ± 0.3mm	10mm ² (8 AWG) Unshield cable OD: 5.9 to 6.5mm
6	HVCONF0106D	80A DC/AC , 1000V DC / 240V AC	16mm ² (6 AWG) shield cable OD: 9.9 ± 0.3mm	16mm ² (6 AWG) Unshield cable OD: 7.7 to 8.3mm

EXCELMATE CC SAE COMBO - TECHNICAL CHARACTERISTICS

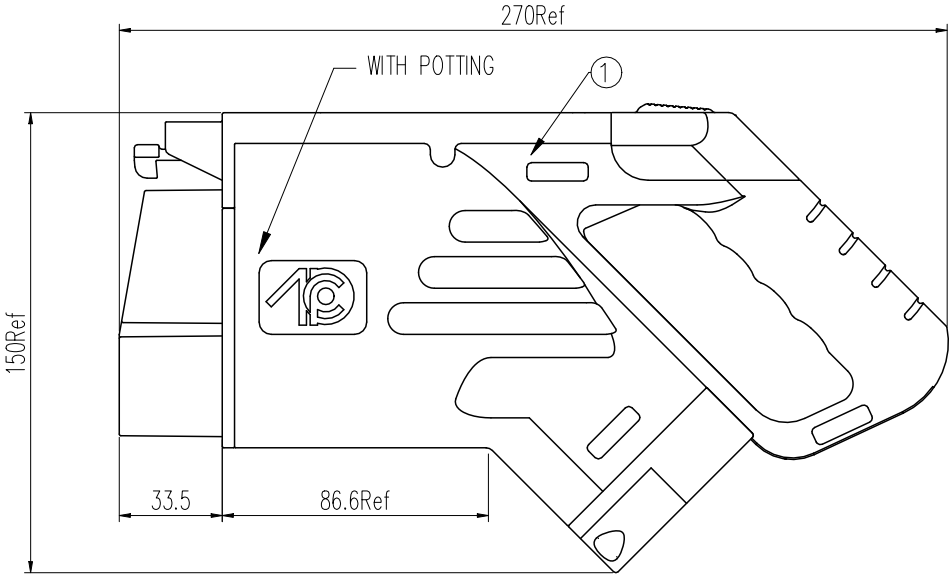
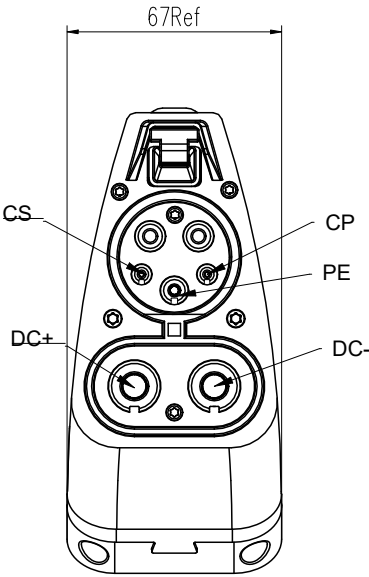


KEY FEATURES:

Compliant with:
SAE J1772
IEC 62196-3
UL2251

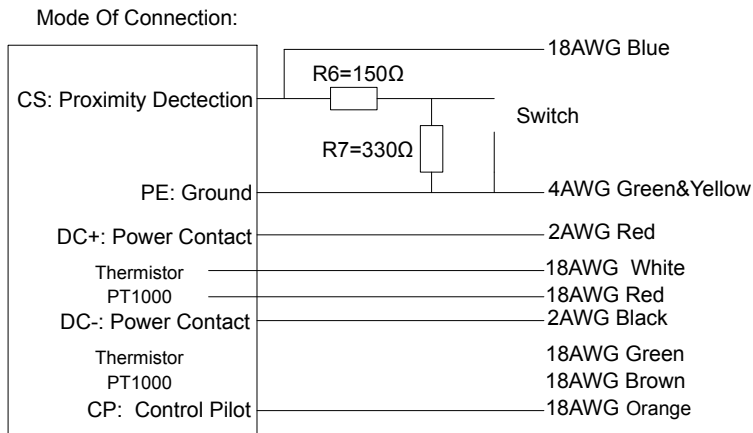
MECHANICAL	
Mating cycles	> 10,000 cycles (unloaded)
Insertion / withdrawal force	< 100N
ELECTRICAL	
Rated current	400A Max
Rated voltage	1000V DC
Temperature sensor	PT1000 The two power contacts DC+ and DC- are monitored by temperature-dependent resistor sensors
ENVIRONMENTAL	
Protection degree	Type 3S, IP54 (mated)
Ambient temperature	-40°C to 55°C
MATERIAL	
Shell	Thermoplastic
Contact	Copper alloy
Inserts	Thermoplastic
Sealing gasket	Rubber or silicon rubber
Insulator inflammability	UL94V0

SAE COMBO VEHICLE CONNECTOR DIMENSIONS

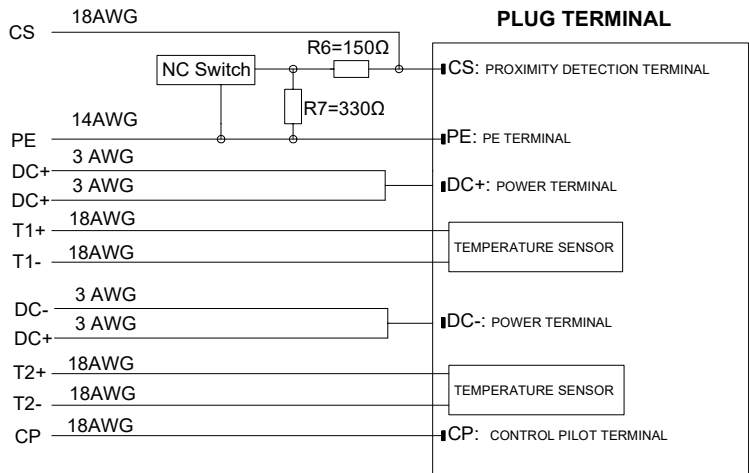


SAE COMBO VEHICLE CONNECTOR - CIRCUIT DIAGRAMS

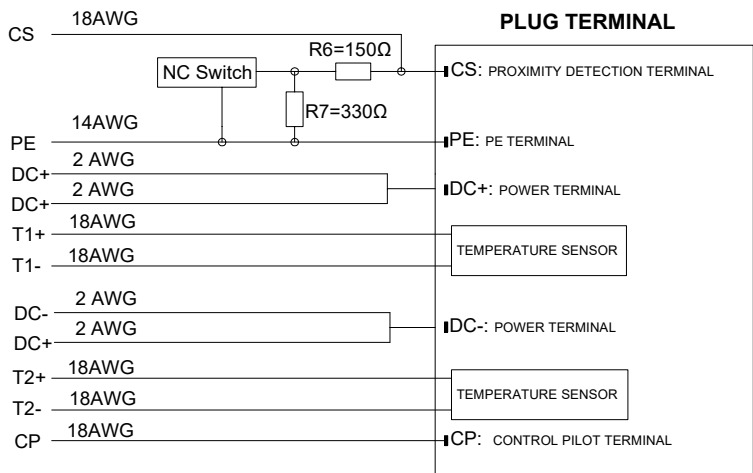
150A



200A

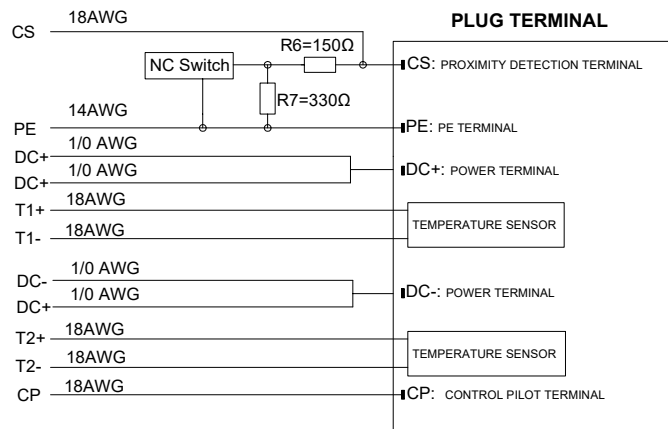


250A

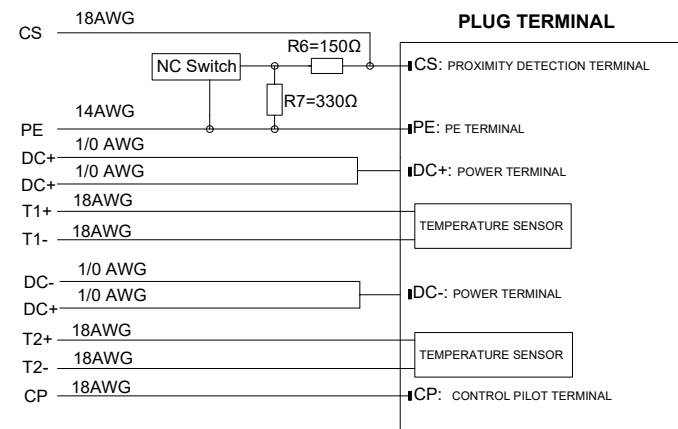


SAE COMBO VEHICLE CONNECTOR - CIRCUIT DIAGRAMS

350A



400A



HOW TO ORDER | SAE COMBO

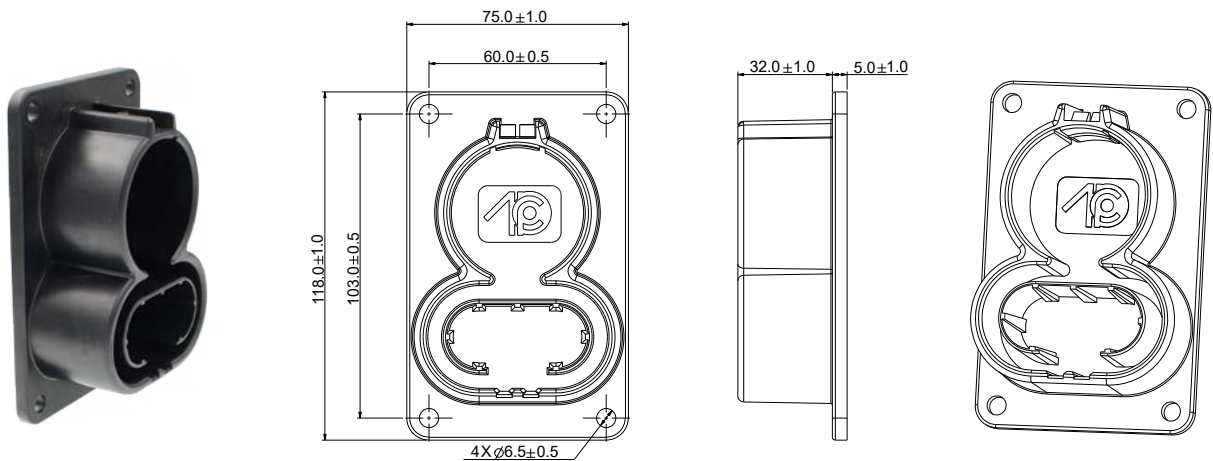
SAE Combo Vehicle Connector

P/N	Rated current (DC)	DC cable size	PE cable size
HVCOSAEM150AML	150A	2 AWG	4 AWG
HVCOSAEM200AM2L	200A	2 x 3 AWG	14 AWG
HVCOSAEM250AML	250A	2 x 2 AWG	14 AWG
HVCOSAEM350AML	350A	2 x 1/0 AWG	14 AWG
HVCOSAEM400AML	400A	2 x 1/0 AWG	14 AWG

HOLDER FOR PLUG

P/N: **C-P03BP00156**

(Connectors do not include, please order seperately)



EXCEL|MATE CC SAE COMBO WALL-MOUNTING - TECHNICAL CHARACTERISTICS

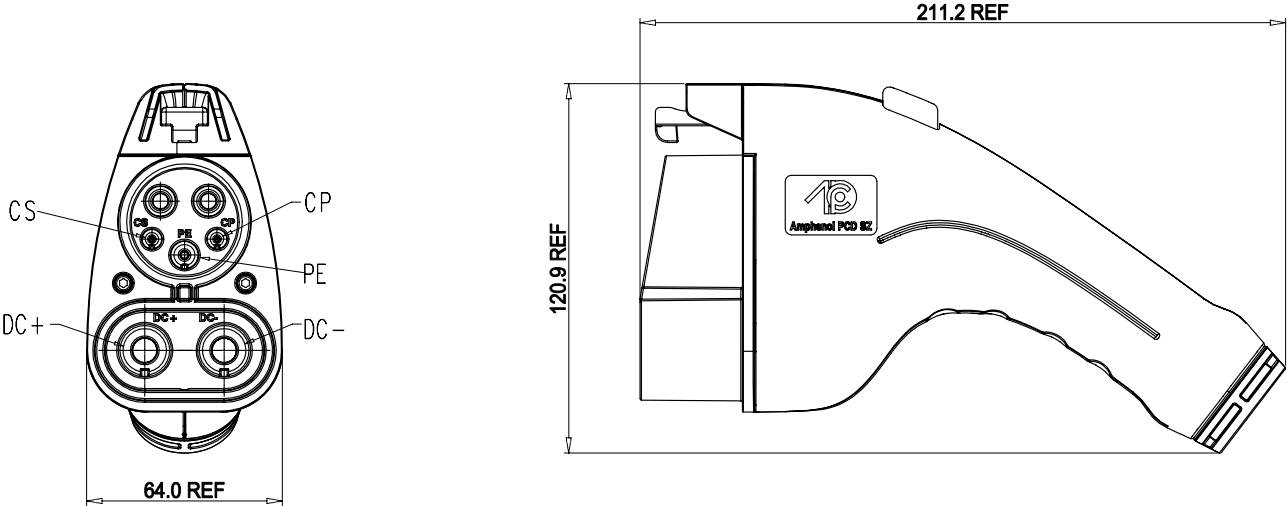


KEY FEATURES:

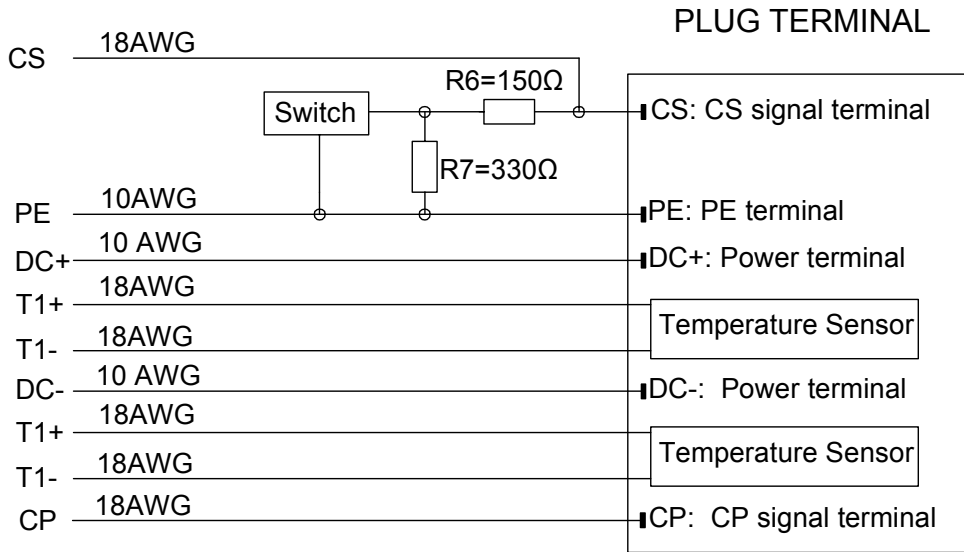
Compliant with:
SAE J1772
IEC 62196-3
UL2251

MECHANICAL	
Mating cycles	> 10,000 cycles (unloaded)
Insertion / withdrawal force	< 100N
ELECTRICAL	
Rated current	40A, 65A, 80A
Rated voltage	1000V DC
Temperature sensor	PT1000 The two power contacts DC+ and DC- are monitored by temperature-dependent resistor sensors
ENVIRONMENTAL	
Protection degree	Type 3S
Ambient temperature	-30°C to 50°C
MATERIAL	
Shell	Thermoplastic
Contact	Copper alloy
Inserts	Thermoplastic
Sealing gasket	Rubber or silicon rubber
Insulator inflammability	UL94V0

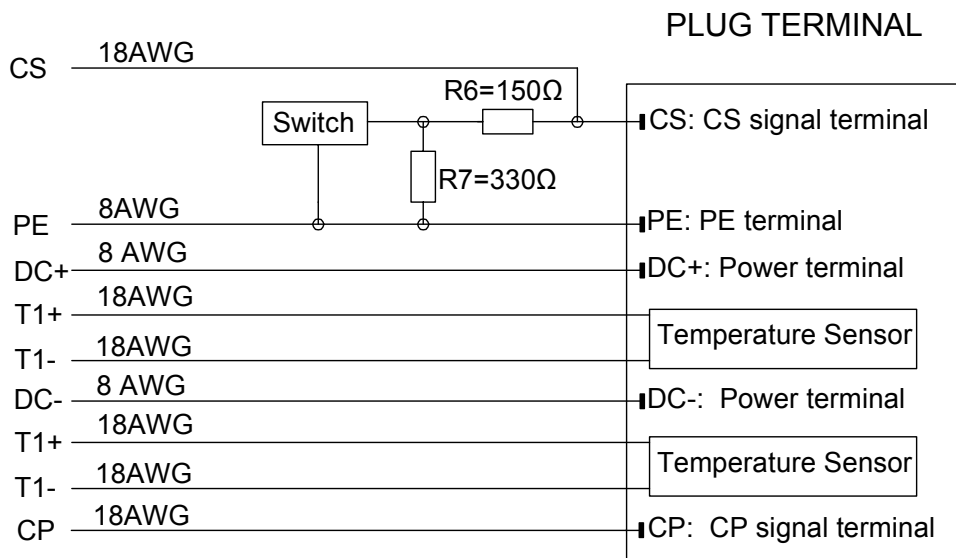
CCS1 SAE COMBO WALL-MOUNTING VEHICLE CONNECTOR DIMENSIONS



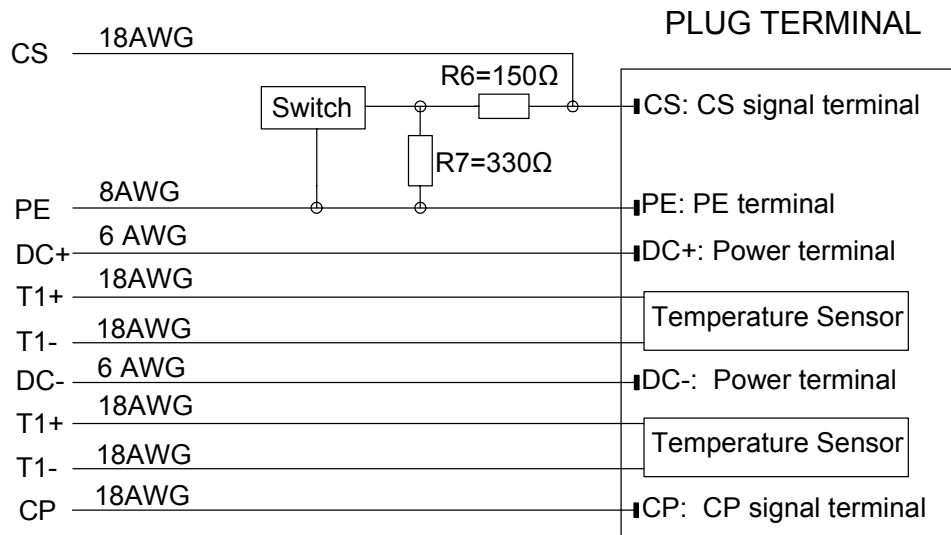
40A



65A



80A



HOW TO ORDER | SAE COMBO WALL-MOUNTING

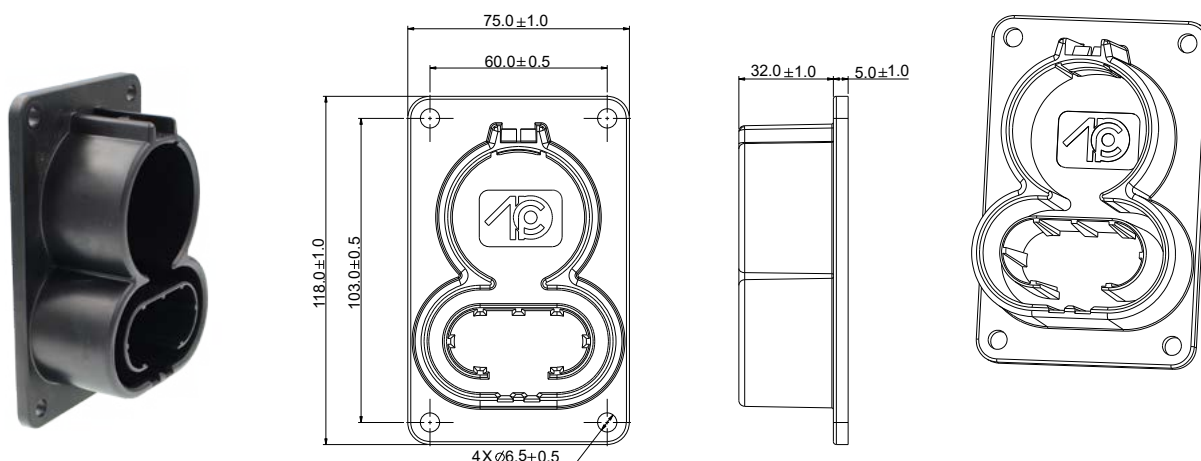
SAE Combo Vehicle Connector

	HVCO	SAE	M	D	40A	P	LXXXX	XXXX
SAE: SAE Combo								
Connector type: M: Vehicle Connector								
Connector version: D: Mini DC Combo Plug								
Rated current DC: 40A: 40A 65A: 65A 80A: 80A								
Temperature sensor: N: NTC (Unit in mm) P: PT1000 (Unit in mm) N/A: No sensor								
Cable length: LXXXX: Cable length (Unit in mm)								
Cable accessories: XXXX: Cable accessories or customer code								

HOLDER FOR PLUG

P/N: **C-P03BP00156**

(Connectors do not include, please order seperately)



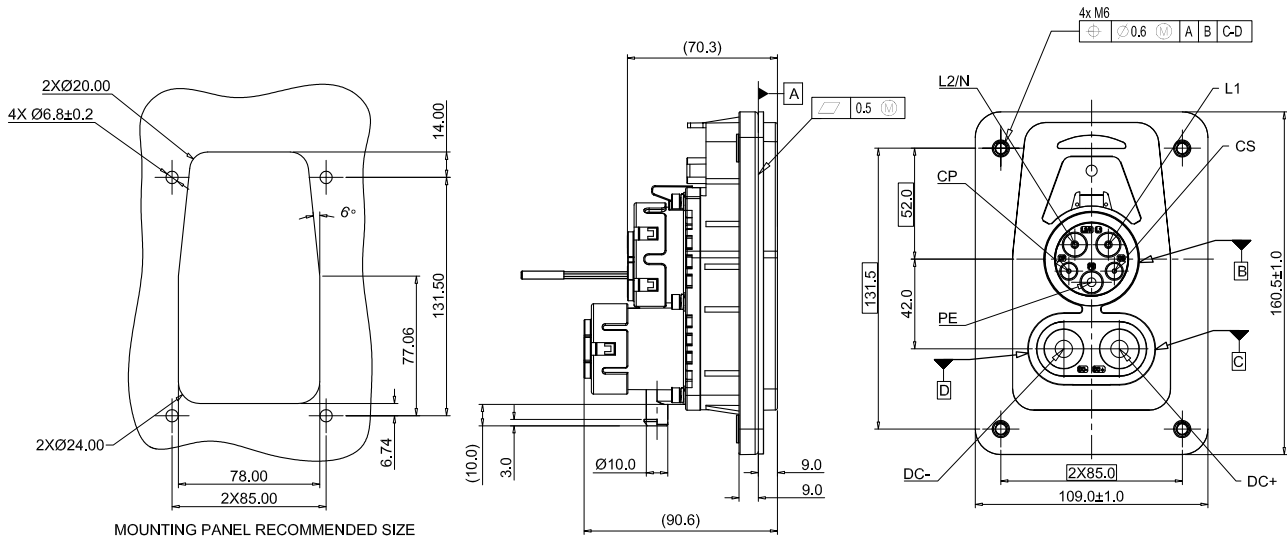


KEY FEATURES:

Compliant with:
 IEC 62196-1
 IEC 62196-2
 IEC 62196-3
 UL2251
 SAE J1772

MECHANICAL	
Mating cycles	> 10,000 cycles (unloaded)
Insertion / withdrawal force	< 100N
ELECTRICAL	
Rated current	300A Max
Rated voltage	1000V DC
Temperature sensor	PT1000 The two power contacts DC+ and DC- are monitored by temperature-dependent resistor sensors
ENVIRONMENTAL	
Protection degree	IP44 (mated), IP55 (road position), IP67 (inner area of inlet)
Ambient temperature	-30°C to 50°C
MATERIAL	
Shell	Thermoplastic
Contact	Copper alloy
Inserts	Thermoplastic
Sealing gasket	Rubber or silicon rubber
Insulator inflammability	UL94V0

GEN1 CCS1 VEHICLE INLET | AC+DC DIMENSIONS



Rated voltage and current	Functions
240V 48A	L1
240V 48A	L2/N
-	PE (Protective Ground/Earth)
1000V 300A, 200A, 150A, 125A, 65A	DC+
1000V 300A, 200A, 150A, 125A, 65A	DC-
30V 2A	CP (Control pilot)
30V 2A	PP (Proximity)

CCS1 Vehicle inlet AC + DC

Socket-inlet



Part Number		
AC	DC	Part Number
240V / 48A	1000V / 200A	HVCOSF003
240V / 48A	1000V / 125A	HVCOSF005
240V / 48A	1000V / 65A	HVCOSF007
240V / 48A	1000V / 300A	HVCOSF009
240V / 48A	1000V / 150A	HVCOSF013

Compliant with IEC 62196-1/2/3, UL2251 and SAE J1772

Configuration:

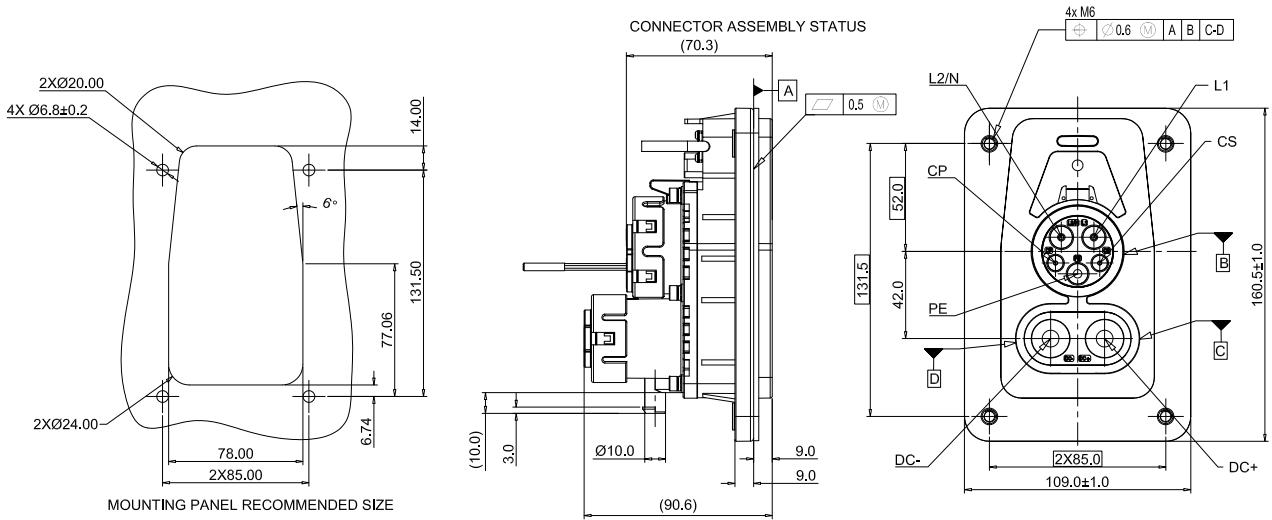
240V | 48A | 1-phase

1000V | 65A, 125A, 150A, 200A or 300A | 3-phase

Electric lock available

12 o'clock

GEN1 CCS1 VEHICLE INLET | AC+DC WITH LED DIMENSIONS



Rated voltage and current	Functions
240V 48A	L1
240V 48A	L2/N
-	PE (Protective Ground/Earth)
1000V 300A, 200A, 150A, 125A, 65A	DC+
1000V 300A, 200A, 150A, 125A, 65A	DC-
30V 2A	CP (Control pilot)
30V 2A	PP (Proximity)

CCS1 Vehicle inlet AC + DC

Socket-inlet



Part Number		
AC	DC	Part Number
240V / 48A	1000V / 200A	HVCOSF003D
240V / 48A	1000V / 125A	HVCOSF005D
240V / 48A	1000V / 65A	HVCOSF007D
240V / 48A	1000V / 300A	HVCOSF009D
240V / 48A	1000V / 150A	HVCOSF013D

Compliant with IEC 62196-1/2/3, UL2251 and SAE J1772

Configuration:

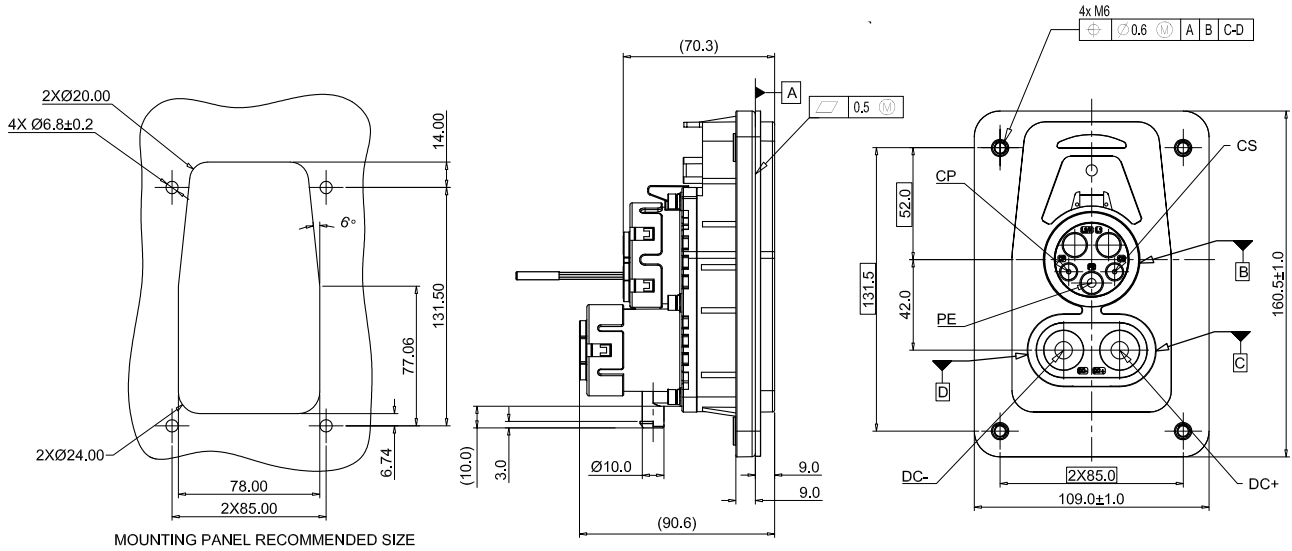
240V | 48A | 1-phase

1000V | 65A, 125A, 150A, 200A or 300A | 3-phase

Electric lock available

12 o'clock

GEN1 CCS1 VEHICLE INLET | DC DIMENSIONS



Rated voltage and current	Functions
-	PE (Protective Ground/Earth)
1000V 300A, 200A, 150A, 125A, 65A	DC+
1000V 300A, 200A, 150A, 125A, 65A	DC-
30V 2A	CP (Control pilot)
30V 2A	PP (Proximity)

CCS1 Vehicle inlet DC

Socket-inlet



Part Number	
DC	Part Number
1000V / 200A	HVCOSF004
1000V / 125A	HVCOSF006
1000V / 65A	HVCOSF008
1000V / 300A	HVCOSF010
1000V / 150A	HVCOSF014

Compliant with IEC 62196-1/2/3, UL2251 and SAE J1772

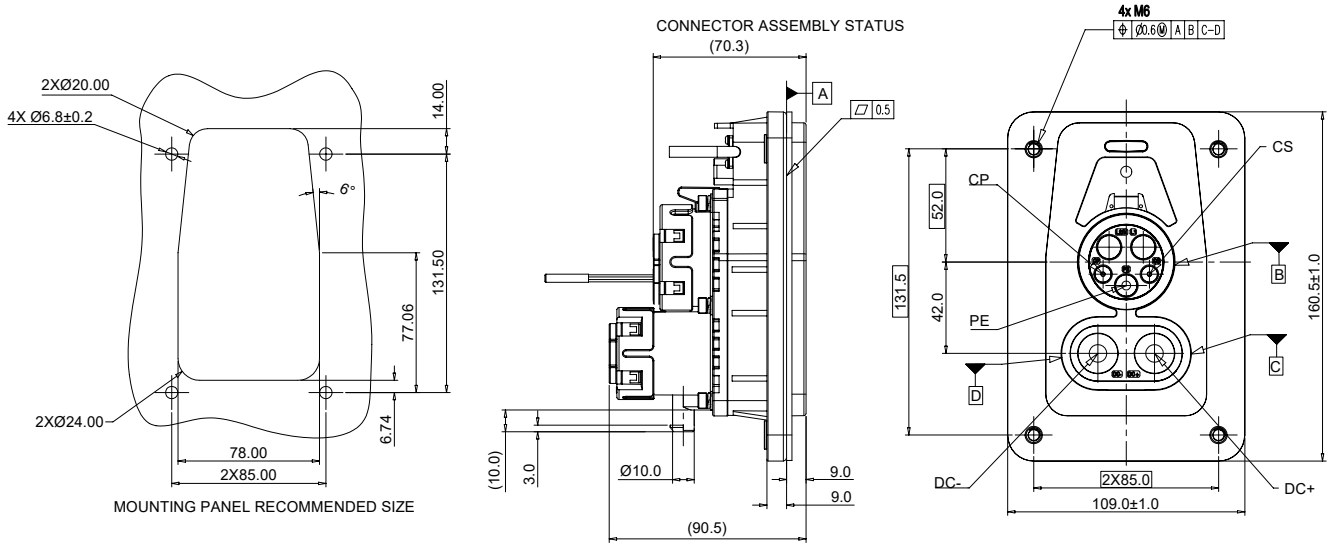
Configuration:

1000V | 65A, 125A, 150A, 200A or 300A | 3-phase

Electric lock available

12 o'clock

GEN1 CCS1 VEHICLE INLET | DC WITH LED DIMENSIONS



Rated voltage and current	Functions
-	PE (Protective Ground/Earth)
1000V 300A, 200A, 150A, 125A, 65A	DC+
1000V 300A, 200A, 150A, 125A, 65A	DC-
30V 2A	CP (Control pilot)
30V 2A	PP (Proximity)

CCS1 Vehicle inlet DC

Socket-inlet



Part Number	
DC	Part Number
1000V / 200A	HVCOSF004D
1000V / 125A	HVCOSF006D
1000V / 65A	HVCOSF008D
1000V / 300A	HVCOSF010D
1000V / 150A	HVCOSF014D

Compliant with IEC 62196-1/2/3, UL2251 and SAE J1772

Configuration:

1000V | 65A, 125A, 150A, 200A or 300A | 3-phase

Electric lock available

12 o'clock

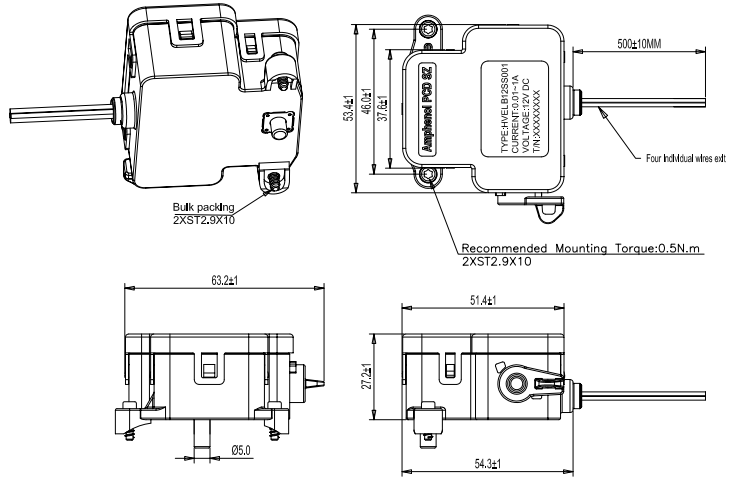
LOCKING ACTUATOR

Electric lock | AMPHENOL PCD SHENZHEN (12V, 24V)

4-wire solution is available for 12V and 24V



HVELB12SS001	12V
HVELB24SS001	24V



TYPE	RED	BLACK	WHITE	BLUE
UNLOCKING	+	-	SIGNAL($R_U=1K\Omega$)	
LOCKING	-	+	SIGNAL($R_L=11K\Omega$)	

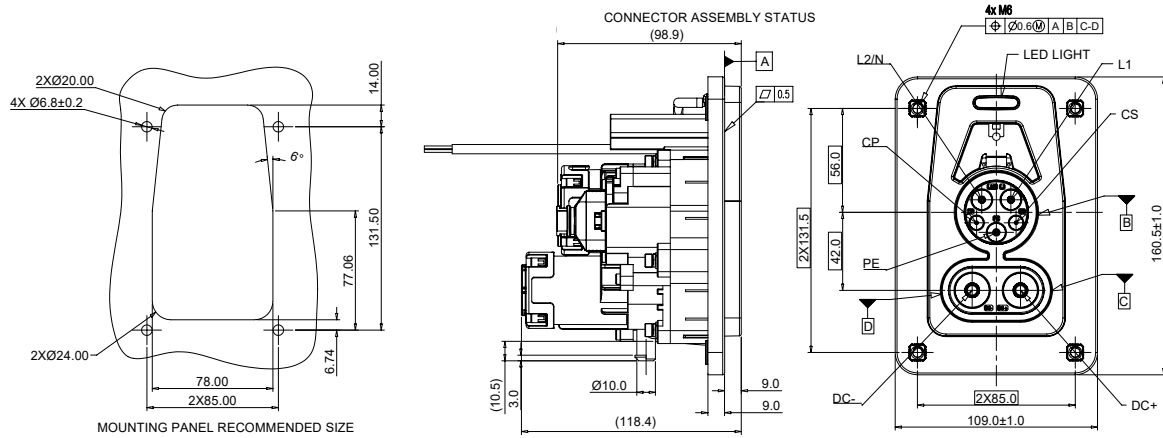


KEY FEATURES:

Compliant with:
 IEC 62196-1
 IEC 62196-2
 IEC 62196-3
 UL2251
 SAE J1772

MECHANICAL	
Mating cycles	> 10,000 cycles (unloaded)
Insertion / withdrawal force	< 100N
ELECTRICAL	
Rated current	80A AC Max 300A to 500A DC (peak:800A)
Rated voltage	240V AC 1000V DC
Temperature sensor	PT1000 The two power contacts DC+ and DC- are monitored by temperature-dependent resistor sensors
ENVIRONMENTAL	
Protection degree	IP55 (mated), IP55 (with cap), IP67 (enclosure)
Ambient temperature	-30°C to 50°C
MATERIAL	
Shell	Thermoplastic
Contact	Copper alloy
Inserts	Thermoplastic
Sealing gasket	Rubber or silicon rubber
Insulator inflammability	UL94V0

GEN3 CCS1 VEHICLE INLET | AC+DC DIMENSIONS



Rated voltage and current	Functions
240V 80A, 48A	L1
240V 80A, 48A	L2/N
-	PE (Protective Ground/Earth)
1000V 500A, 400A, 300A	DC+
1000V 500A, 400A, 300A	DC-
30V 2A	CP (Control pilot)
30V 2A	PP (Proximity)

CCS1 Vehicle inlet AC + DC

Socket-inlet



Part Number		
AC	DC	Part Number
240V / 80A	1000V / 500A	HVCOSF040D
240V / 80A	1000V / 400A	HVCOSF041D
240V / 80A	1000V / 300A	HVCOSF042D
240V / 48A	1000V / 500A	HVCOSF046D
240V / 48A	1000V / 400A	HVCOSF047D
240V / 48A	1000V / 300A	HVCOSF048D

Compliant with IEC 62196-1/2/3, UL2251 and SAE J1772

Configuration:

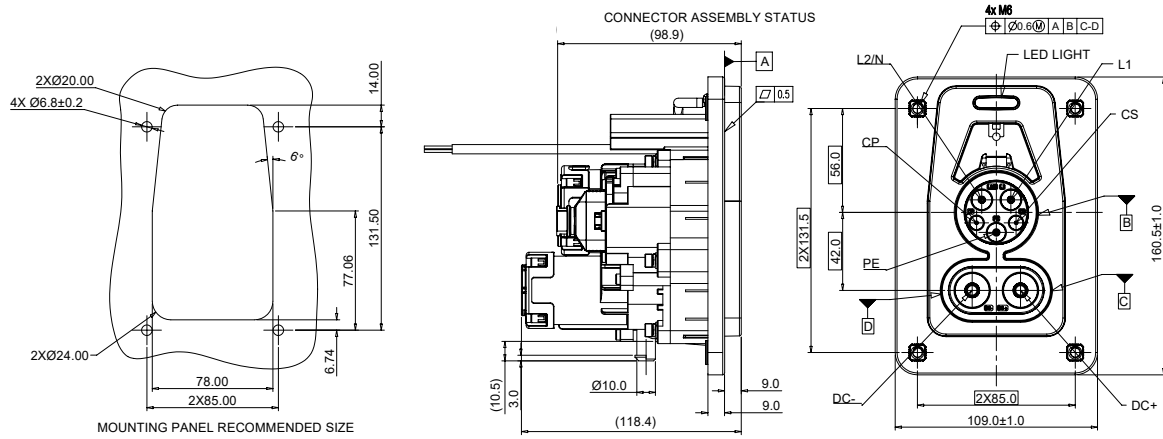
240V | 48A or 80A | 1-phase

1000V | 300A, 400A or 500A

Electric lock available

12 o'clock

GEN3 CCS1 VEHICLE INLET | DC WITH LED DIMENSIONS



Rated voltage and current	Functions
-	PE (Protective Ground/Earth)
1000V 500A, 400A, 300A	DC+
1000V 500A, 400A, 300A	DC-
30V 2A	CP (Control pilot)
30V 2A	PP (Proximity)

CCS1 Vehicle inlet DC

Socket-inlet



Part Number	
DC	Part Number
1000V / 500A	HVCOSF043D
1000V / 400A	HVCOSF044D
1000V / 300A	HVCOSF045D

Compliant with IEC 62196-1/2/3, UL2251 and SAE J1772

Configuration:

1000V | 300A, 400A or 500A

Electric lock available

12 o'clock

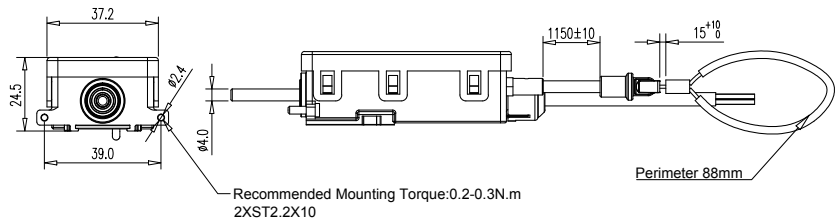
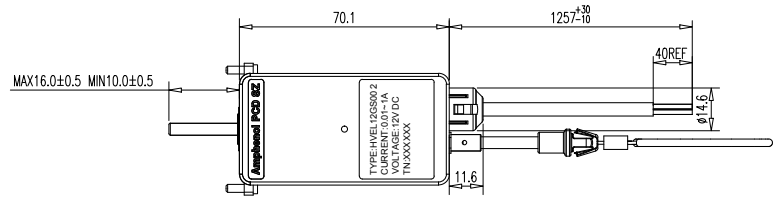
LOCKING ACTUATORS

Electric lock | AMPHENOL PCD SHENZHEN (12V)

4-wire solution is available for 12V



P/N (12V): **HVEL12GS002**



TYPE	RED	BLACK	WHITE	BLUE
UNLOCKING	-	+	SIGNAL ($R_U = +\infty \Omega$)	
LOCKING	+	-	SIGNAL ($R_L = 0 \Omega$)	

CABLE HARNESS

		Accessory	Compatible connectors				Harness	
SIGNAL	E-lock		NEVDCA12VELOCKL0500;NEVDCA24VELOCKL0500					
	LED							
	Signal		ATM04-12PA					
AC	32A	Wire Range	Compatible connectors				Harness (2 to 5)	
		2 x 6mm ²						
		3 x 6mm ²						
		4 x 6mm ²						
		5 x 6mm ²						
	63A	2 x 16mm ²						
		3 x 16mm ²						
		4 x 16mm ²						
		5 x 16mm ²	N/A					
	DC	125A	2 x 50mm ²					Harness (2)
		200A	2 x 70mm ²	 		 		
		300A	2 x 95mm ²					

		Accessory	Compatible connectors				Harness	
SIGNAL	E-lock		NEVDCA12VELOCKL0500;NEVDCA24VELOCKL0500					
	LED							
	Signal		P08B002343/4/5 ATM04-12PA					
AC	32A	Wire Range	Compatible connectors				Harness (2 to 5)	
		2 x 6mm ²						
		3 x 6mm ²						
		4 x 6mm ²						
		5 x 6mm ²						
	63A	2 x 16mm ²						
		3 x 16mm ²						
		4 x 16mm ²						
		5 x 16mm ²	N/A					
	DC	300A	2 x 95mm ²					Harness (2)
		400A	2 x 120mm ²					
		500A	2 x 150mm ²					

		Accessory	Compatible connectors				Harness		
SIGNAL	E-lock		NEVDCA12VELOCKL0500;NEVDCA24VELOCKL0500						
	LED								
	Signal		ATM04-12PA						
AC	32A	Wire Range	Compatible connectors				Harness (2 to 5)		
		2 x 6mm ²							
		3 x 6mm ²							
		4 x 6mm ²							
		5 x 6mm ²							
	63A	2 x 16mm ²							
		3 x 16mm ²							
		4 x 16mm ²							
		5 x 16mm ²	N/A						
	DC	150A	2 x 35mm ²						Harness (2)
		200A	2 x 50mm ²	 		 			
		250A	2 x 70mm ²						
300A		2 x 95mm ²	 						

CABLE HARNESS

		Accessory	Compatible connectors		Harness		
SIGNAL		LED	N/A				
		E-lock		NEVDCA12VELOCKL0500			
		Signal					ATM04-6P
AC	32A	Wire Range	Compatible connectors		 (2 to 5)		
		2 x 6mm ²	HVSL362	EX402/EX492		HVSL630	HVG492
		3 x 6mm ²	HVSL633	EX403		HVSL364	
		4 x 6mm ²	HVSL364				
	5 x 6mm ²	HVSL365	HVSL365B	HVSL366			
	16A 20A	2 x 2.5mm ²	HVSL282	EX402			
		3 x 2.5mm ²	HVSL280	EX403		HVSL633	
		4 x 2.5mm ²	HVSL364	HVG404			
		5 x 2.5mm ²	HVSL365	HVSL365B		HVSL366	
			HVSL365	HVSL365B		HVSL366	



		Accessory	Compatible connectors		Harness			
SIGNAL		E-lock	HVELA12SS001	HVELA24S001				
		LED						
		Signal		ATM04-12PA				
AC	48A	Wire Range	Compatible connectors		 (2 to 3)			
		2 x 10mm ²	HVSL362	HEV060		EX492		
	3 x 10mm ²	HVSL364						
	125A	2 x 50mm ²	HVSLP800	HVSL800/8003		HVBIR8	HVPT	
		200A	2 x 70mm ²	HVSLP1000		HVPT/HVPTM	HVBIR10	CHD14
			300A	2 x 95mm ²		HVSL1200	HVSL1400	CHD14



		Accessory	Compatible connectors		Harness		
SIGNAL		E-lock	HVEL12GS002	HVEL24GS002			
		LED					
		Signal		P08B002343/4/5			ATM04-12PA
AC	48A	Wire Range	Compatible connectors		 (2 to 3)		
		2 x 10mm ²	HVSL362	HEV060		EX492	
	3 x 10mm ²	HVSL364					
	80A	2 x 25mm ²	HVSLP800	HVSL800/8003		HVSL600	HVBIR6
		3 x 25mm ²	HVSL800	HVSL600			HVBIR6
	300A 400A 500A	2 x 95mm ²	HVSL1200	HVSL1400		CHD14	HVPTM
		2 x 120mm ²	HVSL1200	HVSL1400		CHD14	HVPTM
		2 x 150mm ²	HVPTM			CHD14	CHD14



CABLE HARNESS

CCS1 Inlet
Cable Exit Left



HVCOSF07XXL
HVCOSF07XXDL

Accessory		Compatible connectors				Harness
E-lock		HVELA12SS001	HVELA24SS001			
LED (optional)						
Signal		P08B002343/4/5	ATM04-12PA			
A	Wire Range	Compatible connectors				Harness
32A	2 x 6mm ²	HVSL362	EX402/EX492	HVSL630		
	3 x 6mm ²	HVSL633	EX403	HVSL364		
48A	2 x 10mm ²	HVSL362	EX492			(2 to 3)
	3 x 10mm ²	HVSL364				
63A	2 x 16mm ²	HVSL362	HVSL5600			
	3 x 16mm ²	HVSL364	HVSL5600			
80A	2 x 25mm ²	HVSLP800	HVSL5600	HVSL5800	HVBIR6	
	3 x 25mm ²	HVSL800	HVSL5600			
125A	2 x 50mm ²	HVSLP800	HVSL5800/8003	HVBIR8	HVPT	(2)
200A	2 x 70mm ²	HVSLP1000	HVSL1200	CHD10	HVBIR10	
		HVSL1000	HVSLP1200	CHD10	CHD14	
300A	2 x 95mm ²	HVSL1200	HVSLP1200	HVSL1400	CHD14	

SIGNAL

Accessory		Compatible connectors				Harness
E-lock		HVEL12G500252				
Signal		P08B002343/4/5	ATM04-12PA			
A	Wire Range	Compatible connectors				Harness
16A	2 x 2.5mm ²	HVSL282	EX402			
	3 x 2.5mm ²	HVSL280	EX403	HVSL633	HVSL364	
32A	2 x 6mm ²	HVSL362	EX402/EX492	HVSL630		
	3 x 6mm ²	HVSL633	EX403	HVSL364		
48A	2 x 10mm ²	HVSL362	EX492			(2 to 3)
	3 x 10mm ²	HVSL364				
63A	2 x 16mm ²	HVSL362	HVSL5600			
	3 x 16mm ²	HVSL364	HVSL5600			
80A	2 x 25mm ²	HVSLP800	HVSL5600	HVSL5800	HVBIR6	
	3 x 25mm ²	HVSL800	HVSL5600			

SAE AC inlet



/COSF05XX
/COSF05XXC

AC

CABLE HARNESS



HVCONF0100S1



NACS Inlet



HVCONF01XX (D)

Accessory		Compatible connectors		Harness
E-lock		HVEL12NS001		
Signal		P08B002347 5POS		
A	Wire Range	Compatible connectors		Harness
200A	2 x 50mm ²	HVSLP800 HVSL800/8003	HVBIR8 CHD10 HVPT	
250A	2 x 70mm ²	HVSLP1000 HVSL1000 HVPT/HVPTM	HVBIR10 CHD10 CHD14	
350A	2 x 95mm ²	HVSL1200 HVSL1400	CHD14	

SIGNAL



GB/T inlet DC

HVCOGF01XX

Accessory		Compatible connectors		Harness
E-lock		N/A		
Signal		P08B002343/4/5	ATM04-12PA	
A	Wire Range	Compatible connectors		Harness
200A	2 x 70mm ²	CHD14/CHD10 HVSLP1000 HVSL1000	HVBIR10 HVPT/HVPTM	(2)
300A	2 x 95mm ²	CHD14	HVPTM HVSL1400 HVSL1200	
400A	2 x 120mm ²	CHD14	HVPTM HVSL1400	
500A	2 x 150mm ²	CHD14	HVPTM	

SIGNAL

Socket-outlet Type 2



AC

Accessory		Compatible connectors		Harness	
LED		N/A			
E-lock		NEVDCA12VELOCKL0500HS1	ATM04-6P		
Signal					
A	P/N	Compatible Part Numbers and Terminals			
32A Gen 2	HVCOSFS Shutter	3-Phase	HVCOSFS706		
		1-Phase	HVCOSFS506		
HVCOIFS	3-Phase	HVCOIFS706			
	1-Phase	HVCOIFS506			
32A Gen 3 Flange lowered	HVCOSLFS Shutter	3-Phase	HVCOSLFS706		
		1-Phase	HVCOSLFS506		
HVCOILFS	3-Phase	HVCOILFS706			
	1-Phase	HVCOILFS506			

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Notes:

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Amphenol PCD Shenzhen reserves the right to clarify this catalog.