

NACS INLET

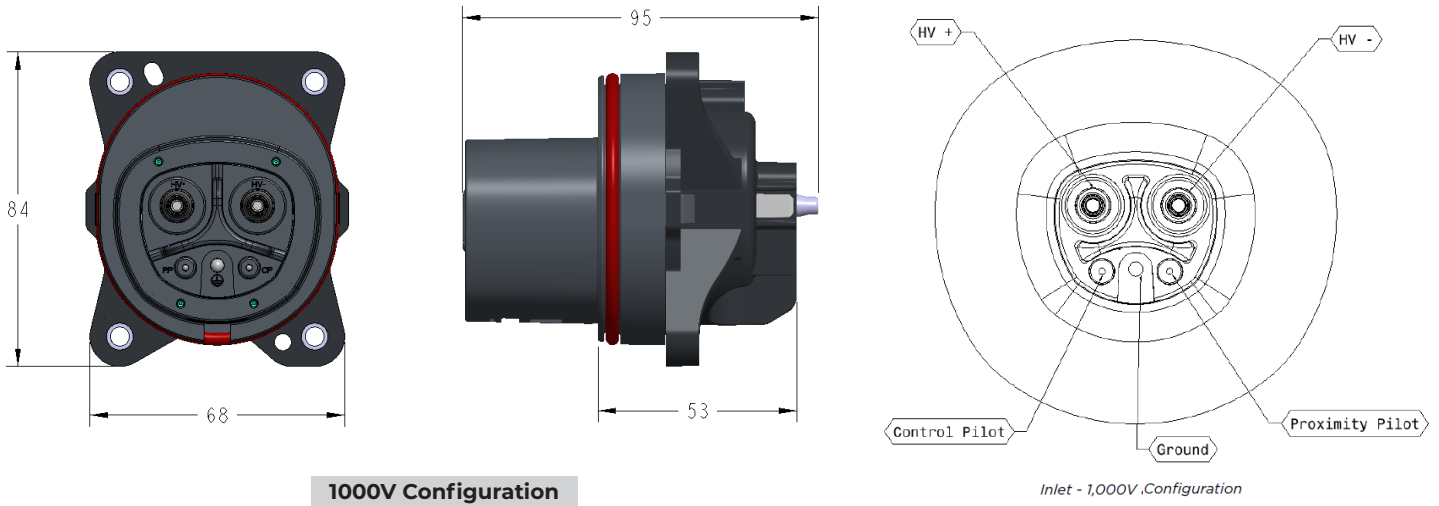
1000V

Charging Inlet for direct current (DC) and alternating current (AC) charging, compatible with NACS vehicle charging connectors (EVSE), for installation in electric vehicles for electromobility (EV).



PRODUCT DEFINITION			
Product Type	Vehicle Charging Inlet		
Application	For Charging with Alternating Current (AC) and Direct Current (DC)		
	For Installation in Electric Vehicles (EV)		
	Combined Charging System		
Standards / Regulations	UL 2251		
Charging Standard	NACS TS-0023666, IEC 62196-1		
Charging Mode	Mode 2, 3, 4		
Protective Cap	A Protective Cap is Supplied as Standard for the DC and AC Contacts.		
Connection Method	Screws Connection (cannot be disconnected)		
AMBIENT CONDITIONS			
Ambient Temperature (Operation)	-40°C to +60°C		
Ambient Temperature (Storage / Transport)	-40°C to +85°C		
Maximum Altitude	4000 m (above sea level)		
Degree of Protection	With the inlet mounted to a representative body panel and the connector mated to the inlet, the system shall withstand an IP44 test as described in IEC 60529.		
	When mounted to a representative vehicle body panel and unmated to the connector, the inlet shall withstand an IP67 water and dust test as described in IEC 60529.		
	When mounted to a representative vehicle body panel and unmated to the connector, the inlet shall withstand an IP6K9K water test as described in IEC 60529.		
POWER CONTACTS			
Number	3 (HV+, HV-, PE)		
Rated Voltage	The North American Charging Standard exists in 1000V rated configuration. The 1000V version is mechanically backwards compatible.		
Rated Current	The North American Charging Standard shall specify no maximum current rating. The maximum current rating of the inlet or connector shall be determined by the manufacturer, provided that the temperature limits defined in section 8 are maintained. Tesla has successfully operated the North American Charging Standard above 900A continuously with a non-liquid cooled vehicle inlet.		
ELECTRICAL PROPERTIES		DIMENSIONS	
Number of Phases	1	Height	84 mm
Charging Power (Nominal Operation)	TBD	Width	68 mm
Type of Charging Current	DC, AC 1-phase	Depth	95 mm
Insulation Resistance	> 200 MΩ	Bore Dimensions	52 mm X 68 mm
Coding	2.7 kΩ (between PE and PP)		

NACS INLET MECHANICAL DRAWING



SIGNAL CONTACTS		TEMPERATURE SENSORS			
Number	2 (PP, CP)	Sensor Type	NTC Thermistor		
Rated Current for Signal Contacts	2A	Nominal Resistance and Tolerance	R25 100 KΩ ± 5.0%		
Rated Voltage for Signal Contacts	30V AC	B Value and Tolerance	B25 / 85 4, 150K ± 3.0%		
Note on the Connection Method	Crimp Connection (cannot be disconnected)	Maximum Rated Power	P25 200mW		
Material Contacts	Cu-Alloy	Permissive Operating Current	I25 0.14mA		
LV Connectors	Connectors: DELPHI 15438866, APTIV 13678638	Temperature	-40°C to +125°C		
MECHANICAL PROPERTIES		DESIGN		MATERIAL	
Insertion / Withdrawal Cycles	> 10,000	Design Line	Generation 1	Material	Plastic
Insertion Force	< 90 N	Housing Colour	Black	Flammability Rating	V0
Withdrawal Force	< 90 N	Customer Variations	On Request	Material Surface of Contacts	Ag
MOUNTING					
Restrictions to Mounting Position	0° to 90° Frontal Inclination Possible				
Mounting Position of the Locking Actuator	5 mm (Ø)				
Mounting Hole Diameter	5 mm				
Required Mounting Screws	M4				
Screws Included in the Scope of Delivery	None				
ENVIRONMENTAL PRODUCT COMPLIANCE					
REACH SVHC	Compliant				
China RoHS	Compliant				
EU RoHS	Compliant				

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