

Tesla V3 Supercharger Cabinet

The Tesla V3 Supercharger Cabinet provides AC/DC power conversion as part of the Supercharger system when deployed with the V3 or V4 Supercharger Post. The advanced system architecture includes highly optimized state of the art power electronics, efficient conversion, and enables site-wide power sharing for maximum throughput.

Key Features

- Supports NACS, CCS1, CCS2, GB
- High power density/compact footprint
- Compliant with global EVSE standards
- High efficiency low noise cooling system
- Global voltage input range
- Rugged enclosure for all environments
- Surface mount wiring options
- High power factor and low harmonics



V3 Supercharger Cabinet Technical Specifications

Part Number	1450758					
AC Input (Electrical)		Input (V_{AC})	480	440	415	400 380
	Rated AC Input Power	Power (kVA)	387	354	334	322 306
	AC Input Voltage	380 V_{AC} -480 V_{AC} (-5%, + 10%), 4-wire 3AC+N				
	Ac Input Current	465 A_{AC} Max.				
	Frequency	50 Hz /60 Hz				
	Power Factor	≥ 0.99				
	Current THD	< 3%				
	Voltage THD	< 2%				
AC Input (Mechanical)	Conductor Sizes	L1, L2, L3, N: 150 - 400 mm ² , 250 - 750 MCM PE: 10 - 70 mm ² , #8 AWG - 2/0				
	Conductor Material Type	L1, L2, L3, N: Cu, Al		PE: Cu/Al		
	Mfr. Termination Temp. Rating	90°C				
Shared DC Bus (Electrical)	Max Rated DC Bus Power	Power (kW)	575			
	Max Rated DC Bus Current	Current (A_{DC})	640			
	DC Bus Voltage Range	880 - 1000 V_{DC}				
Shared DC Bus (Mechanical)	Conductor Sizes	V+, V- (2x/pole): 150 - 300 mm ² , 250 - 600 MCM Mid: 16 - 150 mm ² , 6AWG - 250 MCM PE: 10 - 70 mm ² , #8 AWG - 2/0				
	Conductor Material Type	V+, V-, Mid: Cu, Al		PE: Cu/Al		
	Conductor Voltage Rating	1000 V				
	Mfr. Termination Temp. Rating	90°C				
DC Post Output (Electrical)	Max. Rated Post Power	250 kW				
	Post Rated Voltage Range	0-500 V_{DC}				
	Post Rated Current @ $T_a=35^{\circ}C$	NACS: 350 A_{DC} , CCS2 & GB Handle: 450 A_{DC}				
	Number of Charge Posts	1-4				
	Max Voltage Drop	10 V_{DC}				

V3 Supercharger Cabinet Technical Specifications

DC Post Output (Mechanical)	Conductor Size	V+, V- (2x/pole):300-600 MCM or 150-300mm ² PE: #8 AWG - 2/0 or 10-70mm ² Certified Equipment Wiring: V3 Post: 350MCM or 150mm ² AL V4 Post: 600MCM or 300mm ² AL
	Conductor Material Type	V+, V-: Al, Cu PE: Cu/Al
	Conductor Voltage Rating	1000 V
	Mfr. Termination Temp Rating	90°C
System	Efficiency	96%
Protection	AC Input side: Class 1	Isolated DC Output
	Over Voltage/Current/Temperature, Surge Protection, Isolation Monitoring	
	Short-Circuit Protection	External Electronic Trip Circuit Breaker
	Short-Circuit Current Rating	85 kA RMS symmetrical
Environmental	Operating Temperature	-30°C to 50°C, -22°F to 122°F
	Ingress Protection	IP66 (Cabinet), IP2X (Cooling)
	Ventilation Requirements	Ventilation Not Required
Noise	Typical noise at 1m	35 dB(A)
Standards	UL 2202, CSA C22.2#107.1, FCC, ICES-003-B, IEC 61851-1, EN 61000-6-2 EN 55011, GB/T 18487.1, GB/T 27930, NB/T 33008.1, NB/T 33001	
Layout	Max. Distance to Charge Post	100 m, 340 ft.
Weight	Supercharger Cabinet Weight	4 Post Cabinet: 1110 kg (2448 lbs) 3 Post Cabinet: 1039 kg (2291 lbs)
Dimensions	Depth, Width, Height	1000, 1250, 2200 mm; 39 _{12/32} , 49 _{7/8} , 86 _{20/32} in.
Mounting	Per-anchor min. Shear Strength	4 kN
	Per-anchor min. Tension Strength	11 kN

V3 Supercharger Cabinet Dimensions

