

ABB E-MOBILITY

EV charging solutions for North America

Portfolio Product Data (UL)





Specifications	Terra AC Wallbox 40/80A	Terra DC Wallbox	Electrical	Terra 54	Terra 94	Terra 124	Terra 184	Terra 184 NEVI	Electrical	Terra HP 175	Terra HP 350	
Electrical			Electrical						Electrical			
Output power*	9.6 kW / 40 A, 19.2 kW / 80 A	1-phase: 19.5 kW at 208V / 22.5 kW at 240V 3-phase: 24 kW peak; 22.5 kW continuous	Output power*	50 kW continuous	90 kW	120 kW or 60 kW x 2	180 kW or 90 kW x 2	180 kW	Output power*	175 kW peak 160 kW continuous	350 kW peak 320 kW continuous	
AC Input voltage	1-phase: 208/240 VAC, 50/60 Hz	1-phase: 208-240 VAC +/- 10% (60 Hz) 3-phase: 480Y / 277 VAC +/- 10% (60 Hz)	AC Input voltage	480Y / 277 VAC +/- 10% (60 Hz)					AC Input voltage	UL: 3-phase, 480Y/277 VAC +/- 10% (60 Hz) CSA: 3-phase, 600Y/347 VAC +/-10% (60 Hz)		
AC input connection	Single phase / split phase (TT, TN)	1-phase: L1, L2, GND 3-phase: L1, L2, L3, N, GND	AC input connection	3-phase: : L1, L2, L3, GND (no neutral)					AC input connection	L1, L2, L3, GND (no neutral)		
AC input current* and input power rating	9.6 kW / 40 A, 19.2 kW / 80 A	(1) 100 A; 20.8-24 kVA; (2) 32 A; 26.6 kVA; 35 A; 26.6 kVA at 432 VAC (-10% dip) current limiting options available	AC input current* and input power rating	64 A 53.2 kVA	115 A 96 kVA	153 A 128 kVA	230 A 192 kVA	230 A 192 kVA	AC input current* and input power rating	UL: 231 A, 192 kVA CSA: 185 A, 192 kVA	UL: 2 x 231 A, 384 kVA CSA: 2 x 185 A, 384 kVA	
Recommended upstream circuit breaker(s)	50 A (for 40 A unit) 100 A (for 80 A unit)	1-phase: 125 A 3-phase: 50 A	Recommended upstream circuit breaker(s)	80 A	150 A	200 A	300 A	300 A	Recommended upstream circuit breaker(s)	UL: 1 x 300 A CSA: 1 x 250 A	UL: 2 x 300 A CSA: 1 x 250 A	
Power Factor*	N/A	>0.96	Power Factor*	> 0.96					Power Factor*	≥ 0.97		
Current THD*	N/A	5%	Current THD*	< 5%					Current THD*	IEEE 519 Compliant; <8%; option for 5%		
Short circuit current rating	N/A	pending	Short circuit current rating	65 kA; 10 kA optional	65 kA					Short circuit current rating	65 kA	
DC output voltage	N/A	CCS-1: 150 - 920 VDC CHAdEMO: 150 - 500 VDC	DC output voltage	CCS1 HV: 150 - 920 VDC CHAdEMO: 150 - 500 VDC					DC output voltage	CCS-1: 150 - 920 VDC CHAdEMO: 150 - 500 VDC		
DC output current	N/A	60 A	DC output current	125 A	CCS1 200 A CHAdEMO: 200 A	CCS1: 400 A (peak) CHAdEMO: 200 A		DC output current	CCS-1: 375 A CHAdEMO: 200 A	CCS-1: 500 A CHAdEMO: 200 A		
Efficiency*		94%	Efficiency*	95%	95%; NEVI: 96%					Efficiency*	95%	
Interface and Control			Interface and Control						Interface and Control			
Charging protocols	SAE J1772, Type 1	CCS-1 and CHAdEMO	Charging protocols	CCS1 and CHAdEMO 1.2					Charging protocols	CCS-1 and CHAdEMO		
User interface	Optional HMI display	7" full color touchscreen display	User interface	7" high brightness full color touchscreen display					User interface	15" high brightness full color touchscreen display		
Authentication	RFID card included	ISO/IEC14443A/B, ISO/IEC15693, NFC reader mode, Mifare, Calypso	Authentication	ISO/IEC 14443A/B, ISO/IEC 15393, FeliCa™ 1, NFC reader mode, Mifare, Calypso, (option: Legic); Credit card payment terminal (option)					Authentication	ISO/IEC 14443A/B, ISO/IEC 15393, FeliCa™1, NFC, Mifare, Calypso (option: Legic); Credit card payment terminal (option)		
Network connection	Ethernet, Wifi, Bluetooth, Modbus, 4G option,	GSM/3G/4G modem, 10/100 Base-T Ethernet	Network connection	GSM/3G/4G modem; 10/100 Base-T Ethernet					Network connection	GSM/3G/4G; 10/100 base-T Ethernet		
Communication	OCPP 1.6J, Modbus	OCPP 1.6 Core and Smart Charging Profiles Autocharge via OCPP	Communication	OCPP 1.6 Core and Smart Charging Profiles Autocharge via OCPP					Communication	OCPP 1.6 Core and Smart Charging Profiles Autocharge via OCPP		
Supported languages	Multiple languages supported	Multiple languages supported	Supported languages	Multiple languages supported					Supported languages	Multiple languages supported		
Environment			Environment						Environment			
Operating temperature	30 °C to +55 °C / -22 °F to +131 °F derating may apply	-35 °C to +45 °C / -31 °F to +113 °F (+45 °C to +55 °C with linear derating)	Operating temperature	-35 °C to +55 °C / -31 °F to +131 °F (de-rating characteristics apply at extreme temperatures)					Operating temperature	-35 °C to +55 °C / -31 °F to +131 °F (de-rating characteristics apply at extreme temperatures)		
Recommended storage conditions	-40 °C to +85 °C (-40 °F to +185 °F) (dry environment)	-10 °C to +70 °C / 14 °F to +158 °F (dry environment)	Recommended storage conditions	-10 °C to +70 °C / 14 °F to +158 °F (dry environment)					Recommended storage conditions	-10 °C to +70 °C / 14 °F to +158 °F (dry environment)		
Protection	IP65, NEMA 4; indoor and outdoor rated	IP54, NEMA 3S; indoor and outdoor rated	Protection	IP54, NEMA 3R; indoor and outdoor rated					Protection	IP54, NEMA 3R; indoor and outdoor rated		
Humidity	< 95%, non-condensing	5% to 95%, non-condensing	Humidity	5% to 95%, non-condensing					Humidity	5% to 95%, non-condensing		
Altitude	4000 m (13,123 ft)	2500 m (8200 ft)	Altitude	up to 2000 m (6560 ft)					Altitude	2000 m (6560 ft)		
General			General						General			
Charge cable	7.6 m (25 ft)	7 m (23 ft)	Charge cable	6 m (19.6 ft)					Charge cable	5.3 m (17.4 ft)		
Dimensions (H x W x D)	400 x 230 x 125 mm 15.75 x 9.06 x 4.92 inches	770 x 584 x 300 mm 30.3 x 23 x 11.8 in	Dimensions (H x W x D)	1900 x 565 x 780 mm 74.8 x 22.2 x 30.7 in	1900 x 565 x 880 mm 74.8 x 22.2 x 34.6 in			Dimensions (H x W x D)	Power cabinet: 2030 x 1170 x 770 mm / 79.9 x 46.1 x 30.3 in Charge post: 2390 x 620 x 440 mm / 94 x 24.4 x 17.3 in			
Weight	40 A: 10.8 kg (23.80 lb) 80 A: 11.8 kg (26.01 lb)	60 kg / 132 lbs excluding backplate (10 kg / 22 lbs) and cables	Weight	350 kg / 775 lbs	350 kg / 775 lbs	365 kg / 800 lbs	395 kg / 870 lbs	Weight	Power cabinet: 1340 kg / 2954 lbs Charge post: 250 kg / 551 lbs			
Compliance and safety	UL 2594, UL 2231-1, UL 2231-2, UL 1998, CSA C22.2. NO,280, NMX-J-667-ANCE FCC Part 15 Class B, ENERGY STAR® certified	UL 2202, CSA No. 107.1-16, NEC Article 625, EN 61851, EN 62196; CHAdEMO 1.2; DIN 70121, ISO 15118; IEC 61000-6-3; EMC Class B (3-ph); ENERGY STAR® certified	Compliance and safety	UL 2202, CSA No.107.1-16; UL 2231-1, UL 2231-2, CSA STD C22.2 No.107.1; NEC Article 625, EN 61851, EN 62196; CHAdEMO 1.2; DIN 70121, ISO 15118; IEC 61000-6-3; EMC Class B (50 kW) Class A (90-180 kW), FCC Part 15; ENERGY STAR® certified (120-180 kW); NTEP/CTEP (120-180 kW); NEVI: FHWA Build America, Buy America;					Compliance and safety	UL 2202, CSA No. 107.1-16, NEC Article 625, EN 61851, EN 62196; CHAdEMO 1.2; DIN 70121, ISO 15118; IEC 61000-6-3 EMC Class B.		

*Data shown at nominal output power unless otherwise indicated



Specifications	HVC 100C Depot Box	HVC 150C Depot Box
Electrical		
Output power*	100 kW	150 kW
AC Input voltage	UL: 3-phase, 480Y/277 VAC +/- 10% (60 Hz) CSA: 3-phase, 600Y/347 VAC +/-10% (60 Hz)	
AC input connection	L1, L2, L3, GND (no neutral)	
AC input current* and input power rating	117 kVA	170 kVA
Recommended upstream circuit breaker(s)	UL: 1 x 200 A CSA: 1 x 150 A	UL: 1 x 250 A CSA: 1 x 250 A
Power Factor*	≥ 0.97	
Current THD*	IEEE 519 Compliant; <8%; option for 5%	
Short circuit current rating	25 kA; 65 kA optional	
DC output voltage	CCS-1: 150 – 850 VDC	
DC output current	CCS-1: 166 A	CCS-1: 200 A
Efficiency*	95%	
Interface and Control		
Charging protocols	CCS-1	
User interface	RGB beacon light system indicates: 1) Ready to charge; 2) Handshake; 3) Charging and 4) Error	
Authentication		
Network connection	GSM/3G/4G modem; 10/100 Base-T Ethernet	
Communication	OCPP 1.6 Core and Smart Charging Profiles Autocharge via OCPP	
Supported languages	Multiple languages supported	
Environment		
Operating temperature	-35 °C to +55 °C / -31 °F to +131 °F (de-rating characteristics apply at extreme temperatures)	
Recommended storage conditions	-10 °C to +70 °C / 14 °F to +158 °C (dry environment)	
Protection	Power Cabinet: IP54, NEMA 3R; indoor and outdoor rated Depot Charge Box: IP65 - IK10; indoor and outdoor rated	
Humidity	5% to 95%, non-condensing	
Altitude	2500 m (8200 ft)	
General		
Charge cable	7 m (23 ft) standard 3.5 m (11.5 ft) optional	
Dimensions (H x W x D)	Power cabinet: 2030 x 1170 x 770 mm / 79.9 x 46.1 x 30.3 in Depot Box (no pedestal): 800 x 600 x 210 mm / 31.5 x 23.6 x 8.3 in Depot Box (w/pedestal): 1914 x 600 x 400 mm / 75.4 x 23.6 x 16.3 in	
Weight	Power cabinet: 1340 kg / 2954 lbs Depot Box (no pedestal): 61 kg / 134.5 lbs (with 7 m / 23 ft cable) Depot Box (w/pedestal): 181 kg / 398 lbs (with 7 m / 23 ft cable)	
Compliance and safety	CSA No. 107.1-16 and UL 2202 certified by TUV SAE J1772 - IEC 61851-23 / DIN 70121 - ISO 15118 BA Rule 49 CFR Part 661.5 (optional)	

*Data shown at nominal output power unless otherwise indicated

Specifications	HVC 150 PD	HVC 300 PD	HVC 450 PD
Electrical			
Output power*	150 kW	300 kW	450 kW
AC Input voltage	UL: 3-phase, 480Y/277 VAC +/- 10% (60 Hz) CSA: 3-phase, 600Y/347 VAC +/-10% (60 Hz)		
AC input connection	L1, L2, L3, GND (no neutral)		
AC input current* and input power rating	170 kVA	2 x 170 kVA	3 x 170 kVA
Recommended upstream circuit breaker(s)	1 x 250 A	2 x 250 A	3 x 250 A
Power Factor*	> 0.96		
Current THD*	< 5%		
Short circuit current rating	25 kA; 65 kA optional		
DC output voltage	150 – 850 VDC		
DC output current	250 A	500 A	600 A **
Efficiency*	95%		
Interface and Control			
Charging protocols	Inverted crossrail pantograph (OppCharge); pole mounted or ceiling-mount via ACM and Panto kit		
User interface	RGB LED on front to indicate charging progress		
Authentication			
Network connection	GSM/3G/4G modem 10/100 base-T Ethernet		
Communication	OCPP 1.6 Core and Smart Charging Profiles		
Supported languages	Multiple languages supported		
Environment			
Operating temperature	-35 °C to +50 °C / -31 °F to +122 °F (de-rating characteristics apply at extreme temperatures)		
Recommended storage conditions	-10 °C to +70 °C / 14 °F to +158 °C (dry environment)		
Protection	Power Cabinet: IP54, NEMA 3R; indoor and outdoor rated Pantograph: IP65 - IK10; indoor and outdoor rated		
Humidity	5% to 95%, non-condensing		
Altitude	2500 m (8200 ft)		
General			
Charge cable	ACM Control Module Kit: 1600 x 1000 x 476.9 mm / 63" x 39.4" x 18.8" Pantograph Kit: 574 x 1300 x 900mm / 22.6" x 51.2" x 35.4"		
Dimensions (H x W x D)	Power cabinet each: 2030 x 1170 x 770 mm / 79.9 x 46.1 x 30.3 in Charge pole (includes Pantograph & ACM): 5240 x 1040 x 300 mm / 206.3" x 40.9" x 11.8" Charge pole outreach: 4670 mm / 183.9" x 30.3"		
Weight	Power cabinet: 1340 kg / 2954 lbs Charge pole (includes Pantograph & ACM): 1706 kg / 3762 lbs ACM Control Module Kit: 193 kg / 425 lbs; Pantograph Kit: 387 kg / 854 lbs		
Compliance and safety	CSA No. 107.1-16 and UL 2202 certified by TUV SAE J3105-1 - IEC 61851-23-1 and ISO 15118 BA Rule 49 CFR Part 661.5 (optional)		

** Limited by inverted pantograph contact ratings



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