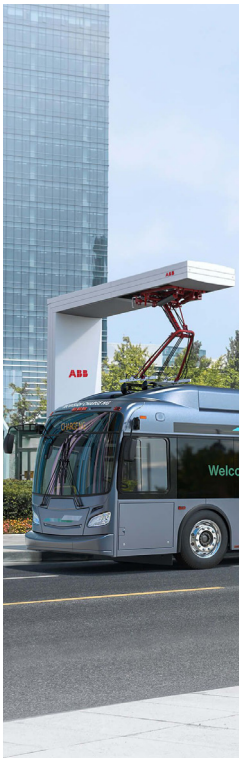
ABB E-MOBILITY

EV charging solutions for North America

Portfolio Product Data (NA)



Specifications	Terra AC Wallbox 40/80A	Terra DC Wallbox
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
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 connection	Single phase / split phase (TT, TN)	1-phase: L1, L2, GND 3-phase: L1, L2, L3, N, GND
AC input current* and input power rating	9.6 kW / 40 A, 19.2 kW / 80 A	1-phase: 100 A; 20.8-24 kVA; 3-phase: 32 A; 26.6 kVA; 35 A; 26.6 kVA at 432 VAC (-10% dip) current limiting options available
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
Power Factor*	N/A	>0.96
Current THD*	N/A	5%
Short circuit current rating	N/A	pending
DC output voltage	N/A	CCS-1: 150 - 920 VDC CHAdeMO: 150 - 500 VDC
DC output current	N/A	60 A
Efficiency*		94%
Interface and Control		
Charging protocols	SAE J1772, Type 1	CCS-1, CHAdeMO optional
User interface	Optional HMI display	7" full color touchscreen display
Authentication	RFID card included	ISO/IEC14443A/B, ISO/IEC15693, NFC reader mode, Mifare, Calypso
Network connection	Ethernet, Wifi, Bluetooth, Modbus, 4G option,	GSM/3G/4G modem, 10/100 Base-T Ethernet
Communication	OCPP 1.6J, Modbus	OCPP 1.6 Core and Smart Charging Profiles Autocharge via OCPP
Supported languages	Multiple languages supported	Multiple languages supported
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)
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)
Protection	IP65, NEMA 4; indoor and outdoor rated	IP54, NEMA 3S; indoor and outdoor rated
Humidity	< 95%, non-condensing	5% to 95%, non-condensing
Altitude	4000 m (13,123 ft)	2500 m (8200 ft)
General		
Charge cable	7.6 m (25 ft)	3.5 m (11 ft) / 7 m (23 ft)
Dimensions (H x W x D)	400 × 230 × 125 mm 15.75 × 9.06 × 4.92 inches	770 x 584 x 300 mm 30.3 x 23 x 11.8 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
Compliance and safety	UL 2594: 2016, UL 1998: 2013, UL 2231-1: 2016, UL 2231 -2: 2016, CSA C22.2 NO.280, FCC Part 15 Subpart B (Class B) and C, ENERGY STAR® certified, CTEP certified	UL 2202 Ed. 2, CSA C22.2 NO. 107.1-16, FCC Part 15 Subpart B (1 ph Class A, 3 ph Class B), ENERGY STAR® certified

	Terra 54	Terra 124	Terra 184	Terra 184 NEVI
Electrical				
Output power*	50 kW continuous	120 kW or 60 kW x 2	180 kW or 90 kW x 2	180 kW
AC Input voltage	480Y / 277 VAC +/- 10% (60 Hz)			
AC input connection	3-phase: : L1, L2, L3, GND (no neutral)			
AC input current* and input power rating	64 A 53.2 kVA	153 A 128 kVA	230 A 192 kVA	230 A 192 kVA
Recommended upstream circuit breaker(s)	80 A	200 A	300 A	300 A
Power Factor*	> 0.96			
Current THD*	< 5%			
Short circuit current rating	65 kA; 10 kA optional	65 kA		
DC output voltage	CCS-1: 150 - 920 VDC; NACS 150-920 VDC; CHAdeMO: 150 - 500 VDC			
DC output current	125 A	CCS1: 400 A (peak); NACS: 375 A; CHAdeMO: 200 A		
Efficiency*	95%	96%		96%
Interface and Control				
Charging protocols	CCS, CHAdeMO 1.2 option			
User interface	7" high brightness full color touchscreen display			
Authentication	ISO/IEC 14443A/B, ISO/IEC 15393, FeliCa™ 1, NFC reader mode, Mifare, Calypso, (option: Legic); Credit card payment terminal, contactless and EMV chip capable (option)			
Network connection	GSM/3G/4G modem; 10/100 Base-T Ethernet			
Communication	OCPP 1.6J Core and Smart Charging Profiles; OCPP 2.0.1 Core; 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 °F (dry environment)			
Protection	IP54, NEMA 3R; indoor and outdoor rated			
Humidity	5% to 95%, non-condensing			
Altitude	up to 2000 m (6560 ft)			
General				
Charge cable	6 m (19.6 ft)			
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		
Weight	350 kg / 775 lbs	365 kg / 800 lbs	395 kg / 870 lbs	395 kg / 870 lbs
Compliance and safety	UL 2202 Ed. 2, 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 (120-180 KW), FCC Part 15 Subpart B and C; OCA 1.6J (Feb 2024); ICES 003; ENERGY STAR® certified (120-180 kW); NTEP (120-180 kW); CTEP (50 kW, 90-180 kW); NEVI: FHWA Build America, Buy America			

	Terra HP 175	Terra HP 350
Electrical		
Output power*	175 kW peak 160 kW continuous	350 kW peak 320 kW continuous
AC Input voltage	U.S.: 3-phase, 480Y/277 VAC +/- 10% (60 Hz) Canada: 3-phase, 600Y/347 VAC +/-10% (60 Hz)	
AC input connection	L1, L2, L3, GND (no neutral)	
AC input current* and input power rating	U.S.: 231 A, 192 kVA Canada: 185 A, 192 kVA	U.S.: 2 x 231 A, 384 kVA Canada: 2 x 185 A, 384 kVA
Recommended upstream circuit breaker(s)	U.S.: 1 x 300 A Canada: 1 x 250 A	U.S.: 2 x 300 A Canada: 1 x 250 A
Power Factor*	≥ 0.97	
Current THD*	IEEE 519 Compliant; <8%; option for 5%	
Short circuit current rating	65 kA	
DC output voltage	CCS-1: 150 - 920 VDC CHAdeMO: 150 - 500 VDC	
DC output current	CCS-1: 375 A CHAdeMO: 200 A	CCS-1: 500 A CHAdeMO: 200 A
Efficiency*	95%	
Interface and Control		
Charging protocols	CCS-1, CHAdeMO optional, NACS (future)	
User interface	15" high brightness full color touchscreen display	
Authentication	ISO/IEC 14443A/B, ISO/IEC 15393, FeliCa™1, NFC, Mifare, Calypso (option: Legic); Credit card payment terminal (option)	
Network connection	GSM/3G/4G; 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 °F (dry environment)	
Protection	IP54, NEMA 3R; indoor and outdoor rated	
Humidity	5% to 95%, non-condensing	
Altitude	2000 m (6560 ft)	
General		
Charge cable	5.3 m (17.4 ft)	
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	Power cabinet: 1340 kg / 2954 lbs Charge post: 250 kg / 551 lbs	
Compliance and safety	UL 2202 Ed. 2, CSA C22.2 No. 107.1-16, NEC Article 625; CHAdeMO 1.2; FCC Part 15 Subpart B and C, ICES 003, DIN 70121, ISO 15118; NTEP certified; CTEP certified	

*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	U.S.: 3-phase, 480Y/277 VAC +/- 10 % (60 Hz) Canada: 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)	U.S.: 1 x 200 A Canada: 1 x 150 A	U.S.: 1 x 250 A Canada: 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	
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 Ed. 2 certified by TUV SAE J1772 / DIN 70121 - ISO 15118 BA Rule	

*Data shown at nominal output power unless otherwise indicated

** Limited by inverted pantograph contact ratings

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For HVC360 interface configurations please see the HVC360 data sheet.

Specifications	HVC 150 PD	HVC 300 PD	HVC 450 PD
Electrical			
Output power*	150 kW	300 kW	450 kW
AC Input voltage	U.S.: 3-phase, 480Y/277 VAC +/- 10 % (60 Hz) Canada: 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		
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 x1000 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	UL 2202: 2018, C22.2 No. 107.1-16, EN 61851-23: 2014, EN 61851-1: 2011, EN 61000-6-3: 2007+A1: 2011		

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For HVC360 interface configurations please see the HVC360 data sheet.

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