

SBO™

SINGLE BATTERY OPERATION

Designed by Aker Wade®, the SBO™ system includes chargers, battery monitoring devices and management software — everything a lift truck fleet needs to eliminate battery changes, increase productivity and go green.

POWER

MONITOR

CONNECT

CONTROL



eMAX HF®

Power and Precision

Packed with advanced high frequency technology, the eMAX HF® fast charger is engineered to provide the highest levels of power and efficiency in an amazingly compact size. Operators simply plug in and take their scheduled break. The eMAX HF does the rest:

- Reads the battery's status, including size, voltage, temperature and state-of-charge.
- Automatically optimizes an output profile.
- Delivers the perfect charge.

The eMAX HF puts you in control of your fleet with the ability to program automatic equalizations and wirelessly upload charger event data.

And with up to 30kW of power, the eMAX HF eliminates the need to change batteries, even for the toughest 24/7 operations.

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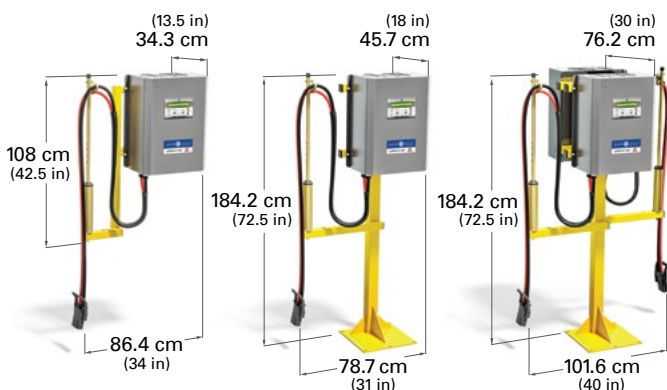
CONTROL

eMAX HF®

North America (NA)

Model		HF 10	HF 15	HF 20	HF 20sc ¹	HF 30
Output Power per Charge Station		10kW	15kW	20kW	20kW	30kW
Output Amperage (A) per Battery Voltage (v)	@ 24v @ 36v @ 48v @ 72v @ 80v	320 _A 230 _A 170 _A — —	320 _A 320 _A 260 _A — —	640 _A 460 _A 340 _A 230 _A ³ 210 _A ³	320 _A 320 _A 320 _A — —	640 _A 640 _A 520 _A 320 _A ³ 310 _A ³
Input Amperage (A) Requirements per Unit (+/- 10%)	480VAC, 60Hz, 3ø 600VAC, 60Hz, 3ø⁴	14 _A 11 _A	21 _A 17 _A	28 _A 22 _A	28 _A 22 _A	41 _A 33 _A
Recommended AC Breaker (480VAC)²		20 _A	30 _A	30 _A -40 _A ⁵	30 _A -40 _A ⁵	55 _A
Recommended AC Breaker (600VAC)²		15 _A	25 _A	32 _A	32 _A	45 _A
Recommended Battery Size (Ahrs)		200-625	300-800	360-850	360-800	600-1600
Certifications		TUV/cTUV Certified to UL1564; CEC				
Power Factor		~0.95 @ all loads				
Efficiency		0.92				
Compatible Battery Type		Lead-Acid, Flooded Cell, 24-80v				
Control		Manual to fully automatic control of charge, finish and equalization				
Connectors		EBC320 (DIN 43589-1) or SBX350				
Operating Temperature		0° C to 40° C (32° F to 104° F)				
Enclosure Rating		NEMA 1				
Data Capability		Class 1 Bluetooth® radio with 100 meter range. Connects to our DC Gateway™ or PC with our Motive Power Manager™ (MPM™) software.				
Mass (without cables)		10/15kW: 34kg (75 lbs) • 20/30kW: 50kg (110 lbs)				
Dimensions W x L x H (cm)		Charger only: 45.7 x 27.9 x 61 • Stand dimensions shown below				
Dimensions W x L x H (in)		Charger only: 18 x 11 x 24				

Each eMAX HF charger is available with your choice of a compact wall or convenient floor mounted stand. Stands sold separately.



- 1 SC = Single Output Cable. HF 20SC is a single cable version of the HF 20 model.
- 2 Recommended breaker: motor and thermal magnetic type suitable for transformer load. Recommended fuse: time delay type suitable for transformer load.
- 3 eMAX HF 20 & HF 30: 80 & 72VDC models are single output cable chargers.
- 4 600VAC Service Installation Options:
 - A) Install a 600/480VAC stepdown autotransformer before the building's breaker panel and distribute 480 VAC to all the chargers. Stepdown autotransformer not included with charger.
 - B) Install a Voltage Conditioning Module (VCM) with each eMAX HF charger. VCM not included with charger.
- 5 For existing infrastructure: Provided the circuit breaker or fuse is an extended delay type, the smaller value breaker may be used (NEC permissible due to the short period of maximum load). For new installations: Install the larger value breaker for NEC recommended 125% nominal.

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