



Motive Power Systems



Reserve Power Systems



Special Power Systems



Service

# HOPPECKE

POWER FROM INNOVATION

## AT10.1 SERIES

### FLOAT BATTERY CHARGERS



UL-1564



CSA-C22.2



Seismic Zone 4  
Qualification



**Advanced  
technology  
microprocessor  
control**

**Constant potential  
DC power supplies  
for:**

- Floating & charging stationary batteries
- Power for utility, UPS and communications or industrial type loads



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POWER FROM INNOVATION



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**A combination of advanced technology microprocessor control and performance-engineered modular construction make AT10.1 Series chargers and rectifiers easy to set up, easy to operate, and easy to maintain.**



## APPLICATIONS

### Utility & Communications

- Power Generation
- Substations
- Microwave Relay Sites
- Switchgear

### Manufacturing

- Emergency dc Power
- DC Operated Breakers
- Alarm Systems

### Commercial

- Alarm Systems
- Uninterruptible Power Systems
- DC Control Systems

### Transportation

- Signal Systems
- Switchgear
- Alarm Systems

## DESIGN FEATURES

### Modular Construction

- Rectifier, microprocessor control, input/output, power transformer, filter and alarm assemblies are all modular and easily replaceable.

### Thirty-Year Life

- All units are engineered for a greater than 30-year life with an MTBF of 100,000 hours.

### Field Service Less than 60 Minutes

- For fast service, enclosure and instrument panel are easily removable without disturbing chassis or installed conduit. Schematic and diagnostic information plates are mounted on enclosure. Modular construction and self-diagnostics result in an MTTR of less than 60 minutes.

### Install on Wall, Stand or Rack

- Units are easily wall mounted, with the exception of larger units which are floor mounted. Floor stands or rack-mounting provisions are optional.

### Fast, Online Adjustment

- Control, alarm and operating level set points are adjusted digitally from the front panel while online, without the need to vary loads or external conditions.

### Engineered for Safety and Acceptance

Units are designed and tested for worldwide applications

- NEMA Compliant
- UL-1564 NRTL
- CSA C22.2 Certified
- CE/IEC Compliant (Group 2 only)
- Meets FCC requirements for part 15 subpart J class A
- Seismic Zone 4 Analyzed /Qualified

Microprocessor circuits control virtually all functions and settings through front panel switches.

Press to choose digital display of Volts/Amps/Equalize hours remaining.

Press to select float or equalize mode.

Choose from three equalize methods: continuous, timed, or automatically timed after AC interrupt.

Press to adjust voltage settings or timer hours when in EDIT mode. Press to test LED lamps when in normal mode.



1% digital meter shows voltage, amperage and hours. Also displays self-diagnostics error codes.

LED lamps indicate abnormal conditions. A summary relay contact or optional individual relay contacts provide remote indication.

Press to switch to EDIT mode and to ENTER voltage settings and timer hours.

All controls can be disabled for tamper-free operation. Operational conditions remain displayed.

**The classic model — with output ratings to 25 Amperes — now with more features!**



**Cabinet Style 586**



**Cabinet Style 594**

(Shown with Optional Penthouse and Drip Shield.)

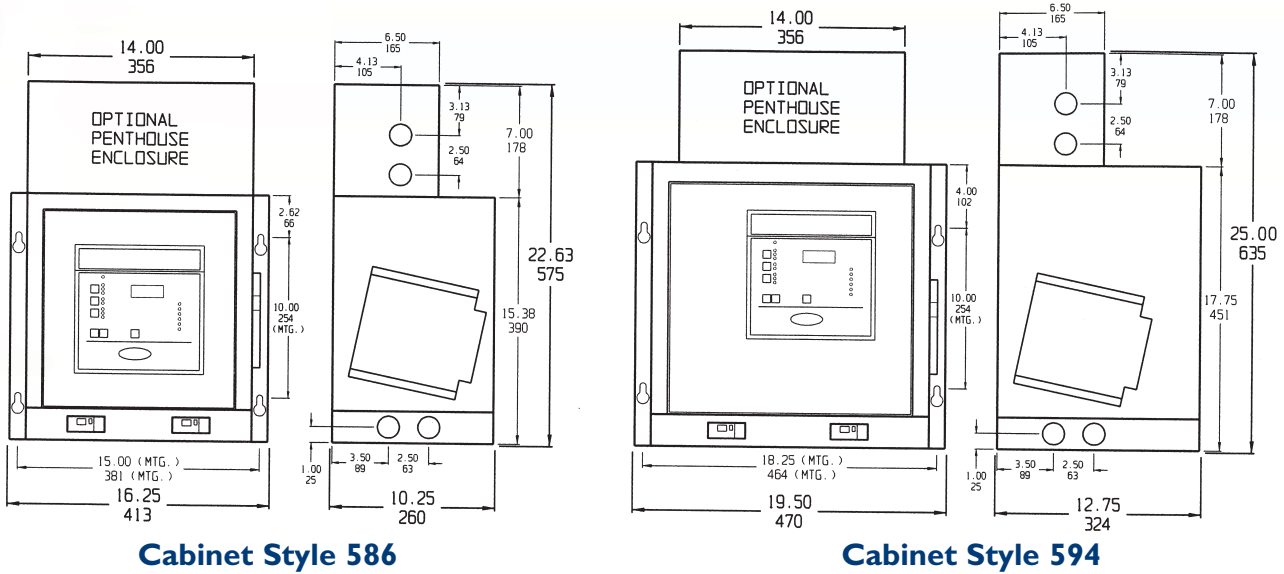
**AT10.1 Group 1: Input, Output, Heat Loss, Cabinet Style & Shipping Weight**

<b>Ampere Rating</b>	<b>6A</b>		<b>12A</b>		<b>16A</b>		<b>20A</b>		<b>25A</b>											
AC Input Voltage	120	208	240	480	120	208	240	480	120	208	240	480	120	208	240	480	120	208	240	480
<b>Output Voltage: 12Vdc</b>	Float Adjust: 11.5-14.5Vdc						Equalize Adjust: 12-15.5Vdc													
AC Input Amperes (Nominal)	1.4-0.9-0.8-0.4	2.6-1.5-1.4-0.7	3.6-2.1-1.8-0.9	4.2-2.4-2.1-1.1	5.3-3.1-2.7-1.4															
AC Input Circuit Breaker (120V)	10A	10A	10A	10A	10A															
DC Output Circuit Breaker	15A	20A	25A	30A	40A															
Heat Loss - Watts (BTU/hr.)	43 (146)	77 (264)	100 (341)	123 (420)	151 (517)															
Cabinet Style	586	586	586	586	586															
Shipping Weight, lb. (kg)	44 (20)	44 (20)	67 (30)	67 (30)	67 (30)															
<b>Output Voltage: 24Vdc</b>	Float Adjust: 23-29.5Vdc						Equalize Adjust: 24-31Vdc													
AC Input Amperes (Nominal)	3.2-1.8-1.6-0.8	6.0-3.5-3.0-1.5	7.8-4.5-3.9-2.0	9.6-5.5-4.8-2.4	12-6.9-6.0-3.0															
AC Input Circuit Breaker (120V)	10A	10A	15A	15A	15A															
DC Output Circuit Breaker	15A	20A	25A	30A	40A															
Heat Loss - Watts (BTU/hr.)	56 (190)	94 (321)	120 (409)	146 (497)	178 (609)															
Cabinet Style	586	586	586	586	586															
Shipping Weight, lb. (kg)	44 (20)	58 (26.3)	75 (34)	75 (34)	75 (34)															
<b>Output Voltage: 48Vdc</b>	Float Adjust: 46-57Vdc						Equalize Adjust: 48-61Vdc													
AC Input Amperes (Nominal)	6.5-3.8-3.3-1.7	12-6.9-6.0-3.0	16-9.2-8.0-4.0	20-12-10-5.0	25-14-13-6.3															
AC Input Circuit Breaker (120V)	10A	20A	20A	25A	30A															
DC Output Circuit Breaker	15A	20A	25A	30A	40A															
Heat Loss - Watts (BTU/hr.)	80 (274)	127 (433)	158 (538)	188 (643)	229 (781)															
Cabinet Style	586	586	594	594	594															
Shipping Weight, lb. (kg)	58 (26)	75 (34)	110 (50)	110 (50)	110 (50)															
<b>Output Voltage: 130Vdc</b>	Float Adjust: 115-140Vdc						Equalize Adjust: 123-145Vdc													
AC Input Amperes (Nominal)	12-6.9-6.0-3.0	26-15-13-6.5	28-16-14-7.0	34-20-17-8.5	43-25-22-11															
AC Input Circuit Breaker (120V)	20A	35A	50A	60A	60A															
DC Output Circuit Breaker	15A	20A	25A	30A	40A															
Heat Loss - Watts (BTU/hr.)	145 (494)	210 (716)	255 (871)	300 (1023)	351 (1199)															
Cabinet Style	586	594	594	594	594															
Shipping Weight, lb. (kg)	80 (36)	147 (67)	193 (88)	193 (88)	193 (88)															

Models with higher ratings: AT10.1 Group 2 models with single-phase ac input ratings, and dc output ratings to 100Adc, described in this brochure; also SCR/SCRF Series models with dc output ratings to 800Adc at 12 through 260Vdc.

# GROUP I

(Cabinet dimensions shown are in inches/millimeters.)



**Cabinet Style 586**

**Cabinet Style 594**

Sample	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>	<b>H</b>	<b>J</b>	<b>K</b>	<b>L</b>	<b>M</b>
	<b>AT10</b>	0 1 2	0 0 6	U 2 4 0	S A U X	G L X X	C					
<b>AT10</b>												

	Description	Code	Feature		Description	Code	Feature		
<b>A</b>		<b>AT10</b>	<b>AT10 series</b>			<b>AT10</b>	<b>AT10 series</b>		
<b>B</b>	Nominal DC Output Voltage	012	12Vdc	<b>F</b>	Circuit Breaker Rating	S	Standard (see table)		
		024	24Vdc			M	Medium (see table)		
		048	48Vdc			H	High (see table)		
		130	130Vdc						
<b>C</b>	Nominal DC Output Current	006	6Adc	<b>G</b>	Aux Relay Board	AUX	Installed		
		012	12Adc			XXX	Not Supplied		
		016	16Adc						
		020	20Adc			<b>H</b>	Ground Pad	G	Installed
		025	25Adc					X	Not Supplied
<b>D</b>	Filtering	U	Unfiltered	<b>J</b>	Lightning Arrestor	L	Installed		
		F	Filtered			X	Not Supplied		
		E	Eliminator						
<b>E</b>	AC Input Voltage (Standard)	240	120/208/240V 60Hz	<b>K</b>	Fungus Proofing	F	Installed		
			Wired for 240Vac unless otherwise specified, re-tappable in field.			X	Not Supplied		
	AC Input Voltage (Custom)	480	480V 60Hz			<b>L</b>	Static Proofing	S	Installed
220	220V 50/60Hz	X	Not Supplied						
		416	380/416V 50/60Hz	<b>M</b>	Bilingual Labeling for Canada	C	Installed		
			Wired for 416Vac unless otherwise specified, re-tappable in field.			Blank	Not Supplied		

50Hz models are available on special order.

This ordering code is unique for AT10.1 chargers rated 6-25A output.

**Circuit Breaker AC & DC AIC Ratings:**

S-10KAIC/240Vac; 10KAIC/125Vdc\* (Not for 480Vac)

M-25KAIC/240Vac; 18KAIC/480Vac; 10KAIC/250Vdc

H-65KAIC/240Vac; 25KAIC/480Vac; 25KAIC/250Vdc

\*For chargers 16Adc and larger; consult factory for other ratings.





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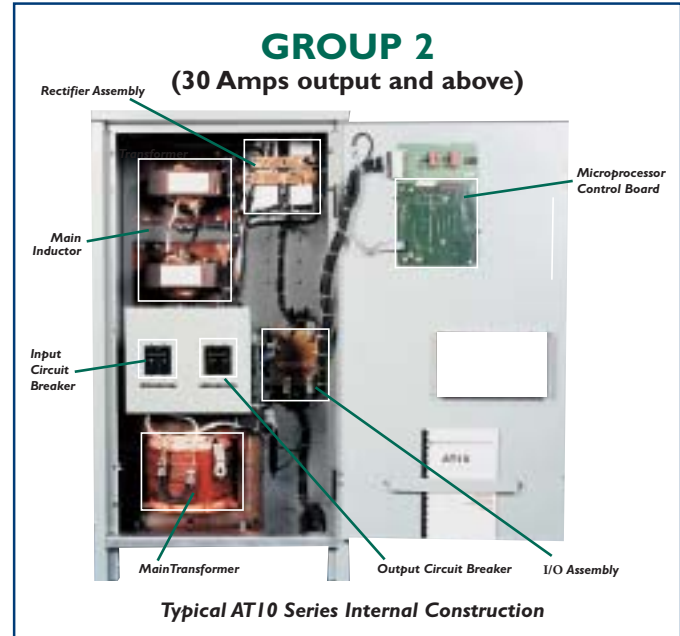
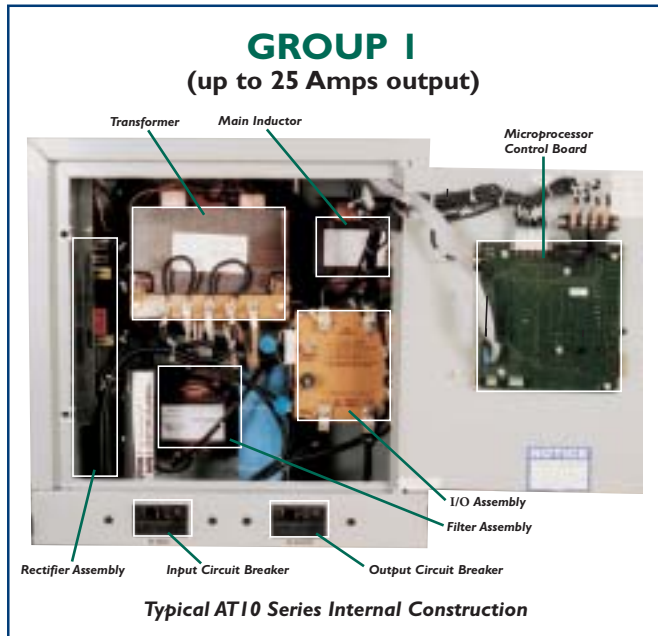
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## SPECIFICATIONS

### AC Input

- **Voltage Group 1:** 120/208/240 Volts 60Hz 480Vac 60Hz 220Vac 50/60Hz (special order) 380/416 Vac 50/60Hz (special order)
- **Voltage Group 2:** Must specify
- **Input Voltage Tolerance:** +10%, -12%
- **Input Frequency Tolerance:** ±5%
- **Efficiency:** 85-90% (typical at 130Vdc) at 50-100% load

### DC Output

- **Voltage Ratings:** 12, 24, 48, or 130Vdc nominal
- **Current Ratings:** 6, 12, 16, 20, 25, 30, 40, 50, 75, 100A dc
- **Continuous Rating:** 110% rated current at maximum equalize voltage at 50°C
- **Voltage Regulation:** ±0.25% for line, load and temperature variations
- **Electrical Noise:** 30mVrms/32dBnC weighted maximum on filtered units
- **Surge Withstand Capability:** Meets IEEE-472/ANSI C37.90a

## STANDARD FEATURES

- 1% Digital LED meter for Vdc, Adc, timer hours and alarm settings
- AC On indicating light
- AC input and dc output circuit breakers
- Float/equalize selector switch with indicating lights
- Manual equalize timer (0-255 hr.) with indicating lights
- AC line failure automatic equalize timer (0-255 hr.) with indicating light
- Self-diagnostics
- Local or remote voltage sense with redundancy to protect against remote sense failure
- High dc voltage shutdown
- Reverse polarity protection
- Front panel controls can be disabled for security
- MOV surge suppressors, input and output
- I/O compression lugs
- Switchboard wire, UL VW-I
- Membrane front panel
- ANSI 61 gray finish, baked epoxy powder
- Alarm assembly with local LEDs and summary relay contact for ac failure, dc failure, high Vdc, low Vdc, positive and negative ground fault

- Redundant control loops for higher reliability
- A redundant analog circuit for LVDC alarm, totally independent of the microprocessor

## OPTIONS/ACCESSORIES

- Output filter for 30mVrms ripple with battery
- Battery eliminator filter
- Individual alarm contacts for each of the alarms
- Input lightning arrestor
- Medium or high AIC circuit breakers
- Temperature compensation via remote probe
- Ground pad with #4 AWG lug
- Fungus proofing (tropicalization)
- Floor stand
- Relay rack mounting
- Drip shield
- Cabinet heater
- NEMA 4 or NEMA 12 enclosures
- Provision for locking front panel

Specifications subject to change.



**Cabinet Style 5017**



**Cabinet Style 5018**

**Expanded  
output ratings —  
now to  
100 Amperes.  
Same great  
features as  
Group I!**

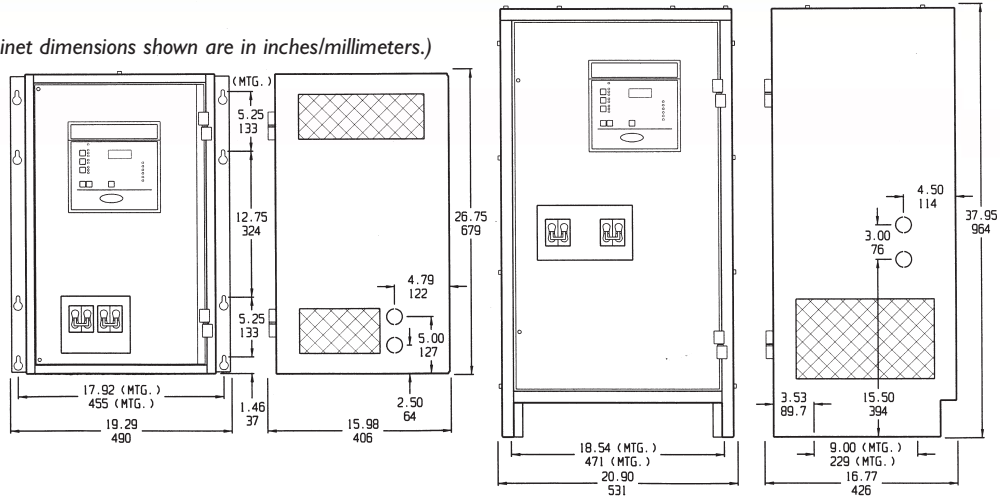
**AT10.1 Group 2: Input, Output, Heat Loss, Cabinet Style & Shipping Weight**

<b>Ampere Rating</b>	<b>30A</b>	<b>40A</b>	<b>50A</b>	<b>75A</b>	<b>100A</b>
AC Input Voltage	120 208 240 480	120 208 240 480	120 208 240 480	120 208 240 480	120 208 240 480
<b>Output Voltage: 12Vdc</b>	Float Adjust: 11.5-14.5Vdc		Equalize Adjust: 12-15.5Vdc		
AC Input Amperes (Nominal)	7.2-4.1-3.6-1.8	9.6-5.5-4.8-2.4	12-6.9-6.0-3.0	18-10-8.9-4.5	24-14-12-6.0
AC Input Circuit Breaker (120V)	10A	15	15	25	35
DC Output Circuit Breaker	50	60	80	100	150
Heat Loss - Watts (BTU/hr.)	131 (448)	173 (589)	213 (728)	316 (1078)	418 (1428)
Cabinet Style	5017	5017	5017	5018	5018
Shipping Weight, lb. (kg) (Note 2)	140 (63)	155 (70)	170 (77)	220 (100)	280 (127)
<b>Output Voltage: 24Vdc</b>	Float Adjust: 23-29.5Vdc		Equalize Adjust: 24-31Vdc		
AC Input Amperes (Nominal)	13-7.3-6.3-3.2	17-9.7-8.4-4.2	21-12-10.5-5.3	32-18-16-7.9	42-24-21-10.5
AC Input Circuit Breaker (120V)	20	25	35	40	70
DC Output Circuit Breaker	50	60	80	100	150
Heat Loss - Watts (BTU/hr.)	162 (554)	209 (714)	259 (885)	379 (1293)	501 (1709)
Cabinet Style	5017	5017	5017	5018	5018
Shipping Weight, lb. (kg) (Note 2)	150 (68)	180 (82)	190 (86)	250 (113)	320 (145)
<b>Output Voltage: 48Vdc</b>	Float Adjust: 46-57Vdc		Equalize Adjust: 48-61Vdc		
AC Input Amperes (Nominal)	23-13-11-5.6	30-17-15-7.5	38-22-19-9.4	56-33-28-14.1	75-43-38-19
AC Input Circuit Breaker (120V)	35	40	50	70	100
DC Output Circuit Breaker	50	60	80	100	150
Heat Loss - Watts (BTU/hr.)	219 (747)	282 (962)	344 (1174)	498 (1699)	656 (2238)
Cabinet Style	5017	5017	5017	5018	5018
Shipping Weight, lb. (kg) (Note 2)	170 (77)	220 (100)	240 (109)	340 (154)	440 (200)
<b>Output Voltage: 130Vdc</b>	Float Adjust: 115-140Vdc		Equalize Adjust: 123-145Vdc		
AC Input Amperes (Nominal)	53-31-26.5-13.3	71-41-35-18	89-51-44-22	133-77-66-33	
AC Input Circuit Breaker (120V)	70	100	Note 1	Note 1	
DC Output Circuit Breaker	50	60	80	100	
Heat Loss - Watts (BTU/hr.)	366 (1250)	459 (1567)	556 (1897)	793 (2708)	
Cabinet Style	5017	5018	5018	5018	
Shipping Weight, lb. (kg) (Note 2)	220 (100)	300 (136)	300 (136)	440 (200)	

Models with higher ratings: SCR/SCRF Series models are available with dc output ratings to 800A<sub>dc</sub> at 12 through 260V<sub>dc</sub>.  
 NOTES: 1. 120Vac input not available. 2. Shipping weights are approximate.

# GROUP 2

(Cabinet dimensions shown are in inches/millimeters.)



**Cabinet Style 5017**

**Cabinet Style 5018**

Sample

A	B	C	D	E	F	G	H	J	K	L	M	N	P
AT10	130	050	F	480	S	F	S	X	A	X	X	X	X
AT10													

	Description	Code	Feature		Description	Code	Feature
<b>A</b>		<b>AT10</b>	<b>AT10 series</b>			<b>AT10</b>	<b>AT10 series</b>
<b>B</b>	Nominal DC Output Voltage	012 024 048 130	12Vdc 24Vdc 48Vdc 130Vdc	<b>G</b>	AC Input Fuses	F X	Installed Not Supplied
<b>C</b>	Nominal DC Output Current	030 040 050 075 100	30Adc 40Adc 50Adc 75Adc 100Adc	<b>H</b>	DC ckt Breaker	S M H 0	Standard AIC Medium AIC High AIC No Breaker
<b>D</b>	Filtering	U F E	Unfiltered Filtered Eliminator	<b>J</b>	DC Fuses	F X	Installed Not Supplied
<b>E</b>	AC Input Voltage*	120 208 240 480 220 380 416	120V 60Hz 208V 60Hz 240V 60Hz 480V 60Hz 220V 50/60Hz 380V 50/60Hz 416V 50/60Hz	<b>K</b>	Aux Relay Board	A X	Installed Not Supplied
<b>F</b>	AC ckt Breaker	S M H 0	Standard AIC Medium AIC High AIC No Breaker	<b>L</b>	Ground Pad	G X	Installed Not Supplied
				<b>M</b>	Lightning Arrestor	L X	Installed Not Supplied
				<b>N</b>	Fungus Proofing	F X	Installed Not Supplied
				<b>P</b>	Static Proofing	S X	Installed Not Supplied

This ordering code is unique for AT10.1chargers rated 30-100A output.

**Circuit Breaker AC & DC Ratings:**  
 S-5KAIC 120/240/480Vac; 5KAIC 125Vdc  
 M-25KAIC 120/240/480Vac; 10KAIC 250Vdc  
 H-65KAIC 120/240/480Vac; 25KAIC 250Vdc



Motive Power Systems



Reserve Power Systems



Special Power Systems



Service



HOPPECKE - worldwide

## Products and Services - the complete solution...

- Low-maintenance and no-maintenance batteries
- Innovative battery chargers based on the latest technology
- Battery accessories
- Battery management systems and software
- Battery/charger servicing
- Battery recycling
- Applications engineering and technology
- Technical training and seminars
- Leasing

...one name says it all!



For further details: [www.HOPPECKE-US.com](http://www.HOPPECKE-US.com)



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