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## ATD Battery Charger Specs

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HIGH QUALITY ENERGY



EFFICIENCY

**BATTERY CHARGER**





## ABOUT US

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ATLANTIC POWER Energy (ATP) was founded in 2008 with the focus of serving Latin American customers in their power quality demands covering: UPS's (Uninterruptible Power Supply), Edge Micro Data Center (Indoor & Outdoor), Racks, PDU's, Technical Floor, VRLA batteries. From our headquarters in Florida, USA we attend all of your LATAM distributors offering sales and technical support. Our policy is to supply products only through our distributors in order to provide a solid and personalized support. ATLANTIC POWER since 2012 has started to supply the single phase UPS systems covering the South Cone Area and now is expanding the products range to Low Voltage Products.

## OUR MISSION

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To guarantee our customers and end users to the continuity of their critical processes providing with high quality green energy, with operational excellence, generating confidence and assured availability.

Making power 24/7 without Interruption!  
Provide on-stop solution  
Quality equipment to Protect Critical Applications

**OUR MAIN PRODUCTS**  
High Voltage UPS  
Low Voltage UPS  
Edge Micro Data Centers  
Racks & PDU's  
Technical Floors  
Batteries & Chargers

# ATD Battery Charger



*Much more than a stationary battery charger*

## Standard features

HindlePower's AT Series Battery Chargers have been the industry standard in stationary utility applications for over 40 years. As demand for full system reliability increases, our products have evolved to include powerful diagnostics to better assess the health of your charging system. ATD represents the next generation of our AT Series product line. It is designed and manufactured with the same high quality and reliability you've come to expect from HindlePower. Not only is ATD equipped with the same standard AT Series Charger features, it is loaded with a host of alarms and diagnostics designed to better identify both potential dc threats and real-time dc issues. ATD's built-in Hindle Health System acts as both a configuration verification and self-diagnostic tool to ensure your dc system reliability. Equipped with an easy to use interface with graphical LCD display, ATD offers a more elegant and intuitive user experience. Packed with a host of powerful features and options, ATD is the clear choice for utility battery charger applications.





### 24/7 SUPERVISION

At any moment, if a DC System or battery charger abnormality occurs, the HHS will identify the issue and alert the operator via the HMI Screen and LED indicator lamps. Every feature of the battery charger will be alarmed by the HHS, plus any third part device connected through the auxiliary board.



### SYSTEM COMPATIBILITY

The ATD HHS was designed to work independently with the battery charger or in tandem with any new HindlePower products. When paired with an EPIC Series Console or EPIC Battery House, the HHS will act as a supervisory device, overseeing the system as a whole.



### SETUP MADE EASY

With its built in setup wizard, the HindleHealth system will walk you through all the charger settings to ensure they are set to your requirements.



### ALARM VERIFICATION

The HindleHealth button will walk users through a "health" check which will simulate alarms, proving the system is operating.



### INSIGHT AT A GLANCE

The HindleHealth System status lights let you know your system's condition instantly. Green, you are good to go. Solid Red, some maintenance is required. Blinking Red, immediate action is required.



## Alarming / Self Diagnostic Capability

ATD provides you with advanced alarming capability right out of the box that will meet most utility specifications and requirements. LED indicator light comes standard with HVDC, LVDC, DC Out fail, AC Fail, and (+)/(-) Gnd fault.

- High DC Voltage
- Low DC Voltage
- DC Output Failure
- AC Input Failure
- Ground Fault
- Summary
- High Level Detect
- Low Level Detect
- SCR Failure
- Rectifier Over-temp
- AC Ripple
- Relay Failure
- Open Breaker
- Open External and Internal Feedback
- End of Discharge
- Open DC Output
- Current Limit

## Specifications

### AC Input

- **Input Voltage:**  
120, 208, 240, 480,  
120/208/240, 550/600 (multi-tap) @ 60Hz  
220, 380/416 @ 50-60Hz  
\*120 VAC and multi-tap inputs not available for three-phase units
- **Input Voltage Tolerance:**  
+10%, -12%
- **Input Frequency Tolerance:**  
±5%
- **Efficiency:**  
85-90% typical for 130Vdc at 50-100% load

### HOW TO SIZE YOUR BATTERY CHARGER (Simplified Formula)

$$\left( \frac{Ah \times 1.R}{t} \right) + L = \text{Continuous Charger Output Rating}$$

*Ah = Ampere hours removed*  
*R = Recharge factor (1 = Pb) or (3 = NiCd)*  
*L = Additional standing load*  
*t = Recharge time in hours*



## DC Output

- **Voltage Ratings:**  
24, 48, 130 or 260\*Vdc nominal
- **Current Ratings:**  
6, 12, 16, 20, 25, 30, 40, 50, 75, 100, 125, 150,  
200, 250, 300, 400, 500, 600, 800, 1000 Adc  
1ph units available from 6-100A (130V only up to 75A)  
3ph units available from 25A-1000A (24 and 48V start  
at 50A)  
\*260Vdc - 6,12 Adc only
- **Continuous Rating:**  
110% rated current at maximum equalize voltage  
at -10 to +50°C
- **Transient Rating:**  
Per NEMA PE-5
- **Current Limit Adjustment Range:**  
50% to 110% rated output
- **Voltage Regulation:**  
±0.25% for line, load and temp. variations  
\*Regulation at max. extended equalize voltages may  
not meet ±0.25%
- **Electrical Noise:**  
32dBrc

## Environmental


- Operating Ambient Temperature 5°F to 122°F (-10°C to 50°C) w/o derating
- Operating Altitude 3300 feet (1000 meters) above sea level w/o derating
- Relative Humidity 0% to 95% (without condensation)
- Audible Noise Less than 65 dBA at any point 5ft (1.5m) from any vertical surface of enclosure

- **Ripple:**  
24/48Vdc  
Filtered on battery 30mVrms  
Filtered off battery 1% Vrms  
Battery Eliminator 30mVrms  
130Vdc  
Filtered on battery 100mVrms  
Filtered off battery 2% Vrms  
Battery Eliminator 100mVrms  
Super Eliminator 30mVrms  
260Vdc  
Filtered on battery 200mVrms  
Filtered off battery 2% Vrms  
Battery Eliminator 200mVrms
- **Surge Withstand Capability:**  
Designed to meet IEEE-472, ANSI C37.90a

## Safety & Acceptance

- Meets NEMA PE5
- Third party agency approvals:



Seismic qualified IEEE 693/IBC CBC  
ABS or CE certification available upon request  
MADE IN USA 



# Specification Chart (Single Phase Inputs)



DC Output Rating		Maximum AC Input Current									AC Circuit Breaker Ampere Rating						DC Circuit Breaker Rating	Cabinet Style	Approx. Shipping Weights lbs. (kg)	Heat Loss Watss (BTU/hr)	
Volts	Amps	120 Vac	208 Vac	240 Vac	480 Vac	600 Vac	220 Vac	380 Vac	416 Vac	120 Vac	208 Vac	240 Vac	480 Vac	600 Vac	220 Vac	380 Vac					416 Vac
24Vdc	6	5	3	3	3	3	3	3	3	15	15	15	15	15	15	15	15	10/15	5054	121 (55)	33 (11)
	12	7	5	4	3	3	5	4	4	15	15	15	15	15	15	15	15	20	5054	121 (55)	60 (204)
	16	9	5	5	4	4	6	4	4	15	15	15	15	15	15	15	15	25	5054	132 (60)	78 (265)
	20	11	6	6	4	4	6	5	4	15	15	15	15	15	15	15	15	32/30	5054	138 (62)	96 (327)
	25	13	7	7	4	4	7	5	5	20	15	15	15	15	15	15	15	40	5054	138 (62)	118 (404)
	30	15	9	8	5	4	9	6	5	20	15	15	15	15	15	15	15	50	5054	147 (66)	141 (481)
	40	20	12	10	6	5	11	7	7	25	15	15	15	15	15	15	15	63/60	5054	149 (67)	186 (635)
	50	25	15	13	7	5	14	9	8	40	20	20	15	15	15	20	15	80	5054	177 (80)	231 (789)
	75	39	21	18	10	9	22	13	12	50	30	30	15	15	30	20	20	125	5070	282 (128)	344 (1174)
	100	53	31	27	14	11	30	18	16	70	40	40	20	20	40	25	25	150	5070	317 (143)	457 (1558)
48Vdc	6	9	6	5	4	5	6	4	4	15	15	15	15	15	15	15	15	10/15	5054	121 (55)	42 (144)
	12	16	10	8	5	5	10	6	6	20	15	15	15	15	15	15	15	20	5054	135 (61)	79 (268)
	16	20	12	10	6	6	12	8	7	25	15	15	15	15	15	15	15	25	5054	157 (71)	103 (352)
	20	23	14	12	7	7	13	9	9	30	20	20	15	15	20	15	15	32/30	5054	175 (79)	128 (436)
	25	27	16	14	8	7	15	10	9	40	20	20	15	15	20	15	15	40	5054	175 (79)	158 (548)
	30	27	16	14	8	7	15	10	9	40	20	20	15	15	20	15	15	50	5054	181 (82)	189 (644)
	40	36	21	18	10	8	20	12	11	50	30	30	15	15	30	15	15	63/60	5054	198 (90)	250 (852)
	50	45	26	23	12	10	25	15	14	60	35	35	15	15	35	20	20	80	5054	204 (92)	311 (1061)
	75	66	38	36	17	14	37	22	20	90	50	50	25	20	50	30	30	125	5070	321 (146)	463 (1582)
	100	91	54	47	24	19	52	30	28	125	70	70	30	30	70	40	40	150	5070	393 (178)	616 (2013)
130Vdc	6	14	8	7	5	6	8	6	5	20	15	15	15	15	15	15	15	10/15	5054	146 (67)	71 (243)
	12	33	20	17	10	8	20	12	11	50	25	25	15	15	30	15	15	20	5054	186 (84)	137 (467)
	16	39	23	20	11	10	23	14	13	50	30	30	15	15	30	20	20	25	5054	211 (96)	181 (617)
	20	45	27	23	12	10	27	15	15	63	40	40	15	15	40	20	20	32/30	5054	235 (107)	224 (766)
	25	50	32	28	14	12	32	17	17	63	40	40	20	20	40	25	25	40	5054	235 (107)	279 (953)
	30	62	36	31	16	15	35	21	19	80	50	50	20	20	50	30	30	50	5054	241 (109)	334 (1140)
	40	86	47	41	21	17	44	26	24	110	60	60	30	25	60	35	35	60	5070	341 (155)	443 (1513)
	50	110	58	51	26	21	52	32	30	125	80	80	35	30	70	40	40	80	5070	384 (174)	553 (1887)
75	150	89	78	39	31	84	50	45	175	125	125	50	50	125	70	70	125	5070	422 (192)	826 (2821)	
260Vdc	6	28	18	15	9	8	19	12	11	40	25	25	15	15	25	15	15	10/15	5054	199 (90)	120 (411)
	12	63	36	32	17	14	33	20	19	80	50	50	25	20	50	25	25	20	5054	227 (103)	235 (803)

# Specification Chart (Three Phase Inputs)



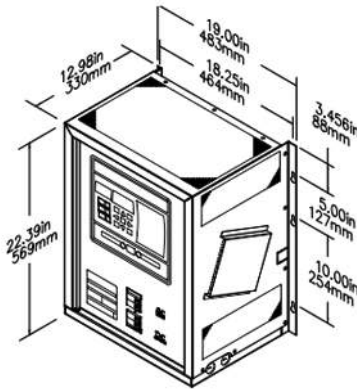
DC Output Rating		Maximum AC Input Current						AC Circuit Breaker Ampere Rating						DC Circuit Breaker Rating	Cabinet Style	Approx. Shipping Weights lbs. (kg)	Heat Loss Watss (BTU/hr)		
Volts	Amps	208 Vac	240 Vac	480 Vac	600 Vac	220 Vac	380 Vac	416 Vac	208 Vac	240 Vac	480 Vac	600 Vac	220 Vac					380 Vac	416 Vac
24Vdc	50	9	8	6	5	8	6	6	15	15	15	15	15	15	15	80	5070	232 (105)	231 (789)
	75	12	11	7	7	11	8	8	15	15	15	15	15	15	15	125	5070	251 (114)	344 (1174)
	100	16	14	9	8	15	10	10	20	20	15	15	20	15	15	150	5070	269 (122)	457 (1558)
	125	19	17	10	9	18	12	11	25	25	15	15	25	15	15	175	5030	392 (178)	569 (1943)
	150	23	20	12	10	22	14	13	30	30	15	15	30	20	20	225	5030	413 (187)	682 (2328)
	200	30	26	15	13	28	18	15	40	40	20	20	40	25	25	300	5030	479 (217)	908 (3098)
	250	37	32	18	15	35	22	20	50	50	25	20	50	30	30	350	5030	658 (298)	1133 (3868)
	300	40	35	19	16	38	23	22	50	50	25	25	50	30	30	450	5030	670 (304)	1359 (4638)
	400	59	51	27	24	59	34	32	80	80	40	35	80	45	45	600	163	1150 (522)	1810 (6178)
	500	72	63	32	29	72	42	38	90	90	45	40	90	60	60	700	163	1300 (590)	2261 (7717)
	600	88	76	40	35	87	51	46	110	110	60	50	110	70	70	900	163	1530 (694)	2712 (9257)
800	122	107	55	48	119	67	62	150	150	80	70	150	80	80	1200	198	2020 (916)	3614 (12336)	
1000	152	133	68	60	148	84	77	200	200	100	80	200	110	110	1200	198	2440 (1107)	4516 (15416)	
48Vdc	50	15	14	9	8	15	10	10	20	20	15	15	20	15	15	80	5070	257 (117)	311 (1061)
	75	22	19	11	10	21	14	13	30	30	15	15	30	20	20	125	5070	305 (138)	463 (1582)
	100	28	24	14	12	27	17	16	40	40	20	20	40	25	25	150	5070	327 (148)	616 (2103)
	125	34	30	16	15	33	21	19	45	45	20	20	45	30	30	175	5030	461 (209)	769 (2624)
	150	34	30	16	14	33	20	19	45	45	20	20	45	25	25	225	5030	471 (214)	921 (3145)
	200	53	47	25	21	52	31	29	70	70	35	30	70	40	40	300	5030	535 (243)	1227 (4187)
	250	66	58	31	25	63	35	32	90	90	40	35	90	45	45	350	5030	750 (340)	1532 (5229)
	300	79	69	36	30	76	45	42	100	100	50	40	100	60	60	450	5030	816 (370)	1837 (6272)
	400	100	88	44	39	96	56	51	125	125	60	60	125	70	70	600	163	1100 (499)	2448 (8356)
	500	128	110	55	48	120	70	64	150	150	70	70	150	90	90	700	163	1350 (612)	3058 (10440)
	600	157	135	69	60	149	85	79	200	200	100	90	200	110	110	900	198	1600 (726)	3669 (12524)
800	209	181	91	79	198	113	106	250	250	125	110	250	150	150	1200	198	2020 (916)	4890 (16693)	
1000	261	225	113	99	248	143	132	350	350	150	150	350	200	200	1200	198	2400 (1089)	6111 (20861)	
130Vdc	25	19	17	10	9	19	12	12	25	25	15	15	25	15	15	40	5070	261 (118)	279(953)
	30	22	19	11	10	22	14	13	30	30	15	15	30	20	20	50	5070	261 (118)	334 (1140)
	40	28	25	14	12	28	17	16	35	35	20	20	40	25	25	60	5070	300 (136)	443 (1513)
	50	35	31	17	14	34	21	20	50	50	25	20	50	30	30	80	5070	333 (151)	553 (1887)
	75	50	44	23	20	48	29	27	70	70	30	30	70	40	40	125	5070	407 (184)	826 (2821)
	100	65	57	30	25	63	38	35	90	90	40	35	90	50	50	150	5030	629 (285)	1100 (3755)
	125	81	71	37	31	78	47	43	110	110	50	40	110	60	60	175	5030	661 (300)	1376 (4690)
	150	97	85	44	39	93	56	51	125	125	60	50	125	70	70	225	5030	663 (301)	1647 (5624)
	200	134	114	58	46	123	73	67	175	175	80	70	175	100	100	300	5030	746 (338)	2195 (7492)
	250	158	137	68	59	150	79	72	200	200	90	80	200	100	100	350	163	1130 (513)	2742 (9360)
	300	180	160	80	72	170	93	85	225	225	110	100	225	125	125	450	163	1330 (603)	3289 (11229)
	400	255	220	110	96	235	127	116	350	350	150	150	350	175	175	600	163	1580 (717)	4384 (14965)
	500	320	280	140	120	300	160	148	400	400	200	150	400	200	200	700	198	2150 (975)	5478 (18702)
600	378	331	169	145	354	200	180	500	500	225	200	500	250	250	900	198	2650 (1202)	6573 (22439)	
800	503	439	224	194	473	266	241	650	650	300	250	650	350	350	1200	198	3250 (1474)	8762 (29912)	



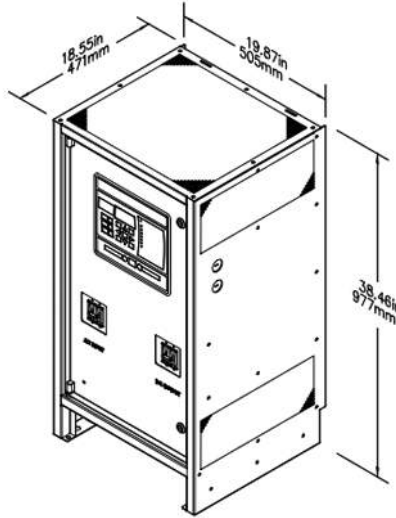
**ATD SPECIFICATION TABLE**

MODEL.#	Ø	Output Current	Filt	Input Voltage	Factory configurations & options
ATEVO					Contact us for configuration

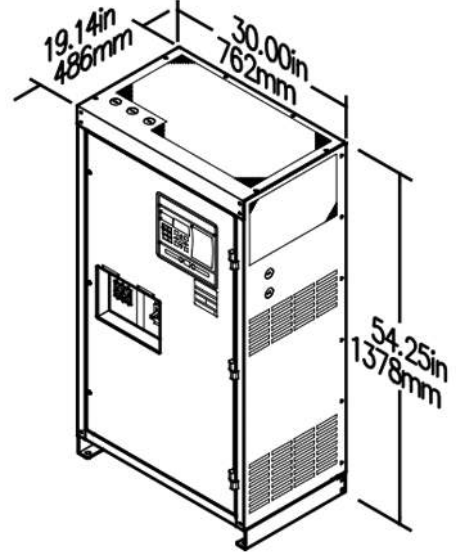
Cabinet 5054



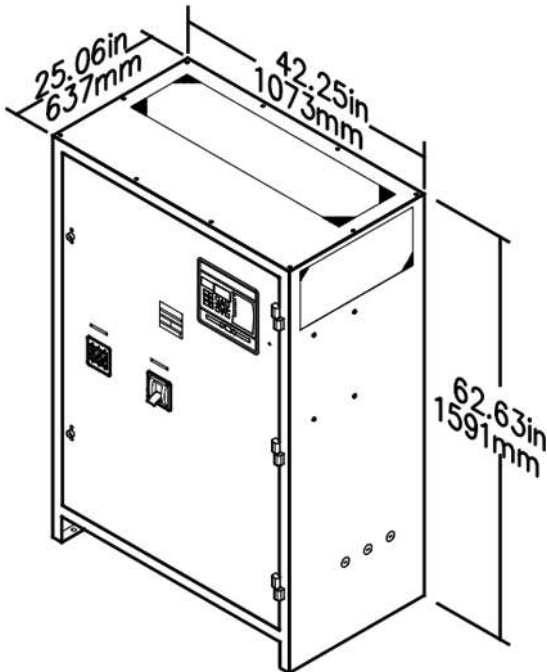
Cabinet 5070



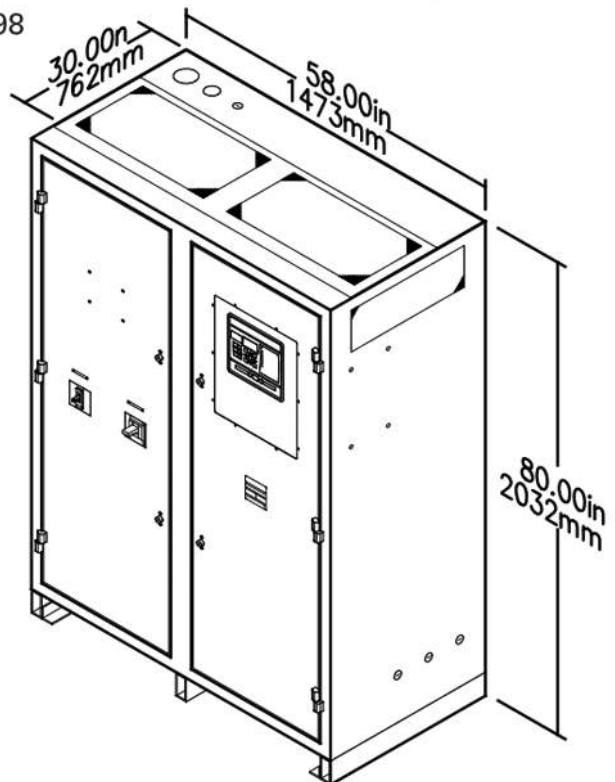
Cabinet 5030



Cabinet 163



Cabinet 198



## Standard Features



### EVENT LOGGING

Don't miss a thing! ATD can log up to 1024 events such as alarms and / or parameter changes.



### GRAPHICAL LED DISPLAY

ATD's easy to use interface gives you all the information you need with no guess-work.



### GROUND FAULT METERING

ATD's easy to use interface gives you all the information you need with no guess-work.



### SECURITY

Password protection prevents unauthorized users from changing any settings on the ATD charger.



### DYNAMIC CURRENT LIMIT

Prevents rectifier components from failing in ambient temperatures above 50°C.



### BATTERY OPEN ALARM

Ensures battery continuity and alerts you should the charger not be connected to a battery.



### UNIVERSAL CONTROL BOARD

No more overstocked boards. Main control board is not voltage specific and can operate in any ATD charger.



### LOCAL AND REMOTE VOLTAGE SENSE

Allows the charger to read the actual battery terminal voltage!



### CIRCUIT BREAKER PROTECTION

ATD comes factory equipped with thermal magnetic or hydraulic magnetic breakers for both the AC input and DC output. Optional Ampere Interrupting Capacity (AIC) ratings that are higher than standard are available:

- Medium
- High
- Ultimate

Refer to circuit breaker table document JF5072-01 for a full list of AIC ratings. Please note that certain size chargers do not offer optional AIC ratings.

## Standard Filtering

Definitions are consistent with current NEMA PE5 standards. The standard DC output filter reduces the output ripple voltage to:

- Less than 30mVrms through 48 Vdc
- Less than 100mVrms for 130Vdc batteries
- Less than 200mVrms for 260Vdc batteries

When measured at the battery terminals with a battery connected, and no greater than 2% of the output DC voltage without the battery.



### ELIMINATOR (OPTIONAL)

Eliminator filtering is 30mV for 24Vdc and 48Vdc chargers.

Eliminator filtering is 100mV 130Vdc chargers

Eliminator filtering is 200mV 260Vdc chargers

Without battery



### SUPER FILTERING (OPTIONAL)

30mV on battery for 130Vdc chargers.

Only available for 130 Vdc applications.

## Advanced Options

### Auxiliary Input/Output (I/O) Board

ATD now becomes the central point of your DC system. The optional Auxiliary I/O Board (A4) gives users the ability to monitor status of third party equipment. It is equipped with (6) assignable relays, four (4) generic binary inputs, and four (4) generic analog inputs. Up to 2 auxiliary input/output boards can be installed in an ATD charger.



### PROGRAMMABLE ALARM RELAYS

- Relays are rated for .5A @ 125Vac/Vdc
- Change states based on any alarm condition or status point
- Can be latching or non-latching
- Able to switch to activated state after a pre-programmed delay

### PROGRAMMABLE GENERIC BINARY INPUTS

- The four (4) binary inputs are optically isolated from ATD and each other
- Input can be user configured for 24, 48, 130, or 260Vdc thresholds
- Can be configured to be active high or active low, and generate alarms and controls such as charger shut-down
- Typical uses include remote shut-down, electrolyte level, ventilation fan failure, etc.

### PROGRAMMABLE GENERIC ANALOG INPUTS

- The four (4) analog inputs are rated for 0-10Vdc and are referenced to ATD DC (-)
- Analog inputs can be scaled to report and alarm in primary values.
- Uses include: AC voltage, AC current, and temperature transducer inputs

## ADVANCED OPTIONS

### Battery type alarm terminal block

PART # EJ5130-XX

Features a separate molded phenolic terminal block, wired directly to the Auxiliary Alarm Relay PC Board. It allows the user to connect remote alarm wiring with ring or fork type lugs. The terminals are rated for 20A at 25 Vac/Vdc, and accept wire sizes #16 to #14 AWG.

Must be ordered separately.

### Communications

ATD communications options allow users to remotely observe any status or perform any function that is accessible at the charger's front panel display. Multiple communication options are available, Serial communications, Ethernet Communications, and IEC 61850.

EN5034-XX

#### SERIAL COMMUNICATIONS ADAPTER

- Allows connections to either RS-232 or RS-485 networks
- ATD can support up to three (3) Serial Communication Adapters

EN5035-XX

#### ETHERNET COMMUNICATIONS ADAPTER

- Supports standard RJ45 10/100 Mbps copper Ethernet connections
- ATD can support one (1) Ethernet Communication Adapter
- Supports DNP3 Level 2 and Modbus Protocols simultaneously

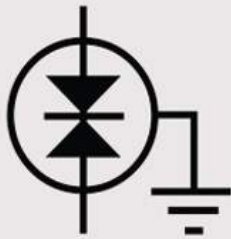
EJ5701-XX

#### IEC 61850 COMMUNICATIONS ADAPTER

- IEC 61850 communications capability, an international standard defining
- communication protocols for intelligent devices used in electrical substations



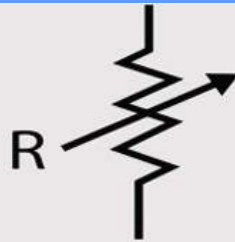
## Additional Accessories



### AC LIGHTNING ARRESTOR

Recommended for installations with risk of frequent AC surges, such as high elevations or severe weather. Is in accordance with IEEE 472 requirements.

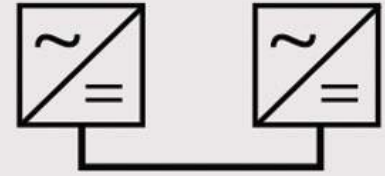
EJ5308-XX



### TEMPERATURE COMPENSATION

Adjusts the dc output voltage up or down, in response to battery temperature fluctuations. Consists of an external temperature probe mounted on or near the battery. Useful for lead-acid or nickelcadmium batteries and available probe lengths of 25, 50, 100 and 200 ft.

EJ5304-XX



### FORCED LOAD SHARE

Provides for load sharing of 2 similar chargers in parallel, allowing for system redundancy.

EJ5306-XX

TO: BATT  
REMOTE

### HEAT SHRINK WIRE MARKERS

Provides additional durability of heat shrink wire markers on the ends of each wire. Corresponds to the schematic.

EJ1076-XX



Analog / Signal

### TRANSDUCERS

Capability to transmit analog outputs as selected by you for either 4-20ma, 0-5VDC, 0-10VDC for each of the following measurements.

AC Voltage  
EJ5316-XX

DC Voltage  
EJ5318-XX

AC Current

DC Current

EJ5317-XX

EJ5319-XX

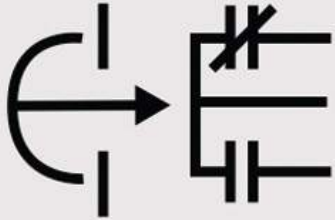
AC Feed  
A-B: 482.3V  
B-C: 481.4V  
C-A: 481.6V

### AC METERING

Displays AC voltage, current, and frequency on the charger's existing digital LCD display.

EJ5303-XX





**AC/DC CIRCUIT BREAKER  
AUXILIARY CONTACTS**

Allows for remote indication of breaker position.

**EJ5305-XX**



**SD MEMORY CARD**

32G sim card formatted as FAT32.

**PM5020-XX**



**FAN CONTROL CONTACTOR**

Mounted in a separate NEMA 1 enclosure, this option provides a contactor that will close once the charger is in equalize or a bus voltage threshold has been surpassed.

**10A-EJ5017-2X 20A-EJ5017-3X**



## Enclosure Options



### NEMA 2

Provides a drip shield on the standard enclosure to protect it from falling dirt and/or dripping water.

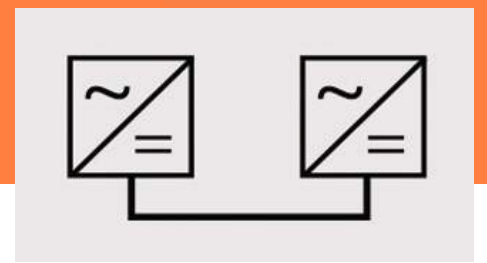
EI0191-XX



### NEMA 4/12

All-weather enclosures, will also accommodate NEMA 12 and 13.

CONSULT FACTORY



### RELAY RACK MOUNTING

Available for 5054 and 5070 enclosures. These mounting devices are useful for 23"/24" relay racks.

EI0193-XX



### FLOOR STANDS

Allow for free standing smaller, typically wall-mounted enclosures. These stands universally allow for the base of the charger to be approximately 44 inches/1.12m from the base or floor.

EI0192-XX



### LOCKING PROVISIONS

Provides extra security by physically locking the front door.

Padlock  
EI0215-05

Keylock  
EI0215-16

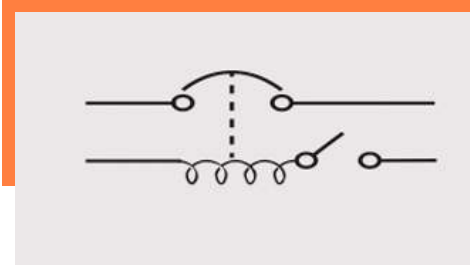


### CABINET HEATERS

Provide for anti-condensation heating of the battery charger cabinet.

EJ5156-XX

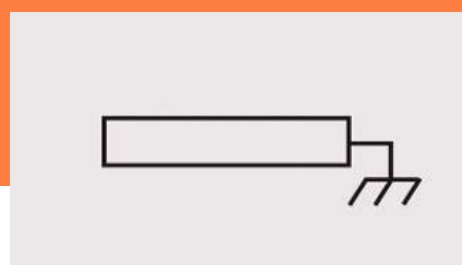




**CIRCUIT BREAKER INTERLOCKS**

An added measure of protection that inhibits the operator's ability to open the battery charger door when the AC and DC breakers are closed.

**EJ5311-XX**



**COPPER GROUND BUS**

Offers a convenient means to tie the ATD to the building's ground.

**EI5098-XX**



**INTERNAL COATINGS**

Offer various forms of protection for electrical components and internal wiring connections:

Fungus Proofing  
**EJ1076-00**

Anti-Static  
**EJ1076-01**

**EJ1076-03**

