

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

Delivering quality

ALCAD

GROUP I



Cabinet Style 586

(Shown with Optional Penthouse and Drip Shield)



Cabinet Style 594

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

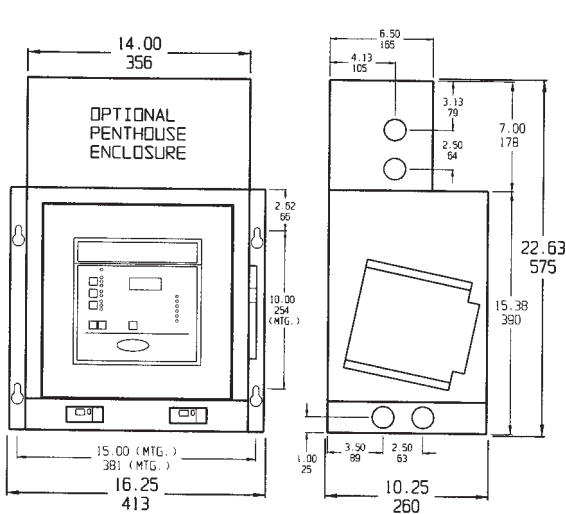
AT10.1 Group I: Input, Output, Heat Loss, Cabinet Style & Shipping Weight

Ampere Rating	6A	12A	16A	20A	25A
AC Input Voltage	120 208 240 480	120 208 240 480	120 208 240 480	120 208 240 480	120 208 240 480
Output Voltage: 12Vdc	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)
Output Voltage: 24Vdc	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)
Output Voltage: 48Vdc	Float Adjust: 46-58Vdc		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)
Output Voltage: 130Vdc	Float Adjust: 115-140Vdc		Equalize Adjust: 124-143Vdc		
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)

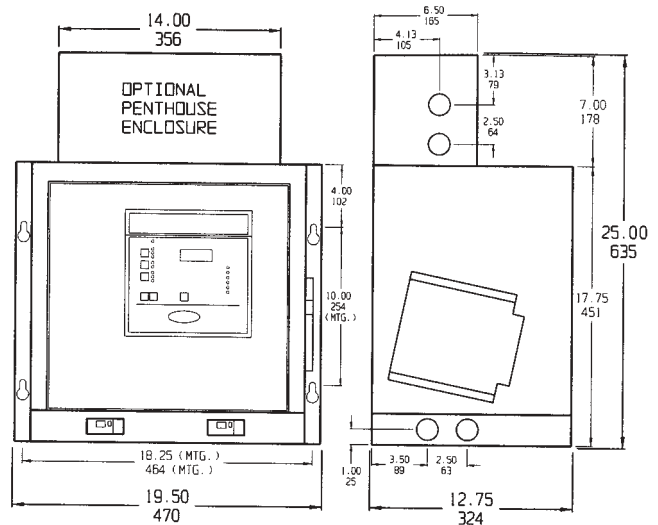
Models with higher ratings: AT10.1 Group 2 models with single-phase ac input ratings, and dc output ratings to 100Adc, described in this brochure; also SCR/SCRF Series models with dc output ratings to 800Adc at 12 through 260Vdc.

Specifications subject to change.

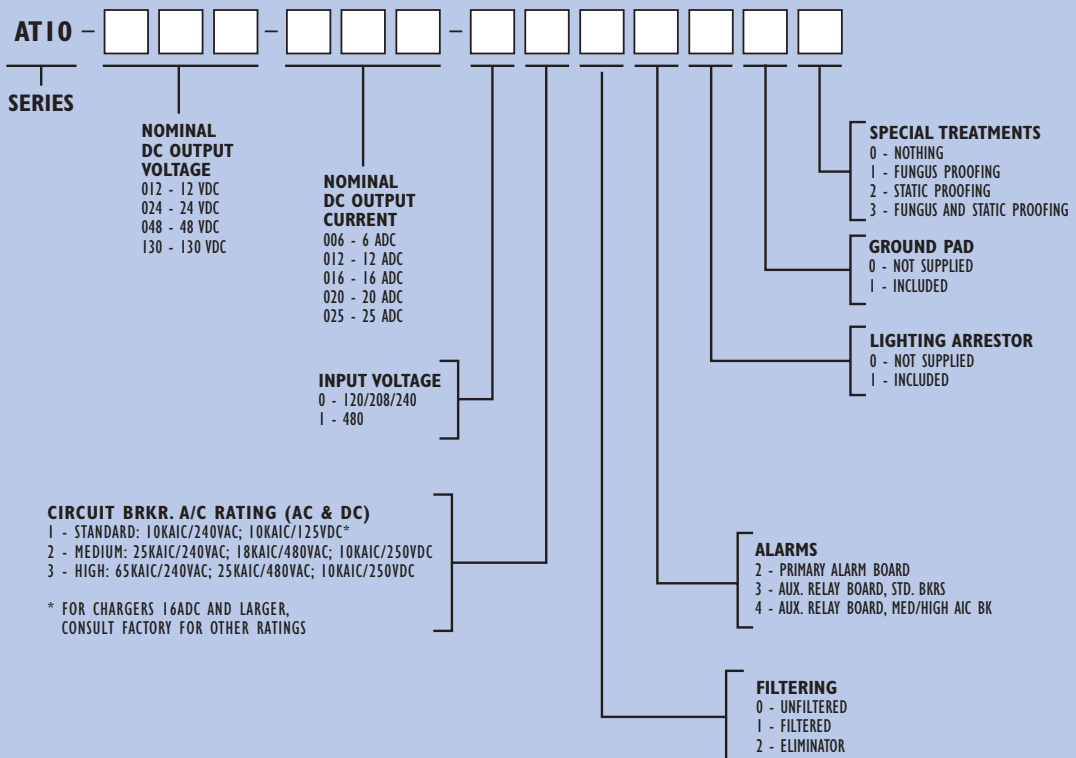
GROUP I



Cabinet Style 586



Cabinet Style 594



Circuit Breaker AC & DC AIC Ratings:

STANDARD-10KAIC/240Vac; 10KAIC/125Vdc* (Not for 480Vac)
 MEDIUM-25KAIC/240Vac; 18KAIC/480Vac; 10KAIC/250Vdc
 HIGH-65KAIC/240Vac; 25KAIC/480Vac; 25KAIC/250Vdc

*For chargers 16A dc and larger; consult factory for other ratings.

Delivering quality

ALCAD

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
- 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.

GROUP 2



**Expanded
output ratings —
now to
100 Amperes.
Same great
features as
Group 1!**

Cabinet Style 5017

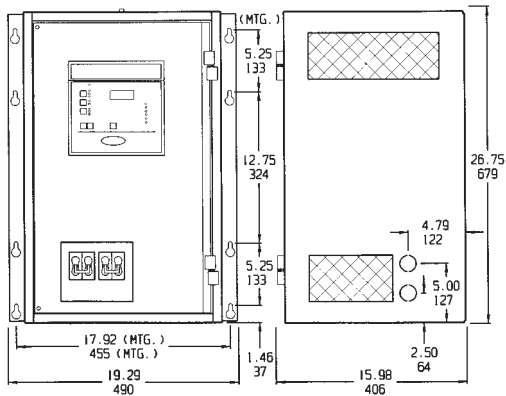
Cabinet Style 5018

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

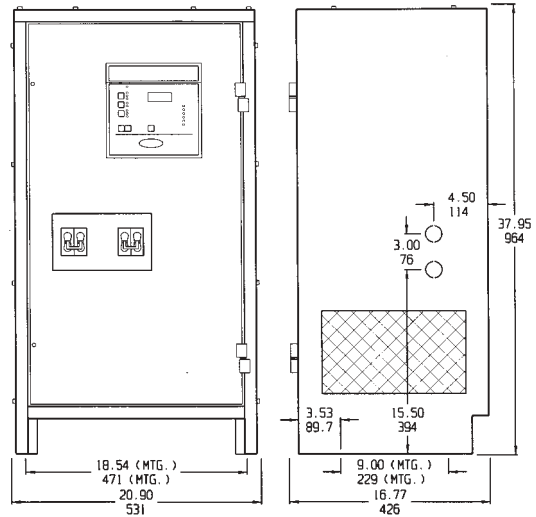
Ampere Rating	30A	40A	50A	75A	100A
AC Input Voltage	120 208 240 480	120 208 240 480	120 208 240 480	120 208 240 480	120 208 240 480
Output Voltage: 12Vdc	Float Adjust: 11.5-14.5Vdc		Equalize Adjust: 12-15.5Vdc		
AC Input Amperes (Nominal)	7.2-4.1-3.6-1.8	9.6-5.5-4.8-2.4	12-6.9-6.0-3.0	18-10-8.9-4.5	24-14-12-6.0
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)	130 (59)	145 (66)	160 (73)	205 (93)	280 (127)
Output Voltage: 24Vdc	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)	245 (111)	320 (145)
Output Voltage: 48Vdc	Float Adjust: 46-58Vdc		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)	190 (86)	220 (100)	245 (111)	330 (150)	440 (200)
Output Voltage: 130Vdc	Float Adjust: 115-140Vdc		Equalize Adjust: 124-143Vdc		
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)	250 (113)	352 (160)	440 (200)	660 (300)	

Models with higher ratings: SCR/SCR Series models are available with dc output ratings to 800Adc at 12 through 260Vdc.
 NOTES: 1. 120Vac input available only on special order. 2. Shipping weights are approximate.

GROUP 2



Cabinet Style 5017



Cabinet Style 5018

Sample	A	B	C	D	E	F	G	H	J	K	L	M	N	P
	AT	1 3 0	0 5 0	4 8 0	2 1 0	1 0	1 0	3 1 0	0 0	0				
	AT													

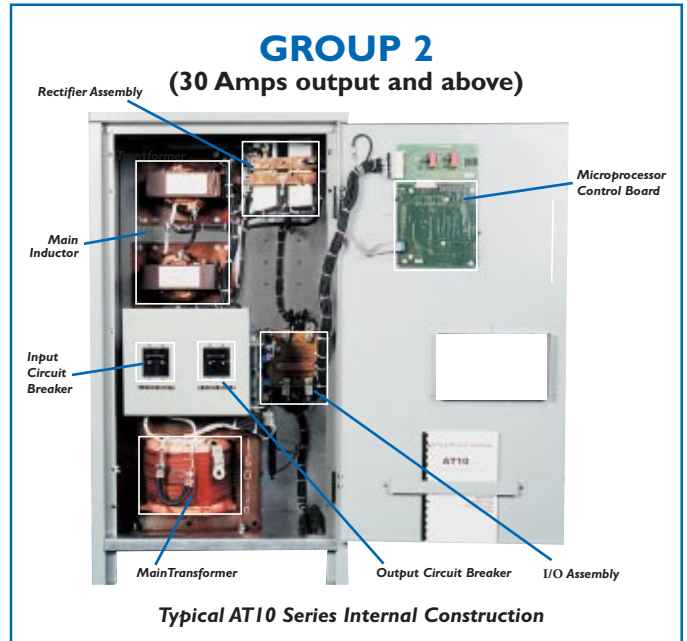
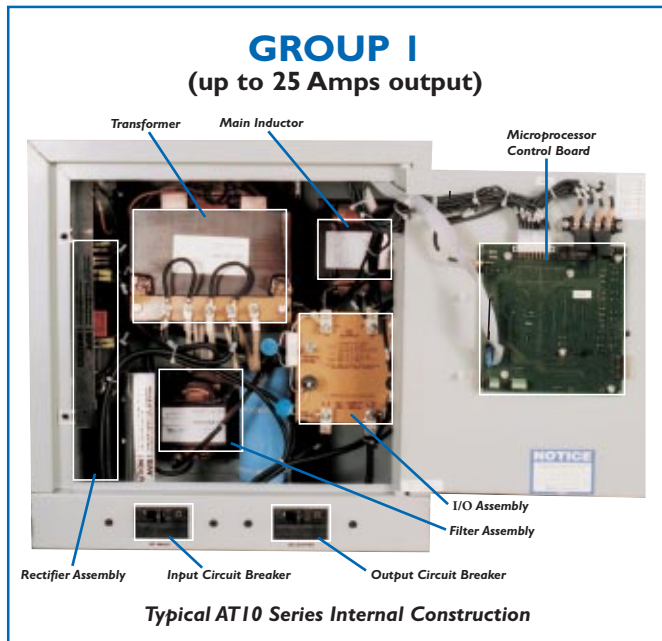
	Description	Code	Feature		Description	Code	Feature				
A		AT	AT10 series			AT	AT10				
B	Nominal DC Output Voltage	012	12Vdc	G	AC Input Fuses	1	Installed				
		024	24Vdc			0	Not Supplied				
		048	48Vdc			1	Standard AIC				
		130	130Vdc			2	Medium AIC				
C	Nominal DC Output Current	030	30Adc	H	DC ckt Breaker	3	High AIC				
		040	40Adc			0	No Breaker				
		050	50Adc			J	DC Fuses	1	Installed		
		075	75Adc					0	Not Supplied		
		100	100Adc					K	Alarm	2	Primary Alarm Board
										3	Auxiliary Relay Board
D	AC Input Voltage	120	120V 60Hz	L	Ground Pad	1	Installed				
		208	208V 60Hz			0	Not Supplied				
		240	240V 60Hz			M	Lightning Arrestor	1	Installed		
		480	480V 60Hz					0	Not Supplied		
		220	220V 50/60Hz					N	Fungus Proofing	1	Installed
		380	380V 50/60Hz							0	Not Supplied
416	416V 50/60Hz	P	Static Proofing	1	Installed						
				0	Not Supplied						
E	Filtering	0	Unfiltered	F	AC ckt Breaker	1	Standard AIC				
		1	Filtered			2	Medium AIC				
		2	Eliminator			3	High AIC				
F	AC ckt Breaker		No Breaker	0	No Breaker						

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

Circuit Breaker AC & DC Ratings:
 STANDARD-5KAIC 120/240/480Vac; 5KAIC 125Vdc
 MEDIUM-25KAIC 120/240/480Vac; 10KAIC 250Vdc
 HIGH-65KAIC 120/240/480Vac; 25KAIC 250Vdc

Delivering quality





SPECIFICATIONS

AC Input

- **Voltage:** 120, 208, 240 Volts 60Hz
480Vac 60Hz
220Vac 50/60Hz (special order)
380/416 Vac 50/60Hz (special order)
- **Input Voltage Tolerance:**
+10%, -12%
- **Input Frequency Tolerance:** ±5%
- **Power Factor:** 0.80 typical full load
- **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 (122°F)
- **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, A dc, 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-1
- 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
- Static Proofing
- 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
- Communications module utilizing DNP 3 or MODBUS



Represented in your area by:

Delivering quality

ALCAD

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