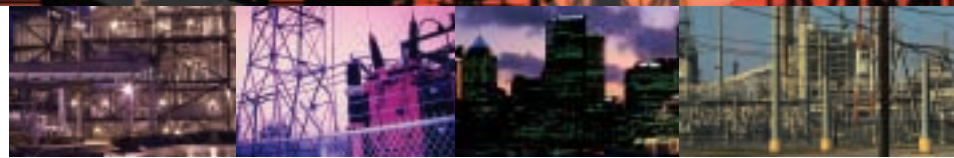


## AT30 Series

Float battery chargers  
3 phase input



UL-1564



CSA-C22.2



CE



Seismic Zone 4  
Qualification



FC



**SAFT**

# AT30



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

A combination of advanced technology microprocessor control and performance-engineered modular construction make AT30 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.

### Flexible Installation

- All units can be floor mounted
- Units in style 5018 enclosure can be wall or rack mounted (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/C
- CSA C22.2 Certified
- CE/IEC Compliant
- Meets FCC requirements for part 15 subpart J class A
- Seismic Zone 4 Analyzed/Qualified

# AT30

## SPECIFICATIONS

### AC Input

#### 3 Phase Voltage:

- 208, 240 Volts 60Hz
- 480Vac 60Hz
- 220Vac 50/60Hz (special order)
- 380, 416Vac 50/60Hz (special order)

#### Input Voltage Tolerance:

- +10%, -12%

#### Input Frequency Tolerance:

- ±5%

#### Power Factor:

- 0.80 typical full load

#### Efficiency:

- 89-93% (typical at 130Vdc)  
at 50-100% load

### DC Output

#### Voltage Ratings:

- 12, 24, 48, or 130Vdc nominal

#### Current Ratings:

- 25-1000 Adc See chart below

#### 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:

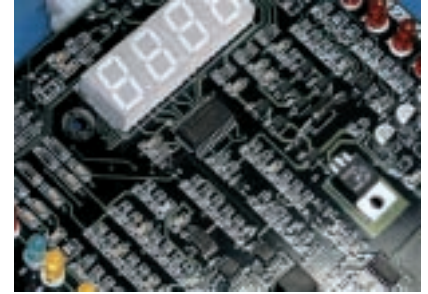
- 30mVrms/32dBnC weighted maximum on filtered units

#### Surge Withstand Capability:

- Meets IEEE-472/ANSI C37.90a

## STANDARD FEATURES

- 1% Digital LED meter for Vdc, 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



AT Series Main Control Card

## 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 #1/O AWG lug
- Fungus proofing (tropicalization)
- Relay rack mounting (some ratings)
- Drip shield
- Cabinet heater
- NEMA 4 or NEMA 12 enclosures
- Provision for locking front panel
- Communications module utilizing DNP 3 Level 2 or MODBUS protocols

Ordering Code	Ampere Rating	12Vdc			24Vdc			48Vdc			130Vdc		
		Heat Loss BTU/hr*	Cabinet Style	Shipping Weight Lbs(Kg)**	Heat Loss BTU/hr*	Cabinet Style	Shipping Weight Lbs(Kg)**	Heat Loss BTU/hr*	Cabinet Style	Shipping Weight Lbs(Kg)**	Heat Loss BTU/hr*	Cabinet Style	Shipping Weight Lbs(Kg)**
0025	25										1260	5018	300(136)
0030	30										1510	5018	330(150)
0040	40										2010	5018	380(172)
0050	50	500	5018	175(80)	740	5018	210(95)	1230	5018	255(116)	2510	5018	500(227)
0075	75	750	5018	240(109)	1100	5018	275(125)	1850	5018	350(159)	3760	5018	550(249)
0100	100	990	5018	315(143)	1470	5030	360(163)	2460	5030	460(209)	5010	5030	680(308)
0125	125	1250	5030	360(164)	1840	5030	425(193)	3080	5030	500(272)	6260	5030	750(340)
0150	150	1450	5030	400(182)	2200	5030	480(218)	3690	5030	540(245)	7510	5030	915(415)
0200	200	1900	5030	440(220)	2940	5030	550(249)	4920	5030	650(295)	10100	5030	1100(499)
0250	250	2400	5030	570(259)	3670	5030	600(272)	6150	5030	750(340)	12600	5031	1400(635)
0300	300	2800	5030	650(295)	4400	5030	710(322)	7380	5030	860(390)	15100	5031	1500(680)
0400	400				5870	5031	780(354)	9830	5031	950(431)	20100	5031	1650(748)
0500	500				7340	5031	850(386)	12300	5031	1350(612)	25100	5034	1820(826)
0600	600				8800	5034	925(420)	14800	5034	1500(680)	30100	5034	1950(885)
0800	800				12000	5034	1100(499)	19500	5034	1700(771)	40000	5034	2275(1032)
1000	1000				14500	5034	1200(544)	24500	5034	1900(862)	50000	5034	2600(1179)

Specifications are subject to change without notice \*Heat loss is stated for nominal number of cells, float voltage, 100% output current \*\*Shipping weights are approximate



# AT30

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>N</b>	<b>P</b>	
	<b>AT30</b>	1	3	0	0	5	0	0	4	8	0	2	1	0	1	0	3	1	0	0

Description	Code	Feature
<b>A</b>	<b>AT30</b>	<b>AT30 Series</b>
<b>B</b> Nominal DC Output Current	012	12Vdc
	024	24Vdc
	048	48Vdc
	130	130Vdc
<b>C</b> Nominal DC Output Current	0025	25Adc
	0030	30Adc
	0040	40Adc
	0050	50Adc
	0075	75Adc
	0100	100Adc
	0125	125Adc
	0150	150Adc
	0200	200Adc
	0250	250Adc
	0300	300Adc
	0400	400Adc
0500	500Adc	
0600	600Adc	
0800	800Adc	
1000	1000Adc	
<b>D</b> AC Input Voltage (3 Phase)	208	208V 60Hz
	240	240V 60Hz
	480	480V 60Hz
	220	220V 50/60Hz
	380	380V 50/60Hz
	416	416V 50/60Hz
<b>E</b> Filtering	0	Unfiltered
	1	Filtered
	2	Eliminator

Description	Code	Feature
	<b>AT30</b>	<b>AT30 Series</b>
<b>F</b> AC Circuit Breaker	1	Standard AIC
	2	Medium AIC
	3	High AIC
	0	No Breaker
<b>G</b> AC Input Fuses	1	Installed
	0	Not Supplied
<b>H</b> DC Circuit Breaker	1	Standard AIC
	2	Medium AIC
	3	High AIC
	0	No Breaker
<b>J</b> DC Fuses	1	Installed
	0	Not Supplied
<b>K</b> Alarm	2	Primary Alarm Board
	3	Auxiliary Relay Board
<b>L</b> Ground Pad	1	Installed
	0	Not Supplied
<b>M</b> Lightning Arrestor	1	Installed
	0	Not Supplied
<b>N</b> Treatments	1	Fungus Proofing
	2	Static Proofing
	0	No Treatment
<b>P</b> Dripshields	1	Installed
	0	Not Supplied

### 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

### CABINET DIMENSIONS IN INCHES

Cabinet Style	H	W	D
5018	37.95	20.90	16.77
5030	54.25	30.00	19.40
5031	62.00	42.00	24.00
5034	80.00	58.00	30.00

Sizes subject to change

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