



# La MARCHÉ<sup>®</sup>

ISO 9001:2000 CERTIFIED

## A75A/A75AE SERIES SCR BATTERY CHARGER / ELIMINATOR SINGLE PHASE



### SCR BATTERY CHARGER WITH ANALOG METERS

The La Marche Model A75A/A75AE Series Battery Chargers are engineered for the demanding requirements of Switchgear, Process Control and Oil Exploration to name a few.

The A75A/A75AE battery charger is a solid state unit utilizing SCR technology. It has  $\pm 0.5\%$  regulation from no load to full load over the specified input voltage, frequency and ambient temperature range.

The A75A/A75AE series is offered with DC output voltages of 24, 48 or 130 VDC with DC output currents from 6 to 100 Amps. These chargers can be powered with 120, 208, 240 or 480 VAC. The current limit is factory set at 105% and is adjustable from 50 to 110%.

The battery chargers are designed for dependable operation in harsh environments at temperatures up to 122° F (50° C). The unit is convection cooled and the components are designed to achieve MTBF in excess of 100,000 hours.

The enclosures are very versatile. Some units can be wall, floor or rack mounted. See the Case Specifications chart on the other side of this Data Sheet for further details.

### Standard Features

- A75A -Unfiltered Battery Charger
- A75AE -Filtered Battery Charger/Power Supply/Battery Eliminator (DC Output filtering 30mv rms or less)
- SCR Technology
- Automatic AC Voltage Compensation
- AC & DC Surge Protection (MOV)
- AC & DC Fuses
- Internal Temperature Compensation
- Float/Equalize Mode Switch
- Separate Float and Equalize Adjustments
- Adjustable Current limit from 50 to 110% (factory set at 105%)
- $\pm 0.5\%$  DC Voltage Regulation
- 2% Accuracy DC Ammeter & DC Voltmeter
- Load Sharing
- LED Indications  
Float/Equalize  
AC "ON"
- AC Power Failure Contact 2 Form "C"
- 2-Year Warranty
- UL1012 Pending

### Options

- Equalize Timer - adjustable from 1-144 hours with five selectable modes of operation (manual, automatic every 7, 14 or 30 days and equalize after sensing a low DC voltage)
- AC & DC Breakers
- Ground Detection Relays & Lights
- High & Low DC Voltage Alarm Relays & Lights
- Low Current Failure Alarm Relay & Light
- External Temperature Compensation Probe (15ft)

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Made in USA

## ELECTRICAL

### AC Input Operating Voltage Range

Voltage range: +10, -12% from nominal  
Frequency range: 60Hz ±5%

### Single Phase Model Voltages:

120, 208, 240, and 480 VAC.  
(Tap selectable 120/208/240 on units up to 25 amps output. All other units must specify single input voltage)

**DC Output:** 6 to 100 Amps  
24, 48 & 130 Volts

### DC Output Voltage Range:

	Volts		Cells	
	Float	Equalize	Lead Acid	Ni-Cad
24V	23-29.5	24-31	11-13L	17-20N
48V	46-57	48-61	22-26L	33-39N
130V	115-140	123-145	53-62L	83-93N

Note: Typical cell ranges are based on the following:  
Lead Acid 2.17 vpc Float, 2.33 vpc Equalize  
NiCad 1.44 vpc Float, 1.55 vpc Equalize

### Output Filtering (A75AE Models):

30mv rms with or without a battery

### DC Regulation

± 0.5% of setting from no load to full load over the specified input voltage, frequency and ambient temperature ranges.

### Audible Noise

Less than 65dBA at any point 5 feet from any vertical surface of the charger/power supply.

### Load Sharing

Load Sharing terminal located inside of unit. When connected, identical La Marche units are forced to share the load.

## PROTECTION

### Current Walk-In

The output current will gradually increase after the charger is turned on, eliminating surges and overshoot.

### Current Limit

Electronic current limiting control circuitry provides for an adjustable value of 50 to 110% of the rated output current. Factory set at 105%.

### AC Fuse

Standard units are equipped with fuse protection. An optional breaker is available.

### DC Fuse

Standard units are equipped with fuse protection. An optional breaker is available.

## ENVIRONMENTAL

Operating Temperature: 0 to 50°C (32 to 122°F)  
Storage Temperature: -40 to 85°C (-40 to 185°F)  
Relative Humidity: 0 to 95% (non-condensing)  
Cooling: Convection Cooled

## ENCLOSURES

### Mounting

Our enclosures are very versatile. Some units can be wall, floor or rack mounted, and others can be wall or floor mounted. See the Case Specifications Chart on page 3 of this data sheet for further details.

### Finish

Pretreated with three step iron phosphate wash and deionized rinse. Finished with environmentally safe water based ANSI 61 gray.

## Ordering Information

When ordering, please specify:

- La Marche Model Number
- DC Amps
- DC Volts
- Special Frequency, When Required
- AC Voltage Code
- AC Phase Code
- Battery Cell Type Code
- Optional Accessories (Option Code)

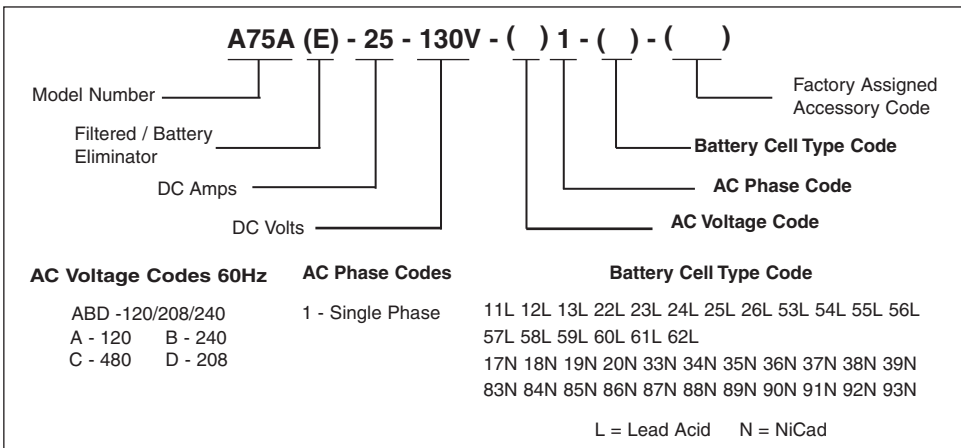
## Battery Charger Sizing Guidelines

- Required Battery Backup Time (Hours)
- DC Output Voltage
- Ampere Hour Capacity of Battery
- Allowable Recharge Time From Full Discharge (Hours), Where Applicable
- Continuous & Intermittent DC Loads and Duration (Amps)

## Options

- 011 1-Pole AC Breaker (120 VAC Single Input Only)
- 016 2-Pole AC Breaker  
Breaker 10 KAIC @ 240VAC / 14 KAIC @ 480VAC
- 017 2-Pole DC Breaker  
Breaker 5KAIC @ 125VDC
- 01C 2-Pole High Interrupting Capacity AC Breaker 65KAIC @ 240VAC / 25KAIC @ 480VAC (Only available for units with current draws above 12 amps.)
- 01D 2-Pole High Interrupting Capacity AC Breaker 100KAIC @ 240VAC / 65KAIC @ 480VAC (Only available for units with current draws above 12 amps.)
- 03M High and Low DC Voltage Alarm
- 03N Low DC Current Alarm
- 04J Electronic Equalize Timer
- 051 Ground Detection Relays
- 052 Ground Detection Lights
- 11W External Temperature Probe  
Standard length of 15'
- 09C I.D. Tags - White text on black background
- 09V I.D. Tags - Black text on white background
- 09W Heat Shrink Wire Markers with Electrical Schematic

## Model Number Nomenclature



# A75A/A75AE SERIES

## SCR BATTERY CHARGER / ELIMINATOR

### A75A/A75AE Charger Chart

	Model Number	DC Amps	AC Input Current Draw Single Phase @ 100% Load (Amps)					Case Size	Shipping Weight (Approximate)	
			ABD 120/ 240/ 208	A	B	D	C		lbs	kgs
				120	240	208	480			
24 Volt Systems	A75A(E)-6-24V	6	2.4 / 1.2 / 1.4	---	---	---	---	4B75	87	40
	A75A(E)-12-24V	12	4.8 / 2.4 / 2.8	---	---	---	---	4B75	92	42
	A75A(E)-16-24V	16	7 / 3.5 / 4	---	---	---	---	4B75	98	45
	A75A(E)-20-24V	20	9.6 / 4.8 / 5.6	---	---	---	---	4B75	100	46
	A75A(E)-25-24V	25	12.3 / 6.1 / 7	---	---	---	---	4B75	104	48
	A75A(E)-30-24V	30	---	14	7	8	4	475	130	59
	A75A(E)-35-24V	35	---	17.1	8.5	9.8	4.3	475	150	69
	A75A(E)-40-24V	40	---	19.5	9.8	11.2	4.9	475	160	73
	A75A(E)-50-24V	50	---	24.5	12.3	14	6.1	475	185	84
	A75A(E)-60-24V	60	---	28	14	16	7	475	208	95
	A75A(E)-75-24V	75	---	35	17.5	20	8.8	975	240	109
A75A(E)-100-24V	100	---	49.1	24.5	28	12.2	975	275	125	
48 Volt Systems	A75A(E)-6-48V	6	4.8 / 2.4 / 2.8	---	---	---	---	4B75	90	41
	A75A(E)-12-48V	12	9.6 / 4.8 / 5.6	---	---	---	---	4B75	99	45
	A75A(E)-16-48V	16	14 / 7 / 8	---	---	---	---	475	137	62
	A75A(E)-20-48V	20	19.5 / 9.8 / 11.2	---	---	---	4.9	475	166	76
	A75A(E)-25-48V	25	24.5 / 12.3 / 14	---	---	---	6.1	475	150	68
	A75A(E)-30-48V	30	---	28	14	16	7	475	170	77
	A75A(E)-35-48V	35	---	32.6	16.3	18.7	8.2	475	180	82
	A75A(E)-40-48V	40	---	39	19.5	22.5	9.8	475	195	89
	A75A(E)-50-48V	50	---	48.8	24.4	28.2	12.2	475	205	93
	A75A(E)-60-48V	60	---	58.6	29.3	33.9	14.8	975	300	137
	A75A(E)-75-48V	75	---	73.2	36.6	42.3	16.5	975	350	159
A75A(E)-100-48V	100	---	97.6	48.7	56.4	24.4	975	448	204	
130 Volt Systems	A75A(E)-6-130V	6	14 / 7 / 8	---	---	---	3.5	475	178	81
	A75A(E)-12-130V	12	28 / 14 / 16	---	---	---	7	475	185	84
	A75A(E)-16-130V	16	33 / 16.5 / 19	---	---	---	9.6	475	200	91
	A75A(E)-20-130V	20	44 / 22 / 25.3	---	---	---	11	475	235	107
	A75A(E)-25-130V	25	55 / 27.5 / 31.7	---	---	---	13.8	475	255	116
	A75A(E)-30-130V	30	---	66	33	38	16.5	475	300	137
	A75A(E)-35-130V	35	---	77	38.5	44	19.2	975	375	171
	A75A(E)-40-130V	40	---	88	44	50.6	22	975	422	192
	A75A(E)-50-130V	50	---	---	55	63.3	27.5	975	480	218
A75A(E)-75-130V	75	---	---	77	88	38.4	72	625	284	

### Case Specifications

Case No	Overall Dimensions						Cable Entry		Standard Mounting	Optional Mounting Kits	
	Width		Depth		Height		AC Input	DC Output		Rack	Floor
	in	mm	in	mm	in	mm					
4B75	19	482.6	15.1	383.54	12.22	310.39	Right Top/Bottom	Left Top/Bottom	Wall	19"/23"	✓
475	19	482.6	15.1	383.54	24	609.6	Right Top/Bottom	Left Top/Bottom	Wall	19"/23"	✓
975	23	584.2	15.1	383.54	37.9	962.66	Right Top/Bottom	Left Top/Bottom	Floor	23"	---
72	27	685.8	23.5	596.9	44.5	1130.3	Bottom Right	Bottom Left	Floor	---	---

# Alternate Technologies For Your Utility Needs



**A12B...Controlled Magnetic Amplifier** Circuitry battery charger/battery eliminator designed with extremely high MTBF. Meets the demanding requirements for switchgear, process control and communications applications. Available in 12, 24, 48 and 130VDC and 3 to 400 amps output.

**TPSD...**Microprocessor Controlled **Ferroresonant** design battery charger / battery eliminator is ideal for switchgear and process control. The TPSD comes fully equipped with standard features such as digital display, alarm indications, electronic timer and temperature compensation.



**A96/A97...130VDC Switchmode** Utility Charger is a compact rectifier system with current limiting, voltage regulation, high efficiency and high power factor. AC input line regulation operates over a range of 185-264 volts, with a frequency range of 45-66Hz. The systems are available as rack, wall, floor or mobile cart mount.

Specifications subject to change without notice

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