



# La MARCHÉ<sup>®</sup>

ISO 9001:2000 CERTIFIED

**A75D/A75DE SERIES**  
**SCR BATTERY CHARGER / ELIMINATOR**  
**SINGLE PHASE**



## SCR BATTERY CHARGER WITH DIGITAL DISPLAY

The La Marche Model A75D/A75DE Series Battery Chargers are engineered for the demanding requirements of Switchgear, Process Control and Oil Exploration to name a few.

The A75D/A75DE battery charger is a solid state unit utilizing SCR technology and has  $\pm 0.5\%$  regulation from no load to full load over the specified input voltage, frequency and ambient temperature range.

The A75D/A75DE 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 110% and is adjustable from 50 to 115%.

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 and others can be wall or floor mounted. See the Case Specifications chart on the other side of this Data Sheet for further details.

### Standard Features

- A75D - Unfiltered Battery Charger
- A75DE - 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 Input Breaker
- DC Output Breaker
- Internal Temperature Compensation
- Float/Equalize Mode Switch
- Separate Float and Equalize Adjustments
- Adjustable current limit 50 to 115% (factory set at 110%)
- $\pm 0.5\%$  DC Voltage Regulation
- Load Sharing
- LCD Display for DC Voltage, DC Current & Alarms
- LED Indications
  - Float/Equalize
  - AC "ON"
  - AC Failure
  - Summary Alarm
  - Low DC Current
  - Low DC Voltage
  - Battery End of Discharge
  - High DC Voltage
  - High DC Voltage Shutdown
  - Positive & Negative Ground Detection
- Remote Annunciation 2 Form "C" Contact
  - AC Failure
  - Summary Alarm
- 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)
- 2-Year Warranty
- UL1012 Pending

### Options

- Discrete Alarm Relays
- High Interrupting Capacity Breakers
- External Temperature Compensation Probe (15ft)
- Communication Protocols DNP3 & Modbus

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Made in USA

## ELECTRICAL

### AC Input

Voltage range:  $\pm 10\%$  from nominal  
Frequency range: 60Hz  $\pm 5\%$

### 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 (A75DE Models):**  
30mv rms with or without a battery

### DC Regulation

$\pm 0.5\%$  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 115% of the rated output current. Factory set at 110%.

### AC Breaker

A 2-pole breaker opens both legs of the AC Service to 208VAC and 240VAC. Breaker opens phase side of 120VAC service. (10KAIC @ 240VAC / 14KAIC @ 480VAC)

### DC Breaker

Standard units are equipped with a 2-pole circuit breaker. (5KAIC @ 125VDC)

## 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)

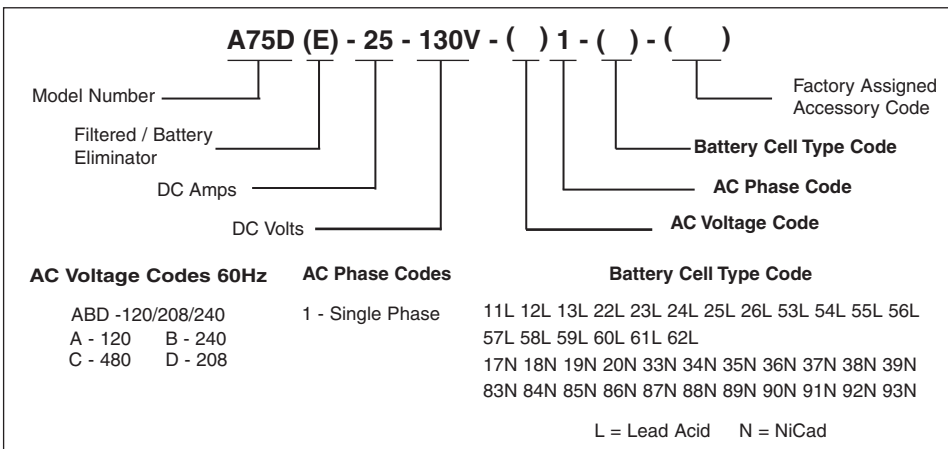
## Battery Charger Sizing Guidelines

- 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

- 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.)
- 11W External Temperature Probe Standard length of 15'
- 21P DNP3 Communications / SCADA
- 21Q Modbus Interface Module
- 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
- 46R Discrete Alarm Relays
  - Positive Ground •Low DC Volts
  - Negative Ground •Low DC Amps
  - High DC Volts •Battery End of Discharge
  - Charger Failure •High Voltage Shutdown

## Model Number Nomenclature



# A75D/A75DE SERIES

## SCR BATTERY CHARGER / ELIMINATOR

### A75D/A75DE 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	A75D(E)-6-24V	6	2.4 / 1.2 / 1.4	---	---	---	.6	4B75	87	40
	A75D(E)-12-24V	12	4.8 / 2.4 / 2.8	---	---	---	1.2	4B75	92	42
	A75D(E)-16-24V	16	7 / 3.5 / 4	---	---	---	2	4B75	98	45
	A75D(E)-20-24V	20	9.6 / 4.8 / 5.6	---	---	---	2.5	4B75	100	46
	A75D(E)-25-24V	25	12.3 / 6.1 / 7	---	---	---	3.1	475	122	55
	A75D(E)-30-24V	30	---	14	7	8	4	475	130	59
	A75D(E)-35-24V	35	---	17.1	8.5	9.8	4.3	475	154	70
	A75D(E)-40-24V	40	---	19.5	9.8	11.2	4.9	475	160	73
	A75D(E)-50-24V	50	---	24.5	12.3	14	6.1	475	175	80
	A75D(E)-60-24V	60	---	28	14	16	7	975	210	95
	A75D(E)-75-24V	75	---	35	17.5	20	8.8	975	215	98
A75D(E)-100-24V	100	---	49.1	24.5	28	12.2	975	225	102	
48 Volt Systems	A75D(E)-6-48V	6	4.8 / 2.4 / 2.8	---	---	---	1.2	4B75	90	41
	A75D(E)-12-48V	12	9.6 / 4.8 / 5.6	---	---	---	2.5	4B75	110	50
	A75D(E)-16-48V	16	14 / 7 / 8	---	---	---	3.5	475	137	62
	A75D(E)-20-48V	20	19.5 / 9.8 / 11.2	---	---	---	4.9	475	142	65
	A75D(E)-25-48V	25	24.5 / 12.3 / 14	---	---	---	6.1	475	150	68
	A75D(E)-30-48V	30	---	28	14	16	7	475	170	77
	A75D(E)-35-48V	35	---	32.6	16.3	18.7	8.2	475	180	82
	A75D(E)-40-48V	40	---	39	19.5	22.5	9.8	475	195	89
	A75D(E)-50-48V	50	---	48.8	24.4	28.2	12.2	975	270	123
	A75D(E)-60-48V	60	---	58.6	29.3	33.9	14.8	975	280	127
	A75D(E)-75-48V	75	---	73.2	36.6	42.3	16.5	975	295	134
A75D(E)-100-48V	100	---	97.6	48.7	56.4	24.4	975	320	145	
130 Volt Systems	A75D(E)-6-130V	6	14 / 7 / 8	---	---	---	3.5	475	140	64
	A75D(E)-12-130V	12	28 / 14 / 16	---	---	---	7	475	175	80
	A75D(E)-16-130V	16	33 / 16.5 / 19	---	---	---	9.6	475	200	91
	A75D(E)-20-130V	20	44 / 22 / 25.3	---	---	---	11	475	225	102
	A75D(E)-25-130V	25	55 / 27.5 / 31.7	---	---	---	13.8	475	250	114
	A75D(E)-30-130V	30	---	66	33	38	16.5	475	270	123
	A75D(E)-35-130V	35	---	77	38.5	44	19.2	475	290	132
	A75D(E)-40-130V	40	---	88	44	50.6	22	975	525	239
	A75D(E)-50-130V	50	---	---	55	63.3	27.5	975	532	242
	A75D(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	1222	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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