



# La MARCHÉ<sup>®</sup>

ISO 9001:2000 CERTIFIED

## A75D/A75DE SERIES SCR BATTERY CHARGER / ELIMINATOR THREE PHASE



Unit Shown: A75DE-50-130V-C3-60L

### 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 25 to 400 Amps. These chargers can be powered with 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.

### Standard Features

- A75D - Unfiltered Battery Charger
- A75DE - Filtered Battery Charger/Power Supply/Battery Eliminator (DC Output filtering 100mv 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 110% (factory set at 105%)
- $\pm 0.5\%$  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 & CUL Pending

### Options

- Discrete Alarm Relays
- High Interrupting Capacity Breakers
- External Temperature Compensation Probe (15ft or 100ft)
- Communication Protocols DNP3 & Modbus
- Additional Accessories are listed on the following page

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Made in USA

**ELECTRICAL**

**AC Input Operating Voltage Range**

Voltage range: +10, -12% from nominal  
 Frequency range: 60Hz ±5% (50Hz Consult Factory)

**Three Phase Model Voltages:**

208, 240, and 480 VAC.

**DC Output:** 25 to 400 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  
 VRLA\* 2.25 vpc Float, 2.27 vpc Equalize

**Output Filtering (A75DE Models):**

100mv 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 Breaker**

Standard units are equipped with a 3-Pole Circuit Breaker (10KAIC @ 208/240VAC & 5KAIC @ 480VAC)

**DC Breaker**

Standard units are equipped with a 2-pole circuit breaker. (7.5KAIC @ 24/48VDC & 5KAIC @ 130VDC)

**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**

**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)

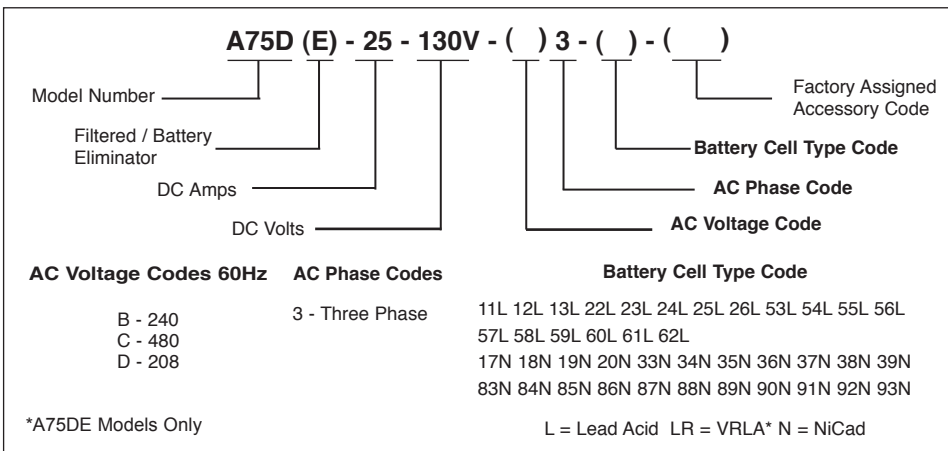
**Battery Charger Sizing Guidelines**

- 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 (Amps) and duration (Amps)

**Options**

- 01F 3-Pole High Interrupting Capacity AC Breaker 65KAIC @ 240VAC / 25KAIC @ 480VAC (Only available for units with current draws above 12 amps.)
- 01G 3-Pole High Interrupting Capacity AC Breaker 100KAIC @ 240VAC / 65KAIC @ 480VAC (Only available for units with current draws above 12 amps.)
- 47C DC Breaker 10KAIC
- 11W External Temperature Probe Standard length of 15ft
- 11Y External Temperature Probe Standard length of 100ft
- 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
  - Negative Ground
  - High DC Volts
  - Charger Failure
  - Low DC Volts
  - Low DC Amps
  - Battery End of Discharge
  - High Voltage Shutdown

**Model Number Nomenclature**



# A75D/A75DE SERIES

## SCR BATTERY CHARGER / ELIMINATOR

### THREE PHASE

### A75D/A75DE Charger Chart

	Model Number	DC Amps	AC Input Current Draw Three Phase @ 100% Load (Amps)			Case Size	Shipping Weight* (Approximate)	
			D	B	C		lbs	kgs
			208	240	480			
24 Volt Systems	A75D(E)-75-24V	75	10.8	9.4	4.7	975	400	181
	A75D(E)-100-24V	100	14.4	12.5	6.2	975	475	215
	A75D(E)-125-24V	125	18.0	15.6	7.8	72	530	240
	A75D(E)-150-24V	150	21.6	18.7	9.4	72	600	272
	A75D(E)-200-24V	200	28.8	25.0	12.5	72	675	306
	A75D(E)-250-24V	250	36.0	31.2	15.6	46	800	363
	A75D(E)-300-24V	300	43.2	37.4	18.7	46	875	398
	A75D(E)-400-24V	400	57.6	49.9	25.0	47	1050	477
48 Volt Systems	A75D(E)-50-48V	50	14.4	12.5	6.2	975	400	181
	A75D(E)-75-48V	75	21.6	18.7	9.4	975	575	261
	A75D(E)-100-48V	100	28.8	25.0	12.5	975	600	272
	A75D(E)-125-48V	125	36.0	31.2	15.6	72	680	308
	A75D(E)-150-48V	150	43.2	37.4	18.7	72	700	318
	A75D(E)-200-48V	200	51.6	49.9	25.0	46	755	342
	A75D(E)-250-48V	250	72.0	62.4	31.2	46	800	363
	A75D(E)-300-48V	300	86.4	74.9	37.4	47	900	408
130 Volt Systems	A75D(E)-400-48V	400	115.2	99.8	49.9	47	1200	544
	A75D(E)-25-130V	25	18.0	15.6	7.8	975	305	138
	A75D(E)-30-130V	30	21.6	18.7	9.4	975	315	143
	A75D(E)-40-130V	40	28.8	25.0	12.5	975	330	150
	A75D(E)-50-130V	50	36.0	31.2	15.6	975	475	216
	A75D(E)-75-130V	75	54.0	46.8	23.4	72	660	299
	A75D(E)-100-130V	100	72.0	62.4	31.2	72	800	363
	A75D(E)-125-130V	125	90.0	78.0	39.0	46	850	385
	A75D(E)-150-130V	150	108.0	93.6	46.8	46	900	408
	A75D(E)-200-130V	200	144.0	124.6	62.4	47	1800	816
	A75D(E)-250-130V	250	180.0	156.0	78.0	47	2000	907
	A75D(E)-300-130V	300	216.0	187.2	93.6	47	2200	998
A75D(E)-400-130V	400	287.9	249.6	124.8	57	2500	1134	

Note: Case size subject to change without notice  
 \* Consult factory for optional export crating weight.

### Case Specifications

Case No	Overall Dimensions						Cable Entry		Standard Mounting
	Width		Depth		Height		AC Input	DC Output	
	in	mm	in	mm	in	mm			
975	23	584.2	15.1	383.54	37.9	962.66	Right Top / Bottom	Left Top / Bottom	Floor
72	27	685.8	23.5	596.9	44.5	1130.3	Bottom Right	Bottom Left	Floor
46	30	762	30	762	72	1828.8	Top/ Bottom	Top/ Bottom	Floor
47	38	965.19	39.375	1000.12	70	1778	Top/ Bottom	Top/ Bottom	Floor
57	60	1524	36	914.4	80	2032	Top/ Bottom	Top/ Bottom	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

P25-DSA75D-2

ECN 18966

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