



## Microprocessor Controlled SCR Battery Charger



Made in U.S.A



The La Marche Model A77 Series Battery Charger is engineered for the demanding requirements of Switchgear, Process Control, Oil Exploration and other stationary DC power applications. The A77 can automate NERC PRC-005 & TPL-001 Compliance.

Powered by Microprocessor Controlled SCR technology, the A77 Series Battery Charger / Battery Eliminator has  $\pm 0.25\%$  DC voltage regulation from no load to full load over the specified input voltage, frequency and ambient temperature ranges.

These chargers are available in DC output voltages of 24, 48, 130, and 260 VDC with DC output currents from 6 amps and above. Consult factory for any special input and output requirements not mentioned above.

The La Marche A77 charger provides value added features such as AC/DC breakers, easy to read LCD display with text readout alarm LED's and form "C" alarm contacts. Communication options are available to remotely monitor and control the charger using DNP3, Modbus, IEC 61850 and SNMP protocols. The SNMP option features easier and faster charger setup and configuration using a web browser.

Designed to meet IEEE-2405 & NEMA PE5, and listed to UL 1012.

### Standard Features

Microprocessor Controlled SCR Technology

A77D - Level-1 Filter \*

A77DE - Level-2 Filter \*\*

Automatic AC Voltage Compensation

AC & DC Surge Protection (MOV)

AC & DC Breaker

Float / Equalize Mode Switch

Digital Float and Equalize Adjustments

Digital Current Limit Adjustment 50 to 110%

$\pm 0.25\%$  DC Voltage Regulation

Battery Continuity Test

Load Sharing

Remote Equalize

LCD Display

✓ DC Voltage and Current

✓ Alarms

Available for Lithium-Ion Battery configurations

LED Indicators

✓ Float / Equalize

✓ AC ON

✓ Charger Failure

✓ Overload / Current Limit

✓ End of Discharge

✓ High DC Voltage Shutdown

✓ Positive & Negative Ground Detection

Remote Annunciation Form "C" Contacts

✓ AC Failure

✓ AC Failure

✓ Summary Alarm

✓ Low DC Current

✓ Low DC Voltage

✓ High DC Voltage

(See Optional Accessories For Additional Alarm Contacts)

Alarms Latching / Non-Latching

Equalize Timer - adjustable from 1-255 hours with five selectable modes of operation (manual, automatic every 7, 14 or 30 days and equalize after sensing a low DC voltage)

Advanced Data Logging (Micro SD)

UL 1012, CUL, CE, IBC & ABS

NERC PRC-005 & TPL-001 Compliant

5 Year Warranty

\* Level-1 Filter Equivalent to NEMA PE5 Filtered Output

\*\* Level-2 Filter Equivalent to NEMA PE5 Battery Eliminator Filter



# Specifications

## ELECTRICAL

- **AC Input Operating Range Voltage**  
Voltage range: +10, -12% from nominal  
Frequency range: 60 Hz  $\pm$ 5%  
(50Hz Consult Factory)
- **Single Phase Voltages:**  
120, 208, 240, 480 or 600 VAC  
(Tap selectable 120/208/240 on units up to 25 amp output. All other units must specify single input voltage).  
Consult factory for other voltages.
- **Three Phase Voltages:**  
208, 240, 480 or 600 VAC  
Consult factory for other voltages.
- **DC Output**  
24, 48, 125/130, 250/260VDC  
6 to 500 amps
- **Efficiency\***  
Single Phase > 85%  
Three Phase > 90%  
\* Based on 125/130VDC output units

### • Output Filtering (with or without batteries):

	24V	48V	125/130V	250/260V
A77D Level-1 Filter (w/o battery)	240mV (1%)	480mV (1%)	2.6V (2%)	5.2V (2%)
A77D Level-1 Filter (w/battery)	30mV	30mV	100mV*	200mV*
A77DE Level-2 Filter (w/o battery)	30mV	30mV	100mV**	200mV

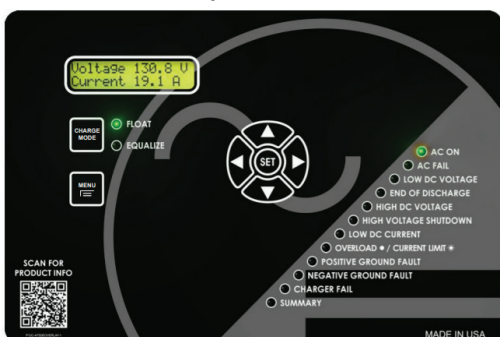
\* Battery AH = 4x the charger's ampacity  
\*\* 30mV filtering available as an option

- **DC Voltage Regulation Steady State**  
 $\pm$  0.25% of setting from no load to full load over the specified input voltage, frequency and ambient temperature ranges.
- **DC Output Voltage Range**

	Volt		Cells	
	Float	Equalize	Lead Acid	Ni-Cad
24V	23.8-29.5	24-31	11-13L	17-20N
48V	46-57	48-59	22-26L	33-39N
125/130V	115-140	123-147	53-62L	83-93N
250/260V	230-280	246-294	106-124L	166-186N

Consult Factory for other ratings.  
Note: Typical cell ranges are based on the following:  
Lead Acid 2.17 vpc Float, 2.33 vpc Equalize  
NiCad 1.40 vpc Float, 1.55 vpc Equalize  
VRLA 2.25 vpc Float, 2.27 vpc Equalize

## Front Display Panel



- **Data Logging**  
A77 Battery Charger is equipped with data logging capability on an internal Micro-SD Card. It logs and stores data of Event-Driven and Time-Interval-Driven Events. The charger's data-log file does not need proprietary software to examine the data; it could be viewed and easily formatted with many popular spreadsheet programs.
- **Dynamic Response (On Battery)**  
Voltage transient <  $\pm$ 5% over a step change in the load from 20% to 100%  
Recovery Time < 200 ms
- **Audible Noise**  
Less than 65dBA at any point 5 feet from any vertical surface of the unit.

- **Load Sharing**  
Identical La Marche A77 units, when connected in parallel, are capable of sharing the DC load within  $\pm$ 5% for individual unit outputs greater than 5% of the rated output.

## REMOTE MONITORING

- Form "C" Alarm Contacts
- With optional Communications Card:
  - Connect to SCADA System
  - Web Monitoring
  - Alarm / Notification E-mails

## 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 a digitally adjustable limit from 50 to 110% of the rated output current of the charger, Factory set at 110%.
- **AC Breaker**  
Single Phase units are equipped with a 2-pole circuit breaker.  
Three Phase units are equipped with a 3-pole circuit breaker.
- **DC Breaker**  
Standard units are equipped with a 2-pole circuit breaker.

## 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

- **NEMA Type 1**  
Consult factory for other enclosure ratings.
- **Dimensions**  
Overall dimensions and weight are listed on the last page. When space requirements are critical, please consult the factory. Case specifications are subject to change.
- **Mounting**  
Floor, wall or rack mounting is available; see enclosure specifications on page 4 for details.
- **Finish**  
Pretreated with a seven stage iron phosphate wash, sealer and deionized rinse. Then coated with an environmentally safe and durable ANSI 61 gray Polyester TGIC Minite powder finish.

## STANDARDS

- ABS
- IBC\*
- CE
- UL/CUL 1012
- EN 55011
- NEMA PE5
- FCC Part 15
- IEEE/ANSI C37. 90.1
- IEC 60255-22-3
- IEC 60950-1
- IEC 61000-4
- IEC 61000-6-4
- IEC 61000-6-2
- IEEE-2405

\* Requires an option code

## Optional Accessories

- **01C** 2 - Pole High Interrupting Capacity AC Breaker †  
65KAIC @ 240 VAC / 35KAIC @ 480 VAC
- **01D** 2 - Pole High Interrupting Capacity AC Breaker †  
100KAIC @ 240 VAC / 65KAIC @ 480 VAC / 25KAIC @ 600 VAC
- **01F** 3 - Pole High Interrupting Capacity AC Breaker †  
65KAIC @ 240 VAC / 35KAIC @ 480 VAC
- **01G** 3 - Pole High Interrupting Capacity AC Breaker †  
100KAIC @ 240 VAC / 65KAIC @ 480 VAC / 25KAIC @ 600 VAC  
† Only available for Breakers Rated 15A & Larger.
- **19T** AC Breaker Trip on HVSD
- **19U** Adjustable Ground Detection Sensitivity
- **19V** AC Voltage & Current Metering (1%)
- **11F** Special 30mV Filtering
- **20Q** Equalize Fan Control Relay
- **434** Reverse Polarity Protection
- **38D** Copper Ground Bus Bar
- **11L** Lightning Arrestor
- **11W** External Probe 24Ft (Adj Temp Comp.)
- **11Y** External Probe 100Ft (Adj Temp Comp.)
- **102** Blocking Diode
- **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
- **17B** 12 Pulse Rectification, 5% THD
- **57D** Hydrogen Det. HUB, Alarm Interface & Sensor
- **57H** Hydrogen Det. HUB, Alarm Interface
- **10Z** Electrolyte Level HUB, Alarm Interface & Sensor
- **538** IBC Certification Label (consult factory for Anchor Kits)
- **182** Ventilation Fan Interlock
- **56E** Compliance to IEC 62477-1:2012 and IEC 61204-7:2016
- **219** Equipment Over Temperature Alarm

## Communication Protocols

- **21J** IEC 61850 Ethernet
- **21P** DNP 3.0 Communications RS232/RS485/Ethernet
- **21Q** Modbus Communications RS232/RS485/Ethernet
- **21S** Modbus RTU RS232/RS485
- **21X** SNMP & Web Browser (Ethernet)

\* Case size subject to change, consult factory.

# A77 Charger Chart

	Model Number	DC Amps	DC Protection DC Breaker/ Rating	Single Phase AC Input Current Draw Amps @ 100% Load (Recommended Feeder AC Supply Breaker)									Enclosure	Shipping Weight** (Approximate)	
				(ABD)120/240/208	(A)120	(D)208	(B)240	Rating	(C)480	Rating	(ZD)600	Rating		lbs	kgs
24 Volt Systems	A77D(E)-12-24V	12	20/10 KAIC	6 / 3 / 3 (10/5/5)	6 (10)	3 (5)	3 (5)	10 KAIC	---	---	---	---	10	92	42
	A77D(E)-16-24V	16	25/10 KAIC	8 / 4 / 5 (15/10/10)	8 (15)	5 (10)	4 (10)	10 KAIC	---	---	---	---	10	98	45
	A77D(E)-20-24V	20	30/10 KAIC	10 / 5 / 6 (15/10/10)	10 (15)	6 (10)	5 (10)	10 KAIC	---	---	---	---	10	100	46
	A77D(E)-25-24V	25	40/10 KAIC	12 / 6 / 7 (20/10/10)	12 (20)	7 (10)	6 (10)	10 KAIC	---	---	---	---	10	104	48
	A77D(E)-30-24V	30	40/10 KAIC	---	15 (20)	8 (15)	7 (15)	25 KAIC	---	---	---	---	477	147	67
	A77D(E)-35-24V	35	50/10 KAIC	---	17 (25)	10 (15)	9 (15)	25 KAIC	---	---	---	---	477	150	69
	A77D(E)-40-24V	40	60/10 KAIC	---	20 (30)	11 (20)	10 (15)	25 KAIC	---	---	---	---	477	174	79
	A77D(E)-50-24V	50	70/10 KAIC	---	24 (40)	14 (20)	12 (20)	25 KAIC	6 (15)	25 KAIC	---	---	477	185	84
	A77D(E)-60-24V	60	80/10 KAIC	---	29 (40)	17 (25)	15 (20)	25 KAIC	7 (15)	25 KAIC	6 (15)	18 KAIC	477	208	95
	A77D(E)-75-24V	75	100/10 KAIC	---	37 (50)	21 (30)	18 (30)	25 KAIC	9 (15)	25 KAIC	7 (15)	18 KAIC	977	350	159
A77D(E)-100-24V	100	150/25 KAIC	---	49 (70)	28 (40)	24 (40)*	25 KAIC	12 (20)	25 KAIC	10 (15)	18 KAIC	72N	385	175	
48 Volt Systems	A77D(E)-6-48V	6	15/10 KAIC	6 / 3 / 3 (10/5/5)	6 (10)	3 (5)	3 (5)	10 KAIC	---	---	---	---	10	84	38
	A77D(E)-12-48V	12	20/10 KAIC	12 / 6 / 7 (20/10/10)	12 (20)	7 (10)	6 (10)	10 KAIC	---	---	---	---	10	108	49
	A77D(E)-16-48V	16	25/10 KAIC	16 / 8 / 9 (25/15/15)	16 (25)	9 (15)	8 (15)	25 KAIC	---	---	---	---	477	146	66
	A77D(E)-20-48V	20	30/10 KAIC	20 / 10 / 11 (30/15/20)	20 (30)	11 (20)	10 (15)	25 KAIC	---	---	---	---	477	158	72
	A77D(E)-25-48V	25	40/10 KAIC	24 / 12 / 14 (35/20/25)	24 (35)	14 (25)	12 (20)	25 KAIC	6 (15)	25 KAIC	---	---	477	170	73
	A77D(E)-30-48V	30	40/10 KAIC	---	29 (40)	17 (25)	15 (20)	25 KAIC	7 (15)	25 KAIC	6 (15)	18 KAIC	477	190	86
	A77D(E)-35-48V	35	50/10 KAIC	---	34 (50)	20 (30)	17 (25)	25 KAIC	9 (15)	25 KAIC	7 (15)	18 KAIC	477	196	89
	A77D(E)-40-48V	40	60/10 KAIC	---	39 (60)	23 (40)*	20 (30)	25 KAIC	10 (15)	25 KAIC	8 (15)	18 KAIC	477	240	109
	A77D(E)-50-48V	50	70/10 KAIC	---	49 (70)	28 (40)	24 (40)*	25 KAIC	12 (20)	25 KAIC	10 (15)	18 KAIC	477	260	118
	A77D(E)-60-48V	60	80/10 KAIC	---	---	34 (50)	29 (40)	25 KAIC	15 (20)	25 KAIC	12 (20)	18 KAIC	977	300	137
A77D(E)-75-48V	75	100/10 KAIC	---	---	42 (60)	37 (50)	25 KAIC	18 (25)	25 KAIC	15 (20)	18 KAIC	977	350	159	
A77D(E)-100-48V	100	150/25 KAIC	---	---	56 (90)	49 (70)	25 KAIC	24 (40)*	25 KAIC	20 (30)	18 KAIC	72N	460	209	
125/ 130 Volt Systems	A77D(E)-6-130V	6	15/10 KAIC	15 / 7 / 8 (25/10/15)	15 (25)	8 (15)	7 (10)	25 KAIC	---	---	---	---	477	147	67
	A77D(E)-12-130V	12	20/10 KAIC	29 / 15 / 17 (40/25/25)	29 (40)	17 (25)	15 (25)	25 KAIC	7 (15)	25 KAIC	6 (15)	18 KAIC	477	185	84
	A77D(E)-16-130V	16	25/10 KAIC	39 / 20 / 23 (60/30/40*)	39 (60)	23 (40)*	20 (30)	25 KAIC	10 (15)	25 KAIC	8 (15)	18 KAIC	477	212	96
	A77D(E)-20-130V	20	30/10 KAIC	49 / 24 / 28 (70/35/40)	49 (70)	28 (40)*	24 (40)*	25 KAIC	12 (20)	25 KAIC	10 (15)	18 KAIC	477	235	107
	A77D(E)-25-130V	25	40/10 KAIC	61 / 31 / 35 (90/50/50)	61 (90)	35 (50)	31 (50)	25 KAIC	15 (20)	25 KAIC	12 (20)	18 KAIC	477	255	116
	A77D(E)-30-130V	30	40/10 KAIC	---	---	42 (60)	37 (50)	25 KAIC	18 (25)	25 KAIC	15 (20)	18 KAIC	477	300	137
	A77D(E)-35-130V	35	50/10 KAIC	---	---	49 (70)	43 (60)	25 KAIC	21 (30)	25 KAIC	17 (25)	18 KAIC	977	375	171
	A77D(E)-40-130V	40	60/10 KAIC	---	---	56 (80)	49 (70)	25 KAIC	24 (40)*	25 KAIC	20 (30)	18 KAIC	977	422	192
	A77D(E)-50-130V	50	70/10 KAIC	---	---	70 (100)	61 (90)	25 KAIC	31 (50)	25 KAIC	24 (40)*	18 KAIC	977	480	218
	A77D(E)-75-130V	75	100/10 KAIC	---	---	---	92 (125)	25 KAIC	46 (70)	25 KAIC	37 (50)	18 KAIC	72N	735	334

	Model Number	DC Amps	DC Protection DC Breaker/ Rating	Three Phase AC Input Current Draw Amps @ 100% Load (Recommended Feeder AC Supply Breaker)							Enclosure	Shipping Weight** (Approximate)	
				(D) 208	(B) 240	Rating	(C) 480	Rating	(ZD) 600	Rating		lbs	kgs
24 Volt Systems	A77D(E)-75-24V	75	100/10 KAIC	11 (15)	9 (15)	25 KAIC	---	---	---	---	977	330	150
	A77D(E)-100-24V	100	150/25 KAIC	14 (20)	12 (20)	25 KAIC	6 (15)	25 KAIC	---	---	72N	475	215
	A77D(E)-125-24V	125	175/25 KAIC	18 (25)	16 (25)	25 KAIC	8 (15)	25 KAIC	6 (15)	18 KAIC	72N	530	240
	A77D(E)-150-24V	150	225/25 KAIC	22 (30)	19 (30)	25 KAIC	9 (15)	25 KAIC	7 (15)	18 KAIC	72N	600	272
	A77D(E)-200-24V	200	300/25 KAIC	29 (40)	25 (40)*	25 KAIC	12 (20)	25 KAIC	10 (15)	18 KAIC	72N	675	306
	A77D(E)-250-24V	250	375/25 KAIC	36 (50)	31 (50)	25 KAIC	16 (25)	25 KAIC	12 (20)	18 KAIC	46N	800	363
	A77D(E)-300-24V	300	400/25 KAIC	43 (60)	37 (60)	25 KAIC	19 (30)	25 KAIC	15 (25)	18 KAIC	46N	875	398
48 Volt Systems	A77D(E)-400-24V	400	600/35 KAIC	58 (80)	50 (70)	25 KAIC	25 (40)*	25 KAIC	20 (30)	18 KAIC	47N	1050	477
	A77D(E)-50-48V	50	70/10 KAIC	14 (20)	12 (20)	25 KAIC	6 (15)	25 KAIC	---	---	977	317	144
	A77D(E)-75-48V	75	100/10 KAIC	22 (30)	19 (30)	25 KAIC	9 (15)	25 KAIC	7 (15)	18 KAIC	977	374	170
	A77D(E)-100-48V	100	150/25 KAIC	29 (40)	25 (40)*	25 KAIC	12 (20)	25 KAIC	10 (15)	18 KAIC	72N	600	272
	A77D(E)-125-48V	125	175/25 KAIC	36 (50)	31 (50)	25 KAIC	16 (25)	25 KAIC	12 (20)	18 KAIC	72N	680	308
	A77D(E)-150-48V	150	225/25 KAIC	43 (60)	37 (60)	25 KAIC	19 (30)	25 KAIC	15 (25)	18 KAIC	72N	700	318
	A77D(E)-200-48V	200	300/25 KAIC	58 (80)	50 (70)	25 KAIC	25 (40)*	25 KAIC	20 (30)	18 KAIC	46N	755	342
125/ 130 Volt Systems	A77D(E)-250-48V	250	375/25 KAIC	72 (100)	62 (90)	25 KAIC	31 (50)	25 KAIC	25 (40)*	18 KAIC	46N	800	363
	A77D(E)-300-48V	300	400/25 KAIC	86 (125)	75 (100)	25 KAIC	37 (60)	25 KAIC	30 (50)	18 KAIC	47N	900	408
	A77D(E)-400-48V	400	600/35 KAIC	115 (175)	100 (150)	25 KAIC	50 (70)	25 KAIC	40 (60)	18 KAIC	47N	1200	544
	A77D(E)-25-130V	25	40/10 KAIC	18 (30)	16 (25)	25 KAIC	8 (15)	25 KAIC	6 (15)	18 KAIC	977	305	138
	A77D(E)-30-130V	30	40/10 KAIC	22 (30)	19 (30)	25 KAIC	9 (15)	25 KAIC	7 (15)	18 KAIC	977	315	143
	A77D(E)-35-130V	35	50/10 KAIC	25 (40)*	22 (30)	25 KAIC	11 (15)	25 KAIC	9 (15)	18 KAIC	977	330	150
	A77D(E)-40-130V	40	60/10 KAIC	29 (40)	25 (40)*	25 KAIC	12 (20)	25 KAIC	10 (15)	18 KAIC	977	335	161
	A77D(E)-50-130V	50	70/10 KAIC	36 (50)	31 (50)	25 KAIC	16 (25)	25 KAIC	12 (20)	18 KAIC	977	410	186
	A77D(E)-75-130V	75	100/10 KAIC	54 (80)	47 (70)	25 KAIC	23 (40)*	25 KAIC	19 (30)	18 KAIC	72N	660	299
	A77D(E)-100-130V	100	150/25 KAIC	72 (100)	62 (90)	25 KAIC	31 (50)	25 KAIC	25 (40)*	18 KAIC	72N	750	340
125/ 130 Volt Systems	A77D(E)-125-130V	125	175/25 KAIC	90 (125)	78 (125)	25 KAIC	39 (60)	25 KAIC	31 (50)	18 KAIC	46N	850	385
	A77D(E)-150-130V	150	225/25 KAIC	108 (150)	94 (125)	25 KAIC	47 (70)	25 KAIC	37 (60)	18 KAIC	46N	1067	484
	A77D(E)-200-130V	200	300/25 KAIC	144 (200)	125 (175)	25 KAIC	62 (90)	25 KAIC	50 (70)	18 KAIC	46N	1800	816
	A77D(E)-250-130V	250	375/25 KAIC	180 (250)	156 (225)	25 KAIC	78 (125)	25 KAIC	62 (90)	18 KAIC	47N	2000	907
	A77D(E)-300-130V	300	400/25 KAIC	216 (300)	187 (300)	65 KAIC	94 (150)	25 KAIC	75 (100)	18 KAIC	47N	2028	920
	A77D(E)-400-130V	400	600/35 KAIC	288 (400)	250 (350)	65 KAIC	125 (175)	25 KAIC	100 (150)	18 KAIC	57N	2500	1134
	A77D(E)-500-130V†	500	700/35 KAIC	---	---	65 KAIC	156 (225)	25 KAIC	125 (175)	18 KAIC	57N	3645	1653

Note: Case size subject to change without notice  
 \* May also use 35A feeder breaker  
 \*\*Consult Factory for optional export crating weight

# A77 Charger Chart

250/260 Volt Systems	Model Number	DC Amps	DC Protection DC Breaker/ Rating	Three Phase AC Input Current Draw Amps @ 100% Load (Recommended Feeder AC Supply Breaker)						Enclosure	Shipping Weight** (Approximate)		
				(D)208	(B)240	Rating	(C)480	Rating	(ZD)600		Rating	lbs	kgs
				A77D(E)-25-260V†	25	40/25 KAIC	36 (50)	31 (50)	25 KAIC		16 (25)	25 KAIC	13 (20)
A77D(E)-50-260V†	50	70/25 KAIC	72 (100)	62 (90)	25 KAIC	31 (50)	25 KAIC	26 (40)	18 KAIC	72N	700	317	
A77D(E)-75-260V†	75	100/25 KAIC	108 (150)	94 (125)	25 KAIC	47 (70)	25 KAIC	39 (60)	18 KAIC	46N	900	408	
A77D(E)-100-260V†	100	150/25 KAIC	144 (200)	125 (175)	25 KAIC	62 (90)	25 KAIC	50 (70)	18 KAIC	47N	1800	816	
A77D(E)-150-260V†	150	225/25 KAIC	---	187 (250)	25 KAIC	94 (150)	25 KAIC	75 (100)	18 KAIC	47N	2200	998	
A77D(E)-200-260V†	200	300/25 KAIC	---	---	25 KAIC	125 (175)	25 KAIC	100 (150)	18 KAIC	57N	3000	1360	

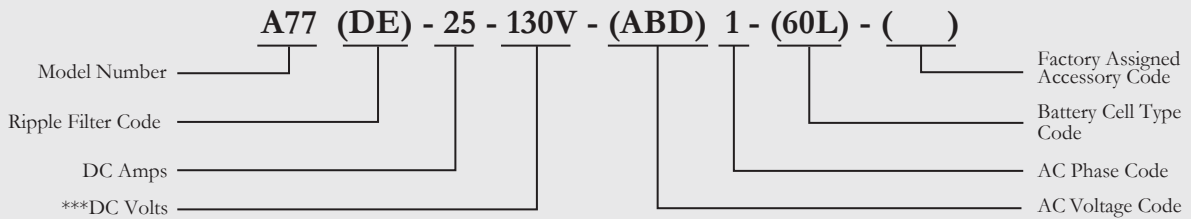
Note: Case size subject to change without notice  
 \*\*Consult Factory for optional export crating weight  
 † UL Pending

## Enclosure Specifications

Enclosure	Overall Dimensions						Cable Entry		Standard Mounting	Optional Mounting Kits	
	Width		Depth		Height		AC Input	DC Input		Rack	Floor
	in	mm	in	mm	in	mm					
10	19	483	15.1	384	12.2	310	RIGHT TOP / BOTTOM	LEFT TOP / BOTTOM	WALL	19" / 23"	✓
477	19	483	15.6	396	23.6*	602*	RIGHT TOP / BOTTOM	LEFT TOP / BOTTOM	WALL/FLOOR	19" / 23"	STD
977	20.5	521	15.8	403	37.8	962	RIGHT TOP / BOTTOM	LEFT TOP / BOTTOM	FLOOR	23"	STD
72N	27	686	24.4	621	43.6	1109	RIGHT TOP / BOTTOM	LEFT TOP / BOTTOM	FLOOR	---	---
46N	30	762	20	508	66	1676	RIGHT TOP / BOTTOM	LEFT TOP / BOTTOM	FLOOR	---	---
47N	35.4	899	33.4	848	67.5	1715	RIGHT TOP / BOTTOM	LEFT TOP / BOTTOM	FLOOR	---	---
57N	60	1524	30	763	77	1962	RIGHT TOP / BOTTOM	LEFT TOP / BOTTOM	FLOOR	---	---

\*Floor mounting brackets add 2" (51mm) to overall height. Case sizes may differ depending on optional accessories.  
 Consult factory when dimensions are critical. Detailed dimensional drawings are available for mounting purposes.

## Model Number Nomenclature



Configuration as Shown: Level-2 Filtered Charger with 25ADC/130VDC Output, for 60 Lead Acid Cells, with a 120/240/208VAC Single-Phase Input.

### AC Voltage Codes

ABD - 120/240/208  
 A - 120  
 D - 208  
 L - 220  
 Q - 230  
 BL - 240/220  
 B - 240

### DC Voltage Codes

G - 380  
 ZA - 400  
 J - 415  
 K - 440  
 C - 480  
 ZD - 600  
 \*\*\* For 125VDC or 130VDC Nominal; Use 130V in the Part Number  
 \*\*\* For 250VDC or 260VDC Nominal; Use 260V in the Part Number

### AC Phase Codes

1 - Single Phase  
 3 - Three Phase

### Ripple Filter Codes

D = Level-1\*  
 DE = Level-2\*\*

### Battery Cell Type Code

11L 12L 13L 22L 23L 24L 25L 26L 53L  
 54L 55L 56L 57L 58L 59L 60L 61L 62L  
 110L 115L 116L 120L  
 17N 18N 19N 20N 33N 34N 35N 36N  
 37N 38N 39N 83N 84N 85N 86N 87N  
 88N 89N 90N 91N 92N 93N  
 L = Lead Acid  
 N = Nickel Cadmium  
 LR = VRLA  
 LON = Lithium Ion  
 SOD = Sodium

### Ordering Information

#### When ordering, please specify:

- La Marche Model Number A77D/A77DE
- 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 and Intermittent DC Loads and Duration (Amps)