



La MARCHÉ[®]

ISO 9001 CERTIFIED

A12B

BATTERY CHARGER / POWER SUPPLY



Unit shown with optional accessories

THE INDUSTRY'S MOST RELIABLE FILTERED BATTERY CHARGER/ POWER SUPPLY

The La Marche model A12B Series Filtered Battery Chargers Power Supplies are engineered for the demanding requirements of Switch Gear applications, Process Controls and Communications.

The La Marche A12B is synonymous with quality, performance and outstanding reliability amongst Electric Utility, Offshore Platform along with Industrial users and has withstood the test of time. With its inherent robust design and unmatched reliability, the La Marche A12B is a stellar performer. When you need a worry free operation, rely on the La Marche A12B to give you that peace of mind. Its reliability is unmatched with an MTBF (Mean Time Between Failure) in excess of 225,000 hours. It is not surprising that power plant engineers have made this workhorse the standard in the industry throughout the years. We are so confident in the reliability and performance of our A12B Series that we back it up with an unparalleled and industry leading 10-year warranty.

All units incorporate *magnetic amplifier circuitry* coupled with *silicon diode rectifiers* which require virtually no aging adjustments. Designed to carry continuous and intermittent loads up to the maximum rated output. These fully automatic chargers feature output filtering to 30mV RMS for single phase units

Standard Features

- Magnetic Amplifier Circuitry provides increased longevity and worry-free operation
- Automatic AC Voltage Compensation
- AC Power Failure Relay with Form "C" Contacts
- Fused AC input and DC output protects Battery and Charger/Power Supply
- Separate Float and Equalize Potentiometers provide simple and precise DC Voltage calibration.
- Float/Equalize Mode Switching
- Float & Equalize Lights
- Filtered DC Output (clean power)—the A12B can be used as a Power Supply with 30mV RMS or less on single phase units and 100mV RMS or less on three phase units.
- Current Limiting Circuitry prevents overload and provides current control from 50 to 120% of rated output (factory set at 115%).
- +/- 0.5% DC Voltage Regulation
- 2% Accuracy Analog DC Ammeter & DC Voltmeter (Digital meter is optional)
- Industry's unparalleled 10-year Warranty

and 100mV RMS for three phase units with or without a battery. Each unit is manufactured to charge a specific battery type and number of cells.

The A12B's ability to float or equalize a battery permits periodic equalize charging to increase battery life. It is an effective method for charging batteries used in standby services. Each charger has output voltage controls for adjusting the float and equalize range from 2.12 to 2.4 volts per cell on lead-acid batteries. The A12B's low output ripple makes it an ideal choice for today's Valve-Regulated batteries. The A12B comes equipped with an *AC Power Failure* relay and terminals for connection to a remote alarm system.

With the optional *Digital C.A.P. Systems (Combined Accessory Package)* or *L.C.D C.A.P. System*, you can incorporate the most popular features at time of order thus reducing the cost per feature and accelerating the manufacturing process, assuring prompt delivery of your charger. With its customizing features, there is virtually no application that the A12B cannot meet to your specific needs.

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SPECIFICATIONS

ELECTRICAL

AC Input Voltages

Single Phase 60Hz: 120,208,240,480 or 575
 Single Phase 50Hz: 220/240,380 or 415
 Three Phase 60Hz: 208,240,480 or 575
 Three Phase 50Hz: 220/240,380 or 415

Power Protection

AC Fuse, DC Fuse and
 Current Limit Protection

DC Output Voltages

DC Amps: 3 to 400 amperes
 DC Volts: 12, 24, 48 & 130VDC (Others
 available such as 32 & 36VDC)

Output Filtering (With or without a battery)

30mV RMS for single phase models and
 100mV RMS for three phase models

DC Voltage Regulation

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

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)

ENCLOSURES

Dimensions

Overall dimensions and weights are listed on the
 last page of this Data Sheet. Case specifications
 are subject to change due to innovative product
 development and design. When space require-
 ments are critical, please consult the factory.

Mounting

Floor or wall units are available. Mounting
 flanges are supplied as integral part of cabinet
 back plate on wall mounted models.

Finish

Pretreated with three step iron phosphate wash
 and de-ionized rinse. Finished with environmen-
 tally safe water based ANSI 61 gray baked
 enamel.

AGENCY APPROVALS

U.L. Industrial Battery Charger

File E 25701, Guide BBHZ
 Std.No.1564

U.L. Fire Alarm System Power Supply

File S2768, Guide UTRZ

Std.No. 1481

Must Specify Accessory Code 09A

CSA Rectifiers

File LR14209, Std. C22.2 No. 107

Notes:

All models where appropriate will
 carry the Battery Charger U.L. and
 CSA listings. When U.L. Fire Alarm
 System Power Supply Listings are
 required, you must specify this
 requirement at the time of order. Not
 all models can be U.L. or CSA
 approved. Accessories, type of
 charger and rating will determine
 U.L. and CSA approval. Consult our
 factory if U.L. or CSA approvals are
 required.

OPTIONAL ACCESSORIES

ALARM & CONTROL

16 Series (Refer to Digital C.A.P. Systems Data Sheet for complete details)

Digital C.A.P. (Combined Accessory Package) Systems
 featuring a Selectable LED Display, a Multi-Mode Equalize Timer
 with Light adjustable from 1-144 hrs with five selectable modes and
 various failure alarms and lights.

46 Series (Refer to LCD C.A.P. Systems Data Sheet for complete details)

LCD C.A.P. Systems common features : Selectable Display, Multi-Mode
 Equalize Timer, Equalize light, Float light, AC Power Failure Relay w/ (2)
 sets Form "C" (except 46Q), Low DC Current Alarm w/ (2) sets Form "C",
 Low DC Voltage 1 Alarm w/ (2) sets Form "C" & Adjustable Time Delay (0-
 255 sec) (Except Ground Detection Alarms).

03N Low DC Current Alarm & Light w/ (1) set Form "C" contacts

04J Electronic Equalize Timer Multi-Mode adjustable from 2-144hrs with
 five selectable modes; Standard, 7-day, 14-day, 30-day and Equalize
 after Low DC Voltage.

050 Ground Detection Switch 3-position with DC Voltmeter indication
 (130VDC models utilizes two switches)

051 Ground Detection Alarm with Reset Pushbutton and (1) set form "C"
 Positive and (1) set form "C" Negative contacts

052 Ground Detection Lights (Positive and Negative)

053 Ground Detection Switch & Lights 3-position with DC Voltmeter
 indication (130VDC models utilizes two switches)

054 AC Power Failure Light

060 AC Pilot Light Neon Bulb (LED included with Digital C.A.P. Systems)

068 Sonalert with Silence Switch Audible Alarm

16C Hi/Lo-2 Combination Alarm High/Low DC Voltage, Field Calibrations
 & Adjustments, Individual Lights and (2) Form "C" contacts for each
 alarm

10G Forced Load Sharing (with same model number only)

103 Remote Sensing

162 Summary Alarm (for use with discrete components only)

METERING & PROTECTION

011 AC Breaker Single Pole (120VAC only)

012 DC Breaker Single Pole

016 AC Breaker Two Pole

017 DC Breaker Two Pole

01B AC Breaker Three Pole (3-phase input only)

--- AC Breakers High Interrupting. Contact Factory for appropriate code.

06G Zero Center Ammeter w/ Battery & Load Terminals
 (under 250A units)

*ONLY Available On Case No. 3, 6, 7, 70, & 72.

Notes: Discrete Alarms are not available in conjunction with Digital C.A.P. (Combined Accessory Package) systems. Typically, when ordering two or more discrete components, the Digital C.A.P. system listed above provides a more economical approach. Case sizes may differ depending on optional accessories and/or 50Hz input. Please consult factory when dimensions are critical.

METERING & PROTECTION CONTINUED

06L AC Ammeter +/- 2% accuracy (single phase only)

06M AC Voltmeter +/- 2% accuracy (single phase only)

102 DC Blocking Diode

104 AC Dual Fusing

105 DC Dual Fusing

107 DC Surge Protectors (MOV's)

140 AC Switch Single Pole (60A Maximum)

141 AC Switch Two Pole (60A Maximum)

143 AC Switch Three Pole (60A Maximum)

MISCELLANEOUS

09A U.L. 1481 Listing

092 Tropicalization (magnetics only) Single phase

093 Tropicalization (magnetics only) Three phase

10B USCG (U.S. Coast Guard) Accessories*

10L Battery & Load Terminals without meter
 (under 250A units)

11F 30mV Filtering for 3-phase units

38G ABS (American Bureau of Shipping) Modifications*

--- Floor Stand (must order separately)

--- Drip Shield (must order separately)*

38J ABS (38G) & USGC (10B) Single phase*

38K ABS (38G) & USGC (10B) Three phase*

11V Temperature Compensation (Internal Probe)

11W 15 Foot External Temperature Probe

100 2 Battery Charge Divider - Negative Ground

10U 2 Battery Charge Divider - Positive Ground

101 3 Battery Charge Divider - Negative Ground

10V 3 Battery Charge Divider - Positive Ground

095 Point to Point Wiring Diagram with Wire Makers

096 Wire Markers - Includes Wire Marker Numbers on
 Electrical Schematic

09L Physical Parts Location Drawing

097 SIS Wire (#16 AWG and larger)

09W Heat Shrinkable Wire Markers

21P DNP3.0 (Offered only with 46 series CAP)

21Q Modbus (Offered only with 46 series CAP)

PERFORMANCE AND RELIABILITY

Must specify one only battery type and number of cells from range shown above. Please consult factory for other available cell ranges if desired range not shown.

	Model Number	DC Amps	DC Fuse Size (Amps) ⁽¹⁾	AC Input Phase	AC Input Current Draw @ 100% Load ⁽²⁾ (Amps)									Std. Case Size ⁽⁵⁾	Shipping Weight (Approximate)	
					60Hz Units					50Hz Units ^(3,4)					lbs	kgs
					A 120	D 208	L 220	B 240	C 480	E 575	B L 240 / 220	G 380	J 415			
12 volt systems (6L, 9 or 10NC)	A12B-3-12V	3	10	1	0.8	0.4	0.4	0.4	---	---	0.4 / 0.4	---	---	7	60	27.2
	A12B-6-12V	6	15	1	1.5	0.9	0.8	0.8	---	---	0.8 / 0.8	---	---	7	70	31.8
	A12B-10-12V	10	20	1	2.5	1.4	1.4	1.3	---	---	1.3 / 1.4	---	---	7	80	36.3
	A12B-15-12V	15	25	1	3.8	2.2	2.1	1.9	---	---	1.9 / 2.1	---	---	3	90	40.8
	A12B-20-12V	20	30	1	5	2.9	2.7	2.5	---	---	2.5 / 2.7	---	---	3	95	43.1
	A12B-30-12V	30	40	1	7.5	4.3	4.1	3.8	1.9*	1.6*	3.8 / 4.1	2.4*	2.2*	3	105	47.6
	A12B-40-12V	40	60	1	10	5.8	5.5	5	2.5*	2.1*	5 / 5.5	3.2*	2.9*	6	155	70.3
	A12B-50-12V	50	80	1	13	7.2	6.8	6.3	3.1*	2.6*	6.3 / 6.8	4.0*	3.6*	6	170	77.1
	A12B-60-12V	60	80	1	15	8.7	8.2	7.5	3.8*	3.1*	7.5 / 8.2	4.7*	4.3*	6	180	81.7
	A12B-75-12V	75	100	1	19	11	11	9.4	4.7*	3.9*	9.4 / 11	5.9*	5.4*	6	225	102.1
A12B-100-12V	100	150	3	---	7.5	7.1	6.5	3.3*	2.7*	6.5 / 7.1	4.1*	3.8*	8A	325	147.4	
24 volt systems (12L, 19 or 20NC)	A12B-3-24V	3	10	1	1.5	0.9	0.8	0.8	---	---	0.8 / 0.8	---	---	7	70	31.8
	A12B-6-24V	6	15	1	3	1.7	1.6	1.5	---	---	1.5 / 1.6	---	---	3	85	38.6
	A12B-10-24V	10	20	1	5	2.9	2.7	2.5	---	---	2.5 / 2.7	---	---	3	95	43.1
	A12B-15-24V	15	25	1	7.5	4.3	4.1	3.8	1.9*	1.6*	3.8 / 4.1	2.4*	2.2*	3	100	45.4
	A12B-20-24V	20	30	1	10	5.8	5.5	5	2.5*	2.1*	5 / 5.5	3.2*	2.9*	3	120	54.4
	A12B-25-24V	25	35	1	13	7.2	6.8	6.3	3.1*	2.6*	6.3 / 6.8	4.0*	3.6*	3	135	61.2
	A12B-30-24V	30	40	1	15	8.7	8.2	7.5	3.8*	3.1*	7.5 / 8.2	4.7*	4.3*	3	180	81.7
	A12B-35-24V	35	50	1	18	11	9.6	8.8	4.4*	3.7*	8.8 / 9.6	5.5*	5.1*	6	190	86.2
	A12B-40-24V	40	60	1	21	12	11	10	5*	3.2*	10 / 11	6.3*	5.8*	6	205	93.0
	A12B-50-24V	50	80	1	26	15	14	13	6.3*	5.2*	13 / 14	7.9	7.2	6	240	108.9
	A12B-60-24V	60	80	1	31	18	17	15	7.5	6.3*	15 / 17	9.5	8.7	6	265	120.2
	A12B-75-24V	75	100	1	38	22	21	19	9.4	7.8	19 / 21	12	11	70	400	181.4
	A12B-100-24V	100	150	1	51	29	28	26	13	11	26 / 28	16	15	70	450	204.1
	A12B-125-24V	125	200	3	---	19	18	17	8.1	6.8*	17 / 18	11	9.4	70	525	238.1
A12B-150-24V ⁽⁴⁾	150	200	3	---	23	22	20	9.8	8.2	20 / 22	13	12	72	630	285.8	
A12B-200-24V ⁽⁴⁾	200	250	3	---	30	29	26	13	11	26 / 29	17	16	27	825	374.2	
A12B-250-24V ⁽⁴⁾	250	300	3	---	38	36	33	17	14	33 / 36	21	19	27	880	399.2	
A12B-300-24V ⁽⁴⁾	300	400	3	---	46	43	40	20	17	40 / 43	25	23	27	940	426.4	
A12B-400-24V ⁽⁴⁾	400	600	3	---	61	57	53	26	22	53 / 57	33	31	47	1350	612.4	
48 volt systems (24L, 36, 37 or 38NC)	A12B-3-48V	3	10	1	3	1.7	1.6	1.5	---	---	1.5 / 1.6	---	---	3	85	38.6
	A12B-6-48V	6	15	1	6	3.5	3.3	3	---	---	3 / 3.3	---	---	3	90	40.8
	A12B-10-48V	10	20	1	10	5.8	5.5	5	2.5*	2.1*	5 / 5.5	3.2*	2.9*	3	140	63.5
	A12B-15-48V	15	25	1	15	8.7	8.2	7.5	3.8*	3.1*	7.5 / 8.2	4.7*	4.3*	6	180	81.7
	A12B-20-48V	20	30	1	21	12	11	10	5*	4.2*	10 / 11	6.3*	5.8*	6	205	93.0
	A12B-25-48V	25	35	1	26	15	14	13	6.3*	5.2*	13 / 14	7.9	7.2	6	240	108.9
	A12B-30-48V	30	40	1	31	18	17	15	7.5	6.3*	15 / 17	9.5	8.7	6	265	120.2
	A12B-40-48V	40	60	1	41	24	22	21	10	8.4	21 / 22	13	12	8A	275	124.7
	A12B-50-48V	50	80	1	51	29	28	26	13	11	26 / 28	16	15	8A	355	161.0
	A12B-60-48V	60	80	3	---	18	17	16	7.8	6.5*	16 / 17	9.9	9	72	400	181.4
	A12B-75-48V	75	100	3	---	23	22	20	9.8	8.2	20 / 22	13	12	72	525	238.1
	A12B-100-48V	100	150	3	---	30	29	26	13	11	26 / 29	17	16	72	625	283.5
	A12B-125-48V	125	200	3	---	38	36	33	17	14	33 / 36	21	19	72	700	317.5
	A12B-150-48V ⁽⁴⁾	150	200	3	---	46	43	40	20	17	40 / 43	25	23	27	850	385.6
A12B-175-48V ⁽⁴⁾	175	250	3	---	53	50	46	23	19	46 / 50	29	27	27	1000	453.6	
A12B-200-48V ⁽⁴⁾	200	250	3	---	61	57	53	26	22	53 / 57	33	31	47	1150	521.6	
A12B-250-48V ⁽⁴⁾	250	300	3	---	76	71	66	33	28	66 / 71	42	38	47	1400	635.0	
A12B-300-48V ⁽⁴⁾	300	400	3	---	91	86	79	40	33	79 / 86	50	46	47	1700	771.1	
A12B-400-48V ⁽⁴⁾	400	600	3	---	121	114	105	53	44	105 / 114	66	61	47	1800	816.5	
130 volt systems (58 or 60L, 92, 93, 96 or 97NC)	A12B-3-130V	3	10	1	7.5	4.3	4.1	3.8	---	---	3.8 / 4.1	---	---	3	140	63.5
	A12B-6-130V	6	15	1	15	8.7	8.2	7.5	---	---	7.5 / 8.2	4.7*	---	3	140	63.5
	A12B-10-130V	10	20	1	26	15	14	13	6.3*	5.2*	13 / 14	7.9	7.2	6	225	102.1
	A12B-15-130V	15	25	1	38	22	21	19	9.4	7.8	19 / 21	12	11	6	250	113.4
	A12B-20-130V	20	30	1	51	29	28	26	13	11	26 / 28	16	15	6	270	122.5
	A12B-25-130V	25	35	1	63	37	35	32	16	14	32 / 35	20	19	8A	355	161.0
	A12B-30-130V	30	40	1	76	44	41	38	19	16	38 / 41	24	22	8A	390	176.9
	A12B-35-130V	35	50	1	88	51	48	44	22	19	44 / 48	28	26	72	505	229.1
				3	---	27	25	23	12	9.5	23 / 25	15	14	72	580	263.1
	A12B-40-130V	40	60	1	101	58	55	51	26	21	51 / 55	32	29	72	550	249.5
				3	---	30	29	26	13	11	26 / 29	17	16	72	625	283.5
	A12B-50-130V	50	80	3	---	38	36	33	17	14	33 / 36	21	19	72	645	292.6
	A12B-60-130V	60	80	3	---	46	43	40	20	17	40 / 43	25	23	27	865	392.4
	A12B-75-130V	75	100	3	---	57	54	49	25	21	49 / 54	31	29	27	930	421.9
	A12B-100-130V	100	150	3	---	76	71	66	33	28	66 / 71	42	38	27	1040	471.7
	A12B-125-130V	125	200	3	---	94	89	82	41	34	82 / 89	52	48	47	1500	680.4
	A12B-150-130V ⁽⁴⁾	150	200	3	---	113	107	98	49	41	98 / 107	62	57	47	1800	816.5
	A12B-175-130V ^(3,4)	175	250	3	---	132	125	114	57	48	114 / 125	72	66	47	1950	884.5
A12B-200-130V ^(3,4)	200	250	3	---	151	142	131	66	55	131 / 142	83	76	47	2100	952.6	
A12B-250-130V ^(3,4)	250	300	3	---	188	178	163	82	68	163 / 178	103	95	47	2300	1043.3	
A12B-300-130V ^(3,4)	300	400	3	---	226	214	196	98	82	196 / 214	124	113	47	2400	1088.6	
A12B-400-130V ^(3,4)	400	600	3	---	301	285	261	131	109	261 / 285	165	151	57	2550	1156.7	

(1) Optional DC Breaker when ordered in lieu of standard fuse(s) may slightly differ in ratings. AC Draws shown with asterisk * are not available with Optional AC Breaker.
 (2) AC Current Draws based @ 100% load and standard battery cells of 6L (12V), 12L (24V), 24L (48V) and 60L (130V). Maximum Current Draw is 120% of ratings shown.
 AC Current draws shown in Italics have high current draws for their specific input voltages - verification of input power requirement should be done prior to ordering.
 (3) Denotes units not U.L. Listed (4) Denotes units not C.S.A. Listed Note: 50Hz units are neither U.L. nor CSA listed.
 (5) Case sizes shown are for standard 60Hz units and may differ depending on optional accessories and/or 50Hz input. Please consult factory when dimensions are critical.

