



D.C. POWER SUPPLIES  
MODEL 28-400 UPB



D.C. POWER SUPPLIES  
MODEL 28-50 UP

## POWER SUPPLIES & BATTERY CHARGERS

**M**ARINE ELECTRIC SYSTEMS, INC., designed CML MACARR™ brand power equipment to deliver rugged and dependable performance. Whether you require stationary or mobile power supplies or battery charging equipment you can count on high quality and exceptional value.

### CML MACARR Mobile and Stationary DC Power Supplies

#### Ground support, aircraft starting and convenient low voltage power

Both our stationary and mobile DC power supply units are built to deliver dependable long term performance. They meet RF interference requirements and demonstrate good inherent load regulation and low ripple. Each unit features heavy intermittent load capability and weatherproof construction suitable for outdoor duty. Mobile models feature large pneumatic tires for easy maneuverability.

# POWER SUPPLIES & BATTERY CHARGERS

CML MACARR DC power supplies are capable of operating in parallel with other units of the same model with no paralleling interconnection required. Every unit includes 2% accurate output voltmeter and ammeters. Models up to 400A employ magnetic circuit breakers for on-off control and reliable overload and short circuit protection. They are convection cooled. Models rated at 600A and higher include electro-magnetic starter with overloads, push button on-off control and thermostatic fan cooling. 400A units provide a three position voltage control switch to provide a + - 10% output voltage variation around the nominal to compensate for line voltage variation while 600A units contain internal transformer tap changing with an easy access panel.

All units feature non-aging, hermetically sealed, silicon rectifiers on efficient aluminum heat sinks and high temperature dual winding power transformers for long, maintenance free operation. All include "power on" lights.

## **CML MACARR Battery Chargers**

Lightweight, compact and versatile, CML MACARR chargers from *Marine Electric Systems* are typically used in military and high performance commercial applications. Model 40-30 BCN, for example, is a versatile unit which meets the requirements for small multi-purpose battery chargers. It can charge a wide variety of batteries up to 36 volts nominal (18 cells) and 300 ampere hours. The charger is a fully regulated, current limited stable source for float charging utilizing SCR's with magnetic gating. A fully discharged battery can be safely recharged with this model. As an example of efficiency, a 130 AH battery can be recharged in 7 hours. The unit is designed for easy maintenance. All electronic components and adjustments are readily accessible behind the front access door.

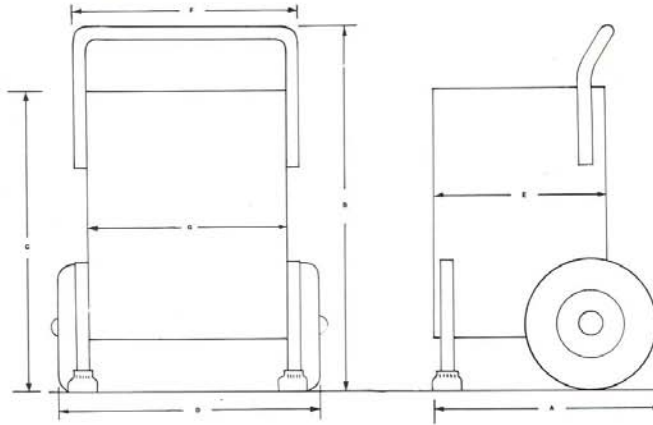
*Marine Electric Systems* offers the ability to produce power supplies and battery chargers with performance characteristics which exceed those described here. Contact us and we'll be pleased to discuss your special requirements.



---

33 B Route 17S  
East Rutherford, NJ 07073  
phone: (201) 531-8600  
fax: (201) 531-8606

# POWER SUPPLIES & BATTERY CHARGERS



**Specifications:** **Note: FOR OVERSEAS APPLICATIONS:**  
Units listed below are rated for 50/60 Hz input. For input of 380V 3 $\phi$  50 Hz add -5 to model number.  
All other specification data apply to these units.

MODEL:	28-50 UP	28-100 UP	28-200 UP	28-400 UPA	28-400 UPB	28-600 UP	28-800 UP	28-1000 UP
<b>V</b>	115/230	220/440	220/440	220/440	220/440	440	440	440
<b>INPUT: <math>\phi</math></b>	1	3	3	3	3	3	3	3
<b>A</b>	20/10	10/5	20/10	40/20	40/20	30	40	50
<b>NOMINAL OUTPUT CONTINUOUS (see Note 1)</b>								
<b>V</b>	28	28	28	28	28	28	28	28
<b>A</b>	50	100	200	400	400	600	800	1000
<b>OUTPUT INTERMITTENT:</b>	3 min. 65A 3 sec. 200A	3 min. 125A 3 sec. 400A	3 min. 250A 3 sec. 800A	3 min. 500A 3 sec. 1600A	3 min. 500A 3 sec. 1600A	3 min. 750A 3 sec. 2400A	3 min. 1200A 3 sec. 2900A	3 min. 1500A 3 sec. 3500A
<b>REGULATION N.L.- RATED LOAD:</b>	2V	2.5V	2.2V	1.7V	2.3V	2.3V	2.3V	2.3V
<b>RIPPLE:</b>	2V P-P	2.4V P-P	1.5V P-P	2V P-P	2.3V P-P	2V P-P	1.4V RMS	1.4V RMS
<b>CABLES:</b>	Output: 16 ft.	Output: 15 ft.	Output: 1-AN 255ID-20	Output: 2-AN 255ID-20	Output: 2-AN 255ID-20	NOTE 2	NOTE 2	NOTE 2
<b>WHEELS:</b>	2-Solid	2-Solid	2-Pneumatic	2-Pneumatic	2-Pneumatic	2-Pneumatic 2-Casters w/Tow Hook	2-Pneumatic 2-Casters w/Tow Hook	2-Pneumatic 2-Casters w/Tow Hook
<b>GOV'T. TYPE DESIGNATION:</b>	F1	--	B8	B9	B9	--	--	--
<b>FSN:</b>	6130-831-7580	--	6130-504-0327	6130-337-5600	6130-226-4101	--	--	--
<b>DIMENSIONS: A</b>	14"	20"	29 1/4"	25"	24"	25"	30"	30"
<b>B</b>	32"	40"	46 1/4"	43"	41 1/2"	--	--	--
<b>C</b>	26 1/4"	30"	38 1/2"	37"	36 1/4"	44"	44"	55"
<b>D</b>	17 1/4"	17 1/4"	25 1/2"	33"	31 1/2"	33"	33"	33"
<b>E</b>	11"	17"	20 1/8"	21"	20 1/2"	21"	27"	30"
<b>F</b>	11 1/2"	18"	17 1/8"	26"	25 1/2"	--	--	--
<b>G</b>	12"	15"	15 1/2"	24"	23 1/2"	24"	24"	24"
<b>WEIGHT:</b>	140 lbs. including cables	160 lbs. less cables	315 lbs. less cables	447 lbs. less cables	360 lbs. less cables	450 lbs.	500 lbs.	600 lbs.

- Notes:** 1) No load voltage is nominally 28.5V with voltage selector switch (when furnished) set at "nominal".  
2) Cables are optional on 600A & higher units, and furnished to customer specification.  
3) Due to weight of 600A & higher units, in order to provide proper mobility, these units are provided with 2 fixed wheels and 2 casters with tow hook for attachment to vehicle. No handles are provided on these units.



33 B Route 17S  
East Rutherford, NJ 07073  
phone: (201) 531-8600  
fax: (201) 531-8606