

Rugged carrying cart

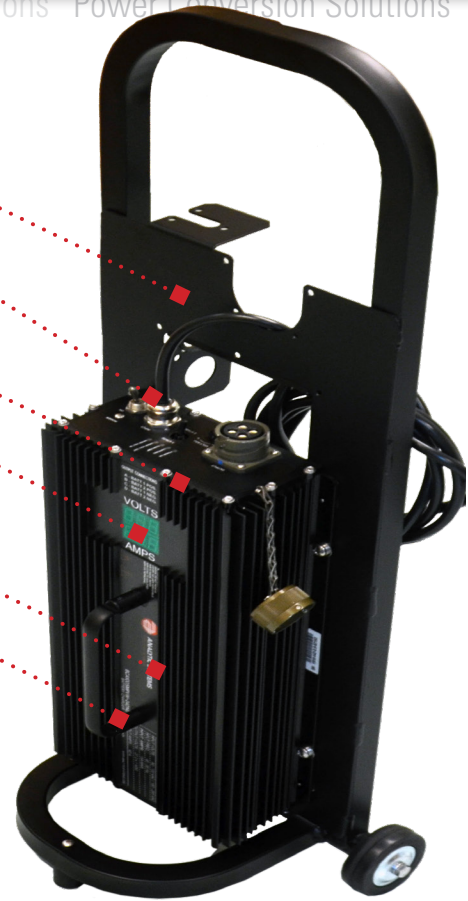
Power factor corrected input stage

Reverse battery polarity protection

MIL-Spec connectors and digital display

Sealed to meet IP66 rating

Ultra quiet low EMI operation



**Unit may not be exactly as shown.*

BCA1050MPVW-24DND
AC SOURCE BATTERY CHARGER

This model is the military version of Analytic Systems' proven 1000-watt BCA1050 battery charger, designed specifically for the Canadian Department of National Defense (DND). It consists of the military version of the BCA1050-24 charger enhanced with the Portable and Digital Volt/Ammeter options in an IP66 rated water resistant black anodized extruded aluminum enclosure with billet machined aluminum end plates and stainless-steel fasteners.

The charger features a power factor corrected input stage for efficient operation compatible with any single-phase AC source voltage from 85 to 264 VAC at either 50 or 60 Hz and is provided with a 3-meter NEMA 5-15 power cord. Other plugs can be fitted to the power cord to connect to any source of AC power within the specified range.

The charger can simultaneously charge one or two banks of 24-volt batteries that share a common ground. When fitted with one or two battery temperature sensors the charging voltage will compensate for battery temperature. Reverse polarity protection is standard with LED indication of improper battery connection. Additional indicator LEDs and an alarm buzzer alert the user to other fault conditions.

The digital volt/ammeter can display the voltage and current for either battery bank or both combined as well as a dark mode, selectable by waterproof pushbutton.

A rugged cart is included that the charger can be easily mounted or unmounted from as well as a custom 2.5-meter charging cable terminated in a standard NATO Slave Connector with an integrated battery temperature sensor on the vehicle end and power and temperature connectors on the charger end. The cart includes storage brackets for both the input and output cables for convenience.

The charger is calibrated to charge a standard 24V lead acid battery bank in either 3-Stage or 2-Stage profiles. In 2-Stage operating mode it also can be used as a power supply without a battery. An internal output voltage adjustment is provided to allow qualified personnel to adjust the charger output to suit other battery chemistries.

2 YEAR WARRANTY



Available models

Input

85-264 VAC

Output

24 VDC

Applications



BCA1050MPVW-24DND | AC-SOURCE BATTERY CHARGER

INPUT

Nominal Voltage	85-264 VAC In, 45-65 Hz
Maximum Input Amps	12 A
Input Fuse (Circuit Breaker)	25A Magnetic circuit breaker
Input Ripple and Noise	<50 mV Peak to Peak
Inrush Current	<13 Amps @264 VAC from fully discharged
Power Factor	>0.99 from 140 Watts to Full Load

OUTPUT

Nominal Voltage	24 VDC
Charging Amps	40 A
Power Supply/Charger Float	27.2 VDC
Charger Absorption	28.8 VDC
Absorption to Float Switch	3 Amps
Temperature Compensation Coefficient	-60 mV/°C
Recommended Battery Size	100-400 Amp-Hours
Output Overvoltage Protect	34.0 ±1.0 VDC
Output Voltage Adjustment	±1.0 V (Internal - Qualified personnel access only)
Duty Cycle	Continuous: 100% for 24 hours per day
Regulation (Line and Load)	+/- 0.1 volts
Efficiency	> 89% @ Maximum Output
Number of Battery Banks	Charging up to two battery banks simultaneously that share a common ground

MECHANICAL - CHARGER

Length	16.8 in / 42.7 cm
Width	8.2 in / 20.8 cm
Height	3.8 in / 9.7 cm
Clearance	1.0 in / 2.5 cm (all around)
Weight	20.0 lb / 9.9 kg (approximate)
Material	Extruded aluminum chassis and bottom cover, billet machined aluminum end plates
Finish	Black anodize
Fasteners	18-8 stainless steel
Input Connection	3 m / 9.8 ft 3x AWG14 power cord with NEMA 5-15 compatible plug
Output Connection	Amphenol GTC02R22-22S-RDS 4-position Circular MIL-Spec connector
Temperature Connection	Amphenol PT07-8-4S 4-position Circular MIL-Spec connector

MECHANICAL - CART

Depth	6.8 in / 17.3 cm
Width	14.8 in / 37.6 cm
Height	34.2 in / 86.9 cm
Weight	6.0 lb / 2.7 kg (approximate)
Material	Marine-grade aluminum
Finish	Satin black powder coat over clear chromate

MECHANICAL - NATO CABLE

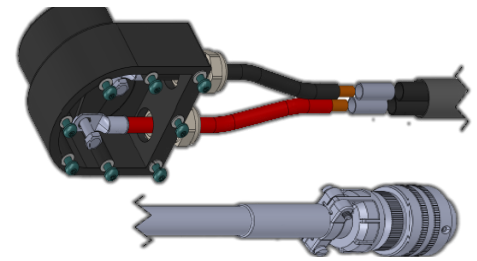
Vehicle Connection	NATO Slave Connector
Cable	2.5 m/8 ft. 4x AWG10 300W to 2x AWG6 Welding Cable
Charger Connection	Power: Amphenol GTC06F22-22P 4-position Circular MIL-Spec connector Temperature: Amphenol PT06E8-4P 4-position Circular MIL-Spec connector

ENVIRONMENTAL - CHARGER

Operating Temperature Range	-40 °C to +55 °C @ maximum output. Derate linearly 2.5 % per °C from +55 °C
Storage Temperature Range	-40 °C to +100 °C
Humidity	0 - 95 % Relative Humidity (non-condensing) with standard conformal coating
Packaging	Sealed to meet IP66 rating
Shock and Vibration	Built to meet MIL810G standard
Emissions	Built to meet MIL461F standard
Isolation	Input-Case, Input-Output:1500 VDC; Output-Case:500 VDC
Cooling	One internal thermostatically controlled fan
Audible Noise	20 dB @ 1 m when fan operating
Typical Service Life	> 10 years (87,600 hrs)
Warranty	Two years parts and labor
Approvals	Designed to meet UL458 & CSA 22.2.107.1

Note: Specifications are subject to change without notice.

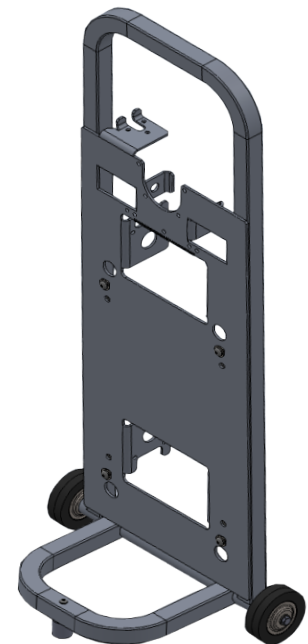
DIMENSIONS



NATO Cable



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Carrying Cart

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