

# 60Hz 3 Phase AC to Bulk DC Converter (Inherent Harmonic Suppression)

- MIL-STD-1399 compliant
- Passive power factor connection
- Low parts count for high MTBF up to 500,000 hours (naval sheltered environment)
- Rugged construction, MIL-STD-810 and MIL-S-901 compliant
- MIL-STD-167 compliant
- Rack mountable



TYPICAL FORCED-AIR COOLED MODEL

Abbott Technologies offers three standard types of harmonically corrected bulk converters:

- Unregulated with power factor correction and power levels from 1000 watts to 25,000 watts.
- Regulated with power levels from 1000 watts to 5000 watts.
- Battery charger configuration.

### Input Primary:

115 V DELTA – Suffix A  
240 V DELTA – Suffix B  
440 V DELTA – Suffix C

### Input Frequency:

60Hz, 3 phase. Power factor corrected.

### Operating Temperature:

Unregulated units:  
–40°C to +85°C

Regulated units or chargers:  
–40°C to +70°C (no derating)

### Isolation:

Input to Output – 2500 V  
Input to Case – 2500 V  
Output to Case – 500 V

### Voltage Output:

24, 28, 280, 300

Other voltages are available upon request.

### Reliability:

MTBF 500,000 hours in naval sheltered environment (for non-regulated models).

### Cooling Methods:

Fan-Cooled – Suffix A (standard case)

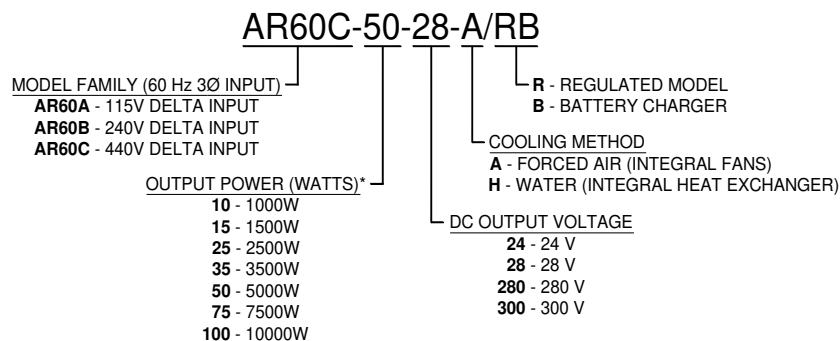
Water-Cooled – Suffix H (consult factory for case dimensions)

### Mounting Provisions:

Soft-deck mounting is available with regular fans.

Hard-deck, ultra-rugged mounting is available with heavy duty fans.

## Model Number System



TYPICAL WATER-COOLED MODEL

\* For units with output power greater than 10,000 watts, consult factory.

## POWER RATING

Harmonic current limits in **MIL-STD-1399** are based upon a percentage of fundamental current at full load. Abbott models are designed for compliant operation at full rated resistive load. Caution should be exercised when selecting power rating of model to avoid overspecifying, as a converter operating too far below its rating may draw harmonic currents in excess of **MIL-STD-1399** limits, compared with delivered power.



Call us toll-free **1-800-367-8200**

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**REGULATION:**

**Unregulated models:**

- Load Regulation: 10% typical
- Line Regulation: N/A

**Regulated models:**

- Load Regulation: 2% typical
- Line Regulation: 2% typical

**ENVIRONMENT:**

Encapsulated to meet MIL-STD-810 for vibration, shock, acceleration, sand, dust, humidity, saltspray, fungus, sunshine, rain, explosion, and altitude.

**BATTERY CHARGER OPTION:**

- Units that are used for charging batteries can be supplied with smart battery charger feature, factory configurable to meet your specific battery charging requirements.
- Temperature compensation available.
- Units are available with up to 4 state charge profile (lead acid).

**BUILT-IN TEST:**

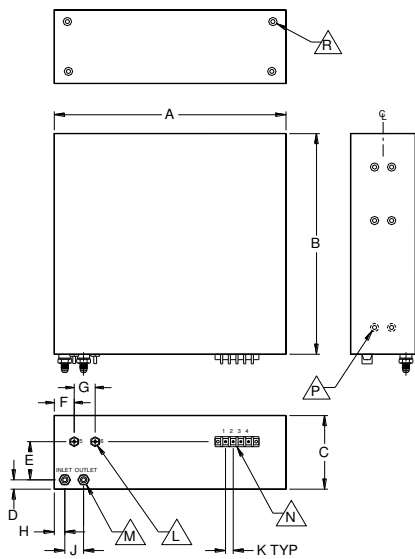
- Regulated models only:
- Input phase loss.
  - Input under/over voltage.
  - Remote Enable/Disable.
  - Output under/over voltage.
  - Output overload alarm.
  - Over temperature condition.
  - Fan locked rotor alarm.

**CONSTRUCTION:**

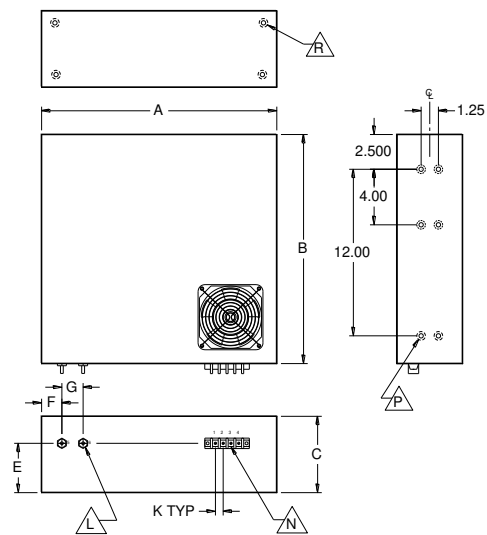
To MIL-PRF-27, Grade 4, Class S, steel case.

**MECHANICAL DIMENSIONS**

**TYPE H – WATER COOLED**



**TYPE A – FAN COOLED**



Output Power (W)	Type	Size	A	B	C	D	E	F	G	H	J	Rack Mount Space (REF)
2500	H	25	14.00	12.00	4.00	1.50	1.75	1.50	2.00	1.25	2.00	3U
3500	H	35	17.00	15.00	4.75	1.50	2.25	1.50	2.00	1.25	2.00	3U
5000	H	50	17.00	15.00	5.50	1.50	2.75	2.00	2.00	1.25	2.00	4U
7500	H	Consult factory										
10000	H	Consult factory										
1000	A	10	12.00	13.00	3.46	—	1.75	1.25	1.50	—	—	2U
1500	A	15	12.00	13.00	3.75	—	1.75	1.25	1.50	—	—	3U
2500	A	25	14.00	13.00	4.00	—	1.75	1.50	2.00	—	—	3U
3500	A	35	17.00	15.00	4.75	—	2.25	1.50	2.00	—	—	3U
5000	A	50	17.00	15.00	5.50	—	2.75	2.00	2.00	—	—	4U

- UP TO 30A INPUT: .562; ABOVE 30A: .750.
- UP TO 150A: 5/16-18 STUD; ABOVE 150A: 3/16-16 STUD.
- 37° FLAIR x 3/8 316 STAINLESS FITTING.
- UP TO 30A INPUT: 8-32 SCREW; ABOVE 30A: 1/4-20 STUD.
- SEE MOUNTING PROVISIONS PAGE FOR SLIDE AND BRACKET INFORMATION.
- SEE MOUNTING PROVISIONS PAGE FOR RACK PANEL INFORMATION.

Specifications are subject to change without notice.