

400 Hz 3 Phase AC to DC Converter (Inherent Harmonic Suppression)

- MIL-STD-461, MIL-STD-704 compliant
- Passive power factor correction
- Low parts count for high MTBF up to 500,000 hours (airborne environment)
- Rugged construction, MIL-STD-810 compliant
- MIL-STD-167, MIL-STD-202 G compliant (conduction or air cooled)
- RTCA DO-160 D



TYPICAL FORCED-AIR COOLED MODEL

Abbott Technologies offers two standard types of harmonically corrected transformer rectifier units:

- Unregulated with power factor correction and power levels from 100 Watts to 100,000 Watts;
- Regulated with power levels from 1000 Watts to 15,000 Watts.

INPUT PRIMARY:

115V DELTA Suffix A
115/200V WYE or 200V DELTA Suffix B

VOLTAGE OUTPUT: 24, 28, 280, 300
Other voltages are available upon request.

OPERATING TEMPERATURE:

Unregulated Units: -40°C to + 85°C
Regulated Units: -40°C to + 70°C
(no derating)

ISOLATION:

Input to Output: 1500V
Input to Case: 1500V
Output to Case: 500V

INPUT FREQUENCY: 400HZ, 3 Phase.
Power factor corrected.

COOLING METHODS:

- Fan-Cooled** - Suffix A
- Forced-Air Cooled** - Suffix B
- Conduction-Cooled** - Suffix C
- Water-Cooled** - Suffix H

ENVIRONMENT:

Constructed to meet MIL-STD-810 for vibration, shock, acceleration, fungus, sunshine and altitude. (Sand, dust, humidity, saltspray, rain, explosion - A, C and H cooling only).

REGULATION:

- Unregulated models:**
 - Load Regulation: 10% Typical
 - Line Regulation: N/A
- Regulated models:**
 - Load Regulation: 2% Typical
 - Line Regulation: 2% Typical

RELIABILITY:

MTBF up to 500,000 hours in airborne inhabited transport (for non-regulated models)

MOUNTING PROVISIONS:

Flange mounting captive inserts.

BUILT-IN TEST (OPTIONAL):

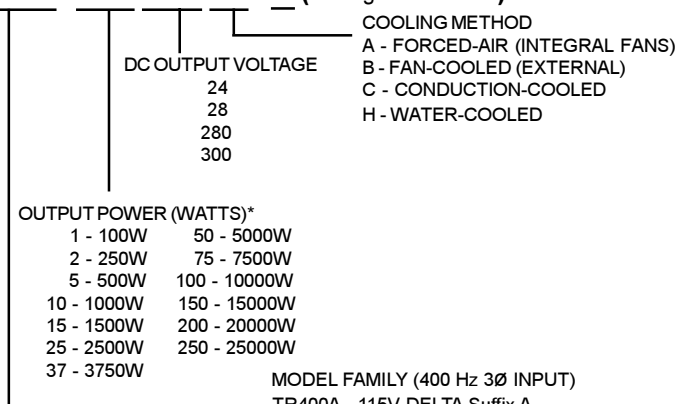
- Regulated models only.
- Input phase loss.
 - Input under/over voltage.
 - Remote Enable/Disable.
 - Output under/over voltage.
 - Output overload alarm.
 - Over temperature condition.
 - Fan locked rotor alarm.

MECHANICAL DIMENSIONS:

Consult factory for specific models.

MODEL NUMBER SYSTEM

TR400A - 50 - 28 A / R (R- regulated model)



MODEL FAMILY (400 Hz 3Ø INPUT)
TR400A - 115V DELTA Suffix A
TR400B - 115/200V WYE or 200V DELTA Suffix B

* For units with output power greater than 25,000 Watts, consult factory.



TYPICAL WATER-COOLED MODEL

POWER RATING

Harmonic current limits in MIL-STD-461 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-461 limits, compared with delivered power.



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