

## *Transformer Rectifier Unit*

*For Commercial Aircraft*



EUROATLAS TRU 40 Amp., Model 2031

The EUROATLAS Model 2031 Transformer Rectifier Unit (TRU) converts aircraft primary AC power to 28 VDC power from a three-phase, 115 Volt, 400 Hz generator.

This lightweight 40 Amp. TRU has been developed for commercial airborne application. Its proven reliability recorded and confirmed by several Airlines exceeds a MTBF of 100.000 hours.

In order to achieve low weight, EUROATLAS uses special aluminum ribbon coils for TRUs instead of ordinary copper wires for the transformer. A 12-pulse rectification provides low ripple DC output. Environmental and EMI conditions mainly comply with RTCA/DO 160.

Since cooling is provided by thermal conduction via the ground plate, no forced air cooling is necessary. The absence of blowers results in high reliability and absolutely maintenance-free operation. These factors ensure low unit life-cycle cost.

This TRU offers excellent versatility for use in new designs or retrofits. EUROATLAS maintains a 24-hour spare part delivery service for its airborne power supplies.

### **Standard Features**

- Corrosion-proof
- No Pressure Cooling
- No Fans
- Low weight and size
- High Reliability

### **Application**

- Civil Aircraft

### **Support Service**

- Full Product Support
- AOG Service



**Electrical Specifications****Input**

Voltage.....	115/200 VAC, 3-ph w. Neutral
Frequency.....	400 Hz, $\pm$ 8%
Voltage Spikes and Transients .....	Acc. to MIL-STD 704 D
Frequency Transients .....	Acc. to RTCA/DO-160 A

**Output**

Voltage.....	28 VDC
Current.....	40 A
Ripple .....	2 Vpp max. at 40 A
Overload .....	50 A/10 min, 60 A/15 s, 100 A/1 s
Efficiency .....	$\geq$ 86%

**Environmental Specification**

Temperature Range.....	-15°C to +55°C (operation), -55°C to +85°C (storage)
Humidity.....	$\leq$ 98%
Shock.....	6 g, 11 ms acc. to RTCA/DO-160 A
Vibration .....	6 g sine double sweep 125 - 1000 Hz
Altitude.....	4.4 kPa (20.000 m)
EMC.....	Acc. to RTCA/DO-160 A
Protection .....	IP 20 acc. to DIN 40050

**Physical Characteristics**

Dimensions.....	125 x 125 x 200 mm (HxWxD)
Weight .....	3.3 kg

**Design Characteristics**

Power per Weight/per Volume.....	340 W/kg, 358 W/ltr.
Dielectric Resistance .....	$\geq$ 100 MOhm
Contact Resistance .....	$\leq$ 10 mOhm between all leading parts of housing
MTBF .....	> 100,000 h
Speciality .....	Unit requires thermal resistance to the mounting structure of 0.04°C/W or better

Specification subject to change without notice



WÄRTSILÄ JOVYATLAS EUROATLAS GmbH  
Zum Panrepel 2  
28307 Bremen  
Germany

Phone +49-421-486930  
Fax +49-421-4869341  
info@euroatlas.de  
www.euroatlas.de