The Wärtsilä Model 2030 Transformer Rectifier Unit (TRU) converts aircraft primary AC power to 28 Vdc power from a three-phase, 115 Volt, 400 Hz generator. This lightweight 125 Amp. TRU has been especially designed for Fighter Aircraft application (SAAB JAS 39 “Gripen”). It fulfils exceptional reliability demands and it meets all environmental requirements of common military standards for airborne equipment. In order to achieve low weight, Wärtsilä uses special aluminum ribbon coils for TRUs instead of ordinary copper wires for the transformer. A 12-pulse rectification provides low ripple DC output. Since cooling is provided by thermal conduction via the ground plate, no forced air cooling is necessary. The absence of blowers result in high reliability and absolutely maintenance-free operation. These factors ensure low unit life-cycle cost.

Based on our ILS-Department’s extensive Know-how we are able to offer complete ILS packages.

For Military Aircraft

Standard Features
- Completely qualified
- No pressure cooling
- No fans
- Low weight and size
- Aluminium ribbon coils
- High reliability

Application
- Military aircraft

Support Service
- Complete integrated logistic support (ILS)
**Electrical Specifications**

**Input**
- Voltage: 115/200 Vac, 3-ph
- Frequency: 400 Hz, ± 8%
- Voltage spikes and transients: Acc. to MIL-STD 704 D
- Frequency Transients: Acc. to MIL-STD 704 D

**Output**
- Voltage: 28 Vdc
- Current: 125 A
- Ripple: 2.5 Vpp max. at 125 A
- Overload: 150 A/5 min, 200 A/1 min, 500 A/1 s
- Efficiency: > 86%

**Environmental Specification**
- Temperature range: -40°C to +75°C (operation), -55°C to +95°C (storage)
- Humidity: < 95%
- Shock: 30 g/2.5 ms, 25 g/6 ms, 15 g/20 ms acc. to MIL-STD 810 D

**Physical Characteristics**
- Dimensions: Height 142 mm, Width 142 mm, Depth 210 mm
- Weight: 6.1 kg

**Design Characteristics**
- Power per weight/per volume: 574 W/kg, 827 W/ltr.
- Dielectric Resistance: > 100 MQ
- MTBF: > 75,000 h
- Speciality: Unit requires thermal resistance to the mounting structure of 0.04°C/W or better

Vibration: Random, 15 g RMS
Altitude: 4.4 kPa (20,000 m)
EMC: Acc. to MIL-STD 461B, CE01, CE07, RE02
Protection: IP 20 acc. to DIN 40050