

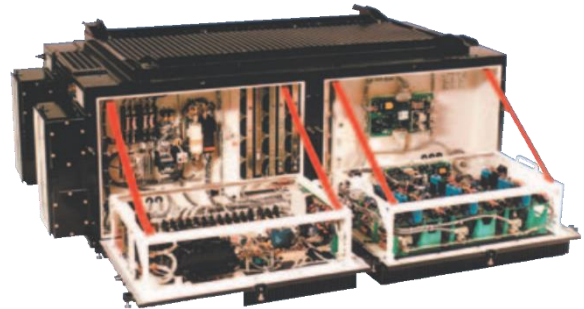


AUXILIARY POWER SUPPLY (APU) – MASS TRANSIT

45kVA /5kW Ankara (Turkey) Metro's M1 line

Key Technical Features

- ✓ Enclosure - formed and welded steel
- ✓ High frequency IGBT based LVPS
- ✓ High frequency IGBT based Inverter
- ✓ LVPS output paralleling to increase availability
- ✓ Input paralleling with diode short circuit detection to reduce effects of rail gaps on outputs
- ✓ Galvanically isolated at the output
- ✓ Event monitoring and fault logging via TPS proprietary portable test equipment (PTE) software
- ✓ Overall rugged construction for harsh environments
- ✓ Silent in operation – i.e. 68 dBA at 1 metre
- ✓ Designed for extreme environments i.e. -40°C to +40°C



Key Benefits to Transit Authorities

- ✓ High reliability
- ✓ Immune to supply fluctuations
- ✓ Immune to large supply transients 3kV, 1.2kJ for 1msec
- ✓ Fully EMC type tested
- ✓ No routine maintenance required
- ✓ Modular design, mean time to restore 1.5 hours
- ✓ Reduced through life costs – thanks to naturally cooled design



Input Voltage	750 Vdc
Input Voltage Range	500 Vdc to 1000 Vdc at full load
Input Isolation to Earth	2.5kV rms 50Hz for 1 minute
Output Voltage 3phase Inverter	380 Vac \pm 5% at 50Hz \pm 1%
Rated Power	45 kVA
Single Phase Output	220 Vac \pm 5% rated at 3.3 kVA
Low Voltage DC Output	40.0 Vdc \pm 0.5% rated at 5 kW
Protection	Electronic short-circuit, overload and transient protection
Battery Temperature Compensation	Yes
Battery Protection and Monitoring	Yes, reverse battery temperature, polarity and voltage monitoring
Efficiency	92% at full load
Weight	640 Kgs
Dimensions	1640mm (L) x 1050mm (W) x 600mm (H)
Design Life	30 years
Operating temperature and Humidity	-40 ⁰ C to +45 ⁰ C and relative humidity at maximum of 100%
Cooling	Natural air cooled
Portable Test Equipment (PTE)	Remote condition and fault monitoring

TPS is a leading supplier of power conversion equipment for various mass rapid transit systems. There are more than 1000 units operating successfully in China, USA, Brazil, Canada, Malaysia and UK. TPS was chosen for this project due to its long standing pedigree in delivering compact, efficient, reliable and light weight power electronic solutions.

With over 40 years rail pedigree, a team of highly skilled engineers and technicians, and a track record in creating world-class power electronics, why go anywhere else for your auxiliary power supply?

To discuss your project or for any further information please contact our marketing department at marketing@turbopowersystems.com or +44 (0) 191 482 9288/9251/9278.



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