

# SPECIFICATION

## Series Circuit Isolation Transformer



The series transformer shall be in full compliance with FAA AC150/5345-47 and IEC 61823. With one extremity of the secondary winding earthed, it shall also comply with ICAO Aerodrome Design Manual, Part 5, para. 3.2.1.7.

The transformers shall be designed for a continuous operation, at full load, short circuit or open circuit, under ambient temperatures ranging from -55 °C to + 65°C.

The transformer and connection leads shall be pressure encapsulated with thermoplastic elastomer (TPE) for improved dielectric strength, and higher resistance for ozone and UV light, chemical agents, shock and rough handling.

The encapsulation must not absorb water. The series transformer shall connect in the series circuit via L-823 connectors molded onto two 60 cm long single-core 6 mm<sup>2</sup> cables rated 5 kV, and to the secondary circuit by one 120 cm two core 2,5 mm<sup>2</sup> cable. Primary connectors shall be equipped with additional locking device to prevent unexpected openings of primary circuit. Each transformer shall be high voltage insulation tested (12 hrs soaking period) and marked with identifying serial number for full test data traceability.

The transformer's core shall be of a toroidal (ring) shape for minimized electronical interference (EMI). The minimum power factor of transformers must be 0,97 in the whole power range for maximized energy efficiency.

