

Excelsys Xgen Medical Configurable Power Supply now Approved for Patient Contact



The Xgen Medical range of power supplies from **Excelsys Technologies, Ltd.** has been enhanced to include 1 x MOPP (Means of Patient Protection) approval from input to earth (ground) for patient connected equipment. The improved products now allow customers to isolation test self-configured power supplies from input to output to 6kVdc. The enhancements include the introduction of Y1

capacitors and Type Testing at 5675Vdc (the dc equivalent of 4kVac), from input to output. Carrying full UL60601-1 and EN60601-1 3rd edition approvals, the range provides low leakage current (less than 150 μ A available) as well as meeting the creepage and clearance requirements of medical equipment.

Dielectric testing is a simple method of verifying the adequacy of electrical insulation to withstand the peak voltages that can occur during transient events. However this can be a destructive test and is generally categorized as a "Type test". "Type tests" are investigations carried out by Safety Agencies and are intended to prove that the construction of the power supply meets the requirements dictated by the relevant safety standard. However, Reinforced (primary to secondary) Insulation cannot be tested without over-stressing basic insulation on the end product and it is because of this the agencies allow manufacturers to test reinforced insulation separately. This means they are allowed to test transformers and other primary to secondary isolation barriers separately before components are incorporated into the product.

In order to meet customer demand to be able to verify this as part of their production process Excelsys is pleased to announce the release of this enhanced range of medically approved Xgen power supplies. This product has been specifically designed to withstand the DC peak equivalent of the 4kVac isolation test from primary to secondary. By selecting this Excelsys product range customers can test in-situ with a dc voltage of 6kV applied across the isolation barrier of a fully assembled power supply. Excelsys will continue to carry out 100% production testing of all primary to secondary isolation barriers on all Xgen products. This will directly address the growing demand from customers to verify the isolation barrier on their application without causing an electrical stress on internal components.

Dermot Flynn, Director of Sales, comments, "Medical electronic systems are a major market for Excelsys and we are pleased to be able to respond to customer requests to be able to carry out dielectric testing of complete systems."

The Excelsys Xgen series of medically approved power supplies can provide up to 1340W watts of output power with dc voltages in user selectable combinations from 1.5V to 58V each with individual output control. The series has leakage current of under 300 μ A, and the option of less than 150 μ A. All outputs are fully floating allowing series/parallel connection of all multiple outputs for non-standard voltages or higher output current. Xgen power supplies may be connected in parallel for higher system power requirements and a 5V bias standby voltage is provided on all models.

