



Certificate no. 4001132

**TB169**  
**PRODUCT DATA**  
**054/212602**  
**PA05/05325**

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**COIL WINDING – TRANSFORMER DESIGN & MANUFACTURE**

**Class II Hybrid FSP Isolating Transformer with copper conductors**  
**NR/L2/SIGELP/30007 650/110V@150VA +110/140V @ 850VA**



|  |   |  |
|--|---|--|
| Dimensions 337x189x 285mm high   | Weight 31Kg   | Colour BS381c shade 632 Dark Admiralty Grey                                |
| General arrangement drawing GA-TB169 overleaf  | O&M Manual : Trans-Tronic ClassII-Hybrid-FSP- Tx O&M  |  |
| Primary (Input) ClassII T0-T605-T650-T695  | Secondary's (output) ClassI<br>t0-t107-t110-t113 150VA t0-107-t110-t113-t140 850VA                    |  |
| Rating Full load 150VA & 850VA<br>Intermittent 180VA & 1020VA for 15 minutes in each hour, 150VA & 850VA remaining 45 minutes<br>Or t0/t110 150VA + t0-t140 1500VA (10.7A) for 10 seconds every 60 seconds |   |  |
| Primary terminals Screw up clamp 0.5 -10mm <sup>2</sup>  | Secondary terminals Screw up clamp 0.5-10mm <sup>2</sup>  |  |
| Functional earth Screw up clamp 0.5-10mm <sup>2</sup>  | Enclosure IP32  |  |
| Efficiency 94% @ 80% full load   | Regulation 4%   | Impedance 4.5%   |
| No load losses 21 watts  | Full load losses 60 watts   |  |
| Primary resistance @ 20°C<br>7.60 ohms @ 650V  | Secondary resistance @ 20°C<br>110V @ 150VA 1.5 ohms<br>110V @ 850VA 0.27 ohms                        |  |
| Primary Inductance 20mH @ 650V   | Secondary Inductance 0.59mH @ 110V  |  |
| Input current at full load<br>1.80A @ 605V 1.65A @ 650v 1.55A @ 695V   | Output current at full load<br>150VA 1.4A @ 110v<br>850VA 7.7A @ 110v 6.1A @ 140v                     | Output current at 120% full load<br>1.6A @ 110v<br>9.3A @ 110V 7.3A @ 140v |
| Input current at 120% of full load (15 minutes in each hour)<br>2.10 @ 605V 1.96A @ 650v 1.83A @ 695V  |   |  |
| Peak inrush current 9.3x FLC (15.3A at 650V)   | I <sup>2</sup> t 1.9 A <sup>2</sup> s   | X/R ratio 0.42   |
| Prospective short circuit secondary current @ 20°C 150VA 65A for 5 seconds   | 850VA 180A for 5 seconds  |  |
| Insulation resistance (500v)<br>Primary to core >100M ohms<br>Secondary to core >100M ohms<br>Primary to secondary >100M ohms  | Dielectric strength<br>Primary to core 5.2Kv<br>Secondary to core 2.8Kv<br>Primary to secondary 5.2Kv | Impulse withstand<br><b>8Kv</b>  |
| Recommended input fuse protection Max load<1000VA<br>Max load=> 1000VA   | BS88 & 10x38 gG IEC 60269-1 &-2 2A<br>BS88 & 10x38 gG IEC 60269-1 &-2 4A                              |  |
| Operational temperature range -20°C to +60°C   | Humidity  | Up to 100% RH  |
| Altitude <2000 metres above sea level  | Issue 1   | 16/02/2016   |