

T2 STANDARD TRANSFORMER DATA SHEET

| S.No. | Description | Units | Particulars |
|-------|---|-------|----------------------------|
| 1 | Manufacturer | | Wilson Power Solutions Ltd |
| 2 | Applicable Standard | | IEC 60076 |
| 3 | General Arrangement Dwg | | WPS-T2-2500-AL-GA |
| 4 | Transformer Rating | kVA | 2500 |
| 5 | Rated High Voltage @ No Load | Volts | 11000 |
| 6 | Rated Low Voltage @ No Load | Volts | 433 |
| 7 | Minimum Insulation of HV (Um/LI/AC) | kV | 12 / 75 / 28 |
| 8 | Minimum Insulation of LV (Um/LI/AC) | kV | 1.1 / - / 3 |
| 9 | Line Current LV / HV | A | 3333.53 / 131.22 |
| 10 | Insulating Fluid | | Mineral Oil |
| 11 | Fans | | No |
| 12 | Pumps | | No |
| 13 | Type of Cooling | | ONAN |
| 14 | Number of Phases | | 3 |
| 15 | Frequency | Hz | 50 |
| 16 | Vector Group | | Dyn11 |
| 17 | Impedance Voltage (Z) (Subject to +/- IEC tol. Limits) | % | 6.00 |
| 18 | Symmetrical Short Circuit Current in LV | kA | 51.02 (Approx.) |
| 19 | Symmetrical Short Circuit Current in HV Rated Tap | kA | 2.02 (Approx.) |
| 20 | Core Material | | CRGO |
| 21 | No Load Losses | W | 1575 |
| 22 | Load Losses @ 75°C | W | 18500 |
| 23 | Losses as per EU Regulation No. 548/2014 | | Meets Tier-2 Requirement |
| 24 | Resistance | % | 0.74 (Approx.) |
| 25 | Reactance | % | 5.95 (Approx.) |
| 26 | Positive sequence resistance at principal tap | P. U. | 0.0074 (Approx.) |
| 27 | Positive sequence reactance at principal tap | P. U. | 0.0595 (Approx.) |
| 28 | Positive sequence reactance at minimum tap | P. U. | 0.0570 (Approx.) |
| 29 | Positive sequence reactance at maximum tap | P. U. | 0.0620 (Approx.) |
| 30 | Zero sequence resistance | P. U. | 0.0059 (Approx.) |
| 31 | Zero sequence reactance | P. U. | 0.0480 (Approx.) |
| 32 | Regulation type | - | DETC |
| 33 | Tapping on HV | % | +5.0, +2.5, 0.0, -2.5, -5 |
| 34 | Design Ambient Temperature | °C | 40 |

| | | | |
|----|-----------------------|--------|--|
| 35 | Temp Rise of Top Oil | °C | 60 |
| 36 | Temp Rise of Winding | °C | 65 |
| 37 | Altitude | m | <1000 |
| 38 | Pollution class | | C4H |
| 39 | Sound Power Level | dB (A) | 65 |
| 40 | HV Conductor Material | | Aluminium |
| 41 | LV Conductor Material | | Aluminium |
| 42 | Paint Finish Colour | | Dark Admiralty Grey(BS 632 shade) |
| 43 | Transformer Type | | Free Breathing, bolted cover, tank attached cooler bank |
| 44 | HV termination type | | Cable Box - 12kV, 3-Pole, (Facing-'E' BS:2562) with 1 take off per phase |
| 45 | LV termination type | | Cable box - 1.1kV, 4-Pole, (Facing-'F', BS:2562) with 4 take off per phase & Neutral |
| 46 | Neutral | | Located inside - cable box |
| 47 | Harmonic distortion | THD % | <5% |

Accessories

| | | | |
|----|---------------------------------|--|-----|
| 48 | Drain & Sampling Valve | | Yes |
| 49 | Radiator Valves | | No |
| 50 | Dehydrating Breather | | Yes |
| 51 | Pressure Relief Device | | No |
| 52 | Oil Temperature Indicator | | No |
| 53 | Buchholz unit | | Yes |
| 54 | Winding Temperature Indicator | | No |
| 55 | Magnetic Liquid Level Indicator | | No |
| 56 | Conservator | | Yes |
| 57 | HV CTs | | No |
| 58 | LV CTs | | No |
| 59 | Neutral CTs | | No |
| 60 | Disconnecting links HV | | No |
| 61 | Disconnecting links LV | | No |
| 62 | Marshalling box | | No |
| 63 | Bund | | No |

Overall Dimensions

| | | | |
|----|--------|----|------|
| 64 | Length | mm | 1978 |
| 65 | Width | mm | 1862 |
| 66 | Height | mm | 2992 |
| 67 | Oil | L | 1820 |
| 68 | Weight | kg | 6750 |

| Testing Requirement | | | | | | | |
|---------------------|---|--|--|-------------|-----------------------|----------|----------------|
| 69 | Routine tests | | Yes. Kindly refer below for the list of routine tests conducted at manufacturing facility. | | | | |
| | <p>Comments: All losses, dimensions & weights are provisional only subject to confirmation following detailed design.</p> <p>List of Routine Tests - Per IEC 60076-1:</p> <ol style="list-style-type: none"> 1. Measurement of winding resistance (11.2) 2. Measurement of voltage ratio and check of phase displacement (11.3) 3. Measurement of short-circuit impedance and load loss (11.4) 4. Measurement of no-load loss and current (11.5) 5. Dielectric routine tests (IEC 60076-3) 6. Tests on on-load tap-changers, where appropriate (11.7) 7. Leak testing with pressure for liquid-immersed transformers (tightness test) (11.8) 8. Check of the ratio and polarity of built-in current transformers (If applicable) 9. Check of core and frame insulation for liquid immersed transformers with core or frame | | | | | | |
| | <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center; padding: 5px;">Prepared By</th><th style="text-align: center; padding: 5px;">Checked & Approved By</th></tr> </thead> <tbody> <tr> <td style="text-align: center; padding: 5px;">Nikhil N</td><td style="text-align: center; padding: 5px;">Srinivasan S R</td></tr> </tbody> </table> | | | Prepared By | Checked & Approved By | Nikhil N | Srinivasan S R |
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