

| PRELIMINARY e4 AMORPHOUS TRANSFORMER DATA SHEET | | | |
|---|--|-------|--|
| S.No. | Description | Units | Particulars |
| 1 | Project Name | | - |
| 2 | Quote Number | | - |
| 3 | Manufacturer | | Wilson Power Solutions Ltd |
| 4 | Applicable Standard | | IEC 60076 |
| 5 | General Arrangement Dwg | | - |
| 6 | Transformer Rating | kVA | 500 |
| 7 | Rated High Voltage @ No Load | Volts | 11000 |
| 8 | Rated Low Voltage @ No Load | Volts | 415 |
| 9 | Minimum Insulation class HV LI | kV | 75 |
| 10 | Minimum Insulation class HV AC | kV | 28 |
| 11 | Minimum Insulation class LV LI | kV | - |
| 12 | Minimum Insulation class LV AC | kV | 3 |
| 13 | Line Current LV / HV | A | 695.62 / 26.24 |
| 14 | Insulating Fluid | | Mineral Oil |
| 15 | Fans | | No |
| 16 | Pumps | | No |
| 17 | Type of Cooling | | ONAN |
| 18 | Number of Phases | | 3 |
| 19 | Frequency | Hz | 50 |
| 20 | Vector Group | | Dyn11 |
| 21 | Impedance Voltage (Z) Subjected to +/- IEC tolerance limits | % | 4.75 |
| 22 | Symmetrical Short Circuit Current in LV | kA | 14.35 |
| 23 | Symmetrical Short Circuit Current in HV Rated Tap | kA | 0.54 |
| 24 | Core Material | | Amorphous |
| 25 | No Load Losses | W | 295 |
| 26 | Load Losses @ 75°C | W | 2750 |
| 27 | Losses as per EU Regulation No. 548/2014 | | Exceeds Tier-2 Requirement |
| 28 | Resistance | % | 0.55 |
| 29 | Reactance | % | 4.72 |
| 30 | Positive sequence resistance at principal tap | P. U. | 0.0055 |
| 31 | Positive sequence reactance at principal tap | P. U. | 0.0472 |
| 32 | Positive sequence reactance at minimum tap | P. U. | 0.0447 |
| 33 | Positive sequence reactance at maximum tap | P. U. | 0.0497 |
| 34 | Zero sequence resistance | P. U. | 0.0044 |
| 35 | Zero sequence reactance | P. U. | 0.0380 |
| 36 | Regulation type | | DETC |
| 37 | Tapping on HV | % | +7.5,+5.0, +2.5, 0.0, -2.5, -5 |
| 38 | Design Ambient Temperature | °C | 40 |
| 39 | Temp Rise of Top Oil | °C | 60 |
| 40 | Temp Rise of Winding | °C | 65 |
| 41 | Altitude | m | <1000 |
| 42 | Pollution class | | C4H |
| 43 | HV Conductor Material | | Aluminium |
| 44 | LV Conductor Material | | Aluminium |
| 45 | Paint Finish Colour | | Dark Admiralty Grey (BS 632 shade) |
| 46 | Transformer Type | | Free Breathing, bolted cover |
| 47 | HV termination type | | Cable Box - 12kV, 3-Pole, (Facing-'E' BS:2562) with 1 take off per phase |

| | | | |
|---|---------------------------------|----------------------------------|--|
| 48 | LV termination type | | Cable box - 1.1kV, 4-Pole, (Facing-'F', BS:2562) with 1 take off per phase & Neutral |
| 49 | Neutral | | Located inside - cable box |
| 50 | Harmonis distortion | THD% | <5% |
| Accessories | | | |
| 51 | Drain Valve & Sampling Valve | | Yes |
| 52 | Radiator Valves | | No |
| 53 | Dehydrating Breather | | Yes |
| 54 | Pressure Relief Device | | No |
| 55 | Oil Temperature Indicator | | No |
| 56 | Buchholz unit | | No |
| 57 | Winding Temperature Indicator | | No |
| 58 | Magnetic Liquid Level Indicator | | No |
| 59 | Conservator | | No |
| 60 | HV CTs | | No |
| 61 | LV CTs | | No |
| 62 | Neutral CTs | | No |
| 63 | Disconnecting links HV | | No |
| 64 | Disconnecting links LV | | No |
| 65 | Marshalling box | | No |
| 66 | Bund | | No |
| Overall Dimensions | | | |
| 67 | Length | mm | 1835 |
| 68 | Width | mm | 1387 |
| 69 | Height | mm | 1750 |
| 70 | Oil | L | 897 |
| 71 | Weight | kg | 3370 |
| Testing Requirement | | | |
| 72 | Routine tests | | Yes |
| 73 | Lighting Impulse | | No |
| 74 | Chopped impules | | No |
| 75 | Temperture rise test | | No |
| 76 | Noise test | | No |
| 77 | Dissolved gas analysis | | No |
| 78 | Frequancy response analysis | | No |
| 79 | CT checks | | No |
| 80 | Other information | | |
| <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. Tightness tests and pressure tests for tanks for gas-filled transformers 9. Check of the ratio and polarity of built-in current transformers 10. Check of core and frame insulation for liquid immersed transformers with core or frame | | | |
| Prepared By | | Checked & Approved By | |
| Pavan Kiran | | Suresh V | |