WILSON
POWER SOLUTIONS

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	1000
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	1391.25 / 52.49
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 tolerence limits	%	4.75
22	Symmetrical Short Circuit Current in LV	kA	28.19
23	Symmetrical Short Circuit Current in HV Rated Tap	kA	1.06
24	Core Material		Amorphous
25	No Load Losses	W	460
26	Load Losses @ 75°C	W	5610
27	Losses as per EU Regulation No. 548/2014		Exceeds Tier-2 Requirement
28	Resistance	%	0.56
29	Reactance	%	4.72
30	Positive sequence resistance at principal tap	P. U.	0.0056
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.	0.0045
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 2 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	2010
68	Width	mm	1605
69	Height	mm	1750
70	Oil	L	1106
71	Weight	kg	4550
	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		

Comments: All losses, dimensions & weights are provisional only subject to confirmation following detailed design.
List of Routine Tests - Per IEC 60076-1:
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
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