



Standard Technical Specifications for Electrical Works

TRANSFORMERS / REACTORS / RESISTORS

(Data Sheets)

Filter Reactor, 5th Harmonic (Gapped-Iron Core, Indoor Type)

FEWA STANDARD : D-TRAFO-FR-G-5 (Rev.0-2010)



TRANSFORMERS / REACTORS / RESISTORS
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Sl. No.	REQUIRED	TENDERED
1.00	<u>GENERAL</u>	
1.01	Manufacturer	
1.01.1	name	
1.01.2	country of manufacturing	
1.02	Place of testing	
1.02.1	lightning impulse test	
1.02.2	all other tests	
1.03	Kind of installation	indoor
1.04	Applicable standards	IEC 60076, 60289, 60726
1.05	Type of cooling	AN
2.00	<u>RATINGS</u>	
2.01	Single or Three-phase unit	
2.02	Type of core	gapped iron core
2.03	Magnetic Characteristic	
2.04	Magnetic flux density at 1.1 x rated voltage across reactor	TESLA <1.1
2.05	Noise level (sound pressure) at measuring distance of 1.0 m	dB(A) <55
2.06	Rated voltage	
2.06.1	to earth	kV _{rms}
2.06.2	across reactor	kV _{rms}
2.06.3	across reactor	kV _{peak}
2.07	Rated frequency	H _z 50
2.08	Inductance	
2.08.1	rated value	mH
2.08.2	tolerance	+%
2.09	Rated reactance at rated frequency	Ω
2.10	Q-factor (nominal value at rated frequency)	
2.11	Rated currents (continuous rating)	A _{rms}

TENDERER`s STAMP SIGNATURE

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Sl. No.	REQUIRED	TENDERED
	at fundamental frequency	
2.12	Rated currents (short time rating) at fundamental frequency	A_{rms}
2.13	Rated kVar	kVar
2.14	Rated short-circuit capacity	
2.14.1	peak current	kA_{peak}
2.14.2	symmetrical current	kA_{rms}
2.14.3	duration	s 2
2.15	Current densities	
2.15.1	at rated short-time current	A/mm^2
2.15.2	at rated continuous current	A/mm^2
2.16	Maximum ambient temperature	$^{\circ}C$ 50
2.17	Temperature rise limit (windings) at 1.1 x rated current across reactor	K 90
2.18	Conductor material	Cu or Al
2.19	Is conductor transposed	yes/no
2.20	Resistance of reactor	
2.20.1	d.c. resistance	Ω
2.20.2	a.c. resistance at 50 Hz and 250 Hz	Ω
2.20.3	reference temperature	$^{\circ}C$
2.21	Loss per reactor at rated current	kW
2.22	Thermal class of insulation	F
3.00	<u>INSULATION LEVEL</u>	
3.01	Power frequency withstand voltage	kV 38
3.02	Lightning impulse level	kV 95
3.03	Minimum creepage distance of insulators (if any)	mm 372

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Sl. No.	REQUIRED	TENDERED
4.00	<u>TESTS</u>	
4.01	Routine tests according to these specifications	on each unit
4.02	Full wave lightning impulse test (on all terminals)	on each unit
4.02.1	test voltage	kV 95
4.02.2	polarity	positive
4.03	Separate source AC voltage withstand test	kV 38
4.04	Heat-run test (at 1.1 x rated current across reactor)	on each unit
4.05	Measurement of the acoustic sound level at 1.1 x rated voltage across reactor	on each unit
4.06	All other applicable tests according to these specifications	on each unit
5.00	<u>MASSES, MEASURES AND DRAWINGS</u>	
5.01	Overall dimensions (installed)	
5.01.1	diameter	mm
5.01.2	length	mm
5.02	Minimum clearance to metallic parts	
5.02.1	radially	mm
5.02.2	axially	mm
5.03	Total weights	
5.03.1	erected as for service	kg
5.03.2	ready for shipment	kg
5.04	Arrangement drawing showing all fittings and mounting details	Dwg No.
5.05	Arrangement drawing for shipping	Dwg No.
5.06	Pamphlet	

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