



Standard Technical Specifications for Electrical Works

TRANSFORMERS / REACTORS / RESISTORS

(Data Sheets)

Filter Reactor 11kV, 5th Harmonic (Air Core, Outdoor Type)

FEWA STANDARD : D-TRAFO-FDR-A-11-5 (Rev.0-2006)



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Filter Reactor 11kV, 5th Harmonic (Air Core, Outdoor Type)

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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	outdoor
1.04	Applicable standards	IEC 60076, 60289, 60726
1.05	Type of cooling	AN
2.00	<u>RATINGS</u>	
2.01	No. of phases per unit	
2.02	Type of core	air-core
2.03	Magnetising characteristic	
2.04	Rated voltage	
2.04.1	to earth	kV_{rms}
2.04.2	across Reactor	kV_{rms}
2.04.3	across Reactor	kV_{peak}
2.05	Rated frequency	Hz 50
2.06	Inductance	
2.06.1	rated value	mH
2.06.2	tolerance	+%
2.07	Rated reactance at rated frequency	Ω
2.08	Q-factor (nominal value at rated frequency)	
2.09	Rated currents (continuous rating) at fundamental frequency	A_{rms}
2.10	Rated currents (short time rating) at fundamental frequency	A_{rms}
2.11	Rated kVar	kVar
2.12	Rated short-circuit capacity	
2.12.1	peak current	kA_{peak}
2.12.2	symmetrical current	kA_{rms}

TENDERER's STAMP SIGNATURE



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Sl. No.		REQUIRED	TENDERED
2.12.3	duration	s	2
2.13	Current densities		
2.13.1	at rated short-time current	A/mm ²	
2.13.2	at rated continuous current	A/mm ²	
2.14	Maximum ambient temperature	°C	50
2.15	Temperature rise limit (windings) at 1.1 x rated current across reactor	K	90
2.16	Conductor material		Al
2.17	Is conductor transposed		yes/no
2.18	Resistance of reactor		
2.18.1	d.c. resistance	Ω	
2.18.2	a.c. resistance at 50 Hz and 250 Hz	Ω	
2.18.3	reference temperature	°C	
2.19	Loss per reactor at rated current	kW	
2.20	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		
3.03.1	against ground	mm	540
3.03.2	phase-to-phase spacers	mm	935
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

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Sl. No.	REQUIRED	TENDERED
4.05	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	
5.07	Description including instruction for transport and shipping conditions, operation and any special requirements	

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