



Three-phase oil-immersed hermetically sealed
distribution transformer with Petersen coil
200kVA, 20.5±2x2.5%/0.41kV/kV, ZNyn11+d

TECHNICAL DATA

1.	Manufacturer		KKM Power d.o.o, Serbia	
2.	Transformer type		Oil-immersed, hermetically sealed	
3.	Product kind		Distribution transformer with Petersen coil within the same tank	
4.	Standard		IEC 60076 (group of standards)	
5.	Product name		CNTRd 200 -20,5	
TRANSFORMER DATA				
6.	Rated power	[kVA]	200	
7.	Number of phases		3	
8.	Rated frequency	[Hz]	50	
9.	Highest voltage of equipment	[kV]	24	
10.	Insulation level	[kV]	LI 125 AC 50/LI0 AC10	
11.	Rated primary voltage	[kV]	20.5	
12.	Regulation on primary side	Yes/No	Yes	
13.	Rated secondary voltage	[kV]	0.41	
14.	Connection group		ZNyn11+d	
15.	No-load losses	[W]	400	
16.	Load losses at 75°C	[W]	3000	
17.	Impedance voltage at 75°C	[%]	4	
PETERSEN COIL DATA				
18.	Highest voltage of equipment	[kV]	24	
19.	Insulation level	[kV]	LI 125 AC 50	
20.	Rated voltage	[kV]	20.5/√3	
21.	Tap position	Rated Power [kVAr]	Rated Current [A]	Rated Impedance [Ω]
	1	60	5	2367
	2	89	7.5	1578
	3	119	10	1183
	4	148	12.5	947
	5	178	15	789



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CONNECTION OF TRANSFORMER AND PETERSEN COIL DATA

22.	Rated fault duration	[h]	≤ 2
23.	R ₀ /X ₀ ratio at 75°C (at tap position 3 of reactor)	[%]	< 2.5
24.	Non-linearity up to 1.1xU _r	[%]	< 2.0
25.	Type of cooling		ONAN
26.	Installation altitude	[m]	<1000
27.	Winding material	Cu/Al	Copper
28.	Maximum temperature of ambient	[°C]	40
29.	Maximum temperature rise of winding	[K]	65
30.	Maximum temperature rise of oil	[K]	60
31.	Thermal class of insulation		A
32.	Installation conditions		Outdoor
33.	Approximate length of product	[mm]	1140
34.	Approximate width of product	[mm]	1030
35.	Approximate height of product	[mm]	1400
36.	Mass of oil in product	[kg]	530
37.	Total mass of product	[kg]	1830
ACCESSORIES			
38.	HV porcelain bushing		DIN 42531 24kV; 250A
39.	HV plug-in neutral bushing		EN 50180 24kV; 250A
40.	LV porcelain bushing		DIN 42530 1kV; 630A
41.	Transformer tap changer		Standard, offload
42.	Reactor tap changer		Standard, offload
43.	Oil level indicator		Standard, vertical for hermetically sealed tanks
44.	Oil drain valve		Standard