



Three-phase oil-immersed hermetically sealed  
distribution transformer with Petersen coil  
315kVA, 20.5/0.41kV/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		<b>CNTd 315 -20,5</b>	
TRANSFORMER DATA				
6.	Rated power	[kVA]	315	
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	No	
13.	Rated secondary voltage	[kV]	0.41	
14.	Connection group		Znyn11+d	
15.	No-load losses	[W]	520	
16.	Load losses at 75°C	[W]	5000	
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.	Maximum operating voltage	[kV]	24/√3	
22.	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

23.	R/X ratio at 75°C (at tap position 3, rated current 10A)	[%]	< 2.5
24.	Non-linearity up to 1.1xUn (at tap position 3, rated current 10A)	[%]	< 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.	Type of terminal connections		HV: A,B,C-DIN 42531, N-Plug-in LV: DIN 42530
34.	Approximate length of product	[mm]	1280
35.	Approximate width of product	[mm]	1050
36.	Approximate height of product	[mm]	1500
37.	Mass of oil in product	[kg]	620
38.	Total mass of product	[kg]	2200