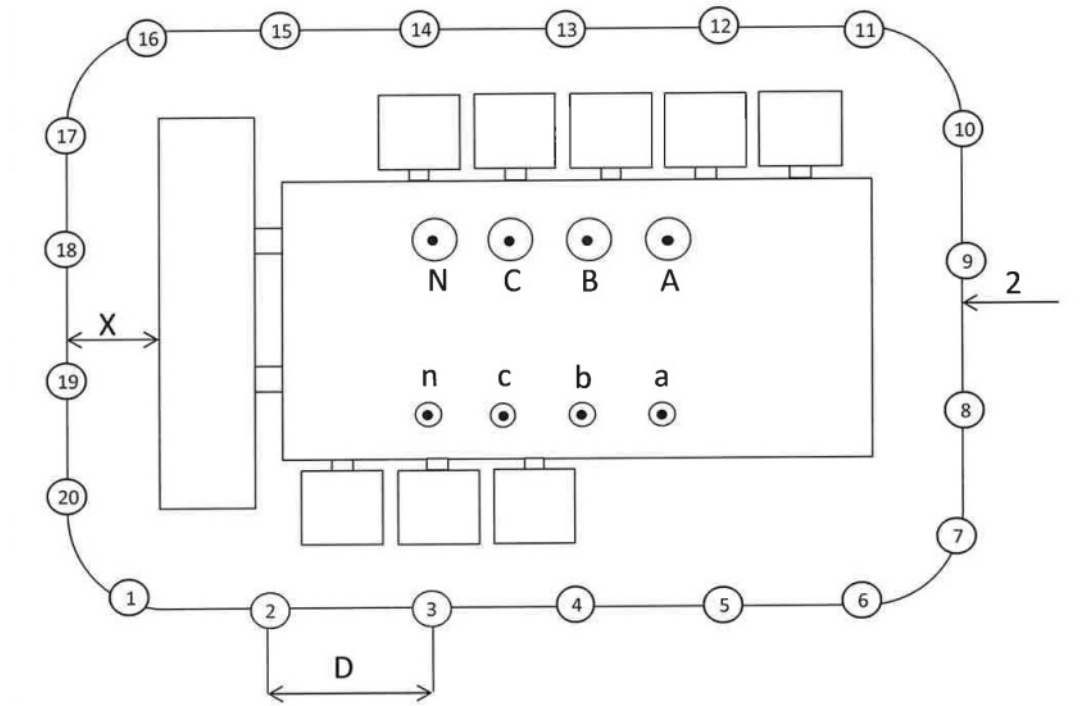


Från: Tony Aspvist <tony.aspvist@sodrahallandskraft.se>
Till: Camilla Nermark <camilla.nermark@bastad.se>, Mats Lundgren <mats.lundgren@sodrahallandskraft.se>
Datum: 2023-11-10 09:02
Ärende: Sv: Lågfrekvent buller från fördelningsstation?

Hej
Ej uppmätt på aktuell transformator men en likvärdig.

MEASUREMENT OF NOISE LEVEL



2 Prescribed contour

h Height of tank

2,325 m

D Distance between measurements points

1 m

X Microphone distance from transformer

1 m

Height of measure

1/2 h

DETERMINATION OF NOISE LEVEL

Determination of transformer sound level in dB(A) according to IEC 60076-10:2001-05

Measurement at 1/2 h						
Meas. points	Initial backgr. noise level	Measure	Final backgr. noise level			
1	34,60	45,30	34,50			
2	34,30	46,10	34,40			
3	34,10	46,80	34,20			
4	34,00	46,90	34,10			
5	35,60	46,80	35,50			
6	35,00	45,00	35,10			
7	35,20	45,10	35,30			
8	35,80	47,40	35,70			
9	35,70	45,10	35,60			
10	34,20	44,30	34,40			
11	34,10	44,90	34,20			
12	34,30	48,00	34,40			
13	34,60	46,40	34,50			
14	35,40	46,60	35,50			
15	35,90	44,30	36,00			
16	35,60	43,70	35,70			
17	35,80	43,80	35,60			
18	34,20	42,00	34,40			
19	34,10	40,40	34,30			
20	33,50	41,40	33,60			

Settings	
Supplied winding	
MT-22000-P	
Test conditions	
No-load test	
Supplied voltage	
22000	V
Frequency	
50	Hz
Cooling	
ONAN	
Height of tank	
2,33	m
Measurement points	
20	
Measurement distance (X)	
1,0	m
Height of transformer from floor	
0,5	m

Prescribed contour (lm)	
19,26	m
Area of the measurem. surface (S)	
64,14	m ²

TEST RESULT - ONAN

Average sound pressure level (LpA0) 45,4 db(A)

	After	Before
Average background noise pressure level (LbgA)	34,9	34,9 db(A)

LpA0 - max(LbgA) 10,5 db(A)

Environmental correction (K) 1,47 db(A)

$$L_{pA} = 10 \times \lg \left(10^{0,1L_{pA0}} - 10^{0,1L_{bgA}} \right) - K$$

	Measured	Guaranteed
Corrected average sound pressure level (LpA)	43,55	60,00 db(A)

Calculation of sound power level (S0=1m2) (LwA)	61,62	db(A)
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Med vänliga hälsningar
Tony Aspvist
 Enätsansvarig

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