

[REDACTED]

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**From:** [REDACTED]  
**Sent:** Tuesday, July 21, 2020 4:38 PM  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** RE: Sound level transformer  
**Attachments:** MS4408A881.pdf; MS4408A801.pdf

Hello [REDACTED],

Hereby you receive the data of the sound production of a transformer and you have enclosed the drawings of a compact station type diabololo 40H.

If you need more information I would like to hear that.

EN 50588 gives in table 2 a noise level of 63 dB [A] (2500kVA) for a transformer without housing, without mentioning a measuring distance.

The 0.3 m from IEC 60076-10 for distribution transformers will be considered here.

Usually a concrete housing provides a decent damping, except for the grille.

Also, the mains voltage is generally lower than the voltage on the transformer's rating plate, which also reduces the noise level.

I suppose (open to discussion) that these effects together make  $L_w$  (sound power level) equal to  $L_{pr}$  (at measuring distance).

The noise level at 100 m distance can then be calculated with formula 27 from the aforementioned IEC 60076-10:  $63 \text{ dB [A]} - 10 * \log(2 * \pi * 100\text{m}^2) = 15 \text{ dB [A]}$

Actually, this is a purely academic answer, because the lower hearing limit in young people is 20 dB [A] ...

Table 2.

Kind regards / Met vriendelijke groet / Mit freundlichen Grüßen,

[REDACTED]  
Commercial Manager Smart Grid Solutions



Contact

Mob: [REDACTED]

Email: [REDACTED]



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*Think of the environment, print only if it's really necessary.*

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<b>Rated power</b>	<b>AAA<sub>0</sub></b>	<b>AA<sub>0</sub></b>	<b>L<sub>WA</sub></b>	<b>A<sub>0</sub></b>	<b>L<sub>WA</sub></b>
kVA	W	W	dB(A)	W	dB(A)
≤ 25	35	63	36	70	37
50	45	81	38	90	39
100	75	130	40	145	41
160	105	189	43	210	44
250	150	270	46	300	47
315	180	324	48	360	49
400	220	387	49	430	50
500	260	459	50	510	51
630	300	540	51	600	52
800	330	585	52	650	53
1000	390	693	54	770	55
1250	480	855	55	950	56
1600	600	1080	57	1200	58
2000	730	1305	59	1450	60
2500	880	1575	62	1750	63
3150	1100	1980	63	2200	64

Van: [REDACTED]

Verzonden: dinsdag 21 juli 2020 14:40

Aan: [REDACTED]

CC: [REDACTED]

Onderwerp: Sound level transformer

Hello [REDACTED]