

EQUIPMENT NOISE DATE SHEET



Notes

Acoustical definitions, methods in accordance with ISO 9614, ISO 11203

- ¹Data Source Codes: A) Noise Test identical equipment B) Noise Test similar equipment C) Estimation VDI 2159 / VDI 3731 or similar
²The reference surface is typically a cuboid enclosing the component in 1m distance from the machine surface or base frame, see layout. Dimensions are given in length, width, height (L x W x H). If the component is located inside a noise control enclosure the size of the enclosure is given.
³Octave band values are un-weighted levels at the given center frequencies.
⁴The sum value is the A-weighted overall level.
Lw is Sound Power Level in decibels re 1E-12 Watts according to ISO 9614.
Lp is Sound Pressure Level in decibels re 20 µPa on a measurement surface fully enclosing the component according to ISO 11203.
Sound pressure level is a geometric mean value under free-field conditions.
Octave band levels are in un-weighted decibels. Noise test according to MAN Noise Test Specification 10001026174.
Upper tolerance is 3.0 dB, uncertainty of measurement due to measuring procedure in accordance to EN ISO 9614-2.
Connected piping (incl. silencers) with noise control insulation, insertion loss Class C according to ISO 15665.
Noise control insulation of the connected piping (incl. silencers) is not within the scope of MAN Energy Solutions.

Train Configuration

Component	Operation Point	Power [kW]	Inside Enclosure	Data Source ¹	Distance	Size ² L x W x H [m]
E-Motor typical	Normal	8600	no	B	1.0	3.6 x 2.8 x 2.8
Compressor RG28-6 incl. insulated pipes and coolers	Rated	7803	no	B	1.0	11.0 x 13.2 x 7.5
Lube Oil System	Normal	-	no	B	1.0	3.0 x 5.8 x 4.7
Train	-	-	-	-	1.0	20.4 x 14.4 x 7.5

Components		dB/Hz ³	63	125	250	500	1k	2k	4k	8k	Sum dB(A) ⁴
E-Motor (preliminary)	Casing	Lw	101	106	98	98	95	102	83	74	105
		Lp	81	86	78	78	75	83	63	54	85
RG28-6 incl. insulated pipes and coolers	Casing	Lw	120	122	120	111	111	110	116	110	120
		Lp	92	93	91	83	83	81	87	82	92
Lube Oil System (preliminary)	Casing	Lw	68	70	78	86	93	96	105	102	108
		Lp	45	47	55	63	70	73	82	79	85

Train		dB/Hz ³	63	125	250	500	1k	2k	4k	8k	Sum dB(A) ⁴
Train	With insulated pipes	Lw	120	122	120	112	111	111	116	111	121
		Lp	90	92	89	82	81	81	86	81	90

Measuring procedure in accordance to ISO 9614-2. Uncertainty of measurement is +/- 3dB, refer to ISO 9614-2 chapter 4.3