

# Technical Data

Quantity 1	Fan type <b>REU 729g/2.5-1001-D-4-37-Rh/1485</b>				
position 1	Offer 23106266-6	customer Rox-Klimatechnik GmbH	Project 28025	Plant / Order	Date/Contact 07.11.2024/MP

centrifugal fan, free-running wheel, direct drive for mounting in walls with insulating cassette

<b>Data from input</b> Volume flow m <sup>3</sup> /h 50000 Static pressure rise Pa 1602 Inlet pressure Pa 0 Density (Ambient) kg/m <sup>3</sup> 0,911 Temperature °C 110 ambient temperature °C 20 Pressure (Ambient) kPa 100,13 Altitude m 100 Medium air Connection No connection operating mode <b>Performance data</b> Temperature °C 110 Standard volume flow Nm <sup>3</sup> /h 35225 Volume flow m <sup>3</sup> /h 50000 Total pressure rise Pa 1743 Static pressure rise Pa 1602 Dynamic pressure (outlet) Pa 141 Density (at inlet) kg/m <sup>3</sup> 0,911 Power (impeller) kW 29,54 Speed 1/min 1485 Frequency Hz 50,1 Outlet velocity m/s 17,5 Efficiency, impeller % 81,4 moment of inertia kgm <sup>2</sup> 18,2 Run-up time approx. s 8,7 <b>Motor Data</b> make HELMKE Type DOR225S-4-3G Size 225S Power kW 37 Speed 1/min 1483 rated current A 66,9 Voltage V 400VD/690VY Frequency Hz 50(50,1) Design B3 Terminal box up Efficiency class IE3 Ex Protection - Heat class/Enclosure F/IP55 Startup Freq. converter (VFD) Motor protection PTC 1x3 - 150°C Insulated bearing NDE - Roller bearing in D-side - Weight kg 314 <b>Motor Accessories</b> - M8 SPM Nippel - silicon free	<b>Fan data</b> Fan type REU 729g/2.5-1001-D-4-37-Rh/1485 Housing position Rh Housing - Console - nozzle coefficient 0,4182 Connection suct. side 1120x1120 mm DIN 24193 T1 Weight excl. Motor ca. 276 kg Max. allowed temperat. 110 °C <b>Components</b> Material surface treatment Impeller 1.0038 C2-L (PUR-Lack) RAL 9007 Blades S3 Console 1.0038 C2-L (PUR-Lack) RAL 9007 <b>Design</b> - balancing grade ex works, acc. protocol G6,3 ISO 14694 - impeller design with back vanes - insulation cassette 100 mm - screwed taper hub incl. bushing - fan design silicon free - fan design BLTV Automotive Standard - max. speed ca. 1.580 1/min, power ca. 36 kW <b>Mounted Accessories</b> - disc sealing - Kompensator Saugseite, Standard, T<=200°C, EI 130mm, BI 150mm, 1120x1120 - Inlet nozzle with protection - cooling disk 4 with protection - piezometer ring copper / brass - sound hood, mounted on motor support, with passive cooling air supply, galvanized sheet metal <b>Other specifications</b> - packaging EW palett + film hood - type plate film / German - Installation of fan inside, suspended from customer's system - documentation Standard (EU languages)
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Here, if not stated differently, according to BLTV-STANDARD. Performance data acc. DIN 24166 class 2

When using speed control you have to check while commissioning where the resonance frequency of the ventilator occurs (e.g. by tracking analysis). You have to ensure that these frequencies are passed through quickly and no continuous operation takes place in this range. Frequent passing through the resonance frequencies reduces the lifetime of the ventilator!

# Technical Data

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centrifugal fan, free-running wheel, direct drive for mounting in walls with insulating cassette

### Data from input

Volume flow	m³/h	50000
Static pressure rise	Pa	1602
Inlet pressure	Pa	0
Density (Ambient)	kg/m³	0,911
Temperature	°C	110
ambient temperature	°C	20
Pressure (Ambient)	kPa	100,13
Altitude	m	100
Medium	air	
Connection	No connection	
operating mode		

### Fan data

Fan type	REU 729g/2.5-1001-D-4-37-Rh/1485
Housing position	Rh
Housing	-
Console	-
nozzle coefficient	0,4182
Connection suct. side	1120x1120 mm DIN 24193 T1
Weight excl. Motor ca.	276 kg
Max. allowed temperat.	110 °C

Performance data		Oper. point 1	Oper. point 2	Oper. point 3	Oper. point 4
		Operation	Operation	Operation	Operation
Temperature	°C	110	20	110	110
Standard volume flow	Nm³/h	35225	46039	35225	38747
Volume flow	m³/h	50000	50000	50000	55000
Total pressure rise	Pa	1743	1786	1513	1830
Static pressure rise	Pa	1602	1602	1372	1660
Dynamic pressure (outlet)	Pa	141	184	141	170
Density (at inlet)	kg/m³	0,911	1,191	0,911	0,911
Power (impeller)	kW	29,54	30,54	25,75	34,05
Speed	1/min	1485	1387	1426	1568
Frequency	Hz	50,1	46,8	48,1	52,9
Outlet velocity	m/s	17,5	17,5	17,5	19,2
Efficiency, impeller	%	81,4	80,7	81,2	81,6
moment of inertia	kgm²	18,2	18,2	18,2	18,2
Run-up time approx.	s	8,7	7,6	8	9,7

Noise pressure level (Free outlet level)	Hz	Total	63	125	250	500	1000	2000	4000	8000
Total level Oper. point 1	LwA 1 dB(A)	102,8	81,5	90,2	96,5	97,7	96,9	93,1	87	78,2
	LpA 6(1m) dB(A)	92,6	65,6	78,2	86,5	89,1	85,3	80,6	74,5	66,6
Total level Oper. point 2	LwA 1 dB(A)	103,4	82,4	91	97,2	98,4	97,4	93,6	87,4	78,4
	LpA 6(1m) dB(A)	93,3	67,2	79,3	87,3	89,8	85,9	81	74,9	66,9
Total level Oper. point 3	LwA 1 dB(A)	101,9	80,8	89,5	95,7	96,9	96	92,1	86	77,1
	LpA 6(1m) dB(A)	91,8	64,9	77,4	85,7	88,3	84,4	79,6	73,5	65,6
Total level Oper. point 4	LwA 1 dB(A)	103,9	82,4	91,2	97,5	98,9	98,1	94,4	88,4	79,6
	LpA 6(1m) dB(A)	93,7	66,5	79,1	87,6	90,2	86,5	81,9	75,9	68,1

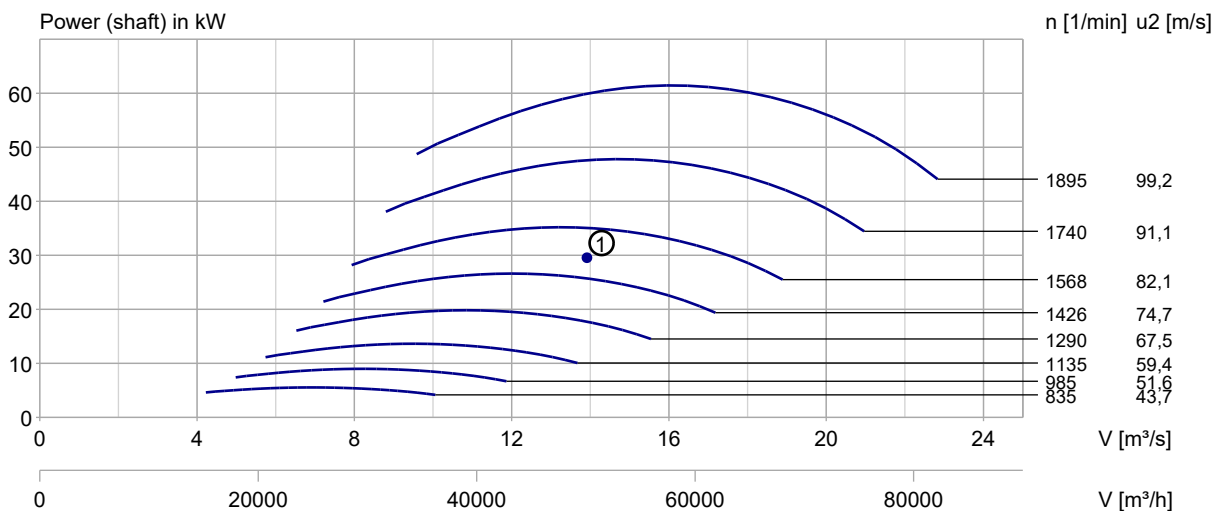
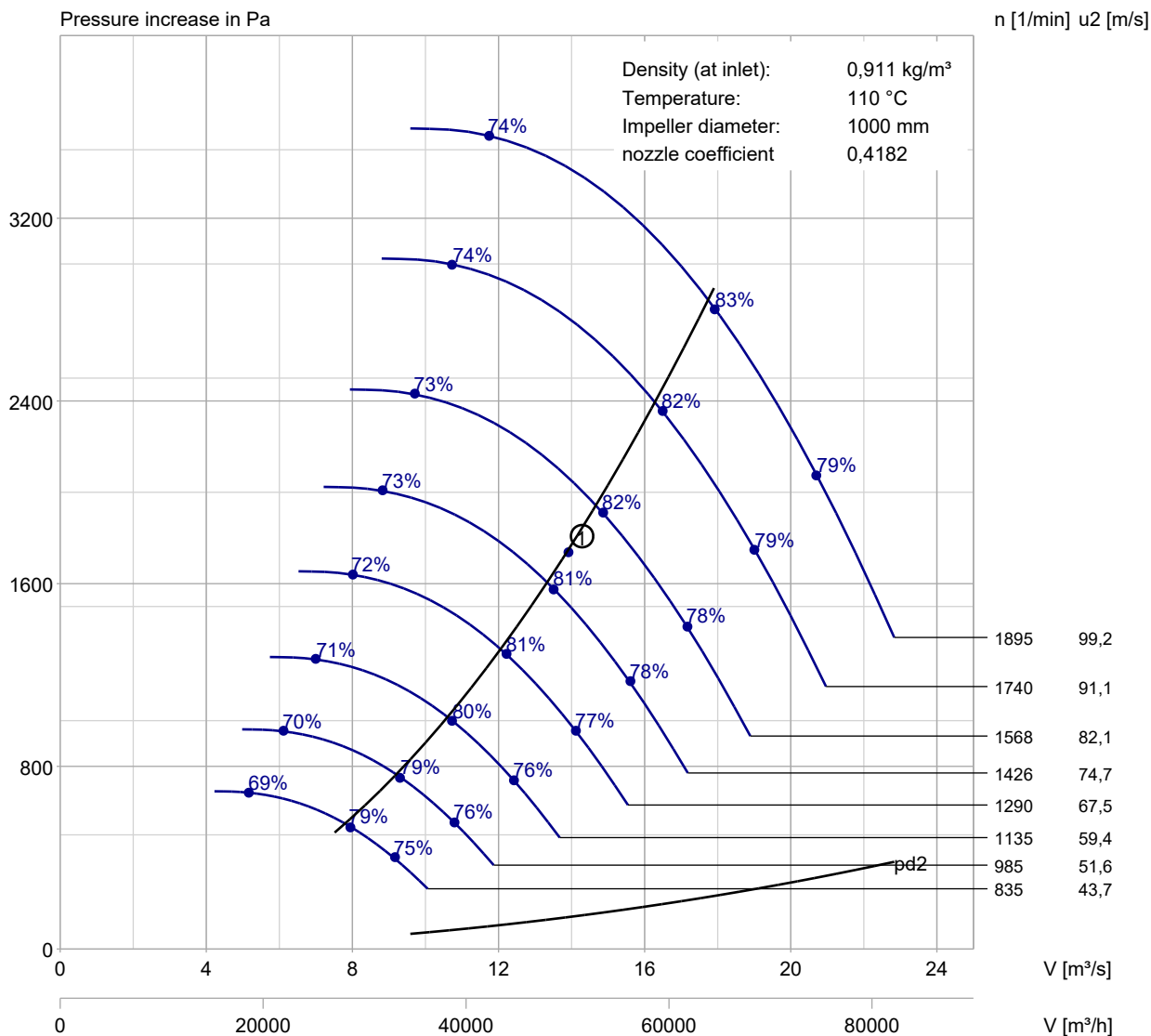
Here, if not stated differently, according to BLTV-STANDARD. Performance data acc. DIN 24166 class 2

When using speed control you have to check while commissioning where the resonance frequency of the ventilator occurs (e.g. by tracking analysis). You have to ensure that these frequencies are passed through quickly and no continuous operation takes place in this range. Frequent passing through the resonance frequencies reduces the lifetime of the ventilator!

# Characteristic - Customer units

Quantity 1 Fan type **REU 729g/2.5-1001-D-4-37-Rh/1485**

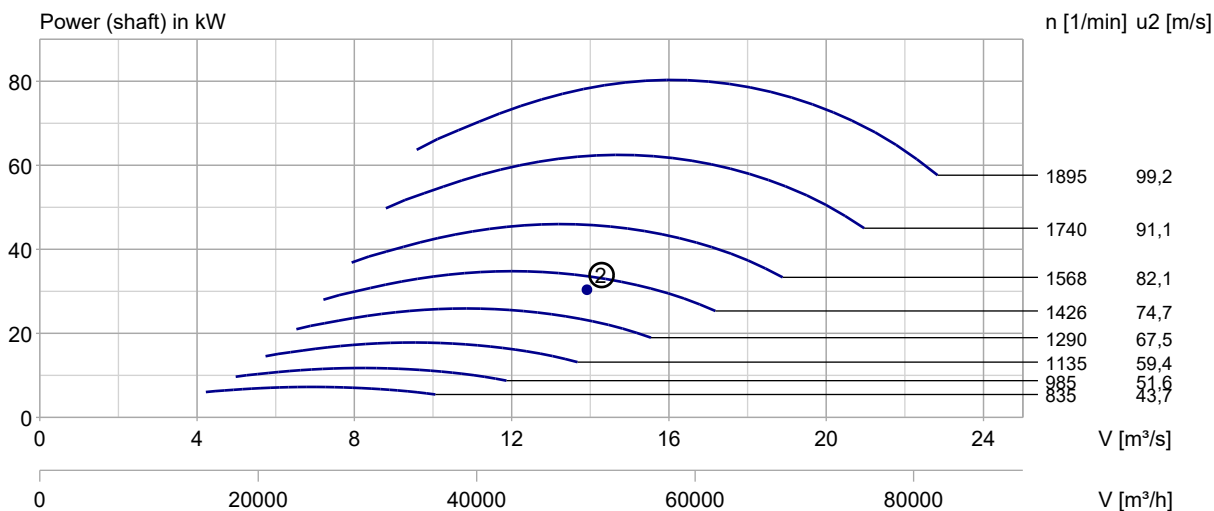
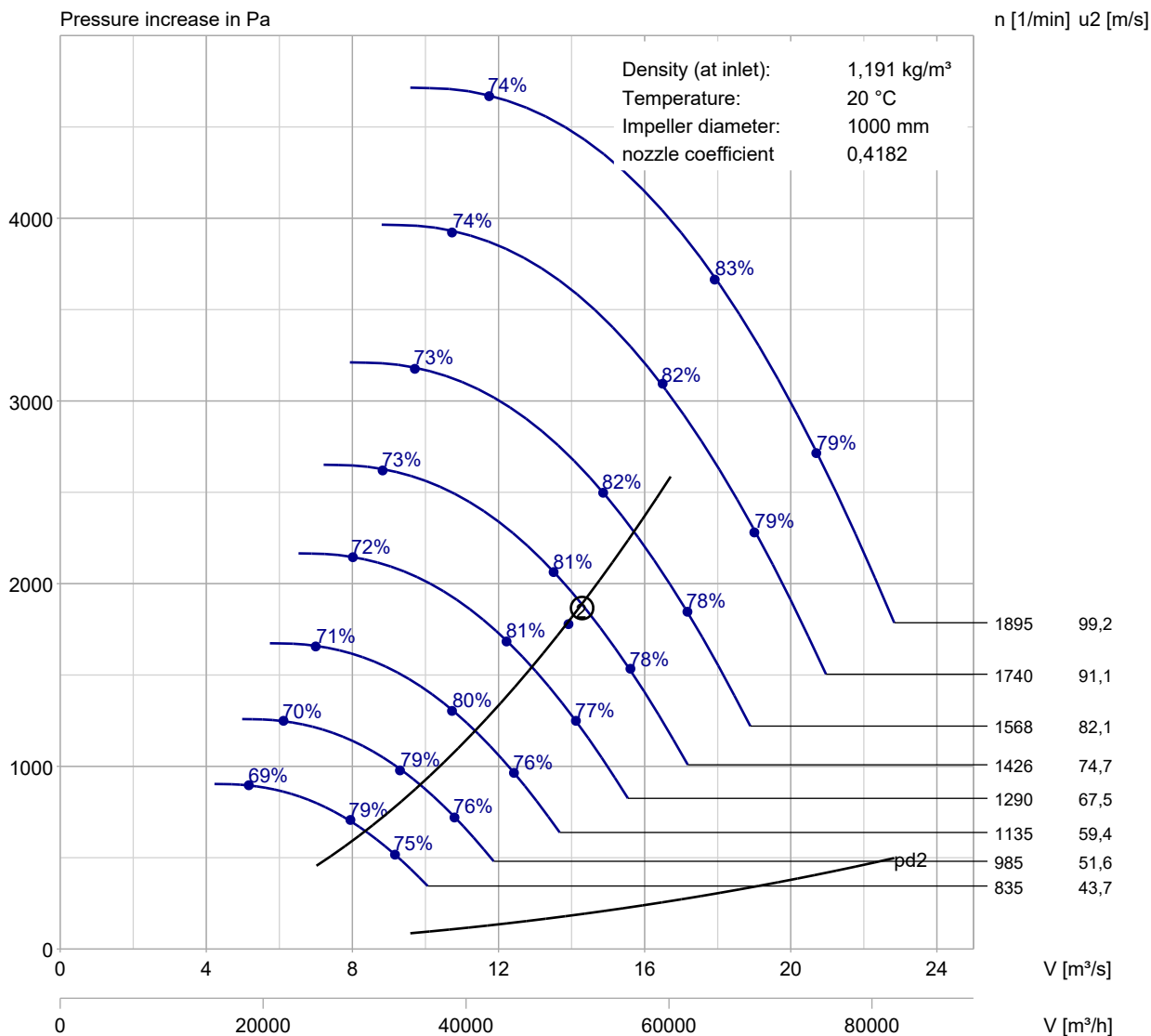
position 1	Offer 23106266-6	customer Rox-Klimatechnik GmbH	Project 28025	Plant / Order	Date/Contact 07.11.2024/MP
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# Characteristic - Customer units

Quantity 1 Fan type **REU 729g/2.5-1001-D-4-37-Rh/1485**

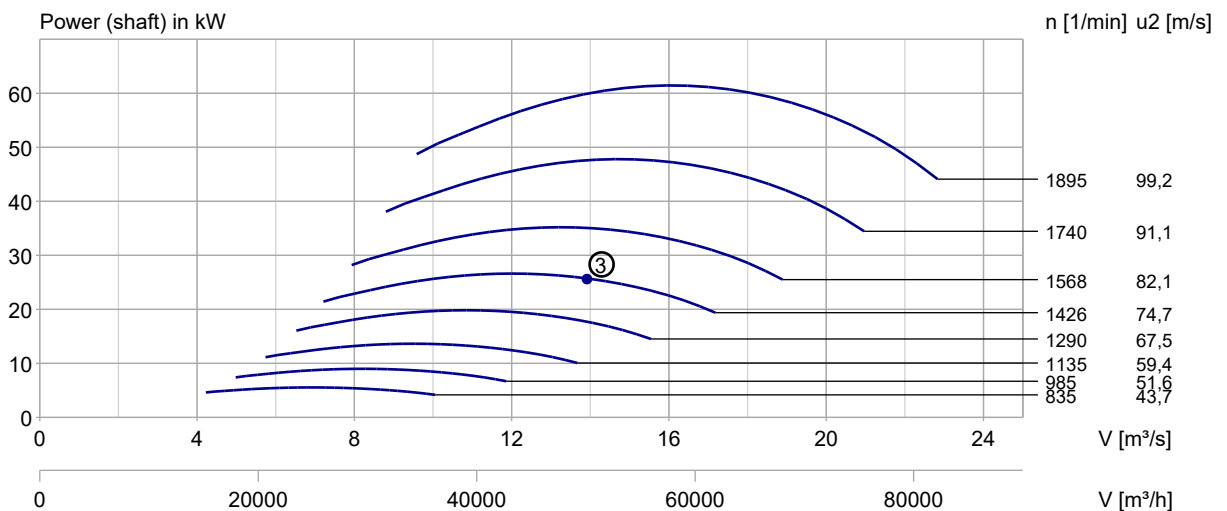
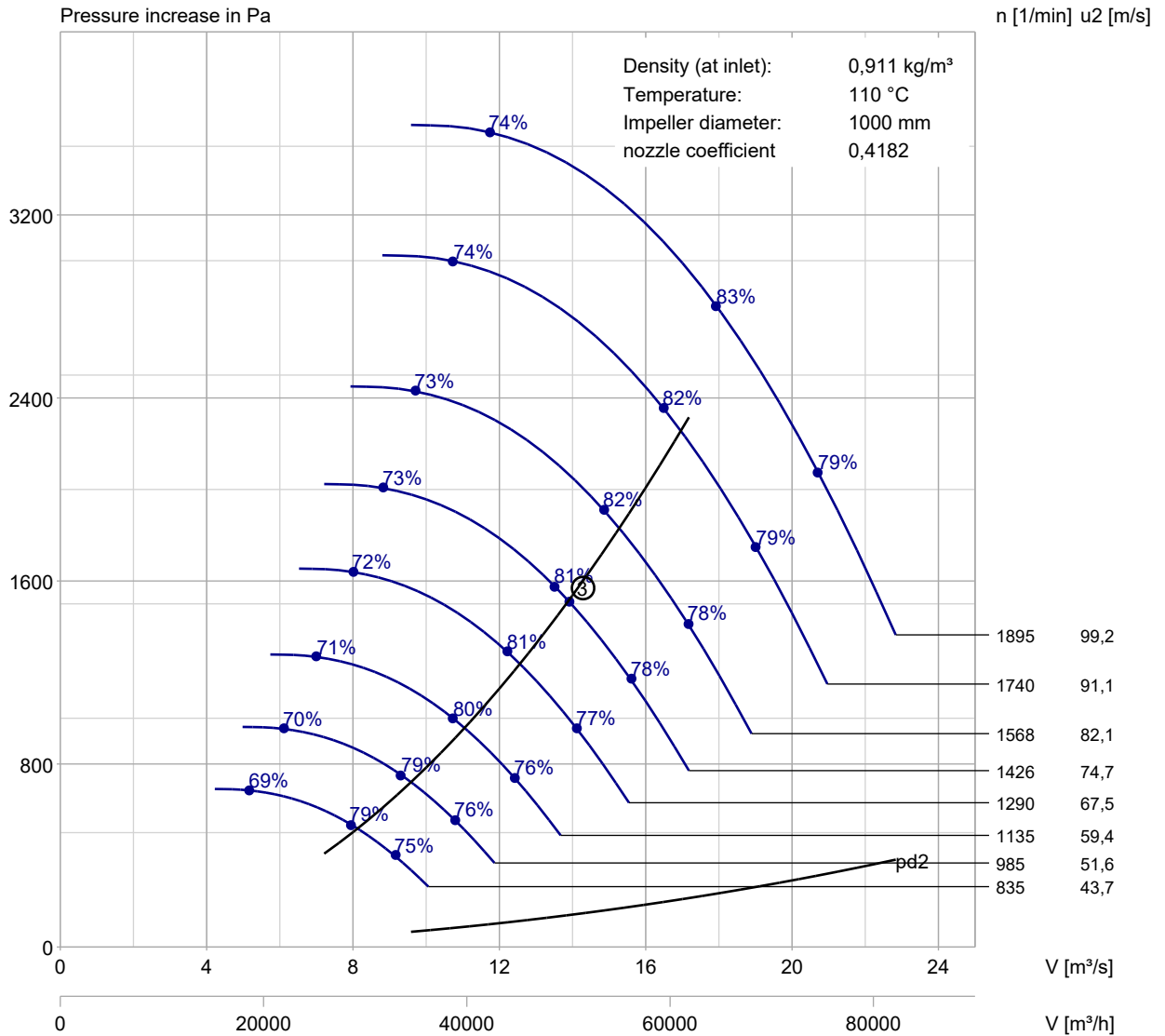
position 1	Offer 23106266-6	customer Rox-Klimatechnik GmbH	Project 28025	Plant / Order	Date/Contact 07.11.2024/MP
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# Characteristic - Customer units

Quantity 1	Fan type <b>REU 729g/2.5-1001-D-4-37-Rh/1485</b>
position 1	Offer 23106266-6

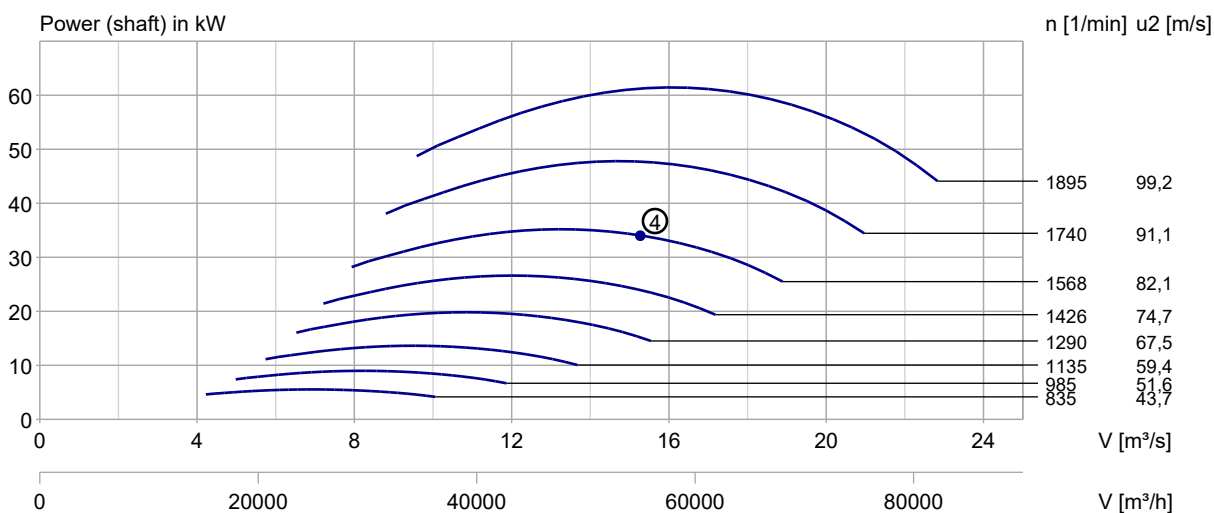
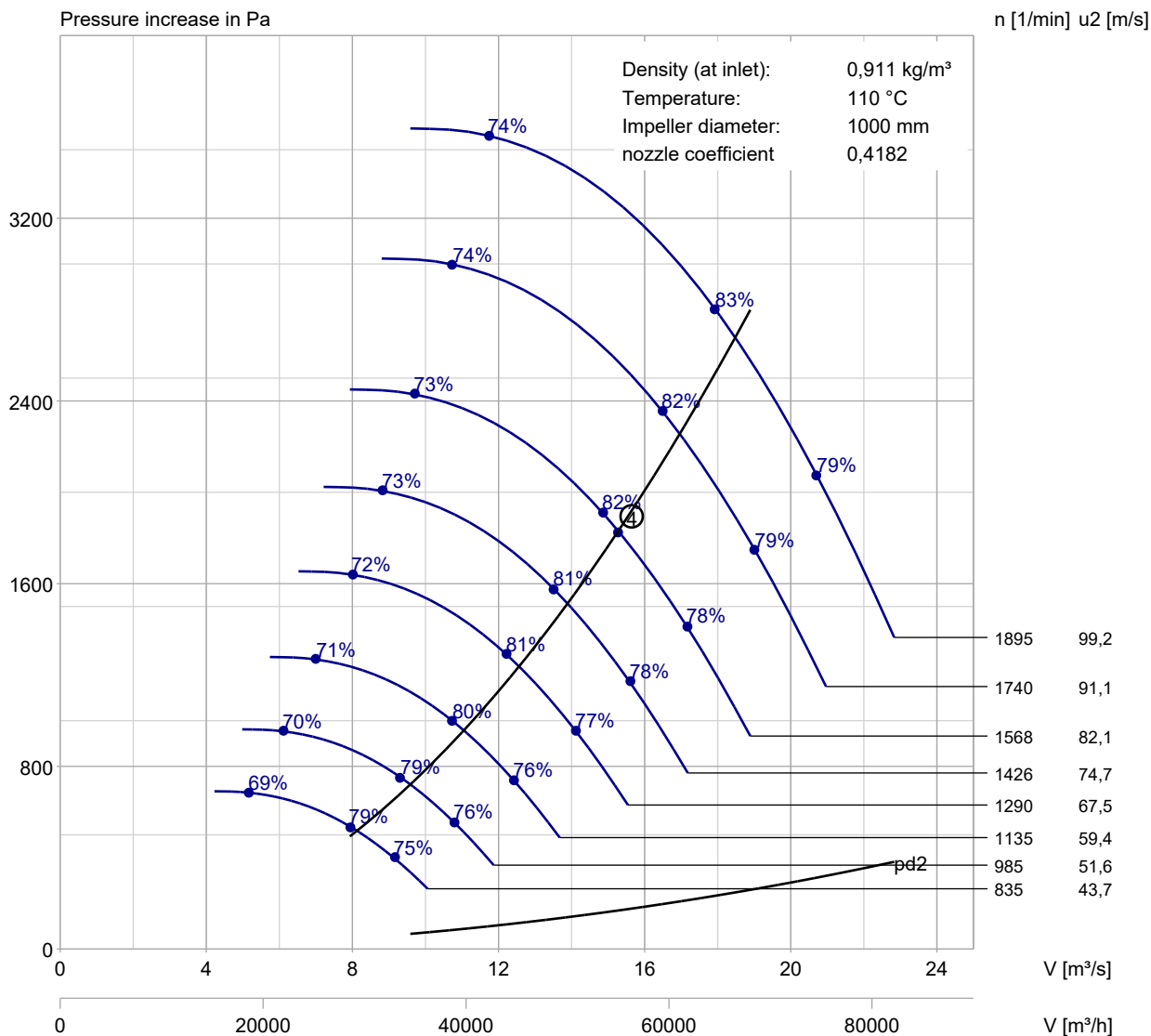
customer Rox-Klimatechnik GmbH	Project 28025	Plant / Order	Date/Contact 07.11.2024/MP
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# Characteristic - Customer units

Quantity 1 Fan type **REU 729g/2.5-1001-D-4-37-Rh/1485**

position 1	Offer 23106266-6	customer Rox-Klimatechnik GmbH	Project 28025	Plant / Order	Date/Contact 07.11.2024/MP
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# Sound data



Ventilatoren und Prozesslufttechnik GmbH

Quantity 1 Fan type **REU 729g/2.5-1001-D-4-37-Rh/1485**

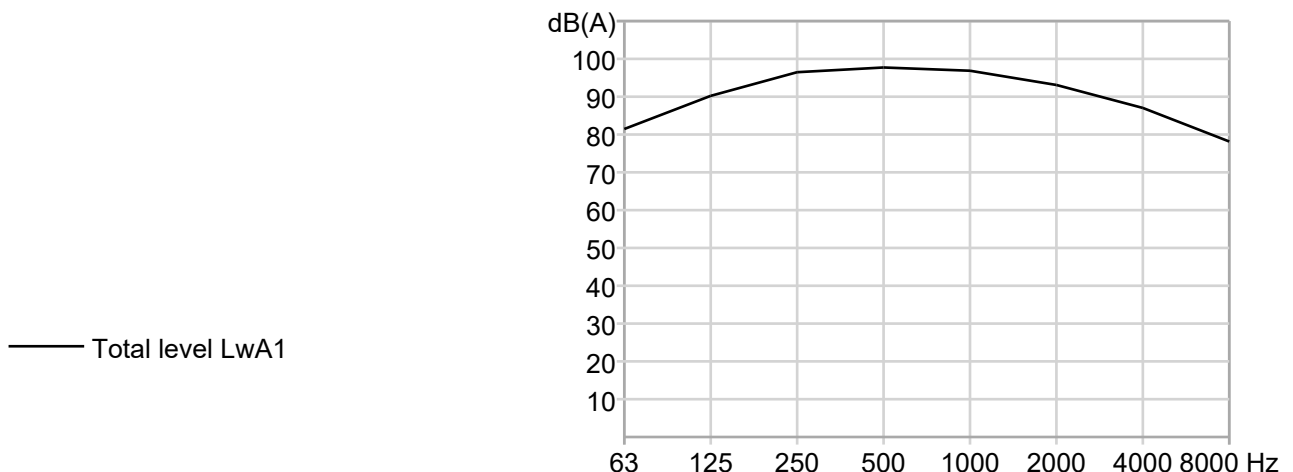
position 1	Offer 23106266-6	customer Rox-Klimatechnik GmbH	Project 28025	Plant / Order	Date/Contact 07.11.2024/MP
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Oper. point	1				
Housing		0 mm	Volume flow	50000	m <sup>3</sup> /h
Inlet diameter	-	mm	Total pressure rise	1743	Pa
Outlet opening	3142x250	mm	Medium temperature	110	°C
Operating speed	1485	1/min	Medium density	0,911	kg/m <sup>3</sup>
Number of blades	9		Oper. point V/Vopt	0,99	
Blade frequency	223	Hz	Measurement plane dimension	0	db

Basic capacity (VDI 3731)	db	111,8								
Sound adjustment	db	0								
<b>Octave band</b>	<b>Hz</b>	<b>Total</b>	<b>63</b>	<b>125</b>	<b>250</b>	<b>500</b>	<b>1000</b>	<b>2000</b>	<b>4000</b>	<b>8000</b>
Turning sound adjustment	db		0	0	1	0	0	0	0	0
Strouhal number	db		0,8	1,6	3,2	6,4	12,9	25,7	51,4	102,9
Relative spectrum	db		-4,2	-5,5	-7,8	-10,9	-15	-19,9	-25,8	-32,6
Linear total level	db	111,8	107,7	106,3	105,1	100,9	96,9	91,9	86	79,3
A-weighting	db		-26,2	-16,1	-8,6	-3,2	0	1,2	1	-1,1
Insulation platethickness housing	db		0	0	0	0	0	0	0	0
Total level	LwA 1 dB(A)	102,8/102,8*	81,5	90,2	96,5	97,7	96,9	93,1	87	78,2
Free inlet level	LwA 5 dB(A)	102,1	76,1	87,7	94	97,6	96,8	93,1	87	78,1
	LpA 5(1m) dB(A)	90,6	64,6	76,2	82,5	86,1	85,3	81,6	75,5	66,6
Free outlet level	LwA 6 dB(A)	104,1	77,1	89,7	98	100,6	96,8	92,1	86	78,1
	LpA 6(1m) dB(A)	92,6	65,6	78,2	86,5	89,1	85,3	80,6	74,5	66,6

Sound level	LwA dB(A)	85
Noise reduction motor	Lw db	2
additional noise source	LwA dB(A)	0

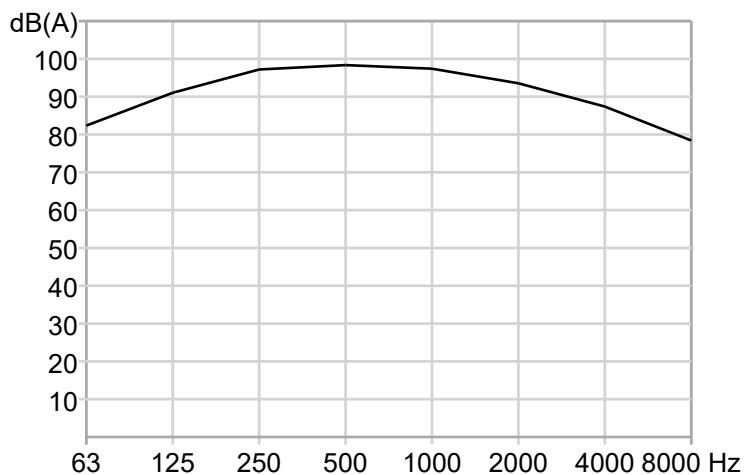
\* Sound ± 3dB data incl. motor (Noisedata for motor at nom. RPM)



# Sound data

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position 1	Offer 23106266-6	customer Rox-Klimatechnik GmbH	Project 28025	Plant / Order	Date/Contact 07.11.2024/MP

Oper. point	2									
Housing		0 mm	Volume flow	50000	m <sup>3</sup> /h					
Inlet diameter	-	mm	Total pressure rise	1786	Pa					
Outlet opening	3142x250	mm	Medium temperature	20	°C					
Operating speed	1387	1/min	Medium density	1,191	kg/m <sup>3</sup>					
Number of blades	9		Oper. point V/Vopt	1,06						
Blade frequency	208	Hz	Measurement plane dimension	0	db					
Basic capacity (VDI 3731)	db	112,6								
Sound adjustment	db	0								
<b>Octave band</b>	<b>Hz</b>	<b>Total</b>	<b>63</b>	<b>125</b>	<b>250</b>	<b>500</b>	<b>1000</b>	<b>2000</b>	<b>4000</b>	<b>8000</b>
Turning sound adjustment	db		0	0	1	0	0	0	0	0
Strouhal number	db		0,9	1,7	3,4	6,9	13,8	27,5	55,1	110,2
Relative spectrum	db		-4,1	-5,5	-7,8	-11,1	-15,2	-20,3	-26,2	-33,1
Linear total level	db	112,6	108,6	107,1	105,8	101,6	97,4	92,4	86,4	79,5
A-weighting	db		-26,2	-16,1	-8,6	-3,2	0	1,2	1	-1,1
Insulation platethickness housing	db		0	0	0	0	0	0	0	0
Total level	LwA 1 dB(A)	103,4	82,4	91	97,2	98,4	97,4	93,6	87,4	78,4
Free inlet level	LwA 5 dB(A)	102,8	77,7	88,8	94,9	98,3	97,4	93,5	87,4	78,4
	LpA 5(1m) dB(A)	91,3	66,2	77,3	83,3	86,8	85,9	82	75,9	66,9
Free outlet level	LwA 6 dB(A)	104,8	78,7	90,8	98,9	101,3	97,4	92,5	86,4	78,4
	LpA 6(1m) dB(A)	93,3	67,2	79,3	87,3	89,8	85,9	81	74,9	66,9



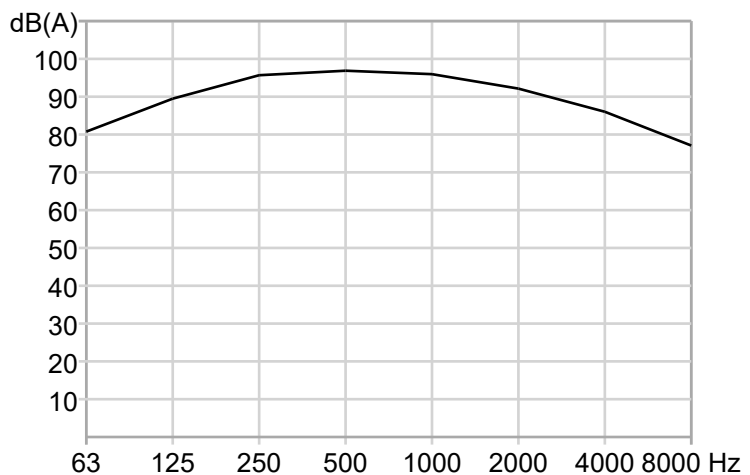
— Total level LwA1

# Sound data

Quantity 1	Fan type <b>REU 729g/2.5-1001-D-4-37-Rh/1485</b>				
position 1	Offer 23106266-6	customer Rox-Klimatechnik GmbH	Project 28025	Plant / Order	Date/Contact 07.11.2024/MP

Oper. point	3				
Housing		0 mm	Volume flow	50000	m <sup>3</sup> /h
Inlet diameter	-	mm	Total pressure rise	1513	Pa
Outlet opening	3142x250	mm	Medium temperature	110	°C
Operating speed	1426	1/min	Medium density	0,911	kg/m <sup>3</sup>
Number of blades	9		Oper. point V/Vopt	1,03	
Blade frequency	214	Hz	Measurement plane dimension	0	db

Basic capacity (VDI 3731)	db	111,1								
Sound adjustment	db	0								
<b>Octave band</b>	<b>Hz</b>	<b>Total</b>	<b>63</b>	<b>125</b>	<b>250</b>	<b>500</b>	<b>1000</b>	<b>2000</b>	<b>4000</b>	<b>8000</b>
Turning sound adjustment	db		0	0	1	0	0	0	0	0
Strouhal number	db		0,8	1,7	3,3	6,7	13,4	26,8	53,6	107,1
Relative spectrum	db		-4,1	-5,5	-7,8	-11	-15,1	-20,1	-26,1	-32,9
Linear total level	db	111,1	107	105,6	104,3	100,1	96	90,9	85	78,2
A-weighting	db		-26,2	-16,1	-8,6	-3,2	0	1,2	1	-1,1
Insulation platethickness housing	db		0	0	0	0	0	0	0	0
Total level	LwA 1 dB(A)	101,9	80,8	89,5	95,7	96,9	96	92,1	86	77,1
Free inlet level	LwA 5 dB(A)	101,3	75,4	86,9	93,2	96,8	95,9	92,1	86	77,1
	LpA 5(1m) dB(A)	89,8	63,9	75,4	81,7	85,3	84,4	80,6	74,5	65,6
Free outlet level	LwA 6 dB(A)	103,3	76,4	88,9	97,2	99,8	95,9	91,1	85	77,1
	LpA 6(1m) dB(A)	91,8	64,9	77,4	85,7	88,3	84,4	79,6	73,5	65,6



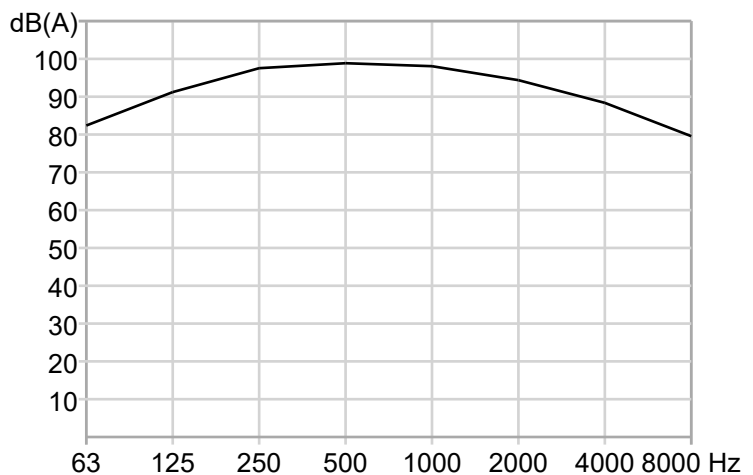
— Total level LwA1

# Sound data

Quantity 1	Fan type <b>REU 729g/2.5-1001-D-4-37-Rh/1485</b>				
position 1	Offer 23106266-6	customer Rox-Klimatechnik GmbH	Project 28025	Plant / Order	Date/Contact 07.11.2024/MP

Oper. point	4				
Housing		0 mm	Volume flow	55000	m <sup>3</sup> /h
Inlet diameter	-	mm	Total pressure rise	1830	Pa
Outlet opening	3142x250	mm	Medium temperature	110	°C
Operating speed	1568	1/min	Medium density	0,911	kg/m <sup>3</sup>
Number of blades	9		Oper. point V/Vopt	1,03	
Blade frequency	235	Hz	Measurement plane dimension	0	db

Basic capacity (VDI 3731)	db	112,8								
Sound adjustment	db	0								
<b>Octave band</b>	<b>Hz</b>	<b>Total</b>	<b>63</b>	<b>125</b>	<b>250</b>	<b>500</b>	<b>1000</b>	<b>2000</b>	<b>4000</b>	<b>8000</b>
Turning sound adjustment	db		0	0	1	0	0	0	0	0
Strouhal number	db		0,8	1,5	3	6,1	12,2	24,4	48,7	97,4
Relative spectrum	db		-4,3	-5,5	-7,7	-10,8	-14,8	-19,7	-25,5	-32,2
Linear total level	db	112,8	108,6	107,3	106,1	102,1	98,1	93,2	87,4	80,7
A-weighting	db		-26,2	-16,1	-8,6	-3,2	0	1,2	1	-1,1
Insulation platethickness housing	db		0	0	0	0	0	0	0	0
Total level	LwA 1 dB(A)	103,9	82,4	91,2	97,5	98,9	98,1	94,4	88,4	79,6
Free inlet level	LwA 5 dB(A)	103,3	77,1	88,7	95,1	98,7	98	94,4	88,4	79,6
	LpA 5(1m) dB(A)	91,8	65,5	77,1	83,6	87,2	86,5	82,9	76,9	68,1
Free outlet level	LwA 6 dB(A)	105,2	78,1	90,7	99,1	101,7	98	93,4	87,4	79,6
	LpA 6(1m) dB(A)	93,7	66,5	79,1	87,6	90,2	86,5	81,9	75,9	68,1



— Total level LwA1

# Technical Data

Quantity 1	Fan type <b>REU 737/3-801-D-4-22-Rh-GLD/1493</b>				
position 2	Offer 23106266-6	customer Rox-Klimatechnik GmbH	Project 28025	Plant / Order Zuluftventilator	Date/Contact 07.11.2024/MP

centrifugal fan, free-running wheel, direct drive, on base frame for installation in units, light design

<b>Data from input</b> Volume flow m <sup>3</sup> /h 30000 Static pressure rise Pa 1600 Inlet pressure Pa 0 Density (Ambient) kg/m <sup>3</sup> 1,191 Temperature °C 20 ambient temperature °C 20 Pressure (Ambient) kPa 100,13 Altitude m 100 Medium air Connection No connection operating mode S1, Dauerbetrieb	<b>Fan data</b> Fan type REU 737/3-801-D-4-22-Rh-GLD/1493 Housing position Rh Console GLD-Geräteeinbau, leichte Ausf. nozzle coefficient 0,2545 Connection suct. side 900x900 mm LKS BLTV G Weight excl. Motor ca. 228 kg optimum efficiency 75,4 % grade of efficiency 65,6/62,5 ERP category A/static Max. allowed temperat. 40 °C
<b>Performance data</b> Temperature °C 20 Standard volume flow Nm <sup>3</sup> /h 27624 Volume flow m <sup>3</sup> /h 30000 Total pressure rise Pa 1699 Static pressure rise Pa 1600 Dynamic pressure (outlet) Pa 99 Density (at inlet) kg/m <sup>3</sup> 1,191 Power (impeller) kW 17,68 Speed 1/min 1493 Frequency Hz 50,5 Outlet velocity m/s 12,9 Efficiency, impeller % 79,6 moment of inertia kgm <sup>2</sup> 10,4 Run-up time approx. s 8,4	<b>Operation Startup</b> Temperature °C 20 20 Standard volume flow Nm <sup>3</sup> /h 27624 27624 Volume flow m <sup>3</sup> /h 30000 30000 Total pressure rise Pa 1699 1699 Static pressure rise Pa 1600 1600 Dynamic pressure (outlet) Pa 99 99 Density (at inlet) kg/m <sup>3</sup> 1,191 1,191 Power (impeller) kW 17,68 17,68 Speed 1/min 1493 1493 Frequency Hz 50,5 50,5 Outlet velocity m/s 12,9 12,9 Efficiency, impeller % 79,6 79,6 moment of inertia kgm <sup>2</sup> 10,4 10,4 Run-up time approx. s 8,4 8,4
<b>Motor Data</b> make HELMKE Type DOR180L043G Size 180L Power kW 22 Speed 1/min 1478 rated current A 42,68172 Voltage V 400VD/690VY Frequency Hz 50(50,5) Design B3 Terminal box up Efficiency class IE3 Ex Protection - Heat class/Enclosure F/IP55 Startup Freq. converter (VFD) Motor protection PTC 1x3 - 150°C Insulated bearing NDE - Roller bearing in D-side - Weight kg 200	<b>Components</b> Material surface treatment Impeller 1.0038 C2-L RAL 5010 Blades S2 Console 1.0038 C2-L RAL 5010
<b>Motor Accessories</b> - M8 SPM Nippel - silicon free	<b>Design</b> - screwed taper hub incl. bushing - balancing grade ex works, acc. protocol G6,3 ISO 14694 - fan design silicon free - fan design BLTV Automotive (inkl. Silikonfreiheit)
	<b>Mounted Accessories</b> - base frame - rubber dampers with mounting plates - Kompensator Saugseite, Standard, T<= 80°C, EI 130mm, BI 150mm, 900x900 - Inlet nozzle with protection - piezometer ring copper / brass
	<b>Other specifications</b> - packaging EW palett + film hood - type plate film / German - ventilator installation inside on a solid, level concrete foundation - documentation Standard (EU languages)

Here, if not stated differently, according to BLTV-STANDARD. Performance data acc. DIN 24166 class 2

When using speed control you have to check while commissioning where the resonance frequency of the ventilator occurs (e.g. by tracking analysis). You have to ensure that these frequencies are passed through quickly and no continuous operation takes place in this range. Frequent passing through the resonance frequencies reduces the lifetime of the ventilator!

# Technical Data

Quantity 1	Fan type <b>REU 737/3-801-D-4-22-Rh-GLD/1493</b>				
position 2	Offer 23106266-6	customer Rox-Klimatechnik GmbH	Project 28025	Plant / Order Zuluftventilator	Date/Contact 07.11.2024/MP

centrifugal fan, free-running wheel, direct drive, on base frame for installation in units, light design

<b>Data from input</b>			<b>Fan data</b>		
Volume flow	m <sup>3</sup> /h	30000	Fan type	REU 737/3-801-D-4-22-Rh-GLD/1493	
Static pressure rise	Pa	1600	Housing position	Rh	
Inlet pressure	Pa	0	Console	GLD-Geräteeinbau, leichte Ausf.	
Density (Ambient)	kg/m <sup>3</sup>	1,191	nozzle coefficient	0,2545	
Temperature	°C	20	Connection suct. side	900x900 mm LKS BLTV G	
ambient temperature	°C	20	Weight excl. Motor ca.	228 kg	
Pressure (Ambient)	kPa	100,13	optimum efficiency	75,4 %	
Altitude	m	100	grade of efficiency	65,6/62,5	
Medium	air		ERP category	A/static	
Connection	No connection		Max. allowed temperat.	40 °C	
operating mode	S1, Dauerbetrieb				

Performance data		Oper. point 1		Oper. point 2	
		Operation	Startup	Operation	Startup
Temperature	°C	20	20	20	20
Standard volume flow	Nm <sup>3</sup> /h	27624	27624	30386	30386
Volume flow	m <sup>3</sup> /h	30000	30000	33000	33000
Total pressure rise	Pa	1699	1699	1720	1720
Static pressure rise	Pa	1600	1600	1600	1600
Dynamic pressure (outlet)	Pa	99	99	120	120
Density (at inlet)	kg/m <sup>3</sup>	1,191	1,191	1,191	1,191
Power (impeller)	kW	17,68	17,68	19,3	19,3
Speed	1/min	1493	1493	1542	1542
Frequency	Hz	50,5	50,5	52,2	52,2
Outlet velocity	m/s	12,9	12,9	14,1	14,1
Efficiency, impeller	%	79,6	79,6	81,2	81,2
moment of inertia	kgm <sup>2</sup>	10,4	10,4	10,4	10,4
Run-up time approx.	s	8,4	8,4	9	9

Noise pressure level (Free outlet level)		Hz	Total	63	125	250	500	1000	2000	4000	8000
Total level	LwA 1 dB(A)		99,8	78,6	88,4	92,6	94,9	94	90,3	84,2	75,3
Oper. point 1	LpA 6(1m) dB(A)		90	63,1	76,7	83,1	86,7	82,9	78,2	72,1	64,3
Total level	LwA 1 dB(A)		100,5	79,1	89	93,3	95,6	94,7	91	85	76,2
Oper. point 2	LpA 6(1m) dB(A)		90,7	63,6	77,3	83,7	87,4	83,7	79	72,9	65,1

Here, if not stated differently, according to BLTV-STANDARD. Performance data acc. DIN 24166 class 2

When using speed control you have to check while commissioning where the resonance frequency of the ventilator occurs (e.g. by tracking analysis). You have to ensure that these frequencies are passed through quickly and no continuous operation takes place in this range. Frequent passing through the resonance frequencies reduces the lifetime of the ventilator!

# Characteristic - Customer units

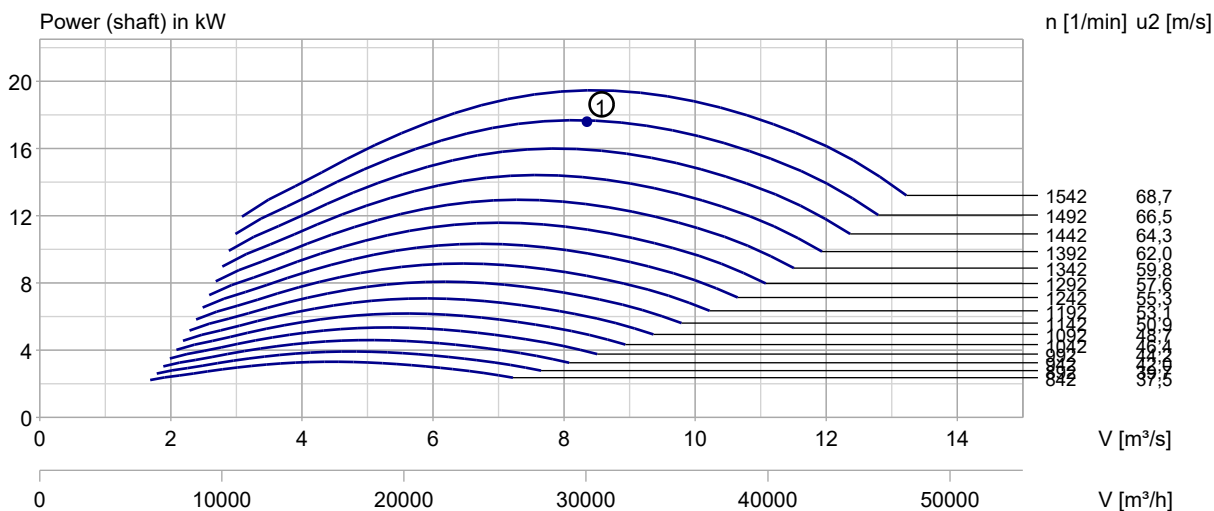
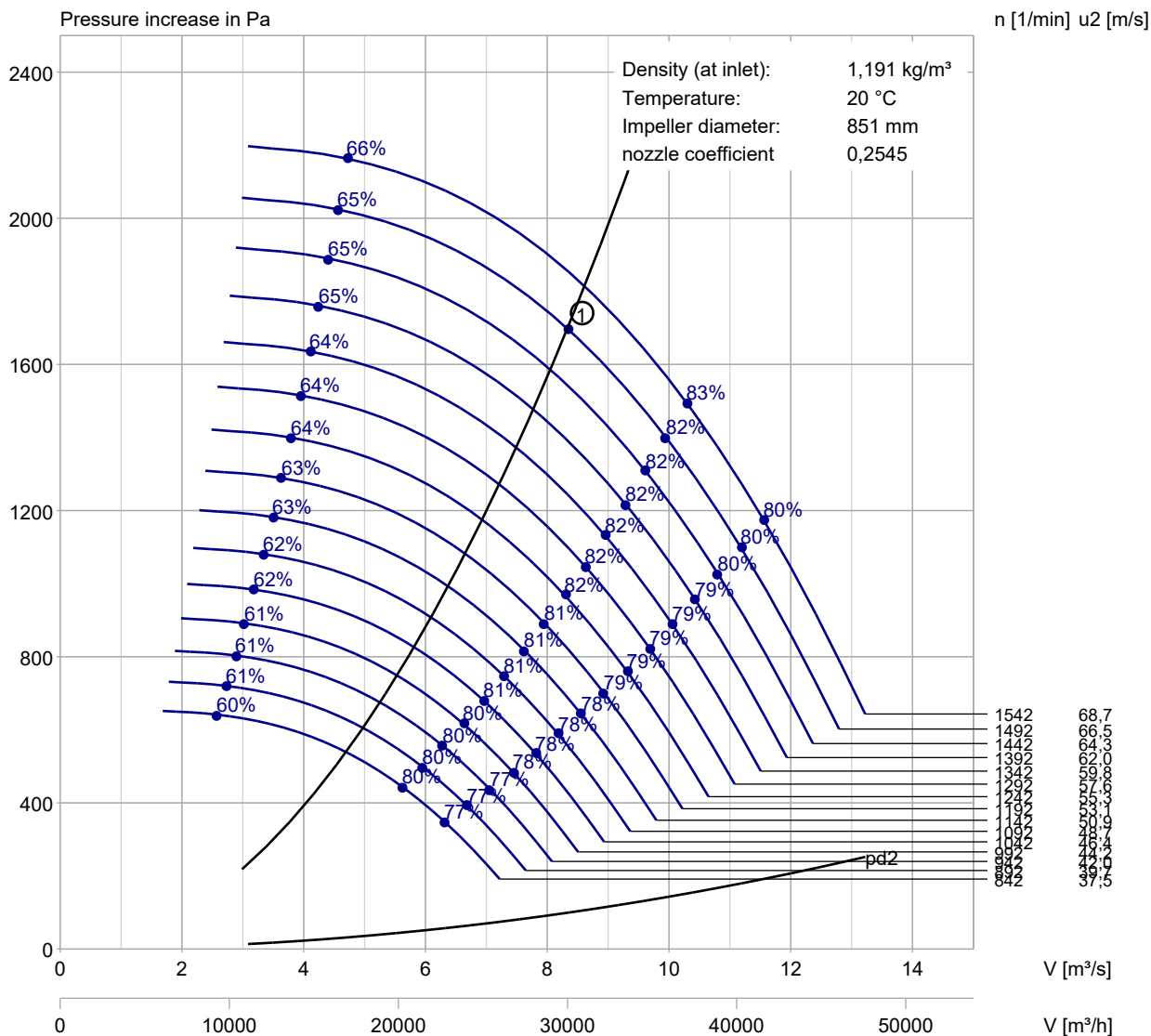
Quantity 1 Fan type **REU 737/3-801-D-4-22-Rh-GLD/1493**

position 2 Offer 23106266-6 customer Rox-Klimatechnik GmbH

Project 28025

Plant / Order Zuluftventilator

Date/Contact 07.11.2024/MP



# Characteristic - Customer units

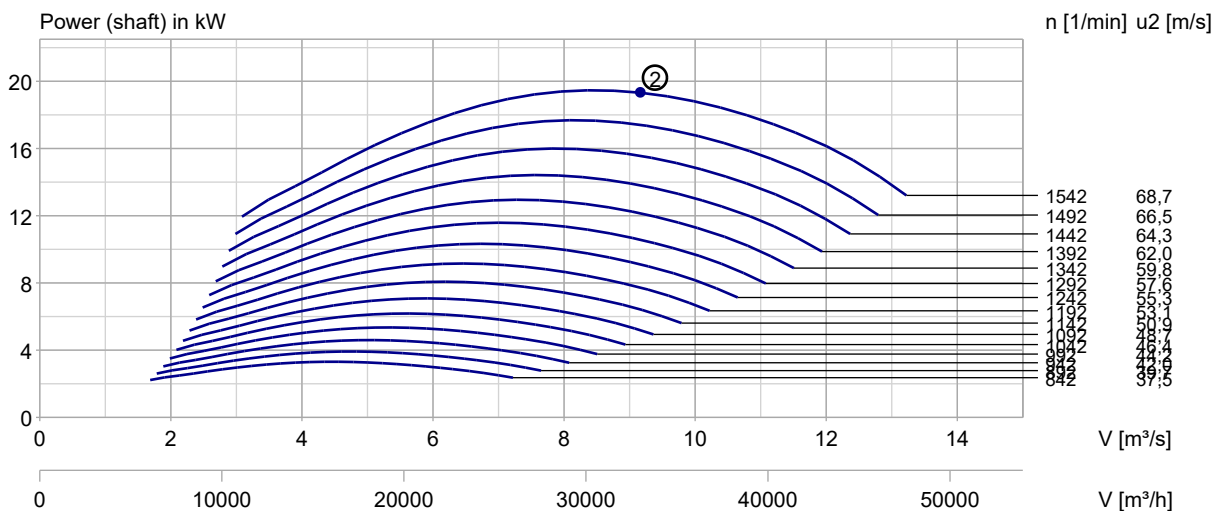
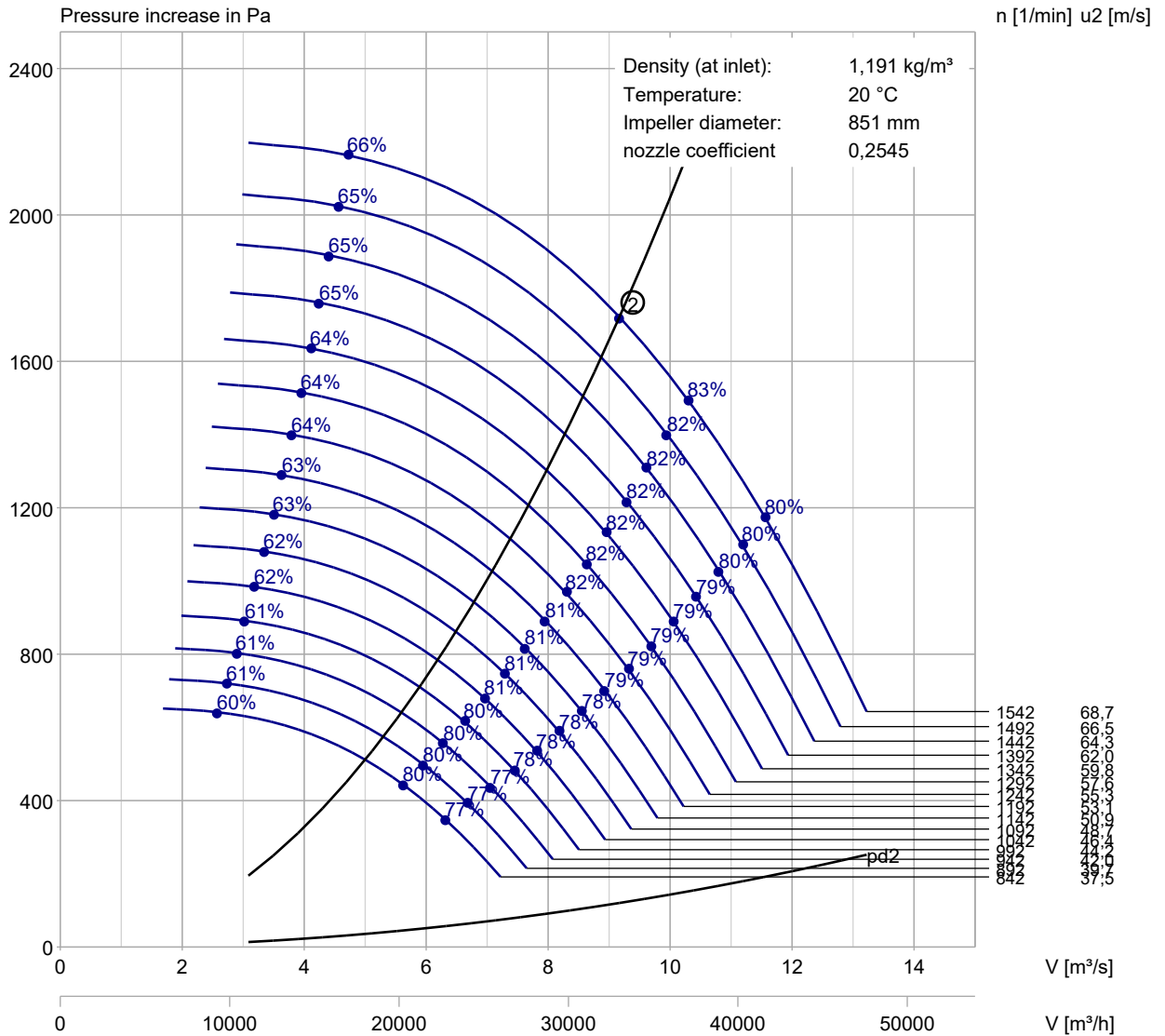
Quantity 1 Fan type **REU 737/3-801-D-4-22-Rh-GLD/1493**

position 2 Offer 23106266-6 customer Rox-Klimatechnik GmbH

Project 28025

Plant / Order Zuluftventilator

Date/Contact 07.11.2024/MP



# Sound data



Ventilatoren und Prozesslufttechnik GmbH

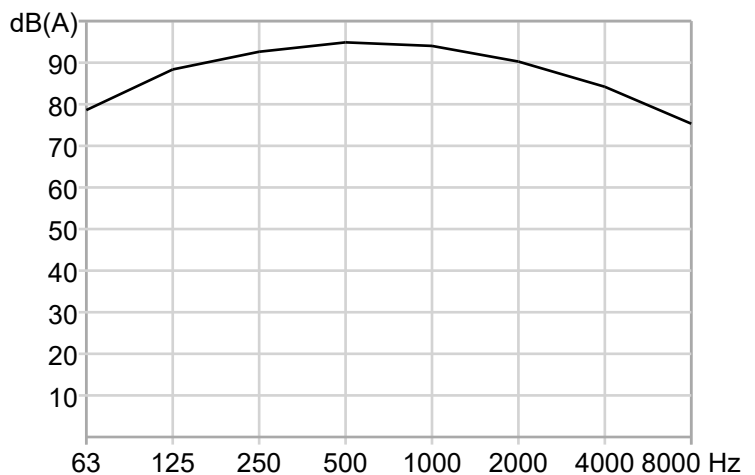
Quantity 1	Fan type <b>REU 737/3-801-D-4-22-Rh-GLD/1493</b>				
position 2	Offer 23106266-6	customer Rox-Klimatechnik GmbH	Project 28025	Plant / Order Zuluftventilator	Date/Contact 07.11.2024/MP

Oper. point	1				
Housing		0 mm	Volume flow	30000	m <sup>3</sup> /h
Inlet diameter	-	mm	Total pressure rise	1699	Pa
Outlet opening	2673x240	mm	Medium temperature	20	°C
Operating speed	1493	1/min	Medium density	1,191	kg/m <sup>3</sup>
Number of blades	7		Oper. point V/Vopt	0,86	
Blade frequency	174	Hz	Measurement plane dimension	0	db

Basic capacity (VDI 3731)	db	109,1								
Sound adjustment	db	0								
<b>Octave band</b>	<b>Hz</b>	<b>Total</b>	<b>63</b>	<b>125</b>	<b>250</b>	<b>500</b>	<b>1000</b>	<b>2000</b>	<b>4000</b>	<b>8000</b>
Turning sound adjustment	db		0	1	0	0	0	0	0	0
Strouhal number	db		0,8	1,6	3,2	6,4	12,8	25,6	51,2	102,4
Relative spectrum	db		-4,3	-5,6	-7,9	-11	-15,1	-20	-25,9	-32,7
Linear total level	db	109,1	104,8	104,5	101,2	98,1	94	89,1	83,2	76,4
A-weighting	db		-26,2	-16,1	-8,6	-3,2	0	1,2	1	-1,1
Insulation platethickness housing	db		0	0	0	0	0	0	0	0
Total level	LwA 1 dB(A)	99,8/99,8*	78,6	88,4	92,6	94,9	94	90,3	84,2	75,3
Free inlet level	LwA 5 dB(A)		99,2	73,1	85,7	90,2	94,8	94	90,3	84,2
	LpA 5(1m) dB(A)		88,1	62,1	74,7	79,1	83,7	82,9	79,2	73,1
Free outlet level	LwA 6 dB(A)		101,1	74,1	87,7	94,2	97,8	94	89,3	83,2
	LpA 6(1m) dB(A)		90	63,1	76,7	83,1	86,7	82,9	78,2	72,1

Sound level	LwA dB(A)	83
Noise reduction motor	Lw db	0
additional noise source	LwA dB(A)	0

\* Sound ± 3dB data incl. motor (Noisedata for motor at nom. RPM)



— Total level LwA1

# Sound data

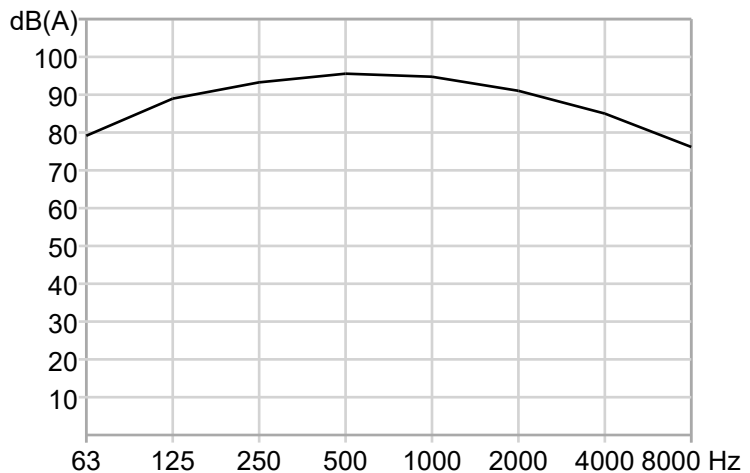


Ventilatoren und Prozesslufttechnik GmbH

Quantity 1	Fan type <b>REU 737/3-801-D-4-22-Rh-GLD/1493</b>				
position 2	Offer 23106266-6	customer Rox-Klimatechnik GmbH	Project 28025	Plant / Order Zuluftventilator	Date/Contact 07.11.2024/MP

Oper. point	2				
Housing		0 mm	Volume flow	33000	m <sup>3</sup> /h
Inlet diameter	-	mm	Total pressure rise	1720	Pa
Outlet opening	2673x240	mm	Medium temperature	20	°C
Operating speed	1542	1/min	Medium density	1,191	kg/m <sup>3</sup>
Number of blades	7		Oper. point V/Vopt	0,91	
Blade frequency	180	Hz	Measurement plane dimension	0	db

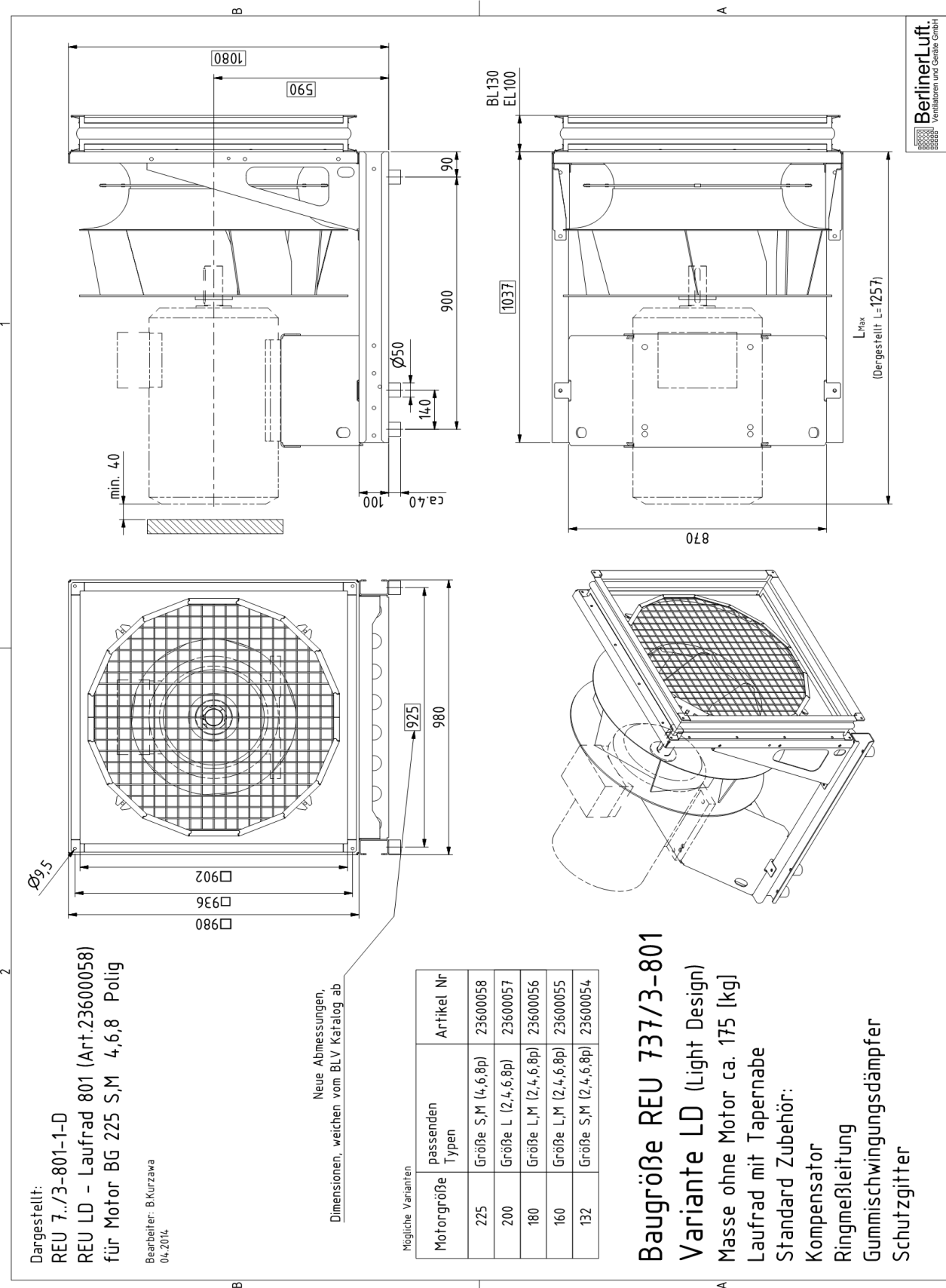
Basic capacity (VDI 3731)	db	109,7								
Sound adjustment	db	0								
<b>Octave band</b>	<b>Hz</b>	<b>Total</b>	<b>63</b>	<b>125</b>	<b>250</b>	<b>500</b>	<b>1000</b>	<b>2000</b>	<b>4000</b>	<b>8000</b>
Turning sound adjustment	db		0	1	0	0	0	0	0	0
Strouhal number	db		0,8	1,5	3,1	6,2	12,4	24,8	49,6	99,1
Relative spectrum	db		-4,4	-5,6	-7,8	-10,9	-15	-19,9	-25,7	-32,4
Linear total level	db	109,7	105,3	105,1	101,9	98,8	94,7	89,8	84	77,3
A-weighting	db		-26,2	-16,1	-8,6	-3,2	0	1,2	1	-1,1
Insulation platethickness housing	db		0	0	0	0	0	0	0	0
Total level	LwA 1 dB(A)	100,5	79,1	89	93,3	95,6	94,7	91	85	76,2
Free inlet level	LwA 5 dB(A)	99,9	73,7	86,3	90,8	95,4	94,7	91	85	76,2
	LpA 5(1m) dB(A)	88,8	62,6	75,3	79,7	84,4	83,7	80	73,9	65,1
Free outlet level	LwA 6 dB(A)	101,8	74,7	88,3	94,8	98,4	94,7	90	84	76,2
	LpA 6(1m) dB(A)	90,7	63,6	77,3	83,7	87,4	83,7	79	72,9	65,1



— Total level LwA1

# Dimension sheet (DRAFT ONLY)

Quantity 1	Fan type <b>REU 737/3-801-D-4-22-Rh-GLD/1493</b>				
position 2	Offer 23106266-6	customer Rox-Klimatechnik GmbH	Project 28025	Plant / Order Zuluftventilator	Date/Contact 07.11.2024/MP



Dargestellt:  
REU 7..73-801-1-D  
REU LD - Laufrad 801 (Art.23600058)  
für Motor BG 225 S,M 4,6,8 Polig

Bearbeiter: B.Kurzawa  
04.2014.

Neue Abmessungen,  
Dimensionen, weichen vom BLV Katalog ab

Mögliche Varianten	passenden Typen	Artikel Nr
225	Größe S,M (4,6,8p)	23600058
200	Größe L (2,4,6,8p)	23600057
180	Größe L,M (2,4,6,8p)	23600056
160	Größe L,M (2,4,6,8p)	23600055
132	Größe S,M (2,4,6,8p)	23600054

**Baugröße REU 737/3-801**  
**Variante LD (Light Design)**  
Masse ohne Motor ca. 175 [kg]  
Laufrad mit Tapernabe  
Standard Zubehör:  
Kompensator  
Ringmeßleitung  
Gummischwingungsdämpfer  
Schutzgitter



# Technical Data



Ventilatoren und Prozesslufttechnik GmbH

Quantity 1	Fan type <b>REU 737/3-710-D-4-15-Rh-GLD/1549</b>
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position 3	Offer 23106266-6	customer Rox-Klimatechnik GmbH	Project 28025	Plant / Order Abluftventilator	Date/Contact 07.11.2024/MP
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centrifugal fan, free-running wheel, direct drive, on base frame for installation in units, light design

### Data from input

Volume flow	m³/h	30500
Static pressure rise	Pa	650
Inlet pressure	Pa	0
Density (Ambient)	kg/m³	1,191
Temperature	°C	20
ambient temperature	°C	20
Pressure (Ambient)	kPa	100,13
Altitude	m	100
Medium	air	
Connection	No connection	
operating mode	S1, Dauerbetrieb	

### Performance data

		Operation	Startup
Temperature	°C	20	20
Standard volume flow	Nm³/h	28084	28084
Volume flow	m³/h	30500	30500
Total pressure rise	Pa	816	816
Static pressure rise	Pa	650	650
Dynamic pressure (outlet)	Pa	166	166
Density (at inlet)	kg/m³	1,191	1,191
Power (impeller)	kW	9,13	9,13
Speed	1/min	1549	1549
Frequency	Hz	52,9	52,9
Outlet velocity	m/s	16,7	16,7
Efficiency, impeller	%	75,5	75,5
moment of inertia	kgm²	5,9	5,9
Run-up time approx.	s	7,6	7,6

### Motor Data

make	HELMKE	
Type	DOR160L043A	
Size	160L	
Power	kW	15
Speed	1/min	1465
rated current	A	27,2
Voltage	V	400VD/690VY
Frequency	Hz	50(52,9)
Design	B3	
Terminal box	up	
Efficiency class	IE3	
Ex Protection	-	
Heat class/Enclosure	F/IP55	
Startup	Freq. converter (VFD)	
Motor protection	PTC 1x3 - 150°C	
Insulated bearing NDE	-	
Roller bearing in D-side	-	
Weight	kg	125

### Motor Accessories

- M8 SPM Nippel
- silicon free

### Fan data

Fan type	REU 737/3-710-D-4-15-Rh-GLD/1549	
Housing position	Rh	
Console	GLD-Geräteeinbau, leichte Ausf.	
nozzle coefficient	0,2075	
Connection suct. side	900x900 mm LKS BLTV G	
Weight excl. Motor ca.	208 kg	
optimum efficiency	74,4 %	
grade of efficiency	64,2/62	
ERP category	A/static	
Max. allowed temperat.	40 °C	

### Components

	Material	surface treatment
Impeller	1.0038	C2-L RAL 5010
Blades	S2	
Console	1.0038	C2-L RAL 5010

### Design

- screwed taper hub incl. bushing
- balancing grade ex works, acc. protocol G6,3 ISO 14694
- fan design silicon free
- fan design BLTV Automotive (inkl. Silikonfreiheit)

### Mounted Accessories

- base frame
- rubber dampers with mounting plates
- Kompensator Saugseite, Standard, T<= 80°C, EI 130mm, BI 150mm, 900x900
- Inlet nozzle with protection
- piezometer ring copper / brass

### Other specifications

- packaging EW palett + film hood
- type plate film / German
- ventilator installation inside on a solid, level concrete foundation
- documentation Standard (EU languages)

Here, if not stated differently, according to BLTV-STANDARD. Performance data acc. DIN 24166 class 2

When using speed control you have to check while commissioning where the resonance frequency of the ventilator occurs (e.g. by tracking analysis). You have to ensure that these frequencies are passed through quickly and no continuous operation takes place in this range. Frequent passing through the resonance frequencies reduces the lifetime of the ventilator!

# Technical Data

Quantity 1	Fan type <b>REU 737/3-710-D-4-15-Rh-GLD/1549</b>				
position 3	Offer 23106266-6	customer Rox-Klimatechnik GmbH	Project 28025	Plant / Order Abluftventilator	Date/Contact 07.11.2024/MP

centrifugal fan, free-running wheel, direct drive, on base frame for installation in units, light design

Data from input			Fan data		
Volume flow	m <sup>3</sup> /h	30500	Fan type	REU 737/3-710-D-4-15-Rh-GLD/1549	
Static pressure rise	Pa	650	Housing position	Rh	
Inlet pressure	Pa	0	Console	GLD-Geräteeinbau, leichte Ausf.	
Density (Ambient)	kg/m <sup>3</sup>	1,191	nozzle coefficient	0,2075	
Temperature	°C	20	Connection suct. side	900x900 mm LKS BLTV G	
ambient temperature	°C	20	Weight excl. Motor ca.	208 kg	
Pressure (Ambient)	kPa	100,13	optimum efficiency	74,4 %	
Altitude	m	100	grade of efficiency	64,2/62	
Medium	air		ERP category	A/static	
Connection	No connection		Max. allowed temperat.	40 °C	
operating mode	S1, Dauerbetrieb				

Performance data		Oper. point 1		Oper. point 2	
		Operation	Startup	Operation	Startup
Temperature	°C	20	20	20	20
Standard volume flow	Nm <sup>3</sup> /h	28084	28084	30892	30892
Volume flow	m <sup>3</sup> /h	30500	30500	33550	33550
Total pressure rise	Pa	816	816	851	851
Static pressure rise	Pa	650	650	650	650
Dynamic pressure (outlet)	Pa	166	166	201	201
Density (at inlet)	kg/m <sup>3</sup>	1,191	1,191	1,191	1,191
Power (impeller)	kW	9,13	9,13	10,77	10,77
Speed	1/min	1549	1549	1662	1662
Frequency	Hz	52,9	52,9	56,7	56,7
Outlet velocity	m/s	16,7	16,7	18,3	18,3
Efficiency, impeller	%	75,5	75,5	73,4	73,4
moment of inertia	kgm <sup>2</sup>	5,9	5,9	5,9	5,9
Run-up time approx.	s	7,6	7,6	8,7	8,7

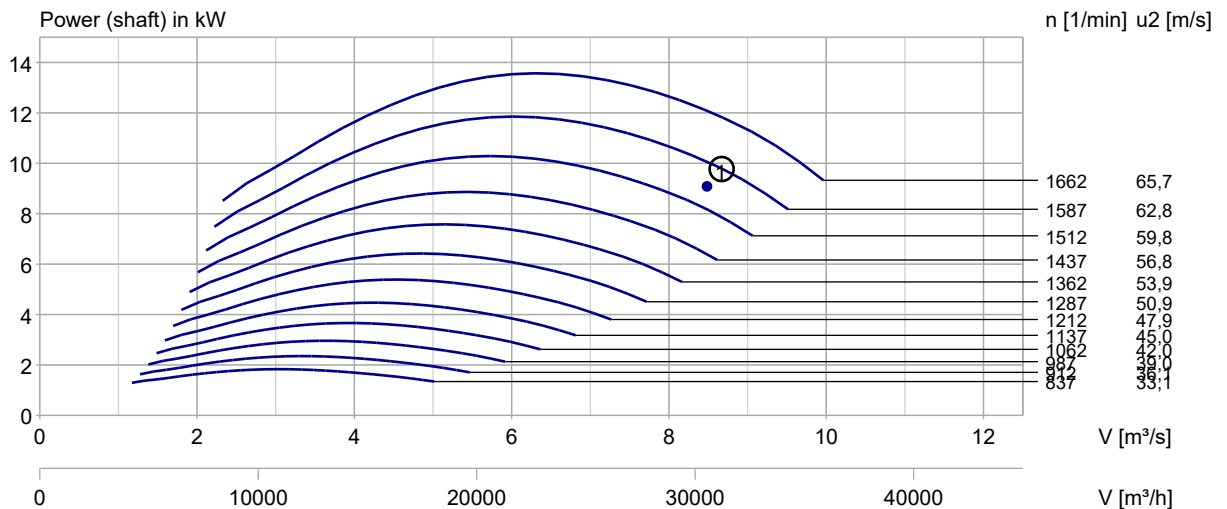
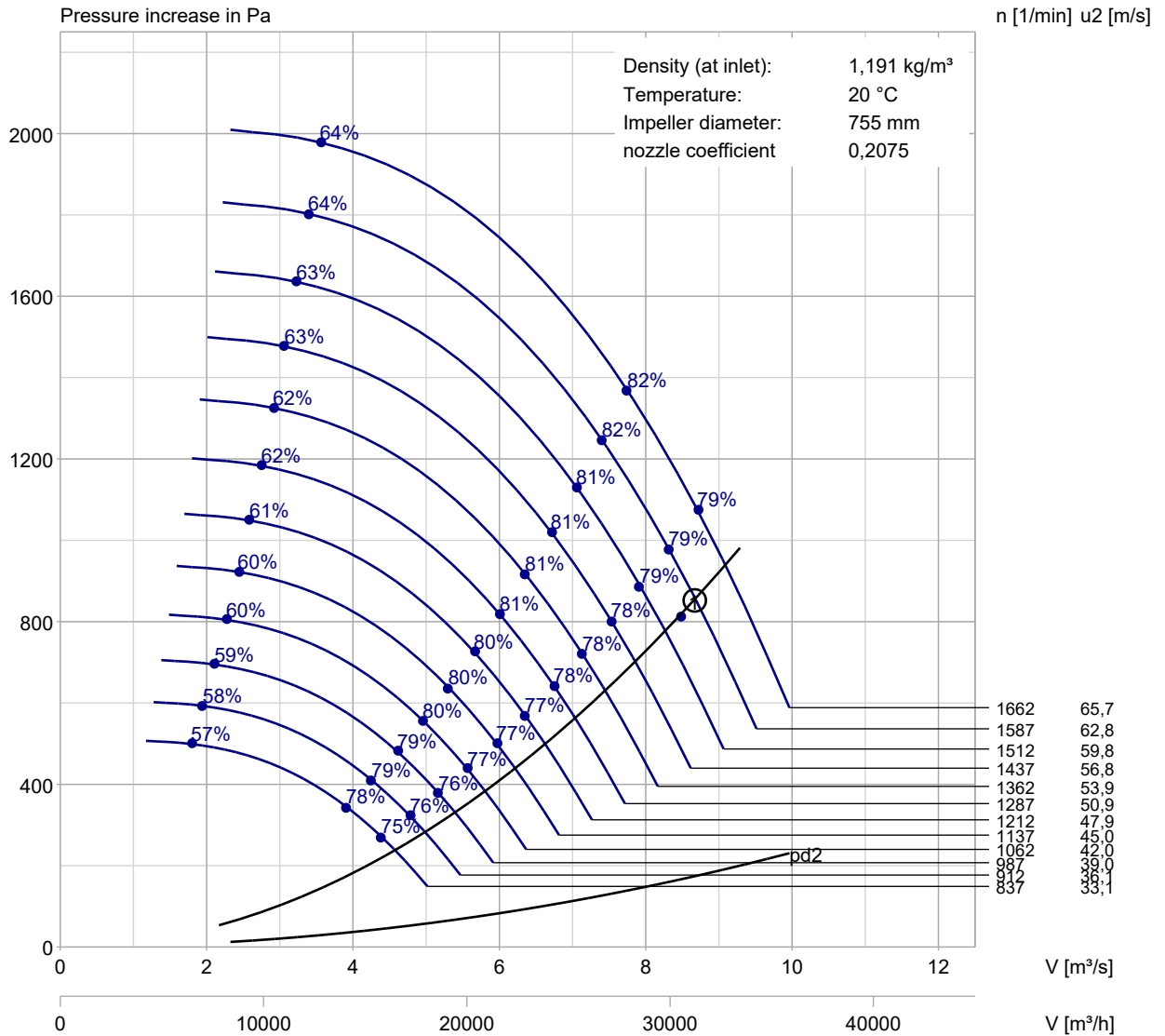
Noise pressure level (Free outlet level)		Hz	Total	63	125	250	500	1000	2000	4000	8000
Total level	LwA 1 dB(A)		97,8	76,3	85,1	91,4	92,7	91,9	88,2	82,2	73,4
Oper. point 1	LpA 6(1m) dB(A)		88,3	60,4	73,4	82,1	84,8	81,1	76,4	70,4	62,6
Total level	LwA 1 dB(A)		99,3	77,5	86,4	92,8	94,2	93,5	89,8	83,9	75,2
Oper. point 2	LpA 6(1m) dB(A)		89,7	61,5	74,6	83,4	86,3	82,7	78,1	72,1	64,4

Here, if not stated differently, according to BLTV-STANDARD. Performance data acc. DIN 24166 class 2

When using speed control you have to check while commissioning where the resonance frequency of the ventilator occurs (e.g. by tracking analysis). You have to ensure that these frequencies are passed through quickly and no continuous operation takes place in this range. Frequent passing through the resonance frequencies reduces the lifetime of the ventilator!

# Characteristic - Customer units

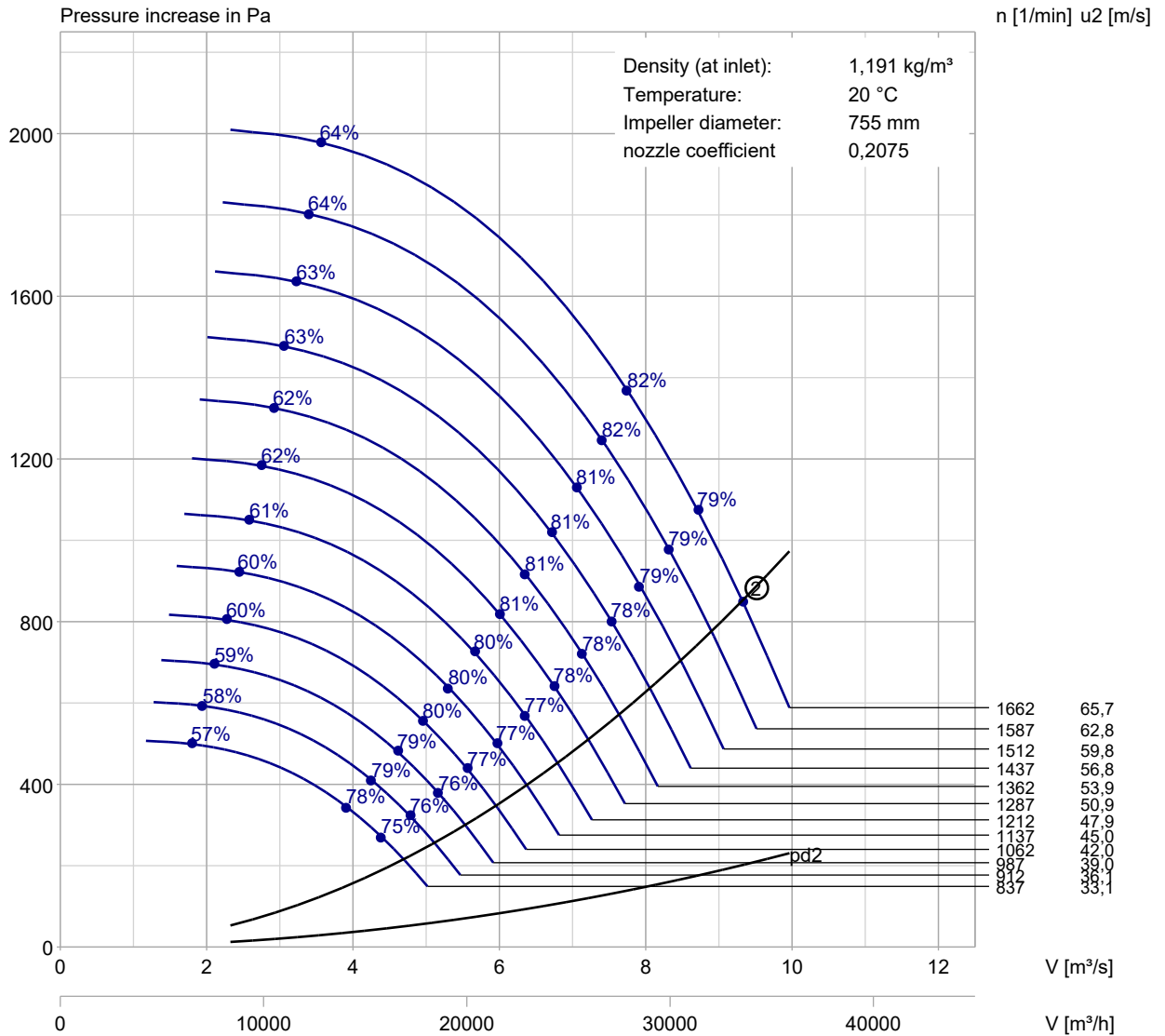
Quantity 1	Fan type <b>REU 737/3-710-D-4-15-Rh-GLD/1549</b>				
position 3	Offer 23106266-6	customer Rox-Klimatechnik GmbH	Project 28025	Plant / Order Abluftventilator	Date/Contact 07.11.2024/MP



# Characteristic - Customer units

Quantity 1	Fan type <b>REU 737/3-710-D-4-15-Rh-GLD/1549</b>
position 3	Offer 23106266-6

customer Rox-Klimatechnik GmbH	Project 28025	Plant / Order Abluftventilator	Date/Contact 07.11.2024/MP
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# Sound data



Ventilatoren und Prozesslufttechnik GmbH

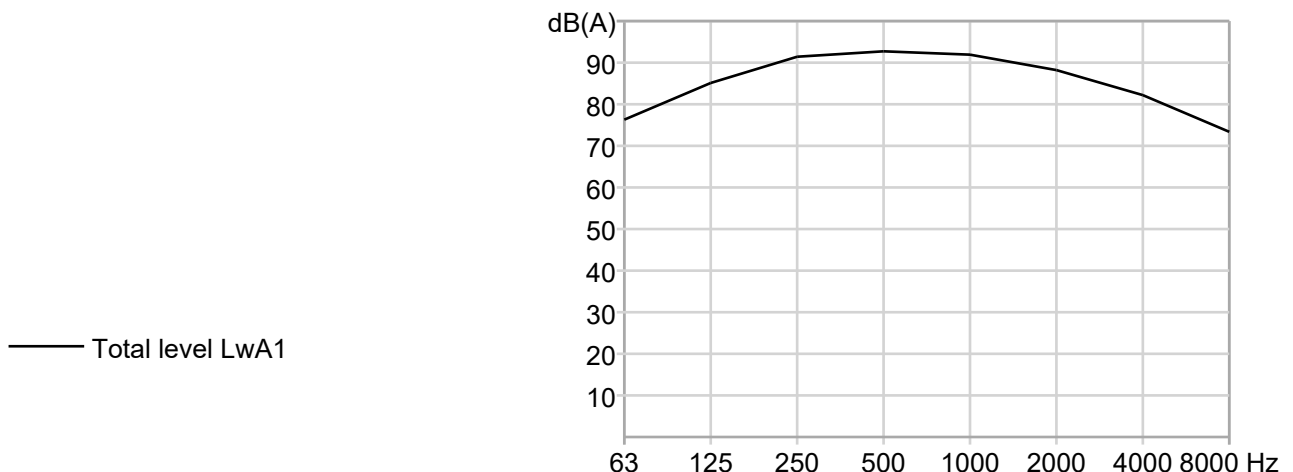
Quantity 1	Fan type <b>REU 737/3-710-D-4-15-Rh-GLD/1549</b>				
position 3	Offer 23106266-6	customer Rox-Klimatechnik GmbH	Project 28025	Plant / Order Abluftventilator	Date/Contact 07.11.2024/MP

Oper. point	1				
Housing		0 mm	Volume flow	30500	m <sup>3</sup> /h
Inlet diameter	-	mm	Total pressure rise	816	Pa
Outlet opening	2373x213	mm	Medium temperature	20	°C
Operating speed	1549	1/min	Medium density	1,191	kg/m <sup>3</sup>
Number of blades	7		Oper. point V/Vopt	1,2	
Blade frequency	181	Hz	Measurement plane dimension	0	db

Basic capacity (VDI 3731)	db	106,7								
Sound adjustment	db	0								
<b>Octave band</b>	<b>Hz</b>	<b>Total</b>	<b>63</b>	<b>125</b>	<b>250</b>	<b>500</b>	<b>1000</b>	<b>2000</b>	<b>4000</b>	<b>8000</b>
Turning sound adjustment	db		0	0	1	0	0	0	0	0
Strouhal number	db		0,8	1,5	3,1	6,2	12,3	24,7	49,3	98,6
Relative spectrum	db		-4,2	-5,5	-7,7	-10,8	-14,8	-19,7	-25,5	-32,3
Linear total level	db	106,7	102,5	101,2	100	95,9	91,9	87	81,2	74,5
A-weighting	db		-26,2	-16,1	-8,6	-3,2	0	1,2	1	-1,1
Insulation platethickness housing	db		0	0	0	0	0	0	0	0
Total level	LwA 1 dB(A)	97,8/97,8*	76,3	85,1	91,4	92,7	91,9	88,2	82,2	73,4
Free inlet level	LwA 5 dB(A)		97,1	70,1	82,1	88,8	92,6	91,9	88,2	82,2
	LpA 5(1m) dB(A)		86,3	59,4	71,4	78,1	81,8	81,1	77,4	71,4
Free outlet level	LwA 6 dB(A)		99	71,1	84,1	92,8	95,6	91,9	87,2	81,2
	LpA 6(1m) dB(A)		88,3	60,4	73,4	82,1	84,8	81,1	76,4	70,4

Sound level	LwA dB(A)	81
Noise reduction motor	Lw db	0
additional noise source	LwA dB(A)	0

\* Sound ± 3dB data incl. motor (Noisedata for motor at nom. RPM)



# Sound data



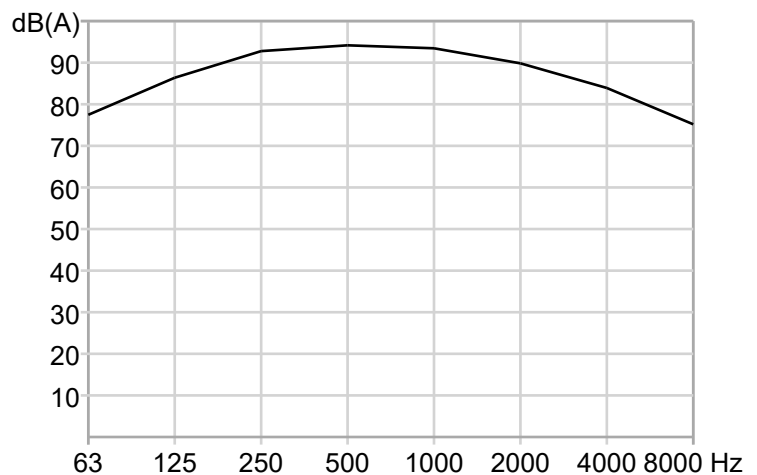
Ventilatoren und Prozesslufttechnik GmbH

Quantity 1 Fan type **REU 737/3-710-D-4-15-Rh-GLD/1549**

position 3	Offer 23106266-6	customer Rox-Klimatechnik GmbH	Project 28025	Plant / Order Abluftventilator	Date/Contact 07.11.2024/MP
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Oper. point	2				
Housing		0 mm	Volume flow	33550	m <sup>3</sup> /h
Inlet diameter	-	mm	Total pressure rise	851	Pa
Outlet opening	2373x213	mm	Medium temperature	20	°C
Operating speed	1662	1/min	Medium density	1,191	kg/m <sup>3</sup>
Number of blades	7		Oper. point V/Vopt	1,23	
Blade frequency	194	Hz	Measurement plane dimension	0	db

Basic capacity (VDI 3731)	db	108								
Sound adjustment	db	0								
<b>Octave band</b>	<b>Hz</b>	<b>Total</b>	<b>63</b>	<b>125</b>	<b>250</b>	<b>500</b>	<b>1000</b>	<b>2000</b>	<b>4000</b>	<b>8000</b>
Turning sound adjustment	db		0	0	1	0	0	0	0	0
Strouhal number	db		0,7	1,4	2,9	5,7	11,5	23	46	91,9
Relative spectrum	db		-4,4	-5,5	-7,6	-10,6	-14,6	-19,4	-25,1	-31,7
Linear total level	db	108	103,7	102,5	101,4	97,4	93,5	88,6	82,9	76,3
A-weighting	db		-26,2	-16,1	-8,6	-3,2	0	1,2	1	-1,1
Insulation platethickness housing	db		0	0	0	0	0	0	0	0
Total level	LwA 1 dB(A)	99,3	77,5	86,4	92,8	94,2	93,5	89,8	83,9	75,2
Free inlet level	LwA 5 dB(A)	98,6	71,3	83,4	90,2	94	93,4	89,8	83,9	75,2
	LpA 5(1m) dB(A)	87,8	60,5	72,6	79,4	83,3	82,7	79,1	73,1	64,4
Free outlet level	LwA 6 dB(A)	100,5	72,3	85,4	94,2	97	93,4	88,8	82,9	75,2
	LpA 6(1m) dB(A)	89,7	61,5	74,6	83,4	86,3	82,7	78,1	72,1	64,4



— Total level LwA1

