

Customer-No.	416001	Quotation no.	02.02.2006 10:27
Customer	Polysius AG	Delivery date	01.02.2006
Address	D-59269 Beckum	End of manufacturing	20052726
Order-No.	32082912 / RSA	Ready for dispatch	17.03.2006 11/2006
Com.-No.	TASLUFA	Ready for inspection	00/0000
Project		Order placement	11.11.2005
Delivery address		Order registered	01.02.2006

In charge	Customer <b>Mr. Sanio</b>	Quotation <b>Norbert Kronenberg</b>	Order <b>Oliver Tappe - 116</b>
Fan type	<b>MXE 063-001230-00</b>	P/n <b>7</b>	Position of discharge <b>GR 270</b>
		No.	Position of IO at degree

**Design / Operating data (2)**

Operating mode		Rated data		Calculated data	Operation point(s)	
Handled gas						
Characteristic curveno.	2					
Inlet temperature	θ	20				°C
Altitude	h					m a.s.l.
Abs. pressure	Pa	10133				daPa
Density, atm.	ρa	1,205				kg/m³
Density, inlet	ρl	1,130				kg/m³
Inlet volume	V1	12,5				m³/min
Total pressure increase	Δpt2	630				daPa
	Δpt1	593				daPa
Pressure loss, discharge	pd2	40				daPa
Pressure loss, inlet	pd1	6				daPa
Static pressure, discharge	pst2	590				daPa
Static pressure, inlet	pst1	562				daPa
Required power-shaft	Pw2	2,30				kW
Required power-shaft	Pw1					kW
Recomm.power, motor	PM	4,00				kW
E-motor speed	nM	3000				rpm
Impeller speed	nL	2900				rpm
Class of accuracy acc. to DIN 24166		2				

**Connections**

Inlet	DN	160
Flange acc. DIN	Standard	DIN 24154 R2
Connection design		flange mounted
	Dimension	f= 183 f1=
Discharge	DN or B1/B2	0100
Flange acc. DIN	Standard	DIN 24154 R2
Connection design		flange mounted
	Dimension	a1= 420 a2=
	Dimension	d1=

**Identification data**

Product catalogue	L12/2002
Dimension sheet	MB 25
Revised dimension sheet	
General arrangement drawing	
Customer drawing	
Parts list - fan	MXE000
List of material	
Impeller drawing	LRE063-001230-50-0
Impeller design	DZ SFV 1.0

**E-motor data (4)**

Power	3,00		kW
Speed	3000		rpm
Voltage	380D		V
Frequency	50		Hz
Protect.type/class of ins.	IP55	F	---
Frame size	100L	IMB3	---
Explosive protection	no		---
Thermistors	3 pcs		
VIK design	no		
Special design			

**Start-up data**

Moment of inertia	0,42	kgm2
Fan load torque		Nm
Rated motor torque (a)		Nm
Relation b:a		---
Locked-rotor torque (b)		Nm
Start-up time	8,8	s
Starting current		A
Main voltage		V

**Start-up condition**

Weight / Motor-No.	UD0601/236672-010-1	Start-up type:	damper closed
Make / Type	Siemens 1LA7106-2AA90-Z	Wiring:	direct delta
Motor supply	supplied by Reitz		
FC operation	no		

**Noise data (1)**

A-weighted total sound power level inlet/discharge	LWAi2/ L WAI1	103 / 94	dB (A)
A-weighted housing sound power level	LWAa	85	dB (A)
A-weighted measuring surface sound pressure level	LPA	70	dB (A)
Correction value for A-weighting	ΔLKA	6	dB (A)
Measuring surface dimension	Ls	14	dB
A-weighted free inlet resp. free discharge sound pressure level at 1 m distance	LPA5/ LPA6	85 / 94	dB (A)

**Special design of fan**

Temperature range	-9°C up 80°C
Sealing	normal
Pressure-resistant and shock-proof	no
Housing insulation	none ID=
Housing splitting	no
Housing design type	
Pedestal design type	

<b>Material</b>		<b>Surface finish</b>		<b>microns</b>	
Spiral housing	S235JRG2	<b>Impeller - coating</b>			
Scroll	S235JRG2	- derusting	manual derusting		
Impeller		- primer	RAL 3009	40	
· Blades	S235JRG2	<b>Housing inside - coating</b>			
· Main plate	S235JRG2	- derusting	manual derusting		
· Shroud	S235JRG2	- primer	RAL 3009	40	
Pedestal	S235JRG2	- intermediate coat	-----		
Shaft		- finish coat	-----		
<b>Heat treatment</b>		<b>Housing outside - coating</b>			
Stress relief heat treatment impeller	no	- derusting	manual derusting		
		- primer	RAL 3009	40	
		- intermediate coat	-----		
		- finish coat	-----		
		Colour code	acc. to RAL-tone		
<b>Surface and weights w/o equipment</b>		<b>Pedestal inside - coating</b>			
Housing inside/outside	1,71	1,86	m <sup>2</sup>	- derusting	manual derusting
total	3,57		m <sup>2</sup>	- primer	RAL 3009
Insulation	1,59		m <sup>2</sup>	- intermediate coat	-----
Impeller total	1,56		m <sup>2</sup>	- finish coat	-----
Pedestal inside/outside	0,80	0,51	m <sup>2</sup>	<b>Pedestal outside - coating</b>	
total	1,31		m <sup>2</sup>	- derusting	manual derusting
Fan outside	6,33		m <sup>2</sup>	- primer	RAL 3009
Impeller - weight	20,1		kg	- intermediate coat	-----
Weight without motor	105,4		kg	- finish coat	-----
<b>Special techn. features (3) and equipment</b>		Colour code		acc. to RAL-tone	
shaft seal DBW101-000050-03	W1231-0000001-00				
dampner at discharge (1), GR	0100, S235JRG2, -80°C				
filter inlet RFF113-014016	160, horizontal, S235JRG2		<b>Bearing I = 7</b>		
replacem.cartr. (2)	014040		Single bearing hous. N-end		
U-tube manometer			D-end		
			Anti-friction bearing N-end		
			D-end		
			Taper N-end		
			D-end		
			Fix ring		
			Fixed bearing position		
			Shaft		
			<b>Special design of bearing</b>		
			<b>V-belt drive</b>		
			Pulley - fan		mm
			Finish bore		mm
			Taper no.		--
			Pulley - motor		mm
			Finish bore		
			Taper no.		--
			Design of belts		--
			Length of belts		mm
			Number of belts		--
<b>Labels and plates</b> German/English/	<b>neutral</b>		<b>Special design of V-belt drive</b>		
<b>Customer's type code</b>					
<b>Packing</b>					
<b>Shipment FCA Hötter - including packing</b>			<b>Coupling</b>		
			Make		--
			Type		--
			Size		--
<b>Marking</b> AAT.-Pos. 105/0504			Finish bore - shaft		mm
<b>Shipment marks</b>			Finish bore - motor		
			<b>Special design of coupling</b>		
<b>Remarks</b>					
(1) Sound data:	Acc. DIN 45635 part 1 and 38 - free field condition.		at inlet and discharge under free field.		
	A-weighted sound pressure level LPA only with connected duct-work condition without consideration of motor noise.				
(2) Tolerance:	Tolerance with respect to class of accuracy in accordance DIN 24166 eta >= 0,9 x etamax. Coordination for class of accuracy (G-KL) see		in range of efficiency product specification.		
(3) Shaft seal:	Standard seal is not absolutely tight!				
(4) Motor:	Recommended E-motor is calculated for start-up with closed damper and D.O.L. starting.		Please observe start-up conditions of our catalogue/techn. sheets.		
<b>Test remark</b>					
	Purchase	Planning engineering	Inspection / Test	Consignment control	
Date					
Name					



# FAN DATA

## Liste 12/2002

Reference No.  
Item No.  
**AAT.-Pos.105/0504**  
Date  
**04.03.2006 / otb**

Fan Type <b>MXE063-001230-00</b>	Serial No. <b>211881</b>	Comm. No.
Your Order No. <b>32082912</b>		Code <b>TASLUFA</b>

**Pressure Range 630**  
**Fan Type MXE063-001230-00**

	Basic Data		Operation Data	
	Free Inlet	Free Inlet	ducted	ducted
	discharge operation	discharge operation	inlet operation	inlet operation
	air	air	air	air
Type of Connection				
Operating Condition				
handled gas				
Designated Volume Flow			12,5	m <sup>3</sup> /min
Designated Total Pressure Increase			630	daPa
Humidity		0	0	g/kg
Gas Constant	R	287.00	287.00	J/(kg K)
Kappa	K	1.40	1.40	-
Inlet-Temperature	T1	20	20	°C
discharge temperature	T2	30	30	°C
Altitude	h	0	0	m
Absolute Atmospheric Pressure	P0	10133	10133	daPa
Athmospheric Density	Rho0	1.205	1.205	kg/m <sup>3</sup>
Density At Inlet	Rho1	1.205	1.134	kg/m <sup>3</sup>
Volume Flow	V1	12.50	12.50	m <sup>3</sup> /min
Total Pressure Increase	dpt	630	593	daPa
Dynamic Pressure	pd2	45	42	daPa
Dynamic Pressure	pd1	6	6	daPa
Static Pressure Increase	dpst	591	557	daPa
Shaft Power	PW	2.64	2.49	kW
Impeller Speed	nL	2900	2900	RPM
recom. motor power	PM	4.00	3.00	kW
Motor synchronouse speed	nM	3000	3000	RPM
A- Weighted Sound Power Level*				
Inlet	LwAi1	94	94	dB(A)
Discharge	LwAi2	103	103	dB(A)
Correction Value for A weighting	dLkA	6	6	dB(A)
A- Weighted Sound Pressure Level at 1m Distance With*				
both sides ducted	LpAm	70	70	dB(A)
Free inlet	LPA5	85	85	dB(A)
Free outlet	LPA6	94	94	dB(A)
Superficial Dimension	Ls-k	15	15	dB
Inlet Size			d160	mm
Discharge Size			d100	mm
Blade thickness			2,5	mm
Shroud thickness			2,5	mm
Backplate thickness			2,5	mm
Impeller Diameter			610	mm
Tip Speed	u2	90	90	m/s
No. of Blades		11	11	-
characteristic curve type		2	2	-
Massmoment of Inertia		0.467	0.467	kgm <sup>2</sup>
Start Up Time, Closed System	approx.	6		s
Weight Without Motor	MX	105		kg

\*Acoustic data at operating point incl. noise correction factors.

Tolerances dependent on class of accuracy in accordance to DIN 24166 in range of efficiency eta >= 0,9 x etamax.. Coordination for class of accuracy (G.Kl.) see product specification. Please pay attention anyway to the techn. indications made in our catalogue	class of accuracy	1	2	3
	dpt and V1 [%]	+/- 2,5	+/- 5	+/- 10
	Pw [%]	3	8	16
	Lw and Lp [dB]	3	4	6

**Pressure Units : 1 daPa = 10 Pa = 10 N/m<sup>2</sup> = 0,1 mbar = 1,0197 mmWS**