6448/2HP-xxx DC Axial Fan

SK6006015807

Preliminary Data !!!



Axial fan with DC drive. This DC drive employs an electronically commutated external rotor motor with high efficiency. With integrated open collector tacho output for speed monitoring and PWM speed control input. Drive electronics is completely integrated into the fan hub.

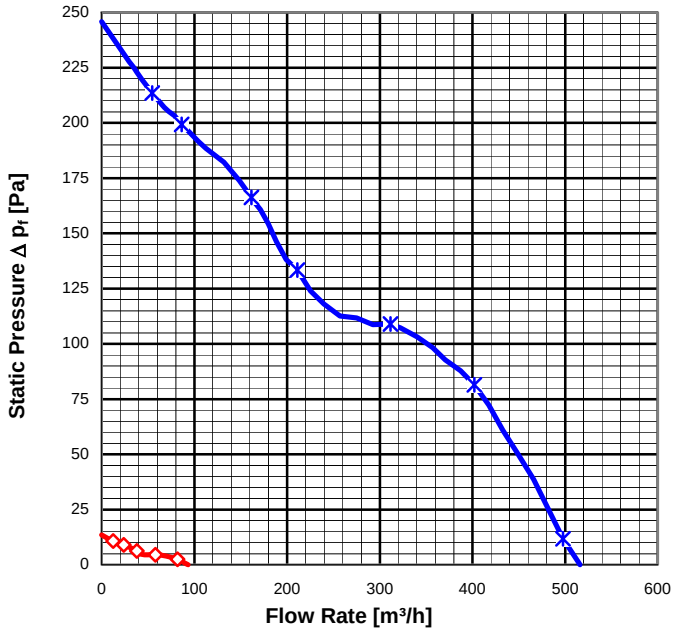
Features

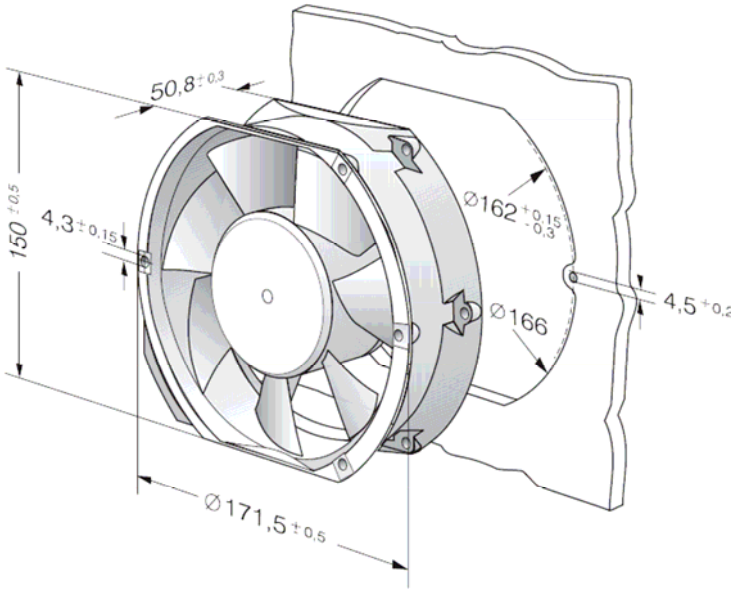
- Low noise level through aerodynamically optimised housing and impeller.
- Electronic motor current limiting during start-op or locking. Continuous locking protection
- Electronically safeguarded against incorrect polarity.
- Extremely low EMI.
- Electrical connection via 4 leadwires AWG22, 600mm long.

Technical Data

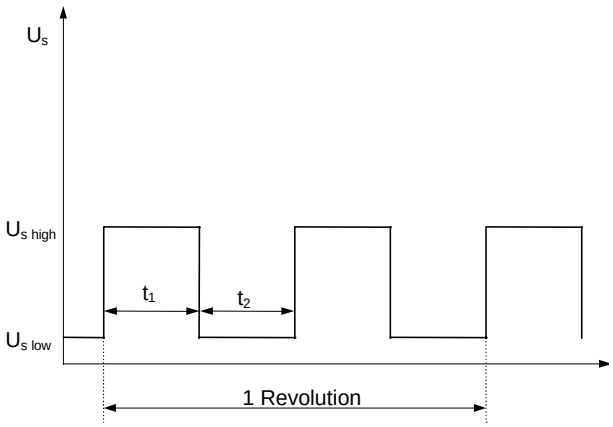
Nominal Voltage	V DC	48
Voltage Range	V DC	36 ... 72
Nominal Speed	rpm	4500
Max. flow rate	m^3/h	520
Max. flow rate	CFM	306
Noise free air	dB(A)	64
Current consumption	mA	670
Power consumption	W	32
Perm. Ambient temperature at max. voltage.	°C	-20 ... +tbd
Service life ($T_{Max)}$	h	tbd
Service life (40 °C)	h	tbd
Approvals		CSA, UL, VDE, CCC
Fan housing / impeller		Metal / PA 6.6
Bearing system		Ball bearings
Mass	kg	0,760

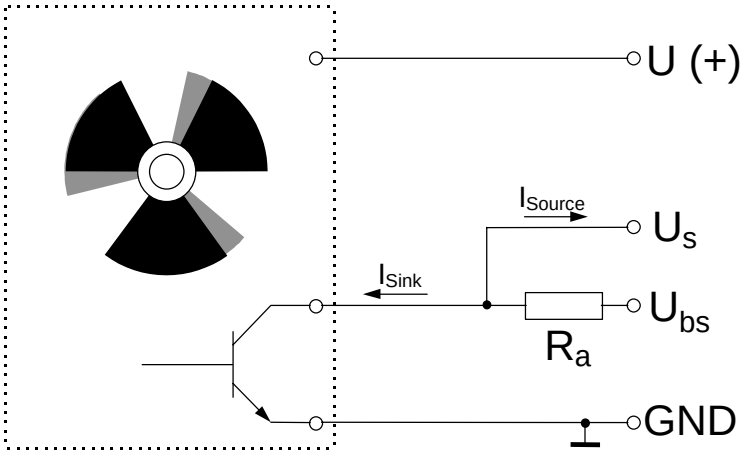
All data are mean values at nominal voltage. Subject to technical change.





Tacho Output Signal "/2"





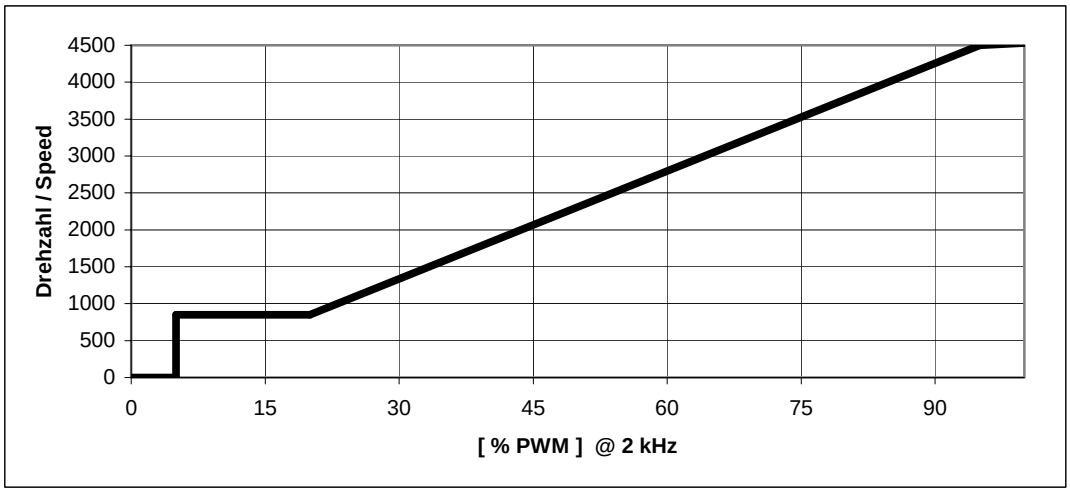
U (+) Supply Voltage
U_S Speed Signal
U_{bs} Sensor Supply Voltage
GND Ground (-)
Ra External Pull-Up Resistor

$$R_a = \frac{U_{bs} - U_{slow}}{I_{sink}}$$

Output	2 pulses per revolution
U_{bs}	5...55 V DC
$U_{s\ high}$	5...55 V DC at I_{source} = 0 mA
$U_{s\ low}$	<= 0,4V DC at I_{sink} = 2 mA
$I_{sink\ max}$	<= 20 mA
t_1 / t_2	0,8 - 1,2

f = 2*n/60Hz

PWM Speed Control Input



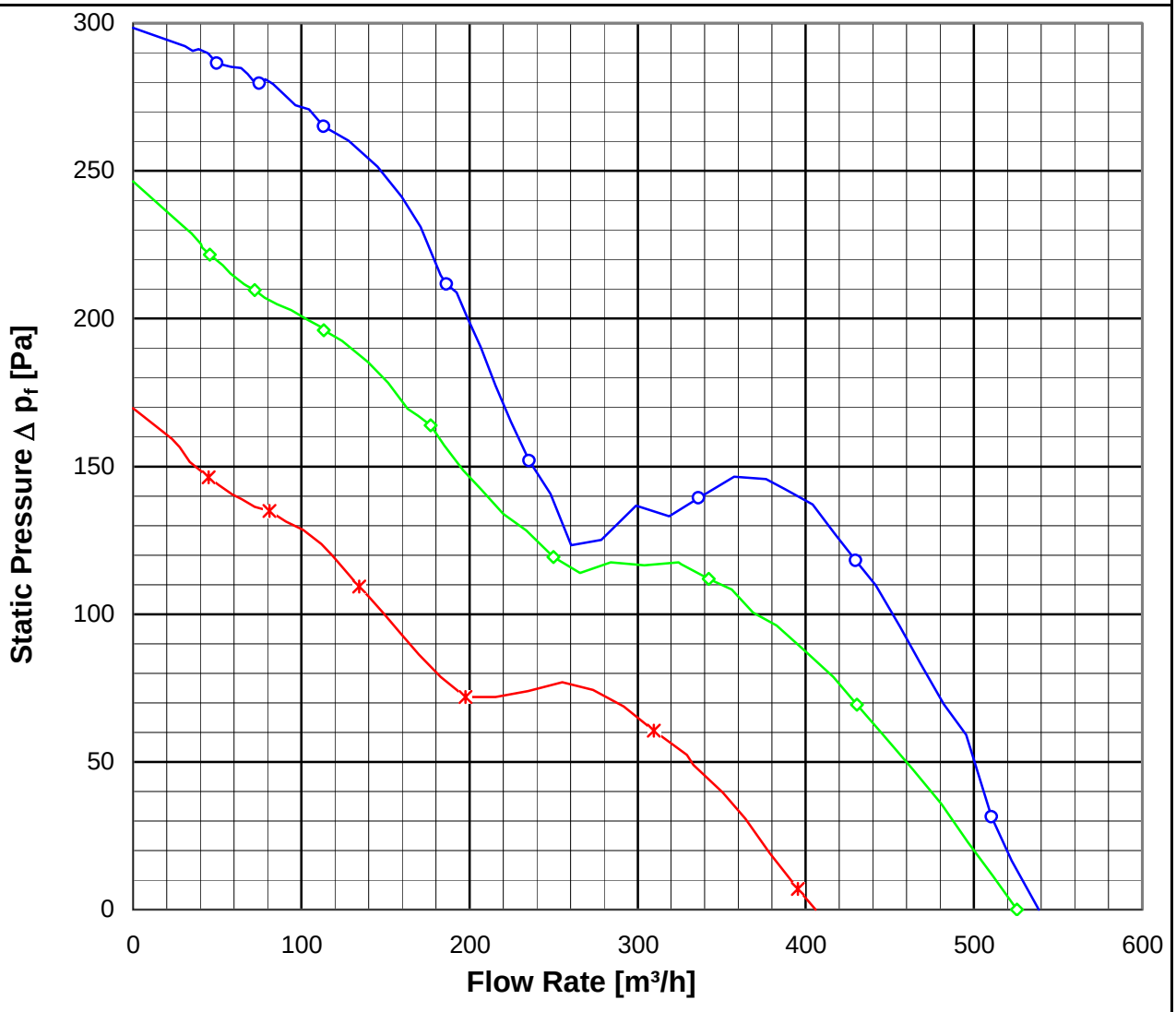
Performance Graph

measured with intake-side doublechamber test rig
according to DIN 24163 part 3

PAPST

File no.:		✳ 100728		◇ 100729		○ 100730	
Fan model:		6448/12HP		6448/12HP		6448/12HP	
b / t:		915 mbar / 24.4 °C		914 mbar / 24.4 °C		914 mbar / 24.4 °C	
φ / ρ:		33 % / 1.072 kg/m³		32 % / 1.071 kg/m³		32 % / 1.071 kg/m³	
Order no.:		636 000 2100		636 000 2100		636 000 2100	
Customer:							
Date/Name:		13.05.02 / 514/Benz		13.05.02 / 514/Benz		13.05.02 / 514/Benz	
Test nozzle:		LM2000		LM2000		LM2000	
Remarks:		SK6006 0031 01 Sample 5 violette Litze offen		SK6006 0031 01 Sample 5 violette Litze offen		SK6006 0031 01 Sample 5 violette Litze offen	
Manufacturing date:		11/01		11/01		11/01	
U	f	36 VDC		48 VDC		72 VDC	
I_{V0}	I_{Vmax}	571 mA	470 mA	716 mA	666 mA	680 mA	497 mA
P_{V0}	P_{Vmax}	20.55 W	16.91 W	34.35 W	31.94 W	48.92 W	35.74 W
n_{V0}	n_{Vmax}	3064 1/min	3475 1/min	3690 1/min	4469 1/min	4053 1/min	4547 1/min

b: Barometric pressure t: Temperature φ: Rel. humidity ρ: Air density U: Voltage f: Frequency I: Current consumption P: Power consumption n: Speed



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