

# 6448/17U – 365 DC Axial Fan

Axial fan with DC drive. This DC drive employs an electronically commutated external rotor motor with high efficiency at low operating noise. The drive electronics is completely integrated into the fan hub.



Darstellung entspricht Systembild

## Features

- Low noise level through aerodynamically optimized housing and impeller.
- Electronic motor current limiting during start-up or blocking.
- Electronically safeguarded against incorrect polarity.
- Extremely low EMI.
- Electrical connection via cable 1950mm long.
- Encapsulation of stator, winding and PCB (protection class IP 54)

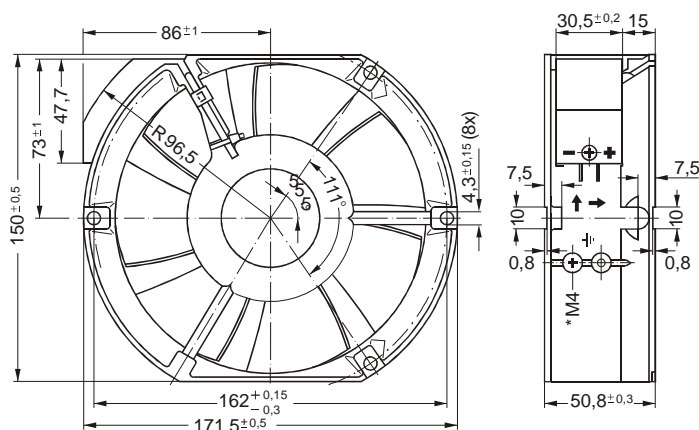
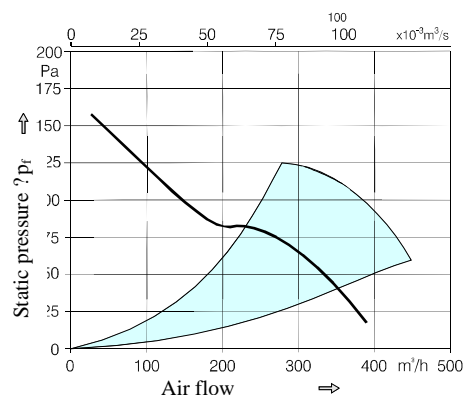
## Technical Data

Nominal Voltage	V DC	48
Voltage Range	V DC	28-60
Nominal Speed	min <sup>-1</sup>	3400
Max. flow rate	m <sup>3</sup> /h	410
Max. flow rate	x10 <sup>-3</sup> m <sup>3</sup> /s	241
Noise free air	dB(A)	56
Noise in opt. Operating range	bels	6,2
Current consumption	mA	355
Power consumption	W	17
Perm. Ambient temperature at max. voltage.	°C	-20 ... +72
Service life (T <sub>Max</sub> )	h	35.000
Service life (40 °C)	h	75.000
Approvals	Can be approved for CSA, UL, VDE	
Bearing system	Ball bearings	
Mass	kg	0,760

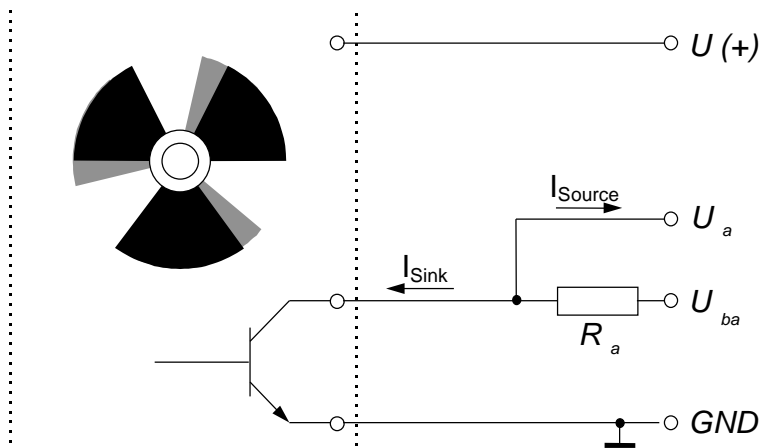
All data are average figures at nominal voltage.

Subject to technical change.

Performance Graph:

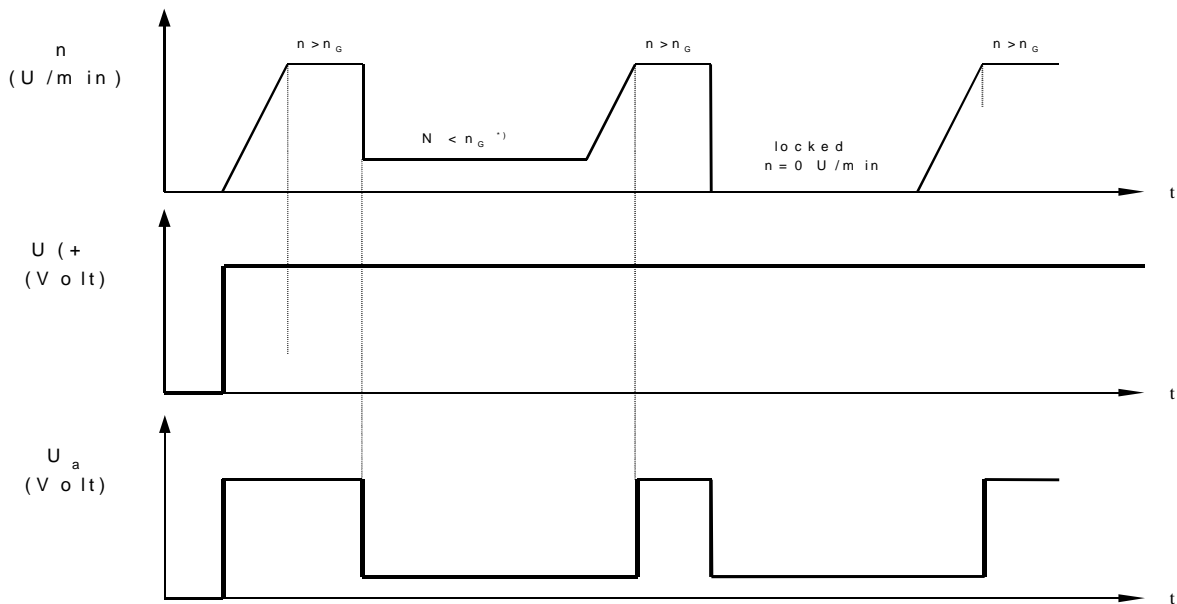


\* Schraube (screw) DIN 7500C - M4 x 6 nur bei Typ 6448 (only model 6448)



U (+) = Supply Voltage (+)  
 U<sub>a</sub> = Alarm Signal  
 U<sub>ba</sub> = Alarm Supply Voltage  
 GND = Ground (-)  
 R<sub>a</sub> = External Pull up-Resistor

$$R_a = \frac{U_{ba} - U_{aL}}{I_{sink}}$$



## Alarm Circuit

This fan is equipped with an integrated alarm circuit producing a continuous output signal U<sub>a</sub> for monitoring fan speed. At proper operation in the nominal voltage range the alarm output is a „high“ level. When speed decreases below limit speed n<sub>G</sub> = 1150 rpm, e.g. by high friction torque, locked rotor condition, or low operating voltage, a „low“ level output will occur. When speed recovers, the alarm signal goes back to „high“, i.e. alarm is non-latched.

## Technical Data

Designation	Test condition	Symbol	Value
Alarm output voltage		U <sub>ba</sub> max	60 V DC
Max. sink current		I <sub>sink</sub> max	20 mA
Output voltage „Low“ n < n <sub>G</sub>	I <sub>sink</sub> = 2 mA	U <sub>aL</sub>	≤ 0,3 V
Output voltage „High“ n > n <sub>G</sub>		U <sub>aH</sub>	60 V
Leakage current n > n <sub>G</sub>	U <sub>a</sub> = 60 V	I <sub>sink</sub>	max. 15 μA
Alarm delay time	at start up only	t <sub>2</sub>	≤ 15 s
Signal rise and fall time U <sub>a</sub>		t <sub>r</sub> , t <sub>f</sub>	min. 0,5V/μs (Stand TTL)
Alarm trip speed		n <sub>G</sub>	1150 U/min

t<sub>r</sub> ∈ Low-High

t<sub>f</sub> ∈ High-Low

Alarm Signal suppressed at start-up

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