

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)

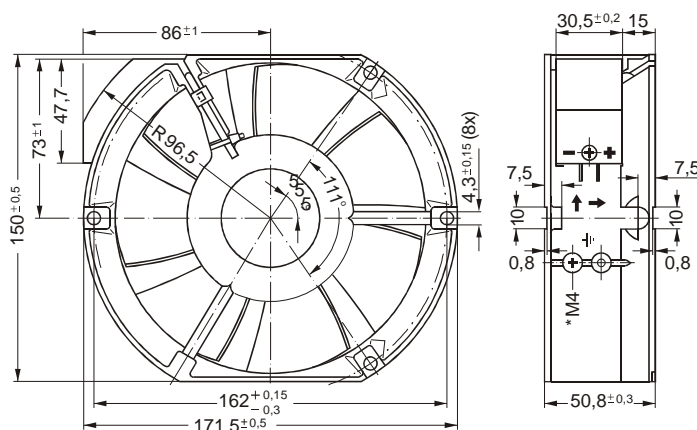
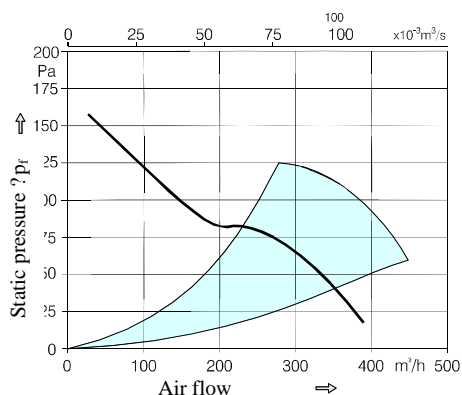
Technical Data

| | | |
|--------------------------------------------|-------------------------------------|-------------|
| Nominal Voltage | V DC | 48 |
| Voltage Range | V DC | 28-60 |
| Nominal Speed | min ⁻¹ | 3400 |
| Max. flow rate | m ³ /h | 410 |
| Max. flow rate | x10 ⁻³ m ³ /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 _{Max}) | 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 |

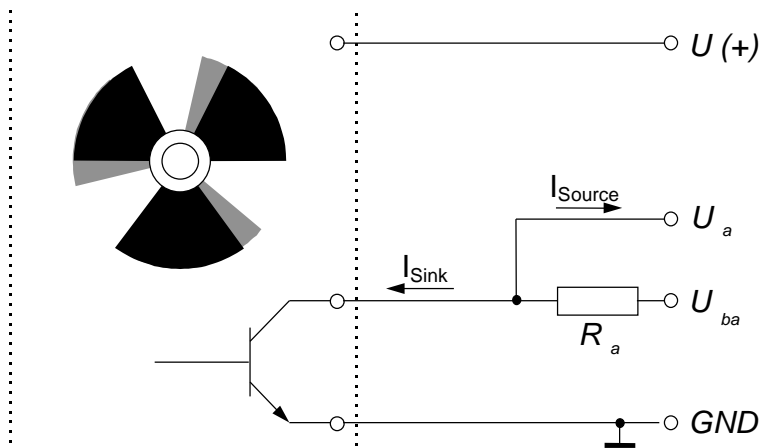
All data are average figures at nominal voltage.

Subject to technical change.

Performance Graph:

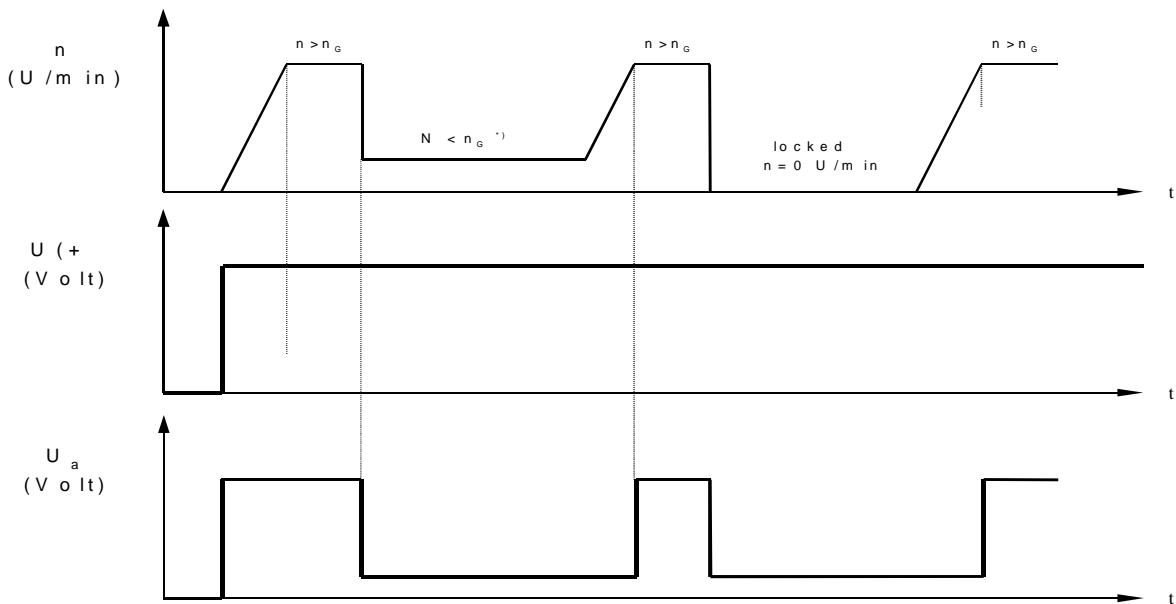


* Schraube (screw) DIN 7500C - M4 x 6 nur bei Typ 6448 (only model 6448)



U (+) = Supply Voltage (+)
 U_a = Alarm Signal
 U_{ba} = Alarm Supply Voltage
 GND = Ground (-)
 R_a = 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_a 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_G = 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 _{ba} max | 60 V DC |
| Max. sink current | | I _{sink} max | 20 mA |
| Output voltage „Low“ n < n _G | I _{sink} = 2 mA | U _{aL} | ≤ 0,3 V |
| Output voltage „High“ n > n _G | | U _{aH} | 60 V |
| Leakage current n > n _G | U _a = 60 V | I _{sink} | max. 15 μA |
| Alarm delay time | at start up only | t ₂ | ≤ 15 s |
| Signal rise and fall time U _a | | t _r , t _f | min. 0,5V/μs (Stand TTL) |
| Alarm trip speed | | n _G | 1150 U/min |

t_r ∈ Low-High

t_f ∈ High-Low

Alarm Signal suppressed at start-up