

# 4114 N/2H4 DC Axial Fan

preliminary; rev. 02; 11.10.2005

High performance DC Axial fan with electronically commutated external rotor motor. The Electronic commutation is completely integrated into the motor hub.



## Features

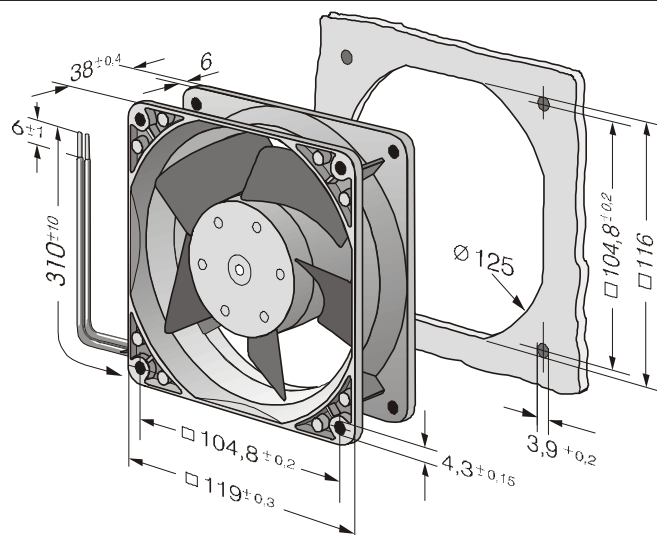
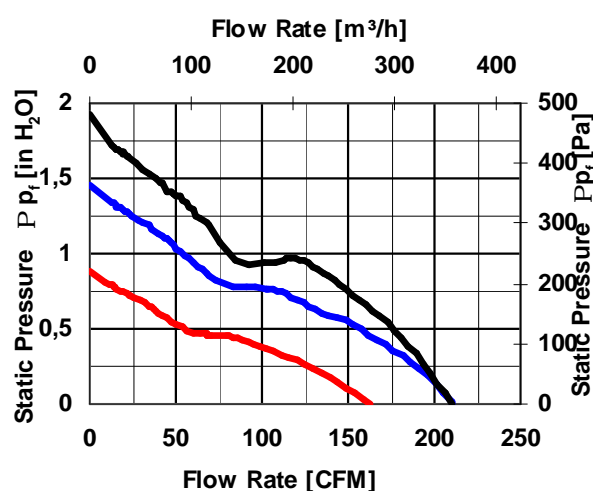
- Electronically protected against reverse polarity, overloading, and locking.
- Air intake over struts.
- Metal fan housing. Impeller of fibre-glass reinforced plastic PA
- Open collector Tacho Signal
- Electrical connection via 3 leads AWG 22 TR 64, 310mm long  
Red = +24 VDC  
Blue = GND  
White = Tacho

## General Data

Nominal voltage	V DC	24
Voltage range	V DC	16 - 30
Nominal speed	min <sup>-1</sup>	6800
Max. flow rate	m <sup>3</sup> /h	351
Max. flow rate	CFM	206,7
Max. pressure	Pa	385,3
Noise free air	dB(A)	66,0
Current consumption	mA	1,1
Power consumption	W	26
Start-up current	mA	< 3.200
Permanent ambient temperature at max. voltage	°C	-20 ... +65
Service life L <sub>10</sub> (40 °C)	h	Appr. 60.000
Service life L <sub>10</sub> (60 °C)	h	Appr. 35.000
Fan housing / impeller		Metal / PA 6.6
Bearing system		Ball bearings
Approvals		CSA; UL; VDE applied for
Mass	g	390

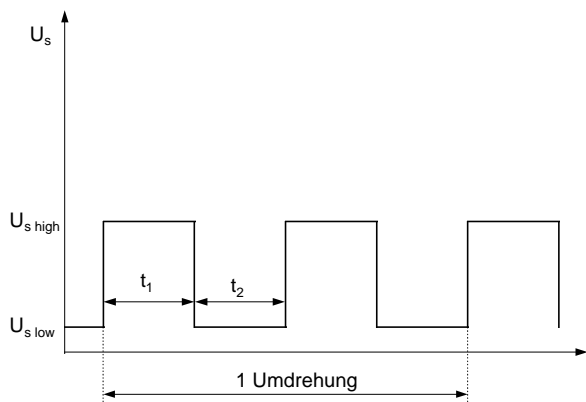
All technical data are mean values at nominal conditions.

Preliminary data – subject to change

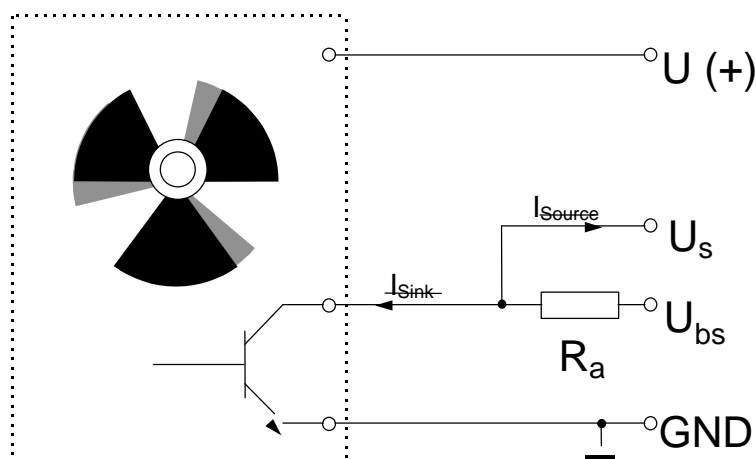


## Tacho Signal /2

### Output signal:



### Connection Scheme:



U (+) = supply voltage (+)  
 U<sub>s</sub> = tacho signal  
 U<sub>bs</sub> = supply voltage tacho signal  
 GND = ground (-)  
 R<sub>a</sub> = external pull up resistor

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

### Technical data:

Signal	2 pulse per revolution
U <sub>bs</sub>	5...30 V DC
U <sub>s high</sub>	5...30 V DC @ I <sub>source</sub> = 0 mA
U <sub>s low</sub>	= 0,4 V DC @ I <sub>sink</sub> = 2 mA
I <sub>sink max</sub>	= 4 mA
t <sub>1</sub> / t <sub>2</sub>	0,8 - 1,2