

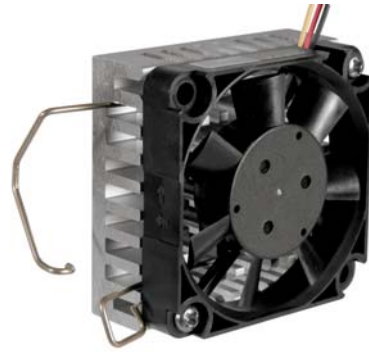
## HF500B50E05, HF500B50E12

### COOLING of HIGH-SPEED CPUs

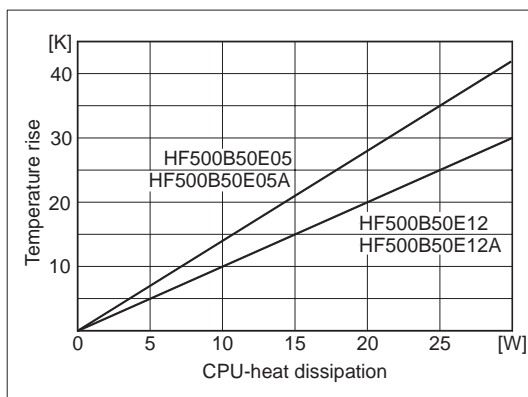


The ball bearing fan on the heat sink is highly effective despite its height of only 24.5mm. This renders it highly suitable for high speed CPUs. The modern motor system ensures a high torque of the ball bearing fan and maximum conductance of heat and simultaneous very low current consumption. The brushless motor is electronically commutated. A special IC is responsible for the electrical control. Highest reliability is achieved by 100% burn-in.

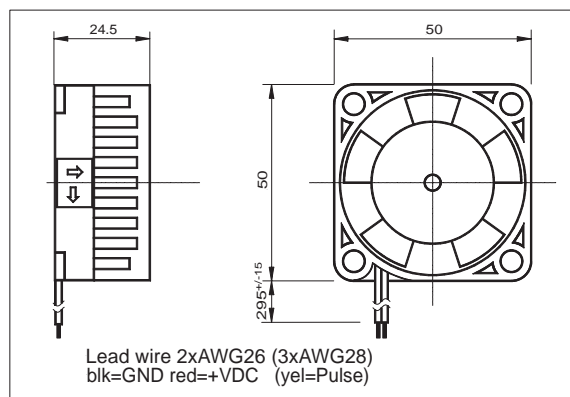
The air flow performance is increased and the noise is reduced by computer-aided optimization of the impeller and cooling surfaces. A metal-clamping bracket for PGA-socket no. 5, 7 or A is attached. An optional speed impulse output enables simple monitoring of speed.



#### COOLING PERFORMANCE



#### SHAPE AND DIMENSION



## PERFORMANCE

CE	HF500B50E05(A)	HF500B50E12(A)
Operating Voltage [V]	4,5...5,0...5,5	10,2...12,0...13,8
Operating Current [mA]	50	40
Max. Start Current [mA]	120	100
Thermal Resistance [K/W]	1,4	1,0
Typ. Noise @ 1m [dB(A)]	23	32
Operating Temperature [°C]	-10...+80	
Rotor Speed [RPM]	3500	4800
Life Expectancy L <sub>10</sub> /MTBF @ T <sub>H</sub> =60°C [h]	75000/210000	
Bearing System	2 ball bearings ZZ	
Weight [g]	69	
Pulse Output (HF500B50ExxA only)	2 Pulses / Rev.	2 Pulses / Rev.
Packing Quantity [PCs]	40 - 80 - 200	

Technical changes without notice • 03/04

### • ALARM SIGNAL (Optional)

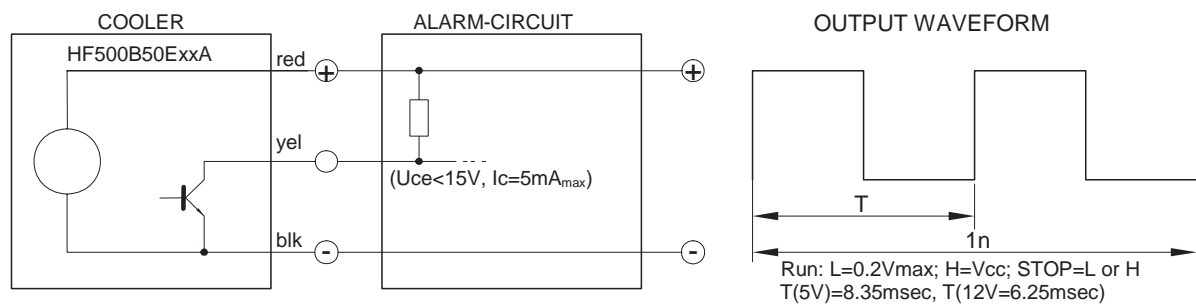
The **SEPA**® HF500B50ExxA include a pulse output, which allows monitoring the correct function of the fan.

HF500B50ExxA: The pulse is like a rectangular wave, the frequency correlates to 2 x rotor speed. At blocked rotor the output signal could be L ( $\leq 0.2V$ ) or H ( $V_{cc}$ ). A pull-up-resistor is needed.

**IMPORTANT:** The pulse output is *not* protected against short circuit and must not connect to GND or  $V_{cc}$  without pre-resistor.

Do not connect not used pulse output (insolate).  
Do not touch the rotor!

The HF500B50Exx(A) have tinned lead wire ends (without connector).



### • ACCESSORIES:

CONNECTOR on request

### • ORDER INFORMATION:

HF500B50E05	<b>SEPA</b> fan 50x50x10mm, 5VDC, ball bearing, <b>CE</b>	515061000
HF500B50E05A	<b>SEPA</b> fan 50x50x10mm, 5VDC, pulse, ball bearing, <b>CE</b>	515061010
HF500B50E12	<b>SEPA</b> fan 50x50x10mm, 12VDC, ball bearing, <b>CE</b>	515062000
HF500B50E12A	<b>SEPA</b> fan 50x50x10mm, 12VDC, pulse, ball bearing, <b>CE</b>	515062010