

SEPA[®] CPU-COOLER

HF500B50A05, HF500B50A05A, HF500B50A12, HF500B50C12A

COOLING of HIGH-SPEED CPUs



• FEATURES

Small and light. 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 CPU's.

• VERY LOW POWER CONSUMPTION

An NdFe₂O₃ magnet ensures a high torque of the ball bearing fan motor and maximum conductance of heat and simultaneous low current consumption.

• HIGHEST RELIABILITY AND LIFE EXPECTANCY

The brushless motor is electronically commutated. A special IC is responsible for the electrical control. High reliability is achieved by 100% burn-in.

• SILENT

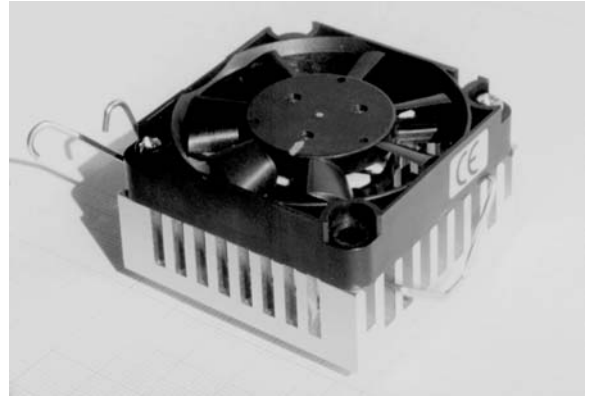
The air flow performance is increased and the noise reduced by computer-aided optimisation of the impeller and cooling surfaces.

• ATTACHMENT

With a metal-clamping bracket for PGA-Socket Nr. 5, Nr. 7 or A (to be supplied).

• ALARM-OUTPUT

An optional speed impulse output enables simple monitoring of the fan speed.



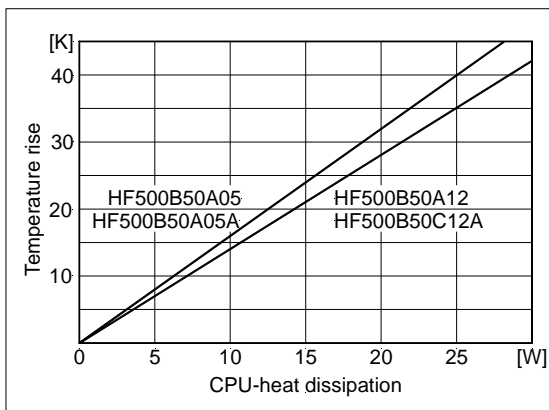
PERFORMANCE

Type	Operating Voltage [VDC]	Operating Current [mA]	Thermal Resist. [K/W] *)	Noise [dB(A)] **)	Op. Temperature (heat sink) °C	Life Exp. / MTBF [h @ 60°C]
HF500B50A05(A)	4.5...5...5.5	210/150	1.6	24	-10 ... +80	75000 / 210000
HF500B50A(C)12(A)	10.2...12...13.8	140/90	1.4	31	-10 ... +80	75000 / 210000

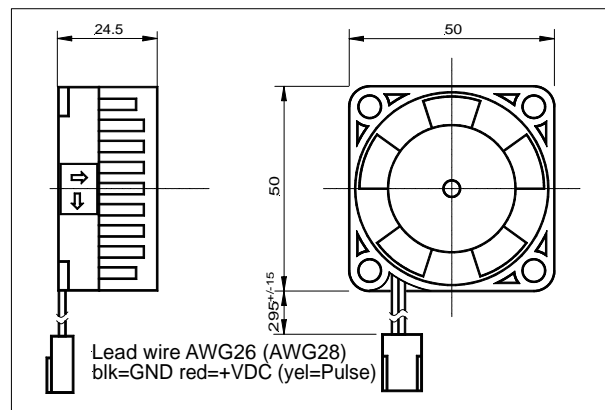
*) Φ C-A: Heat sink with interface pad

**) Measured at 1m from the air intake side

COOLING PERFORMANCE



SHAPE AND DIMENSION



• **ALARM SIGNAL (Option ...A)**

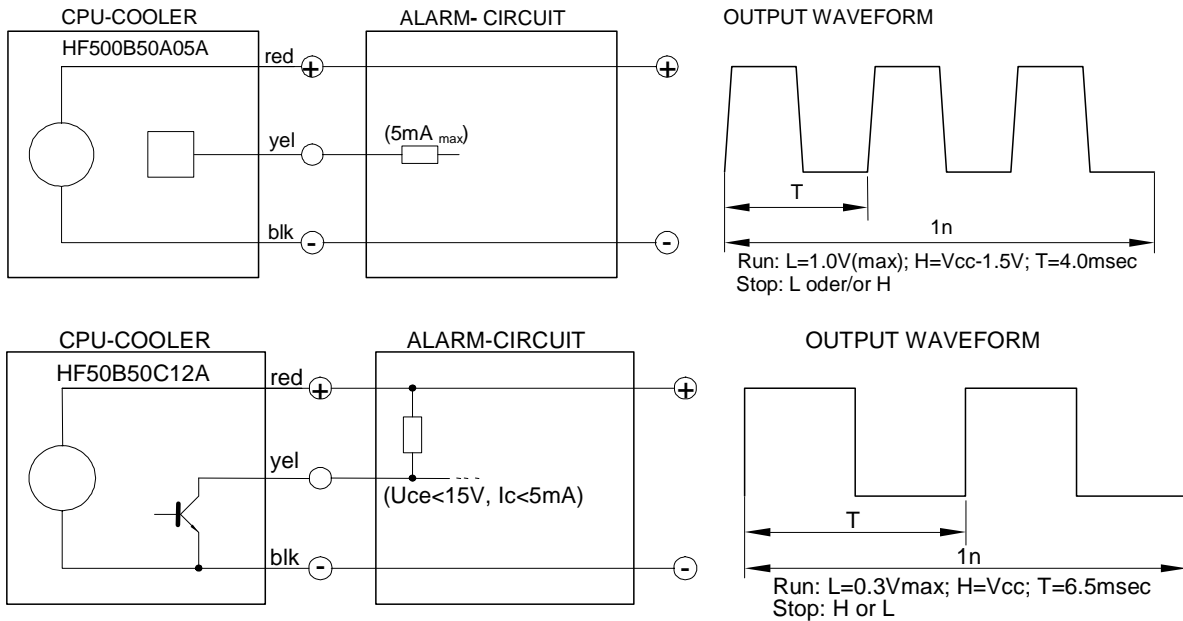
The **SEPA**® HF500B50xxxA includes a speed impulse output, which enables monitoring the correct function of the fan. An alarm-board is available on request.

The pulse is like a rectangular wave. At blocked rotor the output signal could be L or H.

HF500B50A05A: Pulse frequency correlates to 3 x rotor speed, line-output, a pull-up-resistor is not needed.

HF500B50C12A: Pulse frequency correlates to 2 x rotor speed, OC-output, a pull-up-resistor is needed.

IMPORTANT: The pulse output is *not* protected against short circuit and must not connect to GND or Vcc without series-resistor. Do not connect not used pulse output to GND or Vcc (insolate).



• **ACCESSORIES:**

- THPAD44 thermally conductive adhesive pad, with aluminium carrier.
- ALG01 **SEPA** ALARM, monitor-circuit, generates an acoustic signal in case of missing pulses.
- VARP01 Speed control via temperature
- CONNECTOR on request

• **ATTACHEMENT:**

The HF500B50xxx(A) will be fixed with a included metal-clamping bracket for PGA-Socket Nr. 5, Nr. 7 or A. A thermal conductive pad or (better) a little thermal conductive grease between CPU und CPU-Cooler is needed to get best cooling performance. By using thermal conductive grease in place of thermal conductive pad the thermal resistance will be reduced by 0.25K/W.

The HF500B50xxx(A) has tinned lead wire ends (without connector).

• **ELECTRICAL PROTECTION:**

The HF500B50Axx(A) is permanent protected against false pole of power supply and blocking rotor.

• **ORDER INFORMATION:**

HF500B50A05	CPU-Cooler 200, CE	215011000
HF500B50A05A	CPU-Cooler 200, impulse, CE	215011010
HF500B50A12	CPU-Cooler 200, CE	215012000
HF500B50C12A	CPU-Cooler 200, impulse, CE	215032010

SEPA® is the brand name for fans and CPU Cooler, made by Nippon Keiki Works LTD., Tokyo