

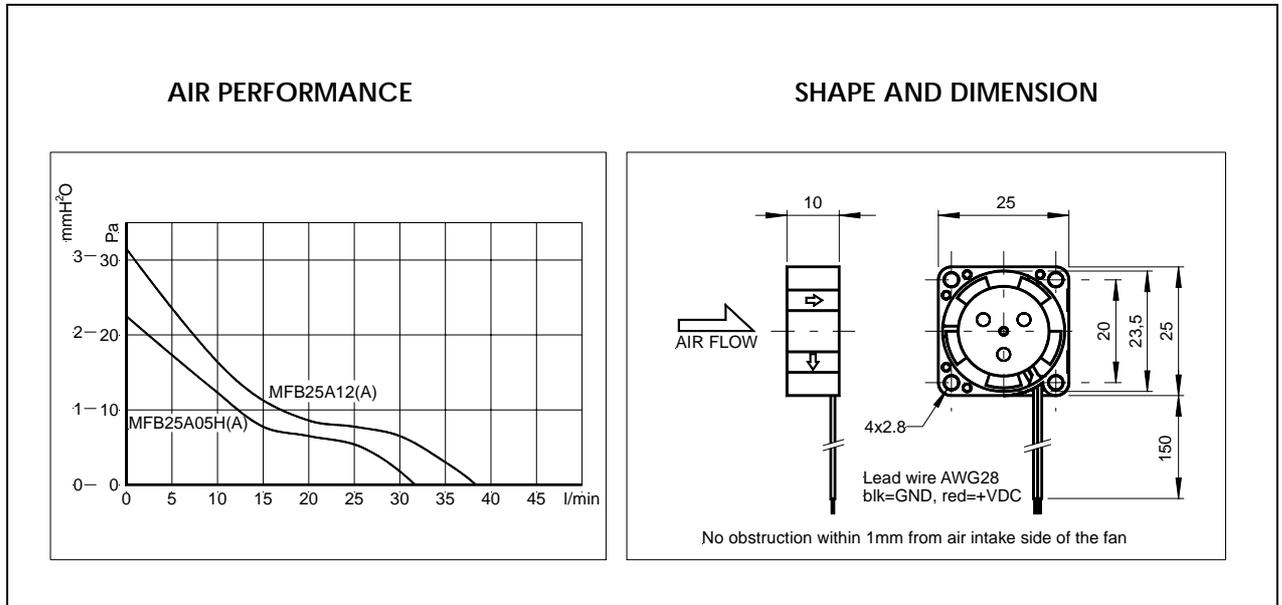
# SEPA<sup>®</sup> BRUSHLESS FAN

MFB25A05H(A), MFB25A12(A)



**HIGH RELIABILITY FAN**

**AUTOMOTIVE FAN**



## PERFORMANCE

		MFB25A05H	MFB25A12
Operating Voltage	[V]	4.5 ... 5 ... 5.5	10.2 ... 12 ... 13.8
Operating Current	[mA]	85	60
Max. Start Current	[mA]	220	200
Max. Air Flow	[l/min - m <sup>3</sup> /h]	32 - 1.92	38 - 2.28
Max. Air Pressure	[mmH <sub>2</sub> O - Pa]	2.3 - 22.6	3.2 - 31.4
Typ. Noise @ 1m	[dB(A)]	17	22
Operating Temperature	[°C]	-10 / +70 (+80)	
Rotor Speed	[RPM]	8500	10600
Pulse Output (optional, ...A)	[pulse/rev]	4	4
Life Expectancy L <sub>10</sub> /MTBF	[h]	95000/280000@20°C	20000/55000@70°C
Bearing System		ball bearings in steel flange	
Weight	[g]	8	
Packing Quantity	[PCs]	50 - 100 - 500 - 1000	

This **SEPA<sup>®</sup>** high-tech miniature fan is suitable for industrial or automotive use and has a remarkable air flow performance despite its small dimensions. Thanks to the extremely low power input this fan is highly suitable for battery-operated devices. It is permanently protected electrically against reverse polarity, blocking and thermal overloading. Due to the low rotor weight and precision balancing, it is virtually vibration-free. It is also insensitive to shock.

Further features of this fan are its extremely robust and torsionally rigid plastic housing of PBT (UL E54695), ball bearings with narrow tolerances, of special steel, polyester-based PCB (UL E44247) and absolute reliability due to 100% burn-in.

• **ALARM SIGNAL (Optional)**

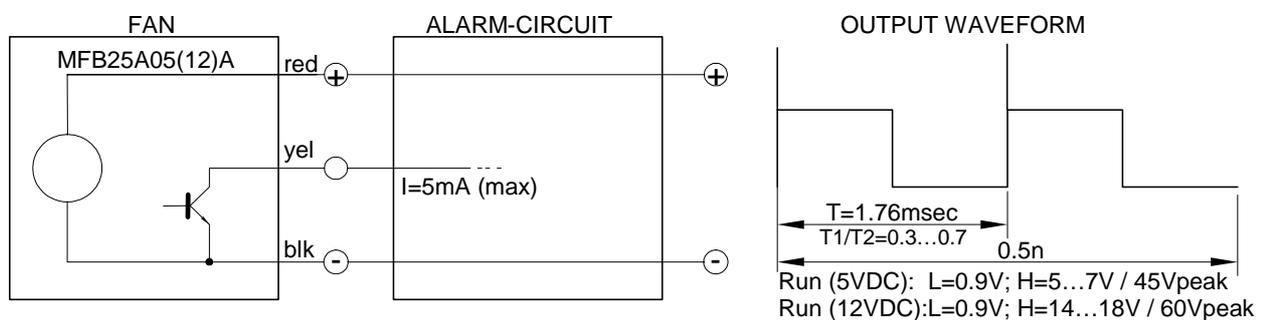
The **SEPA**® MFB25AxxA includes a pulse output, which allows monitoring the correct function of the fan. An alarm-board is available on request.

The pulse is like a rectangular wave, the frequency correlates to 4 x rotor speed. The amplitude is more than operating voltage and peaks up to 9 x operating voltage appear periodically. Please use a series resistor and a Z-diode to block up the high voltage. At blocked rotor the output signal could be L ( $\leq 0.9V$ ) or H ( $V_{cc} - 0.9V$ ).

**IMPORTANT:** The pulse output is *not* protected against short circuit and must not connect to GND or Vcc without pre-resistor. A pull-up-resistor is not needed.

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

The MFB25Axx(A) has tinned lead wire ends (without connector).



• **Accessories:**

ALG02: **SEPA** ALARM, monitor-circuit, generates an acoustic signal in case of missing pulses.  
Connector: on request

• **ORDER INFORMATION:**

MFB25A05	<b>SEPA</b> ® Miniature fan 30x40x10mm, ball bearings, <b>CE</b>	512511000
MFB25A05A	<b>SEPA</b> ® Miniature fan 30x40x10mm, ball bearings, pulse, <b>CE</b>	512511010
MFB25A12	<b>SEPA</b> ® Miniature fan 30x40x10mm, ball bearings, <b>CE</b>	512512000
MFB25A12A	<b>SEPA</b> ® Miniature fan 30x40x10mm, ball bearings, pulse, <b>CE</b>	512512010

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