

# W1G300 brushless DC axial fans

for heavy-duty mobile applications

# ebmpapst

The engineer's choice

## The benchmark for transport duty fan reliability just got more affordable!

ebm-papst - a name synonymous with performance, quality, and reliability - introduces the W1G300 value-based series of fans.

This innovative series offers commercial vehicle owner/operators a *new* option of brushless DC fans. They deliver incomparable cost savings with a lower up-front investment and a decreased level of maintenance over the life of the HVAC system.

### Features and benefits:

- Available in both 12/24 VDC nominal voltages
- Consumes less energy
- Reduces current draw
- Lowers fuel usage
- Produces less wear and tear
- Life expectancy of up to 10 times longer than comparable brushed fans
- Extends the life of your vehicle's alternator

Fleet costs of your mobile HVAC system are significantly reduced by the elimination of replacing worn-out brushed fans. The average life of a brushed fan is from 3,000 to 5,000 operating hours. ebm-papst brushless fans average a lifetime of 40,000 hours, offering potential savings of \$900 to \$1,500 per system\* and the reduction of maintenance costs and operational downtime over the life of the vehicle.

\*Typical system using 3 fan condenser, 2,000 operating hours per year, over an 8 year vehicle life span.

### Highlights and ratings (at typical continuous operation):

- Cutting edge motor/fan blade technology
- Open rotor design with IP68/IP6K9K electronics
- PWM and analog input compatible
- EMC directives: ECE R10 Tev 3
- Min/max ambient temperature range: -40° to 158°F (70°C)
- Operating voltage range: 9 to 16V and 18 to 32V
- High efficiency, sealed bearing design
- Integrated sealed connector

### Product highlights:

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Soft start capable                     | <input checked="" type="checkbox"/> Load dump - overvoltage      |
| <input checked="" type="checkbox"/> Over temperature protected electronics | <input checked="" type="checkbox"/> Line under voltage detection |
| <input checked="" type="checkbox"/> Motor current limit                    | <input checked="" type="checkbox"/> Low vibration                |
| <input checked="" type="checkbox"/> Mechanical overload - Locked rotor     | <input checked="" type="checkbox"/> Low noise                    |



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## W1G300 Performance vs. brushed fan benchmark

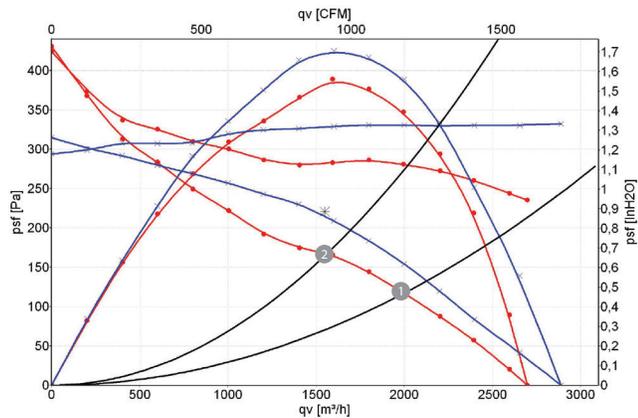
For each key operational metric in the chart below, ebm-papst brushless fans have major advantages over comparable brushed fans.

1. AP: 2000m <sup>3</sup> /h@120Pa(1170cfm@.5"H2O)			
	Brushed DC	W1G300	Δ
Power P <sub>1</sub>	222W	219W	-1,5%
Efficiency	29,9%	30,8%	+9%
RPM	3200 rpm	2825 rpm	-11,5%
Sound Power	84dB	81,5dB	-3,5dB

2. AP: 1600m <sup>3</sup> /h@160Pa(950cfm@.65"H2O)			
	Brushed DC	W1G300	Δ
Power P <sub>1</sub>	210W	196W	-6,5%
Efficiency	33,3%	36%	+9%
RPM	3160 rpm	2735 rpm	-14,5%
Sound Power	86,1dB	81,6dB	-4,5dB

Line	Idno	Type	Idx.	U[V]	Ust [V]	Inst. cat.	Remark
●—●	142763	SPALA300	01B	26	-	A	Benchmark brushed fan
×—×	155886	W1G300-EC24-02	01A	26	11	A	ebm-papst brushless fan



## W1G300 Technical drawing

