BRUSHLESS MOTORS

MB SERIES

DESCRIPTION

The applications of motorization in the aeronautical domain contain large and often contradictory requirements: weak mass, high power, low consumption, restricted dimensions, functioning temperature …

Our Brushless motor range is designed to be adapted in an optimal way to the specific needs of each application. From architecture experienced and tested on our bench tests, a specific answer is brought.

The motor is optimized for the functioning points defined by the customer and adapted to the electronics driver to obtain the best possible performances.

The following data are inspired by concrete examples of applications; consequently, the performances level can change significantly to be adapted to the most particular specificities of a new application.

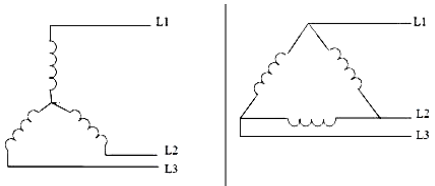
EXAMPLE OF MOTOR REFERENCES

Example : MB38-1-HF

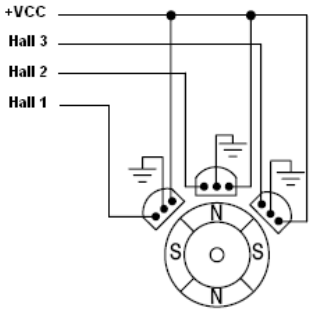
- MB → Brushless Motor
- 38 → External diameter 38.6mm
- 1 → Winding, depends of required performances Torque/Speed/Temperature
- Option → H : Hall effect sensor
  → T : Temperature sensor
  → F : Rotor hooping
  Nota: other options can be added, to be defined with the customer

STANDARD WIRING

- Phase 1 : Green wire
- Phase 2 : Yellow wire
- Phase 3 : Brown wire
- +VCC : Red Wire
- GND : Black wire
- Hall 1 : White wire
- Hall 2 : Blue wire
- Hall 3 : Orange wire



Star Delta



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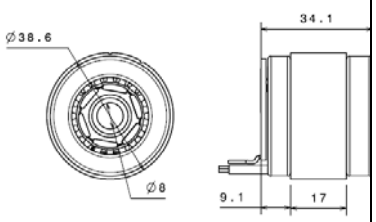
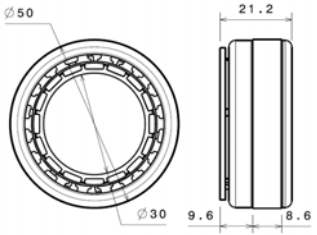
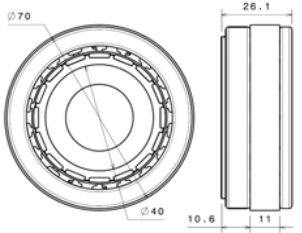
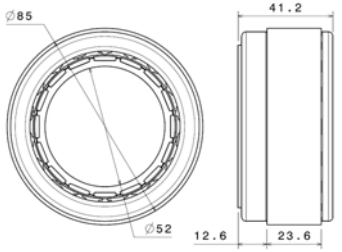
SAS au capital de 1 303 720 € - RCS Angers B 334 581 204 00016 - TVA : FR40334581204 - APE : 332A

BRUSHLESS MOTORS - MB SERIES

Reference		MB38-1-HF	MB50-1-HT	MB70-1-HT	MB85-1-HT
Dimension:					
Weight: (Rotor+Stator)		152 g	145 g	355 g	752 g
Material :		Stator : Magnetic lamination Rotor : Stainless Steel Magnets : Rare Earth	Stator : Magnetic lamination Rotor : Stainless Steel Magnets : Rare Earth	Stator : Magnetic lamination Rotor : Stainless Steel Magnets : Rare Earth	Stator : Magnetic lamination Rotor : Stainless Steel Magnets : Rare Earth
Motor Characteristics[1] :	- Number of phase: - Winding : - Number of poles pairs : - Resistances phase-phase : - Torque constant : - Rotor Inertia : - T° maxi of winding : - Electrical time constant :	3 phases Star 3 poles pairs 2.7 Ω 64 mNm/A 2.5 x10^{-6} kgm² 210°C 0.55 ms	3 phases Star 8 poles pairs 3.46 Ω 49 mNm/A 15.6 x10^{-6} kgm² 180°C 0.34 ms	3 phases Star 8 poles pairs 0.934 Ω 88.9 mNm/A 30.8 x10^{-6} kgm² 180°C 1.03 ms	3 phases Star 8 poles pairs 0.364 Ω 151.8 mNm/A 181.6 x10^{-6} kgm² 180°C 1.42 ms
Electrical Characteristics[1] :	Values at nominal Voltage - Nominal Voltage : - No load Speed : - No load consumption : - Nominal Speed : - Nominal Torque : - Nominal consumption : - Starting Torque :	 28VDC 4080 RPM 0. 12 A 2500 RPM 0.133 Nm 2 A 0.65 Nm	 48VDC 4886 RPM 0.15 A 4760 RPM 0.03 Nm 0.76 A 0.672 Nm	 48VDC 3656 RPM 0.157 A 3457 RPM 0.25 Nm 2.97 A 4.55 Nm	 48VDC 3061 RPM 0.204 A 2265 RPM 1 Nm 6.79 A 19.9 Nm
Service life:		40 000 FH			
Environment:		Aeronautical type following EUROCAE ED-14D -RTCA DO160-D			
Functioning T°:		-55°C à +90°C			

Note 1 - All the values of the present specification sheet are only given as a rough guide. To obtain more precise information, contact us

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