



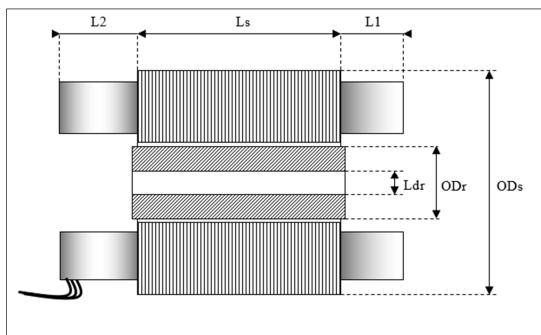
Motors and drives

Brushless DC motor



Extensive range of electric motors, from a few Watts to more than 200 kW. These motors are intended to fit on-board aerospace, defence, and other demanding environments. They are available as a line replaceable unit (housed) or frameless that can be integrated by the customer.

General outline



Outside dia. Stator (ODs)
Outside dia. Rotor (ODr)
Stack lamination length (Ls)
End turns length (L1)
End turns length wires output side (L2)
Inside dia. Rotor (Ldr)

Model	ODs	ODr	Ls	L1	L2	Ldr	Weight	Rotor inertia
	mm	mm	mm	mm	mm	mm	g	Kg.m ²
BM4227C01	70	41.8	28.3	10	12	25	700	5.6E-05

Key features

- Low maintenance
- High power density
- Excellent fluid compatibility
- Customised designs
- Lightweight

Applications

- Fans
- Pumps
- Servo-controlled actuators
- Utilities

Contact

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Meggitt Sensing Systems

Our product competencies and services:

Avionics displays | Inertial sensors | Ignition systems |
Performance Sensing | **Power & Motion** | Sensing & Monitoring

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Specifications

	Symbol	Unit	BM4227C01
Size constants			
Continuous stall torque	T _c	Nm	1.500
Motor constant	K _m	Nm/√ W	0.21574
Cogging Torque (peak/peak)	C _{ogg}	Nm	0.5000
Motor friction torque	T _f	Nm	0.040
Viscous friction torque	F _i	Nm/rad/s	1.2E-04
Max. winding temperature		°C	180
Ultimate temperature rise/Watt	TPR	°C/W	1.43
Number of poles	2p	-	8
Winding constants (alternate windings available)			
Terminal DC voltage	U _{dc}	V DC	240
Peak torque	T _p	Nm	20.155
Peak current	I _p	A	36.36
Torque Sensitivity Ph to N at max. current	K _t Ph/N	Nm/A	0.32000
Back EMF peak Ph to N	K _b Ph/N	V/(rad/s)	0.32000
Resistance Phase to neutral @ 25°C	R Ph/N	Ohm	3.30
Inductance Phase to neutral	L Ph/N	mH	5.50
No Load Speed	Ω ₀	Rpm	4135
Winding Connection	/	/	Star
Mechanical Time Constant	τ _m	ms	1.81
Electrical Time Constant	τ _e	ms	1.67

Note: Due to continuous process improvement, specifications are subject to change without notice

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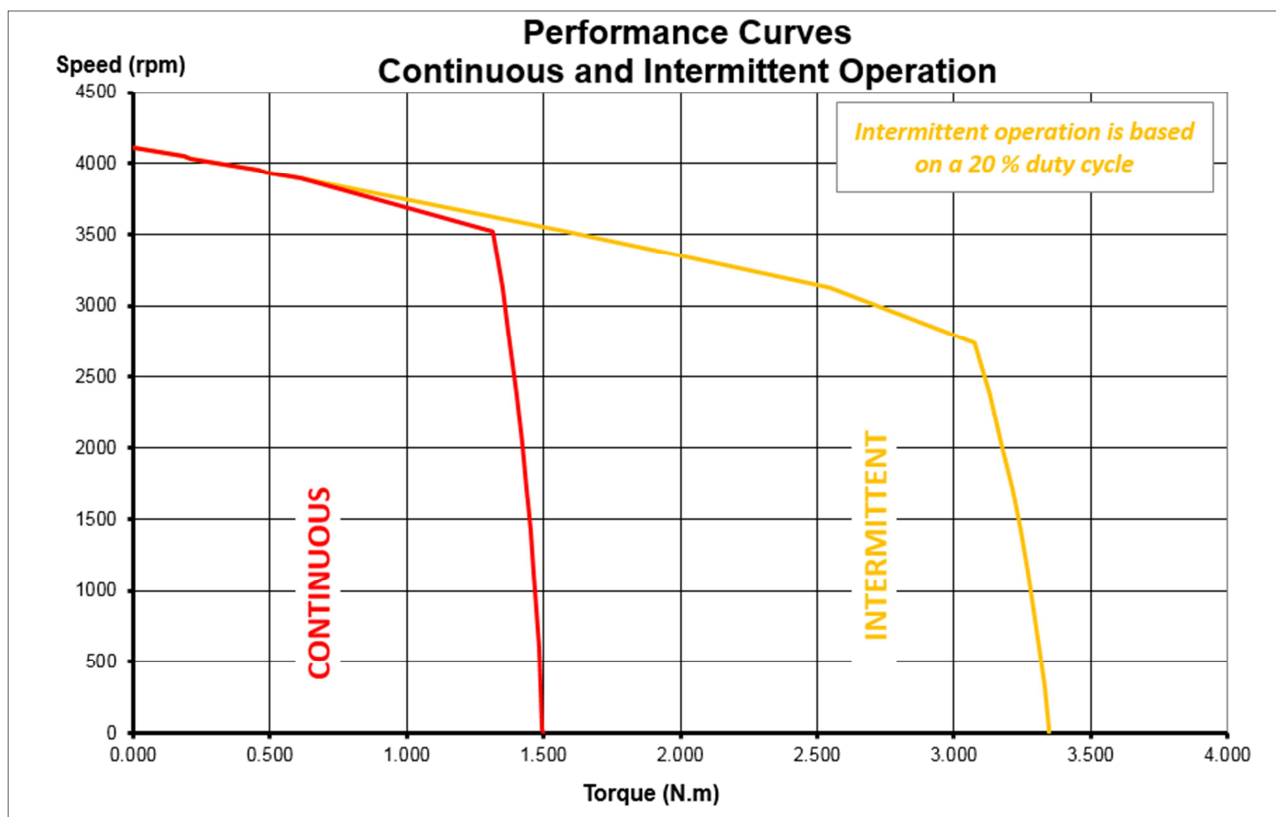
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smart engineering for
extreme environments



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Performance curves



BM4227C01

Performance curves and TPR assume with housed motor mounted to (140 x 140 x 6) mm

Notes:

1. Typical electrical specification at 25 °C
2. Many other custom mechanical options are available – for assistance please contact our applications engineer
3. Many other winding options are available - for assistance please contact our applications engineer
4. Housed or frameless designs are available

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