



ELECTROMAG



Motor solutions for medical blowers

Critical care and sub-acute ventilators
Transport and emergency ventilators
High flow and therapy devices
CPAP, APAP, BiPAP devices

Motor solutions for medical blowers

Since 2003, Electromag has been developing high-speed ultra-quiet brushless DC motors for critical healthcare applications.

As a leading motor provider for transport, hospital and homecare ventilation, Electromag offers development engineers a large range of solutions that will help them reach the required pressure-flow specification for virtually any blower design. In addition, they can rely on Electromag's specialist guidance to optimize system performance, thermal aspects and footprint.

Electromag's expertise in vibration management contributes significantly to reducing noise emissions and reaching device lifetimes of up to 40,000 hours. To address homecare applications, Electromag offers cost effective solutions that can be integrated within the blower volute. All motors can be customized to suit various mechanical interfaces and electrical characteristics.

Additional features

- Lightweight and robust design
- Low rotor inertia to achieve highly dynamic speed profiles
- High efficiency of up to 92% for reduced power consumption and increased autonomy of battery powered units
- Patented slotless coil design provides a higher torque density than conventional motors
- Optional protection for oxygen resistance or autoclave sterilization



Solutions overview

APPLICATION	MOTOR	DIAMETER	LENGTH	TECHNOLOGY	MOTOR CONSTANT	TYPICAL SPEED RANGE				MECHANICAL POWER AT PEAK EFFICIENCY			
		mm	mm		mNm/√W	krpm				W			
						20	40	60	80	30	80	130	180
TRANSPORT & EMERGENCY		22	60	Slotless	11.8		██████████						██████████
		22	50	Slotless	8.6		██████████					██████████	
		16	46	Slotless	6.5		██████████				██████████		
HOSPITAL - Critical care - Sub-acute - Neonatal - Anesthesia		44	27	Slotted	12.2	██████████						██████████	
		32	27	Slotted	6.0	██████████					██████████		
THERAPY - High flow - Secretion management		44	22	Slotted	6.4	██████████						██████████	
		32	22	Slotted	4.1	██████████						██████████	
HEMOCARE - BiPAP - APAP - CPAP		44	22	Slotted	6.4	██████████						██████████	
		32	22	Slotted	4.1	██████████						██████████	

Please contact us for detailed technical data or further solutions

Who we are

Electromag SA is a leading expert in the development and manufacturing of brushless DC motors for demanding healthcare applications up to 300 W. One of the hallmark features of Electromag motors is their quietness and low vibration level for speeds up to 100,000 rpm. Renowned for their reliability, Electromag motors offer up to 92% efficiency. Based in Switzerland, Electromag is the preferred motor supplier of leading global medical device manufacturers in the fields of ventilation, surgery and dentistry.

Key figures:

- Company founded in 2003
- More than 2 million motors sold
- Over 200 models developed
- ISO9001 and ISO13485 certified
- Over 30 employees



Innovation



Design



Customization



Production



ultra-quiet high-speed motors

Electromag SA

Chemin du Dévent 7
Z.I. Larges Pièces A
1024 Ecublens
Switzerland
T. +41 (0)21 694 16 00
E. info@electromag.ch
www.electromag.ch

