Coreless DC Motors - CL series

Smooth-running, optimized-performance, 3 to 25 W coreless DC motors



Allied Motion's CL series of coreless DC motors maximizes performance through the use of high performance permanent magnets, a uniquely wound and formed coreless rotor, and in the CL29 and CL40 a precious-metal commutation system.

CL motors are efficient, and being coreless, have virtually zero iron loss and no preferred rotor position (cogfree). They offer minimized torque ripple, and low rotor inertia.

Available in three diameters (29, 40, and 66 mm), CL series motors are ideal for medical devices, small pumps, ticket and cash dispensers, and similar applications.

Options & Accessories

- Spur or planetary gearhead with ratios up to 900:1
- Incremental or absolute encoder
- Tachometer
- Ball bearings for CL29 and CL40 models
- Alternate voltage windings
- Custom lead and connector configurations
- Alternate shaft configurations
- EMI Filter

Features & Benefits

- High performance DC coreless motors in 29, 40, and 66 mm diameters
- Power ratings from 3 to 25 W and voltage ratings from 6 to 36 VDC
- Coreless design means no iron loss and higher efficiency compared to iron-core motors
- Coreless technology means no cogging for smooth start and stable constant speed operation
- Precious metal commutation system in CL29 and CL40 models for low starting voltage and reliable long life
- Low inertia rotor for rapid response and low vibration

Typical Applications

- Blowers
- · Document and package handling
- · High-end audio
- Instrumentation
- Locking systems
- Medical equipment
- Small pumps (membrane, peristaltic and gear pumps)
- Ticket- and cash dispenser















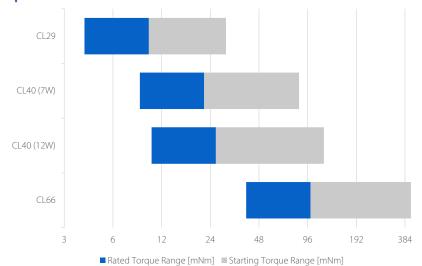
Specifications

		CL29	CL40		CL66	
Rated Voltage	Volt	6 - 24	6 - 30	12 - 30	12 - 36	
Rated Output Power	Watt	3	7	12	25	
Rated Torque	mNm	10	22	26	100	
Starting Torque	mNm	30	85	121	418	
Max Radial Load	N	5	5	5	100	
Max Axial Load	N	0.5	0.5	0.5	15	
Bearing System		Sleeve	Sleeve	Sleeve & Ball	Ball	
Commutation System		Precious Metal	Precious Metal	Graphite-Copper	Graphite-Copper	
Weight	gram	125	200	200	900	
Operating Ambient Temperature	°C (°F)	-10 to 60 (14 - 140)				
Storage Ambient Temperature	°C (°F)	-40 to 70 (-40 - 158)				

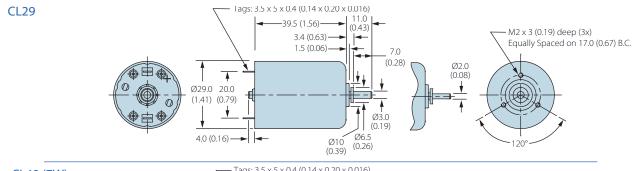
Series options

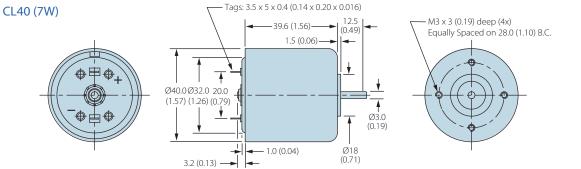
	CL29	CL40 (7 W)	CL40 (12W)	CL66
Ball Bearings	~	~	~	~
Special Shaft Configuration	~	~	~	✓
Connection Cable	~	~	✓	✓
Integrated EMI Suppression	~	~	~	✓
Alternate Voltage Winding	~	~	~	✓
Tachometer	_	~	_	_
Encoder	~	~	_	✓

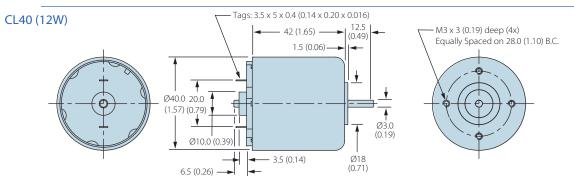
Performance comparison

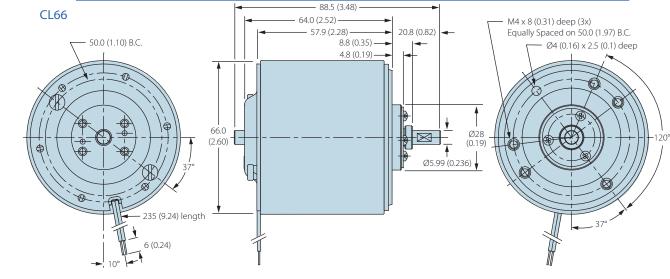


Dimensions (mm)









Specifications subject to change without notice



Allied Motion Solution Centers

Allied Motion Solution Centers provide support to customers around the world from five geographically-strategic locations. Each facility is staffed by experienced application engineers and customer service teams to assist you with all aspects of your motion control needs. We also have a global network of factory-trained Allied Motion Sales Partners to serve you. For contact information on the location nearest you, please see below or visit our website.



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