

ECI-048 High Power Density BLDC Motors

"Technology Leadership"

- High power
- Compact size
- Sensorless control
- Long life usage

"The Safe Choice"

- Proven quality in market
- Custom engineering solutions
- Rigorous application testing
- Assurance of supply and delivery



Customizable

Characteristics:

The ECI-048 brushless motor platform is designed with various advanced topologies and it has gone through a series of rigorous application specific tests to ensure uncompromised reliability at compact size. The modular design approach makes the platform customizable for multiple applications such as blower, hedge trimmer, power drill at best price performance. Standard package fits for sensorless control but customization on sensor PCBA is also available. JE is capable for motor controller design upon request.

Application Examples:

Leaf
Blower



Hedge
Trimmer



Snow
Blower



Chainsaw



Power
Drill



Jigsaw



Specifications (Customization available):

	ECI-048-020		ECI-048-025	ECI-048-036
Motor Diameter (mm)	Ø48	Ø48	Ø48	Ø48
Stator Stack Length (mm)	20	20	25	36
Motor Length (mm)	56	56	61	72
Shaft Diameter (mm)	Ø5	Ø5	Ø5	Ø5
Input Voltage (V)	36V DC	32V DC	32V DC	32V DC
No Load Speed (rpm)	8300	25200	26200	27000
Rated Speed (rpm)	7100	21200	22500	23800
Rated Torque (mNm)	124	292	350	408
Rate Current (A)	3.3	24.2	30.8	38.2
Stall Torque (mNm)	905	1957	2493	3453
Stall Current (A)	20.6	138.2	188.6	284.9
Maximum Output Power (W)	194	1277	1708	2440
Maximum Efficiency (%)	78%	84%	84%	84%
Torque at Max Eff (mNm)	124	292	350	408
Speed at Max Eff (rpm)	7100	21200	22500	23800
Weight (g)	356	356	411	530
Operating Temperature Range (°C)	-10 to 65			
Electrical Connection	Leadwire and Connector			

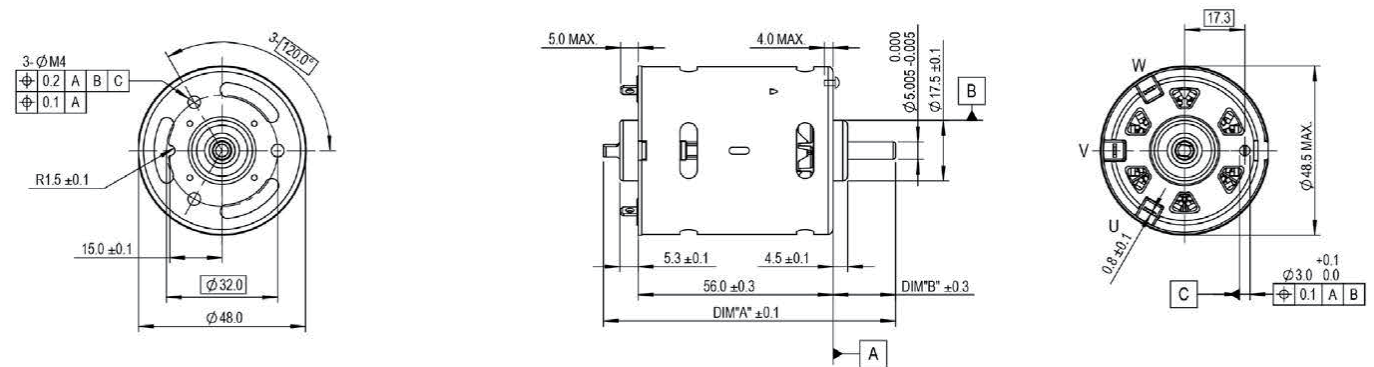
JE Motor Coding Table:

ECI-048-025-032-AB-XXX

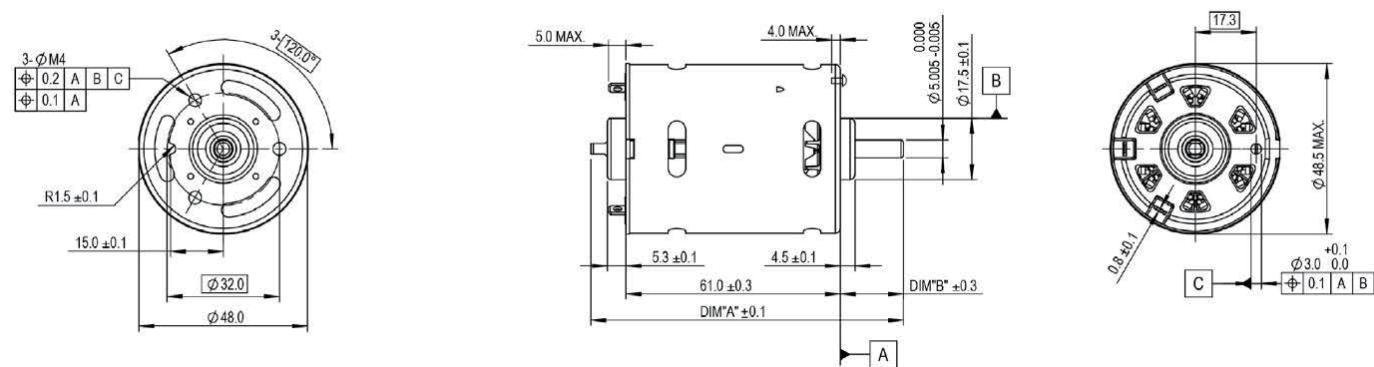
•	Extra Code (optional)
•	Bearing Type (e.g. A=Ball Bearing, B = Sintered Bushing, etc)
•	Motor Topology (e.g. A=2P/2S, B=2P/4S, C=4P/6S, etc)
•	Input Voltage (e.g. 012=12VDC, 800=800VDC, 235=230V50Hz, 126=120V60Hz, etc)
•	Stack Length (e.g. 020 = 20mm, 075=75mm, etc)
•	Motor Diameter (e.g. 035 = 35mm, 110 =110mm, etc)
•	Motor Type (ECI: Inner rotor; ECO: Outer rotor)



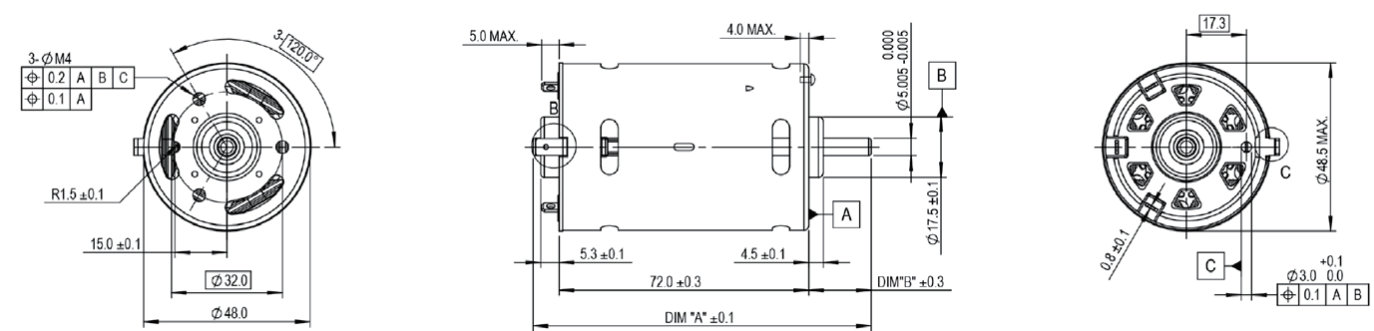
Drawing: ECI-048-020



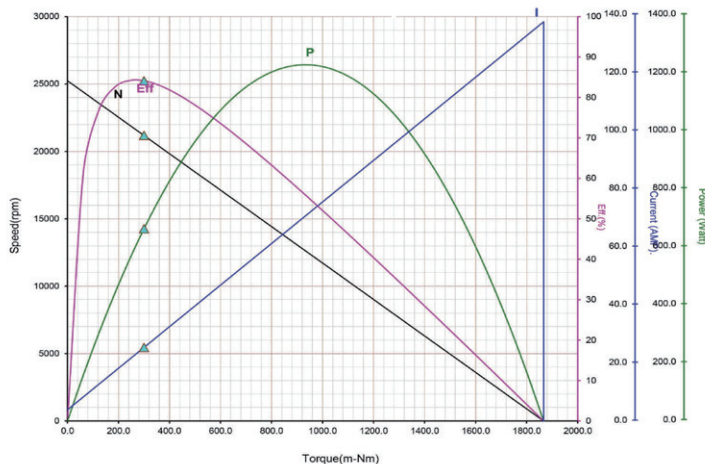
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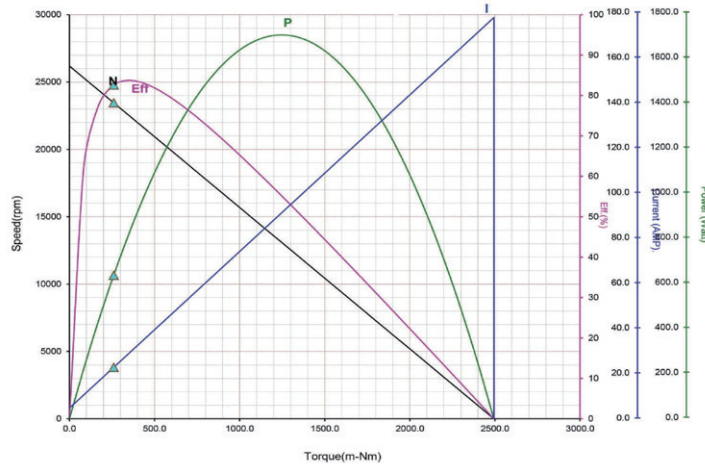
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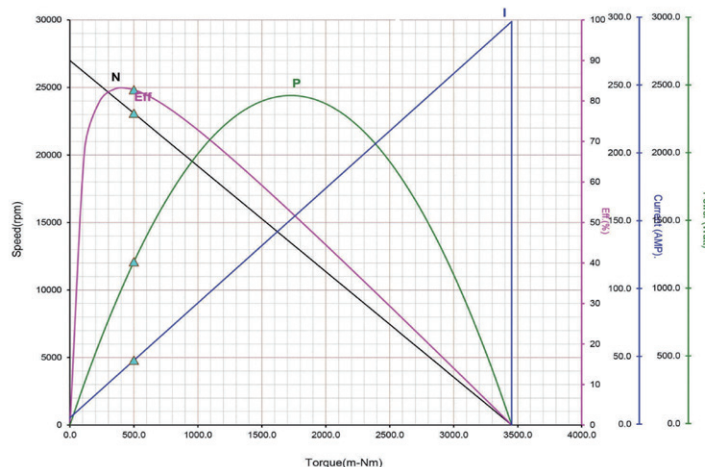
Performance: ECI-048-020



Performance: ECI-048-025



Performance: ECI-048-036



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