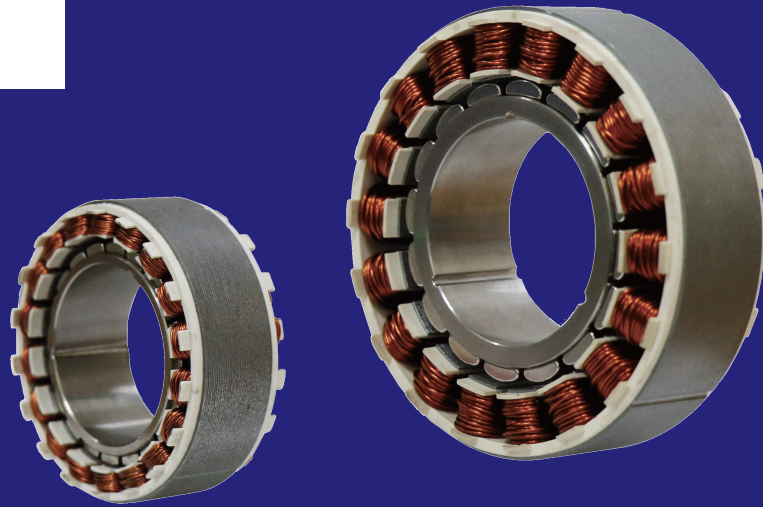




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ADR-T SERIES

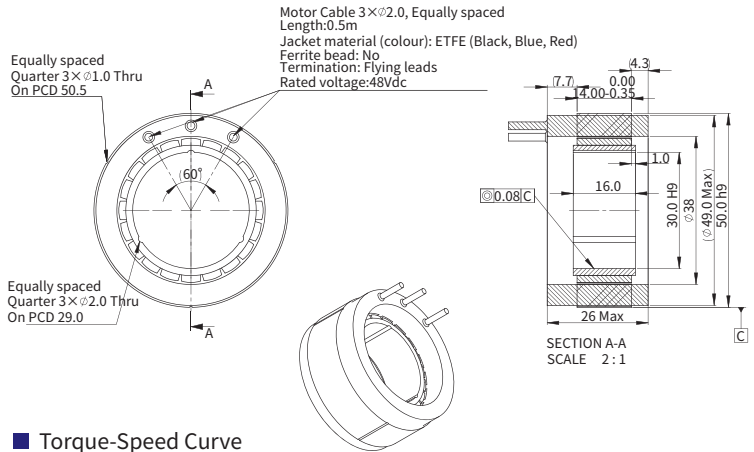
- ▶ Thin and compact design
- ▶ Direct drive and brushless motor
- ▶ High torque density
- ▶ Low cogging torque
- ▶ Optional for low speed and high speed windings
- ▶ High cost performance

ADR50-T-14

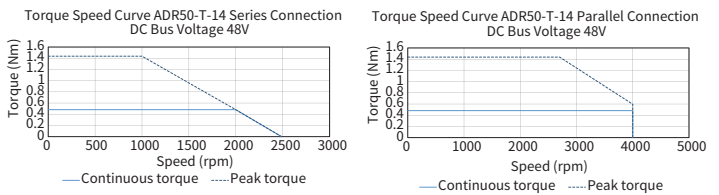
ADR50-T-14				
Performance Parameters	Symbol	Unit	Series	Parallel
Continuous Torque (NC) @100°C ¹	T _{cn}	Nm	0.48	0.48
Peak Torque	T _{pk}	Nm	1.44	1.44
Torque Constant ±10%	K _t	Nm/Arms	0.21	0.11
Back EMF Constant ±10%	K _e	Vpeak/rpm	0.02	0.01
Motor Constant @25°C	K _m	Nm/Sqrt(W)	0.09	0.09
Resistance (L-L) 25°C ±10% ²	R ₂₅	Ω	3.44	0.86
Inductance (L-L) ±20% ³	L	mH	1.20	0.30
Electrical Time Constant	τ _e	ms	0.35	0.35
Continuous Current (NC) @100°C ¹	I _{cn}	Arms	2.3	4.5
Peak Current	I _{pk}	Arms	7.9	15.8
Continuous Power Dissipation (NC) @100°C ¹	P _{cn}	W	37	37
Max. Coil Temperature	t _{max}	°C	130	130
Thermal Dissipation Constant (NC) ⁴	K _{thn}	W/°C	0.35	0.35
Max. Bus Voltage	U _{bus}	Vdc	48	48
Pole Number	2 _p	-	20	20
Max.Speed ⁵	Ω _{max}	rpm	2000	4000
Mechanical Parameters				
Overall Mass (NC)	m _n	kg	0.12	0.12
Rotor Inertia	J _r	kg·m ²	1.12E-05	1.12E-05
Other Information				
Insulation Class	Class B (130°C)			
Protection Grade	IP00			
Compliance with Global Standards	RoHS			
Ambient Temperature	Operation	0°C to 40°C (non-freezing)		
	Storage	-15°C to 70°C (non-freezing)		
Ambient Humidity	Operation	10%RH to 80%RH (non-condensing)		
	Storage	10%RH to 90%RH (non-condensing)		
Recommended Ambience	Indoor (no direct sunlight); No corrosive gas, inflammable gas, oil mist or dust.			

- ¹ Measurement is taken at ambient temperature 25°C. Value depends on the thermal environment.
 - ² Resistance is measured by DC current with standard 0.5 m cable.
 - ³ Inductance is measured by current frequency of 1 kHz.
 - ⁴ The value is based on ABI optical SIN/COS encoder (4096x interpolation) under max. bus voltage.
- The contents of datasheet are subject to change without prior notice.

Dimension



Torque-Speed Curve

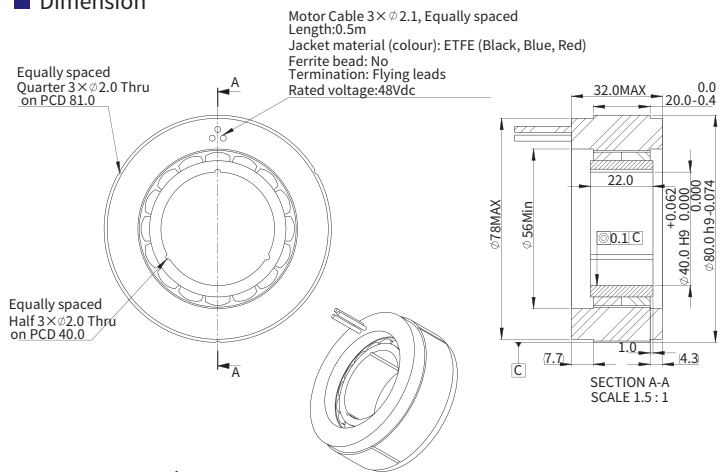


ADR80-T-20

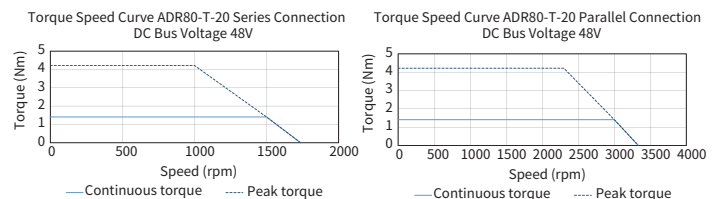
ADR80-T-20				
Performance Parameters	Symbol	Unit	Series	Parallel
Continuous Torque (NC) @100°C ¹	T _{cn}	Nm	1.41	1.41
Peak Torque	T _{pk}	Nm	4.22	4.22
Torque Constant ±10%	K _t	Nm/Arms	0.32	0.16
Back EMF Constant ±10%	K _e	Vpeak/rpm	0.03	0.01
Motor Constant @25°C	K _m	Nm/Sqrt(W)	0.28	0.28
Resistance (L-L) 25°C ±10% ²	R ₂₅	Ω	0.90	0.23
Inductance (L-L) ±20% ³	L	mH	1.00	0.25
Electrical Time Constant	τ _e	ms	1.11	1.11
Continuous Current (NC) @100°C ¹	I _{cn}	Arms	4.4	8.8
Peak Current	I _{pk}	Arms	15.2	30.4
Continuous Power Dissipation (NC) @100°C ¹	P _{cn}	W	34	34
Max. Coil Temperature	t _{max}	°C	130	130
Thermal Dissipation Constant (NC) ⁴	K _{thn}	W/°C	0.45	0.45
Max. Bus Voltage	U _{bus}	Vdc	48	48
Pole Number	2 _p	-	16	16
Max.Speed ⁵	Ω _{max}	rpm	1500	3000
Mechanical Parameters				
Overall Mass (NC)	m _n	kg	0.58	0.58
Rotor Inertia	J _r	kg·m ²	4.80E-05	4.80E-05
Other Information				
Insulation Class	Class B (130°C)			
Protection Grade	IP00			
Compliance with Global Standards	RoHS			
Ambient Temperature	Operation	0°C to 40°C (non-freezing)		
	Storage	-15°C to 70°C (non-freezing)		
Ambient Humidity	Operation	10%RH to 80%RH (non-condensing)		
	Storage	10%RH to 90%RH (non-condensing)		
Recommended Ambience	Indoor (no direct sunlight); No corrosive gas, inflammable gas, oil mist or dust.			

- ¹ Measurement is taken at ambient temperature 25°C. Value depends on the thermal environment.
 - ² Resistance is measured by DC current with standard 0.5 m cable.
 - ³ Inductance is measured by current frequency of 1 kHz.
 - ⁴ The value is based on ABI optical SIN/COS encoder (4096x interpolation) under max. bus voltage.
- The contents of datasheet are subject to change without prior notice.

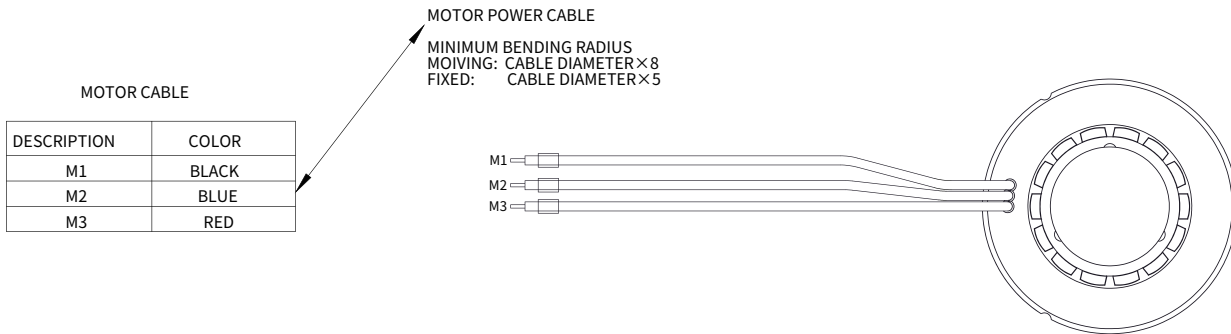
Dimension



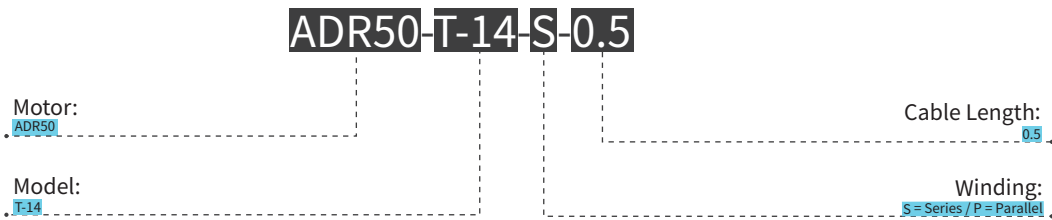
Torque-Speed Curve



Motor Cable Connection



Part Numbering



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