



ADR-P SERIES

- ▶ Direct drive brushless motor
- ▶ Low cogging torque
- ▶ Low speed and high speed windings

UK & Ireland Official Distributor



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ADR110-P-22

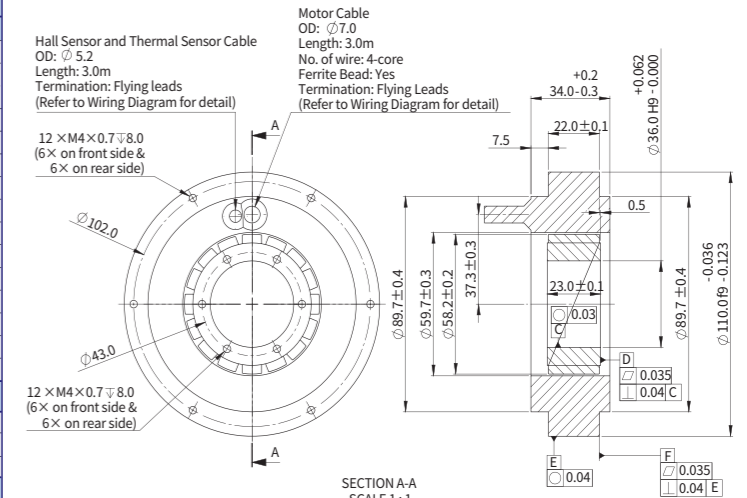
ADR110-P-22				
Performance Parameters	Symbol	Unit	Series	Parallel
Continuous Torque @100°C	T _{cn}	Nm	1.9	1.9
Peak Torque	T _{pk}	Nm	5.8	5.8
Torque Constant ±10%	K _t	Nm/Arms	0.65	0.32
Back EMF Constant ±10%	K _e	Vpeak/rpm	0.055	0.028
Motor Constant @25°C	K _m	Nm/Sqrt(W)	0.30	0.30
Resistance (L-L) @25°C ±10%	R ₂₅	Ω	3.20	0.80
Inductance (L-L) ±20%	L	mH	17.15	4.29
Electrical Time Constant	τ _e	ms	5.36	5.36
Continuous Current @100°C	I _{cn}	Arms	3.0	6.0
Peak Current	I _{pk}	Arms	9.0	18.0
Continuous Power Dissipation @100°C	P _{cn}	W	55.7	55.7
Max. Coil Temperature	t _{max}	°C	100	100
Thermal Dissipation Constant	K _{th}	W/°C	0.742	0.742
Max. Bus Voltage	U _{bus}	Vdc	600.0	600.0
Pole Number	2P	-	16	16

Mechanical Parameters				
Rotor Mass	m	kg	0.25	0.25
Stator Mass	m	kg	0.88	0.88
Rotor Inertia	J _r	kg m ²	1.463E-04	1.463E-04

Other Information				
Insulation Class	Class B (130°C)			
Protection Grade	IP00			
Compliance with Global Standards	RoHS, CE			
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.			

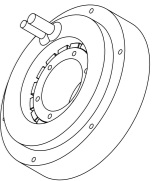
- 1 Measurement is taken at ambient temperature 25°C. Value depends on the thermal environment.
 - 2 Resistance is measured by DC current with standard 3 m cable.
 - 3 Inductance is measured by current frequency of 1 kHz.
- The contents of datasheet are subjected to change without prior notice.

Dimension



Note:

- 1 User to ensure the concentricity of stator and rotor to be within 0.15mm when mounted;
- 2 User to ensure flatness of mounting surface within 0.015/300mm;
- 3 User to ensure perpendicularity of rotor inner bore relative to datum E within 0.1mm when mounted;
- 4 The cable diameter tolerance +0.3, and cable length tolerance +60.0



ADR110-P-45

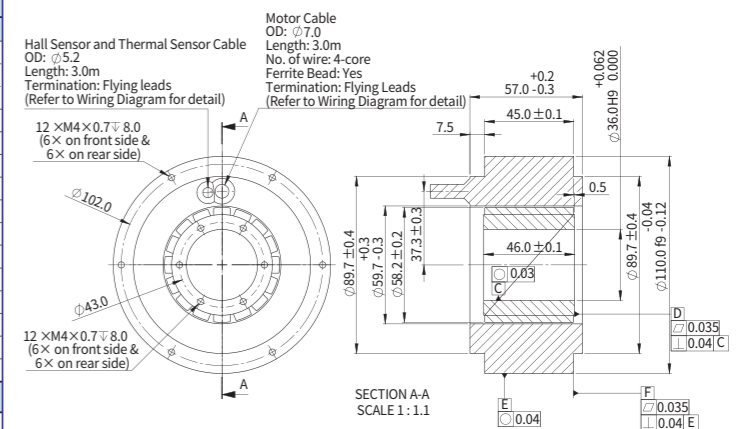
ADR110-P-45				
Performance Parameters	Symbol	Unit	Series	Parallel
Continuous Torque @100°C	T _{cn}	Nm	4.2	4.2
Peak Torque	T _{pk}	Nm	12.6	12.6
Torque Constant ±10%	K _t	Nm/Arms	1.40	0.70
Back EMF Constant ±10%	K _e	Vpeak/rpm	0.119	0.060
Motor Constant @25°C	K _m	Nm/Sqrt(W)	0.51	0.52
Resistance (L-L) @25°C ±10%	R ₂₅	Ω	4.90	1.21
Inductance (L-L) ±20%	L	mH	26.26	6.49
Electrical Time Constant	τ _e	ms	5.36	5.36
Continuous Current @100°C	I _{cn}	Arms	3.0	6.0
Peak Current	I _{pk}	Arms	9.0	18.0
Continuous Power Dissipation @100°C	P _{cn}	W	85.3	84.2
Max. Coil Temperature	t _{max}	°C	100	100
Thermal Dissipation Constant	K _{th}	W/°C	1.137	1.123
Max. Bus Voltage	U _{bus}	Vdc	600.0	600.0
Pole Number	2P	-	16	16

Mechanical Parameters				
Rotor Mass	m	kg	0.40	0.40
Stator Mass	m	kg	1.80	1.80
Rotor Inertia	J _r	kg m ²	2.990E-04	2.990E-04

Other Information				
Insulation Class	Class B (130°C)			
Protection Grade	IP00			
Compliance with Global Standards	RoHS, CE			
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.			

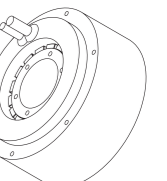
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- The contents of datasheet are subjected to change without prior notice.

Dimension

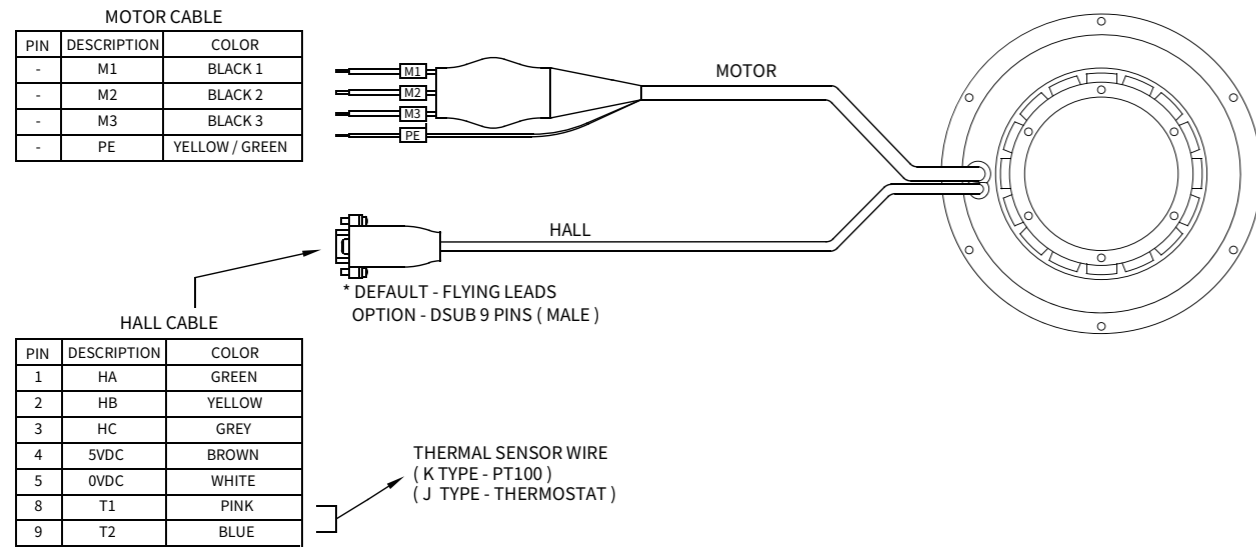


Note:

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- 4 The cable diameter tolerance +0.3, and cable length tolerance +60.0



Motor Cable Connection



Part Numbering

ADR175-P-36-S-J-HF-3.0-FB

Motor Model:

ADR110-P-22 / ADR110-P-45
ADR135-P-27 / ADR135-P-54
ADR175-P-36 / ADR175-P-72
ADR 220-P-50 / ADR220-P-100
ADR 360-P-70 / ADR360-P-140

Winding:

S = Series / P = Parallel

Thermal Sensor Options:

J- Thermostat (Standard)
K-PT100(RTD)

Motor Cable Options:

FB¹

Cable Length(m):

3.0

Hall Cable Options:

HF/NH²

¹ HF= With Built-in hall sensor & hall cable comes with flying leads.
² NH = Without Built-in Hall Sensor but with Thermal Sensor.
FB = With ferrite bead.

