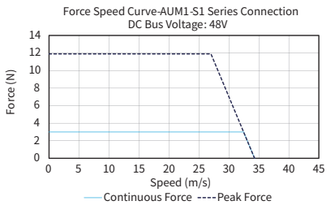
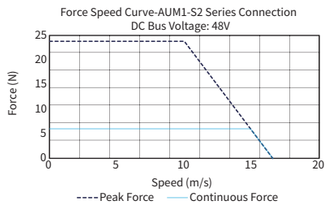
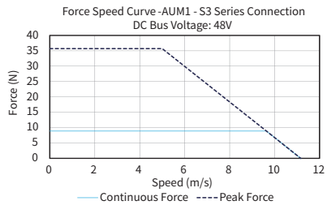
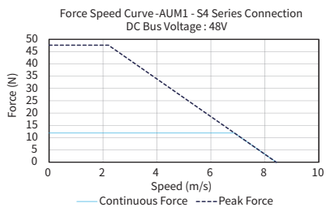
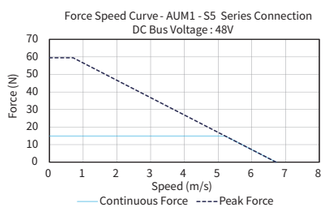
■ Force-Speed Curve











Part Numbering

Motor Coil

AUM1-S-S3-HF-0.5-FB

- Motor: AUM1
- Connection: S=Series
- Size: S1 / S2 / S3 / S4 / S5
- Motor Cable Options: FB[3] / NFB[4]
- Cable Length (m): 0.5 / 3.0
- Hall Cable Option: NH[1] / HF[2]

[1] NH = Without Hall Sensor cable (Standard)
[2] HF = With Built-in hall sensor & hall cable comes with flying leads
[3] FB = With ferrite bead
[4] NFB = No ferrite bead

Motor Track

AUM1-TL63

- Model: AUM1
- Track Length: TL63 / TL84 / TL105

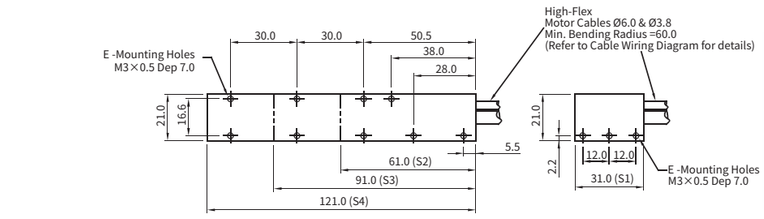
AUM2

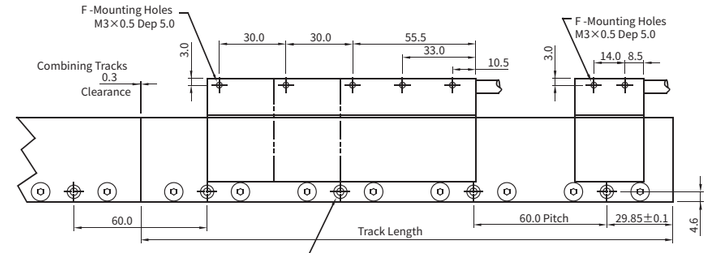
			AUM2-S1	AUM2-S2		AUM2-S3		AUM2-S4		AUM2-S8	
Performance Parameters	**Symbol**	**Unit**	**Series**	**Series**	**Parallel**	**Series**	**Parallel**	**Series**	**Parallel**	**Series**	**Parallel**
Continuous Force (NC) @100°C[1]	F_{cn}	N	8.8	17.6	17.6	26.4	26.6	35.2	35.2	70.4	70.4
Peak Force	F_{pk}	N	44.0	88.0	88.0	132.0	132.8	176.0	176.0	352.0	352.0
Force Constant ±10%	K_f	N/Arms	5.5	11.0	5.5	16.5	8.3	22.0	11.0	44.0	22.0
Back EMF Constant ±10%	K_e	Vpeak/(m/s)	4.5	9.0	4.5	13.5	6.8	18.0	9.0	35.9	18.0
Motor Constant @25°C	K_m	N/Sqrt(W)	2.5	3.6	3.4	4.4	4.5	5.0	4.9	7.1	7.1
Resistance (L-L) 25°C ±10%[2]	R_{25}	Ω	3.15	6.30	1.79	9.57	2.26	12.82	3.35	25.82	6.32
Inductance (L-L) ±40%[3]	L	mH	1.04	1.96	0.51	2.94	0.73	3.88	0.97	7.83	1.96
Electrical Time Constant	τ_e	ms	0.33	0.31	0.29	0.31	0.32	0.30	0.29	0.30	0.31
Continuous Current (NC) @100°C[1]	I_{cn}	Arms	1.6	1.6	3.2	1.6	3.2	1.6	3.2	1.6	3.2
Peak Current	I_{pk}	Arms	8.0	8.0	16.0	8.0	16.0	8.0	16.0	8.0	16.0
Continuous Power Dissipation (NC) @100°C[1]	P_{cn}	W	15.6	31.2	35.4	47.4	44.7	63.5	66.4	127.8	125.1
Max. Coil Temperature	t_{max}	°C	100	100	100	100	100	100	100	100	100
Thermal Dissipation Constant (NC)[1]	K_{thn}	W/°C	0.2	0.4	0.5	0.6	0.6	0.8	0.9	1.7	1.7
Max. Bus Voltage	U_{bus}	Vdc	330	330	330	330	330	330	330	330	330
Magnetic Period	τ_{NN}	mm	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
Attraction Force	F_a	kN	0	0	0	0	0	0	0	0	0
Mechanical Parameters											
Coil Mass (NC)	m_{cn}	kg	0.06	0.12	0.12	0.18	0.18	0.24	0.24	0.47	0.47
Coil Length (NC)	L_{cn}	mm	31.0	61.0	61.0	91.0	91.0	121.0	121.0	241.0	241.0
Track Mass Per Meter	m_{track}	kg/m	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90
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. Abbreviations: NC-Natural Cooling, AC-Air Cooling, WC-Water Cooling.
[2] Resistance is measured by DC current with standard 0.5 m cable.
[3] Inductance is measured by current frequency of 1 kHz. The variation range of AUM inductance is ±40% because three phase inductances are different. The value in the catalog is the average between the maximum and minimum values. For each phase, the variation range is ±20%.

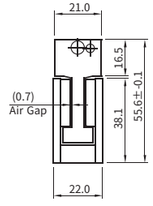
The contents of datasheet are subject to change without prior notice.

■ Dimension





Motor Coil			
Model No:	Coil Length	E	F
AUM2-S1	31.0	3	2
AUM2-S2	61.0	5	5
AUM2-S3	91.0	7	7
AUM2-S4	121.0	9	9
AUM2-S8	241.0	17	17



Motor Track			
Model No:	Track Length	G	H
AUM2-TL120	119.7	2	2
AUM2-TL180	179.7	3	3
AUM2-TL240	239.7	4	4
AUM2-TL300	299.7	5	5