

Introduction of BLDC Motors

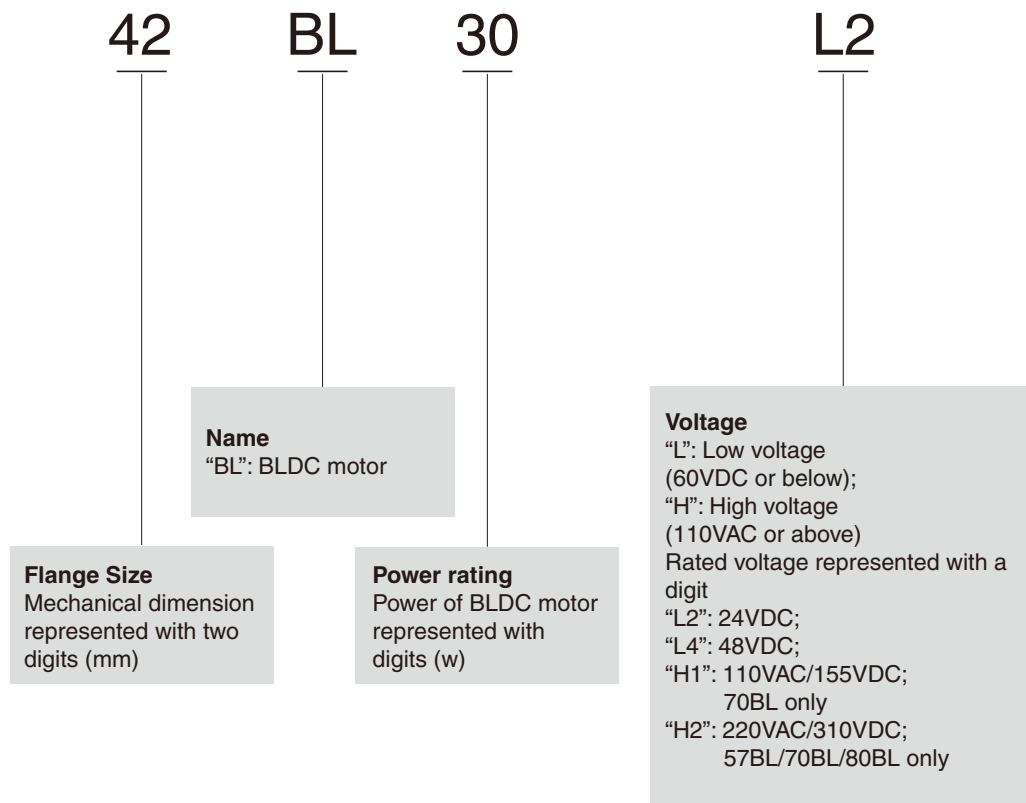
Characteristics

- Wide range of speed control and smooth torque output
- Excellent speed stability
- Small size, high power
- Low temperature rise, low noise, low vibration
- Long life, low maintenance costs
- Low positioning torque
- Energy efficient

Applications

- Mechanical automation (textile machines)
- Financial automation (ATM)
- Office equipment (printer)
- Solar energy equipment
- Drive system
- Speed setting and regulation devices in various industries
- Automotive On-board equipment
- Pump (metering pump)
- Food industry
- Sorting equipment

Model Numbering System



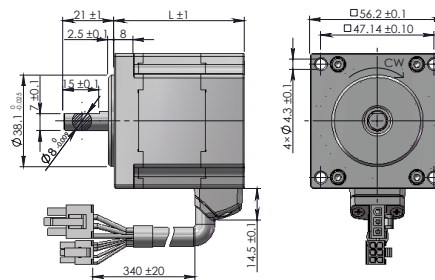
57BLDC Motors

Technical Specification

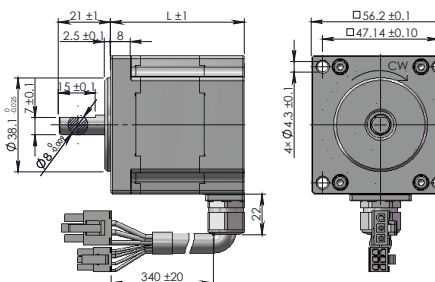
	Units	Type										
		57BL30L2	57BL30L4	57BL60L2	57BL60L4	57BL60H2	57BL120L2	57BL120L4	57BL120H2	57BL180L2	57BL180L4	57BL180H2
Length	mm	41.5	41.5	54.5	54.5	54.5	82.5	82.5	82.5	120.5	120.5	120.5
Input power	VDC	24	48	24	48	310	24	48	220	24	48	310
Rated power	W	30	30	60	60	60	120	120	120	180	180	180
Pole-pair number		4										
Phase number		3										
Rated speed	RPM	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000
Max. speed	RPM	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000
Rated torque	Nm	0.072	0.072	0.145	0.145	0.145	0.29	0.29	0.29	0.43	0.43	0.43
Max. torque	Nm	0.145	0.145	0.29	0.29	0.29	0.58	0.58	0.58	0.86	0.86	0.86
Rated current	A	1.71	0.86	3.20	1.60	0.25	6.90	3.00	0.46	10.50	4.50	0.70
Max. current	A	3.43	1.71	6.40	3.20	0.50	13.80	6.00	0.93	21.00	9.00	1.39
Voltage constant	Vrms/Krpm	3	6.45	3.08	6.35	41.00	3.00	6.40	41.30	3.00	6.45	41.65
Torque constant	Nm/Arms	0.042	0.084	0.045	0.090	0.580	0.042	0.097	0.626	0.041	0.096	0.620
Moment of inertia	10 ⁻⁴ kgm ²	0.087	0.087	0.148	0.148	0.148	0.279	0.279	0.279	0.456	0.456	0.456
Resistance	Ω	0.71	3.25	0.48	1.80	75.00	0.18	0.76	31.7	0.11	0.44	18.35
Inductance	mH	0.71	3.25	0.45	1.90	79.20	0.18	0.84	35.04	0.11	0.54	22.52
Sensor		Hall										
Ins.class		E										
Protective rating		IP40/IP65										
Operating temperature		0~+50°C										
Storage temperature		-25~+70°C										
Operating RH		85%RH or below (non-condensing)										
Operating environment		Outdoor (no direct sunlight), no corrosive gas, no flammable gas, no oil mist, no dust										
Altitude		1000m or below										

Mechanical Dimension Unit: mm

Series	L
	mm
57BL30	41.5
57BL60	54.5
57BL120	82.5
57BL180	120.5

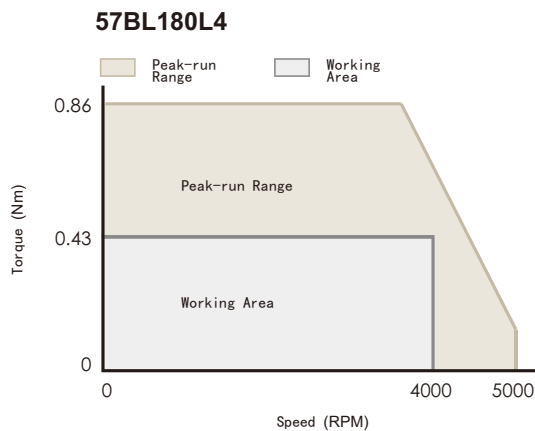
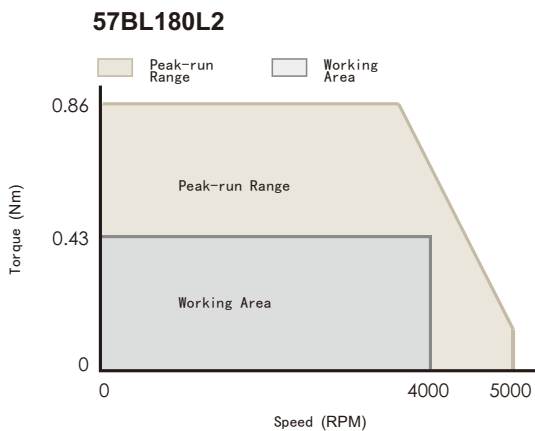
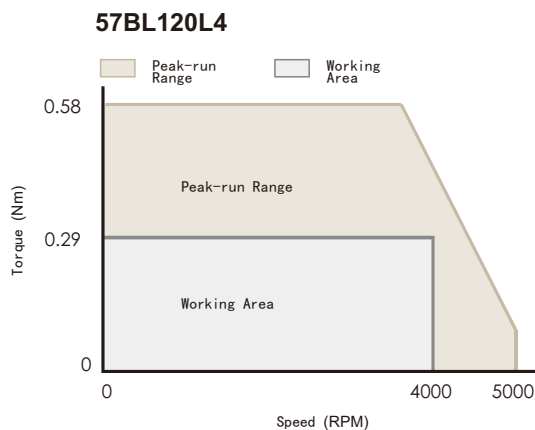
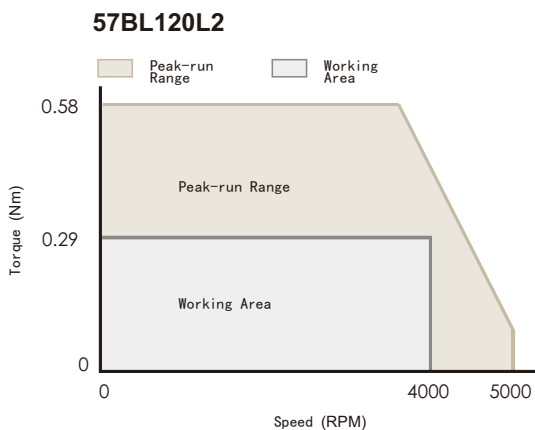
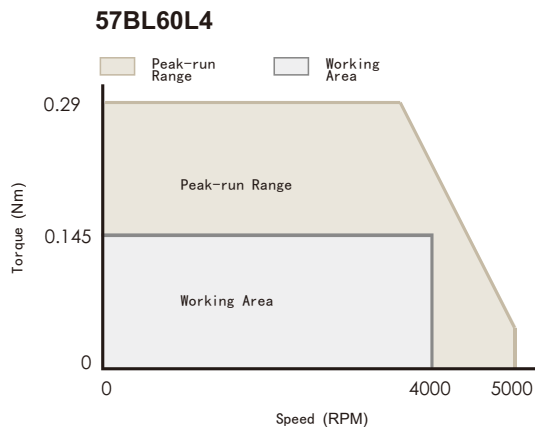
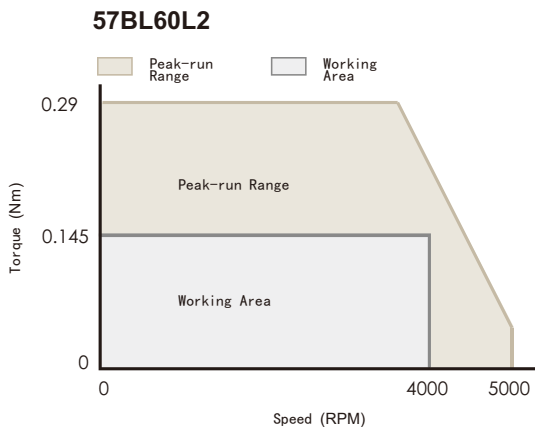


Series	L
	mm
57BL30	51.5
57BL60	64.5
57BL120	92.5
57BL180	130.5



High-voltage 57BL series motor: 57BL60H2, 57BL120H2 and 57BL180H2 will be put into mass production after March 2018. 57BL series motor products conforming to IP65 protective rating will be put into mass production after December 2017.

Torque - Speed Features



Introduction of BLDC Motors

42 BLDC Motors

57 BLDC Motors

70 BLDC Motors

80 BLDC Motors

Round BLDC Motors

R42BL

R57BL

Connector Specification