

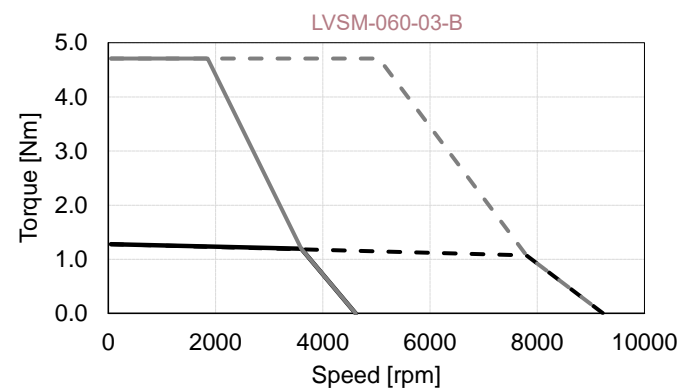
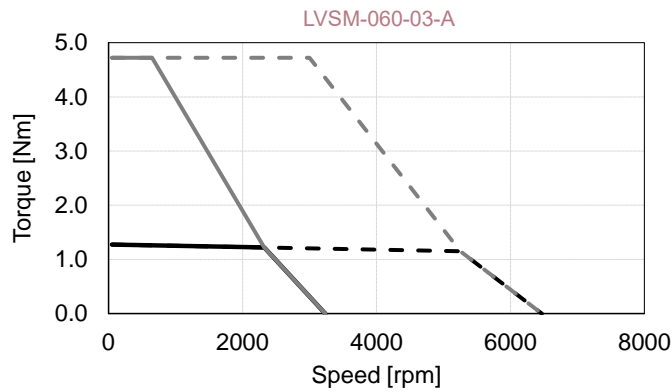
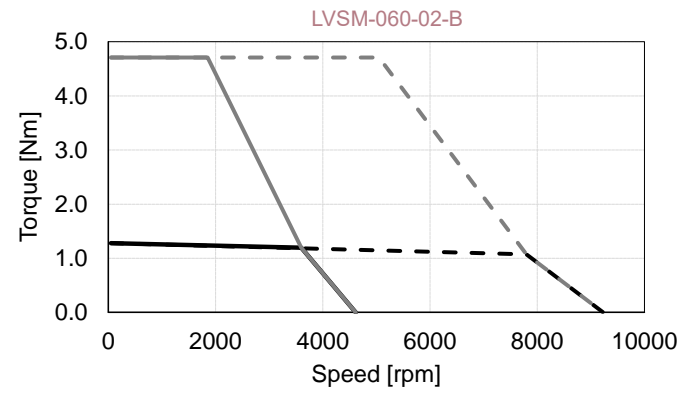
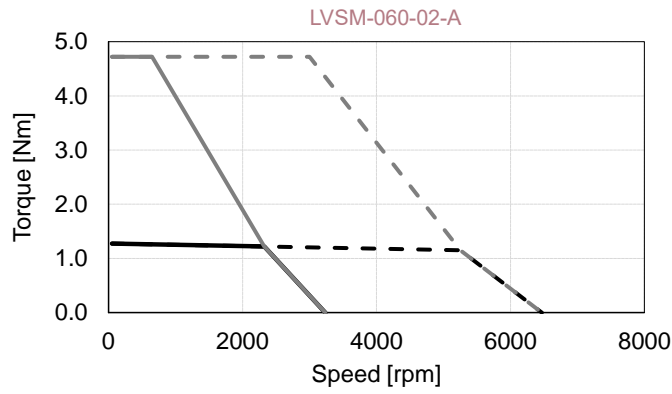
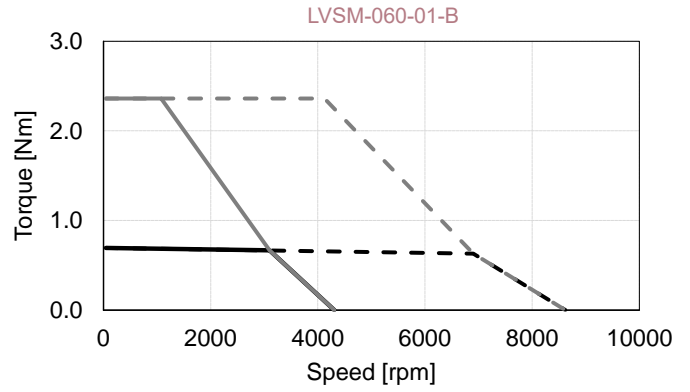
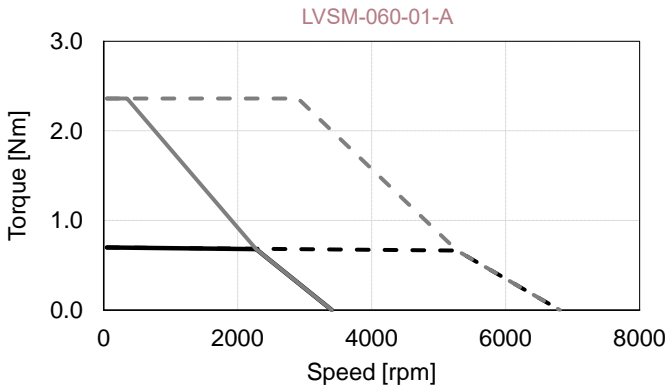
LVSM-060 Technical Information

Motor Parameters			LVSM-060-01				LVSM-060-02				LVSM-060-03				
Winding Type	Symbols	Units	A		B		A		B		A		B		
PERFORMANCE	DC Bus Voltage	V _{dc}	24	48	24	48	24	48	24	48	24	48	24	48	
	Rated Power	P _r	162	367	217	456	297	632	451	875	472	940	573	1066	
	Stall Torque	T _s	0.70	0.70	0.69	0.69	1.27	1.27	1.28	1.28	1.76	1.76	1.70	1.70	
	Rated Torque	T _r	0.68	0.66	0.67	0.63	1.22	1.15	1.20	1.07	1.64	1.48	1.59	1.38	
	Peak Torque	T _p	2.36	2.36	2.36	2.36	4.72	4.72	4.71	4.71	7.08	7.08	7.07	7.07	
	Rated Speed	N _r	rpm	2275	5275	3100	6900	2325	5250	3600	7800	2750	6050	3450	7400
	No-Load Speed ⁽²⁾	N _{no-load}	rpm	3404	6809	4309	8618	3235	6469	4615	9231	3593	7186	4309	8618
	Torque Constant	K _t	Nm/ A _{rms}	0.08	0.08	0.06	0.06	0.09	0.09	0.06	0.06	0.08	0.08	0.06	0.07
	Voltage Constant ⁽²⁾	K _v	V _{rms} /krpm	4.99	4.99	3.94	3.94	5.25	5.25	3.68	3.68	4.72	4.72	3.94	3.94
ELECTRICAL	Stall Current	I _s	A _{rms}	8.60	8.60	10.7	10.7	14.7	14.7	21.2	21.2	22.5	22.5	26.2	26.2
	Rated Current	I _r	A _{rms}	8.50	8.25	10.5	10.1	14.3	13.6	20.2	18.4	21.4	19.7	25.0	22.0
	Peak Current	I _p	A _{rms}	31.0	31.0	39.2	39.2	59.0	59.0	84.0	84.0	98.3	98.3	117.7	117.7
	Line Resistance ⁽²⁾	R _{LL}	mOhm	350 (±20%)	350 (±20%)	218 (±20%)	218 (±20%)	159 (±20%)	159 (±20%)	71.2 (±20%)	71.2 (±20%)	73.8 (±20%)	73.8 (±20%)	47.8 (±20%)	47.8 (±20%)
	Line Inductance ⁽²⁾	L _{LL}	mH	0.39 (±30%)	0.39 (±30%)	0.24 (±30%)	0.24 (±30%)	0.21 (±30%)	0.21 (±30%)	0.10 (±30%)	0.10 (±30%)	0.11 (±30%)	0.11 (±30%)	0.08 (±30%)	0.08 (±30%)
	Inertia (without brake)	J	kg.cm ²	0.155	0.155	0.155	0.155	0.26	0.26	0.26	0.26	0.37	0.37	0.37	0.37
	Weight (without brake)	W	kg	1.43	1.43	1.43	1.43	1.80	1.80	1.80	1.80	2.16	2.16	2.16	2.16
	Thermal Resistance ⁽²⁾	K _{therm}	C°/W	2.72	2.48	2.76	2.32	2.05	1.82	2.10	1.62	1.86	1.51	1.94	1.43
	Mech. Time Constant	K _{mech}	ms	0.99	0.98	0.98	0.99	0.67	0.67	0.62	0.62	0.55	0.55	0.51	0.51
	Motor Constant	K _m	Nm/VW	0.11	0.12	0.12	0.12	0.18	0.19	0.19	0.21	0.25	0.27	0.25	0.29
FEEDBACK	Pole Number	2n	10												
	Input Voltage	V _{rms}	5												
	Frequency	kHz	4.5												
	Input Current	mA	58												
	Transformation Ratio		0.5±10%												
	Null Voltage	mV _{max}	30												
	Phase Shift	Deg	-15°±2°												

1. All performance and electrical specifications are obtained at 25°C ambient and may change ±10%. 2. Rated data with reference aluminum plate 250mm x 250mm x 6mm (maximum winding temperature is 120°C). 3. Higher torque and speed values as well as dimensions on request.

LVSM-060 Torque-Speed Curves

Tr: Rated Torque — @Tr 24V - - - @Tr 48V
 Tp: Peak Torque — @Tp 24V - - - @Tp 48V



Power - Signal Connector

Power Connector (CB2-20-22-PC-FM)

Pin	Function	Description
A	A	Phase A
B	-	-
C	C	Phase C
D	-	-
E	B	Phase B
F	GND	GND

Signal Connector (D38999/20WC8PN)

Pin	Function	Description
A	R1	Ref (+)
B	R2	Ref (-)
C	S1	Cos (+)
D	S3	Cos (-)
E	S2	Sin (+)
F	S4	Sin (-)
G	NTC	Thermal Sensor
H	NTC	Thermal Sensor