

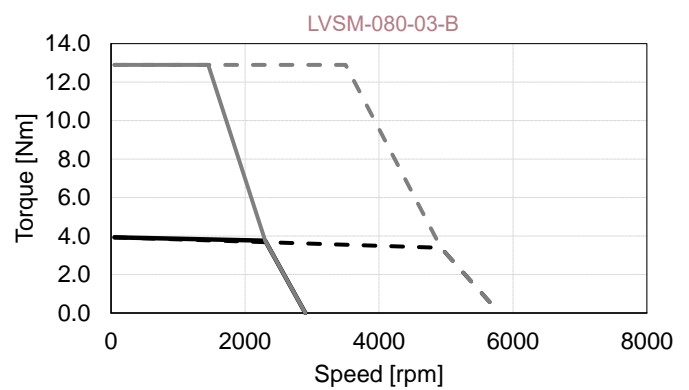
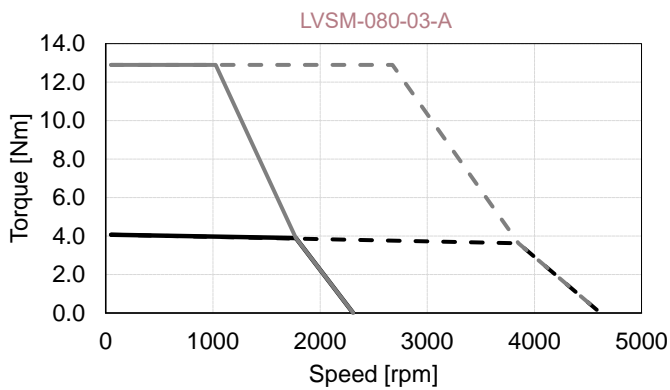
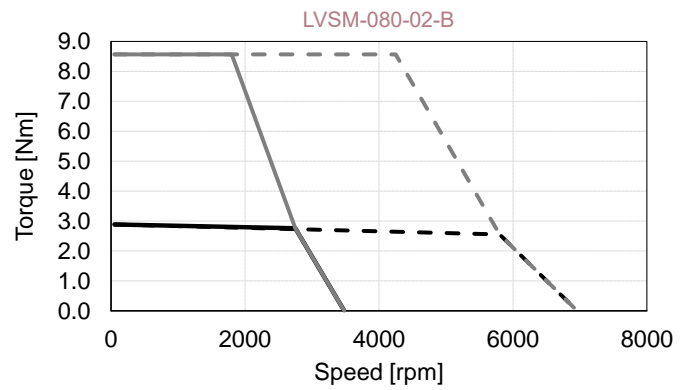
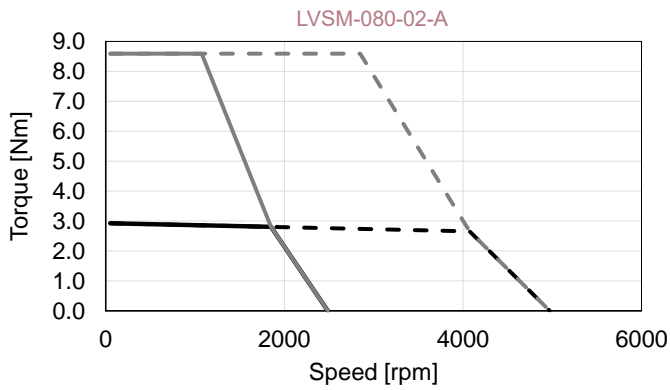
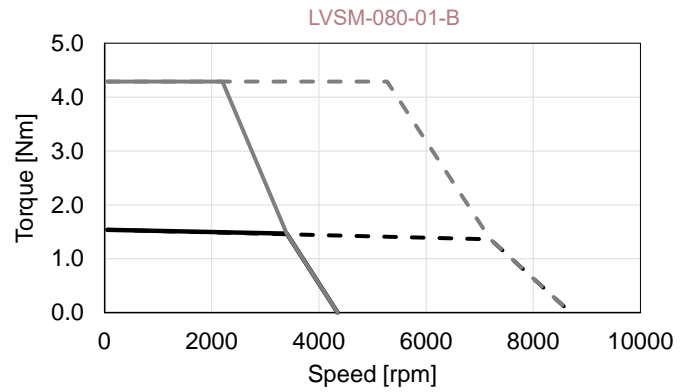
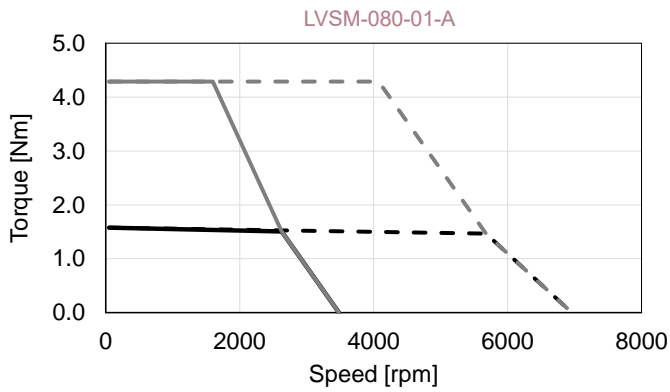
LVSM-080 Technical Information

	Motor Parameters	Symbols	Units	LVSM-080-01				LVSM-080-02				LVSM-080-03			
				Winding Type		A		B		A		B		A	
PERFORMANCE	DC Bus Voltage	V _{dc}	V	24	48	24	48	24	48	24	48	24	48	24	48
	Rated Power	P _r	W	0.41	0.87	0.52	1.02	0.54	1.13	0.79	1.55	0.72	1.46	0.91	1.75
	Stall Torque	T _s	Nm	1.58	1.58	1.53	1.53	2.92	2.92	2.88	2.88	4.07	4.07	3.94	3.94
	Rated Torque	T _r	Nm	1.51	1.46	1.46	1.36	2.80	2.66	2.76	2.55	3.90	3.62	3.76	3.39
	Peak Torque	T _p	Nm	4.29	4.29	4.29	4.29	8.59	8.59	8.57	8.57	12.9	12.9	12.9	12.9
	Rated Speed	N _r	rpm	2625	5675	3400	7200	1850	4075	2750	5800	1775	3850	2300	4925
	No-Load Speed ⁽²⁾	N _{no-load}	rpm	3478	6957	4348	8696	2484	4969	3478	6957	2308	4615	2899	5797
	Torque Constant	K _t	Nm/A _{rms}	0.08	0.08	0.06	0.06	0.11	0.11	0.08	0.08	0.12	0.12	0.10	0.10
	Voltage Constant ⁽²⁾	K _v	V _{rms} /krpm	4.88	4.88	3.90	3.90	6.83	6.83	4.88	4.88	7.35	7.35	5.85	5.85
ELECTRICAL	Stall Current	I _s	A _{rms}	19.6	19.6	23.9	23.9	26.0	26.0	35.8	35.8	33.6	33.6	40.6	40.6
	Rated Current	I _r	A _{rms}	19.0	18.3	23.2	21.7	25.2	24.0	34.7	32.3	32.6	30.5	39.4	35.8
	Peak Current	I _p	A _{rms}	56.0	56.0	70.0	70.0	80.0	80.0	112	112	112	112	140	140
	Line Resistance ⁽²⁾	R _{LL}	mOhm	86 (±20%)	86 (±20%)	56 (±20%)	56 (±20%)	69 (±20%)	69 (±20%)	35 (±20%)	35 (±20%)	48 (±20%)	48 (±20%)	30 (±20%)	30 (±20%)
	Line Inductance ⁽²⁾	L _{LL}	mH	0.18 (±30%)	0.18 (±30%)	0.12 (±30%)	0.12 (±30%)	0.17 (±30%)	0.17 (±30%)	0.09 (±30%)	0.09 (±30%)	0.13 (±30%)	0.13 (±30%)	0.08 (±30%)	0.08 (±30%)
	Inertia (without brake)	J	kg.cm ²	0.83	0.83	0.83	0.83	1.45	1.45	1.45	1.45	2.05	2.05	2.05	2.05
	Weight (without brake)	W	kg	3.39	3.39	3.38	3.38	4.19	4.19	4.19	4.19	5.00	5.01	5.01	5.02
	Thermal Resistance ⁽²⁾	K _{therm}	C°/W	1.97	1.62	1.92	1.47	1.42	1.26	1.36	1.14	1.20	1.06	1.24	1.02
	Mech. Time Constant	K _{mech}	ms	1.35	1.32	1.36	1.36	0.96	0.96	0.96	0.96	0.82	0.82	0.80	0.79
	Motor Constant	K _m	Nm/VW	0.23	0.24	0.23	0.24	0.36	0.38	0.36	0.39	0.47	0.50	0.47	0.52
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°											

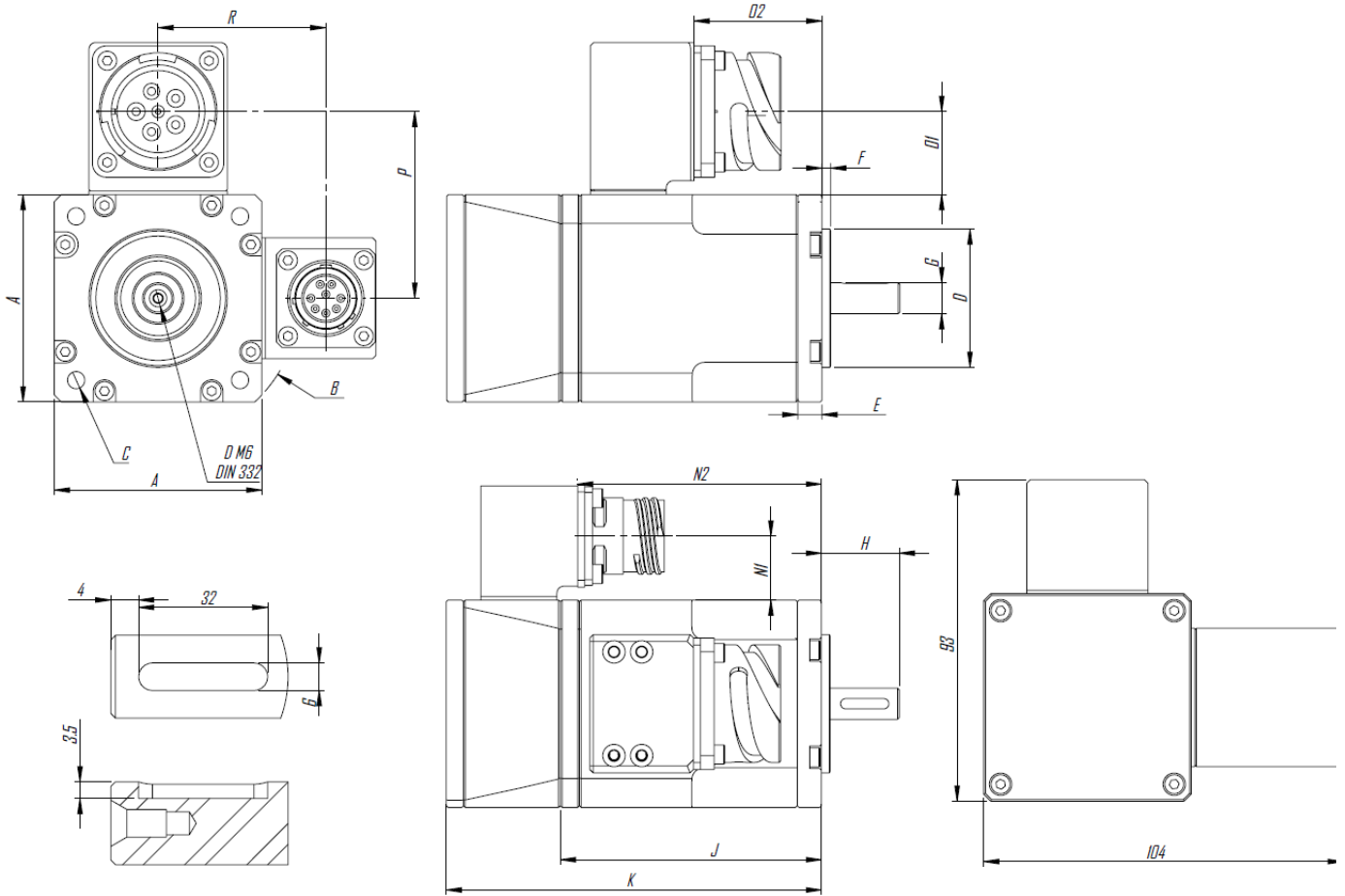
1. All performance and electrical specifications are obtained at 25°C ambient and may change ±10%. 2. Rated data with reference aluminum plate 250mm x 250mm x 6mm (maximum winding temperature is 120°C). 3. Higher torque and speed values as well as dimensions on request.

LVSM-080 Torque-Speed Curves

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



LVSM-080 Outline Drawing



Symbols	Units	Frensiz			Frenli		
		LVSM-080-01	LVSM-080-02	LVSM-080-03	LVSM-080-01	LVSM-080-02	LVSM-080-03
A	mm	80	80	80	80	80	80
B	mm	Ø108	Ø108	Ø108	Ø108	Ø108	Ø108
C	mm	Ø 7 on Ø90	Ø 7 on Ø90	Ø 7 on Ø90	Ø 7 on Ø90	Ø 7 on Ø90	Ø 7 on Ø90
D	mm	Ø60	Ø60	Ø60	Ø60	Ø60	Ø60
E	mm	8	8	8	8	8	8
F	mm	3	3	3	3	3	3
G	mm	Ø19	Ø19	Ø19	Ø19	Ø19	Ø19
J	mm	81	106	131	81	106	131
K	mm	113	138	163	151	176	201
L	mm	113	113	113	113	113	113
M	mm	126	126	126	126	126	126
N1	mm	19	19	19	19	19	19
N2	mm	76	101	126	114	139	164
O1	mm	25	25	25	25	25	25
O2	mm	41	66	91	41	66	91
P	mm	65	65	65	65	65	65
R	mm	59	59	59	59	59	59

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