

VRSF B Frame 1 Stage and 2 Stage Specifications

Frame Size	B								
Stage	1 Stage					2 Stage			
Ratio	Units	Note	3	5	9	15	20	25	35
Nominal Output Torque	[Nm]	*1	3.43	2.84	2.35	4.02	5.00	6.27	3.84
Maximum Acceleration Torque	[Nm]	*2	10.3	8.53	7.25	12.2	15.0	19.0	11.5
Emergency Stop Torque	[Nm]	--	--	--	--	--	--	--	--
Nominal Input Speed	[rpm]	*3	3000			3000			
Maximum Input Speed	[rpm]	*4	5000			5000			
No Load Running Torque	[Nm]	*5	0.119			0.048			
Permitted Radial Load	[N]	*6	392	490	588	784	804	882	882
Permitted Axial Load	[N]	*7	196	245	294	392	402	441	441
Maximum Radial Load	[N]	*8	882N			882N			
Maximum Axial Load	[N]	*9	441N			441N			
Moment of Inertia ($\leq \emptyset 8$)	[kgcm ²]	--	0.081	0.059	0.052	0.057	0.056	0.056	0.052
Moment of Inertia ($\leq \emptyset 14$)	[kgcm ²]	--	0.150	0.130	0.120	0.130	0.130	0.130	0.120
Efficiency	[%]	*10	90			85			
Torsional Rigidity	[Nm/arcmin]	*11	0.8			0.8			
Backlash (Standard)	[Arc-min]	--	≤ 15			≤ 15			
Backlash (Low)	[Arc-min]	--	≤ 10			≤ 10			
Backlash (Precision)	[Arc-min]	--	≤ 3			≤ 3			
Noise Level	[dB]	*12	≤ 72			≤ 65			
Protection Class	--	*13	IP65			IP65			
Ambient Temperature	[°C]	--	0-40			0-40			
Permitted Housing Temperature	[°C]	--	90			90			
Weight ($\leq \emptyset 8$)	[kg]	*14	0.58			0.75			
Weight ($\leq \emptyset 14$)	[kg]	*14	0.7			0.86			

*1 At nominal input speed, service life is 20,000 hours

*2 The maximum torque when starting or stopping operation

*3 The average input speed

*4 The maximum intermittent input speed

*5 Torque at no load applied to the input shaft at nominal input speed

*6 At this load and nominal input speed, service life will be 20,000 hours. (The radial load applied to the output side shaft center)

*7 At this load and nominal input speed, service life will be 20,000 hours. (The axial load applied to the output side bearing)

*8 The maximum radial load that the gearbox can accept

*9 The maximum axial load that the gearbox can accept

*10 The efficiency at the nominal output torque rating

*11 This does not include lost motion

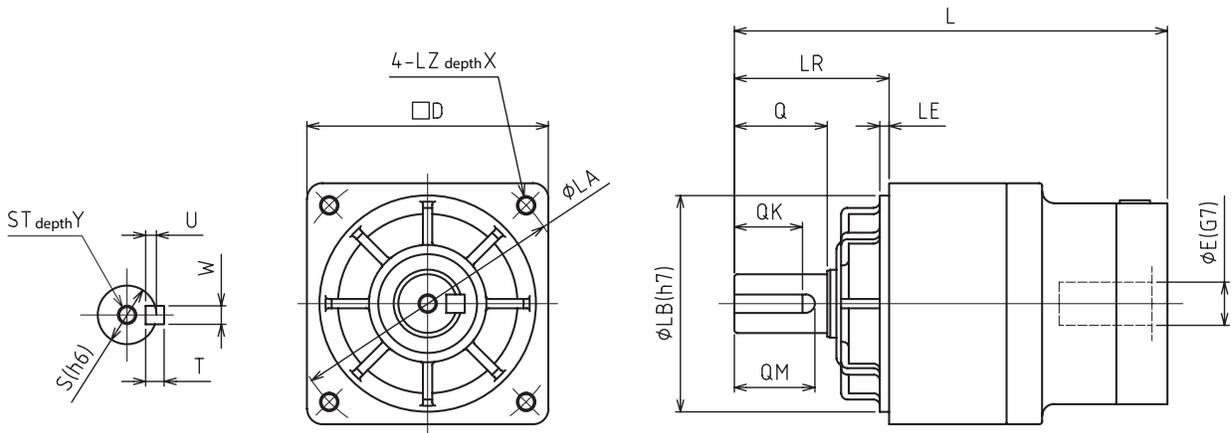
*12 Contact Nidec Drive Technology for the testing conditions and environment

*13 IP65 (wash-down) is available as an option. Contact Nidec Drive Technology for more details

*14 The weight may vary slightly between models

PLANETARY Inline Gear Reducers

VRSF B Frame 1 Stage and 2 Stage Dimensions



Frame Size	Ratio	Input Bore Dia. E	Dimensions															
			L	LR	S	ST	Y	Q	QM	QK	W×U	T	D	LB	LE	LA	LZ	X
B	1 Stage	≅ Ø8	104.5	32	12	M5	10	20	18	16	4×2.5	4	52	50	3	60	M5	
		≅ Ø14	107.5															
	2 Stage	≅ Ø8	115.5															
		≅ Ø14	118.5															