

## VRSF C Frame 1 Stage and 2 Stage Specifications

Frame Size	C										
Stage	1 Stage					2 Stage					
Ratio	Units	Note	3	5	9	15	20	25	35	45	81
Nominal Output Torque	[Nm]	*1	6.86	11.5	9.7	16.2	21.1	26.4	15.5	9.5	9.7
Maximum Acceleration Torque	[Nm]	*2	20.6	34.3	29.2	48.6	63.3	79.2	46.6	28.6	29.2
Emergency Stop Torque	[Nm]	--	--	--	--	--	--	--	--	--	--
Nominal Input Speed	[rpm]	*3	3000			3000					
Maximum Input Speed	[rpm]	*4	5000			5000					
No Load Running Torque	[Nm]	*5	0.29			0.19					
Permitted Radial Load	[N]	*6	784	980	1180	1470	1570	1670	1670	1670	1670
Permitted Axial Load	[N]	*7	392	490	588	735	785	833	833	833	833
Maximum Radial Load	[N]	*8	1670N			1670N					
Maximum Axial Load	[N]	*9	833N			833N					
Moment of Inertia ( $\leq \emptyset 8$ )	[kgcm <sup>2</sup> ]	--	--	--	--	0.077	0.070	0.062	0.055	0.053	0.052
Moment of Inertia ( $\leq \emptyset 14$ )	[kgcm <sup>2</sup> ]	--	0.630	0.380	0.300	0.150	0.140	0.130	0.130	0.120	0.120
--	--	--	1.100	0.880	0.800	--	--	--	--	--	--
Efficiency	[%]	*10	90			85					
Torsional Rigidity	[Nm/arcmin]	*11	3			3					
Backlash (Standard)	[Arc-min]	--	$\leq 15$			$\leq 15$					
Backlash (Low)	[Arc-min]	--	$\leq 5$			$\leq 5$					
Backlash (Precision)	[Arc-min]	--	$\leq 3$			$\leq 3$					
Noise Level	[dB]	*12	$\leq 72$			$\leq 65$					
Protection Class	--	*13	IP 65			IP65					
Ambient Temperature	[°C]	--	0-40			0-40					
Permitted Housing Temperature	[°C]	--	90			90					
Weight ( $\leq \emptyset 8$ )	[kg]	*14	--			1.8					
Weight ( $\leq \emptyset 14$ )	[kg]	*14	1.8			1.9					
Weight ( $\leq \emptyset 19$ )	--	*14	2.2			--					

\*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

VRSF

PRE

PRF

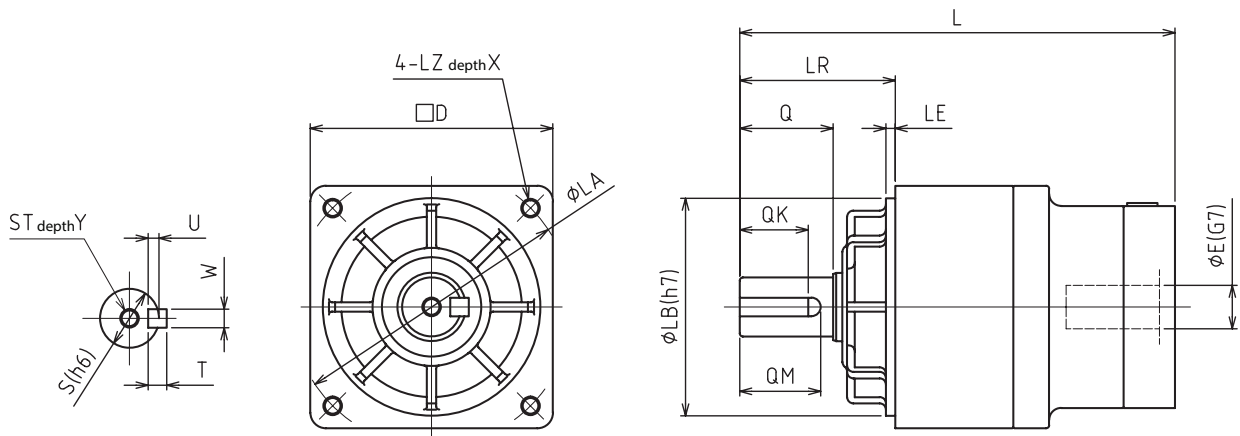
VRL

VRB

VRS

VRT

## VRSF C 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
C	1 Stage	≅ Ø14	140	50	19	M6	12	30	26	22	6×3.5	6	78	70	3	90	M6	20
		≅ Ø19	156															
	2 Stage	≅ Ø8	147.5															
		≅ Ø14	150.5															

VRSF

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