

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
Moment of Inertia ($\leq \varnothing 8$)	[kgcm ²]	--	--	--	--	0.077	0.070	0.062	0.055	0.053	0.052
Moment of Inertia ($\leq \varnothing 14$)	[kgcm ²]	--	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	[%]	*8	90			85					
Torsional Rigidity	[Nm/arcmin]	*9	3			3					
Backlash (Standard)	[Arc-min]	--	≤ 15			≤ 15					
Backlash (Low)	[Arc-min]	--	≤ 5			≤ 5					
Backlash (Precision)	[Arc-min]	--	≤ 3			≤ 3					
Noise Level	[dB]	*10	≤ 72			≤ 65					
Protection Class	--	*11	IP 65			IP65					
Ambient Temperature	[°C]	--	0-40			0-40					
Permitted Housing Temperature	[°C]	--	90			90					
Weight ($\leq \varnothing 8$)	[kg]	*12	--			1.8					
Weight ($\leq \varnothing 14$)	[kg]	*12	1.8			1.9					
Weight ($\leq \varnothing 19$)	--	*12	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 efficiency at the nominal output torque rating

*9) This does not include lost motion

*10) Contact NIDEC-SHIMPO for the testing conditions and environment

*11) IP65 (wash-down) is available as an option. Contact NIDEC-SHIMPO for more details

*12) The weight may vary slightly between models