

EVS SERIES Right-angle Planetary

EVS 240 2-Stage Specifications

Frame Size	240									
Stage	2-Stage									
Ratio	Units	Note	3	4	5	6	7	8	9	10
Nominal Output Torque	[Nm]	*1	1005	1340	1680	1920	1920	1920	1280	1280
Maximum Acceleration Torque	[Nm]	*2	2000	2960	2960	2960	2960	2880	2400	2080
Emergency Stop Torque	[Nm]	*3	4000	5400	6500	7200	7200	7200	5400	5400
Nominal Input Speed	[rpm]	*4	1000							
Maximum Input Speed	[rpm]	*5	2000							
No Load Running Torque	[Nm]	*6	25.3							
Permitted Radial Load	[N]	*7	21000	22000	24000	25000	26000	28000	29000	29000
Permitted Axial Load	[N]	*8	27000	27000	27000	27000	27000	27000	27000	27000
Maximum Radial Load	[N]	*9	30000							
Maximum Axial Load	[N]	*10	27000							
Moment of Inertia ($\leq \varnothing 48$)	[kgcm ²]	--	--	--	--	--	--	--	--	--
Moment of Inertia ($\leq \varnothing 65$)	[kgcm ²]	--	217.5	156.7	134.5	122.4	112.9	108.3	105.5	104.0
Efficiency	[%]	*11	93							
Torsional Rigidity	[Nm/arcmin]	*12	550							
Maximum Torsional Backlash	[Arc-min]	--	≤ 6							
Noise Level	dB [A]	*13	≤ 85							
Protection Class	--	*14	IP54 (IP65)							
Ambient Temperature	[°C]	--	0-40							
Permitted Housing Temperature	[°C]	--	90							
Weight	[kg]	*15	122							

EVS 240 3-Stage Specifications

Frame Size	240									
Stage	3-Stage									
Ratio	Units	Note	15	16	20	25	28	30	35	40
Nominal Output Torque	[Nm]	*1	1280	1920	1920	1920	1920	1280	1920	1920
Maximum Acceleration Torque	[Nm]	*2	2000	2960	2960	2960	2960	2000	2960	2960
Emergency Stop Torque	[Nm]	*3	5400	7200	7200	7200	7200	5400	7200	7200
Nominal Input Speed	[rpm]	*4	1000							
Maximum Input Speed	[rpm]	*5	2000							
No Load Running Torque	[Nm]	*6	16.4							
Permitted Radial Load	[N]	*7	30000	30000	30000	30000	30000	30000	30000	30000
Permitted Axial Load	[N]	*8	27000	27000	27000	27000	27000	27000	27000	27000
Maximum Radial Load	[N]	*9	30000							
Maximum Axial Load	[N]	*10	27000							
Moment of Inertia ($\leq \varnothing 48$)	[kgcm ²]	--	40.47	42.59	39.21	38.59	40.73	35.09	38.02	34.78
Moment of Inertia ($\leq \varnothing 65$)	[kgcm ²]	--	--	--	--	--	--	--	--	--
Efficiency	[%]	*11	88							
Torsional Rigidity	[Nm/arcmin]	*12	550							
Maximum Torsional Backlash	[Arc-min]	--	≤ 9							
Noise Level	dB [A]	*13	≤ 85							
Protection Class	--	*14	IP54 (IP65)							
Ambient Temperature	[°C]	--	0-40							
Permitted Housing Temperature	[°C]	--	90							
Weight	[kg]	*15	113							

EVS 240 3-Stage Specifications

Frame Size	240										
Stage	3-Stage										
Ratio	Units	Note	45	50	60	70	80	90	100		
Nominal Output Torque	[Nm]	*1	1280	1920	1920	1920	1920	1280	1280		
Maximum Acceleration Torque	[Nm]	*2	1680	2960	2960	2960	2160	1680	1440		
Emergency Stop Torque	[Nm]	*3	5400	7200	7200	7200	7200	5400	5400		
Nominal Input Speed	[rpm]	*4	1000								
Maximum Input Speed	[rpm]	*5	2000								
No Load Running Torque	[Nm]	*6	16.4								
Permitted Radial Load	[N]	*7	30000	30000	30000	30000	30000	30000	30000		
Permitted Axial Load	[N]	*8	27000	27000	27000	27000	27000	27000	27000		
Maximum Radial Load	[N]	*9	30000								
Maximum Axial Load	[N]	*10	27000								
Moment of Inertia ($\leq \varnothing 48$)	[kgcm ²]	--	37.78	34.62	34.53	34.48	34.45	34.42	34.41		
Moment of Inertia ($\leq \varnothing 65$)	[kgcm ²]	--	--	--	--	--	--	--	--		
Efficiency	[%]	*11	88								
Torsional Rigidity	[Nm/arcmin]	*12	550								
Maximum Torsional Backlash	[Arc-min]	--	≤ 9								
Noise Level	dB [A]	*13	≤ 85								
Protection Class	--	*14	IP54 (IP65)								
Ambient Temperature	[°C]	--	0-40								
Permitted Housing Temperature	[°C]	--	90								
Weight	[kg]	*15	113								

- *1) At nominal input speed, service life is 20,000 hours
- *2) The maximum torque when starting or stopping operation
- *3) The maximum torque allowed under a stress situation (Permitted 1,000 times during service life)
- *4) The average input speed
- *5) The maximum intermittent input speed
- *6) Torque at no load applied to the input shaft at nominal input speed
- *7) At this load and nominal input speed, service life will be 20,000 hours. (The radial load applied to the output side shaft center)
- *8) At this load and nominal input speed, service life will be 20,000 hours. (The axial load applied to the output side bearing)
- *9) The maximum radial load that the gearbox can accept
- *10) The maximum axial load that the gearbox can accept
- *11) The efficiency at the nominal output torque rating
- *12) This does not include lost motion
- *13) Contact NIDEC-SHIMPO for the testing conditions and environment
- *14) IP65 (wash-down) is available as an option. Contact NIDEC-SHIMPO for more details
- *15) The weight may vary slightly between models