

EVS SERIES Right-angle Planetary

EVS 240 2-Stage Specifications

Frame Size	240									
Ratio	Units	Note	3	4	5	6	7	8	9	10
Nominal Output Torque	[Nm]	*1	1005	1340	1680	1992	2024	2024	1534	1534
Maximum Acceleration Torque	[Nm]	*2	2334	3520	3520	3428	3428	3345	2873	2478
Maximum Torque	[Nm]	*3	2642	3891	3891	3809	3809	3724	3179	2781
Emergency Stop Torque	[Nm]	*4	4000	5400	6500	7200	7200	7200	5400	5400
Nominal Input Speed	[rpm]	*5	1200							
Maximum Input Speed	[rpm]	*6	3000							
No Load Running Torque	[Nm]	*7	25.3							
Maximum Radial Load	[N]	*8	30000							
Maximum Axial Load	[N]	*9	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	[%]	*10	93							
Torsional Rigidity	[Nm/arcmin]	*11	550							
Maximum Torsional Backlash	[Arc-min]	--	≤ 6							
Noise Level	dB [A]	*12	≤ 85							
Protection Class	--	*13	IP54 (IP65)							
Ambient Temperature	[°C]	--	0-40							
Permitted Housing Temperature	[°C]	--	90							
Weight	[kg]	*14	122							

EVS 240 3-Stage Specifications

Frame Size	240									
Ratio	Units	Note	15	16	20	25	28	30	35	40
Nominal Output Torque	[Nm]	*1	1405	1920	1992	2154	2195	1405	2195	2195
Maximum Acceleration Torque	[Nm]	*2	2334	3520	3520	3520	3460	2334	3460	3520
Maximum Torque	[Nm]	*3	2334	3520	3520	3520	3460	2334	3460	3520
Emergency Stop Torque	[Nm]	*4	5400	7200	7200	7200	7200	5400	7200	7200
Nominal Input Speed	[rpm]	*5	1500							
Maximum Input Speed	[rpm]	*6	3000							
No Load Running Torque	[Nm]	*7	16.4							
Maximum Radial Load	[N]	*8	30000							
Maximum Axial Load	[N]	*9	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	[%]	*10	88							
Torsional Rigidity	[Nm/arcmin]	*11	550							
Maximum Torsional Backlash	[Arc-min]	--	≤ 9							
Noise Level	dB [A]	*12	≤ 85							
Protection Class	--	*13	IP54 (IP65)							
Ambient Temperature	[°C]	--	0-40							
Permitted Housing Temperature	[°C]	--	90							
Weight	[kg]	*14	113							

EVS 240 3-Stage Specifications

Frame Size	240										
Ratio	Units	Note	45	50	60	70	80	90	100		
Nominal Output Torque	[Nm]	*1	1405	2195	2195	2195	2195	1405	1405		
Maximum Acceleration Torque	[Nm]	*2	2000	3520	3428	3460	2563	2000	1718		
Maximum Torque	[Nm]	*3	2000	3520	3428	3460	2563	2000	1718		
Emergency Stop Torque	[Nm]	*4	5400	7200	7200	7200	7200	5400	5400		
Nominal Input Speed	[rpm]	*5	1500								
Maximum Input Speed	[rpm]	*6	3000								
No Load Running Torque	[Nm]	*7	16.4								
Maximum Radial Load	[N]	*8	30000								
Maximum Axial Load	[N]	*9	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	[%]	*10	88								
Torsional Rigidity	[Nm/arcmin]	*11	550								
Maximum Torsional Backlash	[Arc-min]	--	≤ 9								
Noise Level	dB [A]	*12	≤ 85								
Protection Class	--	*13	IP54 (IP65)								
Ambient Temperature	[°C]	--	0-40								
Permitted Housing Temperature	[°C]	--	90								
Weight	[kg]	*14	113								

- *1) At nominal input speed, service life is 20,000 hours
- *2) The maximum torque when starting or stopping operation. Apply Cycle Factor f_0 , found on page 468, for higher duty cycle applications
- *3) Permitted 10,000 times during service life. Based on 10% of maximum radial load and smooth output shaft
- *4) The maximum torque allowed under a stress situation. Permitted 1,000 times during service life
- *5) The average input speed at nominal input torque. Maintain housing temperature below permitted value
- *6) The maximum intermittent input speed
- *7) Torque at no load applied to the input shaft at nominal input speed
- *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-SHIMPO for the testing conditions and environment
- *13) Various wash-down options are available. Contact NIDEC-SHIMPO for more details
- *14) Weight may vary slightly between models