

EVT SERIES Right-angle Planetary

EVT 140 2-Stage Specifications

Frame Size	140					
Stage	2-Stage					
Ratio	Unit	Note	4	5	7	10
Nominal Output Torque	[Nm]	*1	170	200	300	200
Maximum Acceleration Torque	[Nm]	*2	340	400	600	400
Emergency Stop Torque	[Nm]	*3	950	1100	1100	750
Nominal Input Speed	[rpm]	*4	2000			
Maximum Input Speed	[rpm]	*5	4000			
No Load Running Torque	[Nm]	*6	3.26			
Permitted Radial Load	[N]	*7	7200	7700	8500	9500
Permitted Axial Load	[N]	*8	5000	5300	5900	6500
Maximum Radial Load	[N]	*9	13000			
Maximum Axial Load	[N]	*10	6500			
Moment of Inertia ($\leq \varnothing 19$)	[kgcm ²]	--	--	--	--	--
Moment of Inertia ($\leq \varnothing 28$)	[kgcm ²]	--	22.58	19.57	17.07	15.36
Moment of Inertia ($\leq \varnothing 38$)	[kgcm ²]	--	26.96	23.94	21.45	19.73
Moment of Inertia ($\leq \varnothing 48$)	[kgcm ²]	--	40.19	37.17	34.68	32.96
Efficiency	[%]	*11	93			
Torsional Rigidity	[Nm/arcmin]	*12	140			
Maximum Torsional Backlash	[Arc-min]	--	≤ 4			
Noise Level	dB [A]	*13	≤ 85			
Protection Class	--	*14	IP55 (IP65)			
Ambient Temperature	[°C]	--	0-40			
Permitted Housing Temperature	[°C]	--	90			
Weight	[kg]	*15	17.4			

EVT 140 3-Stage Specifications

Frame Size	140					
Stage	3-Stage					
Ratio	Unit	Note	16	20	25	28
Nominal Output Torque	[Nm]	*1	300	300	300	300
Maximum Acceleration Torque	[Nm]	*2	600	600	600	600
Emergency Stop Torque	[Nm]	*3	1100	1100	1100	1100
Nominal Input Speed	[rpm]	*4	2000			
Maximum Input Speed	[rpm]	*5	4000			
No Load Running Torque	[Nm]	*6	2.56			
Permitted Radial Load	[N]	*7	11000	12000	12000	13000
Permitted Axial Load	[N]	*8	6500	6500	6500	6500
Maximum Radial Load	[N]	*9	13000			
Maximum Axial Load	[N]	*10	6500			
Moment of Inertia ($\leq \varnothing 19$)	[kgcm ²]	--	7.24	6.21	6.09	6.89
Moment of Inertia ($\leq \varnothing 28$)	[kgcm ²]	--	8.83	7.80	7.69	8.48
Moment of Inertia ($\leq \varnothing 38$)	[kgcm ²]	--	15.91	14.88	14.76	15.55
Moment of Inertia ($\leq \varnothing 48$)	[kgcm ²]	--	--	--	--	--
Efficiency	[%]	*11	88			
Torsional Rigidity	[Nm/arcmin]	*12	140			
Maximum Torsional Backlash	[Arc-min]	--	≤ 7			
Noise Level	dB [A]	*13	≤ 85			
Protection Class	--	*14	IP55 (IP65)			
Ambient Temperature	[°C]	--	0-40			
Permitted Housing Temperature	[°C]	--	90			
Weight	[kg]	*15	17.6			

EVT 140 3-Stage Specifications

Frame Size	140							
Stage	3-Stage							
Ratio	Unit	Note	35	40	50	70	100	
Nominal Output Torque	[Nm]	*1	300	300	300	300	200	
Maximum Acceleration Torque	[Nm]	*2	600	600	600	600	400	
Emergency Stop Torque	[Nm]	*3	1100	1100	1100	1100	750	
Nominal Input Speed	[rpm]	*4	2000					
Maximum Input Speed	[rpm]	*5	4000					
No Load Running Torque	[Nm]	*6	2.56					
Permitted Radial Load	[N]	*7	13000	13000	13000	13000	13000	
Permitted Axial Load	[N]	*8	6500	6500	6500	6500	6500	
Maximum Radial Load	[N]	*9	13000					
Maximum Axial Load	[N]	*10	6500					
Moment of Inertia ($\leq \varnothing 19$)	[kgcm ²]	--	5.98	4.94	4.91	4.88	4.87	
Moment of Inertia ($\leq \varnothing 28$)	[kgcm ²]	--	7.58	6.53	6.50	6.48	6.46	
Moment of Inertia ($\leq \varnothing 38$)	[kgcm ²]	--	14.65	13.60	13.58	13.55	13.54	
Moment of Inertia ($\leq \varnothing 48$)	[kgcm ²]	--	--	--	--	--	--	
Efficiency	[%]	*11	88					
Torsional Rigidity	[Nm/arcmin]	*12	140					
Maximum Torsional Backlash	[Arc-min]	--	≤ 7					
Noise Level	dB [A]	*13	≤ 85					
Protection Class	--	*14	IP55 (IP65)					
Ambient Temperature	[°C]	--	0-40					
Permitted Housing Temperature	[°C]	--	90					
Weight	[kg]	*15	17.6					

- *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