

EVT SERIES Right-angle Planetary

EVT 110 2-Stage Specifications

Frame Size	110					
Stage	2-Stage					
Ratio	Unit	Note	4	5	7	10
Nominal Output Torque	[Nm]	*1	100	120	150	110
Maximum Acceleration Torque	[Nm]	*2	200	240	300	200
Emergency Stop Torque	[Nm]	*3	430	500	550	450
Nominal Input Speed	[rpm]	*4	3000			
Maximum Input Speed	[rpm]	*5	6000			
No Load Running Torque	[Nm]	*6	1.88			
Permitted Radial Load	[N]	*7	4100	4400	4800	5400
Permitted Axial Load	[N]	*8	3500	3800	4200	4300
Maximum Radial Load	[N]	*9	8500			
Maximum Axial Load	[N]	*10	4300			
Moment of Inertia ($\leq \varnothing 14$)	[kgcm ²]	--	--	--	--	--
Moment of Inertia ($\leq \varnothing 19$)	[kgcm ²]	--	6.46	5.65	4.97	4.62
Moment of Inertia ($\leq \varnothing 28$)	[kgcm ²]	--	8.06	7.24	6.56	6.21
Moment of Inertia ($\leq \varnothing 38$)	[kgcm ²]	--	15.13	14.31	13.63	13.28
Efficiency	[%]	*11	93			
Torsional Rigidity	[Nm/arcmin]	*12	60			
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	9.5			

EVT 110 3-Stage Specifications

Frame Size	110					
Stage	3-Stage					
Ratio	Unit	Note	16	20	25	28
Nominal Output Torque	[Nm]	*1	130	150	150	150
Maximum Acceleration Torque	[Nm]	*2	260	300	300	300
Emergency Stop Torque	[Nm]	*3	550	550	550	550
Nominal Input Speed	[rpm]	*4	3000			
Maximum Input Speed	[rpm]	*5	6000			
No Load Running Torque	[Nm]	*6	1.11			
Permitted Radial Load	[N]	*7	6200	6600	7100	7300
Permitted Axial Load	[N]	*8	4300	4300	4300	4300
Maximum Radial Load	[N]	*9	8500			
Maximum Axial Load	[N]	*10	4300			
Moment of Inertia ($\leq \varnothing 14$)	[kgcm ²]	--	2.52	2.24	2.20	2.42
Moment of Inertia ($\leq \varnothing 19$)	[kgcm ²]	--	2.85	2.57	2.53	2.75
Moment of Inertia ($\leq \varnothing 28$)	[kgcm ²]	--	4.98	4.69	4.66	4.88
Moment of Inertia ($\leq \varnothing 38$)	[kgcm ²]	--	--	--	--	--
Efficiency	[%]	*11	88			
Torsional Rigidity	[Nm/arcmin]	*12	60			
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	9			

EVT 110 3-Stage Specifications

Frame Size	110							
Stage	3-Stage							
Ratio	Unit	Note	35	40	50	70	100	
Nominal Output Torque	[Nm]	*1	150	150	150	150	110	
Maximum Acceleration Torque	[Nm]	*2	300	300	300	300	200	
Emergency Stop Torque	[Nm]	*3	550	550	550	550	450	
Nominal Input Speed	[rpm]	*4	3000					
Maximum Input Speed	[rpm]	*5	6000					
No Load Running Torque	[Nm]	*6	1.11					
Permitted Radial Load	[N]	*7	7800	8200	8500	8500	8500	
Permitted Axial Load	[N]	*8	4300	4300	4300	4300	4300	
Maximum Radial Load	[N]	*9	8500					
Maximum Axial Load	[N]	*10	4300					
Moment of Inertia ($\leq \varnothing 14$)	[kgcm ²]	--	2.17	1.87	1.86	1.85	1.85	
Moment of Inertia ($\leq \varnothing 19$)	[kgcm ²]	--	2.50	2.20	2.19	2.18	2.18	
Moment of Inertia ($\leq \varnothing 28$)	[kgcm ²]	--	4.63	4.33	4.32	4.31	4.31	
Moment of Inertia ($\leq \varnothing 38$)	[kgcm ²]	--	--	--	--	--	--	
Efficiency	[%]	*11	88					
Torsional Rigidity	[Nm/arcmin]	*12	60					
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	9					

- *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