

EVT SERIES Right-angle Planetary

EVT 140 2-Stage Specifications

Frame Size	140					
Ratio	Unit	Note	4	5	7	10
Nominal Output Torque	[Nm]	*1	181	205	307	233
Maximum Acceleration Torque	[Nm]	*2	389	458	687	480
Maximum Torque	[Nm]	*3	452	531	766	559
Emergency Stop Torque	[Nm]	*4	950	1100	1100	750
Nominal Input Speed	[rpm]	*5	2000			
Maximum Input Speed	[rpm]	*6	5000			
No Load Running Torque	[Nm]	*7	3.26			
Maximum Radial Load	[N]	*8	19000			
Maximum Axial Load	[N]	*9	14000			
Maximum Tilting Moment	[Nm]	*10	2000			
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	IP54 (IP65)			
Ambient Temperature	[°C]	--	0-40			
Permitted Housing Temperature	[°C]	--	90			
Weight	[kg]	*15	17.4			

EVT 140 3-Stage Specifications

Frame Size	140					
Ratio	Unit	Note	16	20	25	28
Nominal Output Torque	[Nm]	*1	307	316	352	352
Maximum Acceleration Torque	[Nm]	*2	687	687	687	687
Maximum Torque	[Nm]	*3	687	687	687	687
Emergency Stop Torque	[Nm]	*4	1100	1100	1100	1100
Nominal Input Speed	[rpm]	*5	2300			
Maximum Input Speed	[rpm]	*6	5000			
No Load Running Torque	[Nm]	*7	2.56			
Maximum Radial Load	[N]	*8	19000			
Maximum Axial Load	[N]	*9	14000			
Maximum Tilting Moment	[Nm]	*10	2000			
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	IP54 (IP65)			
Ambient Temperature	[°C]	--	0-40			
Permitted Housing Temperature	[°C]	--	90			
Weight	[kg]	*15	17.6			

EVT 140 3-Stage Specifications

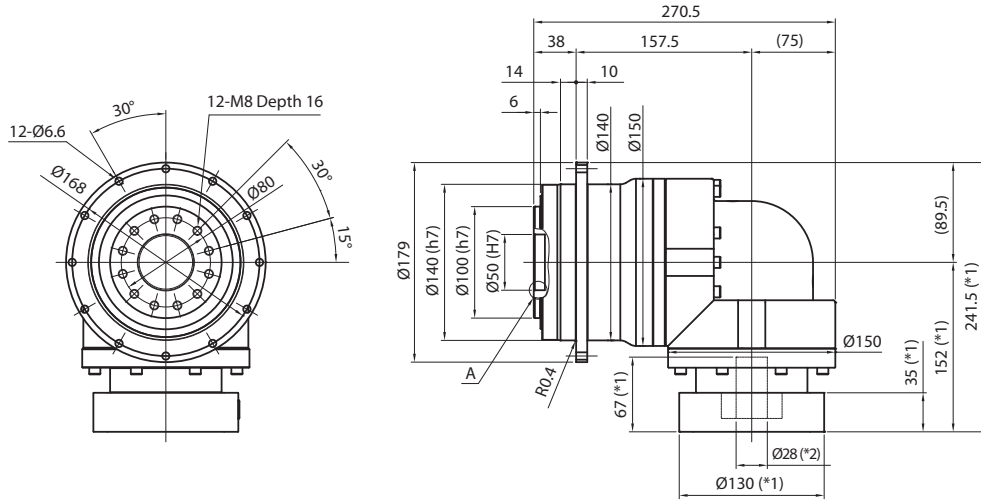
Frame Size	140							
Ratio	Unit	Note	35	40	50	70	100	
Nominal Output Torque	[Nm]	*1	352	337	352	352	240	
Maximum Acceleration Torque	[Nm]	*2	687	687	687	687	480	
Maximum Torque	[Nm]	*3	687	687	687	687	480	
Emergency Stop Torque	[Nm]	*4	1100	1100	1100	1100	750	
Nominal Input Speed	[rpm]	*5	2300					
Maximum Input Speed	[rpm]	*6	5000					
No Load Running Torque	[Nm]	*7	2.56					
Maximum Radial Load	[N]	*8	19000					
Maximum Axial Load	[N]	*9	14000					
Maximum Tilting Moment	[Nm]	*10	2000					
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	IP54 (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. 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 moment is the maximum load at output flange surface
- *11) The efficiency at the nominal output torque rating
- *12) This does not include lost motion
- *13) Contact Nidec Drive Technology for the testing conditions and environment
- *14) Various wash-down options are available. Contact Nidec Drive Technology for more details
- *15) Weight may vary slightly between models

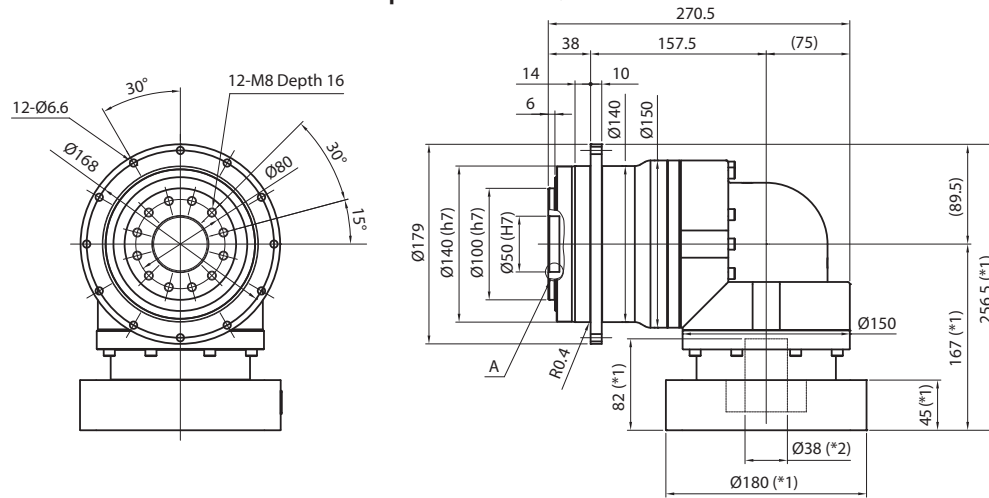
EVT SERIES Right-angle Planetary

EVT 140 2-Stage Dimensions

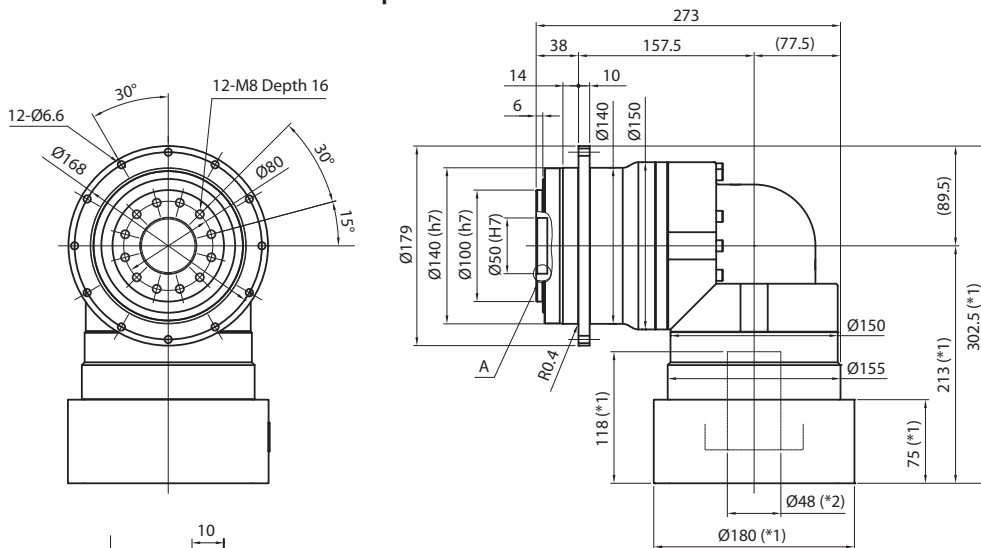
Input bore size $\leq \varnothing 28\text{mm}$



Input bore size $\leq \varnothing 38\text{mm}$



Input bore size $\leq \varnothing 48\text{mm}$

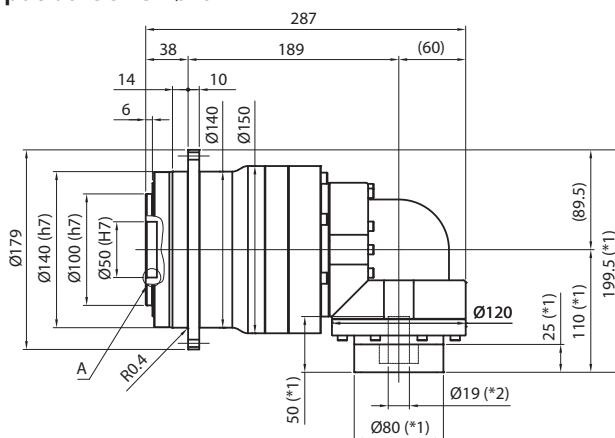
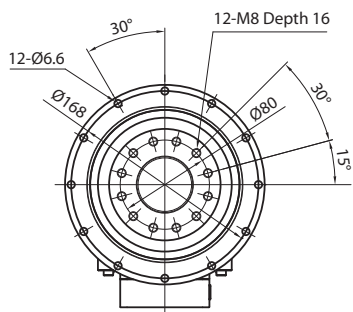


*1) Length will vary depending on motor

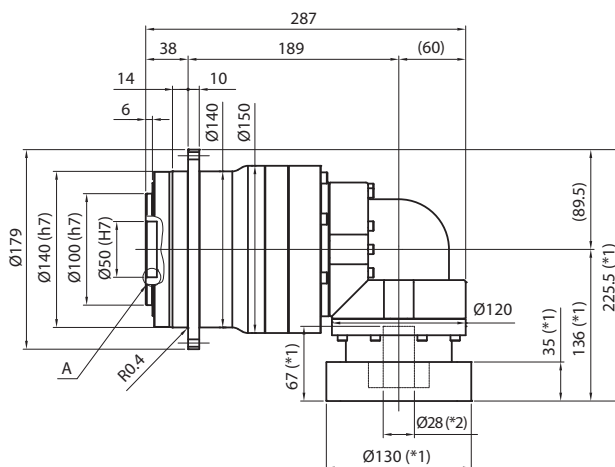
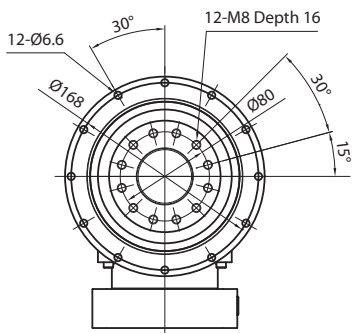
*2) Bushing will be inserted to adapt to motor shaft

EVT 140 3-Stage Dimensions

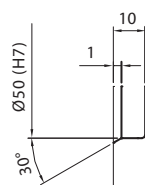
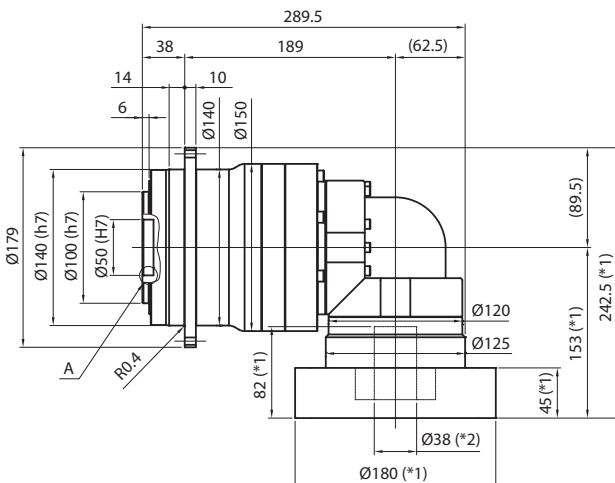
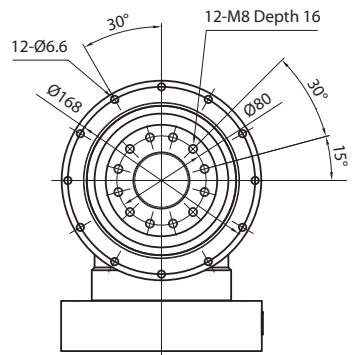
Input bore size $\leq \varnothing 19\text{mm}$



Input bore size $\leq \varnothing 28\text{mm}$



Input bore size $\leq \varnothing 38\text{mm}$



Enlarged detail A

*1) Length will vary depending on motor

*2) Bushing will be inserted to adapt to motor shaft