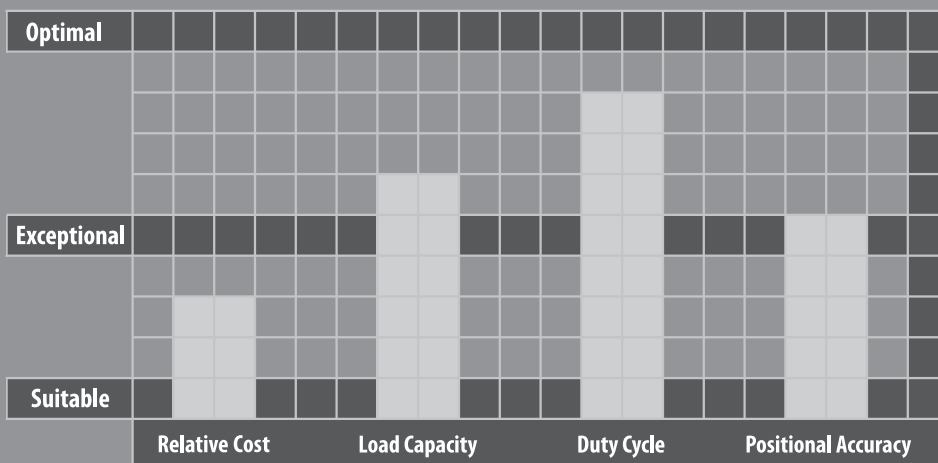


EVT SERIES

The EVT combines the compactness and performance of the VRT series with a right angle bevel system to provide the ultimate space saving solution for highly dynamic applications. The ISO flange interface allows for easy mounting of index tables, pinions, timing belt pulleys and other mechanical components without the need for a coupling.

The EVT is advantageous in applications requiring high accuracy, torsional stiffness and moment loading. Oversized dual tapered roller bearings allow the EVT to handle larger radial and thrust forces found in applications within the machine tool, aerospace or robotics industries. Available ratios range from 3:1 to 100:1—a total of 20 ratio configurations, giving machine builders more design flexibility than ever before.



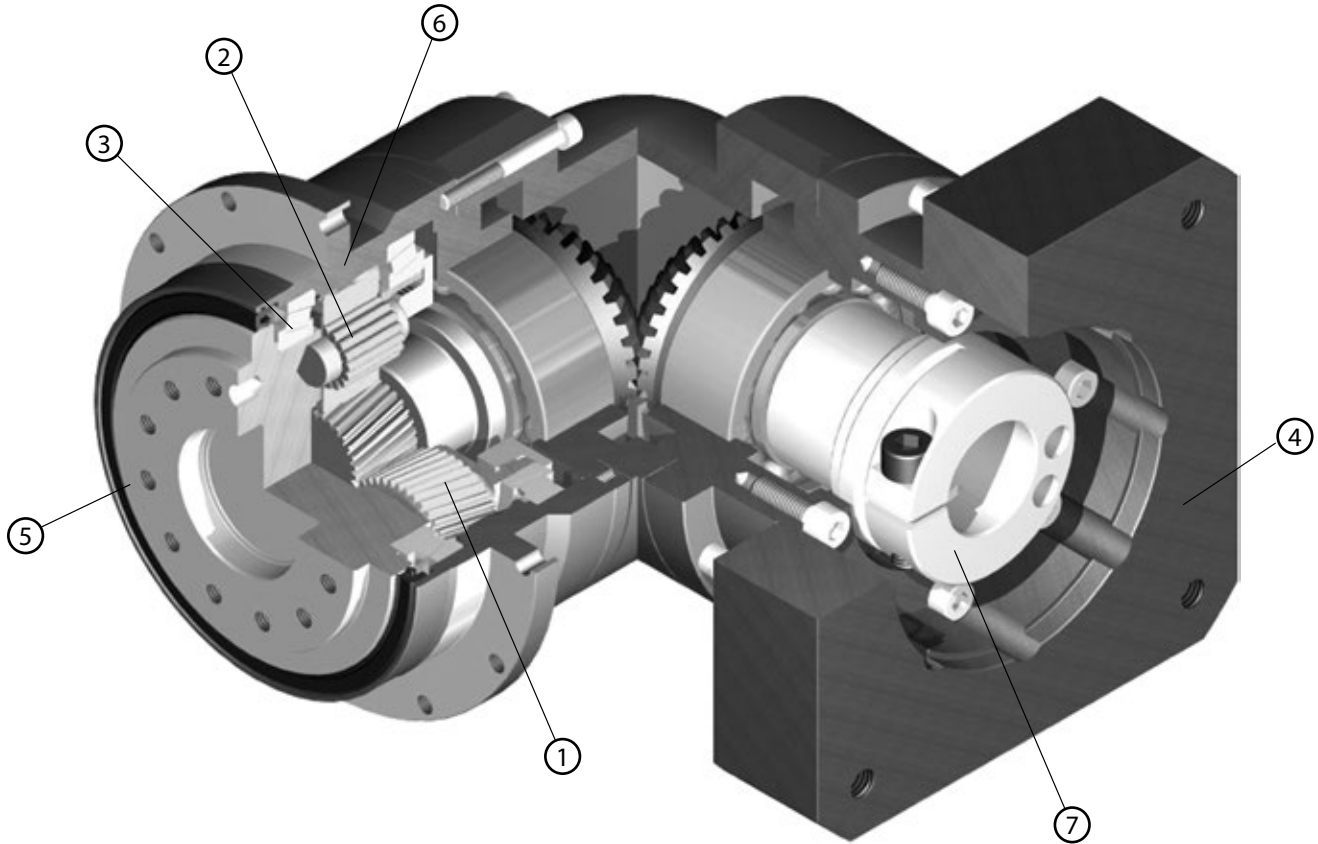


EVT SERIES

- The most compact and robust option for machine builders
- ISO robotics industry mounting interface allowing superior flexibility in mounting of pinions, pulleys and turntables
- Best-in-class backlash (≤ 4 arc-min)
- Space-saving design, when minimal envelope is required
- Exceptional torsional rigidity for high positional accuracy needs
- Broad range of mounting adapters offer a simple, precise attachment to any motor
- Maintenance free solution that is lubricated for life. High performance grease allows flexible mounting in any orientation

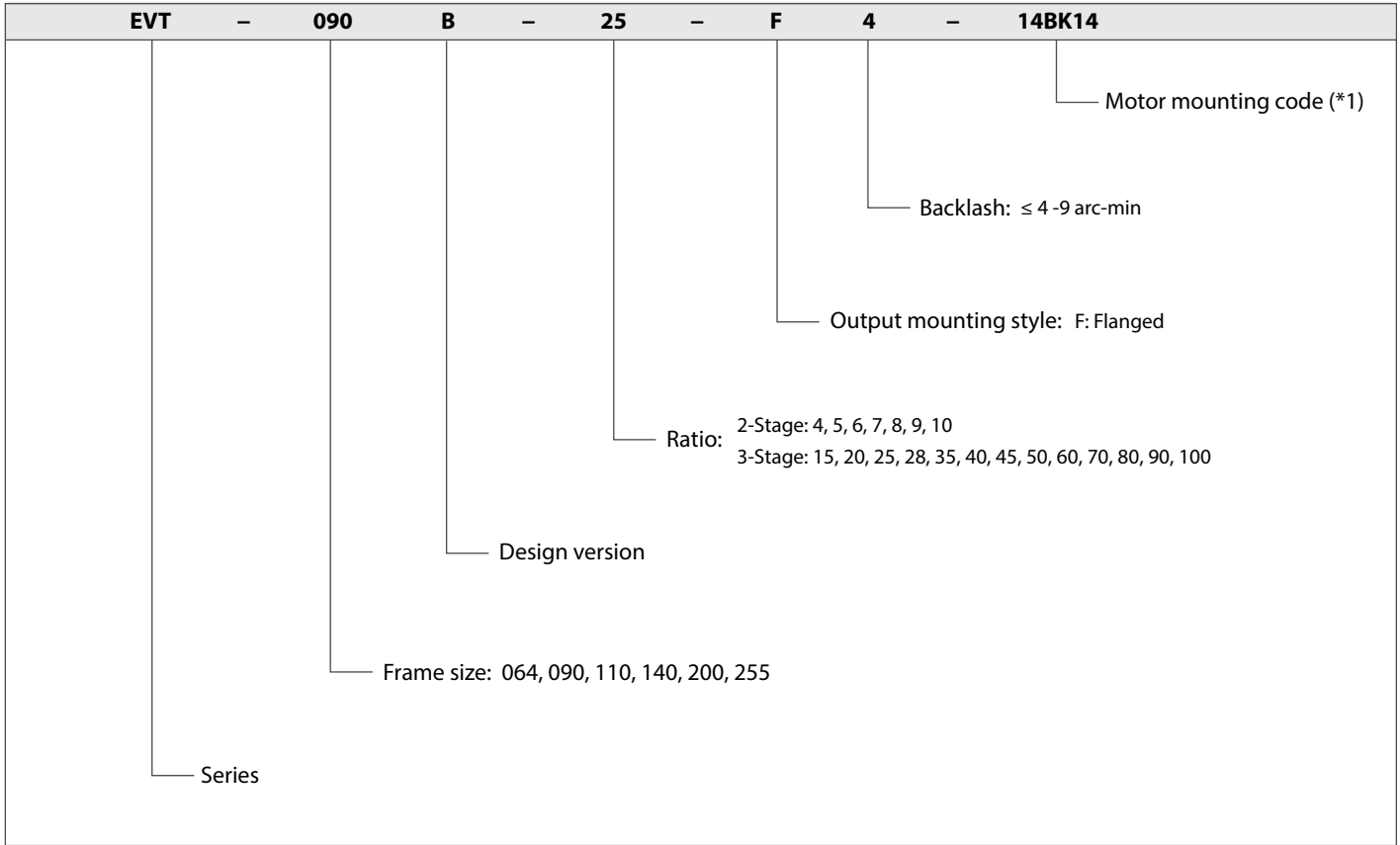
EVT SERIES Right-angle Planetary

EVT Series Features



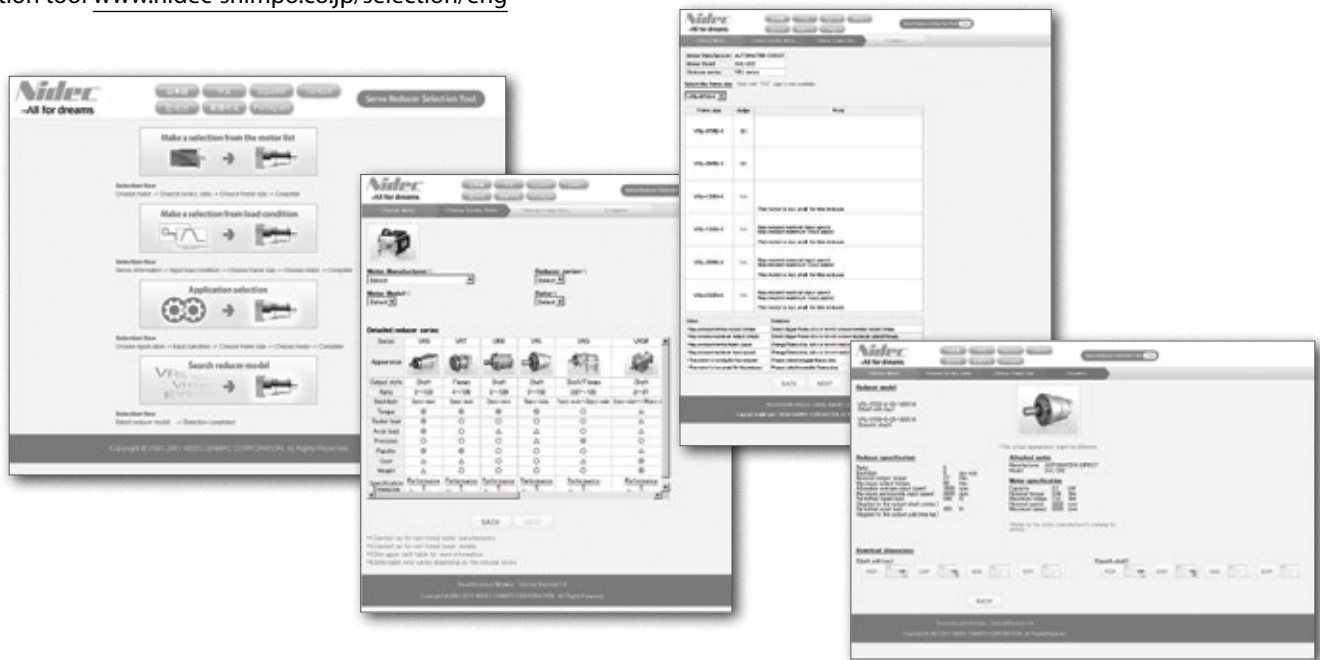
- ① Carburized case hardened helical gear with proprietary secondary finishing process for higher accuracy and smooth, quiet operation
- ② Uncaged needle roller bearings allow for higher rigidity and torque
- ③ One piece output shaft and planet carrier with two robust tapered bearings straddling the planet gears. Higher radial/axial load capacity, stiffness, torque density and safety factor, with guaranteed alignment of gearing
- ④ Optimized mounting system with active centering on motor pilot diameter guarantees alignment of motor. Motor can be installed in any orientation
- ⑤ ISO output flange allows easy mounting to indexing tables, pinions, timing belt pulleys and other mechanical components
- ⑥ Ring gear machined directly into the housing, not welded or pressed in. Greater concentricity and elimination of speed fluctuation
- ⑦ True concentric motor shaft clamping connection, optimized for your specific motor. Reduced inertia for dynamic performance and balanced for high speed operation

EVT Series Model Code



*1) Motor mounting code varies depending on the motor. Use the selection tool link below to configure the code.

Contact us for additional information or refer to our online gearbox selection tool.
 Selection tool www.nidec-shimpo.co.jp/selection/eng



EVT SERIES Right-angle Planetary

EVT 064 2-Stage Specifications

Frame Size	064										
Ratio	Unit	Note	4	5	6	7	8	9	10		
Nominal Output Torque	[Nm]	*1	16	22	24	24	24	16	16		
Maximum Acceleration Torque	[Nm]	*2	32	40	45	45	45	32	32		
Emergency Stop Torque	[Nm]	*3	65	80	90	90	90	65	65		
Nominal Input Speed	[rpm]	*4	3000								
Maximum Input Speed	[rpm]	*5	6000								
No Load Running Torque	[Nm]	*6	0.33								
Permitted Radial Load	[N]	*7	370	400	420	440	460	480	500		
Permitted Axial Load	[N]	*8	360	390	430	460	480	510	530		
Maximum Radial Load	[N]	*9	1500								
Maximum Axial Load	[N]	*10	750								
Maximum Tilting Moment	[Nm]	*11	58								
Moment of Inertia ($\leq \emptyset 8$)	[kgcm ²]	--	0.305	0.273	0.256	0.246	0.240	0.236	0.233		
Moment of Inertia ($\leq \emptyset 14$)	[kgcm ²]	--	0.379	0.348	0.331	0.321	0.315	0.311	0.308		
Moment of Inertia ($\leq \emptyset 19$)	[kgcm ²]	--	0.569	0.537	0.521	0.510	0.504	0.500	0.497		
Efficiency	[%]	*12	93								
Torsional Rigidity	[Nm/arcmin]	*13	7.5								
Maximum Torsional Backlash	[Arc-min]	--	≤ 4								
Noise Level	dB [A]	*14	≤ 80								
Protection Class	--	*15	IP55 (IP65)								
Ambient Temperature	[°C]	--	0-40								
Permitted Housing Temperature	[°C]	--	90								
Weight	[kg]	*16	1.9								

EVT 064 3-Stage Specifications

Frame Size	064										
Ratio	Unit	Note	16	20	25	28	35	40	45		
Nominal Output Torque	[Nm]	*1	24	24	24	24	24	24	16		
Maximum Acceleration Torque	[Nm]	*2	45	45	45	45	45	45	32		
Emergency Stop Torque	[Nm]	*3	90	90	90	90	90	90	65		
Nominal Input Speed	[rpm]	*4	3000								
Maximum Input Speed	[rpm]	*5	6000								
No Load Running Torque	[Nm]	*6	0.20								
Permitted Radial Load	[N]	*7	580	630	680	700	760	790	820		
Permitted Axial Load	[N]	*8	650	720	750	750	750	750	750		
Maximum Radial Load	[N]	*9	1500								
Maximum Axial Load	[N]	*10	750								
Maximum Tilting Moment	[Nm]	*11	58								
Moment of Inertia ($\leq \emptyset 8$)	[kgcm ²]	--	0.082	0.073	0.072	0.078	0.071	0.062	0.070		
Moment of Inertia ($\leq \emptyset 14$)	[kgcm ²]	--	0.126	0.118	0.116	0.123	0.115	0.106	0.115		
Efficiency	[%]	*12	88								
Torsional Rigidity	[Nm/arcmin]	*13	7.5								
Maximum Torsional Backlash	[Arc-min]	--	≤ 7								
Noise Level	dB [A]	*14	≤ 80								
Protection Class	--	*15	IP55 (IP65)								
Ambient Temperature	[°C]	--	0-40								
Permitted Housing Temperature	[°C]	--	90								
Weight	[kg]	*16	1.6								

EVT 064 3-Stage Specifications

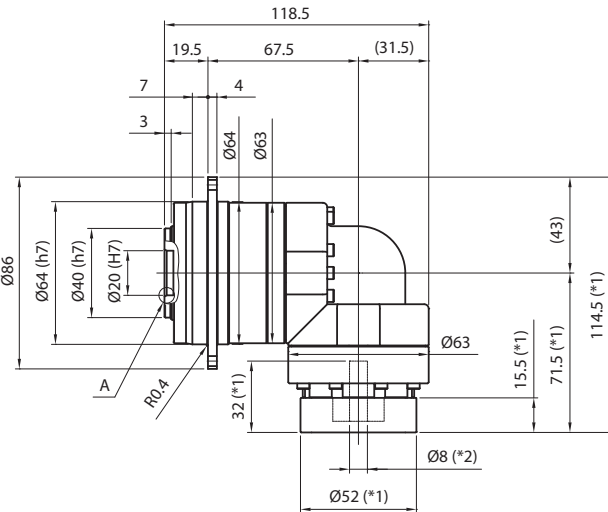
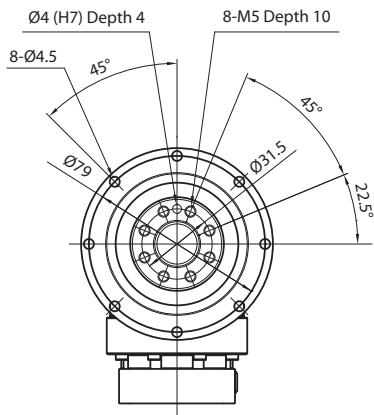
Frame Size	064							
Ratio	Unit	Note	50	60	70	80	90	100
Nominal Output Torque	[Nm]	*1	24	24	24	24	16	16
Maximum Acceleration Torque	[Nm]	*2	45	45	45	45	32	32
Emergency Stop Torque	[Nm]	*3	90	90	90	90	65	65
Nominal Input Speed	[rpm]	*4	3000					
Maximum Input Speed	[rpm]	*5	6000					
No Load Running Torque	[Nm]	*6	0.20					
Permitted Radial Load	[N]	*7	850	910	950	1000	1000	1100
Permitted Axial Load	[N]	*8	750	750	750	750	750	750
Maximum Radial Load	[N]	*9	1500					
Maximum Axial Load	[N]	*10	750					
Maximum Tilting Moment	[Nm]	*11	58					
Moment of Inertia ($\leq \varnothing 8$)	[kgcm ²]	--	0.061	0.061	0.061	0.061	0.061	0.061
Moment of Inertia ($\leq \varnothing 14$)	[kgcm ²]	--	0.106	0.106	0.106	0.106	0.106	0.105
Efficiency	[%]	*12	88					
Torsional Rigidity	[Nm/arcmin]	*13	7.5					
Maximum Torsional Backlash	[Arc-min]	--	≤ 7					
Noise Level	dB [A]	*14	≤ 80					
Protection Class	--	*15	IP55 (IP65)					
Ambient Temperature	[°C]	--	0-40					
Permitted Housing Temperature	[°C]	--	90					
Weight	[kg]	*16	1.6					

- *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 moment is the maximum load at output flange surface
- *12) The efficiency at the nominal output torque rating
- *13) This does not include lost motion
- *14) Contact NIDEC-SHIMPO for the testing conditions and environment
- *15) IP65 (wash-down) is available as an option. Contact NIDEC-SHIMPO for more details
- *16) The weight may vary slightly between models

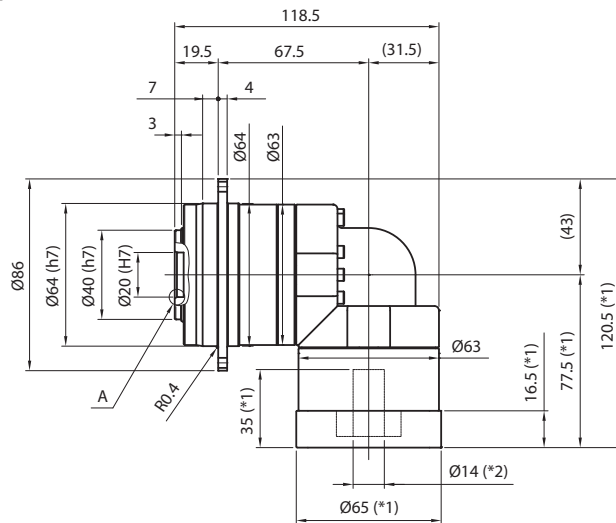
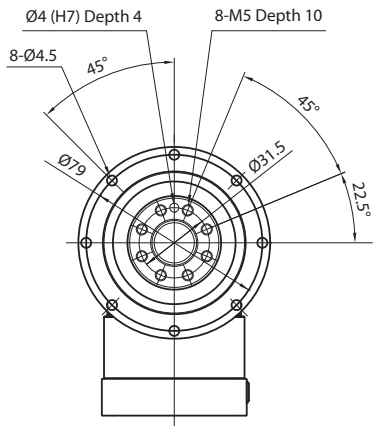
EVT SERIES Right-angle Planetary

EVT 064 2-Stage Dimensions

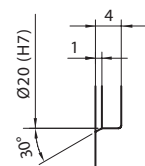
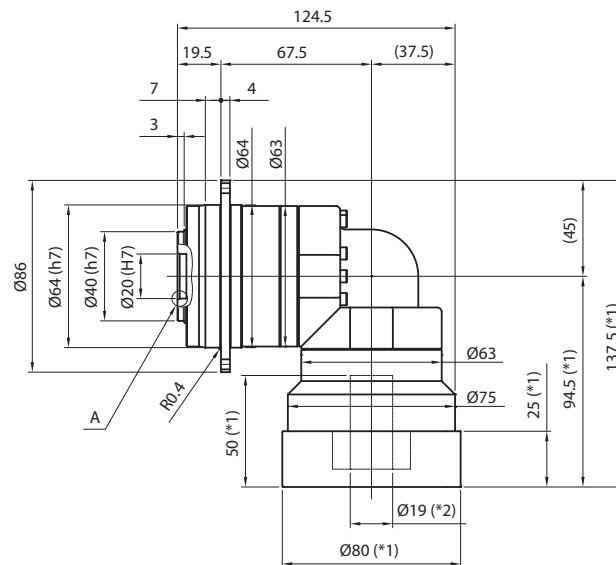
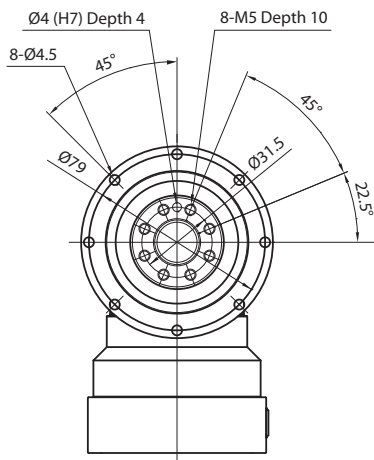
Input bore size $\leq \varnothing 8\text{mm}$



Input bore size $\leq \varnothing 14\text{mm}$



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



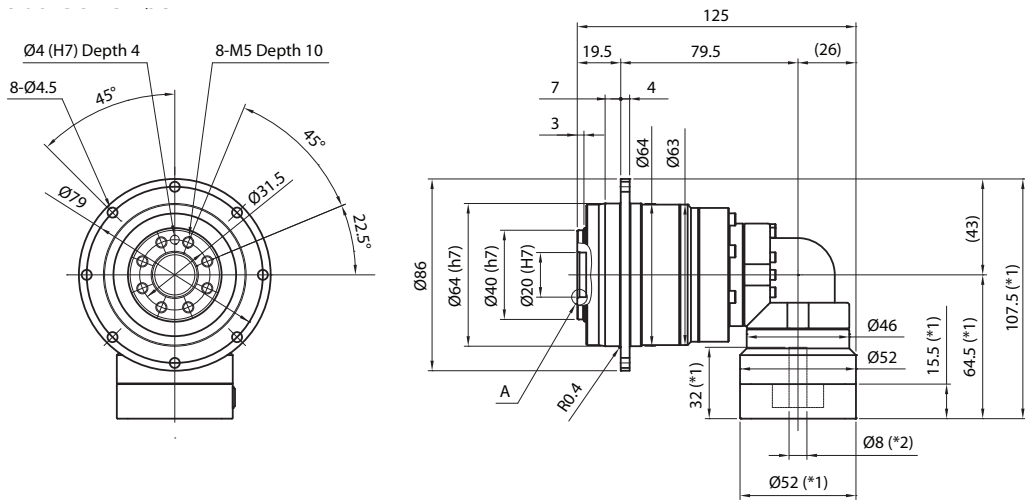
Enlarged detail A

*1) Length will vary depending on motor

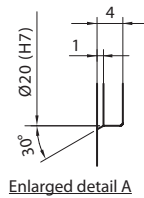
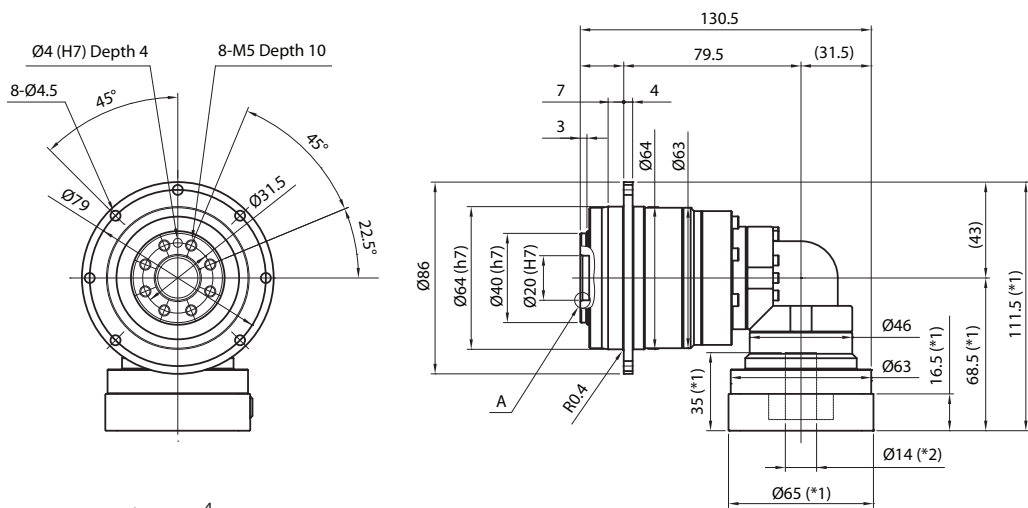
*2) Bushing will be inserted to adapt to motor shaft

EVT 064 3-Stage Dimensions

Input bore size $\leq \varnothing 8\text{mm}$



Input bore size $\leq \varnothing 14\text{mm}$



*1) Length will vary depending on motor

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

EVT SERIES Right-angle Planetary

EVT 090 2-Stage Specifications

Frame Size	090										
Ratio	Unit	Note	4	5	6	7	8	9	10		
Nominal Output Torque	[Nm]	*1	60	65	65	65	65	45	45		
Maximum Acceleration Torque	[Nm]	*2	90	90	90	90	90	65	65		
Emergency Stop Torque	[Nm]	*3	170	220	220	220	220	170	170		
Nominal Input Speed	[rpm]	*4	3000								
Maximum Input Speed	[rpm]	*5	6000								
No Load Running Torque	[Nm]	*6	1.13								
Permitted Radial Load	[N]	*7	720	780	830	870	910	950	980		
Permitted Axial Load	[N]	*8	620	680	740	790	830	880	920		
Maximum Radial Load	[N]	*9	3300								
Maximum Axial Load	[N]	*10	1700								
Maximum Tilting Moment	[Nm]	*11	170								
Moment of Inertia ($\leq \varnothing 14$)	[kgcm ²]	--	2.17	1.98	1.88	1.81	1.78	1.75	1.73		
Moment of Inertia ($\leq \varnothing 19$)	[kgcm ²]	--	2.50	2.31	2.21	2.14	2.10	2.08	2.06		
Moment of Inertia ($\leq \varnothing 28$)	[kgcm ²]	--	4.63	4.43	4.33	4.27	4.23	4.21	4.19		
Efficiency	[%]	*12	93								
Torsional Rigidity	[Nm/arcmin]	*13	22								
Maximum Torsional Backlash	[Arc-min]	--	≤ 4								
Noise Level	dB [A]	*14	≤ 80								
Protection Class	--	*15	IP55 (IP65)								
Ambient Temperature	[°C]	--	0-40								
Permitted Housing Temperature	[°C]	--	90								
Weight	[kg]	*16	5.1								

EVT 090 3-Stage Specifications

Frame Size	090										
Ratio	Unit	Note	16	20	25	28	35	40	45		
Nominal Output Torque	[Nm]	*1	65	65	65	65	65	65	65		
Maximum Acceleration Torque	[Nm]	*2	110	110	110	110	110	110	65		
Emergency Stop Torque	[Nm]	*3	220	220	220	220	220	220	170		
Nominal Input Speed	[rpm]	*4	3000								
Maximum Input Speed	[rpm]	*5	6000								
No Load Running Torque	[Nm]	*6	0.55								
Permitted Radial Load	[N]	*7	1200	1200	1300	1400	1500	1600	1600		
Permitted Axial Load	[N]	*8	1100	1200	1400	1400	1600	1700	1700		
Maximum Radial Load	[N]	*9	3300								
Maximum Axial Load	[N]	*10	1700								
Maximum Tilting Moment	[Nm]	*11	170								
Moment of Inertia ($\leq \varnothing 8$)	[kgcm ²]	--	0.40	0.34	0.33	0.38	0.32	0.25	0.32		
Moment of Inertia ($\leq \varnothing 14$)	[kgcm ²]	--	0.48	0.41	0.41	0.45	0.40	0.33	0.40		
Moment of Inertia ($\leq \varnothing 19$)	[kgcm ²]	--	0.66	0.60	0.59	0.64	0.59	0.51	0.59		
Efficiency	[%]	*12	88								
Torsional Rigidity	[Nm/arcmin]	*13	22								
Maximum Torsional Backlash	[Arc-min]	--	≤ 7								
Noise Level	dB [A]	*14	≤ 80								
Protection Class	--	*15	IP55 (IP65)								
Ambient Temperature	[°C]	--	0-40								
Permitted Housing Temperature	[°C]	--	90								
Weight	[kg]	*16	4.3								

EVT 090 3-Stage Specifications

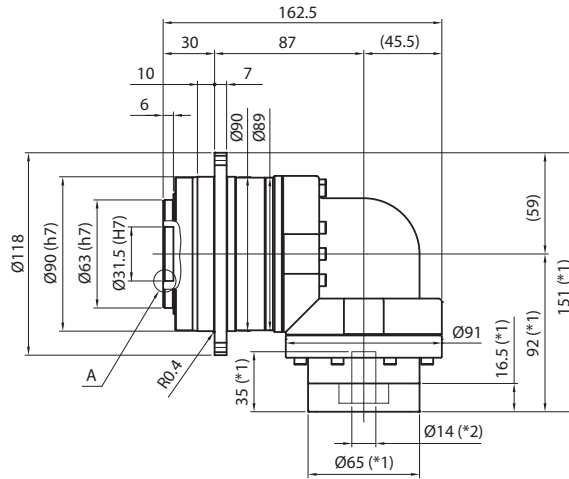
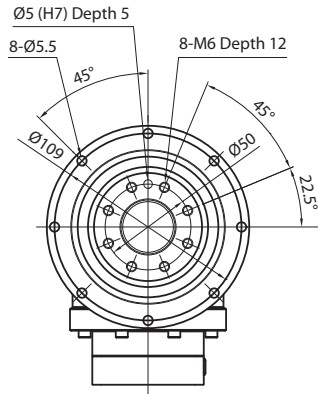
Frame Size	090							
Ratio	Unit	Note	50	60	70	80	90	100
Nominal Output Torque	[Nm]	*1	65	65	65	65	45	45
Maximum Acceleration Torque	[Nm]	*2	110	110	110	110	65	65
Emergency Stop Torque	[Nm]	*3	220	220	220	220	170	170
Nominal Input Speed	[rpm]	*4	3000					
Maximum Input Speed	[rpm]	*5	6000					
No Load Running Torque	[Nm]	*6	0.55					
Permitted Radial Load	[N]	*7	1700	1800	1900	2000	2000	2100
Permitted Axial Load	[N]	*8	1700	1700	1700	1700	1700	1700
Maximum Radial Load	[N]	*9	3300					
Maximum Axial Load	[N]	*10	1700					
Maximum Tilting Moment	[Nm]	*11	170					
Moment of Inertia ($\leq \varnothing 8$)	[kgcm ²]	--	0.25	0.25	0.25	0.25	0.25	0.25
Moment of Inertia ($\leq \varnothing 14$)	[kgcm ²]	--	0.32	0.32	0.32	0.32	0.32	0.32
Moment of Inertia ($\leq \varnothing 19$)	[kgcm ²]	--	0.51	0.51	0.51	0.51	0.51	0.51
Efficiency	[%]	*12	88					
Torsional Rigidity	[Nm/arcmin]	*13	22					
Maximum Torsional Backlash	[Arc-min]	--	≤ 7					
Noise Level	dB [A]	*14	≤ 80					
Protection Class	--	*15	IP55 (IP65)					
Ambient Temperature	[°C]	--	0-40					
Permitted Housing Temperature	[°C]	--	90					
Weight	[kg]	*16	4.3					

- *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 moment is the maximum load at output flange surface
- *12) The efficiency at the nominal output torque rating
- *13) This does not include lost motion
- *14) Contact NIDEC-SHIMPO for the testing conditions and environment
- *15) IP65 (wash-down) is available as an option. Contact NIDEC-SHIMPO for more details
- *16) The weight may vary slightly between models

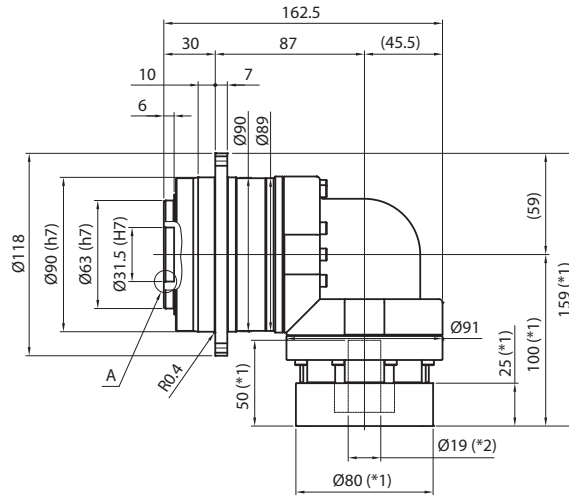
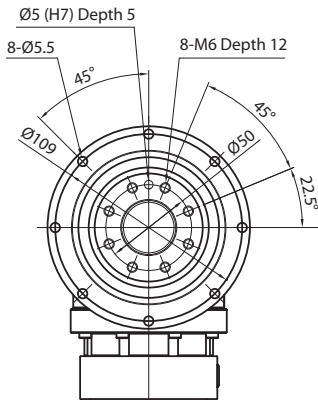
EVT SERIES Right-angle Planetary

EVT 090 2-Stage Dimensions

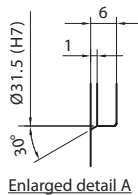
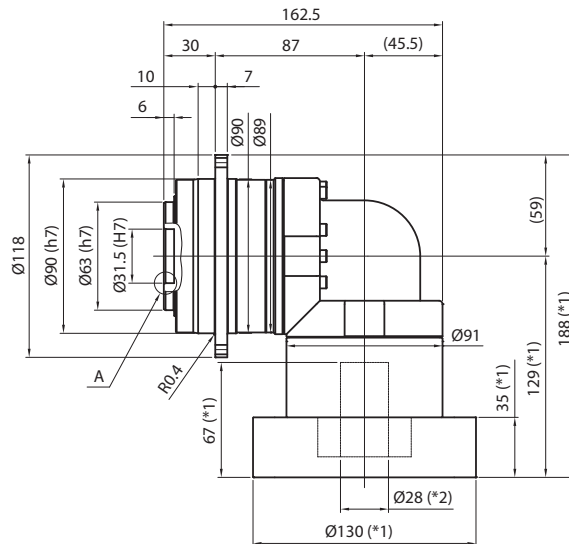
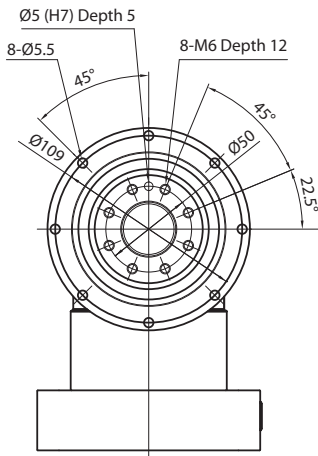
Input bore size $\leq \varnothing 14\text{mm}$



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



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

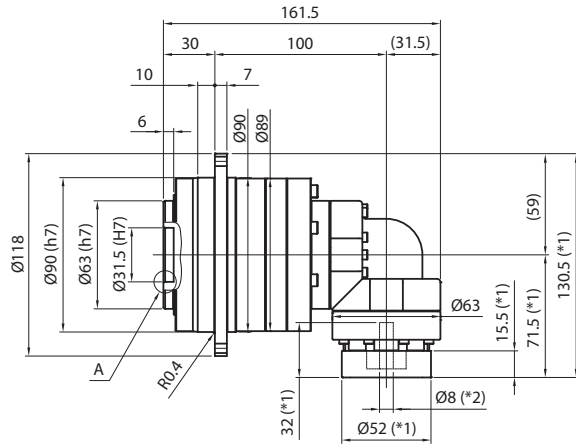
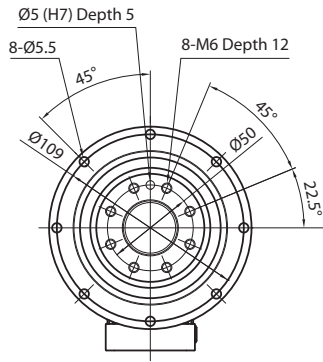


*1) Length will vary depending on motor

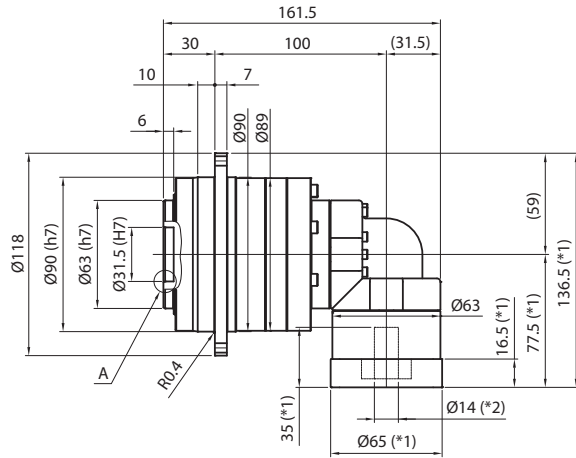
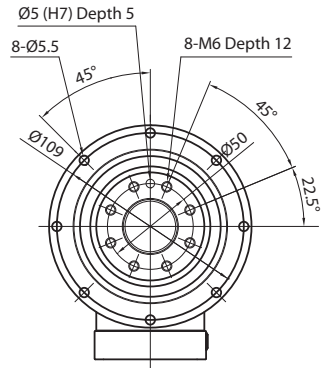
*2) Bushing will be inserted to adapt to motor shaft

EVT 090 3-Stage Dimensions

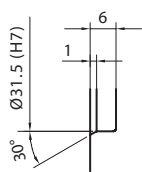
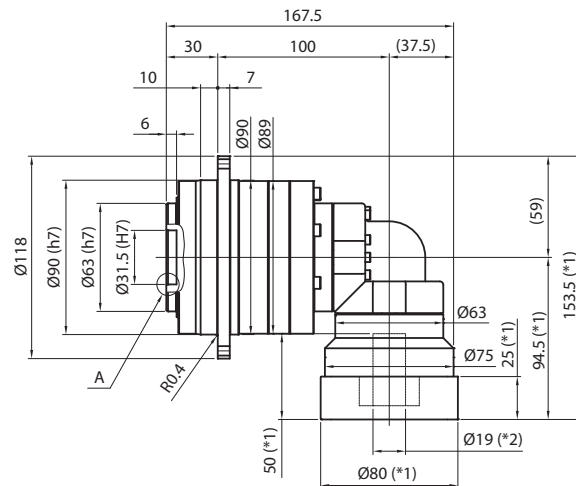
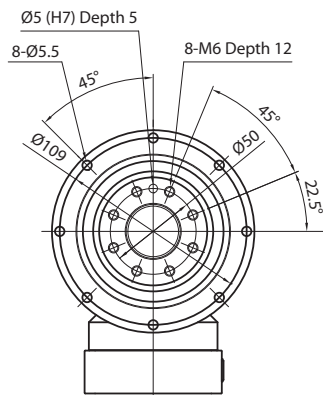
Input bore size $\leq \varnothing 8\text{mm}$



Input bore size $\leq \varnothing 14\text{mm}$



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



Enlarged detail A

*1) Length will vary depending on motor

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

EVT SERIES Right-angle Planetary

EVT 110 2-Stage Specifications

Frame Size	110					
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			
Maximum Tilting Moment	[Nm]	*11	990			
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	[%]	*12	93			
Torsional Rigidity	[Nm/arcmin]	*13	60			
Maximum Torsional Backlash	[Arc-min]	--	≤ 4			
Noise Level	dB [A]	*14	≤ 85			
Protection Class	--	*15	IP55 (IP65)			
Ambient Temperature	[°C]	--	0-40			
Permitted Housing Temperature	[°C]	--	90			
Weight	[kg]	*16	9.5			

EVT 110 3-Stage Specifications

Frame Size	110					
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			
Maximum Tilting Moment	[Nm]	*11	990			
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
Efficiency	[%]	*12	88			
Torsional Rigidity	[Nm/arcmin]	*13	60			
Maximum Torsional Backlash	[Arc-min]	--	≤ 7			
Noise Level	dB [A]	*14	≤ 85			
Protection Class	--	*15	IP55 (IP65)			
Ambient Temperature	[°C]	--	0-40			
Permitted Housing Temperature	[°C]	--	90			
Weight	[kg]	*16	9			

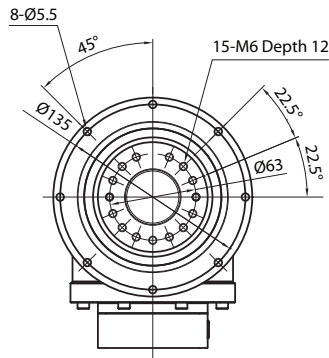
EVT 110 3-Stage Specifications

Frame Size	110							
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					
Maximum Tilting Moment	[Nm]	*11	990					
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	
Efficiency	[%]	*12	88					
Torsional Rigidity	[Nm/arcmin]	*13	60					
Maximum Torsional Backlash	[Arc-min]	--	≤ 7					
Noise Level	dB [A]	*14	≤ 85					
Protection Class	--	*15	IP55 (IP65)					
Ambient Temperature	[°C]	--	0-40					
Permitted Housing Temperature	[°C]	--	90					
Weight	[kg]	*16	9					

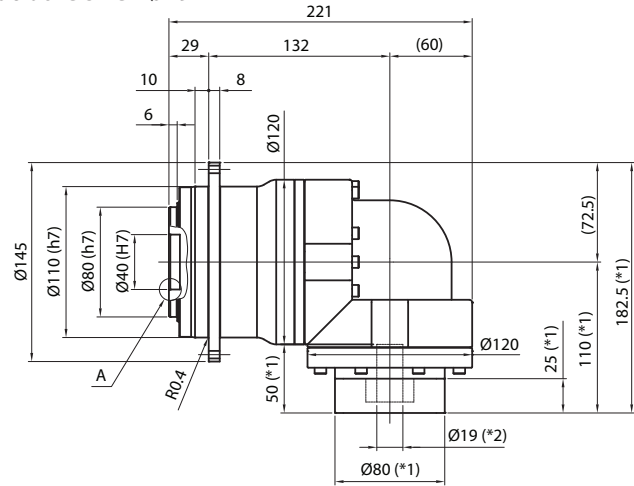
- *1) At nominal input speed, service life is 20,000 hours
- *2) The maximum torque when starting or stopping operation
- *3) The maximum torque allowed under a stress situation (Permitted 1,000 times during service life)
- *4) The average input speed
- *5) The maximum intermittent input speed
- *6) 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 moment is the maximum load at output flange surface
- *12) The efficiency at the nominal output torque rating
- *13) This does not include lost motion
- *14) Contact NIDEC-SHIMPO for the testing conditions and environment
- *15) IP65 (wash-down) is available as an option. Contact NIDEC-SHIMPO for more details
- *16) The weight may vary slightly between models

EVT SERIES Right-angle Planetary

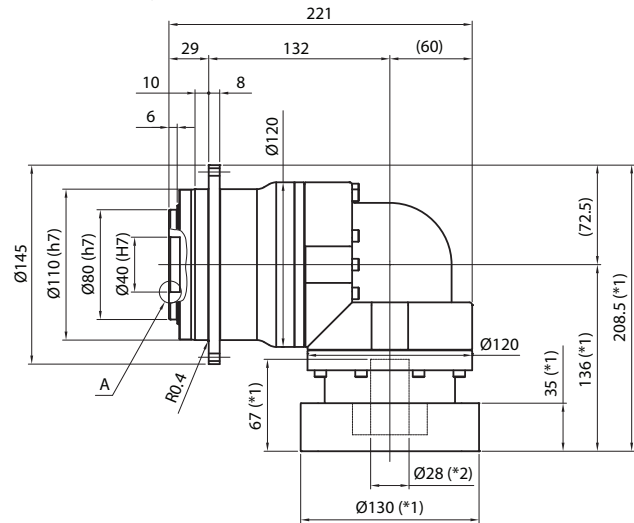
EVT 110 2-Stage Dimensions



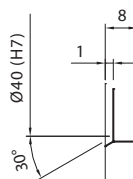
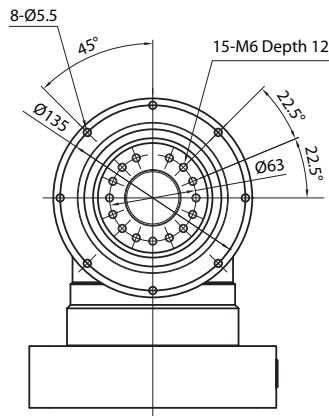
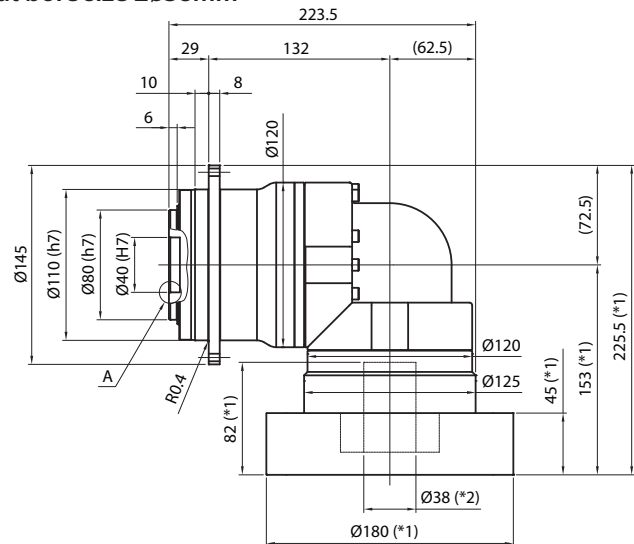
Input bore size $\leq \varnothing 19\text{mm}$



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



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



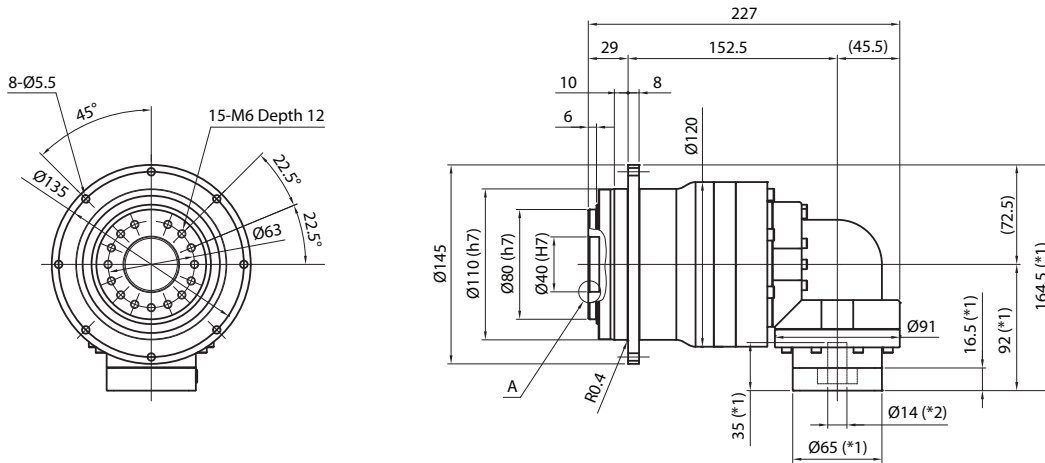
Enlarged detail A

*1) Length will vary depending on motor

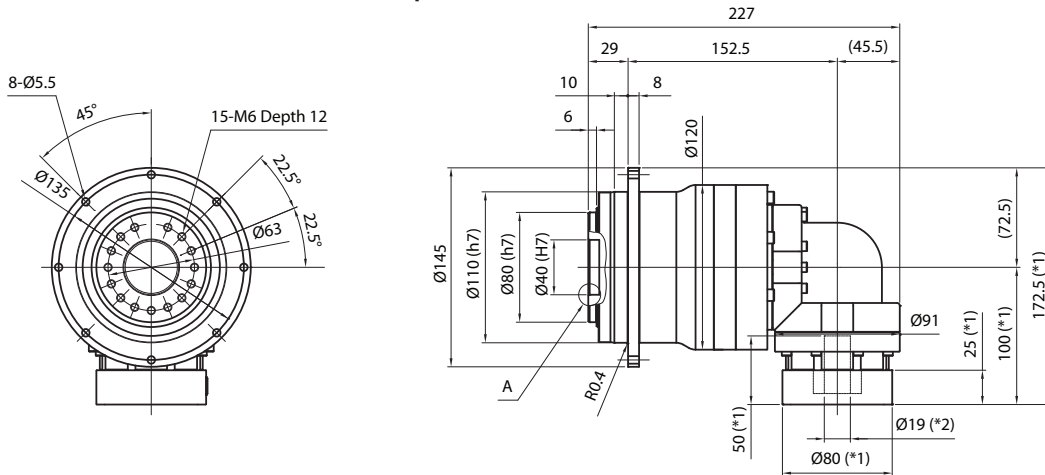
*2) Bushing will be inserted to adapt to motor shaft

EVT 110 3-Stage Dimensions

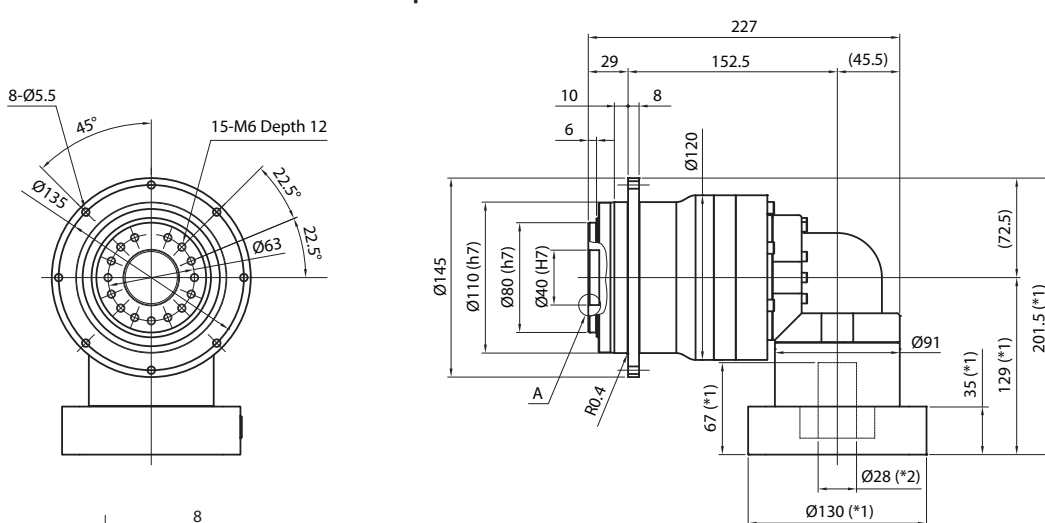
Input bore size $\leq \varnothing 14\text{mm}$



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



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



*1) Length will vary depending on motor

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

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	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			
Maximum Tilting Moment	[Nm]	*11	2000			
Moment of Inertia ($\leq \emptyset 28$)	[kgcm ²]	--	22.58	19.57	17.07	15.36
Moment of Inertia ($\leq \emptyset 38$)	[kgcm ²]	--	26.96	23.94	21.45	19.73
Moment of Inertia ($\leq \emptyset 48$)	[kgcm ²]	--	40.19	37.17	34.68	32.96
Efficiency	[%]	*12	93			
Torsional Rigidity	[Nm/arcmin]	*13	140			
Maximum Torsional Backlash	[Arc-min]	--	≤ 4			
Noise Level	dB [A]	*14	≤ 85			
Protection Class	--	*15	IP55 (IP65)			
Ambient Temperature	[°C]	--	0-40			
Permitted Housing Temperature	[°C]	--	90			
Weight	[kg]	*16	17.4			

EVT 140 3-Stage Specifications

Frame Size	140					
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			
Maximum Tilting Moment	[Nm]	*11	2000			
Moment of Inertia ($\leq \emptyset 19$)	[kgcm ²]	--	7.24	6.21	6.09	6.89
Moment of Inertia ($\leq \emptyset 28$)	[kgcm ²]	--	8.83	7.80	7.69	8.48
Moment of Inertia ($\leq \emptyset 38$)	[kgcm ²]	--	15.91	14.88	14.76	15.55
Efficiency	[%]	*12	88			
Torsional Rigidity	[Nm/arcmin]	*13	140			
Maximum Torsional Backlash	[Arc-min]	--	≤ 7			
Noise Level	dB [A]	*14	≤ 85			
Protection Class	--	*15	IP55 (IP65)			
Ambient Temperature	[°C]	--	0-40			
Permitted Housing Temperature	[°C]	--	90			
Weight	[kg]	*16	17.6			

EVT 140 3-Stage Specifications

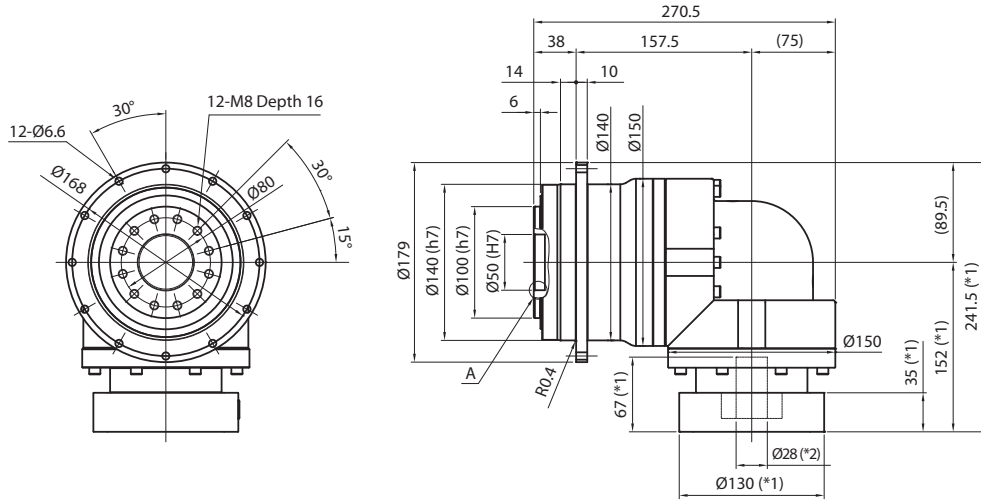
Frame Size	140							
Ratio	Unit	Note	35	40	50	70	100	
Nominal Output Torque	[Nm]	*1	300	300	300	300	200	
Maximum Acceleration Torque	[Nm]	*2	600	600	600	600	400	
Emergency Stop Torque	[Nm]	*3	1100	1100	1100	1100	750	
Nominal Input Speed	[rpm]	*4	2000					
Maximum Input Speed	[rpm]	*5	4000					
No Load 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					
Maximum Tilting Moment	[Nm]	*11	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	
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 moment is the maximum load at output flange surface
- *12) The efficiency at the nominal output torque rating
- *13) This does not include lost motion
- *14) Contact NIDEC-SHIMPO for the testing conditions and environment
- *15) IP65 (wash-down) is available as an option. Contact NIDEC-SHIMPO for more details
- *16) The weight may vary slightly between models

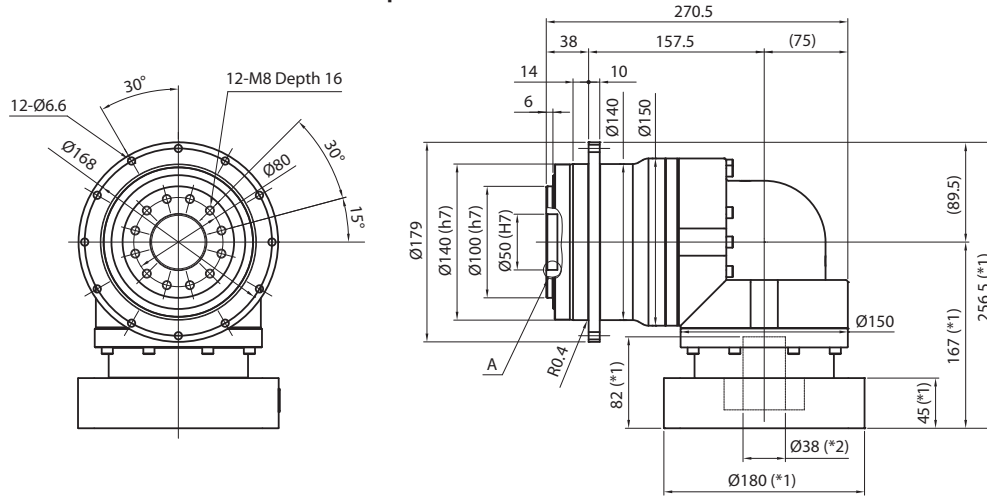
EVT SERIES Right-angle Planetary

EVT 140 2-Stage Dimensions

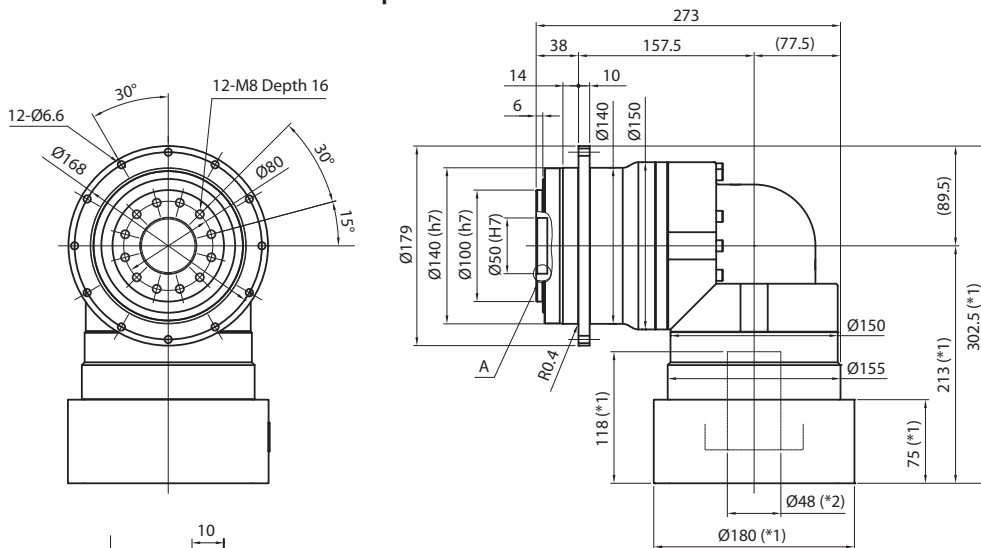
Input bore size $\leq \varnothing 28\text{mm}$



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



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

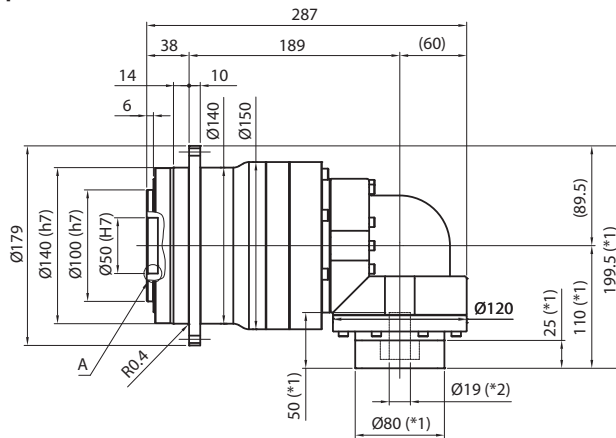
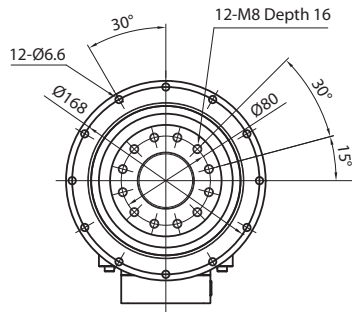


*1) Length will vary depending on motor

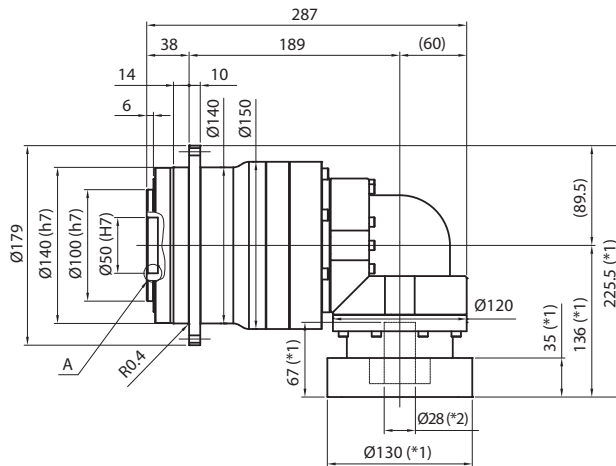
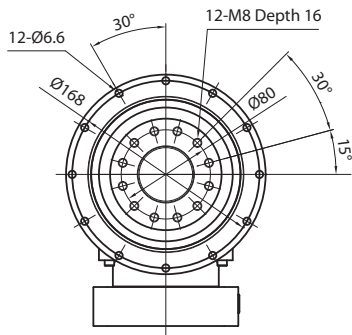
*2) Bushing will be inserted to adapt to motor shaft

EVT 140 3-Stage Dimensions

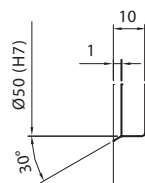
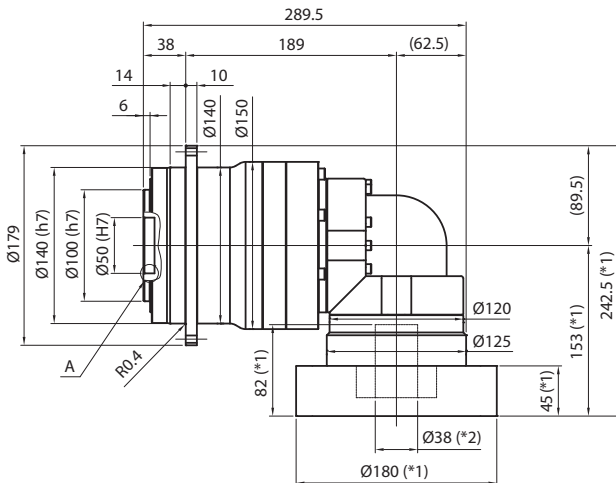
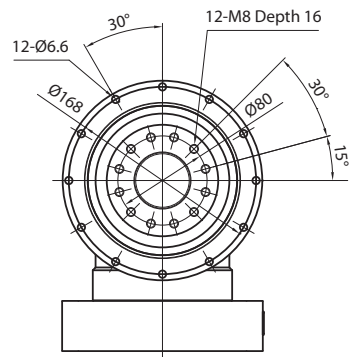
Input bore size $\leq \varnothing 19\text{mm}$



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

EVT SERIES Right-angle Planetary

EVT 200 2-Stage Specifications

Frame Size	200					
Ratio	Unit	Note	4	5	7	10
Nominal Output Torque	[Nm]	*1	575	600	600	400
Maximum Acceleration Torque	[Nm]	*2	770	960	1120	775
Emergency Stop Torque	[Nm]	*3	1700	2000	2500	2000
Nominal Input Speed	[rpm]	*4	1500			
Maximum Input Speed	[rpm]	*5	3000			
No Load Running Torque	[Nm]	*6	10.8			
Permitted Radial Load	[N]	*7	12000	13000	15000	16000
Permitted Axial Load	[N]	*8	8300	8900	9800	11000
Maximum Radial Load	[N]	*9	25000			
Maximum Axial Load	[N]	*10	13000			
Maximum Tilting Moment	[Nm]	*11	5300			
Moment of Inertia ($\leq \emptyset 38$)	[kgcm ²]	--	93.44	81.86	71.47	66.72
Moment of Inertia ($\leq \emptyset 48$)	[kgcm ²]	--	138.1	123.3	109.6	103.4
Moment of Inertia ($\leq \emptyset 65$)	[kgcm ²]	--	223.7	208.9	195.2	189.0
Efficiency	[%]	*12	93			
Torsional Rigidity	[Nm/arcmin]	*13	320			
Maximum Torsional Backlash	[Arc-min]		≤ 6			
Noise Level	dB [A]	*14	≤ 85			
Protection Class	--	*15	IP55 (IP65)			
Ambient Temperature	[°C]	--	0-40			
Permitted Housing Temperature	[°C]	--	90			
Weight	[kg]	*16	50			

EVT 200 3-Stage Specifications

Frame Size	200					
Ratio	Unit	Note	16	20	25	28
Nominal Output Torque	[Nm]	*1	555	600	600	600
Maximum Acceleration Torque	[Nm]	*2	1120	1120	1120	1120
Emergency Stop Torque	[Nm]	*3	2500	2500	2500	2500
Nominal Input Speed	[rpm]	*4	1500			
Maximum Input Speed	[rpm]	*5	3000			
No Load Running Torque	[Nm]	*6	4.70			
Permitted Radial Load	[N]	*7	19000	20000	21000	22000
Permitted Axial Load	[N]	*8	13000	13000	13000	13000
Maximum Radial Load	[N]	*9	25000			
Maximum Axial Load	[N]	*10	13000			
Maximum Tilting Moment	[Nm]	*11	5300			
Moment of Inertia ($\leq \emptyset 28$)	[kgcm ²]	--	13.42	11.92	11.38	11.82
Moment of Inertia ($\leq \emptyset 38$)	[kgcm ²]	--	22.20	20.71	20.17	20.61
Moment of Inertia ($\leq \emptyset 48$)	[kgcm ²]	--	27.02	25.53	24.99	25.43
Efficiency	[%]	*12	88			
Torsional Rigidity	[Nm/arcmin]	*13	320			
Maximum Torsional Backlash	[Arc-min]		≤ 9			
Noise Level	dB [A]	*14	≤ 85			
Protection Class	--	*15	IP55 (IP65)			
Ambient Temperature	[°C]	--	0-40			
Permitted Housing Temperature	[°C]	--	90			
Weight	[kg]	*16	37			

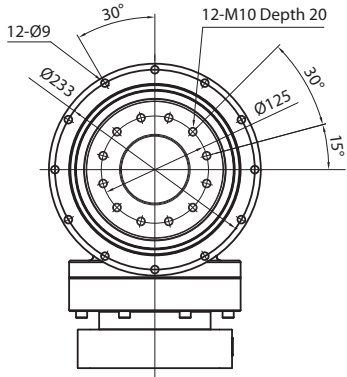
EVT 200 3-Stage Specifications

Frame Size	200						
Ratio	Unit	Note	35	40	50	70	100
Nominal Output Torque	[Nm]	*1	600	600	600	600	400
Maximum Acceleration Torque	[Nm]	*2	1120	1120	1120	1120	775
Emergency Stop Torque	[Nm]	*3	2500	2500	2500	2500	2000
Nominal Input Speed	[rpm]	*4	1500				
Maximum Input Speed	[rpm]	*5	3000				
No Load Running Torque	[Nm]	*6	4.70				
Permitted Radial Load	[N]	*7	24000	25000	25000	25000	25000
Permitted Axial Load	[N]	*8	13000	13000	13000	13000	13000
Maximum Radial Load	[N]	*9	25000				
Maximum Axial Load	[N]	*10	13000				
Maximum Tilting Moment	[Nm]	*11	5300				
Moment of Inertia ($\leq \varnothing 28$)	[kgcm ²]	--	10.9	10.5	10.3	10.2	10.2
Moment of Inertia ($\leq \varnothing 38$)	[kgcm ²]	--	19.69	19.26	19.13	19.01	18.94
Moment of Inertia ($\leq \varnothing 48$)	[kgcm ²]	--	24.51	24.08	23.95	23.83	23.77
Efficiency	[%]	*12	88				
Torsional Rigidity	[Nm/arcmin]	*13	320				
Maximum Torsional Backlash	[Arc-min]		≤ 9				
Noise Level	dB [A]	*14	≤ 85				
Protection Class	--	*15	IP55 (IP65)				
Ambient Temperature	[°C]	--	0-40				
Permitted Housing Temperature	[°C]	--	90				
Weight	[kg]	*16	37				

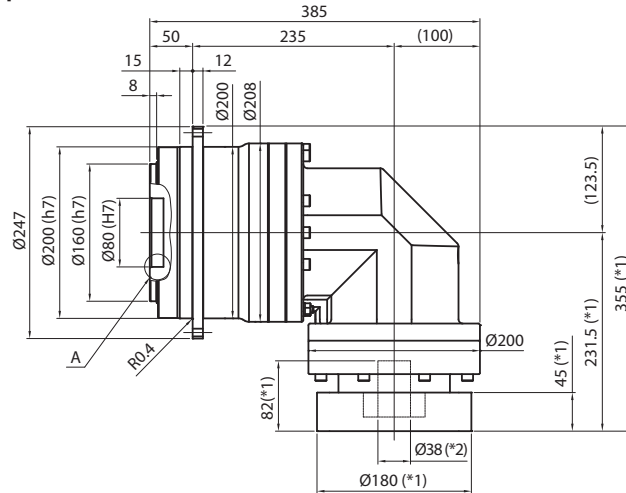
- *1) At nominal input speed, service life is 20,000 hours
- *2) The maximum torque when starting or stopping operation
- *3) The maximum torque allowed under a stress situation (Permitted 1,000 times during service life)
- *4) The average input speed
- *5) The maximum intermittent input speed
- *6) 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 moment is the maximum load at output flange surface
- *12) The efficiency at the nominal output torque rating
- *13) This does not include lost motion
- *14) Contact NIDEC-SHIMPO for the testing conditions and environment
- *15) IP65 (wash-down) is available as an option. Contact NIDEC-SHIMPO for more details
- *16) The weight may vary slightly between models

EVT SERIES Right-angle Planetary

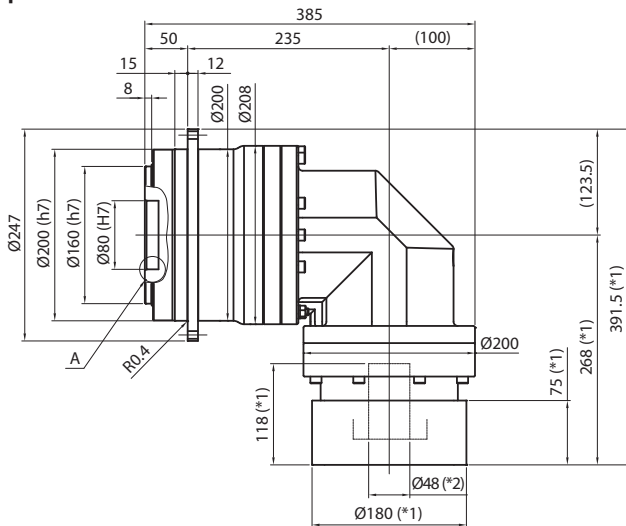
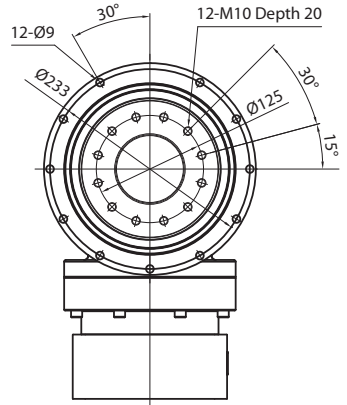
EVT 200 2-Stage Dimensions



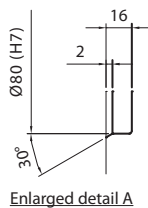
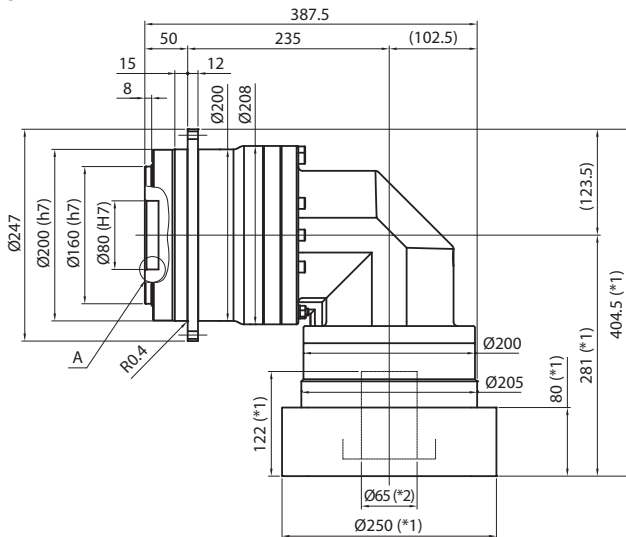
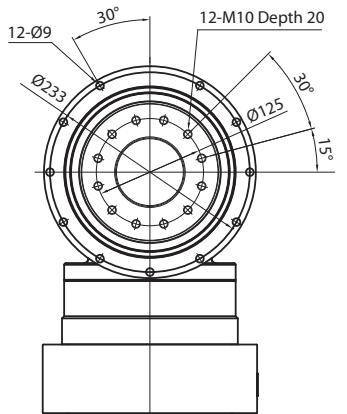
Input bore size $\leq \text{Ø}38\text{mm}$



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



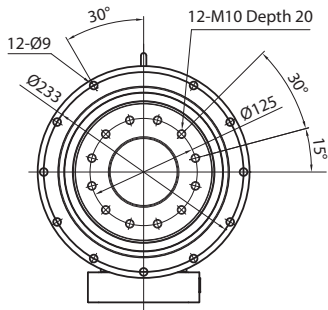
Input bore size $\leq \text{Ø}65\text{mm}$



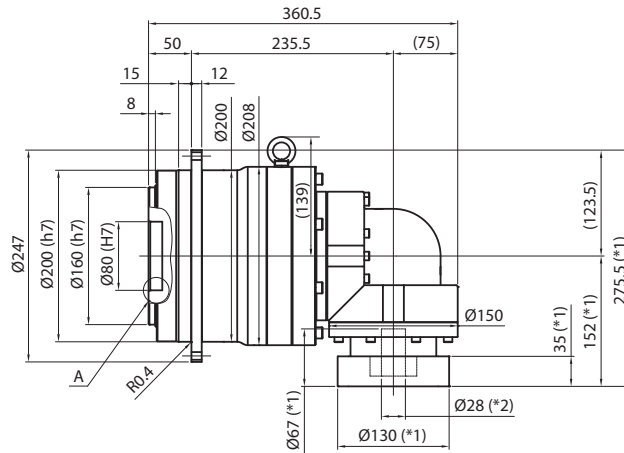
*1) Length will vary depending on motor

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

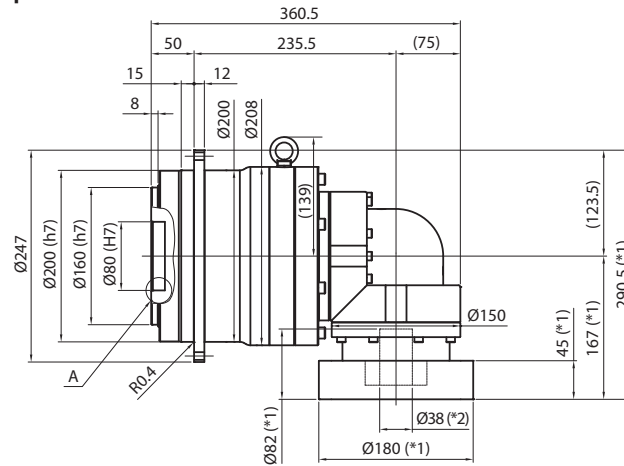
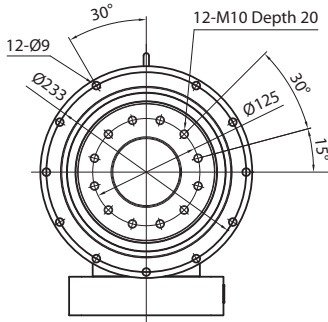
EVT 200 3-Stage Dimensions



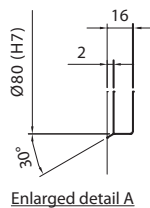
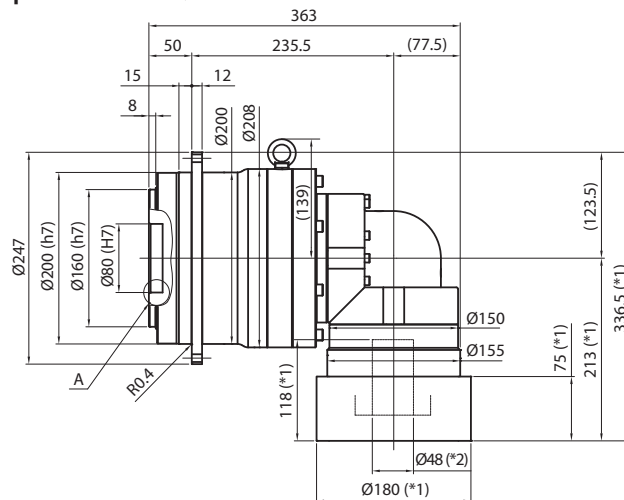
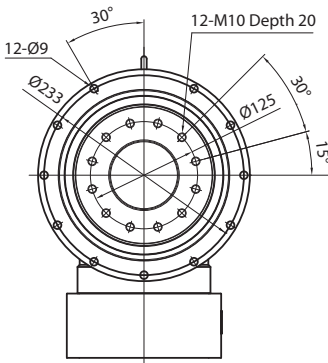
Input bore size ≤ 28mm



Input bore size ≤ 38mm



Input bore size ≤ 48mm



*1) Length will vary depending on motor

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

EVT SERIES Right-angle Planetary

EVT 255 2-Stage Specifications

Frame Size	255					
Ratio	Unit	Note	4	5	7	10
Nominal Output Torque	[Nm]	*1	1340	1680	1920	1280
Maximum Acceleration Torque	[Nm]	*2	2960	2960	2960	2080
Emergency Stop Torque	[Nm]	*3	5400	6500	7200	5400
Nominal Input Speed	[rpm]	*4	1000			
Maximum Input Speed	[rpm]	*5	2000			
No Load Running Torque	[Nm]	*6	--			
Permitted Radial Load	[N]	*7	19000	20000	23000	25000
Permitted Axial Load	[N]	*8	15000	16000	18000	20000
Maximum Radial Load	[N]	*9	40000			
Maximum Axial Load	[N]	*10	20000			
Maximum Tilting Moment	[Nm]	*11	11000			
Moment of Inertia ($\leq \varnothing 65$)	[kgcm ²]	--	661.8	619.8	587.7	572.0
Efficiency	[%]	*12	93			
Torsional Rigidity	[Nm/arcmin]	*13	840			
Maximum Torsional Backlash	[Arc-min]	--	≤ 6			
Noise Level	dB [A]	*14	≤ 85			
Protection Class	--	*15	IP55 (IP65)			
Ambient Temperature	[°C]	--	0-40			
Permitted Housing Temperature	[°C]	--	90			
Weight	[kg]	*16	110			

EVT 255 3-Stage Specifications

Frame Size	255					
Ratio	Unit	Note	16	20	25	28
Nominal Output Torque	[Nm]	*1	1920	1920	1920	1920
Maximum Acceleration Torque	[Nm]	*2	2960	2960	2960	2960
Emergency Stop Torque	[Nm]	*3	7200	7200	7200	7200
Nominal Input Speed	[rpm]	*4	1000			
Maximum Input Speed	[rpm]	*5	2000			
No Load Running Torque	[Nm]	*6	--			
Permitted Radial Load	[N]	*7	29000	31000	33000	34000
Permitted Axial Load	[N]	*8	20000	20000	20000	20000
Maximum Radial Load	[N]	*9	40000			
Maximum Axial Load	[N]	*10	20000			
Maximum Tilting Moment	[Nm]	*11	11000			
Moment of Inertia ($\leq \varnothing 48$)	[kgcm ²]	--	118.52	114.63	113.37	114.80
Efficiency	[%]	*12	88			
Torsional Rigidity	[Nm/arcmin]	*13	840			
Maximum Torsional Backlash	[Arc-min]	--	≤ 9			
Noise Level	dB [A]	*14	≤ 85			
Protection Class	--	*15	IP55 (IP65)			
Ambient Temperature	[°C]	--	0-40			
Permitted Housing Temperature	[°C]	--	90			
Weight	[kg]	*16	99			

EVT 255 3-Stage Specifications

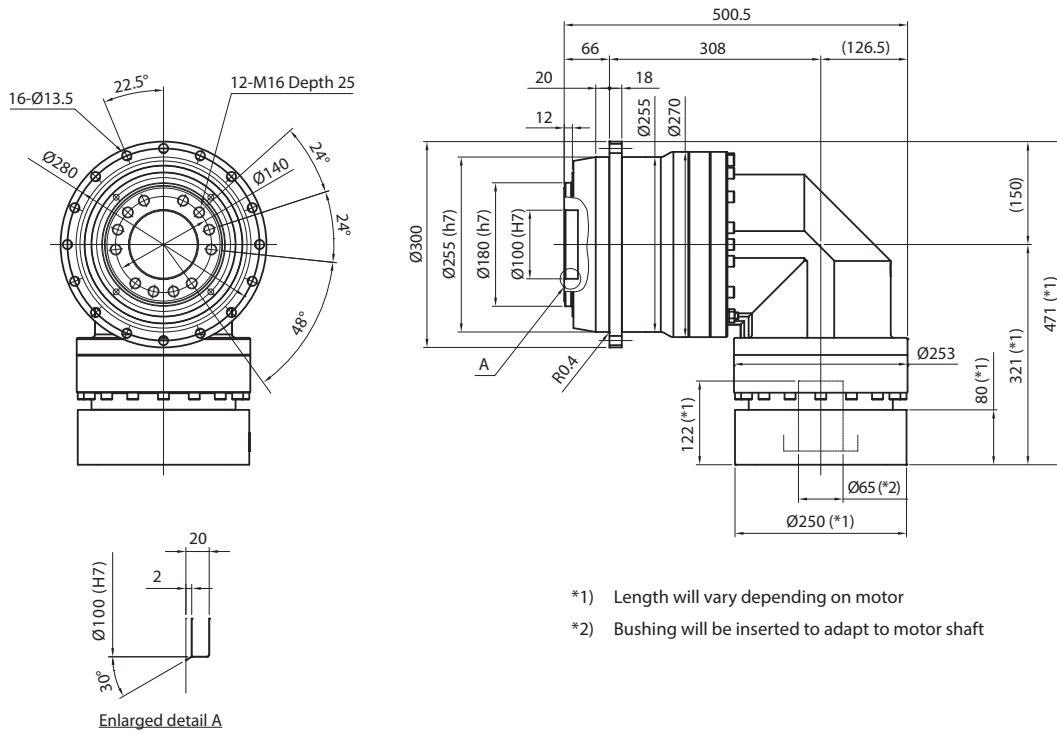
Frame Size	255							
Ratio	Unit	Note	35	40	50	70	100	
Nominal Output Torque	[Nm]	*1	1920	1920	1920	1920	1280	
Maximum Acceleration Torque	[Nm]	*2	2960	2960	2960	2960	1440	
Emergency Stop Torque	[Nm]	*3	7200	7200	7200	7200	5400	
Nominal Input Speed	[rpm]	*4	1000					
Maximum Input Speed	[rpm]	*5	2000					
No Load Running Torque	[Nm]	*6	--					
Permitted Radial Load	[N]	*7	37000	38000	40000	40000	40000	
Permitted Axial Load	[N]	*8	20000	20000	20000	20000	20000	
Maximum Radial Load	[N]	*9	40000					
Maximum Axial Load	[N]	*10	20000					
Maximum Tilting Moment	[Nm]	*11	11000					
Moment of Inertia ($\leq \varnothing 48$)	[kgcm ²]	--	112.25	109.37	109.05	108.77	108.62	
Efficiency	[%]	*12	88					
Torsional Rigidity	[Nm/arcmin]	*13	840					
Maximum Torsional Backlash	[Arc-min]	--	≤ 9					
Noise Level	dB [A]	*14	≤ 85					
Protection Class	--	*15	IP55 (IP65)					
Ambient Temperature	[°C]	--	0-40					
Permitted Housing Temperature	[°C]	--	90					
Weight	[kg]	*16	99					

- *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 moment is the maximum load at output flange surface
- *12) The efficiency at the nominal output torque rating
- *13) This does not include lost motion
- *14) Contact NIDEC-SHIMPO for the testing conditions and environment
- *15) IP65 (wash-down) is available as an option. Contact NIDEC-SHIMPO for more details
- *16) The weight may vary slightly between models

EVT SERIES Right-angle Planetary

EVT 255 2-Stage Dimensions

Input bore size $\leq \phi 65\text{mm}$



- *1) Length will vary depending on motor
- *2) Bushing will be inserted to adapt to motor shaft

