

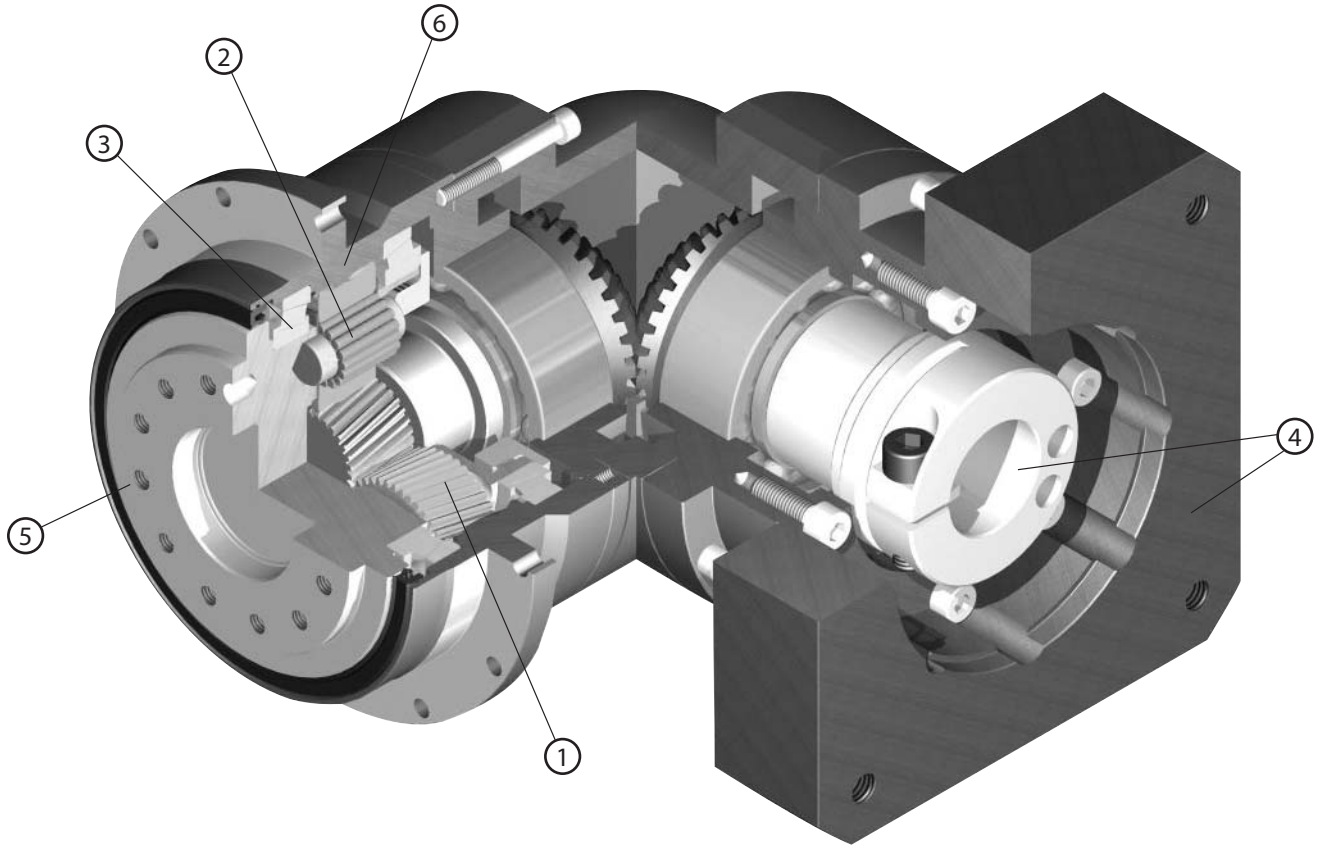


EVT SERIES

- ISO9409 robotics industry mounting interface allowing superior flexibility in mounting of pinions, pulleys and turntables
- Low backlash (≤ 4 arc-min)
- Space-saving design, when minimal envelope is required
- Exceptional radial and axial load capacity, higher torsional stiffness for dynamic servo applications

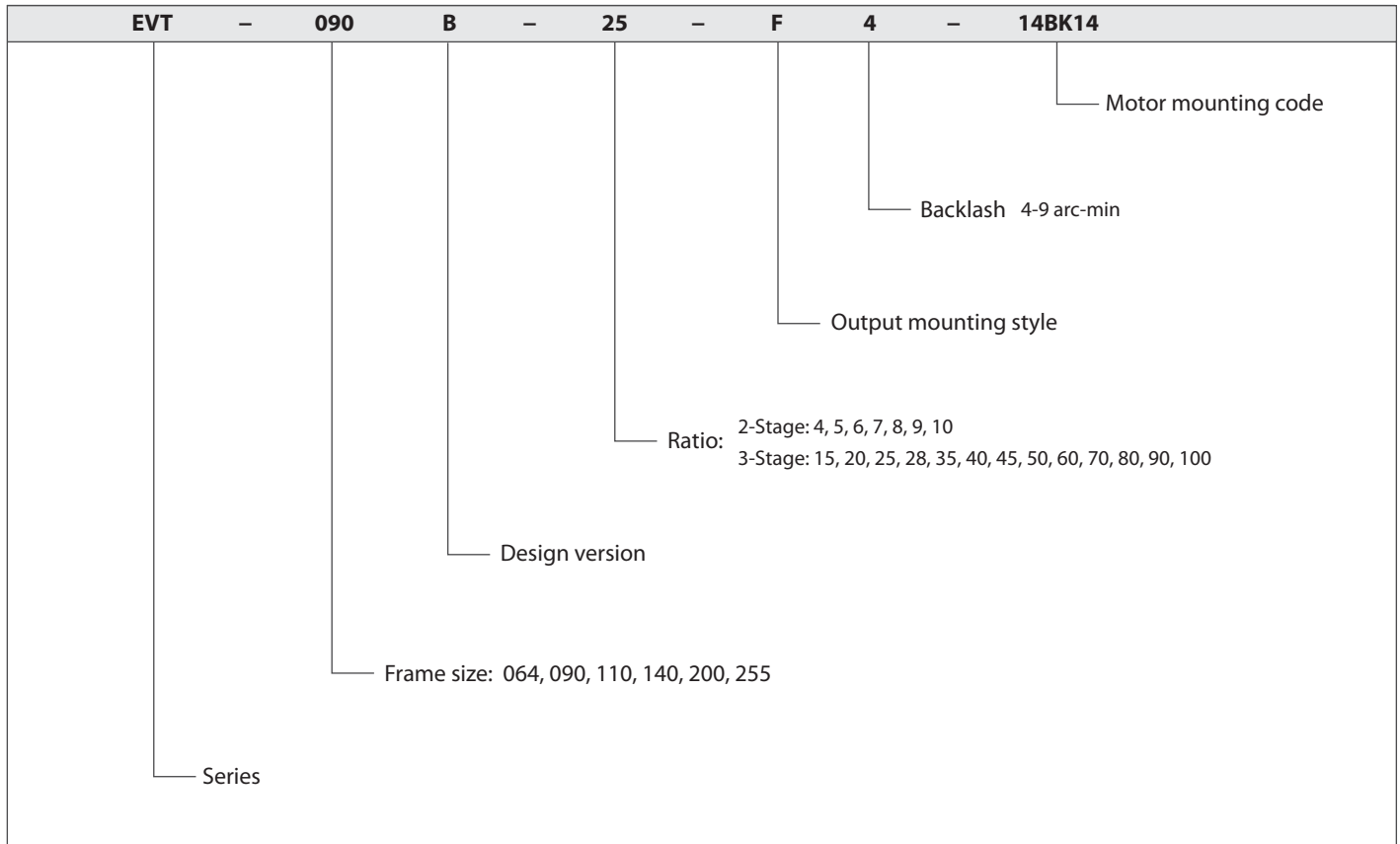
EVT SERIES Right-angle Planetary

EVT Series Features



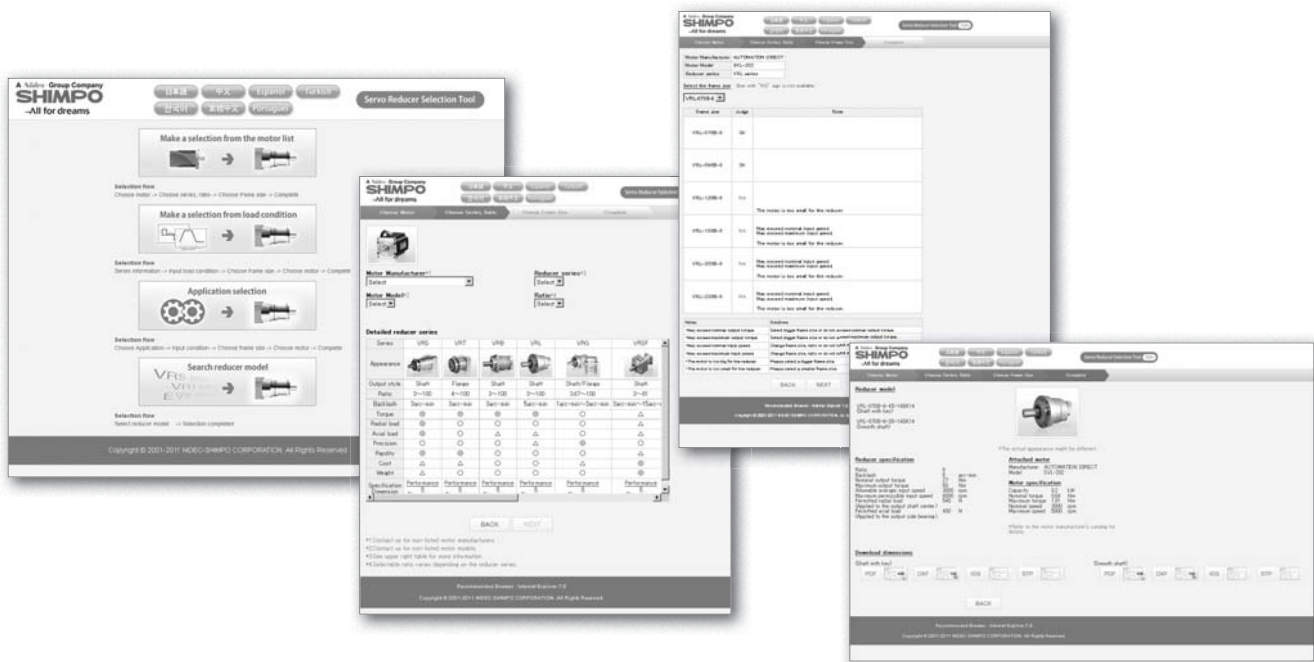
- ① Case hardened and ground gearing provides low noise, low backlash and minimal wear
- ② Uncaged needle roller bearings allow for higher rigidity and torque
- ③ Dual tapered roller bearings for high radial/axial loading
- ④ Adapter plate and shaft bushing connection enables a reliable and flexible connection to any servo motor manufacturer
- ⑤ ISO 9409 output flange allows easy mounting to indexing tables, pinions, timing belt pulleys and other mechanical components
- ⑥ Ring gear machined integral to the housing, not welded or pressed in. Greater concentricity and more precise alignment

EVT Series Model Code



Contact us for additional information or refer to our online selection tool.

Selection tool www.nidec-shimpo.co.jp/selection/eng



EVT SERIES Right-angle Planetary

EVT 064 2-Stage Specifications

Frame Size	064										
Stage	2-Stage										
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								
Moment of Inertia ($\leq \varnothing 8$)	[kgcm ²]	--	0.305	0.273	0.256	0.246	0.240	0.236	0.233		
Moment of Inertia ($\leq \varnothing 14$)	[kgcm ²]	--	0.379	0.348	0.331	0.321	0.315	0.311	0.308		
Moment of Inertia ($\leq \varnothing 19$)	[kgcm ²]	--	0.569	0.537	0.521	0.510	0.504	0.500	0.497		
Efficiency	[%]	*11	93								
Torsional Rigidity	[Nm/arcmin]	*12	3								
Maximum Torsional Backlash	[Arc-min]	--	≤ 4								
Noise Level	[dBA]	*13	≤ 80								
Protection Class	--	--	IP55								
Ambient Temperature	[°C]	--	0-40								
Permitted Housing Temperature	[°C]	--	90								
Weight	[kg]	*14	1.9								

EVT 064 3-Stage Specifications

Frame Size	064										
Stage	3-Stage										
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								
Moment of Inertia ($\leq \varnothing 8$)	[kgcm ²]	--	0.082	0.073	0.072	0.078	0.071	0.062	0.070		
Moment of Inertia ($\leq \varnothing 14$)	[kgcm ²]	--	0.126	0.118	0.116	0.123	0.115	0.106	0.115		
Moment of Inertia ($\leq \varnothing 19$)	[kgcm ²]	--	--	--	--	--	--	--	--		
Efficiency	[%]	*11	88								
Torsional Rigidity	[Nm/arcmin]	*12	3								
Maximum Torsional Backlash	[Arc-min]	--	≤ 7								
Noise Level	[dBA]	*13	≤ 80								
Protection Class	--	--	IP55								
Ambient Temperature	[°C]	--	0-40								
Permitted Housing Temperature	[°C]	--	90								
Weight	[kg]	*14	1.6								

EVT 064 3-Stage Specifications

Frame Size	064								
Stage	3-Stage								
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						
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	
Moment of Inertia ($\leq \varnothing 19$)	[kgcm ²]	--	--	--	--	--	--	--	
Efficiency	[%]	*11	88						
Torsional Rigidity	[Nm/arcmin]	*12	3						
Maximum Torsional Backlash	[Arc-min]	--	≤ 7						
Noise Level	[dBA]	*13	≤ 80						
Protection Class	--	--	IP55						
Ambient Temperature	[°C]	--	0-40						
Permitted Housing Temperature	[°C]	--	90						
Weight	[kg]	*14	1.6						

*1) At nominal input speed, service life is 20,000 hours

*2) The maximum torque when starting or stopping operation

*3) The emergency 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 3000 rpm

*7) At this load and nominal input speed, service life is 20,000 hours (The radial load applied to the output shaft center)

*8) At this load and nominal input speed, service life is 20,000 hours (The axial load applied to the output side bearing)

*9) The maximum radial load the gearbox can accept

*10) The maximum axial load the gearbox can accept

*11) The efficiency at the nominal output torque rating

*12) This does not include lost motion

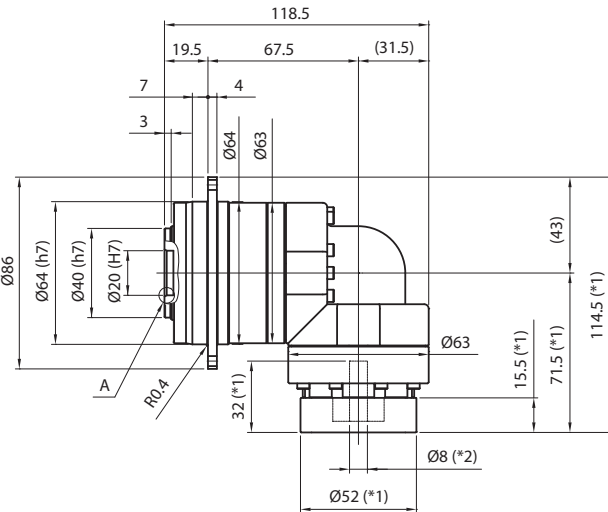
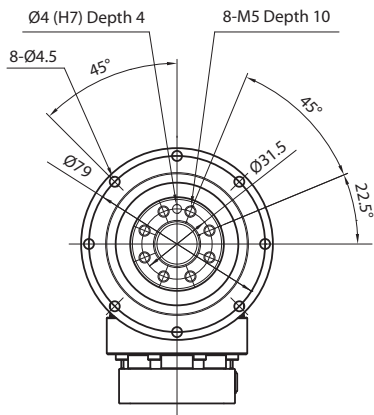
*13) Contact NIDEC-SHIMPO for testing conditions and environment

*14) Weight may vary slightly between models

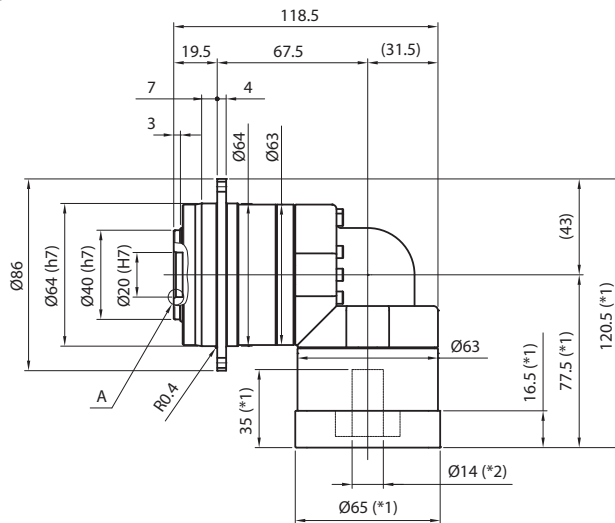
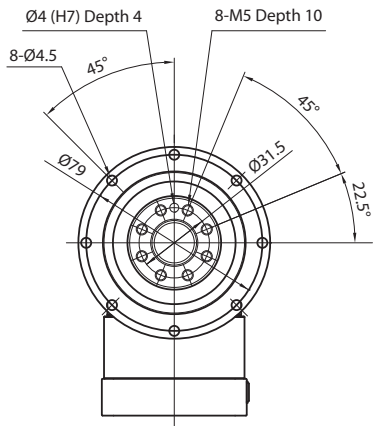
EVT SERIES Right-angle Planetary

EVT 064 2-Stage Dimensions

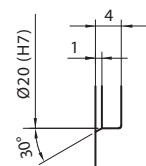
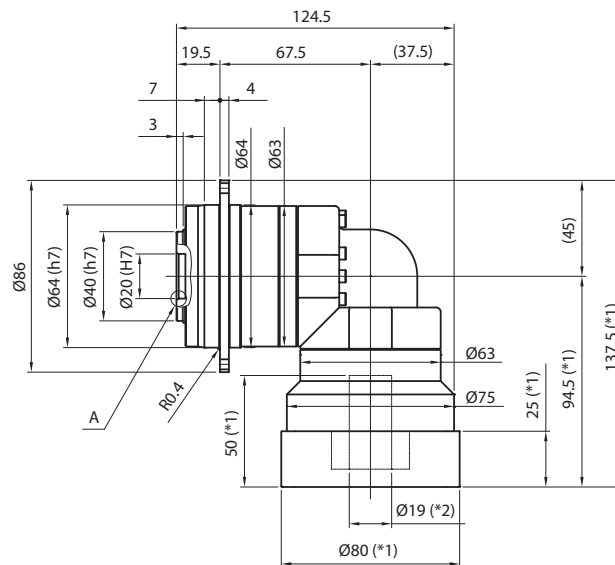
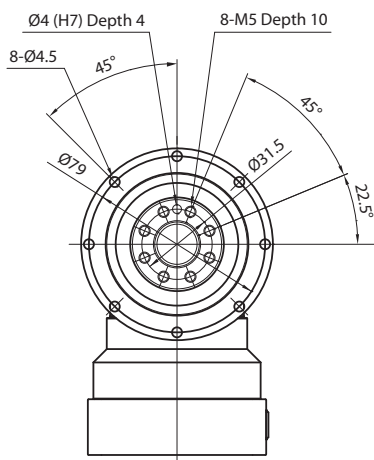
Input bore size $\leq \varnothing 8\text{mm}$



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



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



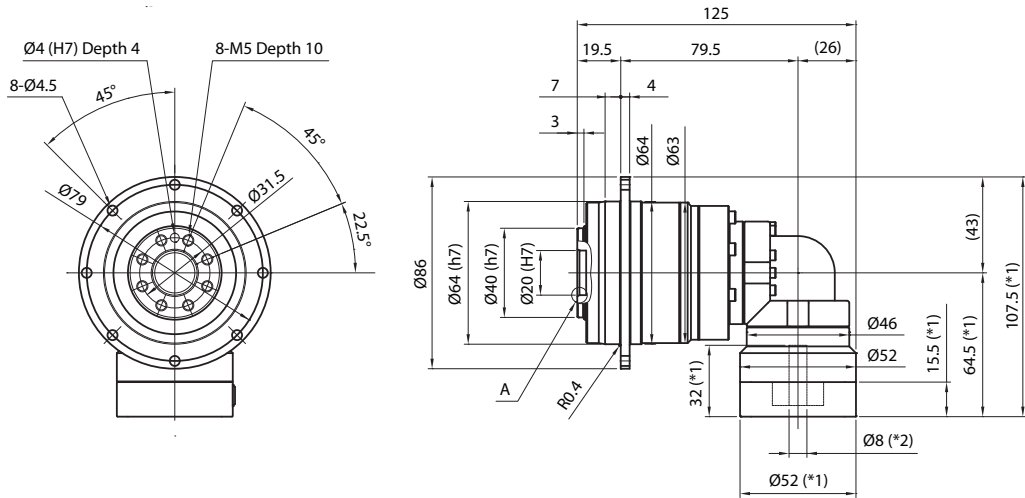
Enlarged detail A

*1) Length will vary depending on motor

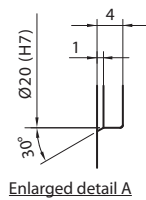
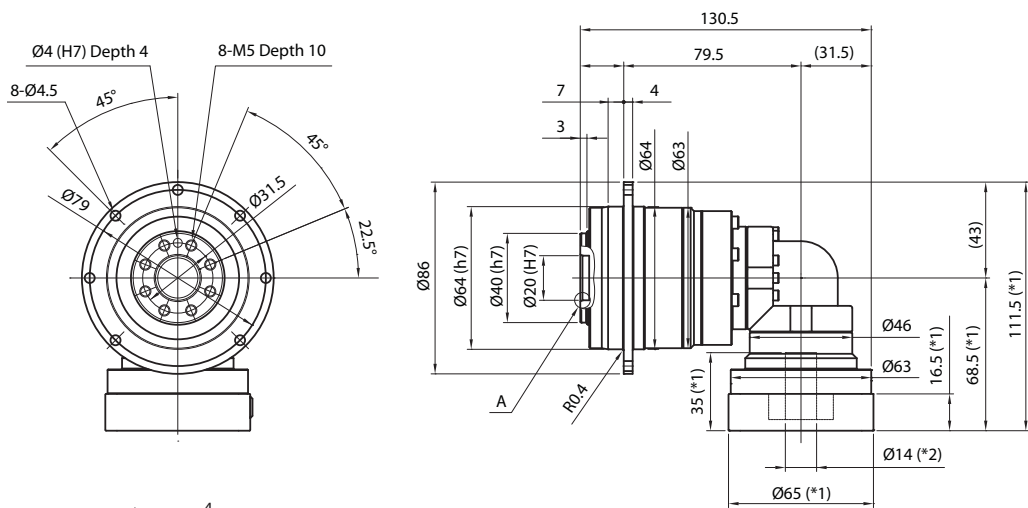
*2) Bushing will be inserted to adapt to motor shaft

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										
Stage	2-Stage										
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								
Moment of Inertia ($\leq \varnothing 8$)	[kgcm ²]	--	--	--	--	--	--	--	--		
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	[%]	*11	93								
Torsional Rigidity	[Nm/arcmin]	*12	10								
Maximum Torsional Backlash	[Arc-min]	--	≤ 4								
Noise Level	[dBA]	*13	≤ 80								
Protection Class	--	--	IP55								
Ambient Temperature	[°C]	--	0-40								
Permitted Housing Temperature	[°C]	--	90								
Weight	[kg]	*14	5.1								

EVT 090 3-Stage Specifications

Frame Size	090										
Stage	3-Stage										
Ratio	Unit	Note	16	20	25	28	35	40	45		
Nominal Output Torque	[Nm]	*1	65	65	65	65	65	65	45		
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								
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		
Moment of Inertia ($\leq \varnothing 28$)	[kgcm ²]	--	--	--	--	--	--	--	--		
Efficiency	[%]	*11	88								
Torsional Rigidity	[Nm/arcmin]	*12	10								
Maximum Torsional Backlash	[Arc-min]	--	≤ 7								
Noise Level	[dBA]	*13	≤ 80								
Protection Class	--	--	IP55								
Ambient Temperature	[°C]	--	0-40								
Permitted Housing Temperature	[°C]	--	90								
Weight	[kg]	*14	4.3								

EVT 090 3-Stage Specifications

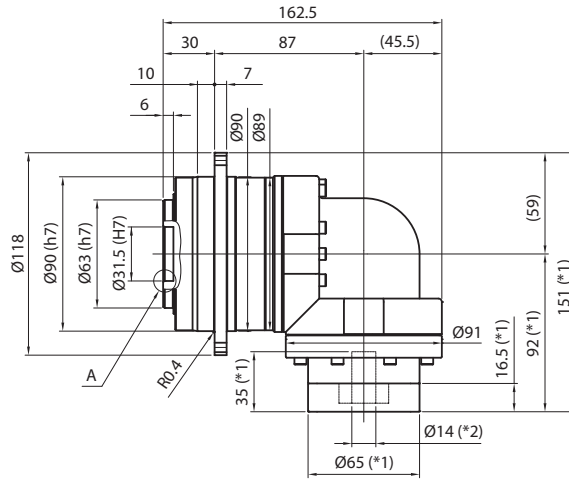
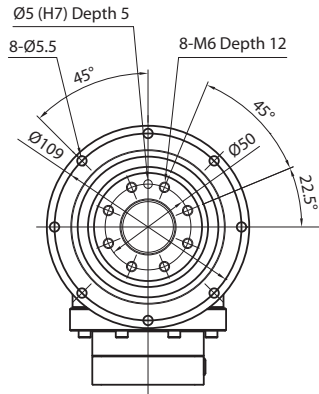
Frame Size	090								
Stage	3-Stage								
Ratio	Unit	Note	50	60	70	80	90	100	
Nominal Output Torque	[Nm]	*1	65	65	65	65	45	45	
Maximum Acceleration Torque	[Nm]	*2	110	110	110	110	65	65	
Emergency Stop Torque	[Nm]	*3	220	220	220	220	170	170	
Nominal Input Speed	[rpm]	*4	3000						
Maximum Input Speed	[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						
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	
Moment of Inertia ($\leq \varnothing 28$)	[kgcm ²]	--	--	--	--	--	--	--	
Efficiency	[%]	*11	88						
Torsional Rigidity	[Nm/arcmin]	*12	10						
Maximum Torsional Backlash	[Arc-min]	--	≤ 7						
Noise Level	[dBA]	*13	≤ 80						
Protection Class	--	--	IP55						
Ambient Temperature	[°C]	--	0-40						
Permitted Housing Temperature	[°C]	--	90						
Weight	[kg]	*14	4.3						

- *1) At nominal input speed, service life is 20,000 hours
- *2) The maximum torque when starting or stopping operation
- *3) The emergency 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 3000 rpm
- *7) At this load and nominal input speed, service life is 20,000 hours (The radial load applied to the output shaft center)
- *8) At this load and nominal input speed, service life is 20,000 hours (The axial load applied to the output side bearing)
- *9) The maximum radial load the gearbox can accept
- *10) The maximum axial load 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 testing conditions and environment
- *14) Weight may vary slightly between models

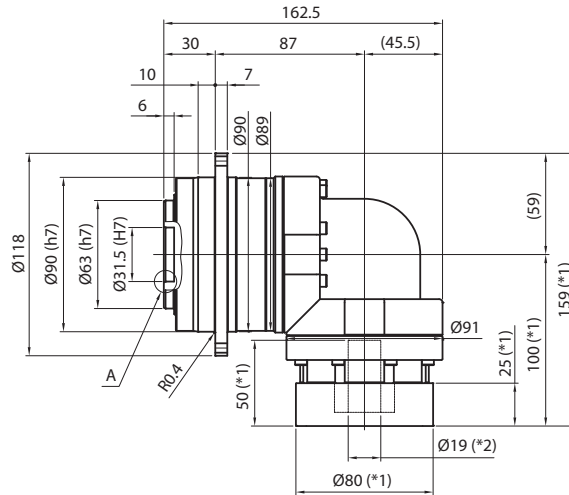
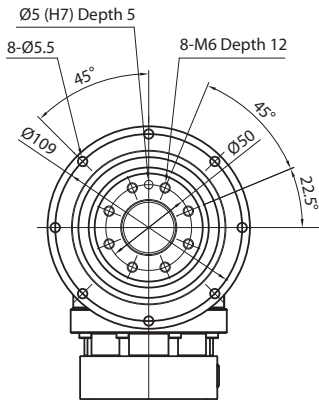
EVT SERIES Right-angle Planetary

EVT 090 2-Stage Dimensions

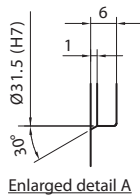
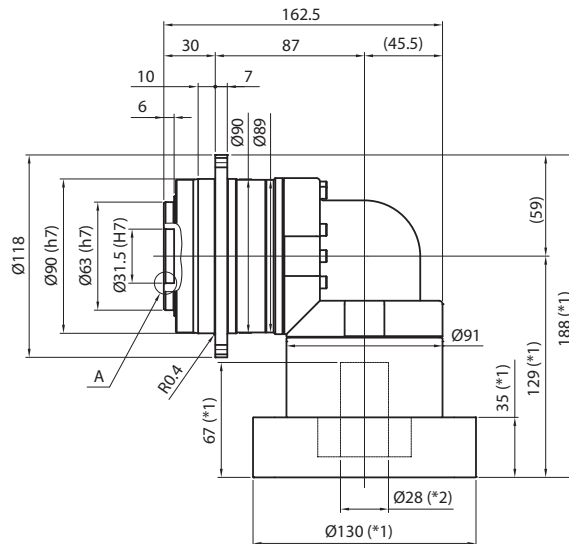
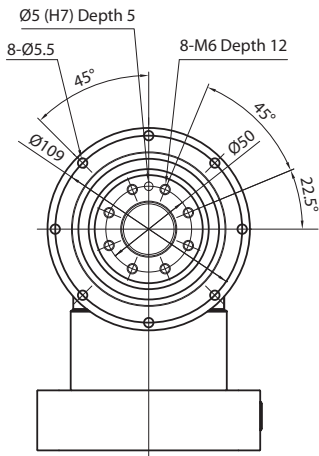
Input bore size $\leq \varnothing 14\text{mm}$



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



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

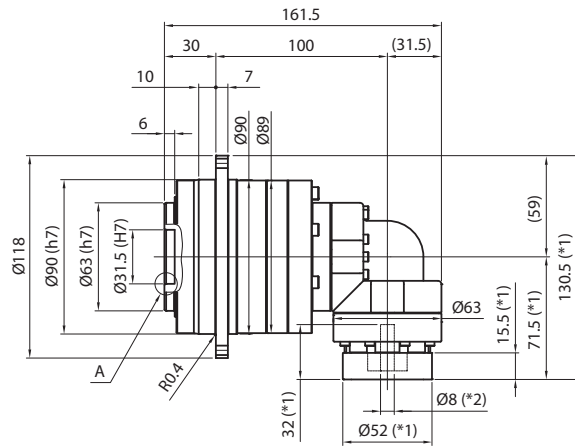
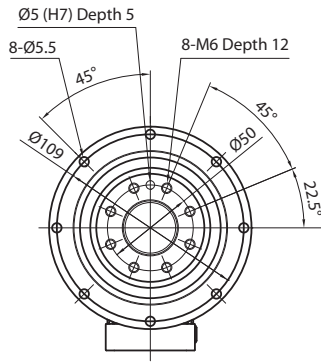


*1) Length will vary depending on motor

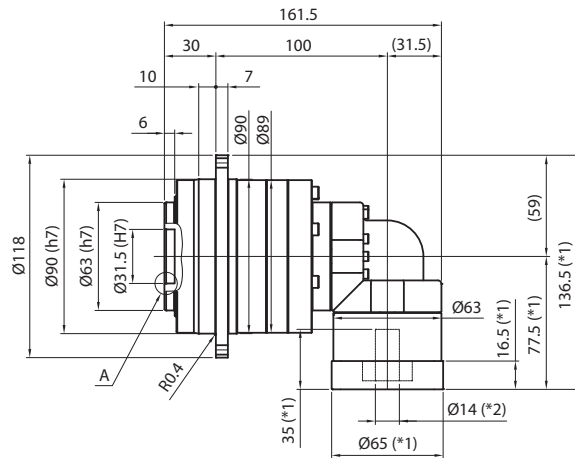
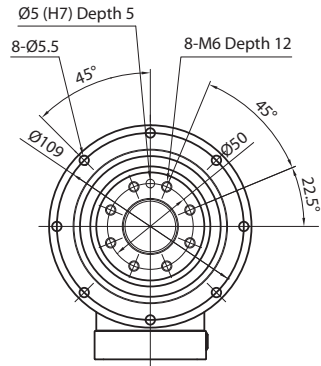
*2) Bushing will be inserted to adapt to motor shaft

EVT 090 3-Stage Dimensions

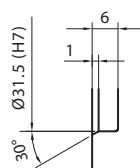
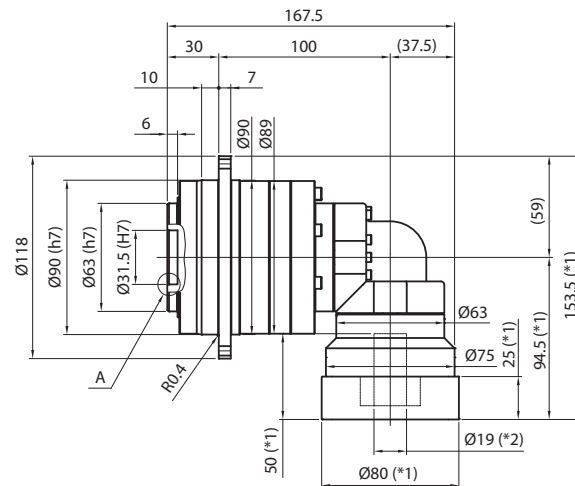
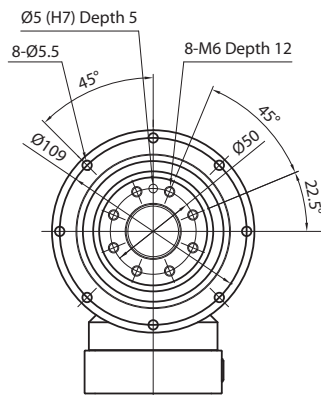
Input bore size $\leq \varnothing 8\text{mm}$



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					
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	31			
Maximum Torsional Backlash	[Arc-min]	--	≤ 4			
Noise Level	[dBA]	*13	≤ 85			
Protection Class	--	--	IP55			
Ambient Temperature	[°C]	--	0-40			
Permitted Housing Temperature	[°C]	--	90			
Weight	[kg]	*14	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	31			
Maximum Torsional Backlash	[Arc-min]	--	≤ 7			
Noise Level	[dBA]	*13	≤ 85			
Protection Class	--	--	IP55			
Ambient Temperature	[°C]	--	0-40			
Permitted Housing Temperature	[°C]	--	90			
Weight	[kg]	*14	9			

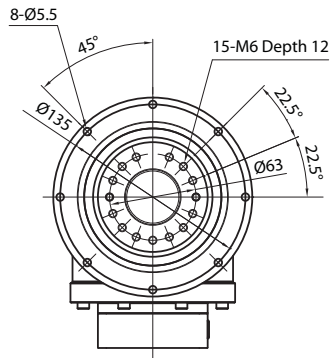
EVT 110 3-Stage Specifications

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	31					
Maximum Torsional Backlash	[Arc-min]	--	≤ 7					
Noise Level	[dBA]	*13	≤ 85					
Protection Class	--	--	IP55					
Ambient Temperature	[°C]	--	0-40					
Permitted Housing Temperature	[°C]	--	90					
Weight	[kg]	*14	9					

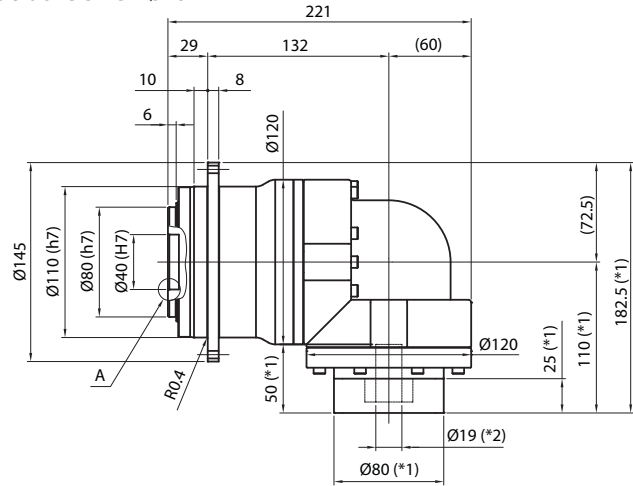
- *1) At nominal input speed, service life is 20,000 hours
- *2) The maximum torque when starting or stopping operation
- *3) The emergency torque allowed under a stress situation (Permitted 1,000 times during service life)
- *4) The average input speed
- *5) The maximum intermittent input speed
- *6) Torque at no load applied to the input shaft at 3000 rpm
- *7) At this load and nominal input speed, service life is 20,000 hours (The radial load applied to the output shaft center)
- *8) At this load and nominal input speed, service life is 20,000 hours (The axial load applied to the output side bearing)
- *9) The maximum radial load the gearbox can accept
- *10) The maximum axial load 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 testing conditions and environment
- *14) Weight may vary slightly between models

EVT SERIES Right-angle Planetary

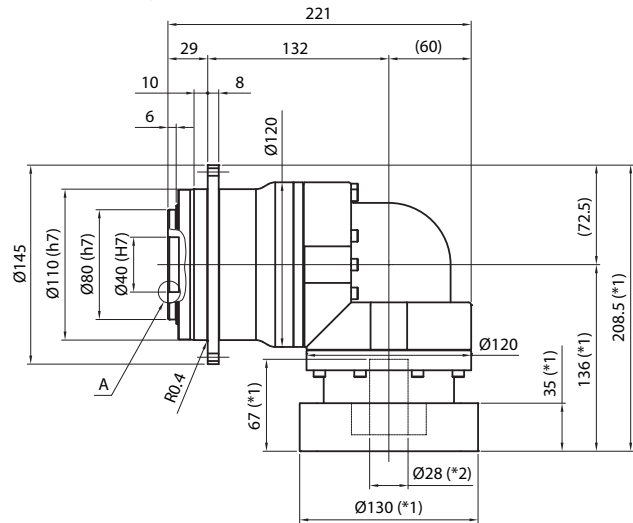
EVT 110 2-Stage Dimensions



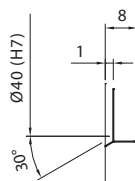
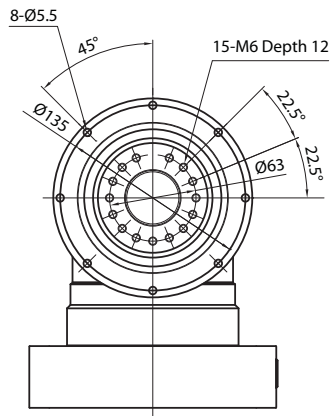
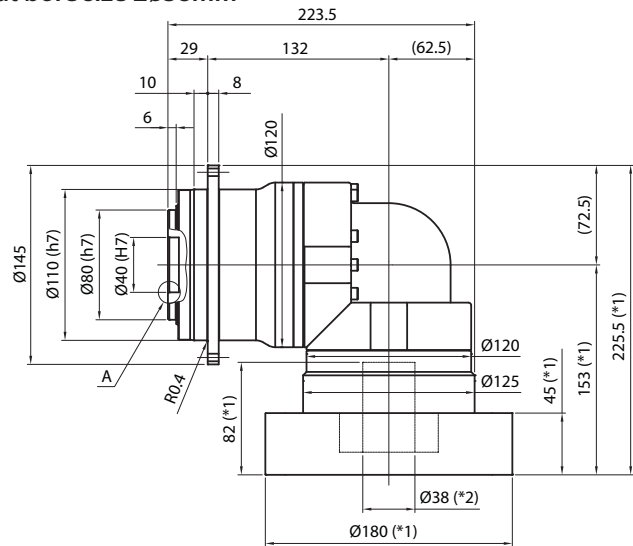
Input bore size $\leq \varnothing 19\text{mm}$



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



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



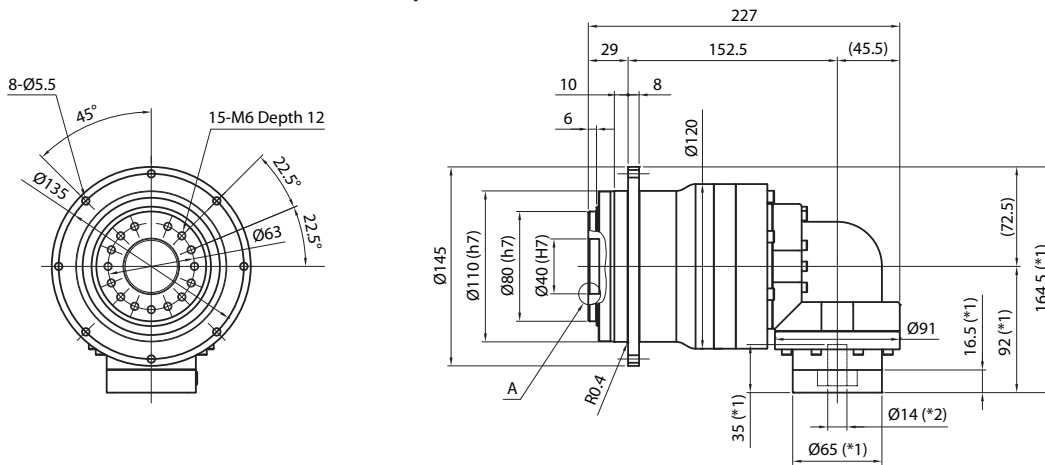
Enlarged detail A

*1) Length will vary depending on motor

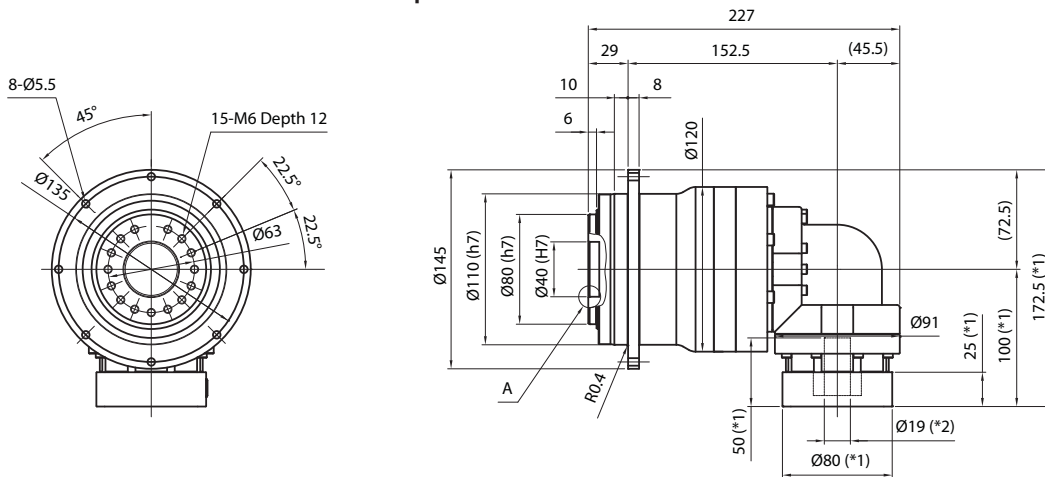
*2) Bushing will be inserted to adapt to motor shaft

EVT 110 3-Stage Dimensions

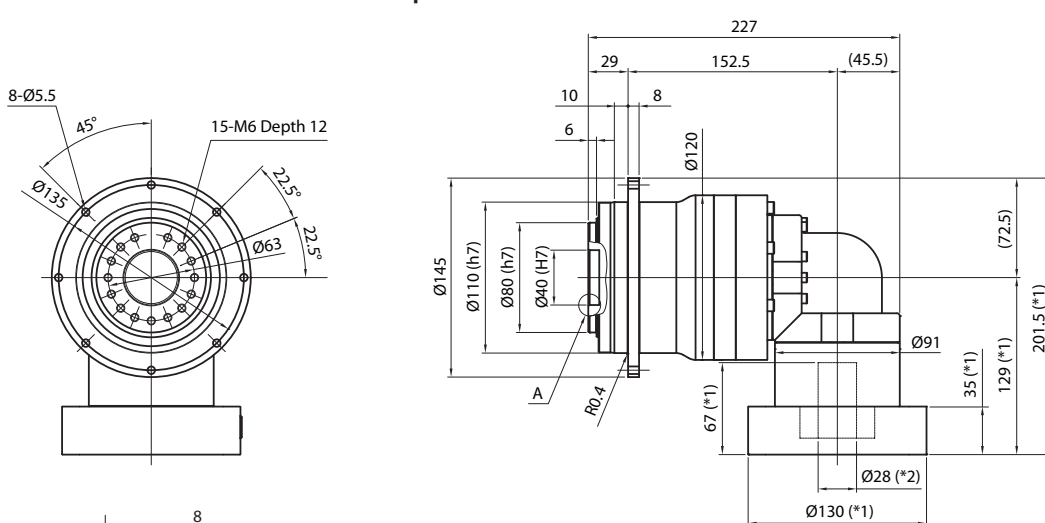
Input bore size $\leq \varnothing 14\text{mm}$



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

Enlarged detail A

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	60			
Maximum Torsional Backlash	[Arc-min]	--	≤ 4			
Noise Level	[dBA]	*13	≤ 85			
Protection Class	--	--	IP55			
Ambient Temperature	[°C]	--	0-40			
Permitted Housing Temperature	[°C]	--	90			
Weight	[kg]	*14	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	60			
Maximum Torsional Backlash	[Arc-min]	--	≤ 7			
Noise Level	[dBA]	*13	≤ 85			
Protection Class	--	--	IP55			
Ambient Temperature	[°C]	--	0-40			
Permitted Housing Temperature	[°C]	--	90			
Weight	[kg]	*14	17.6			

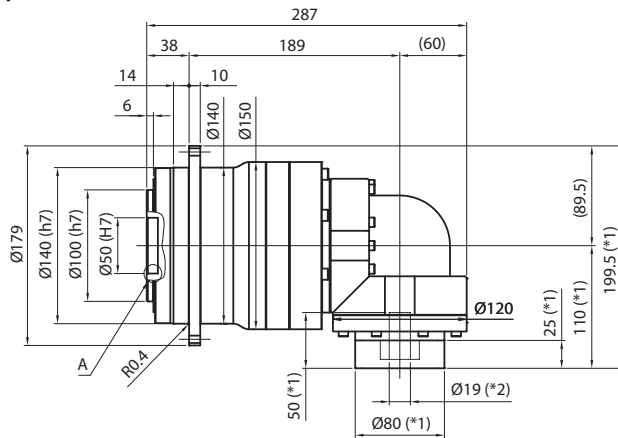
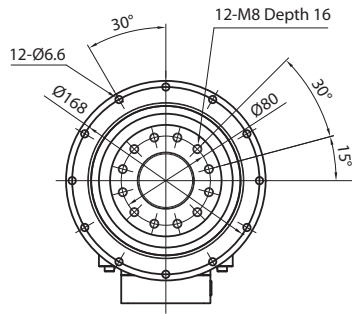
EVT 140 3-Stage Specifications

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	60					
Maximum Torsional Backlash	[Arc-min]	--	≤ 7					
Noise Level	[dBA]	*13	≤ 85					
Protection Class	--	--	IP55					
Ambient Temperature	[°C]	--	0-40					
Permitted Housing Temperature	[°C]	--	90					
Weight	[kg]	*14	17.6					

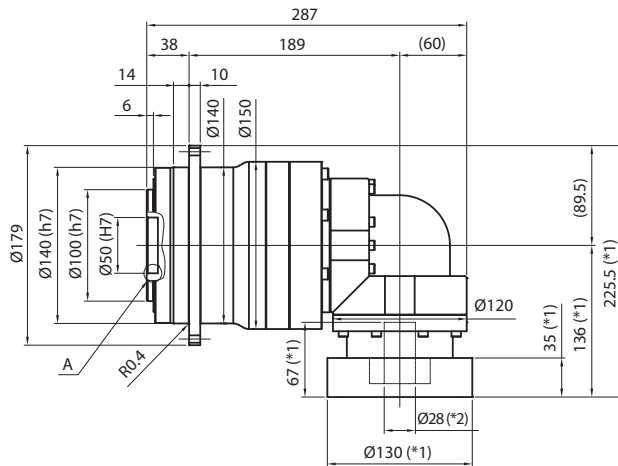
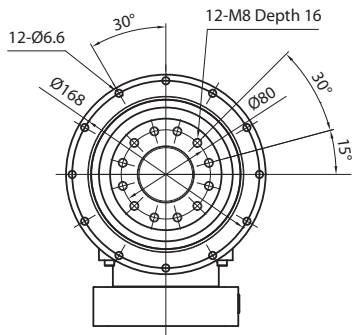
- *1) At nominal input speed, service life is 20,000 hours
- *2) The maximum torque when starting or stopping operation
- *3) The emergency torque allowed under a stress situation (Permitted 1,000 times during service life)
- *4) The average input speed
- *5) The maximum intermittent input speed
- *6) Torque at no load applied to the input shaft at 3000 rpm
- *7) At this load and nominal input speed, service life is 20,000 hours (The radial load applied to the output shaft center)
- *8) At this load and nominal input speed, service life is 20,000 hours (The axial load applied to the output side bearing)
- *9) The maximum radial load the gearbox can accept
- *10) The maximum axial load 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 testing conditions and environment
- *14) Weight may vary slightly between models

EVT 140 3-Stage Dimensions

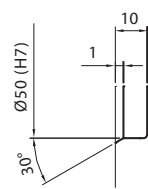
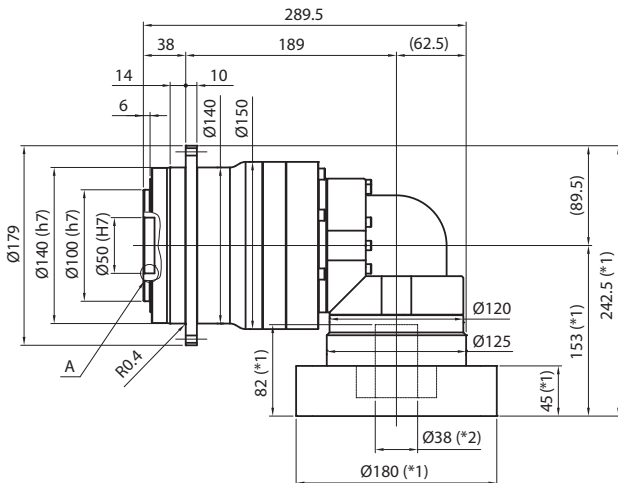
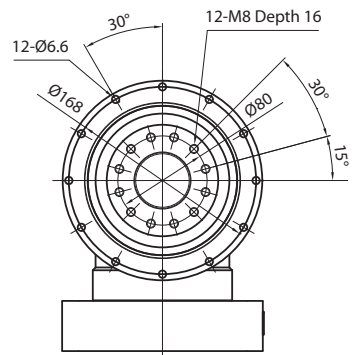
Input bore size $\leq \varnothing 19\text{mm}$



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					
Stage	2-Stage					
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			
Moment of Inertia ($\leq \varnothing 28$)	[kgcm ²]	--	--	--	--	--
Moment of Inertia ($\leq \varnothing 38$)	[kgcm ²]	--	93.44	81.86	71.47	66.72
Moment of Inertia ($\leq \varnothing 48$)	[kgcm ²]	--	138.1	123.3	109.6	103.4
Moment of Inertia ($\leq \varnothing 65$)	[kgcm ²]	--	223.7	208.9	195.2	189.0
Efficiency	[%]	*11	93			
Torsional Rigidity	[Nm/arcmin]	*12	175			
Maximum Torsional Backlash	[Arc-min]		≤ 6			
Noise Level	[dBA]	*13	≤ 85			
Protection Class	--	--	IP55			
Ambient Temperature	[°C]	--	0-40			
Permitted Housing Temperature	[°C]	--	90			
Weight	[kg]	*14	50			

EVT 200 3-Stage Specifications

Frame Size	200					
Stage	3-Stage					
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			
Moment of Inertia ($\leq \varnothing 28$)	[kgcm ²]	--	13.42	11.92	11.38	11.82
Moment of Inertia ($\leq \varnothing 38$)	[kgcm ²]	--	22.20	20.71	20.17	20.61
Moment of Inertia ($\leq \varnothing 48$)	[kgcm ²]	--	27.02	25.53	24.99	25.43
Moment of Inertia ($\leq \varnothing 65$)	[kgcm ²]	--	--	--	--	--
Efficiency	[%]	*11	88			
Torsional Rigidity	[Nm/arcmin]	*12	175			
Maximum Torsional Backlash	[Arc-min]		≤ 9			
Noise Level	[dBA]	*13	≤ 85			
Protection Class	--	--	IP55			
Ambient Temperature	[°C]	--	0-40			
Permitted Housing Temperature	[°C]	--	90			
Weight	[kg]	*14	37			

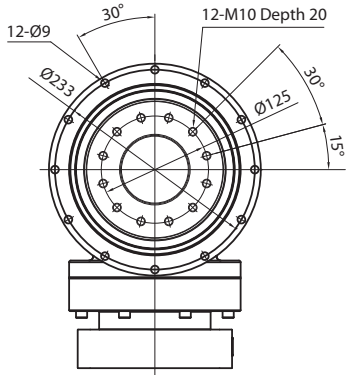
EVT 200 3-Stage Specifications

Frame Size	200						
Stage	3-Stage						
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				
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
Moment of Inertia ($\leq \varnothing 65$)	[kgcm ²]	--	--	--	--	--	--
Efficiency	[%]	*11	88				
Torsional Rigidity	[Nm/arcmin]	*12	175				
Maximum Torsional Backlash	[Arc-min]		≤ 9				
Noise Level	[dBA]	*13	≤ 85				
Protection Class	--	--	IP55				
Ambient Temperature	[°C]	--	0-40				
Permitted Housing Temperature	[°C]	--	90				
Weight	[kg]	*14	37				

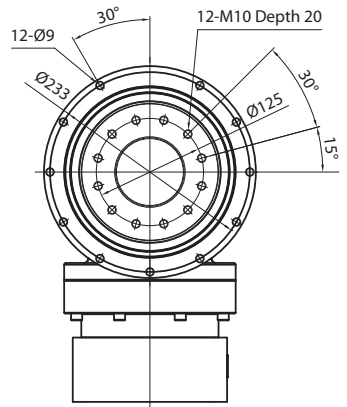
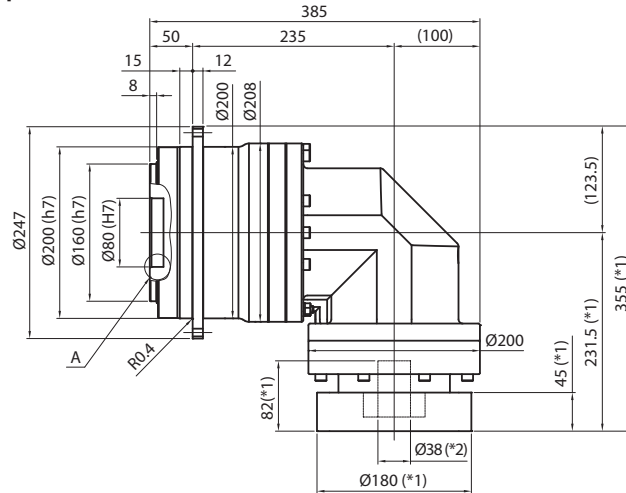
- *1) At nominal input speed, service life is 20,000 hours
- *2) The maximum torque when starting or stopping operation
- *3) The emergency torque allowed under a stress situation (Permitted 1,000 times during service life)
- *4) The average input speed
- *5) The maximum intermittent input speed
- *6) Torque at no load applied to the input shaft at 3000 rpm
- *7) At this load and nominal input speed, service life is 20,000 hours (The radial load applied to the output shaft center)
- *8) At this load and nominal input speed, service life is 20,000 hours (The axial load applied to the output side bearing)
- *9) The maximum radial load the gearbox can accept
- *10) The maximum axial load 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 testing conditions and environment
- *14) Weight may vary slightly between models

EVT SERIES Right-angle Planetary

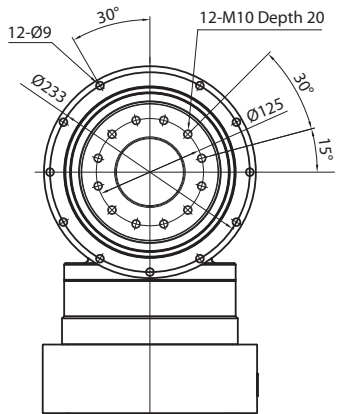
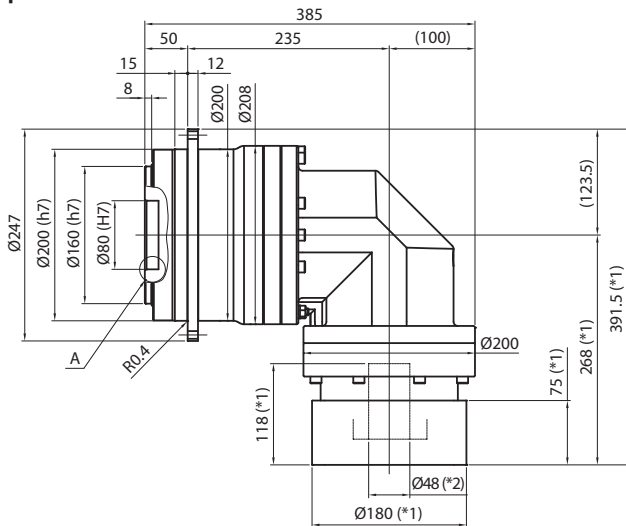
EVT 200 2-Stage Dimensions



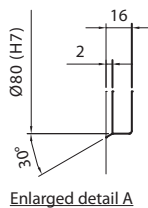
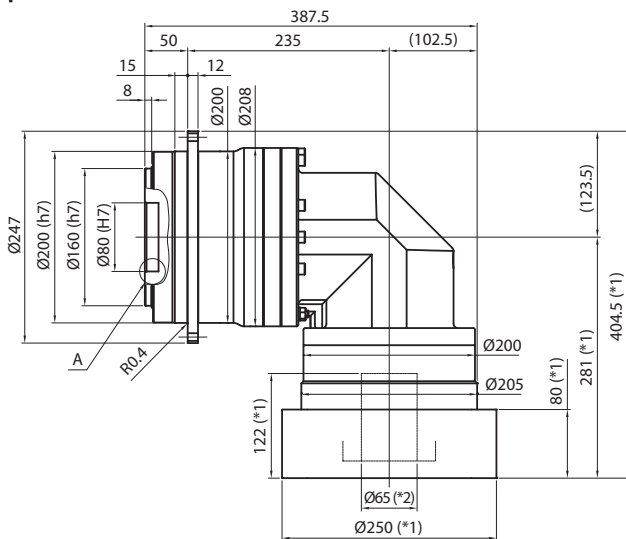
Input bore size $\leq \varnothing 38\text{mm}$



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



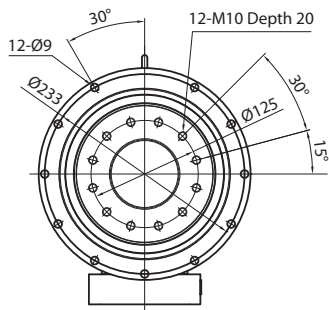
Input bore size $\leq \varnothing 65\text{mm}$



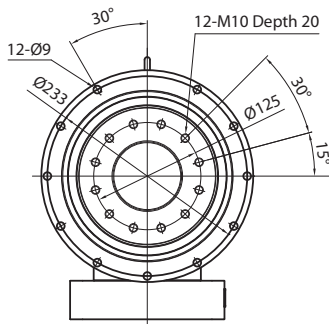
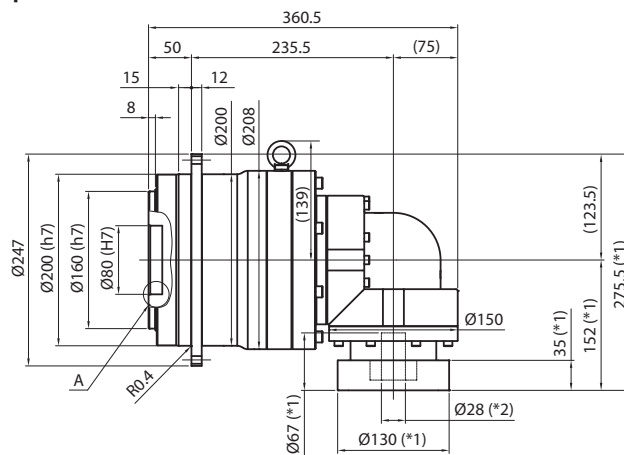
*1) Length will vary depending on motor

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

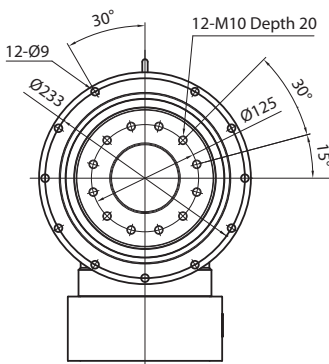
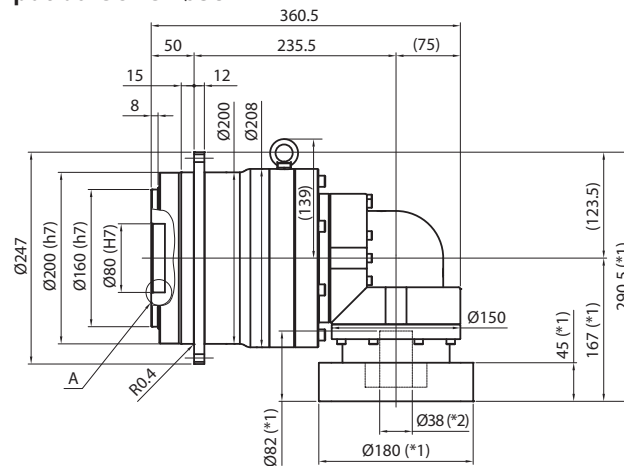
EVT 200 3-Stage Dimensions



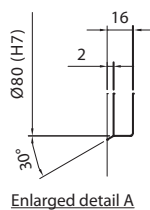
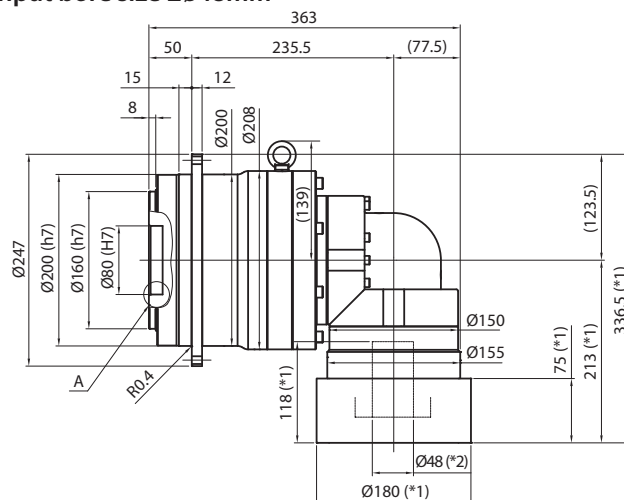
Input bore size ≤ 28mm



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					
Stage	2-Stage					
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			
Moment of Inertia ($\leq \varnothing 48$)	[kgcm ²]	--	--	--	--	--
Moment of Inertia ($\leq \varnothing 65$)	[kgcm ²]	--	661.8	619.8	587.7	572.0
Efficiency	[%]	*11	93			
Torsional Rigidity	[Nm/arcmin]	*12	550			
Maximum Torsional Backlash	[Arc-min]	--	≤ 6			
Noise Level	[dBA]	*13	≤ 85			
Protection Class	--	--	IP55			
Ambient Temperature	[°C]	--	0-40			
Permitted Housing Temperature	[°C]	--	90			
Weight	[kg]	*14	110			

EVT 255 3-Stage Specifications

Frame Size	255					
Stage	3-Stage					
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			
Moment of Inertia ($\leq \varnothing 48$)	[kgcm ²]	--	118.52	114.63	113.37	114.80
Moment of Inertia ($\leq \varnothing 65$)	[kgcm ²]	--	--	--	--	--
Efficiency	[%]	*11	88			
Torsional Rigidity	[Nm/arcmin]	*12	550			
Maximum Torsional Backlash	[Arc-min]	--	≤ 9			
Noise Level	[dBA]	*13	≤ 85			
Protection Class	--	--	IP55			
Ambient Temperature	[°C]	--	0-40			
Permitted Housing Temperature	[°C]	--	90			
Weight	[kg]	*14	99			

EVT 255 3-Stage Specifications

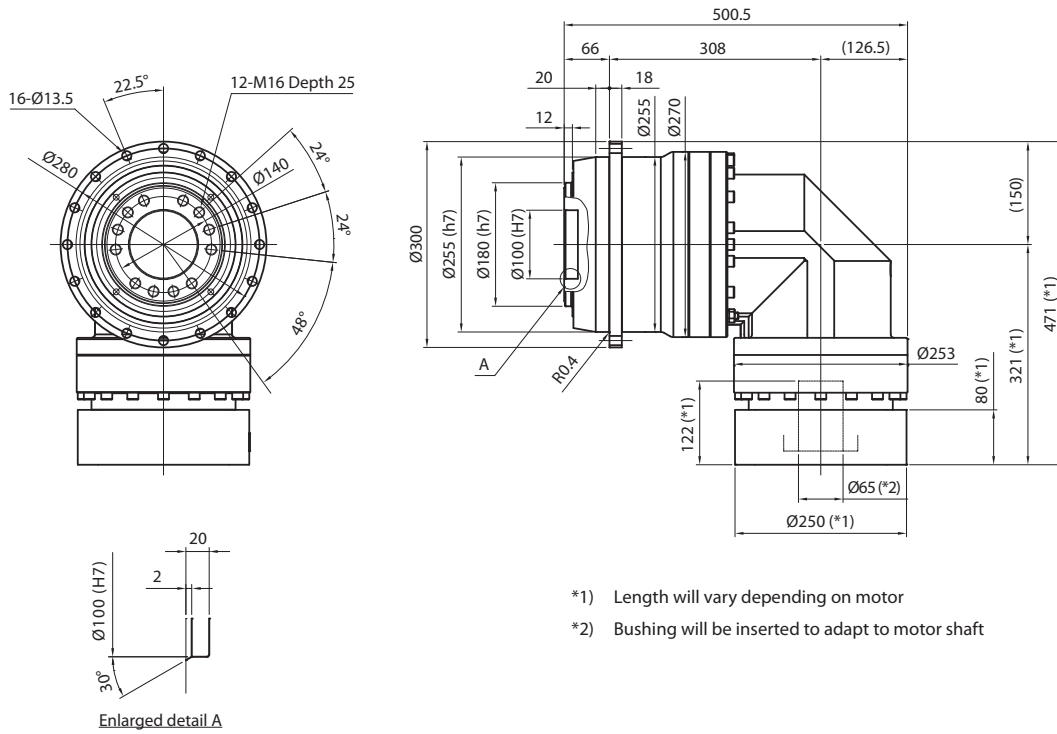
Frame Size	255							
Stage	3-Stage							
Ratio	Unit	Note	35	40	50	70	100	
Nominal Output Torque	[Nm]	*1	1920	1920	1920	1920	1280	
Maximum Acceleration Torque	[Nm]	*2	2960	2960	2960	2960	1440	
Emergency Stop Torque	[Nm]	*3	7200	7200	7200	7200	5400	
Nominal Input Speed	[rpm]	*4	1000					
Maximum Input 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					
Moment of Inertia ($\leq \varnothing 48$)	[kgcm ²]	--	112.25	109.37	109.05	108.77	108.62	
Moment of Inertia ($\leq \varnothing 65$)	[kgcm ²]	--	--	--	--	--	--	
Efficiency	[%]	*11	88					
Torsional Rigidity	[Nm/arcmin]	*12	550					
Maximum Torsional Backlash	[Arc-min]	--	≤ 9					
Noise Level	[dBA]	*13	≤ 85					
Protection Class	--	--	IP55					
Ambient Temperature	[°C]	--	0-40					
Permitted Housing Temperature	[°C]	--	90					
Weight	[kg]	*14	99					

- *1) At nominal input speed, service life is 20,000 hours
- *2) The maximum torque when starting or stopping operation
- *3) The emergency 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 3000 rpm
- *7) At this load and nominal input speed, service life is 20,000 hours (The radial load applied to the output shaft center)
- *8) At this load and nominal input speed, service life is 20,000 hours (The axial load applied to the output side bearing)
- *9) The maximum radial load the gearbox can accept
- *10) The maximum axial load 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 testing conditions and environment
- *14) Weight may vary slightly between models

EVT SERIES Right-angle Planetary

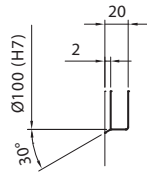
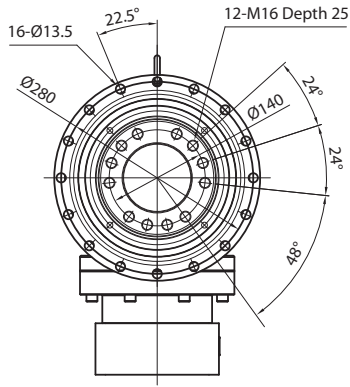
EVT 255 2-Stage Dimensions

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

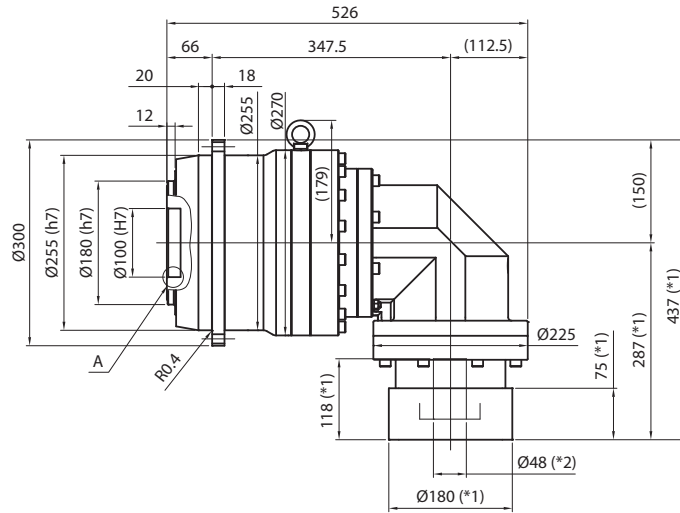


EVT 255 3-Stage Dimensions

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



Enlarged detail A



*1) Length will vary depending on motor

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