

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	108	123	154	128
Maximum Acceleration Torque	[Nm]	*2	227	272	340	240
Maximum Torque	[Nm]	*3	271	325	401	288
Emergency Stop Torque	[Nm]	*4	430	500	550	450
Nominal Input Speed	[rpm]	*5	3000			
Maximum Input Speed	[rpm]	*6	6000			
No Load Running Torque	[Nm]	*7	1.88			
Maximum Radial Load	[N]	*8	12000			
Maximum Axial Load	[N]	*9	8800			
Maximum Tilting Moment	[Nm]	*10	990			
Moment of Inertia ($\leq \varnothing 14$)	[kgcm ²]	--	--	--	--	--
Moment of Inertia ($\leq \varnothing 19$)	[kgcm ²]	--	6.46	5.65	4.97	4.62
Moment of Inertia ($\leq \varnothing 28$)	[kgcm ²]	--	8.06	7.24	6.56	6.21
Moment of Inertia ($\leq \varnothing 38$)	[kgcm ²]	--	15.13	14.31	13.63	13.28
Efficiency	[%]	*11	93			
Torsional Rigidity	[Nm/arcmin]	*12	60			
Maximum Torsional Backlash	[Arc-min]	--	≤ 4			
Noise Level	dB [A]	*13	≤ 85			
Protection Class	--	*14	IP54 (IP65)			
Ambient Temperature	[°C]	--	0-40			
Permitted Housing Temperature	[°C]	--	90			
Weight	[kg]	*15	9.5			

EVT 110 3-Stage Specifications

Frame Size	110					
Ratio	Unit	Note	16	20	25	28
Nominal Output Torque	[Nm]	*1	136	162	174	174
Maximum Acceleration Torque	[Nm]	*2	295	340	340	340
Maximum Torque	[Nm]	*3	295	340	340	340
Emergency Stop Torque	[Nm]	*4	550	550	550	550
Nominal Input Speed	[rpm]	*5	3100			
Maximum Input Speed	[rpm]	*6	6000			
No Load Running Torque	[Nm]	*7	1.11			
Maximum Radial Load	[N]	*8	12000			
Maximum Axial Load	[N]	*9	8800			
Maximum Tilting Moment	[Nm]	*10	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
Moment of Inertia ($\leq \varnothing 38$)	[kgcm ²]	--	--	--	--	--
Efficiency	[%]	*11	88			
Torsional Rigidity	[Nm/arcmin]	*12	60			
Maximum Torsional Backlash	[Arc-min]	--	≤ 7			
Noise Level	dB [A]	*13	≤ 85			
Protection Class	--	*14	IP54 (IP65)			
Ambient Temperature	[°C]	--	0-40			
Permitted Housing Temperature	[°C]	--	90			
Weight	[kg]	*15	9			

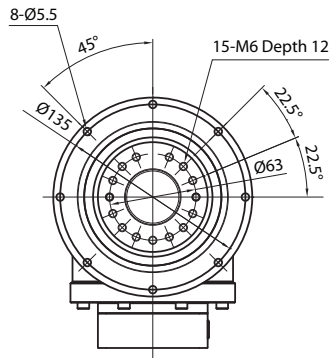
EVT 110 3-Stage Specifications

Frame Size	110							
Ratio	Unit	Note	35	40	50	70	100	
Nominal Output Torque	[Nm]	*1	174	172	174	174	132	
Maximum Acceleration Torque	[Nm]	*2	340	340	340	340	240	
Maximum Torque	[Nm]	*3	340	340	340	340	240	
Emergency Stop Torque	[Nm]	*4	550	550	550	550	450	
Nominal Input Speed	[rpm]	*5	3100					
Maximum Input Speed	[rpm]	*6	6000					
No Load Running Torque	[Nm]	*7	1.11					
Maximum Radial Load	[N]	*8	12000					
Maximum Axial Load	[N]	*9	8800					
Maximum Tilting Moment	[Nm]	*10	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	
Moment of Inertia ($\leq \varnothing 38$)	[kgcm ²]	--	--	--	--	--	--	
Efficiency	[%]	*11	88					
Torsional Rigidity	[Nm/arcmin]	*12	60					
Maximum Torsional Backlash	[Arc-min]	--	≤ 7					
Noise Level	dB [A]	*13	≤ 85					
Protection Class	--	*14	IP54 (IP65)					
Ambient Temperature	[°C]	--	0-40					
Permitted Housing Temperature	[°C]	--	90					
Weight	[kg]	*15	9					

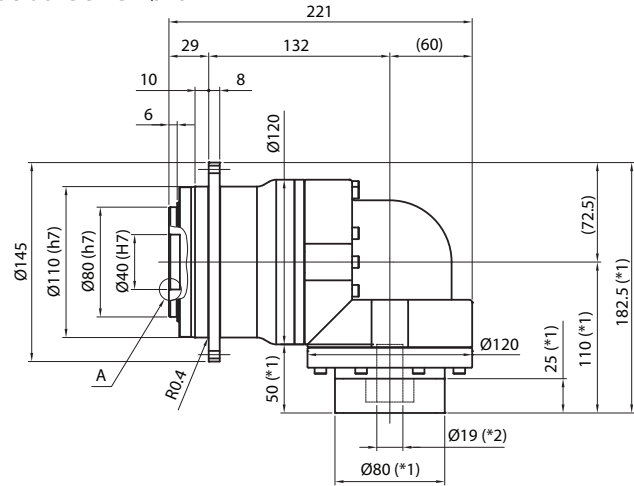
- *1) At nominal input speed, service life is 20,000 hours
- *2) The maximum torque when starting or stopping operation. Apply Cycle Factor f_0 , found on page 468, for higher duty cycle applications
- *3) Permitted 10,000 times during service life. Based on 10% of maximum radial load and smooth output shaft
- *4) The maximum torque allowed under a stress situation. Permitted 1,000 times during service life
- *5) The average input speed at nominal input torque. Maintain housing temperature below permitted value
- *6) The maximum intermittent input speed
- *7) Torque at no load applied to the input shaft at nominal input speed
- *8) The maximum radial load that the gearbox can accept
- *9) The maximum axial load that the gearbox can accept
- *10) The moment is the maximum load at output flange surface
- *11) The efficiency at the nominal output torque rating
- *12) This does not include lost motion
- *13) Contact Nidec Drive Technology for the testing conditions and environment
- *14) Various wash-down options are available. Contact Nidec Drive Technology for more details
- *15) Weight may vary slightly between models

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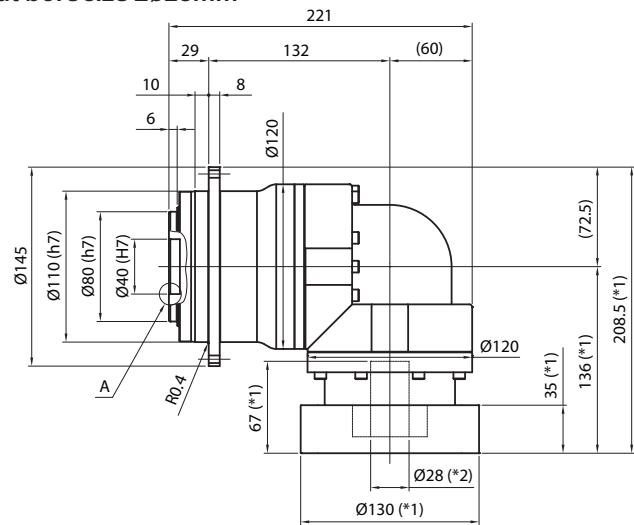
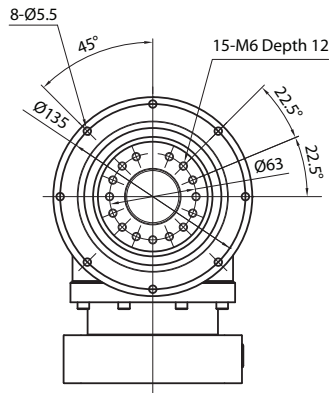
EVT 110 2-Stage Dimensions



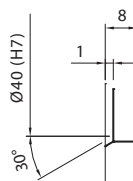
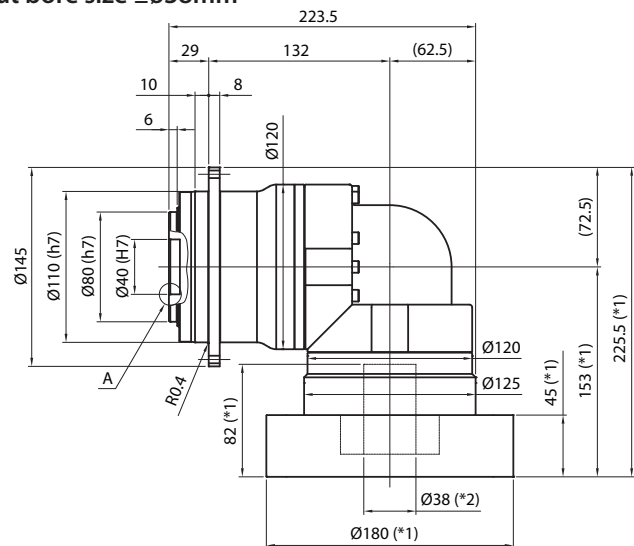
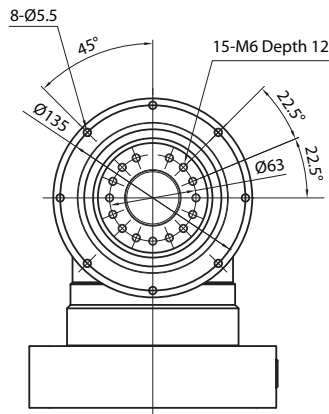
Input bore size $\leq \varnothing 19\text{mm}$



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



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



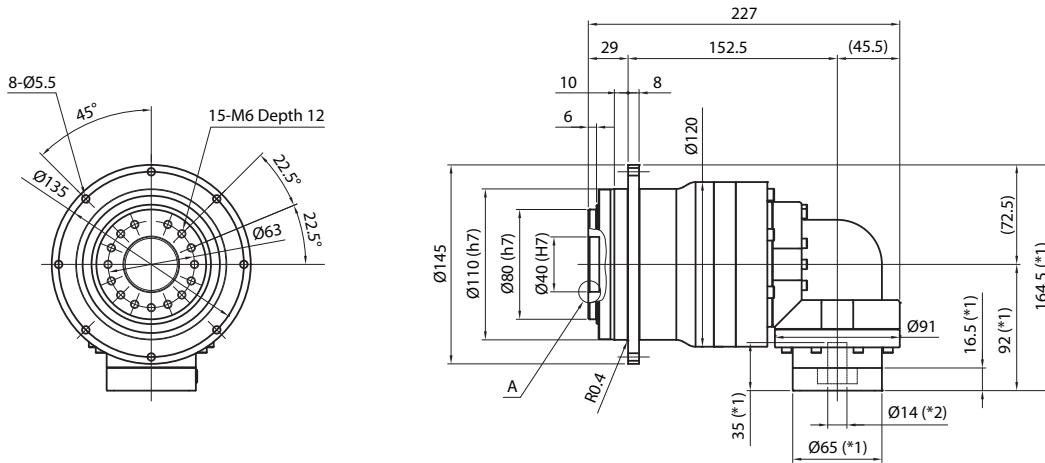
Enlarged detail A

*1) Length will vary depending on motor

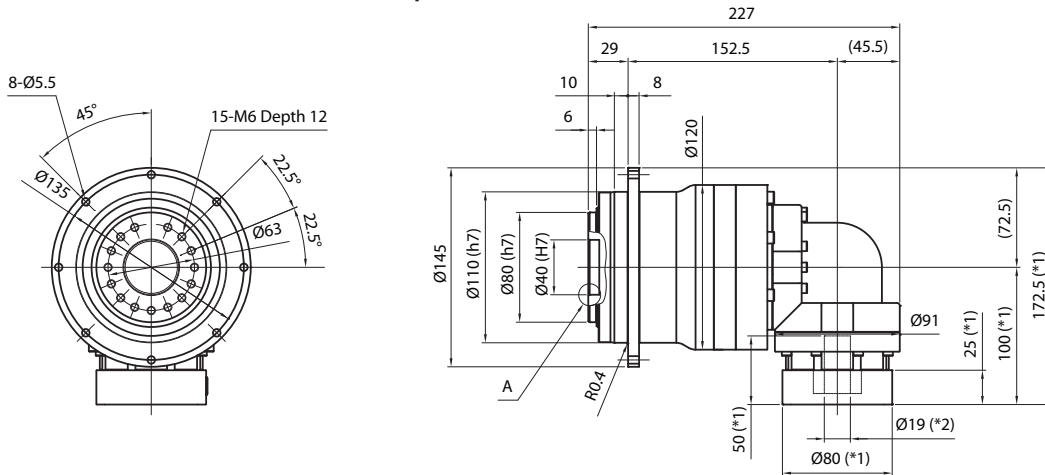
*2) Bushing will be inserted to adapt to motor shaft

EVT 110 3-Stage Dimensions

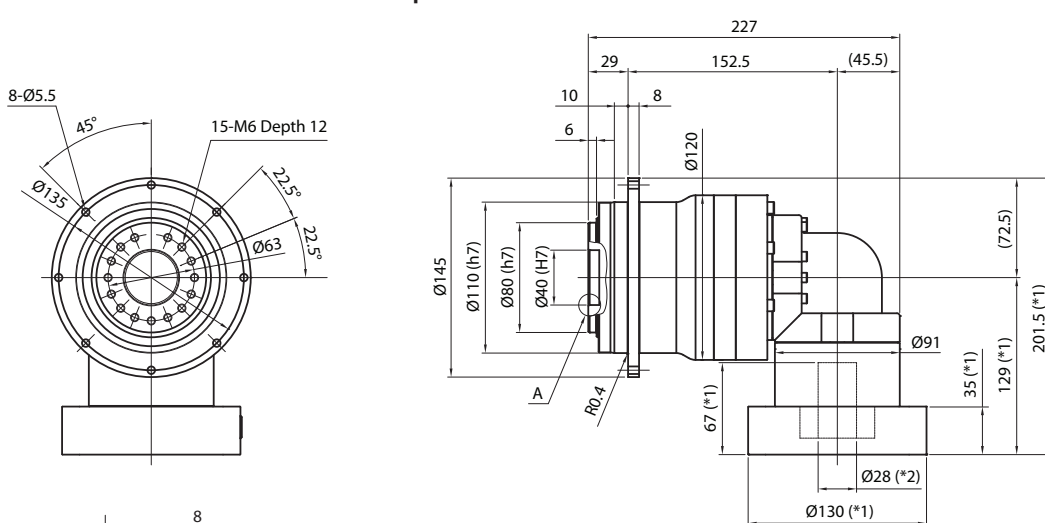
Input bore size $\leq \varnothing 14\text{mm}$



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