

# EVS SERIES Right-angle Planetary

## EVS o6o 2-Stage Specifications

Frame Size	060									
Ratio	Unit	Note	3	4	5	6	7	8	9	10
Nominal Output Torque	[Nm]	*1	12	16	22	24	24	24	19	19
Maximum Acceleration Torque	[Nm]	*2	29	38	48	54	54	54	38	38
Maximum Torque	[Nm]	*3	33	45	56	63	63	61	45	45
Emergency Stop Torque	[Nm]	*4	50	65	80	90	90	90	65	65
Nominal Input Speed	[rpm]	*5	3300							
Maximum Input Speed	[rpm]	*6	6000							
No Load Running Torque	[Nm]	*7	0.33							
Maximum Radial Load	[N]	*8	3000							
Maximum Axial Load	[N]	*9	2700							
Moment of Inertia ( $\leq \varnothing 8$ )	[kgcm <sup>2</sup> ]	--	0.320	0.271	0.251	0.242	0.235	0.232	0.229	0.228
Moment of Inertia ( $\leq \varnothing 14$ )	[kgcm <sup>2</sup> ]	--	0.395	0.346	0.326	0.317	0.310	0.307	0.304	0.303
Moment of Inertia ( $\leq \varnothing 19$ )	[kgcm <sup>2</sup> ]	--	0.584	0.535	0.516	0.506	0.500	0.496	0.494	0.492
Efficiency	[%]	*10	93							
Torsional Rigidity	[Nm/arc-min]	*11	3							
Maximum Torsional Backlash	[arc-min]	--	$\leq 4$							
Noise Level	dB [A]	*12	$\leq 80$							
Protection Class	--	*13	IP54 (IP65)							
Ambient Temperature	[°C]	--	0-40							
Permitted Housing Temperature	[°C]	--	90							
Weight	[kg]	*14	2.0							

## EVS o6o 3-Stage Specifications

Frame Size	060									
Ratio	Unit	Note	15	16	20	25	28	30	35	40
Nominal Output Torque	[Nm]	*1	18	26	26	28	28	19	28	28
Maximum Acceleration Torque	[Nm]	*2	38	54	54	54	54	38	54	54
Maximum Torque	[Nm]	*3	38	54	54	54	54	38	54	54
Emergency Stop Torque	[Nm]	*4	65	90	90	90	90	65	90	90
Nominal Input Speed	[rpm]	*5	3800							
Maximum Input Speed	[rpm]	*6	6000							
No Load Running Torque	[Nm]	*7	0.20							
Maximum Radial Load	[N]	*8	3000							
Maximum Axial Load	[N]	*9	2700							
Moment of Inertia ( $\leq \varnothing 8$ )	[kgcm <sup>2</sup> ]	--	0.074	0.079	0.072	0.071	0.077	0.062	0.070	0.061
Moment of Inertia ( $\leq \varnothing 14$ )	[kgcm <sup>2</sup> ]	--	0.118	0.124	0.116	0.115	0.122	0.106	0.115	0.106
Moment of Inertia ( $\leq \varnothing 19$ )	[kgcm <sup>2</sup> ]	--	--	--	--	--	--	--	--	--
Efficiency	[%]	*10	88							
Torsional Rigidity	[Nm/arc-min]	*11	3							
Maximum Torsional Backlash	[arc-min]	--	$\leq 7$							
Noise Level	dB [A]	*12	$\leq 80$							
Protection Class	--	*13	IP54 (IP65)							
Ambient Temperature	[°C]	--	0-40							
Permitted Housing Temperature	[°C]	--	90							
Weight	[kg]	*14	1.8							

## EVS o6o 3-Stage Specifications

Frame Size	060										
Ratio	Unit	Note	45	50	60	70	80	90	100		
Nominal Output Torque	[Nm]	*1	19	28	28	28	28	19	19		
Maximum Acceleration Torque	[Nm]	*2	38	54	54	54	54	38	38		
Maximum Torque	[Nm]	*3	38	54	54	54	54	38	38		
Emergency Stop Torque	[Nm]	*4	65	90	90	90	90	65	65		
Nominal Input Speed	[rpm]	*5	3800								
Maximum Input Speed	[rpm]	*6	6000								
No Load Running Torque	[Nm]	*7	0.2								
Maximum Radial Load	[N]	*8	3000								
Maximum Axial Load	[N]	*9	2700								
Moment of Inertia ( $\leq \varnothing 8$ )	[kgcm <sup>2</sup> ]	--	0.070	0.061	0.061	0.061	0.061	0.061	0.061		
Moment of Inertia ( $\leq \varnothing 14$ )	[kgcm <sup>2</sup> ]	--	0.115	0.106	0.106	0.106	0.105	0.105	0.105		
Moment of Inertia ( $\leq \varnothing 19$ )	[kgcm <sup>2</sup> ]	--	--	--	--	--	--	--	--		
Efficiency	[%]	*10	88								
Torsional Rigidity	[Nm/arc-min]	*11	3								
Maximum Torsional Backlash	[arc-min]	--	$\leq 7$								
Noise Level	dB [A]	*12	$\leq 80$								
Protection Class	--	*13	IP54 (IP65)								
Ambient Temperature	[°C]	--	0-40								
Permitted Housing Temperature	[°C]	--	90								
Weight	[kg]	*14	1.8								

\*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 efficiency at the nominal output torque rating

\*11) This does not include lost motion

\*12) Contact Nidec Drive Technology for the testing conditions and environment

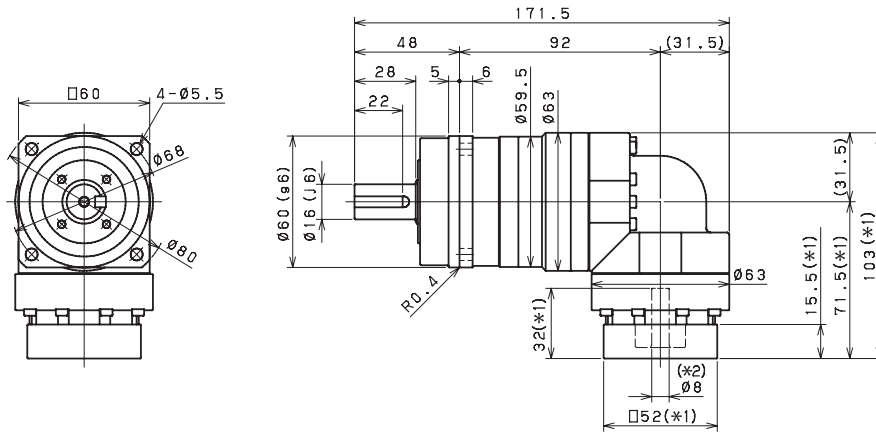
\*13) Various wash-down options are available. Contact Nidec Drive Technology for more details

\*14) Weight may vary slightly between models

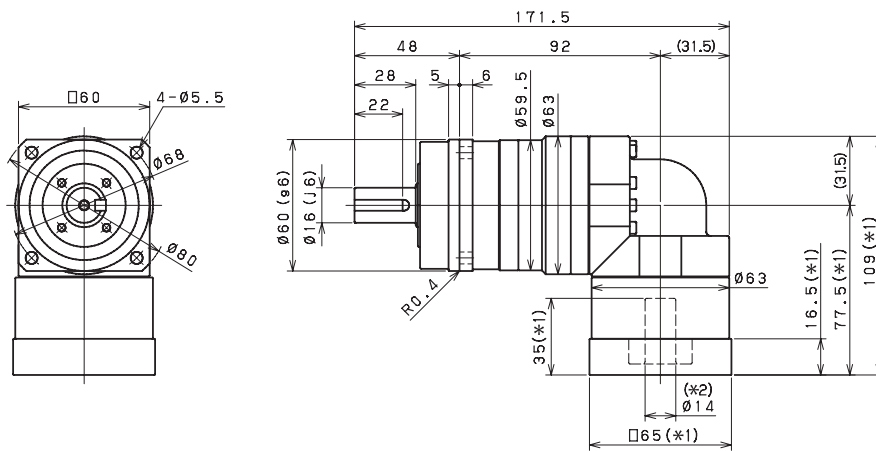
# EVS SERIES Right-angle Planetary

## EVS o60 2-Stage Dimensions

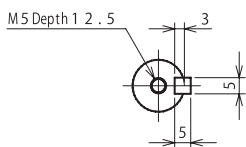
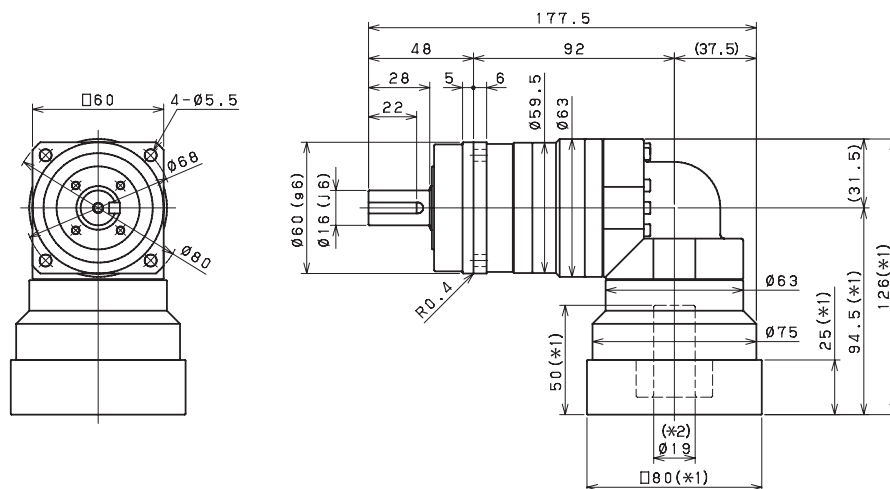
Input bore size  $\leq \varnothing 8$  mm



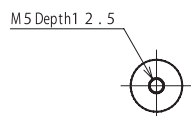
Input bore size  $\leq \varnothing 14$  mm



Input bore size  $\leq \varnothing 19$  mm



Keyed shaft



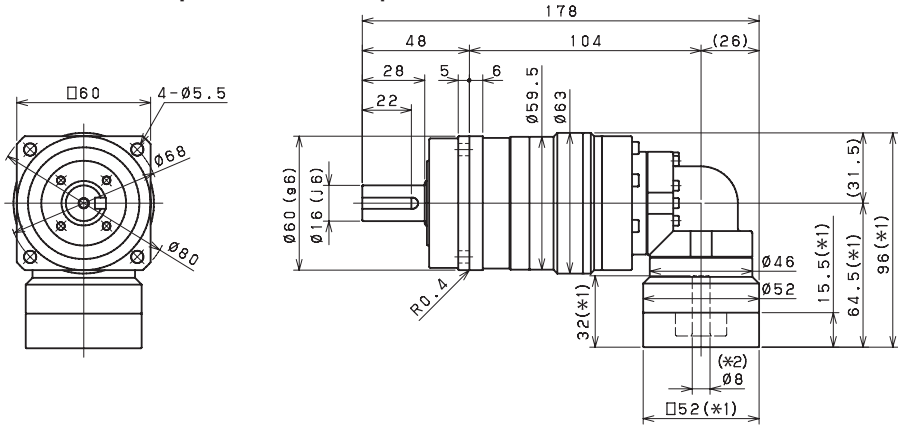
Smooth shaft

\*1) Length will vary depending on motor

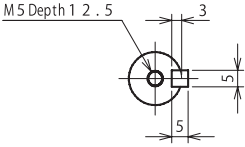
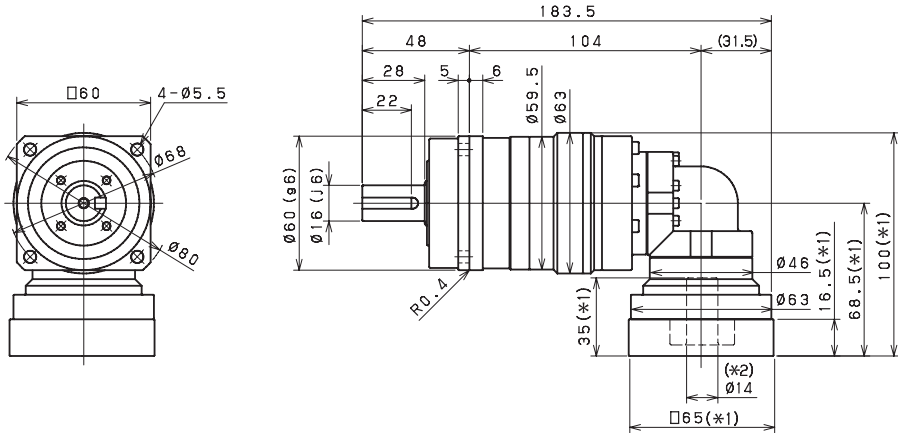
\*2) Bushing will be inserted to adapt to motor shaft

## EVS o6o 3-Stage Dimensions

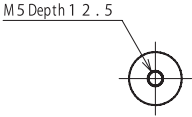
Input bore size  $\leq \varnothing 8 \text{ mm}$



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



Keyed shaft



Smooth shaft

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