EVB 115 2-Stage Specifications

Frame Size			**115**							
Ratio	Unit	Note	3	4	5	6	7	8	9	10
Nominal Output Torque	[Nm]	*1	77	108	123	154	154	154	128	128
Maximum Acceleration Torque	[Nm]	*2	172	227	272	340	340	340	240	240
Maximum Torque	[Nm]	*3	205	271	325	401	401	401	288	288
Emergency Stop Torque	[Nm]	*4	320	430	500	550	550	550	450	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	4300							
Maximum Axial Load	[N]	*9	3900							
Moment of Inertia (≤ Ø 14)	[kgcm2]	--	--	--	--	--	--	--	--	--
Moment of Inertia (≤ Ø 19)	[kgcm2]	--	6.74	5.49	5.02	4.77	4.65	4.55	4.49	4.46
Moment of Inertia (≤ Ø 28)	[kgcm2]	--	8.34	7.08	6.61	6.36	6.24	6.14	6.08	6.05
Moment of Inertia (≤ Ø 38)	[kgcm2]	--	15.41	14.15	13.69	13.43	13.31	13.22	13.16	13.12
Efficiency	[%]	*10	93							
Torsional Rigidity	[Nm/arc-min]	*11	31							
Maximum Torsional Backlash	[arc-min]	--	≤ 4							
Noise Level	dB [A]	*12	≤ 85							
Protection Class	--	*13	IP54 (IP65)							
Ambient Temperature	[°C]	--	0-40							
Permitted Housing Temperature	[°C]	--	90							
Weight	[kg]	*14	10.4							

EVB 115 3-Stage Specifications

Frame Size			**115**							
Ratio	Unit	Note	15	16	20	25	28	30	35	40
Nominal Output Torque	[Nm]	*1	125	136	162	174	174	132	174	172
Maximum Acceleration Torque	[Nm]	*2	229	295	340	340	340	229	340	340
Maximum Torque	[Nm]	*3	229	295	340	340	340	229	340	340
Emergency Stop Torque	[Nm]	*4	450	550	550	550	550	450	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	3900							
Maximum Axial Load	[N]	*9	3900							
Moment of Inertia (≤ Ø 14)	[kgcm2]	--	2.25	2.46	2.20	2.18	2.40	1.87	2.16	1.86
Moment of Inertia (≤ Ø 19)	[kgcm2]	--	2.58	2.79	2.53	2.51	2.73	2.20	2.49	2.19
Moment of Inertia (≤ Ø 28)	[kgcm2]	--	4.70	4.91	4.65	4.64	4.86	4.33	4.62	4.32
Moment of Inertia (≤ Ø 38)	[kgcm2]	--	--	--	--	--	--	--	--	--
Efficiency	[%]	*10	88							
Torsional Rigidity	[Nm/arc-min]	*11	31							
Maximum Torsional Backlash	[arc-min]	--	≤ 7							
Noise Level	dB [A]	*12	≤ 85							
Protection Class	--	*13	IP54 (IP65)							
Ambient Temperature	[°C]	--	0-40							
Permitted Housing Temperature	[°C]	--	90							
Weight	[kg]	*14	10.1							

EVB 115 3-Stage Specifications

Frame Size	**115**								
Ratio	Unit	Note	45	50	60	70	80	90	100
Nominal Output Torque	[Nm]	*1	132	174	174	174	174	132	132
Maximum Acceleration Torque	[Nm]	*2	240	340	340	340	340	240	240
Maximum Torque	[Nm]	*3	240	340	340	340	340	240	240
Emergency Stop Torque	[Nm]	*4	450	550	550	550	550	450	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	4300						
Maximum Axial Load	[N]	*9	3900						
Moment of Inertia (≤ Ø 14)	[kgcm2]	--	2.15	1.86	1.85	1.85	1.85	1.85	1.85
Moment of Inertia (≤ Ø 19)	[kgcm2]	--	2.48	2.19	2.18	2.18	2.18	2.18	2.18
Moment of Inertia (≤ Ø 28)	[kgcm2]	--	4.61	4.31	4.31	4.31	4.31	4.31	4.31
Moment of Inertia (≤ Ø 38)	[kgcm2]	--	--	--	--	--	--	--	--
Efficiency	[%]	*10	88						
Torsional Rigidity	[Nm/arc-min]	*11	31						
Maximum Torsional Backlash	[arc-min]	--	≤ 7						
Noise Level	dB [A]	*12	≤ 85						
Protection Class	--	*13	IP54 (IP65)						
Ambient Temperature	[°C]	--	0-40						
Permitted Housing Temperature	[°C]	--	90						
Weight	[kg]	*14	10.1						

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

*2) The maximum torque when starting or stopping operation. Apply Cycle Factor $\mathbf{f_0}$, 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

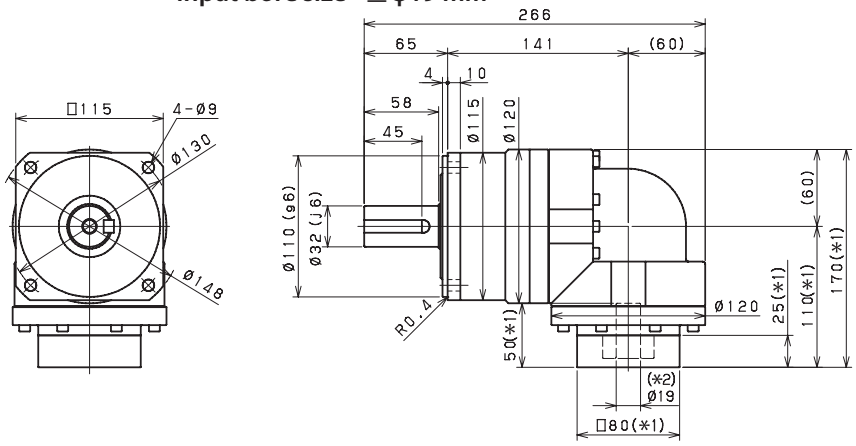
*12) Contact Nidec Drive Technology for the testing conditions and environment

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

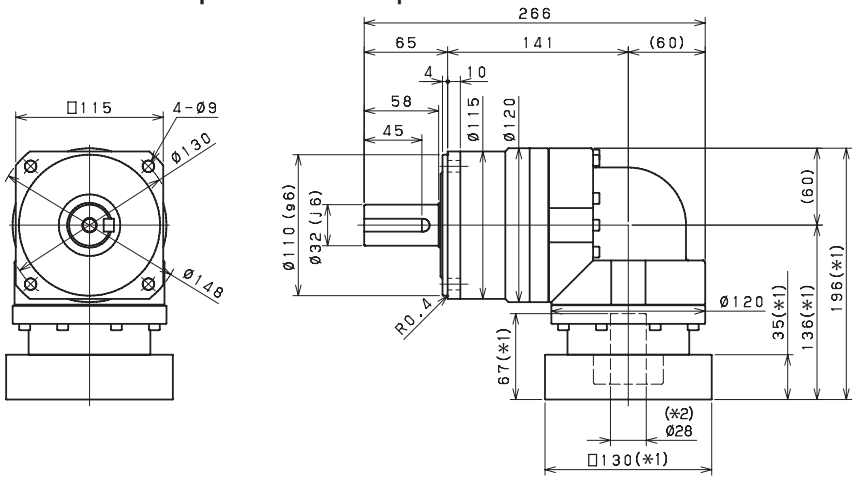
*14) Weight may vary slightly between models

EVB 115 2-Stage Dimensions

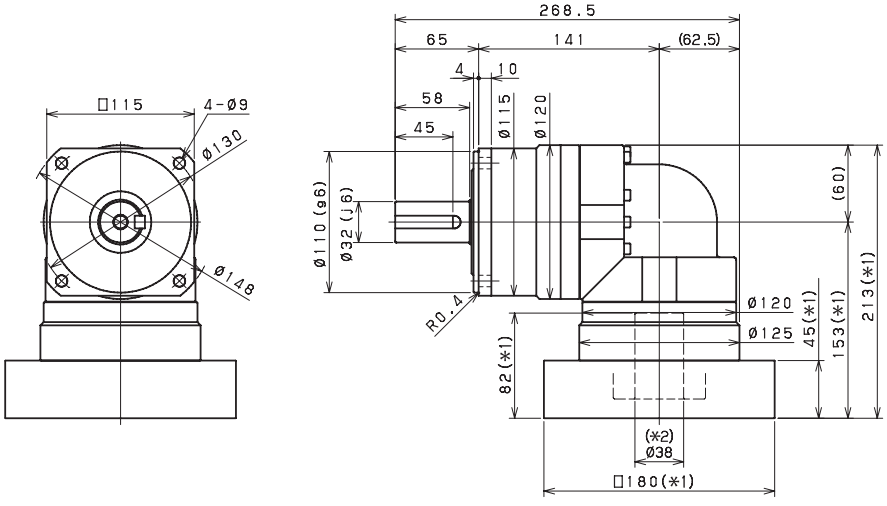
Input bore size ≦φ19 mm

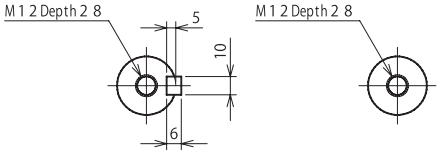


Input bore size ≦φ28 mm



Input bore size ≦φ38 mm





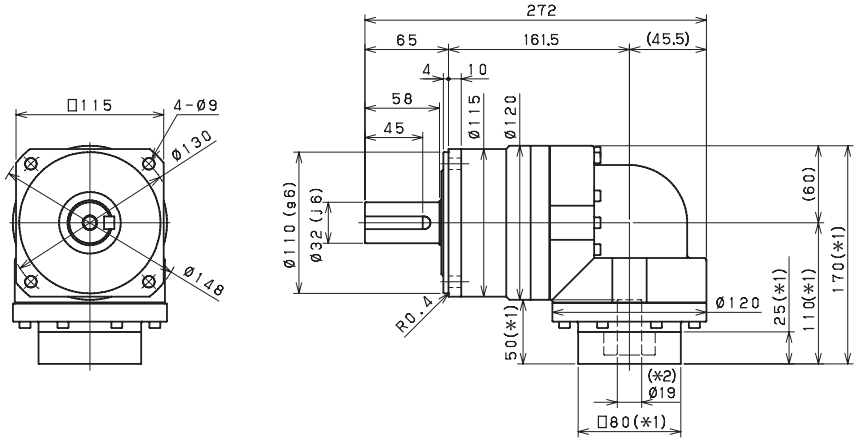
Keyed shaft Smooth shaft

*1) Length will vary depending on motor

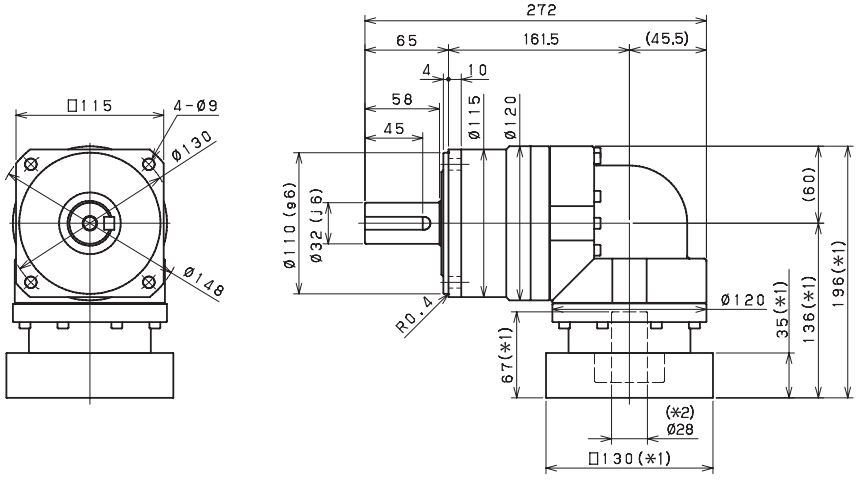
*2) Bushing will be inserted to adapt to motor shaft

EVB 115 3-Stage Dimensions

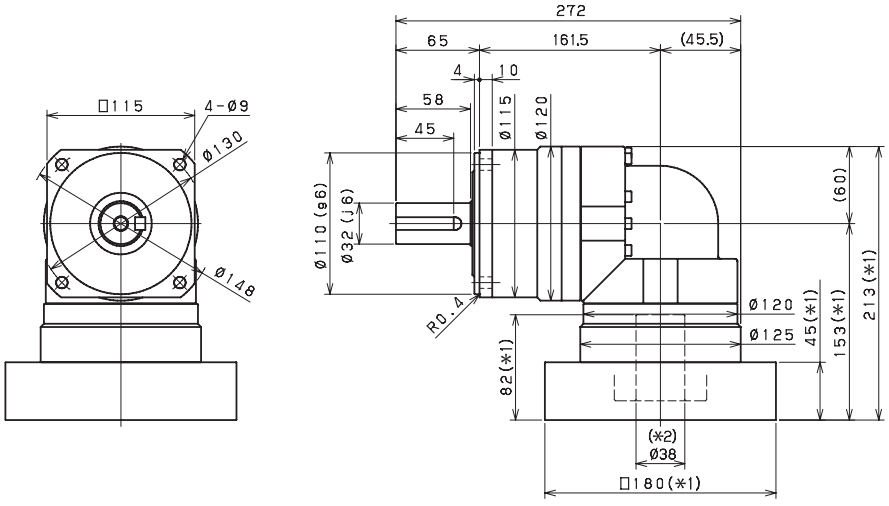
Input bore size ≦φ14 mm

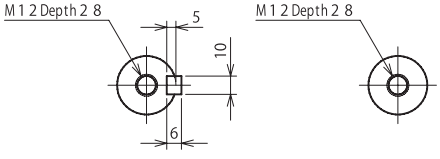


Input bore size ≦φ19 mm



Input bore size ≦φ28 mm





Keyed shaft Smooth shaft

*1) Length will vary depending on motor

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