EVB 180 2-Stage Specifications

Frame Size	**180**									
Stage	**2-Stage**									
Ratio	Units	Note	3	4	5	6	7	8	9	10
Nominal Output Torque	[Nm]	*1	400	575	600	600	600	600	400	400
Maximum Acceleration Torque	[Nm]	*2	575	770	960	1120	1120	1120	775	775
Emergency Stop Torque	[Nm]	*3	1300	1700	2000	2500	2500	2500	2000	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	5600	6200	6700	7100	7400	7800	8100	8400
Permitted Axial Load	[N]	*8	4300	4900	5400	5800	6300	6600	7000	7300
Maximum Radial Load	[N]	*9	15000							
Maximum Axial Load	[N]	*10	14000							
Moment of Inertia (≤Ø 28)	[kgcm2]	--	--	--	--	--	--	--	--	--
Moment of Inertia (≤Ø 38)	[kgcm2]	--	93.71	77.72	71.89	68.74	66.43	65.27	64.60	64.28
Moment of Inertia (≤ Ø 48)	[kgcm2]	--	128.6	112.6	106.8	103.6	101.3	100.1	99.46	99.14
Moment of Inertia (≤ Ø 65)	[kgcm2]	--	214.2	198.2	192.4	189.2	186.9	185.7	185.1	184.7
Efficiency	[%]	*11	93							
Torsional Rigidity	[Nm/arcmin]	*12	175							
Maximum Torsional Backlash	[Arc-min]	--	≤ 6							
Noise Level	dB [A]	*13	≤ 85							
Protection Class	--	*14	IP54 (IP65)							
Ambient Temperature	[°C]	--	0-40							
Permitted Housing Temperature	[°C]	--	90							
Weight	[kg]	*15	49							

EVB 180 3-Stage Specifications

Frame Size	**180**									
Stage	**3-Stage**									
Ratio	Units	Note	15	16	20	25	28	30	35	40
Nominal Output Torque	[Nm]	*1	400	555	600	600	600	400	600	600
Maximum Acceleration Torque	[Nm]	*2	775	1120	1120	1120	1120	775	1120	1120
Emergency Stop Torque	[Nm]	*3	2000	2500	2500	2500	2500	2000	2500	2500
Nominal Input Speed	[rpm]	*4	1500							
Maximum Input Speed	[rpm]	*5	3000							
No Load Running Torque	[Nm]	*6	4.7							
Permitted Radial Load	[N]	*7	9600	9800	11000	11000	12000	12000	13000	13000
Permitted Axial Load	[N]	*8	8700	8900	9900	11000	11000	12000	13000	13000
Maximum Radial Load	[N]	*9	15000							
Maximum Axial Load	[N]	*10	14000							
Moment of Inertia (≤Ø 28)	[kgcm2]	--	11.49	12.09	11.15	10.98	11.59	10.33	10.83	10.24
Moment of Inertia (≤Ø 38)	[kgcm2]	--	20.28	20.88	19.94	19.77	20.38	19.11	19.62	19.03
Moment of Inertia (≤ Ø 48)	[kgcm2]	--	25.10	25.70	24.76	24.59	25.20	23.94	24.44	23.85
Moment of Inertia (≤ Ø 65)	[kgcm2]	--	--	--	--	--	--	--	--	--
Efficiency	[%]	*11	88							
Torsional Rigidity	[Nm/arcmin]	*12	175							
Maximum Torsional Backlash	[Arc-min]	--	≤ 9							
Noise Level	dB [A]	*13	≤ 85							
Protection Class	--	*14	IP54 (IP65)							
Ambient Temperature	[°C]	--	0-40							
Permitted Housing Temperature	[°C]	--	90							
Weight	[kg]	*15	36							

EVB 180 3-Stage Specifications

Frame Size	**180**								
Stage	**3-Stage**								
Ratio	Units	Note	45	50	60	70	80	90	100
Nominal Output Torque	[Nm]	*1	400	600	600	600	600	400	400
Maximum Acceleration Torque	[Nm]	*2	775	1120	1120	1120	1120	775	775
Emergency Stop Torque	[Nm]	*3	2000	2500	2500	2500	2500	2000	2000
Nominal Input Speed	[rpm]	*4	1500						
Maximum Input Speed	[rpm]	*5	3000						
No Load Running Torque	[Nm]	*6	4.7						
Permitted Radial Load	[N]	*7	14000	14000	15000	15000	15000	15000	15000
Permitted Axial Load	[N]	*8	14000	14000	14000	14000	14000	14000	14000
Maximum Radial Load	[N]	*9	15000						
Maximum Axial Load	[N]	*10	14000						
Moment of Inertia (≤Ø 28)	[kgcm2]	--	10.76	10.20	10.18	10.16	10.15	10.15	10.14
Moment of Inertia (≤Ø 38)	[kgcm2]	--	19.55	18.99	18.96	18.95	18.94	18.93	18.93
Moment of Inertia (≤ Ø 48)	[kgcm2]	--	24.37	23.81	23.78	23.77	23.76	23.75	23.75
Moment of Inertia (≤ Ø 65)	[kgcm2]	--	--	--	--	--	--	--	--
Efficiency	[%]	*11	88						
Torsional Rigidity	[Nm/arcmin]	*12	175						
Maximum Torsional Backlash	[Arc-min]	--	≤ 9						
Noise Level	dB [A]	*13	≤ 85						
Protection Class	--	*14	IP54 (IP65)						
Ambient Temperature	[°C]	--	0-40						
Permitted Housing Temperature	[°C]	--	90						
Weight	[kg]	*15	36						

*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 efficiency at the nominal output torque rating

*12) This does not include lost motion

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

*14) IP65 (wash-down) is available as an option. Contact NIDEC-SHIMPO for more details

*15) The weight may vary slightly between models