

EVL SERIES Right-angle Planetary

EVL 235 2-Stage Specifications

Frame Size	235									
Stage	2-Stage									
Ratio	Units	Note	3	4	5	6	7	8	9	10
Nominal Output Torque	[Nm]	*1	575	765	960	1150	1200	1200	800	800
Maximum Acceleration Torque	[Nm]	*2	1015	1355	1695	1840	1840	1760	1520	1280
Emergency Stop Torque	[Nm]	*3	2500	3300	4000	4500	4500	4500	3600	3600
Nominal Input Speed	[rpm]	*4	1000							
Maximum Input Speed	[rpm]	*5	2000							
No Load Running Torque	[Nm]	*6	14.5							
Permitted Radial Load	[N]	*7	5800	6400	6900	7300	7700	8000	8400	8700
Permitted Axial Load	[N]	*8	6400	7200	7900	8600	9200	9700	10000	11000
Maximum Radial Load	[N]	*9	15000							
Maximum Axial Load	[N]	*10	14000							
Moment of Inertia ($\leq \varnothing 38$)	[kgcm ²]	--	--	--	--	--	--	--	--	--
Moment of Inertia ($\leq \varnothing 48$)	[kgcm ²]	--	148.00	122.90	113.30	108.10	104.70	102.70	101.60	101.00
Moment of Inertia ($\leq \varnothing 65$)	[kgcm ²]	--	223.20	198.10	188.60	183.30	180.00	178.00	176.80	176.20
Efficiency	[%]	*11	93							
Torsional Rigidity	[Nm/arcmin]	*12	400							
Maximum Torsional Backlash	[Arc-min]	--	≤ 8							
Noise Level	dB [A]	*13	≤ 85							
Protection Class	--	*14	IP54 (IP65)							
Ambient Temperature	[°C]	--	0-40							
Permitted Housing Temperature	[°C]	--	90							
Weight	[kg]	*15	68							

EVL 235 3-Stage Specifications

Frame Size	235									
Stage	3-Stage									
Ratio	Units	Note	15	16	20	25	28	30	35	40
Nominal Output Torque	[Nm]	*1	800	1200	1200	1200	1200	800	1200	1200
Maximum Acceleration Torque	[Nm]	*2	1280	1840	1840	1840	1840	1280	1840	1840
Emergency Stop Torque	[Nm]	*3	3600	4500	4500	4500	4500	3600	4500	4500
Nominal Input Speed	[rpm]	*4	1000							
Maximum Input Speed	[rpm]	*5	2000							
No Load Running Torque	[Nm]	*6	10.2							
Permitted Radial Load	[N]	*7	9900	10000	11000	12000	12000	13000	13000	14000
Permitted Axial Load	[N]	*8	13000	13000	14000	14000	14000	14000	14000	14000
Maximum Radial Load	[N]	*9	15000							
Maximum Axial Load	[N]	*10	14000							
Moment of Inertia ($\leq \varnothing 38$)	[kgcm ²]	--	36.32	37.24	35.75	35.47	36.39	34.39	35.21	34.25
Moment of Inertia ($\leq \varnothing 48$)	[kgcm ²]	--	66.14	67.06	65.57	65.28	66.21	64.21	65.03	64.07
Moment of Inertia ($\leq \varnothing 65$)	[kgcm ²]	--	--	--	--	--	--	--	--	--
Efficiency	[%]	*11	88							
Torsional Rigidity	[Nm/arcmin]	*12	400							
Maximum Torsional Backlash	[Arc-min]	--	≤ 11							
Noise Level	dB [A]	*13	≤ 85							
Protection Class	--	*14	IP54 (IP65)							
Ambient Temperature	[°C]	--	0-40							
Permitted Housing Temperature	[°C]	--	90							
Weight	[kg]	*15	70							

EVL 235 3-Stage Specifications

Frame Size	235										
Stage	3-Stage										
Ratio	Units	Note	45	50	60	70	80	90	100		
Nominal Output Torque	[Nm]	*1	800	1200	1200	1200	1200	800	800		
Maximum Acceleration Torque	[Nm]	*2	1040	1840	1840	1840	1440	1040	960		
Emergency Stop Torque	[Nm]	*3	3600	4500	4500	4500	4500	3600	3600		
Nominal Input Speed	[rpm]	*4	1000								
Maximum Input Speed	[rpm]	*5	2000								
No Load Running Torque	[Nm]	*6	10.2								
Permitted Radial Load	[N]	*7	14000	15000	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 ($\leq \varnothing 38$)	[kgcm ²]	--	35.10	34.18	34.14	34.11	34.10	34.09	34.08		
Moment of Inertia ($\leq \varnothing 48$)	[kgcm ²]	--	64.92	63.99	63.95	63.93	63.91	63.90	63.90		
Moment of Inertia ($\leq \varnothing 65$)	[kgcm ²]	--	--	--	--	--	--	--	--		
Efficiency	[%]	*11	88								
Torsional Rigidity	[Nm/arcmin]	*12	400								
Maximum Torsional Backlash	[Arc-min]	--	≤ 11								
Noise Level	dB [A]	*13	≤ 85								
Protection Class	--	*14	IP54 (IP65)								
Ambient Temperature	[°C]	--	0-40								
Permitted Housing Temperature	[°C]	--	90								
Weight	[kg]	*15	70								

- *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