

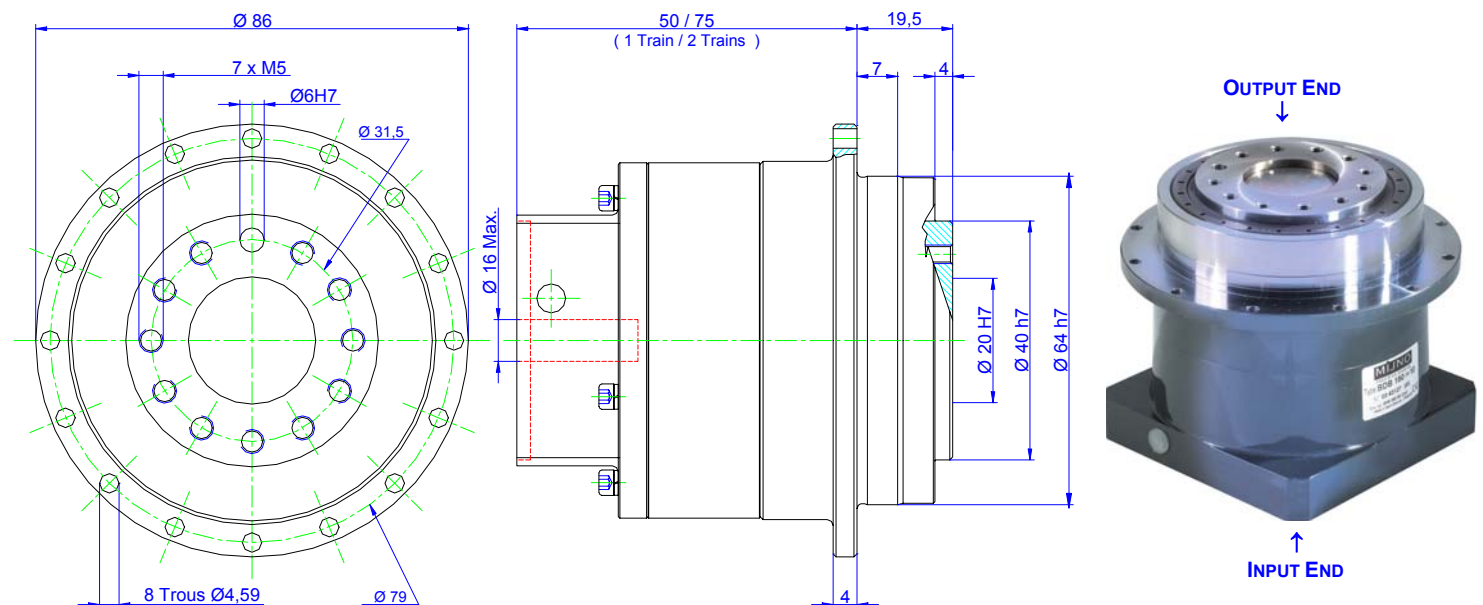
Characteristics

No of Stages Ratio ⁽¹⁾		1 - Stage				2 - Stages				
		4	5,5	7	10	16	22	28	31	40
INPUT										
Rated Speed / Max. Speed	rpm	2 000 / 4 000								
Rated torque	Nm	6	4,5	3,5	2	1,5	1,1	0,85	0,8	0,6
Accel torque	Nm ⁽²⁾	10	7	5,5	3	2,5	1,8	1,4	1,2	1
OUTPUT										
Rated torque	Nm	25	25	25	20	25				
Accel torque	Nm ⁽²⁾	40	40	40	30	40				
Emergency stop	Nm ⁽³⁾	100				100				
Torsional rigidity	Nm / rd. x10 ⁻⁴									
Axial load rating	N									
Radial load rating	N ⁽⁴⁾									
GENERAL DATA										
Inertia at input	Kg-m ² x10 ⁻⁵	7,3	7,3	6,3	6,1	7	6,6	6,2	6	6
Max. backlash	arc-min.	≤ 5 or ≤ 3								
Efficiency	% ⁽⁵⁾	96				91				
Weight	Kg	2				3				
Rated life	Hours	30 000								

- (1) Please enquire if a desired ratio is not shown.
 (2) S5 duty service.
 (3) Applicable 100 times max.
 (4) Load applied 100mm from mounting face and output speed of 300 rpm.
 (5) Gear efficiency at rated load.

Left hand view is looking at output end. Dimensions are in mm.

Drawing translations : Trou = Holes ; Train = Gear Stages ; H7 or h7 = A tolerance code ; Ø = Diameter



* Depends on the gear ratio and on the motor dimension

Specifications are subject to change without notification



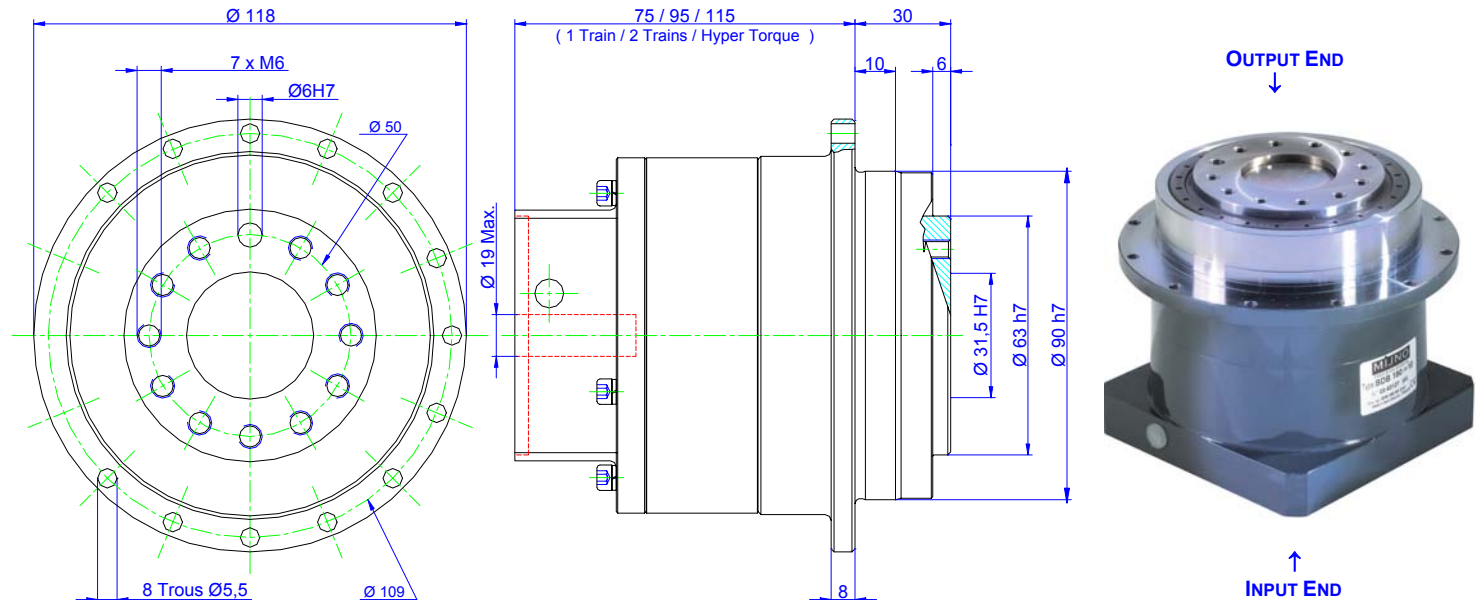
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 406 N. PROSPECT AVE.
 PARK RIDGE, IL 60068-3463 U.S.A.
 TEL. 847-698-9041 - FAX. 847-698-9040
 SITE : WWW.MIJNO.COM. - E-MAIL : MIJNO@AOL.COM

Characteristics

No. of Stages Ratio ⁽¹⁾		1 - Stage			2 - Stages				Hyper Torque							
		4	5,5	7	16	22	28	31	40	60	66	88	91	110	154	220
INPUT																
Rated speed / Max. speed	rpm	2 000 / 4 000														
Rated Torque	Nm	21	15	10	5	3,5	3	2,5	3,5	2,3	2,2	1,7	1,6	1,3	0,9	0,6
Accel Torque	Nm ⁽²⁾	25	18	11,5	7,5	5,5	4,3	3,9	5,6	3,5	3,4	2,6	2,5	2	1,5	1
OUTPUT																
Rated Torque	Nm	85	85	70	85				150							
Accel Torque	Nm ⁽²⁾	100	100	80	120				225							
Emergency Stop Torque	Nm ⁽³⁾	250			250				500							
Torsional stiffness	Nm / rd. x10 ⁻⁴															
Axial load	N	650														
Radial load	N ⁽⁴⁾	1550														
GENERAL DATA																
Inertia in input	Kg-m ² x10 ⁻⁵	27	25	23	26	26	22	22	24	24	24	24	22	22	22	22
Max. backlash	arc-min.	≤ 5 , ≤ 3														
Efficiency	% ⁽⁵⁾	96			94				91							
Weight	Kg	5			8				10							
Gears Life time	Hours	30 000														

- 1) Please enquire if a desired ratio is not shown.
- 2) S5 duty service.
- 3) On the motorside.
- 4) Load applied at 50 mm from gearhead face, at 300 rpm.
- 5) Gear efficiency at rated load.

Left hand view is looking at output end. Dimensions are in mm.
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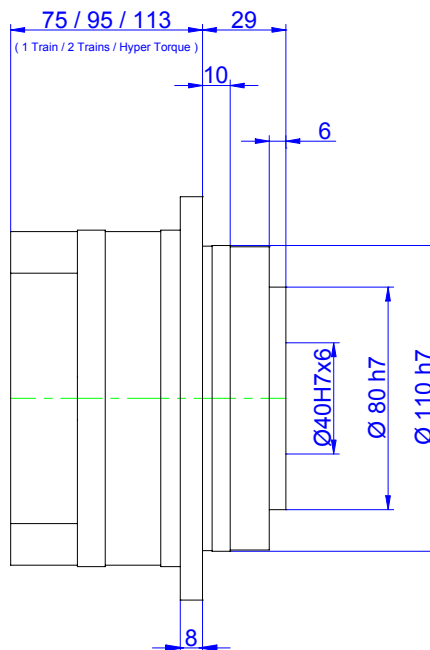
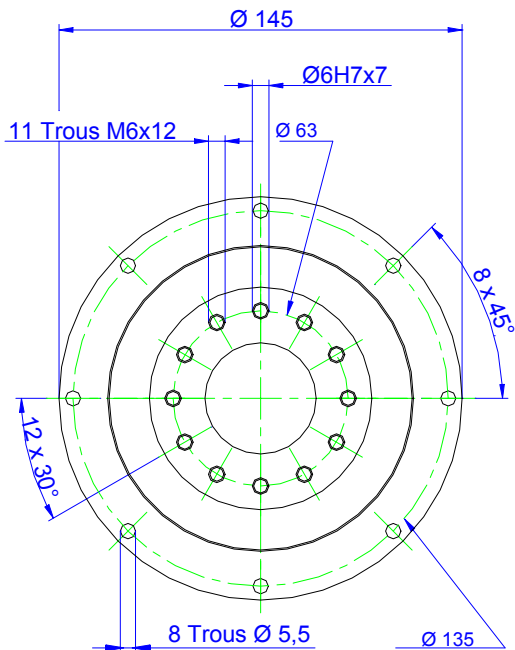
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Characteristics

No of Stages Ratio ⁽¹⁾		1 - Stage			2 - Stages				Hyper Torque							
		4	5,5	7	16	22	28	31	40	60	66	88	91	110	154	220
INPUT																
Rated speed / Max. speed	rpm	2 000 / 4 000														
Rated torque	Nm	67	39	19	18	13	10	9	8,7	5,8	5,3	3,9	3,8	3	2,2	1,5
Accel torque	Nm ⁽²⁾	88	50	23	25	18	14	13	13,7	9	8,3	6,2	6	5	3,6	2,5
OUTPUT																
Rated torque	Nm	270	215	135	300				350							
Accel torque	Nm ⁽²⁾	355	280	167	400				550							
Emergency stop	Nm ⁽³⁾	600			600				900							
Torsional rigidity	Nm / rd. x10 ⁴															
Axial load rating	N	1000														
Radial load rating	N ⁽⁴⁾	2500														
GENERAL DATA																
Inertia at input	Kg-m ² x10 ⁻⁵	69	63	56	66	66	58	58	53	53	53	50	50	45	45	45
Max. backlash	arc-min.	≤ 5, ≤ 3 (standard) or ≤ 1														
Efficiency	% ⁽⁵⁾	96			91				86							
Weight	Kg	15			18				20							
Rated life	Hours	30 000														

- (1) Please enquire if a desired ratio is not shown.
- (2) S5 duty service.
- (3) Applicable 100 times max.
- (4) Load applied 100mm from mounting face and output speed of 300 rpm.
- (5) Gear efficiency at rated load.

Left hand view is looking at output end. Dimensions are in mm.
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Characteristics

No of Stages Ratio ⁽¹⁾		1 - Stage			2 - Stages				Hyper Torque							
		4	5,5	7	16	22	28	31	40	60	66	88	91	110	154	220
INPUT																
Rated speed/Max. speed	rpm	2 000 / 4 000														
Rated Torque	Nm	390	220	55	90	65	50	45	45	30	25	21	20	17	12	8
Accel torque	Nm ⁽²⁾	500	290	75	125	90	75	65	75	50	45	35	35	27	19	13
OUTPUT																
Rated torque	Nm	840	660	400	800				1000							
Accel torque	Nm ⁽²⁾	1000	860	510	1200				1500							
Emergency stop	Nm ⁽³⁾	2000			2000				2500							
Torsional rigidity	Nm / rd. x10 ⁻⁴	30			30				50							
Axial load rating	N	6 500														
Radial load rating	N ⁽⁴⁾															
GENERAL DATA																
Inertia at input	Kg-m ² x10 ⁻⁵			50	52											
Max. backlash	arc-min.	≤ 3 (standard) or ≤ 1														
Efficiency	% ⁽⁵⁾	96			94				91							
Weight	Kg															
Rate life	Hours	30 000														

(1) Please enquire if a desired ration is not shown.

(2) S5 duty service.

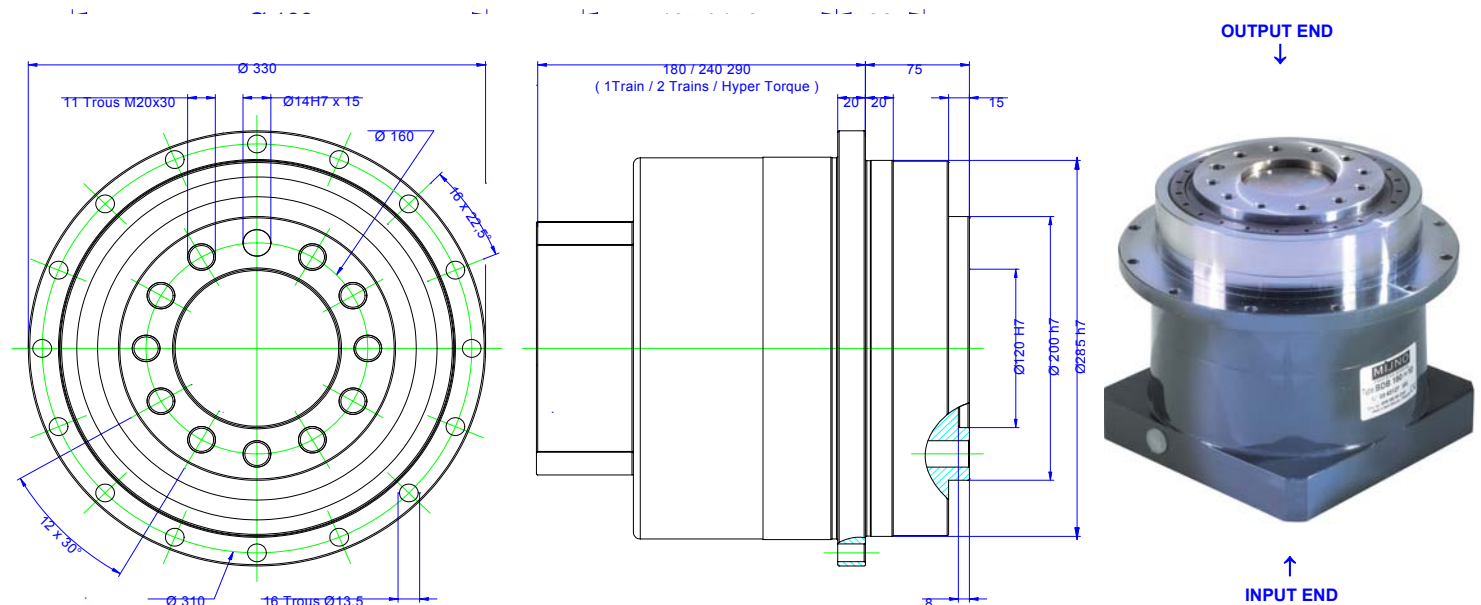
Applicable 100 times max.

Load applied 100 mm from mounting face and output speed of 300 rpm.

Gear efficiency at rated load.

Left hand view is looking at output end. Dimensions are in mm.

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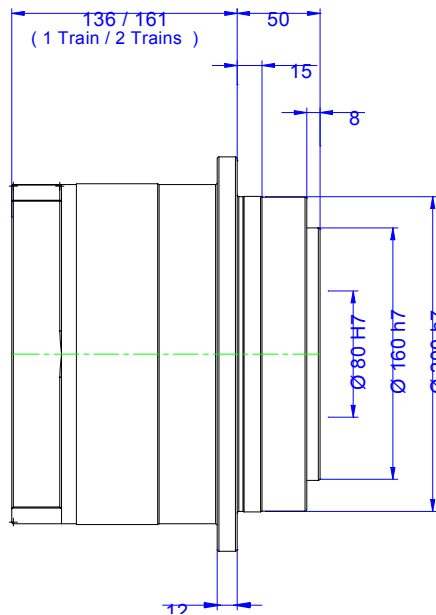
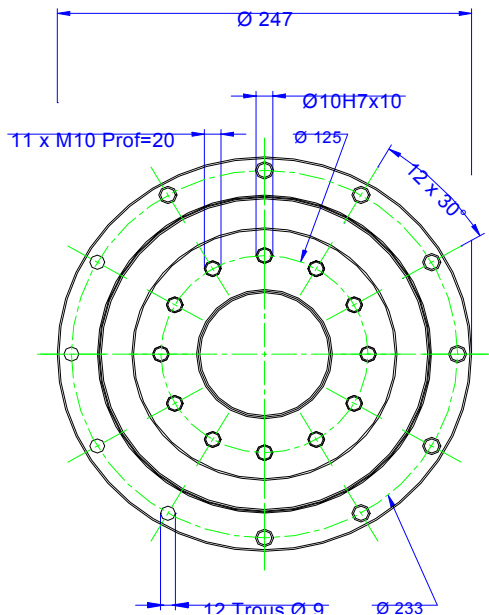
Characteristics

No of Stages Ratio ⁽¹⁾		1 - Stage			2 - Stages				Hyper Torque								
		4	5,5	7	16	22	28	31	40	60	66	88	91	110	154	220	
INPUT																	
Rated speed / Max. speed	rpm	2 000 / 4 000															
Rated torque	Nm	390	220	55	90	65	50	45	45	30	25	21	20	17	12	8	
Accel torque	Nm ⁽²⁾	500	290	75	125	90	75	65	75	50	45	35	35	27	19	13	
OUTPUT																	
Rated torque	Nm	1560	1230	580	1500				1900								
Accel torque	Nm ⁽²⁾	2000	1600	750	2000				3000								
Emergency stop	Nm ⁽³⁾	3000				3000				5000							
Torsional rigidity	Nm / rd. x10 ⁴					90				150							
Axial load rating	N	13 500															
Radial load rating	N ⁽⁴⁾	25 000															
GENERAL DATA																	
Inertia at input	Kg-m ² x10 ⁻⁵								87								
Max. backlash	arc-min.	≤ 5, ≤ 3 (standard) or ≤ 1															
Efficiency	% ⁽⁵⁾	96				91				86							
Weight	Kg	40				50				55							
Rated life	Hours	30 000															

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- (3) Applicable 100 times max.
- (4) Load applied 100 mm from mounting face and output speed of 300 rpm.
- (5) Gear efficiency at rated load.

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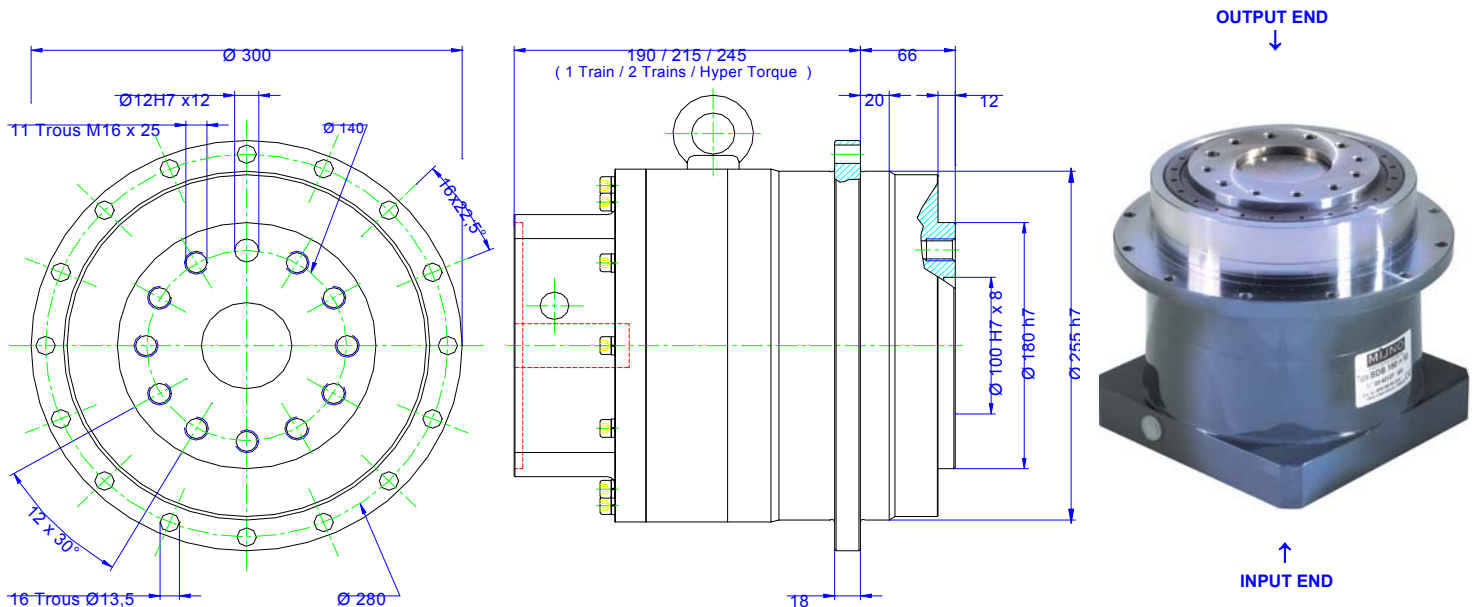
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Characteristics

No of Stages Ratio ⁽¹⁾		1 - Stage			2 - Stages				Hyper Torque							
		4	5,5	7	16	22	28	31	40	60	66	88	91	110	154	220
INPUT																
Rated speed / Max. speed	rpm	2 000 / 3 000														
Rated torque	Nm	750	450	115	185	135	105	95	87	58	53	39	38	31	22	15
Accel torque	Nm ⁽²⁾	1000	545	200	312	227	178	161	150	100	90	68	65	54	38	27
OUTPUT																
Rated torque	Nm	3000	2500	1150	3000				3500							
Accel torque	Nm ⁽²⁾	4000	3000	2000	5000				6000							
Emergency stop	Nm ⁽³⁾	7500			7500				8500							
Torsional rigidity	Nm / rd. x10 ⁻⁴				196				230							
Axial load rating	N	19 000														
Radial load rating	N ⁽⁴⁾	36 000														
GENERAL DATA																
Inertia at input	Kg-m ² x10 ⁻⁵								197							
Max. backlash	arc-min.	≤ 5, ≤ 3 (standard) or ≤ 1														
Efficiency	% ⁽⁵⁾	96			91				86							
Weight	Kg	55			65				70							
Rate life	Hours	30 000														

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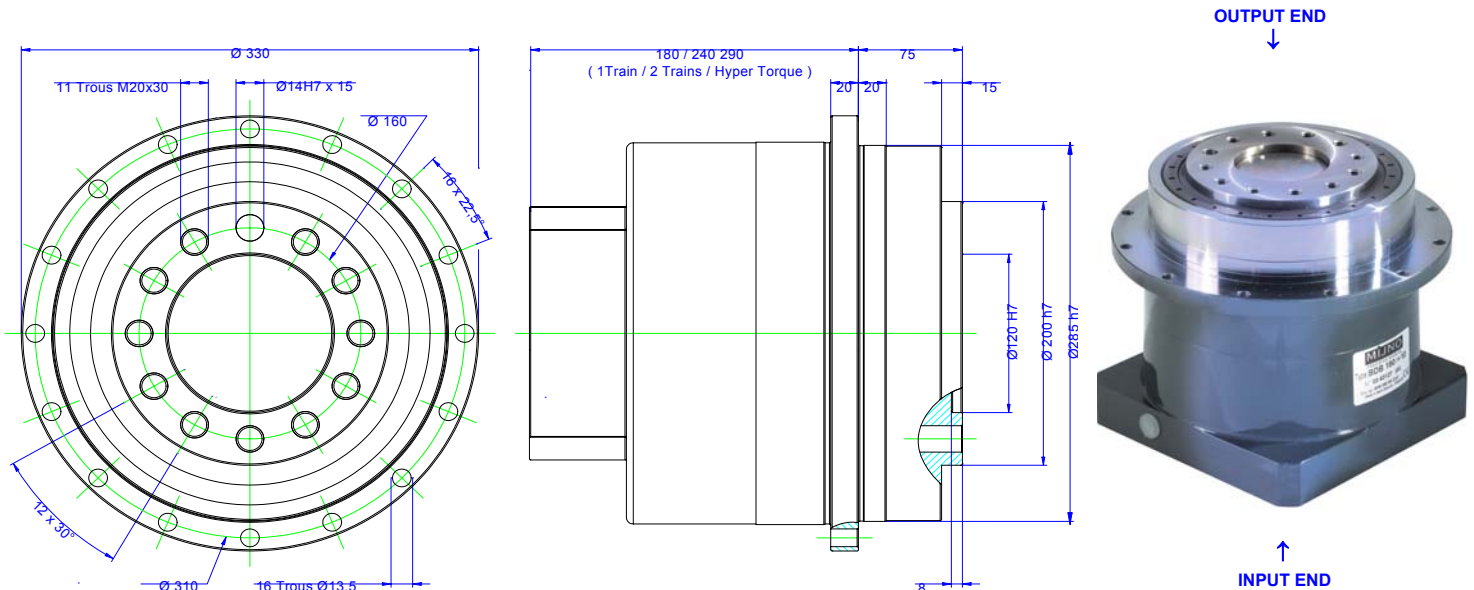
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		4	5,5	7	16	22	28	31	40	60	66	88	91	110	154	220
INPUT																
Rated speed / Max. speed	rpm	2 000 / 3 000														
Rated torque	Nm	1330	770	180	375	275	220	200	155	110	100	75	70	60	40	30
Accel torque	Nm ⁽²⁾	1500	900	200	495	385	315	290	235	165	150	110	105	90	65	45
OUTPUT																
Rated torque	Nm	5350	4250	1800	6000	6150	6250	6250	6350	7000						
Accel torque	Nm ⁽²⁾	6000	5000	2000	7980	8500	8950	9100	9500	10000						
Emergency stop	Nm ⁽³⁾	13000			15000				18000							
Torsional rigidity	Nm / rd. x10 ⁻⁴				230											
Axial load rating	N	25 000														
Radial load rating	N ⁽⁴⁾	55 000														
GENERAL DATA																
Inertia at input	Kg-m ² x10 ⁻⁵	1450	960	830	360	350	330	335	270	280	300	270	300	280	270	270
Max. backlash	arc-min.	≤ 5, ≤ 3 (standard) or ≤ 1														
Efficiency	% ⁽⁵⁾	96			91				86							
Weight	Kg	65			78				80							
Rated life	Hours	30 000														

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ASSEMBLY INSTRUCTIONS: TYPE BDB

1. For an easy assembly of the sizes 250, 300 and 330, use the ring (5).
2. It may be easier to assemble with the motor and gearhead in a vertical position, output shaft down.
3. Manually rotate the input pinion to align the clamping screws (8) such that the hexagonal wrench can fit into the screw head sockets. **(Do not remove the oil fill and drain plugs from the gear housing section of the assembly).**
4. Degrease the motor shaft (3) and input pinion bore (4) with an appropriate solvent.
5. Slip the motor shaft (3) into gearhead input pinion (4).
6. Fasten the gearhead to the motor using the 4 screws (2). Apply a low tightening torque for this initial fitting.
7. By means of a torque wrench (7) inserted in the flange access holes, tighten the 2 input pinion clamping screws (8) with a torque of :
(5 Nm or 44 Lb-in for BDB 085)
(14 Nm or 124 Lb-in for BDB 120 and BDB 145).
(30 Nm or 266 Lb-in for BDB 180).
(39 Nm or 346 Lb-in for BDB 250 and 300).
(72 Nm or 639 Lb-in for BDB 330).
8. Loosen the 4 screws (2) connecting the motor and the gearbox and then final-tighten them **(important for alignment).**
9. Insert the 2 plugs (6) into the radial flange holes.

