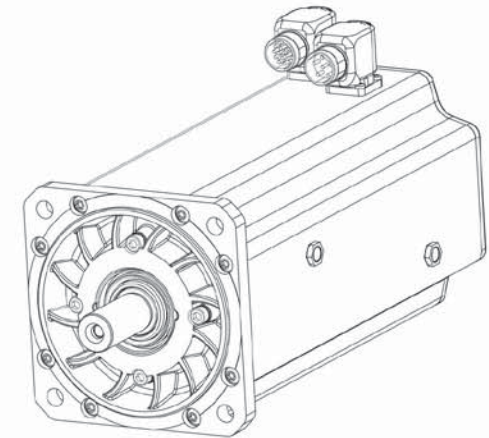
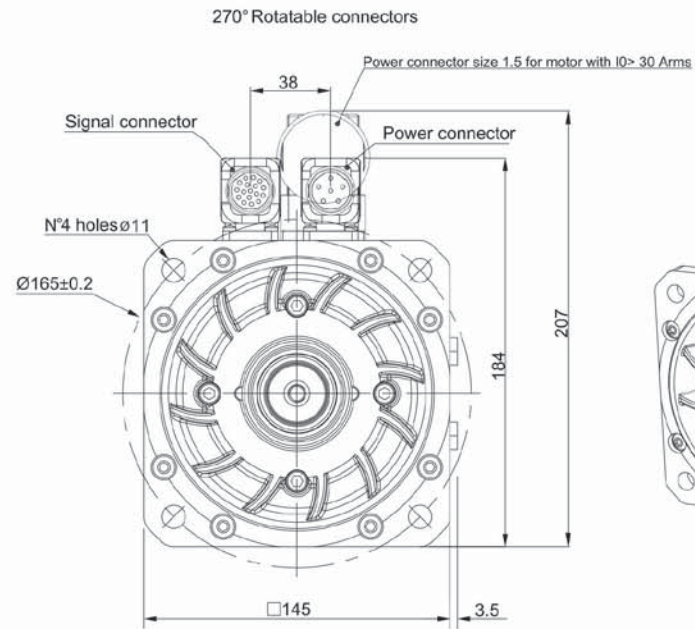
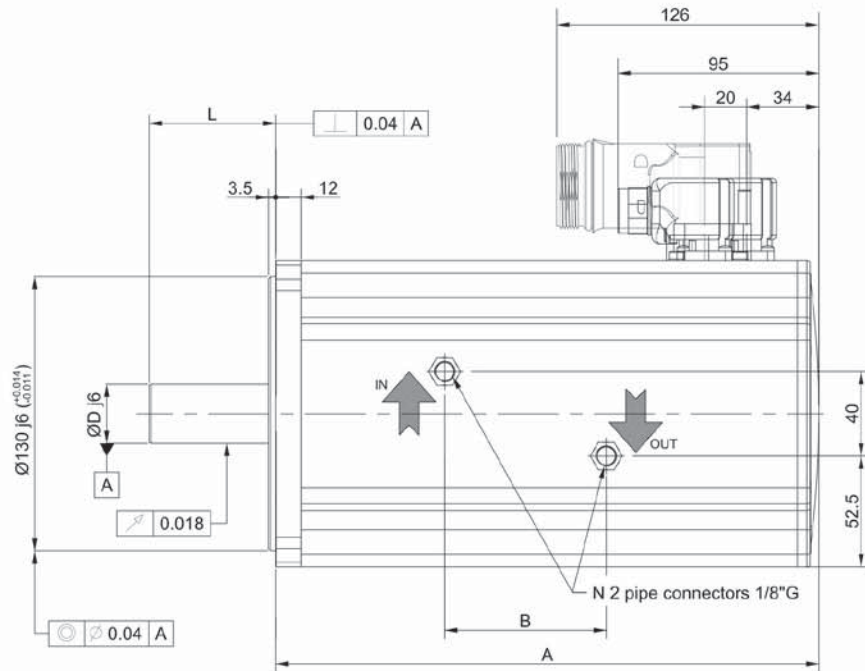


# U307W Models

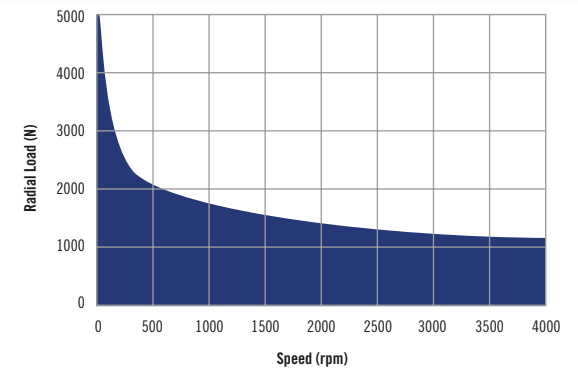


## DIMENSIONS

MOTOR TYPE	A	A* (with brake or inertia)	B	Shaft Dimensions	
				Ø D*L <sup>(1)</sup>	Ø D*L with key
U307W20	258	308	57	28*60	28*60
U307W30	308	358	105	32*80	32*80
U307W40	359	409	155	32*80	32*80

1) Shaft dimension according to DIN 748-1 column (b): simultaneous transmission of torque and a known bending moment.  
 \* When considering brake option, multiple solutions exist. Please contact technical office for verification.

Max. Radial Load applicable in the middle of the shaft extension



## Water Cooling - For inverter rated Voltage 380Vac to 480Vac

Motor Type			20			30			40		
Rated Speed	nM	[rpm]	2000	3000	4000	2000	3000	4000	2000	3000	4000
Stall Torque 1)	Md0	[Nm]	35			58			80		
Current @ Stall Torque 1)	Id0	[A]	15,8	23	28	27	36,7	50,5	38,5	53	70,6
Number of Poles	2p		8								

Nominal Rating											
Rated Torque 1)	MdN	[Nm]	33	30	29,5	55	53	52	77	70	68
Rated Current 1)	IdN	[A]	15,7	20,0	24	26,6	35	47,5	38,2	51,6	68,3
Rated Power	PdN	[kW]	6,95	9,8	12,26	11,53	16,98	22,05	16,20	22,30	28,46
Voltage Constant (+/- 10%)	Ke20°C	[Vrms/1000rpm]	147,4	102,0	83,3	145,2	106	77,45	140,85	102,43	76,82
Torque Constant (+/- 10%)	Kt20°C	[Nm/A]	2,44	1,70	1,378	2,40	1,76	1,28	2,33	1,69	1,27
Winding Resistance (+/- 10%)	Ru-v	[Ω]	1,75	0,850	0,56	0,935	0,5	0,265	0,642	0,34	0,191
Winding Inductance (+/- 10%)	Lu-v	[mH]	13,8	6,720	4,435	8,67	4,66	2,467	6,37	3,37	1,895
Derating Temp. Coeff. Of Back EMF	Dke/Dt	[%/°C]	-0,11								
Nominal Voltage	Vn	[V]	340,6	339	357,4	336	357	341	333	352	346
Losses	Loss	[kW]	0,9			1,4			2,1		
Minimum Flow Rate	Flow	[L/min]	2			3			5		
Efficiency	Eff	[%]	0,880	0,885	0,900	0,885	0,905	0,920	0,880	0,900	0,920
Knee Speed @ 380Vac	nknee1	[rpm]	2184	3297	4113	2197	3087	4333	2216	3123	4237
Knee Speed @ 480Vac	nknee2	[rpm]	2800	4264	5420	2825	4023	5567	2847	4001	5424
Knee Speed 380Vac and Mmax	nknee3	[rpm]	1509	2276	2856	1583	2223	3145	1636	2320	3155
Knee Speed 480Vac and Mmax	nknee4	[rpm]	1961	2938	3669	2054	2873	4024	2116	2980	4034

Maximum Values											
Max. Torque	Mmax	[Nm]	65			100			130		
Max. Current (peak value)	Imax	[A]	33,35	47,9	59	52,0	70,9	97,5	70,0	95,9	128,0
Max. Saturation Speed @ 380Vac	nmax1	[rpm]	2730	3900	4800	2760	3780	5180	2840	3900	5220
Max. Saturation Speed @ 480Vac	nmax2	[rpm]	3450	4950	6050	3500	4750	6500	3600	4980	6600
Max. Mechanical Speed	nmax	[rpm]	6000								

Mechanical Data (+/- 10%)											
Inertia	Jm	[kgcm <sup>2</sup> ]	14			20			26		
Mass	M	[kg]	16			20			24		

Technical Data of the holding brake											
Holding Torque	MBr	[Nm]	32								
Rated Voltage (±10%)	UBr	[Vdc]	24								
Rated Current 1)	IBr	[A]	93,00								
Mass	MBr	[kg]	2,4								
Inertia	JBr	[kgcm <sup>2</sup> ]	13,5								
Additional motor length	Length	[mm]	50								

## Test Condition

1) Water inlet temperature max 20°C; Chopper frequency 8kHz