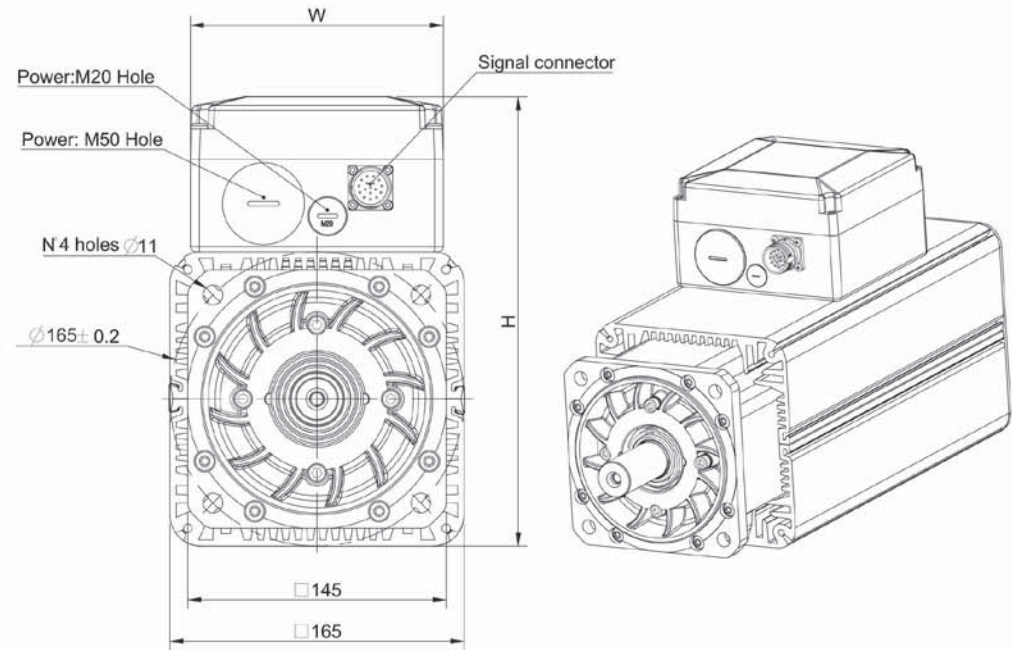
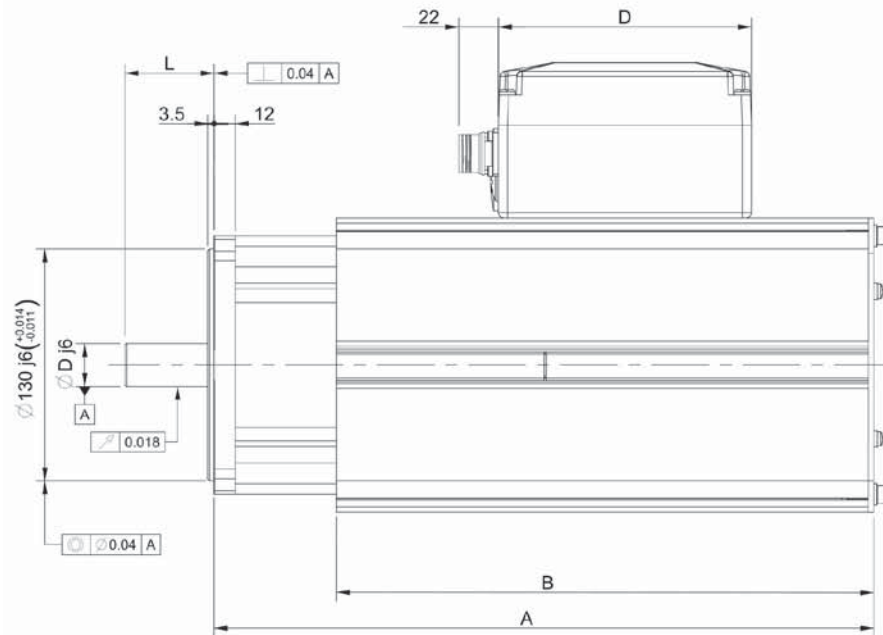


U307F Models

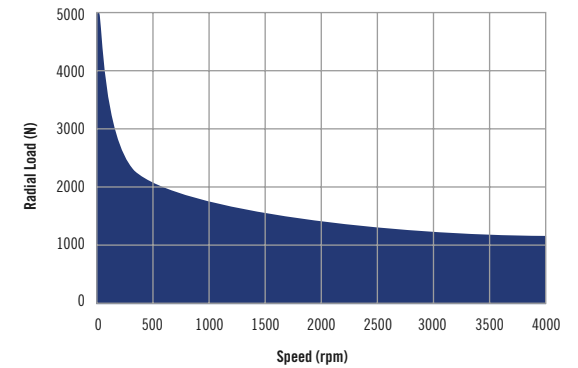


DIMENSIONS

MOTOR TYPE	A	A (with brake or inertia)	B	Shaft Dimensions	
				$\varnothing D * L^{(1)}$	$\varnothing D * L$ with key
U307F20	356	406	287	24*50	24*50
U307F30	406	456	337	28*60	28*60
U307F40	456	506	387	32*60	32*80

1) Shaft dimension according to DIN 748-1 column (b): simultaneous transmission of torque and a know bending moment.

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



Servo Fan 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]	30			46			62		
Current @ Stall Torque 1)	Id0	[A]	12,45	17,2	23,8	18,5	26,5	35	25	35,7	45,6
Number of Poles	2p		8								

Nominal Rating											
Rated Torque 1)	MdN	[Nm]	28	26,5	24,5	42,5	41,6	37	57,5	55	51
Rated Current 1)	IdN	[A]	11,8	15,6	19,8	17,4	23,7	28,5	25,2	32,2	38,5
Rated Power	PdN	[kW]	5,86	8,3	10,26	9,05	13,08	15,50	12,04	17,28	21,36
Voltage Constant (+/- 10%)	Ke20°C	[Vrms/1000rpm]	159,6	114,9	83,8	162,7	114,9	86,17	153	114,9	89,4
Torque Constant (+/- 10%)	Kt20°C	[Nm/A]	2,64	1,9	1,39	2,69	1,90	1,43	2,53	1,90	1,48
Winding Resistance (+/- 10%)	Ru-v	[Ω]	2,04	1,058	0,554	1,2	0,6	0,338	0,73	0,411	0,249
Winding Inductance (+/- 10%)	Lu-v	[mH]	16,84	8,723	4,55	11,68	5,8	3,27	7,76	4,36	2,64
Derating Temp. Coeff. Of Back EMF	Dke/Dt	[%/°C]	-0,11								
Nominal Voltage	Vn	[V]	353,8	369	350	357	367	359	335	366	373
Losses	Loss	[kW]	0,6			1,0			1,3		
Minimum Flow Rate	Flow	[L/min]	n.a.								
Efficiency	Eff	[%]	0,885	0,910	0,920	0,898	0,920	0,930	0,920	0,930	0,940
Knee Speed @ 380Vac	nknee1	[rpm]	2114	3029	4288	2088	3046	4179	2223	3048	4004
Knee Speed @ 480Vac	nknee2	[rpm]	2731	3910	5546	2693	3931	5425	2875	3927	5183
Knee Speed 380Vac and Mmax	nknee3	[rpm]	1351	1938	2819	1334	2004	2694	1470	2020	2647
Knee Speed 480Vac and Mmax	nknee4	[rpm]	1769	2509	3620	1737	2581	3452	1904	2559	3388

Maximum Values											
Max. Torque	Mmax	[Nm]	65			100			130		
Max. Current (peak value)	Imax	[A]	30,8	42,8	58,7	46,4	65,8	87,7	64,3	85,6	110,2
Max. Saturation Speed @ 380Vac	nmax1	[rpm]	2520	3450	4800	2450	3500	4680	2650	3500	4500
Max. Saturation Speed @ 480Vac	nmax2	[rpm]	3200	4380	6100	3150	4400	5880	3350	4440	5750
Max. Mechanical Speed	nmax	[rpm]	6000								

Mechanical Data (+/- 10%)											
Inertia	Jm	[kgcm ²]	14			20			26		
Mass	M	[kg]	19			25			31		

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 ²]	13,5								
Additional motor length	Length	[mm]	50								

Box Connection	type	A									
----------------	------	---	--	--	--	--	--	--	--	--	--

For Box dimensions see page 8-9

Test Condition

1) Motor tested in horizontal position in free still air, ambient temperature 30°C; Chopper frequency 8kHz