

5.4.4 Electrical data BRV7

BR motor – With servo-ventilation – 1500 rpm			V71154	V72154	V73154	V74154	V75154	V76154	V77154	V78154
Stall torque ¹⁾³⁾	T ₀	Nm	8.1	15.4	23.0	31.0	37.0	42.0	48.0	54.0
Nominal power ¹⁾	P _N	W	1166	2296	3456	4555	5341	6126	6959	7697
Nominal torque ¹⁾	T _N	Nm	7.4	14.6	22.0	29.0	34.0	39.0	44.3	49.0
Nominal speed	n _N	rpm	1500	1500	1500	1500	1500	1500	1500	1500
Peak torque 20°C	T _{max}	Nm	15.9	31.1	45.2	58.0	75.7	89.2	105.5	120
Nominal current ¹⁾	I _N	Arms	2.5	4.9	7.1	9.0	11.1	12.5	14.4	15.8
Stall current ¹⁾³⁾	I ₀	Arms	2.7	5.0	7.2	9.3	11.6	12.9	15.0	16.8
Peak current	I _{max}	Arms	5.4	10.3	14.5	17.9	24.4	28.3	33.9	38.4
Rotor inertia	J _m	kgcm ²	5.2	8.5	11.8	15.1	18.4	21.7	25.0	28.3
Voltage constant 20°C ²⁾	k _e	Vs/rad	1.90	1.94	2.00	2.08	1.99	2.03	2.00	2.01
Torque constant 20°C with stall rotor ²⁾	k _t	Nm/Arms	3.19	3.26	3.36	3.49	3.35	3.41	3.36	3.38
Ke and kt reduction coeff. over temperature	dk/dt	[%/°C]	-0.11	-0.11	-0.11	-0.11	-0.11	-0.11	-0.11	-0.11
Winding resistance 20°C ²⁾	R _c	Ohm	23.58	8.02	4.635	3.4	2.34	1.93	1.59	1.37
Winding inductance ²⁾	L _c	mH	88.3	50.2	32.3	26.4	18.76	15.5	13.3	10.7
E.M.F at 1000 rpm 20°C ²⁾	V1000	V/krpm	199	203	210	218	209	212	210	210
Nominal voltage ¹⁾	V _N	Vrms	371	357	356	365	342	342	337	333
Weight	m	kg	11.5	14	16.7	19.1	21.9	24.3	27.1	29.5
Number of poles	2p		8	8	8	8	8	8	8	8

BR motor – With servo-ventilation – 2000 rpm			V71204	V72204	V73204	V74204	V75204	V76204	V77204	V78204
Stall torque ¹⁾³⁾	T ₀	Nm	8.1	15.4	23.0	31.0	37.0	42.0	48.0	54.0
Nominal power ¹⁾	P _N	W	1466	2932	4503	5864	6807	7854	8796	9844
Nominal torque ¹⁾	T _N	Nm	7.0	14.0	21.5	28.0	32.5	37.5	42.0	47.0
Nominal speed	n _N	rpm	2000	2000	2000	2000	2000	2000	2000	2000
Peak torque 20°C	T _{max}	Nm	15.3	30.7	46.3	60.0	73.3	91.0	105.6	120
Nominal current ¹⁾	I _N	Arms	3.0	6.1	9.4	11.9	13.5	16.1	18.0	20.0
Stall current ¹⁾³⁾	I ₀	Arms	3.4	6.5	9.7	12.7	14.8	17.4	19.8	22.1
Peak current	I _{max}	Arms	6.5	13.2	20.1	25.3	30.2	38.8	44.8	50.6
Rotor inertia	J _m	kgcm ²	5.2	8.5	11.8	15.1	18.4	21.7	25.0	28.3
Voltage constant 20°C ²⁾	k _e	Vs/rad	1.50	1.49	1.48	1.52	1.56	1.51	1.52	1.52
Torque constant 20°C with stall rotor ²⁾	k _t	Nm/Arms	2.52	2.50	2.49	2.56	2.62	2.53	2.55	2.56
Ke and kt reduction coeff. over temperature	dk/dt	[%/°C]	-0.11	-0.11	-0.11	-0.11	-0.11	-0.11	-0.11	-0.11
Winding resistance 20°C ²⁾	R _c	Ohm	14.72	4.6	2.55	1.83	1.43	1.07	0.905	0.782
Winding inductance ²⁾	L _c	mH	58	29.3	18.14	14.2	10.96	9.3	7.81	5.86
E.M.F at 1000 rpm 20°C ²⁾	V1000	V/krpm	157	156	155	160	163	158	159	160
Nominal voltage ¹⁾	V _N	Vrms	369	349	341	346	345	333	331	327
Weight	m	kg	11.5	14	16.7	19.1	21.9	24.3	27.1	29.5
Number of poles	2p		8	8	8	8	8	8	8	8

BR motor – With servo-ventilation – 3000 rpm			V71304	V72304	V73304	V74304	V75304	V76304	V77304	V78304
Stall torque ¹⁾³⁾	T ₀	Nm	8.1	15.4	23.0	31.0	37.0	42.0	48.0	54.0
Nominal power ¹⁾	P _N	W	1979	3958	6126	7540	8954	10367	11310	12252
Nominal torque ¹⁾	T _N	Nm	6.3	12.6	19.5	24.0	28.5	33.0	36.0	39.0
Nominal speed	n _N	rpm	3000	3000	3000	3000	3000	3000	3000	3000
Peak torque 20°C	T _{max}	Nm	14.9	30.5	45.0	60.0	75.0	90.0	105.9	120.0
Nominal current ¹⁾	I _N	Arms	3.9	8.0	12.2	15.0	17.8	20.6	22.7	24.3
Stall current ¹⁾³⁾	I ₀	Arms	4.8	9.4	13.8	18.6	22.2	25.3	29.1	32.5
Peak current	I _{max}	Arms	9.1	19.2	27.8	37.1	46.4	55.7	66.0	74.2
Rotor inertia	J _m	kgcm ²	5.2	8.5	11.8	15.1	18.4	21.7	25.0	28.3
Voltage constant 20°C ²⁾	k _e	Vs/rad	1.05	1.02	1.04	1.04	1.04	1.04	1.03	1.04
Torque constant 20°C with stall rotor ²⁾	k _t	Nm/Arms	1.76	1.72	1.75	1.75	1.75	1.75	1.73	1.75
Ke and kt reduction coeff. over temperature	dk/dt	[%/°C]	-0.11	-0.11	-0.11	-0.11	-0.11	-0.11	-0.11	-0.11
Winding resistance 20°C ²⁾	R _c	Ohm	7.25	2.19	1.26	0.849	0.65	0.515	0.419	0.361
Winding inductance ²⁾	L _c	mH	30.23	12.4	9.23	6.39	4.78	4.09	3.09	2.94
E.M.F at 1000 rpm 20°C ²⁾	V1000	V/krpm	110	107	109	109	109	109	108	109
Nominal voltage ¹⁾	V _N	Vrms	364	338	345	336	331	330	322	324
Weight	m	kg	11.5	14	16.7	19.1	21.9	24.3	27.1	29.5
Number of poles	2p		8	8	8	8	8	8	8	8

Torque and power values refer to motor flanged and suspended in horizontal positions (steel flange 500x500x40 mm)

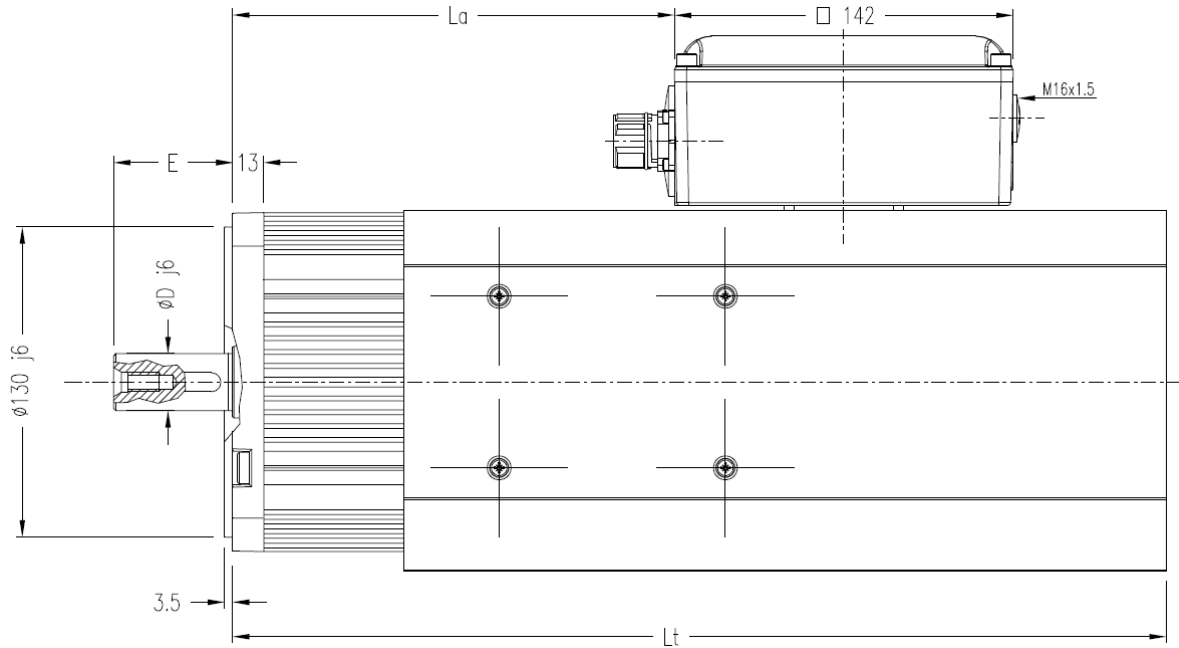
Minimum PWM 8kHz, DC bus test voltage ≤ 560 Vdc uncontrolled, tested with resolver

¹⁾ Continuous service S1 (dT=105°C)

²⁾ Tolerance ± 10%

³⁾ Value referred to 100 rpm

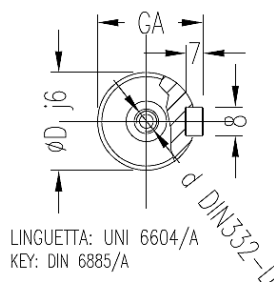
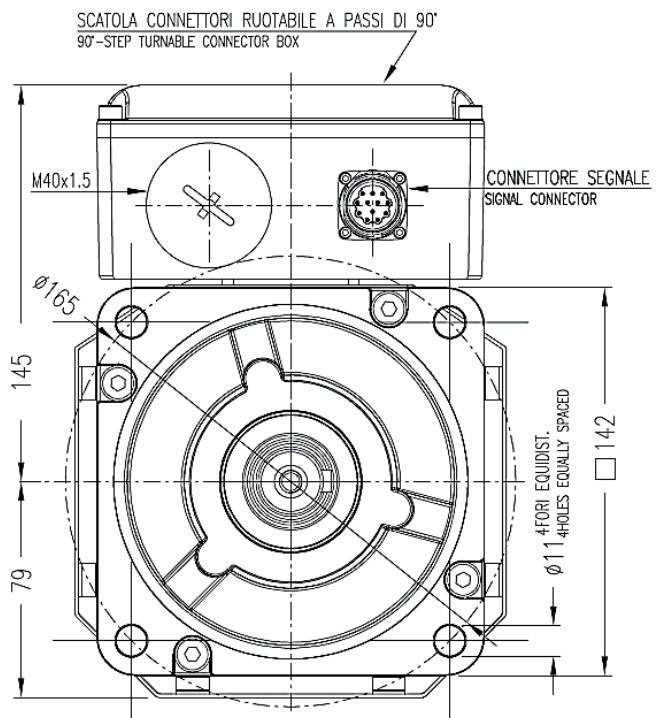
5.5.4 Overall dimensions – BRV7



VENTILATION: FORCED CONVECTION IC416

	Without brake			ØDxE
	La	Lt		
BRV71	102	312	24x50	
BRV72	130	340		
BRV73	158	368		
BRV74	185	395		
BRV75	213	423		
BRV76	240	450	28x60	
BRV77	268	478		
BRV78	295	505		

	With brake			ØDxE
	La	Lt		
BRV71	152	362	24x50	
BRV72	180	390		
BRV73	208	418		
BRV74	235	445		
BRV75	263	473		
BRV76	290	500	28x60	
BRV77	318	528		
BRV78	345	555		



ØDxE	24x50	28x60
GA	27	31
d	M8	M10