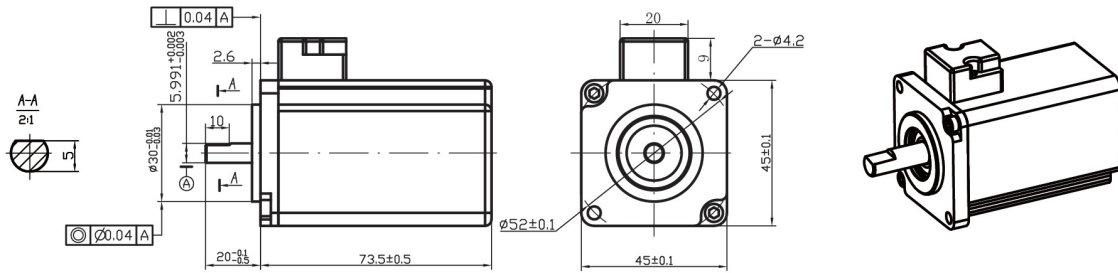


# BA45 | Brushless



## Motor Data

	motor model		BA4512	BA4524	BA4536	
1	no load voltage	Vnl	12	24	36	Volts
2	no load speed	Wnl	5000	10000	15000	rpm
3	no load current	Inl	0.4	0.8	1.2	Amps
4	nominal torque	Tc	0.18	0.16	0.14	Nm
5	nominal speed	Wc	3000	7500	12000	rpm
6	nominal current	Ic	8.5	7.5	6.6	amps
7	nominal voltage	Vc	12	24	36	VDC
8	output power	Pc	57	126	176	watts
9	motor constant	Km	0.0355	0.0355	0.0355	Nm/sqrt ( W )
10	torque constant	Kt	0.0233	0.0233	0.0233	Nm/amp
11	back EMF constant	Kv	0.0233	0.0233	0.0233	V/rad./s
		Ke	416	416	416	rpm/volt
12	terminal resistance	Rt	0.43	0.43	0.43	ohms ( Ω )
13	cogging and hysteresis torque	Tc Th	0	0	0	mNm
14	terminal inductance	L	30	30	30	uH
15	mechanical time constant	Tm	28	28	28	ms
16	electrical time constant	Te	0.070	0.070	0.070	ms
17	weight of motor	Wt		0.52		kg
18	max. efficiency	η	71	81	84	%
19	max. permissible rotor temperature	Temp		120		°C
20	max. output power	PMAX	74	230	435	W
21	Terminal definitions		U: green V: black W: red +5V: yellow GND: grey H1: brown H2: orange H3: blue thermistor: violet			

## Graph

Torque – Speed – Current

