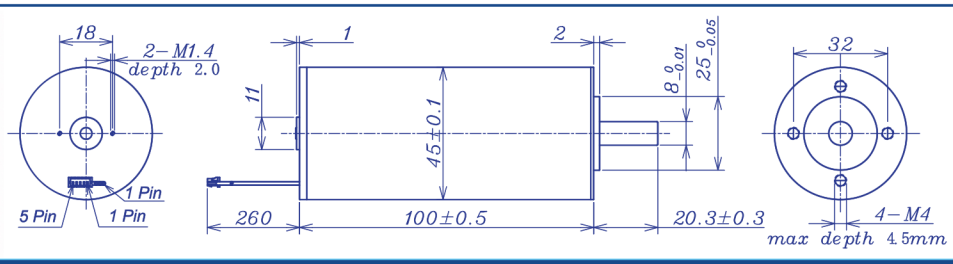
BRUSHLESS DC MOTOR
HIGH-POWER SERIES

Cifu Technology

CF-BL45100





			Brushless Motor		Ball Bearings			
Model			**2407**	**2406**	**3608**	**3606**	**4808**	**4807**
Rated Voltage		V	24	24	36	36	48	48
No-load Speed	±12%	rpm	7569	5823	9200	5684	8200	7075
No-load Current	Max 150%	mA	900	650	700	289	430	350
Recommended Continuous Limits	**Max. Cont. Torque**	mN.m	354.79	358.2	234.3	381.69	276.39	230
	Rated Speed	rpm	6397	5427	8812	5382	7350	6804
	Max. Cont. Current	mA	11000	9600	7000	6600	5000	3890
	Rated Power	W	237.68	203.55	216.2	215.12	214.25	163.86
Starting Current		mA	218182	141176	149904	124138	165517	111628
Stall Torque		mN.m	7423	5557	5549	7508	10010	7258
Max. Output Pwr.		W	1390.1	847.1	1336.6	1117.2	2149.0	1339.5
Peak Efficiency		%	90	88	87	91	90	89
Terminal Res.	±12%	Ω	0.11	0.17	0.16	0.29	0.29	0.43
Inductance	($1KH_Z$)	mH	0.023	0.043	0.035	N/A	0.082	0.13
Mech. Time Const.		ms	2.16	2.49	3.9	1.8	1.8	1.71
Rotor Inertia		gcm^2	227.14	227.14	227.14	227.14	227.14	227.14
Torque Constant		mN.m/A	34.02	39.36	37.2	60.48	60.48	65.02
Speed Constant		rpm/V	281	243	257	158	158	147
Speed-Torque Slope		rpm/mN.m	0.9	1.0	1.7	0.8	0.8	1
Motor Weight		g	757	757	757	757	757	757

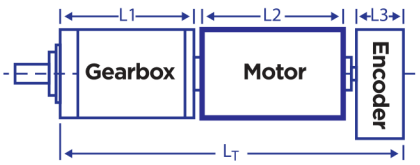
Specifications

Motor Thermal Resistance	3.3 K/W	**Thermal Time Constant**	1740 S
Axial Dynamic Load	8.0 N	**Radial Dynamic Load (5 mm from face)**	180.0 N
Max. Static Mounting Force	170 N	**Max. Screw Insertion Depth**	4.5 mm
Radial Clearance (5 mm from face)	≤0.02 mm	**Axial Clearance**	0 (<8.0N)
Max. Coil Temperature	155°C	**Ambient Temperature**	-30 to 65°C
Standard Rear Shaft Dia.	8 mm	**Standard Rear Shaft Length "L"**	0/3.7/5.5 mm

Lead Wire Pinout (AWG 18#)	**Total Length** L_T=L1+L2+L3				
Lead 1: Yellow — Phase A	**L1:45GP**	**L1:52GP**	**L2:BL45**	**L3:EN22S**	**L3:EN36T**
Lead 2: Red — Phase B	60.1	79.3	100.0	10.7	12.0
Lead 3: Blue — Phase C	72.1				
Hall Sensor Pinout 28#) Molex: 51021-0500					
Pin 1: Brown, Vcc 3-16V					
Pin 2: Black, GND					
Pin 3: Yellow, Hall A					
Pin 4: Red, Hall B					
Pin 5: Blue, Hall C					

Gearboxes and encoders can be selected to match the motor; contact sales for additional combinations.

CF-BL45100 **Recommended Options**



Gearbox Options:
AM-45GP
AM-52GP

Encoder Options:
Mag. Enc.: AM-EN2211S***
Opt. Enc.: AM-EN3612T***

Tested at 25°C. Exceeding recommended continuous limits may shorten service life or damage the motor.
At high temperatures, reduce load current to protect the motor.