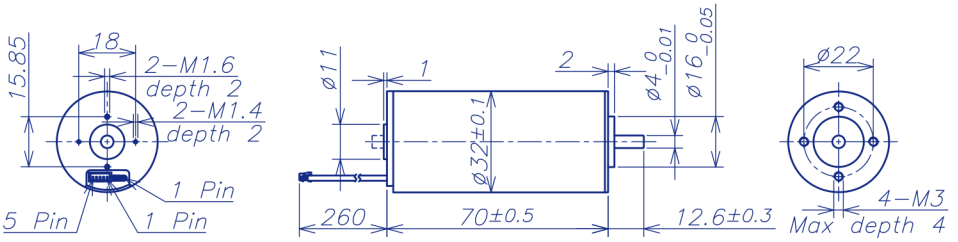
BRUSHLESS DC MOTOR

HIGH-TEMPERATURE SERIES

Cifu Technology

CF-BL3270





Model			Brushless Motor 1210	1207	Ball Bearings 2412	2409	3611	3609
Rated Voltage		V	12	12	24	24	36	36
No-load Speed	±12%	rpm	9794	6529	11523	8904	10882	9182
No-load Current	Max 150%	mA	355	192	190	127	94	80
Recommended Continuous Limits	**Max. Cont. Torque**	mN.m	64.4	75.0	65.5	73.5	72.6	71.5
	Rated Speed	rpm	8746	5371	10533	7800	9804	8139
	Max. Cont. Current	mA	5900	4500	3500	3000	2400	2000
	Rated Power	W	59.0	42.2	72.3	60.1	74.5	61.0
Starting Current		mA	52174	24490	38710	23301	23377	16981
Stall Torque		mN.m	602	423	762	593	733	630
Max. Output Pwr.		W	154.4	72.3	230.0	138.3	208.7	151.4
Peak Efficiency		%	84	83	86	56	88	87
Terminal Res.	±12%	Ω	0.23	0.49	0.62	1.03	1.54	2.12
Inductance	(1KH$_Z$)	mH	N/A	0.09	0.12	0.2	0.285	0.21
Mech. Time Const.		ms	2.6	2.5	2.4	2.4	2.4	2.3
Rotor Inertia		gcm^2	15.3	15.3	15.3	15.3	15.3	15.3
Torque Constant		mN.m/A	11.6	17.4	19.8	25.6	31.5	37.3
Speed Constant		rpm/V	822	548	482	373	303	256
Speed-Torque Slope		rpm/mN.m	16.3	15.4	15.1	15.0	14.9	14.6
Motor Weight		g	280	280	280	280	280	280

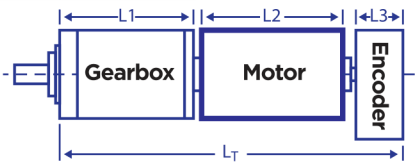
Specifications

Motor Thermal Resistance	7.0 K/W	**Thermal Time Constant**	1163 S
Axial Dynamic Load	6.0 N	**Radial Dynamic Load (5 mm from face)**	28.0 N
Max. Static Mounting Force	110N	**Max. Static Mounting Force**	4.0 mm
Radial Clearance (5 mm from face)	≤0.02 mm	**Axial Clearance**	0 (<6.0N)
Max. Coil Temperature	125°C	**Ambient Temperature**	-30 to 65°C
Standard Rear Shaft Dia.	4 mm	**Standard Rear Shaft Length "L"**	0/3.7/5.5 mm

Lead Wire Pinout (AWG 20#)	Total Length L_T=L1+L2+L3				
Lead 1: Yellow — Phase A	**L1:32GP**	**L1:36GP**	**L2:BL32**	**L3:EN22S**	**L3:EN24T**
Lead 2: Red — Phase B	27.4	39.6	70.0	10.7	12.0
Lead 3: Blue — Phase C	35.9	48.6			
Hall Sensor Pinout (AWG 28#) Molex: 51021-0500	44.4	57.6			
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-BL3270 **Recommended Options**



Gearbox Options:
AM-32GP
AM-36GP

Encoder Options:
Mag. Enc.: AM-EN2211S***
Opt. Enc.: AM-EN2412T***

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.