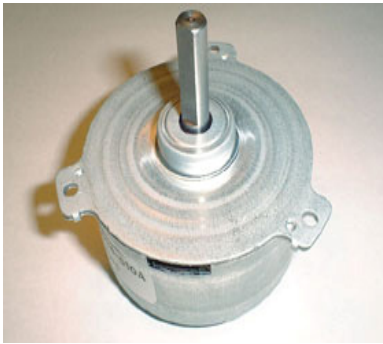


BLDC MOTOR TYPICAL PERFORMANCE

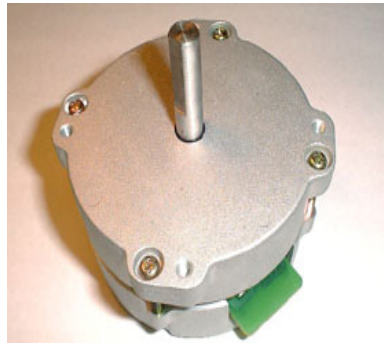
MODEL	Rated						Weight (Kg)	Flange Size (mm)	Housing Size (mm)
	voltage (V)	output (W)	Current (A)	Speed (RPM)	Torque (kgf-cm)	Rating			
FBD60-N012005	12	5	0.7	1500/3000	0.33/0.16	cont	0.5	□ 60	∅ 60 x 53
FBD60-N012015	12	15	2.1	1500/3000	0.98/0.49	cont	0.7	□ 60	∅ 60 x 73
FBD60-N024010	24	10	0.7	1500/3000	0.65/0.33	cont	0.5	□ 60	∅ 60 x 53
FBD60-N024030	24	30	2	1500/3000	1.95/0.98	cont	0.7	□ 60	∅ 60 x 73
FBD60-N220020	220	20	0.4	1500/3000	1.35/0.65	cont	0.5	□ 60	∅ 60 x 53
FBD60-N220060	220	60	0.9	1500/3000	3.90/1.95	cont	0.7	□ 60	∅ 60 x 73
FBD80-N012010	12	10	1.4	1500/3000	0.65/0.33	cont	1.4	□ 80	∅ 80 x 53
FBD80-N012020	12	20	2.8	1500/3000	1.30/0.65	cont	1.6	□ 80	∅ 80 x 73
FBD80-N024015	24	15	1.0	1500/3000	0.98/0.49	cont	1.4	□ 80	∅ 80 x 53
FBD80-N024035	24	35	2.4	1500/3000	2.30/4.60	cont	1.6	□ 80	∅ 80 x 73
FBD80-N220040	220	40	0.4	1500/3000	2.60/1.30	cont	1.4	□ 80	∅ 80 x 53
FBD80-N220090	220	60	0.7	1500/3000	5.90/2.90	cont	1.6	□ 80	∅ 80 x 73
FBD90-N012030	12	30	4.1	1500/3000	1.95/0.98	cont	2.3	□ 90	∅ 90 x 68
FBD90-N012040	12	40	5.4	1500/3000	2.60/1.30	cont	2.5	□ 90	∅ 90 x 78
FBD90-N024040	24	40	2.7	1500/3000	2.60/1.30	cont	2.3	□ 90	∅ 90 x 78
FBD90-N024060	24	60	4.1	1500/3000	3.30/1.60	cont	2.5	□ 90	∅ 90 x 78
FBD90-N220090	220	90	0.7	1500/3000	5.90/2.90	cont	2.1	□ 90	∅ 90 x 58
FBD90-N220150	220	150	1.1	1500/3000	9.80/4.90	cont	2.5	□ 90	∅ 90 x 78

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■ Please find the detailed **BLDC Motor Driver** specification at “[Motor Drivers & Controllers](#)” section or contact our sales dep. by telst@ms67.hinet.net for more detailed technical spec. data/drawing.



■ FBDIR-6634



■ FBDIR-7038



■ FBDIR-8538

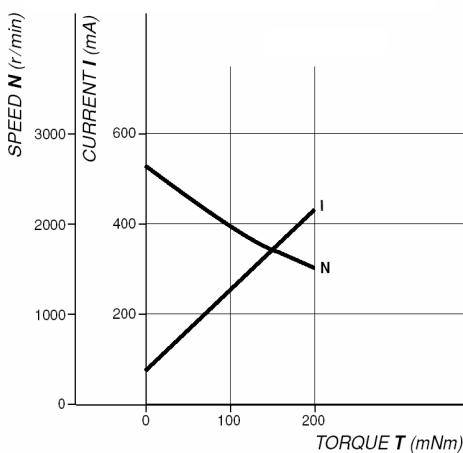
INNER ROTOR BLDC MOTOR TYPICAL SPECIFICATION

MODEL	Rated						Weight (Kg)	Shaft Size (mm)	Housing Size (mm)
	voltage (V)	output (W)	Current (A)	Speed (RPM)	Torque (gf-cm)	Rating			
FBDIR-6634	30	12	0.4	1300	350	cont	1.5	∅ 8 x 20	∅ 66 x 34L
FBDIR-7038	12	6	0.47	1620	150	cont	1.5	∅ 8 x 20	∅ 70 x 38L
FBDIR-8538	140	30	0.21	1730	2110	cont	2.5	∅ 8 x 20	∅ 85 x 39L

TORQUE-SPEED CHARACTERISTICS

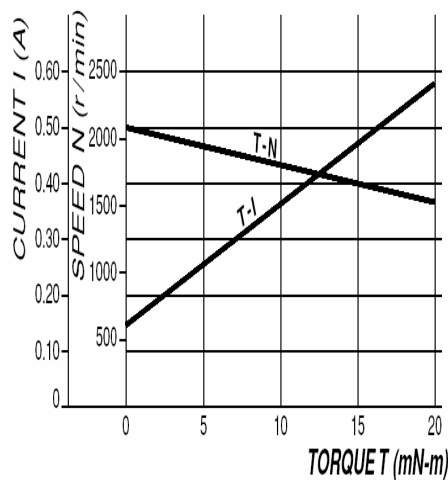
FBDIR-6634 30VDC

TORQUE-SPEED CHARACTERISTICS



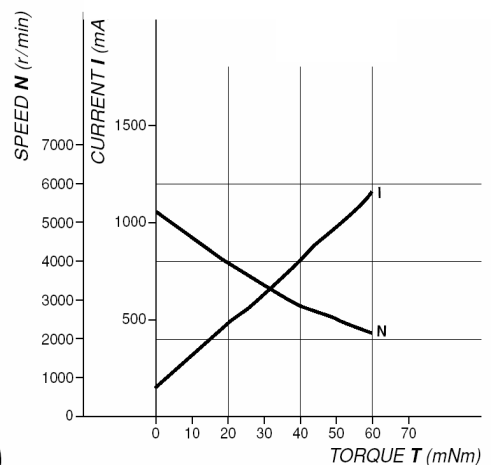
FBDIR-7038 12VDC

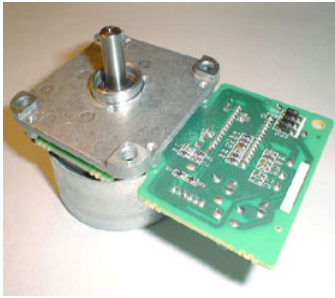
TORQUE-SPEED CHARACTERISTICS



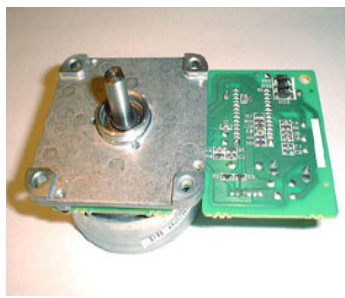
FBDIR-8538 140VDC

TORQUE-SPEED CHARACTERISTICS

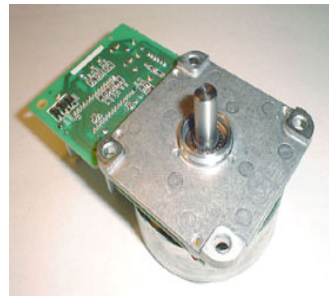




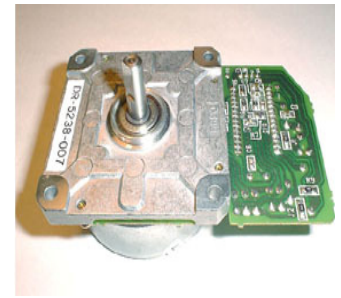
■ FBDOR-5640



■ FBDOR-6340



■ FBDOR-7537



■ FBDOR-8450

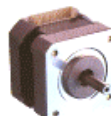
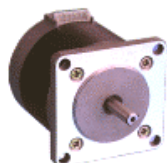
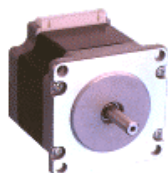
OUTER ROTOR BLDC MOTOR TYPICAL SPECIFICATION

MODEL		FBDOR-5640	FBDOR-6340	FBDOR-7537	FBDOR-8450
Rated Voltage	V	24	24	24	24
Output	W	15	20	30	40
Rated Current	A	1.0	1.5	2.0	3.1
Rated Torque	mNm	80	120	150	250
Rated Speed	r / min	1800	1700	2000	1500
Rating		continous	continous	continous	continous
Revolution Direction		CW/CCW	CW/CCW	CW/CCW	CW/CCW
Cogging Torque	mNm	4	4	6	8
Insulation Class		E	E	E	E
Temperature Range	°C	0~50	0~50	0~50	0~50
Weight	g	340	500	650	1200
Output Shaft Size	mm	∅ 8 x 20L	∅ 6 x 21L	∅ 8 x 20L	∅ 8 x 20L
Motor Housing	mm	∅ 56 x 40L	∅ 63 x 45L	∅ 75 x 37L	∅ 84 x 57L

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NEMA DC HYBRID TYPE STEPPING MOTOR TYPICAL SPECIFICATION

GENERAL SPECIFICATION

Model	FHS2P8	FHS2HP8	FHS2P9	FHS5P8	FHS5P9
NEMA Code.	34	34	43	34	43
No. of Phase	2	2	2	5	5
Step Angle Accuracy	± 5%	± 5%	± 5%	± 5%	± 5%
Radial Play	0.02mm Max (450g Load).	0.02mm Max (450g Load).	0.02mm Max(450g Load).	0.02mm Max (450g Load).	0.02mm Max (450g Load).
End Play	0.08mm Max. (450g Load)	0.08mm Max. (450g Load)	0.08mm Max. (450g Load)	0.08mm Max. (450g Load)	0.08mm Max. (450g Load)
Dielectric Strength	500VAC 1 Min.	500VAC 1 Min.	500VAC 1 Min.	500VAC 1 Min.	500VAC 1 Min.
Temperature Rise	80° C Max.	80° C Max.	80° C Max.	80° C Max.	80° C Max.
Ambient Temp. Range	-20°C~+50°C	-20°C~+50°C	-20°C~+50°C	-20°C~+50°C	-20°C~+50°C
Insulation Class	130° C Class B	130° C Class B	130° C Class B	130° C Class B	130° C Class B
Insulation Resistance	100MΩ Min. at 500V DC	100MΩ Min. at 500V DC	100MΩ Min. at 500V DC	100MΩ Min. at 500V DC	100MΩ Min. at 500V DC
Flange size (mm)	□85mm	□85mm	□110mm	□85mm	□110mm

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- Please find the detailed **BLDC Motor Driver** specification at “Motor Drivers & Controllers” section or contact our sales dep. by telst@ms67.hinet.net for more detailed technical spec. data/drawing.

Typical Specification

Model	NEMA No.	No. of Phase	Holding Torque Kg-cm	Rated Current A/Phase	Voltage Volt.	Winding Resistance Ω /Phase	Inductance mH/Phase	Rotor Inertia g-cm ²	Weight g	Length mm
FHS2P811-620	34	2	22.0	2.00	5.20	2.60	9.50	1400	2100	68
FHS2P811-630	34	2	22.0	3.00	3.60	1.20	4.00	1400	2100	68
FHS2P811-440	34	2	30.8	4.00	3.20	0.80	4.80	1400	2100	68
FHS2P821-620	34	2	44.0	2.00	8.40	4.20	20.00	2700	3300	98
FHS2P821-630	34	2	44.0	3.00	5.40	1.80	7.50	2700	3300	98
FHS2P821-440	34	2	61.0	4.00	5.60	1.40	9.60	2700	3300	98
FHS2P831-620	34	2	66.0	2.00	11.60	5.80	32.00	4000	3930	126
FHS2P831-440	34	2	92.0	4.00	6.80	1.70	14.50	4000	3930	126
FHS2P841-620	34	2	84.0	2.00	14.00	7.00	42.00	5100	5500	156
FHS2P841-630	34	2	84.0	3.00	13.20	4.40	21.00	5100	5500	156
FHS2P841-440	34	2	118.0	4.00	8.40	2.10	21.00	5100	5500	156
FHS2HP811-615	34	2	12.0	1.5	4.65	3.10	10.00	640	1500	63
FHS2HP811-440	34	2	19.0	4.0	2.28	0.57	3.30	640	1500	63
FHS2HP821-620	34	2	25.0	2.0	4.40	2.10	9.50	1300	3000	91
FHS2HP821-440	34	2	35.0	4.0	3.24	0.81	5.80	1300	3000	91
FHS2HP831-620	34	2	40.0	2.0	8.60	4.30	14.60	1900	4500	130
FHS2HP831-440	34	2	50.0	4.0	3.20	0.80	6.30	1900	4500	130
FHS2P911-630	43	2	78.0	3.00	2.40	0.80	4.50		5100	101
FHS2P911-440	43	2	110.0	4.00	4.80	1.20	8.40		5100	101
FHS2P921-630	43	2	150.0	3.00	3.00	1.00	13.00		8400	148
FHS2P921-440	43	2	210.0	4.00	8.80	2.20	38.00		8400	148
FHS2P921-460	43	2	240.0	6.00	9.00	1.50	23.00		8400	148
FHS2P931-630	43	2	210.0	3.00	26.40	8.80	69.00		11500	197
FHS5P811-514	34	5	21.0	1.40	1.96	1.40	5.40	1400	2050	68
FHS5P811-528	34	5	21.0	2.80	1.32	0.47	1.80	1400	2050	68
FHS5P821-514	34	5	41.0	1.40	3.08	2.20	10.80	2700	3300	98
FHS5P821-528	34	5	41.0	2.80	1.46	0.52	2.55	2700	3300	98
FHS5P831-514	34	5	63.0	1.40	4.48	3.20	20.00	4000	3930	126
FHS5P831-528	34	5	63.0	2.80	6.80	1.70	10.63	4000	3930	126
FHS5P841-530	34	5	78.0	3.00	3.00	1.00	5.20	5100	5500	156
FHS5P911-528	43	5	73.0	2.80	2.14	0.80	4.50		5100	101
FHS5P921-528	43	5	137.0	2.80	3.36	1.20	8.40		8400	148
FHS5P931-530	43	5	195.0	3.00	3.00	1.00	13.00		11500	197

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