



**MANUFACTURING  
MOTORS WITH CARE**

CHARACTERISTICS (1)					
DESCRIPTION	SYMBOL	UNIT	BR -2	BR -3	BR -4
SUPPLIED VOLTAGE	V	VDC	48	48	48
MAX. SPEED AT 48VDC ±10% (2)	Nn	rpm	3500	3100	1500
STALL TORQUE (3) ±10%	Ms	Nm	0,8	2,6	3,85
STALL CURRENT	Is	A	8	18,5	15
PEAK TORQUE	Mj	Nm	1,8	6,75	12,5
TORQUE - WEIGHT RATIO	Tw	Nm/kg	1,7	2,17	1,77
EMF CONSTANT ±10 %	Ke	Vs/rad	0,06	0,08	0,15
TORQUE CONSTANT ±10 %	Kt	Nm/A	0,10	0,14	0,26
RELUCTANCE TORQUE	TR	mNm	10	30	60
WINDING RESISTANCE ±10 %	R	Ω	0,71	0,21	0,25
WINDING INDUCTANCE ±10 %	L	mH	0,41	0,20	0,44
ROTOR INERTIA	J	kg·m <sup>2</sup> ·10 <sup>-3</sup>	0,016	0,105	0,385
MECHANICAL TIME CONSTANT	ζM	ms	1,86	1,97	2,47
ELECTRICAL TIME CONSTANT	ζE	ms	0,58	0,95	1,76
THERMAL RESISTANCE	RTH	°C/W	2,06	1,3	1
MASS	M	kg	0,47	1,2	2,18
RADIAL LOAD (4)	FR	N	71	178	295
AXIAL LOAD	FA	N	10	89	134
POLE PAIR	p	-	10	10	10
INSULATION	-	-	CLASS-F	CLASS-F	CLASS-F
PROTECTION	-	-	IP-54	IP-54	IP-54
HEAT SINK PLATE	-	mm	300x300x10	300x300x10	300x300x10

(1) All characteristics measured at 25°C ambient temperature / (2) With load / (3) With the aluminum heat sink plate specified / (4) At mid-length of the output shaft

**INFRANOR**  
MAVILOR

## FC SERIES

FC range derives from our patented FP series, which are zero-cogging motors with high torque and high peak performance. No-cogging motors allow for vibration free drivers and complex torque control loops using haptic sensors.

- Infranor XtraforsPrime motors in cylindrical housings (FC).
- Slotless design.
- Absolute no cogging.
- High efficiency allows significant speeds at low voltages

