



## **BF Series**

# WASHDOWN Mavilor Motor

\* S M O O T H E D G E S

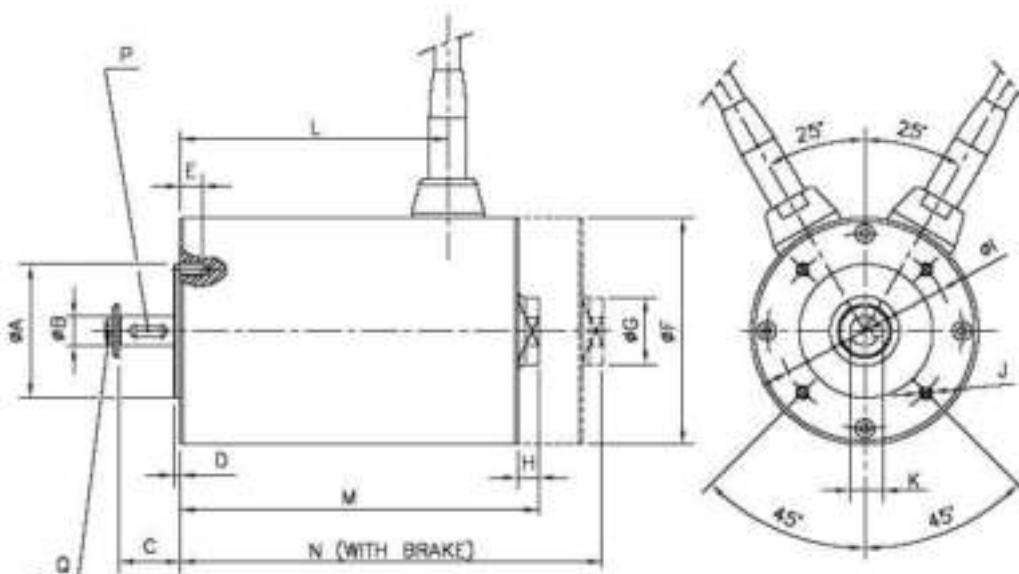
\* S T A I N L E S S S T E E L H O U S I N G  
A N D S H A F T

\* I P 6 7

Synchronous electrical servomotors with 3 winding phases, supplied with sinusoidal current wave forms. The feedback device is a resolver (BFS Series)

CHARACTERISTICS	SYMBOL	UNITS	BFS-82	BFS-83	BFS-122	BFS-124
			220VAC	220VAC	220VAC	220VAC
MAX. MECHANICAL SPEED	n	r.p.m	11000	11000	8500	8500
STALL TORQUE (1) (+/-10°)	M <sub>s</sub>	Nm	1.5	2.0	4.50	8.6
STALL CURRENT	I <sub>s</sub>	A	3.10	2.90	5.42	10.36
PEAK TORQUE (+/-10%)	M <sub>j</sub>	Nm	7.60	10.80	20.00	42.40
EMF CONSTANT (+/-5%)	K <sub>e</sub>	Vs/rad(rms)	0.28	0.40	0.48	0.48
TORQUE CONSTANT (+/-5%)	K <sub>t</sub>	Nm/A(rms)	0.48	0.69	0.83	0.83
RELUCTANCE TORQUE (*)	T <sub>r</sub>	Nm	<3.5%	<3.5%	<3%	<3%
WINDING RESISTANCE (+/-5%)	R	Ω	5.3	6.4	2.4	0.8
WINDING INDUCTANCE (+/-5%)	L	mH	5.4	6.4	4.8	1.9
ROTOR INERTIA	J	kgm <sup>2</sup> 10 <sup>-3</sup>	0.051	0.074	0.380	0.740
MECHANICAL TIME CONSTANT	T <sub>m</sub>	ms	1.99	1.71	2.29	1.49
ELECTRICAL TIME CONSTANT	T <sub>e</sub>	ms	1.02	1.00	2.00	2.38
RADIAL LOAD (at mid-length of shaft)	F <sub>r</sub>	N	245	274	515	515
AXIAL LOAD	F <sub>a</sub>	N	98	98	255	255
INSULATION			CLASS-F	CLASS-F	CLASS-F	CLASS-F
PROTECTION			IP-67	IP-67	IP-67	IP-67
(1) Aluminium heat sink plate			300X300X10	300X300X10	400X400X10	400X400X10

All characteristics at 25°C ambient temperature  
 (\*) Respect to the Stall Torque



MODEL	#A <sub>g</sub>	#B <sub>g</sub>	C	D	E	#F	#G	H	#I	4xJ	K <sup>1</sup>	L	M	N	P		Q	
															DIN 9135-A4	DIN 9135-A	DIN 9135-A	DIN 9135-A
BF-82	50	11	23	2.5	8	85	25	8	85	M5	12.5	106	134	158		A4x4x14	M4x8	
BF-83	50	11	23	2.5	8	85	25	8	85	M5	12.5	118	152	178		A4x4x14	M4x8	
BF-122	80	19	40	3	12	125	35	10	100	M6	21.5	146	185	208		A6x6x30	M6x16	
BF-124	80	19	40	3	12	125	35	10	100	M6	21.5	188	235	258		A6x6x30	M6x16	