

TECHNICAL CHARACTERISTICS - FC MOTORS VERSION 400 Vac / 460 Vac

Specific characteristics:

			170 FC H05	170 FC H1	170 FC H4	290 FC H1	290 FC H4	390 FC H2	390 FC H6
Continuous torque at stall	(1)	N.m	14.3	26	48	93	175	248	461
Current at continuous torque	(1)	A	3.2	2.9	4.4	7.8	10	14	22.1
Peak torque	(2)	N.m	43.8	83	169	272	544	885	1,745
Current at peak torque	(2)	A	10.6	10.2	17	25.3	34.1	49.8	83.2
Rated speed	(1)	rpm	800	420	350	320	220	220	190
Rated power	(1)	W	1,080	1,147	1,764	3,124	4,040	5,730	9,200
Inertia		kg.m ²	0.0079	0.0136	0.025	0.151	0.274	0.830	1.525
Weight		kg	14.5	20	31	70	87	124	204
Thermal time constant housing - ambient	(1)	s	4,050	4,270	4,610	5,375	6,130	7,920	8,850
Thermal resistance housing - ambient	(1)	°C/W	0.254	0.225	0.178	0.105	0.085	0.067	0.054
Phase resistance at 20°C		Ω	8.83	11.68	6.50	3.40	2.62	1.75	0.84
Phase inductance at I contin.		mH	37.6	75.24	56.1	36.8	40.7	28.5	19.7
Electrical time constant		ms	4.3	6.4	8.6	10.8	15.6	16.3	23.4
No load phase emf at 60 RPM	(1)	V	10.8	21.6	26.4	30.5	45.2	45.7	53.6

Characteristics with recommended drives:

Range single-axis DS 2000 / DBS / multi-axis DBM 04	(3)		3/9	3/9	6/15	8/22	15/42	15/42	25/70
- Peak torque	(2)	N.m	30	60	121	190	497	580	1,137
- Peak current		A	6.4	6.4	10.6	15.5	29.7	29.7	49.5
Range single-axis DS 2000 / DBS / multi-axis DBM 04	(3)		6/15	6/15	8/22	15/42		25/70	50/140
- Peak torque	(2)	N.m	43.8	83	162	272		881	1,745
- Peak current		A	10.6	10.2	15.5	25.3		49.5	83
- Limitation of drive current		%	100	95	100	85		100	84

1 - Ambient 20°C

- Winding temperature rise 120°C

- Motor in natural convection mounted on flange:

- range 170: square of 180 mm

- range 290: square of 340 mm

- range 390: square of 410 mm

2 - Cold motor at 20°C

3 - Drives adjusted in plant for FC range motors. See our catalogue and the DS 2000 / DBS / DBM 04 Manuals