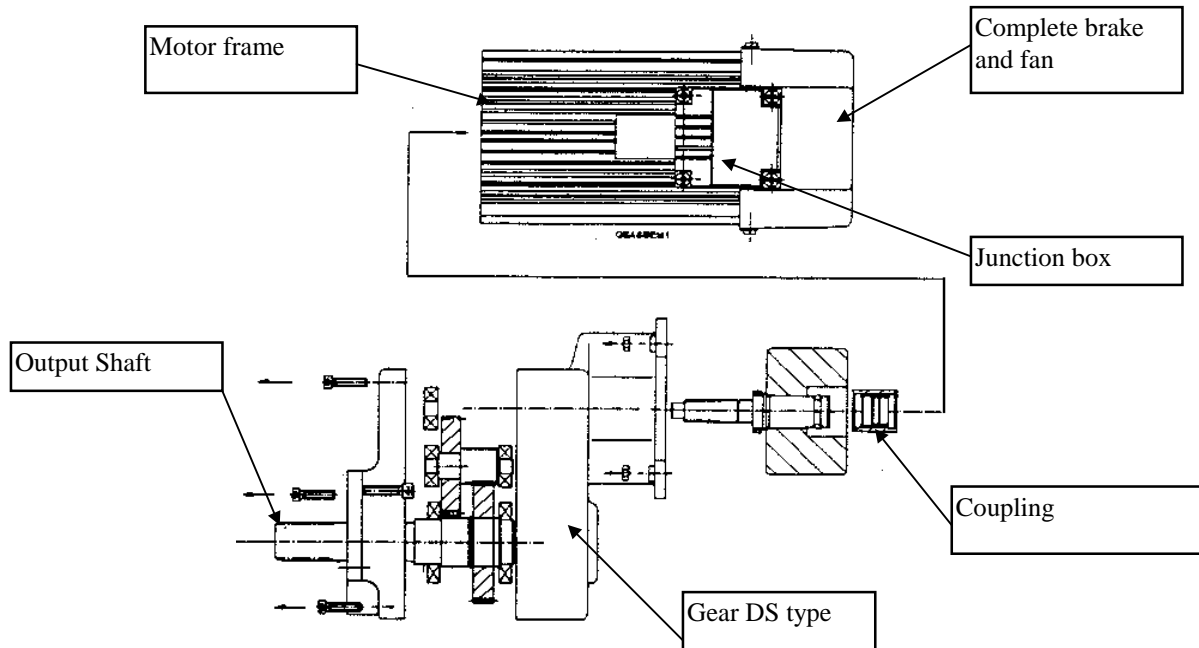


TRAVELING MOTORS

17

1) DESCRIPTION

The drive consists of a motor and a brake, and with different ratio gearbox combinations. Due to the modular design, the motor can be replaced without dismounting the gearbox from the end truck.



TRAVELING MOTORS

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2) MOTORS

All the traveling motors incorporate D.C. disc brake, class F insulation and an IP55 degree of protection as standard. The stator frame is made of extruded aluminum profile to maximize the dissipation of heat. The frame has a black anodized finish. MF07 motors have a CSA rating and a plug in connector.

Characteristics of traveling motors (50 hertz):

Motor type (50 hertz)	Power	Synchron ous speed	Max. torque	Starting torque	Electric braking torque	Short time duty High/ slow	Braking torque
Unit	kW	RPM	Nm	Nm	Nm	min	Nm
MF07LA104	0.25/0.06	3000/750	2.2/1.4	2.2/1.4	2.8/2.7	cont./50	2
MF07LB104	0.45/0.11	3000/750	3.3/2.4	3.3/2.4	5.7/5.1	cont./30	2.6
MF07ZC104	0.65/0.15	3000/750	5.3/3.5	5.2/3.5	10.7/9.2	cont./20	4
MF09LB206	0.65/0.15	1500/500	9.7/6.8	8.8/6.8	18.2/12.5	30/30	9
MF10L-206	1.1/0.35	1500/500	16.7/12.8	14.8/12.8	27.7/20.6	30/15	16
MF09LB104	1.3/0.3	3000/750	8/7.5	8/7	23.8/14	cont./60	9
MF10L-104	2.2/0.55	3000/750	18/12	18/12	48.1/21.6	30/20	16
MF11LB-206	1.8/0.5	1500/500	30/22	24/22	48/31		30

Characteristics of traveling motors (60 hertz):

Motor type (60 hertz)	Power	Synchron ous speed	Max. torque	Starting torque	Electric braking torque	Short time duty High/ slow	Braking torque
Unit	HP	RPM	Nm	Nm	Nm	min	Nm
MF07LA104	0.5/0.1	3600/900	2.3/1.4	2.3/1.4	2.8/2.7	30/30	2
MF07LA100	1/2	3600		2.1	-	30/30	2
MF07LB104	0.75/0.18	3600/900	3.3/2.2	3.3/2.2	5.7/5.1	30/30	2.6
MF07LB100	3/4	3600		3.7	-	30/30	2.6
MF07ZC104	1/0.24	3600/900	5.8/3.5	5.7/3.5	10.7/9.2	30/15	4
MF07ZC100	1	3600		6.9	-	30/30	4
MF09LB206	1/0.24	1800/600	9.5/6.7	8.6/6.7	18.2/12.5	30/30	9
MF09LA200	2	1800					
MF10L-206	1.75/0.53	1800/600	15.7/12.6	13.9/12.6	27.7/20.6	30/15	16
MF09LB104	2/0.5	3600/900	8/7.5	8/7	23.8/14		9
MF10L-104	3.3/0.8	3600/900	17.7/12	17.7/12	48.1/21.6	30/20	16
MF11LB-206	2.9/0.9	1800/600	30/22	24/22	48/31		30

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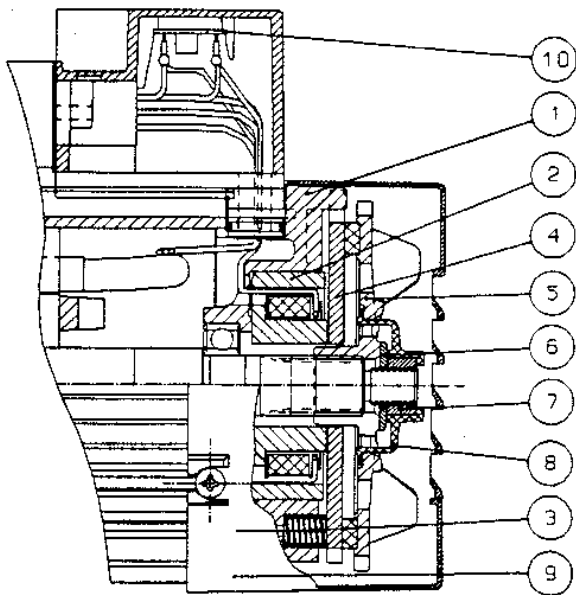
Motor Current & Brake Voltage - 60 Hz

Motor type	HP	RPM		230 V	460 V	575 V
MF07LA104	0.5/0.1	3600/900	Nominal current (A)	2.6/1.3	1.3/0.8	1.1/0.1
			Starting current (A)	7.0/1.5	3.5/0.76	2.8/0.6
			Brake coil VDC	190	190	220
MF07LA100	1/2	3600	Nominal current (A)	2.2	1.1	0.9
			Brake coil VDC	190	190	220
MF07LB104	0.75/0.18	3600/900	Nominal current (A)	3.4/1.8	1.7/0.9	1.3/0.7
			Starting current (A)	11.2/4.4	5.6/2.2	4.5/1.8
			Brake coil VDC	190	190	220
MF07LB100	3/4	3600	Nominal current (A)	2.6	1.3	1.1
			Brake coil VDC	190	190	220
MF07ZC104	1/0.24	3600/900	Nominal current (A)	3.6/2.7	1.9/1.4	1.5/1.1
			Starting current (A)	17.2/3.4	8.6/1.7	6.9/1.4
			Brake coil VDC	190	190	220
MF07ZC100	1	3600	Nominal current (A)	3.4	1.7	1.4
			Brake coil VDC	190	190	220
MF09LB206	1/0.24	1800/600	Nominal current (A)	4/3.4	2.0/1.7	1.6/1.36
			Starting current (A)	14.8/4.0	7.4/2.0	5.92/1.6
			Brake coil VDC	190	190	220
MF09LA200	2	1800	Nominal current (A)	6.2	3.1	2.5
			Brake coil VDC	190	190	220
MF10L-206	1.75/0.53	1800/600	Nominal current (A)	6.2/4.2	3.1/2.1	2.48/1.68
			Starting current (A)	24/6.6	12/3.3	9.6/2.64
			Brake coil VDC	190	190	220

TRAVELING MOTORS	17
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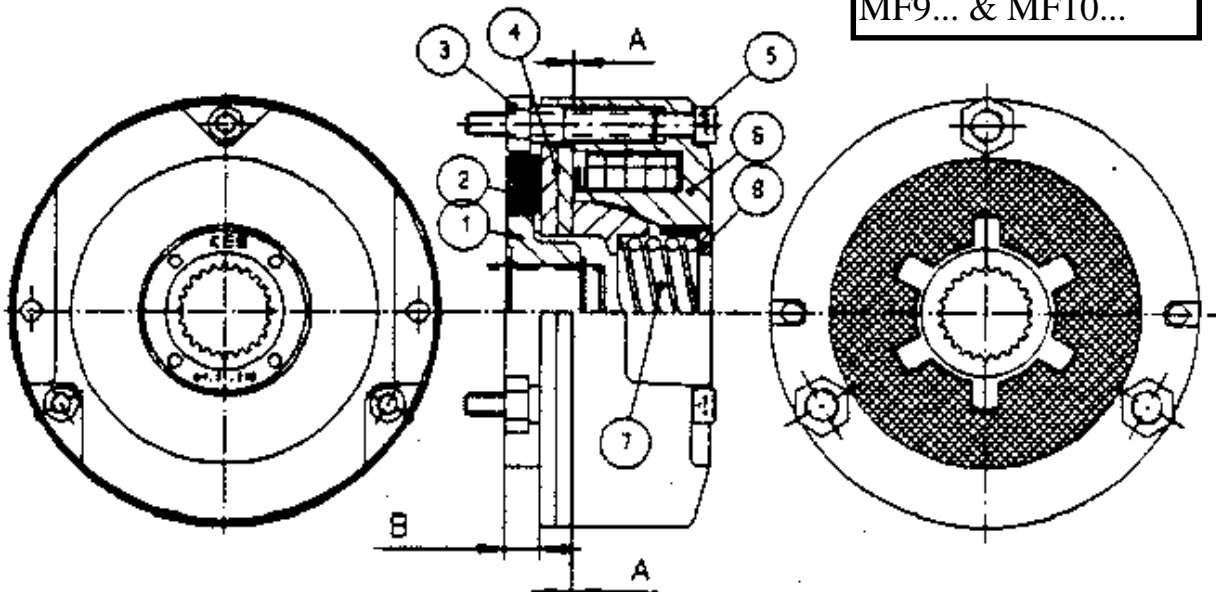
3) BRAKES

MF07 ...



- | | |
|------------------|--------------------|
| 1 - End bell | 2 - Brake magnet |
| 3 - Brake spring | 4 - Armature disc |
| 5 - Brake wheel | 6 - Washer |
| 7 - Nut | 8 - Locking device |
| 9 - Fan cover | 10 - Rectifier |

MF9... & MF10...



- | | |
|---------------------|----------------------------|
| 1 - brake disc | 2 - friction disc |
| 3 - adjustment nut | 4 - armature disc |
| 5 - retaining screw | 6 - brake magnet |
| 7 - brake spring | 8 - torque adjustment ring |

TRAVELING MOTORS	17
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3) BRAKES

Springs hold the brake closed until the coil is energized and the brake opens. The brake closes immediately in case of power failure.

Motor type	Brake type	brake torque (Nm)	Lining thickness (mm)	min. lining thickness (mm)	Nominal air gap (mm)	Max allowable air gap (mm)
MF07LA	NM311NR*	2	4	0.9	0.4	0.9
MF07LB	NM312NR*	2.6	4	0.9	0.4	0.9
MF07ZC	NM313NR*	4	4	0.9	0.4	0.9
MF09	NM34003	4	9	5.3	0.2	0.5
MF09	NM34003A	9	9	5.3	0.2	0.5
MF09	NM34004	16	12	7.3	0.2	0.5
MF10	NM34005	16	12	6	0.3	0.7
MF10	NM34005A	32	12	6	0.3	0.7

* 2 = 190VDC, 3 = 220VDC.

4) GEARS

All gears run on life-time lubricated bearings in a totally enclosed aluminum gearbox with semi-fluid grease lubrication.

Main characteristics:

GEAR	MOTOR POWER Max. (50 Hz) kW	Ratio available min-max	DRIVEN SHAFT		
			D (mm)	specification	Type
DS1	0.2	9-20	25	pin	C
DS3	0.45	7-80	25	pin	C
DS4	0.45	7-50	25	pin	C
DS2	0.25	20-63	21.8	W22*1.25*16*8f DIN5480	SPLINE
DS3	0.45	9-80	29.7	W30*1.5*18*8f DIN5480	SPLINE
DS4	0.45	20-50	29.7	W30*1.5*18*8f DIN5480	SPLINE
TM4	0.75	28-90	45.5	N45*2*21 DIN5480	HOLLOW with SPLINE
TM5	5.0	14-90	45.5	N45*2*21 9H DIN5480	HOLLOW with SPLINE