

DC motors, gear motors and traction systems



DC motors

Permanent magnet DC motors available in sizes ranging from 30 W up to 2500 W (1/25 up to 4 HP).



DC gear motors

Permanent magnet DC gear motors available in right angle, parallel shaft or planetary type gear boxes.



DC traction systems

Complete range of right angle gear motors, transaxle systems and motorwheels.



Permanent magnet DC motors

MP 56



MP56M B14

MP56S B14

Table references: see final page

Type	IEC	A	B	C	D	E	F	H*	J	K	L*	M	N	P	Q	R*
B3	-	99	80	40	11	23	-	50-53	7	7	111-187	-	-	-	-	78-84
B5	56	-	-	-	9	20	7.5	-	-	-		100	80	120	2.5	
	63	-	-	-	11	23	9.5	-	-	-		115	95	140	3.5	
B14	56	-	-	-	9	20	M5	-	-	-		65	50	-	2.5	
	63	-	-	-	11	23	M5	-	-	-		75	60	-	3	

FEATURES

Permanent magnets

N° of pole: 2

Duty: S1 - S2 - S3

Protection class: IP20 - IP44

Power supply: 12V - 24V - 36V - 48V - 180V

Power output: from 15W up to 200W

Brush housing: totally enclosed / fast replacement / external column

Electromagnetic brake available

MP 80



MP80S/2 B14

Table references: see final page

Type	IEC	A	B	C	D	E	F	H	J	K	L*	M	N	P	Q	R
B3	71	112	90	45	14	30	-	71	8.5	14	142-265	-	-	-	-	114
B5	63	-	-	-	11	23	9.5	-	-	-		115	95	140	3	
	71	-	-	-	14	30	9.5	-	-	-		130	110	160	3.5	
B14	63	-	-	-	11	23	M5	-	-	-		75	60	-	3	
	71	-	-	-	14	30	M6	-	-	-		85	70	-	2.5	

FEATURES

Permanent magnets

N° of pole: 2 - 4

Service duty: S1 - S2 - S3

Protection class: IP20 - IP44

Power supply: 12V - 24V - 36V - 48V - 180V

Power output: from 200W up to 750W

Brush housing: totally enclosed / fast replacement

Electromagnetic brake available

MP 100



MP100S B14

Table references: see final page

Type	IEC	A	B	C	D	E	F	H	J	K	L*	M	N	P	Q	R
B3	80	125	100	50	19	40	-	80	9	9	164-256	-	-	-	-	144.5
B5	80	-	-	-	19	40	12	-	-	-		165	130	200	3.5	
B14	71	-	-	-	19	40	M6	-	-	-		100	80	-	3	

FEATURES

Permanent magnets

N° of pole: 4

Service duty: S1 - S2 - S3

Protection class: IP20 - IP44

Power supply: 12V - 24V - 36V - 48V

Power output: from 550W up to 1500W

Brush housing: fast replacement

Electromagnetic brake available

Permanent magnet DC motors

MP 135



MP135 B14

Table references: see final page

Type	IEC	A	B	C	D	E	F	H	J	K	L*	M	N	P	Q	R
B3	100	160	140	63	28	60	-	100	12	12	200-382	-	-	-	-	172-177
B5	100	-	-	-	28	60	14	-	-	-		215	180	250	4	
B14	100	-	-	-	28	60	M8	-	-	-		130	110	-	4	

FEATURES

Permanent magnets

N° of pole: 4

Service duty: S1 - S2 - S3

Protection class: IP20 - IP44

Power supply: 12V - 24V - 36V - 48V

Power output: from 750W up to 2500W

Brush housing: totally enclosed / fast replacement

Electromagnetic brake available

Shunt wound motors

CA 80



CA80 B14

Table references: see final page

Type	IEC	A	B	C	D	E	F	H	J	K	L*	M	N	P	Q	R
B3	71	112	90	45	14	30	-	71	8.5	14	178-248	-	-	-	-	126
B5	71	-	-	-	14	30	9.5	-	-	-		130	110	160	3.5	
B14	71	-	-	-	14	30	M6	-	-	-		85	70	-	2.5	

FEATURES

Shunt wound

N° of pole: 4

Service duty: S1 - S2 - S3

Protection class: IP20 - IP44

Power supply: 12V - 24V - 36V - 48V

Power output: from 180W up to 1000W

Brush housing: fast replacement

Electromagnetic brake available

CA 100



CA100 B14

Table references: see final page

Type	IEC	A	B	C	D	E	F	H	J	K	L*	M	N	P	Q	R*
B3	90	140	100	56	24	50	-	90	11	11	212-297	-	-	-	-	165
B5	90	-	-	-	24	50	11.5	-	-	-		165	130	200	3.5	
B14	-	-	-	-	19	40	M8	-	-	-		130	110	-	3.5	

FEATURES

Shunt wound

N° of pole: 4

Service duty: S1 - S2 - S3

Protection class: IP20 - IP44

Power supply: 24V - 36V - 48V

Power output: from 380W up to 1000W

Brush housing: fast replacement

Electromagnetic brake available

CA 119



CA119 B14

Table references: see final page

Type	IEC	A	B	C	D	E	F	H	J	K	L*	M	N	P	Q	R
B3	100	160	140	63	28	60	-	100	12	12	214-425	-	-	-	-	193
B5	100	-	-	-	28	60	14	-	-	-		215	180	250	4	
B14	100	-	-	-	28	60	M8	-	-	-		130	110	-	3.5	

FEATURES

Shunt wound

N° of pole: 4

Service duty: S1 - S2 - S3

Protection class: IP20 - IP44

Power supply: 24V - 36V - 48V - 180V

Power output: from 750W up to 2200W

Brush housing: fast replacement

Electromagnetic brake available

Brushless DC motors

BL70

BRUSHLESS



BL70S B3 B5

MAIN FEATURES

new series of brushless DC motor with six poles in NeFeBo magnets.

The main feature is the absence of the brushes and so improved performance:

- reduced maintenance and high reliability
- high overload capacity in all speed range
- high torque with reduced size
- high efficiency
- low inertia and high acceleration
- low noise level
- high protection

APPLICATION

brushless DC motor is perfect in high performance long term applications, when it's difficult to guarantee maintenance service

TECHNICAL FEATURES

Voltage: 8 - 35 Vrms (DC SUPPLY 12 - 48V)

Nominal torque [T_n]: 1 - 3 Nm (8,85 - 26,55 lb-in)

Peak torque [T_p]: (3 - 5) x T_n

Nominal speed: 1500 - 6000 RPM

Power: 180 - 1100 W (1/4 - 1,5 HP)

Ambient temperature: -10 / 40 °C (14 / 104 °F)

Insulation: CLASS F

Winding: 3 phase star - trapezoidal

Protection: IP44

Number of Poles: 6 (NeFeBo magnets)

Motor thermal protection: OPTIONAL

Position transducer: hall effect sensor

(supply 5 - 24 VDC / outputs open collector 10 mA each channel)

Size (section): 120 x 120 mm (4,72 x 4,72 in)

Length: 160 - 200 - 240 mm (6,3 - 7,9 - 9,5 in)

Table references: see final page

Type	IEC	A	B	C	D	E	F	H	J	K	L*	M	N	P	Q	R*
B3	71	112	90	45	14	30	-	71	14	8.5	164-244	-	-	-	-	116x116
B5	71	-	-	-	14	30	9.5	-	-	-		110	130	160	3.5	
B14	71	-	-	-	14	30	M6	-	-	-		70	85	-	2.5	

Permanent magnet DC gear motors

AOMPI40



AOMPI40
with MP56S

AOMPI40
with MP56M

APPLICATION

brush motor traction for trolleys, welding machines, small vehicles, golf, etc.

FEATURES

Type of motor mounted: permanent magnet

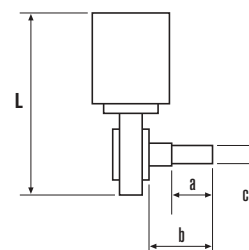
Gearbox: steel worm and worm gear rolled or rectified with plastic or bronze gear

Reduction ratio: 12/1 - 18/1 - 37/1 - 65/1

Power up to: 200W

Electromagnetic brake available

Shape	Size	L	L
AMER	S	194	7.566
AMER	M	224	8.736
AMER	L	240	9.36
Exit shaft: right and left			
		Values in mm	Values in inches



a: 26 mm [1.023 in]

b: 39.5 mm [1.555 in]

c: ø 14 mm [ø 0.551 in]

Permanent magnet DC gear motors



MRP4



MRP4 RR1 with MP56



MRP4 RR2 with MP56

APPLICATION

brush motor traction for small vehicles

FEATURES

Type of motor mounted: permanent magnet

Gearbox: parallel axis with steel gears

Max diameter exit axles: 20 mm [0.78in]

Axles material: AISI 303

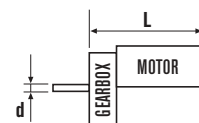
Power up to: 200W (MP56) - 600W (MP80)

Electromagnetic brake available

Motor	L	L
MP56M	190,5	7.4295
MP56L	225,5	8.7945
MP80S/2	206	8.034
MP80S	226	8.814
MP80M	251	9.789
Values in mm		Values in inches

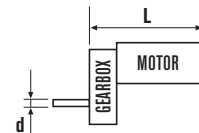
Type	Output	d	d
MRP4	LEFT REDUCTION	20	0.78
RR1		Values in mm	
		Values in inches	

Reduction ratio: 6/1



Type	Output	d	d
MRP4	LEFT REDUCTION	20	0.78
	LEFT BRUSH	20	0.78
RR2		Values in mm	
		Values in inches	

Reduction ratio: 16.4/1



MRP5



MRP5

APPLICATION

brush motor for cleaning machines
walk behind or riders, etc.

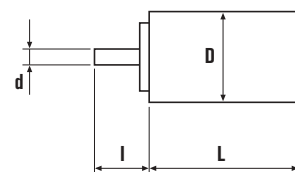
FEATURES

Type of motor mounted: MP135

Gearbox: parallel axis with steel gears

Reduction ratio: 6/1

d x l	D	L	d x l	D	L
24 x 58.5	175	228,5	0.975 x 3.237	6.825 x 6.825	8.9115
Values in mm			Values in inches		



MRP6



MRP6

APPLICATION

brush motor for cleaning machines
walk behind, or riders, etc.

FEATURES

Type of motor mounted: MP80

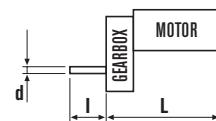
Gearbox: parallel axis with steel gears

Reduction ratio: 10/1

Power up to: 600W

Electromagnetic brake available

Size	d x l	L	d x l	L
S	18 x 51	207	0.741 x 1.755	8.229
M	18 x 51	247	0.741 x 1.755	9.984
Values in mm			Values in inches	



DC traction system

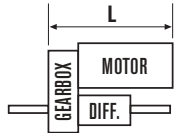
MRP4D



MRP4D with MP56

Type	Output
MRP4D	AXLES AND DIFFERENTIAL

L= from 180.5 up to 266 mm



MRP4DS



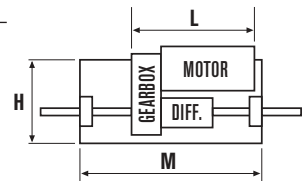
MRP4DS with MP80

APPLICATION

traction system for cleaning machines, material handling, golf cars, small vehicles

FEATURES

Type of motor mounted: permanent magnet
Gearbox: parallel axis with steel gears
Diameter exit axles: 20 mm [0.78 in]
Reduction ratio: 16.4/1
Power up to: 200W (MP56) - 600W (MP80)
Electromagnetic brake available



L= from 180.5 up to 266 mm

Type	Output	M x H	M x H
MRP4DS	PLATE SUPPORT	250 x 150	9.75 x 5.85
MRP4DS	PLATE SUPPORT	280 x 150	10.92 x 5.85
MRP4DS	PLATE SUPPORT	370 x 150	14.43 x 5.85
MRP4DS	PLATE SUPPORT	400 x 150	15.6 x 5.85
MRP4DS	PLATE SUPPORT	485 x 150	18.915 x 5.85
		Values in mm	Values in inches

MRP8D



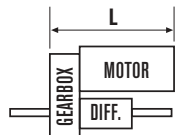
MRP8D with MP80S

APPLICATION

traction system for cleaning machines, material handling, golf cars, small vehicles

FEATURES

Type of motor mounted: permanent magnet
Gearbox: parallel axis with steel gears
Diameter exit axles: 30 mm [1.17 in] - 20 mm [0.78 in]
Axles material: available AISI303
Reduction ratio: 16.4/1
Power up to: 600W (MP80) - 1500W(2HP) (MP100)
Electromagnetic brake available



Type	Output	Motor	L	L
MRP8D	AXLES AND DIFFERENTIAL	MP80S	249	9.711
MRP8D	AXLES AND DIFFERENTIAL	MP80M	274	10.686
MRP8D	AXLES AND DIFFERENTIAL	MP80S/2	229	8.931
MRP8D	AXLES AND DIFFERENTIAL	MP100S	246	9.594
MRP8D	AXLES AND DIFFERENTIAL	MP100M	293	11.427
			Values in mm	Values in inches

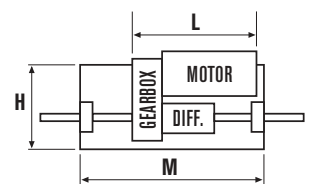
MRP8DS



MRP8DS with MP100

Type	Output	Motor	L	M x H	L	M x H
MRP8DS	PLATE SUPPORT	na	na	600 x 200	na	23.4 x 7.8
MRP8DS	PLATE SUPPORT	na	na	485 x 200	na	18.915 x 7.8
				Values in mm		Values in inches

Reduction ratio: 16.4/1



MRP9D



MRP9D with MP56
no spacers



MRP9D with MP56
single spacer

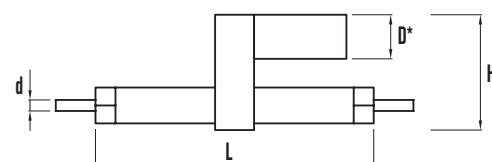
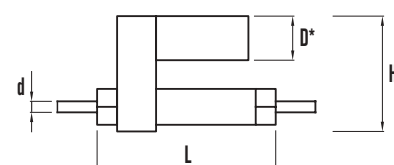
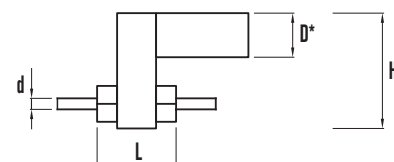


MRP9D with MP56
double spacers

Type	L	D*	d	H*	L	D*	d	H*
No spacer	185	78-114	20	192-210	7.215	3.042-4.446	0.78	7.488-8.190
Single spacer	290	78-114	20	192-210	11.310	3.042-4.446	0.78	7.488-8.190
Double spacers	395	78-114	20	192-210	15.405	3.042-4.446	0.78	7.488-8.190

Values in mm

Values in inches



MAIN FEATURES

- new series of DC transaxles with:
- 3 different combinations
- designed lenght
- easy square mounting support
- very compact unit
- high reduction ratio
- oil gears
- high protection

TECHNICAL FEATURES

- Motor mounted: permanent magnet
- Max exit torque: 85 Nm [in-lb 9.605]
- Exit shaft speed: 80 - 160 rpm MAX
- Input power DC: DC 12V - 24V - 36V
- Power output: 100 - 400 W
- Reduction ratio: 26/1
- Max diameter exit axles: 20 mm [0.78 in]
- Insulation: class - B - F
- Electromagnetic brake available

Customized frame lenght

The MRP9D version comes with
the frame lenght under specific request



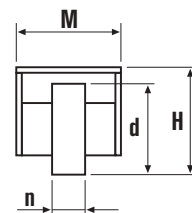
MRP9D

Motor wheels

MTR



Motor	d x n	H	M	d x n	H	M
MP135S	250 x 60	265	253,5	9.75 x 2.34	10.335	9.8865
MP135M	250 x 90	265	287,5	9.75 x 3.51	10.335	11.2125
	300 x 90	290	287,5	11.7 x 3.51	11.310	11.2125
CA119<750W	300 x 90	318	230	11.7 x 3.51	12.402	8.97
CA119>750W	300 x 90	316	285	11.7 x 3.51	12.324	11.115
Values in mm				Values in inches		



APPLICATION

traction for cleaning machines,
material handling, pushers, etc.

FEATURES

Type of motor mounted: permanent magnet – shunt wound

Gearbox: planetary gearbox with steel gears

Reduction ratio: 18/1

Brake solutions: band brake, electromagnetic brake

Type	Wheel (ø)	Width	Speed	Power Output	Voltage
MTR 250	250	60 - 90	5 Km/h	800W	24V - 36V
MTR 300	300	90	8 Km/h	1100W	24V - 36V
MTRCA300	300	90	4 Km/h	1500W	24V - 36V
Values in mm					

Type	Wheel (ø)	Width	Speed	Power Output	Voltage
MTR 250	9.75	2.34-3.51	3.145 mph	1 Hp	24V - 36V
MTR 300	11.70	3.51	5.032 mph	1.5 Hp	24V - 36V
MTRCA300	11.70	3.51	2.516 mph	2 Hp	24V - 36V
Values in inches					

Motor wheels



MTR150

APPLICATION

brush motor traction for trolleys, welding machines, small vehicles, golf, etc.

FEATURES

Motor type: permanent magnet

Gearbox: steel worm and worm gear rolled or rectified with plastic or bronze gear

Reduction ratio: 12/1 – 18/1 – 37/1 – 65/1

Current: from 12V to 180V

Number of poles: 2

Max motor torque: 0.65Nm

Electromagnetic brake available



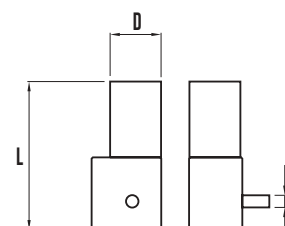
MTR150 version of AOMPI40

MR07

Shape	Elect. break	D	L	d	D	L	d
AMER	2Nm	78	239	20	3.276	12.5697	0.78
AMER	5Nm	114	284	20	4.446	12.9285	0.78
Exit shaft: right and left					Values in mm		
					Values in inches		



MR07 with MP56



APPLICATION

traction system for wheelchairs, scooters, golf cars, etc.

FEATURES

Type of motor mounted: permanent magnet

Gearbox: steel worm and worm gear rolled or rectified with plastic or bronze gear

Reduction ratio: 30/1 – 46.5/1 – 96/1

Current: from 12V to 180V

Gearbox release system available

Power up to: 200W (MP56) - 600W (MP80)

Electromagnetic brake available