Air motors

Non-reversible air motors

- **Power:**
  from 100 to 800 watt
- **Idle speed:**
  from 50
  to 24.000 r.p.m.

FIAM
INDUSTRIAL AIR TOOLS

Non-reversible air motors

A complete range for every need

FIAM's reversible air motors, with right-hand and left-hand rotation, **are sturdy, reliable and extremely versatile**.
This wide range, including 100, 150, 190, 260, 375 and 800 watt models, represents the ideal solution **for hundreds of applications**.
These motors can be used on mixers, conveyor belts, machine tool, feed devices and on machines for: bottling, buttons, glass, knitting, coating, binding, plastics, packing, paint-spraying, assembly, drilling, threading, grinding, stud-driving, etc.

Often some applications are so particular that they **require specific design and construction**.
FIAM, with its vast experience accumulated in this field, **is able to manufacture "special" motors developed to satisfy the customer's specific needs**, especially when the motor has to be integrated with the precise characteristics of a certain type of equipment or in a particular type of tool.
The **models**, for example, **can be equipped** with:

- sliding square drive output shaft;
- fixed square drive output shaft;
- tapered output shaft;
- morse taper output shaft;
- shafts with diameters other than those mentioned in the catalogue;
- geared output shafts;
- models with left-hand rotation only;
- models constructed in plastic or stainless steel;
- models with flanged sleeves;
- models with collet chuck;
- models with keyed or self-locking chucks.

Starting system:
direct
(with remote control)

Rotation:
to the right
(the direction in which the output shaft turns in considered to be in function of the delivery air input)

Idle speed:
from 50 to 24.000 r.p.m.

FIAM air motors are designed for use with lubricated compressed air.

Model	Code	Watt ❶	Nm ❷	Nm ❷	r.p.m.	r.p.m.	Type	Kg	L	l/s	dBA
	TYPE	POWER	STATIC TORQUE	TORQUE AT THE MAX. POWER	SPEED AT THE MAX. POWER	SPEED	REVERSIBILITY	WEIGHT	DIMENSIONS mm	COMPRESSED AIR CONSUMPTION	NOISE LEVEL
MX 440	182011410	100	1	0,5	2200	4400	↻	0,27	79,5	4	68÷70
MX 140	182012110	100	3,2	1,6	700	1400	↻	0,34	103,5	4	68÷70
MX 090	182012910	100	5	2,5	450	900	↻	0,34	103,5	4	68÷70
ML 2000 Z	183010201	150	0,25	0,125	12000	24000	↻	0,48	86	5	73÷75
ML 500 Z	183011501	150	1,1	0,55	2750	5500	↻	0,51	86	5	73÷75
ML 235 Z	183011201	150	1,9	0,95	1550	3100	↻	0,51	86	5	73÷75
ML 100 Z	183012101	150	4,5	2,25	650	1300	↻	0,66	120,5	5	73÷75
ML 55 Z	183012501	150	8,3	4,15	350	700	↻	0,66	120,5	5	73÷75
ML 32 Z	183012301	150	14,5	7,25	200	400	↻	0,66	120,5	5	73÷75
ML 22 Z	183013201	150	19,1	9,55	150	300	↻	0,81	155	5	73÷75
ML 13 Z	183013101	150	20 ③	16,87	85	170	↻	0,81	155	5	73÷75
ML 8 Z	183013801	150	20 ③	20 ③	47	94	↻	0,81	155	5	73÷75
ML 5 Z	183013501	150	20 ③	20 ③	27	54	↻	0,81	155	5	73÷75
MK 2000 Z	184010201	190	0,33	0,165	12000	24000	↻	0,53	96	6	73÷75
MK 500 Z	184011501	190	1,44	0,72	2750	5500	↻	0,56	96	6	73÷75
MK 235 Z	184011201	190	2,55	1,275	1550	3100	↻	0,56	96	6	73÷75
MK 100 Z	184012101	190	5,9	2,95	650	1300	↻	0,71	130,5	6	73÷75
MK 55 Z	184012501	190	11	5,5	350	700	↻	0,71	130,5	6	73÷75
MK 32 Z	184012301	190	19,2	9,6	200	400	↻	0,71	130,5	6	73÷75
MM 1400	185010101	260	0,62	0,31	8000	16000	↻	0,88	99,5	7	75÷78
MM 400	185011401	260	2,1	1,05	2350	4700	↻	0,92	99,5	7	75÷78
MM 240	185011201	260	3,8	1,9	1300	2600	↻	0,92	99,5	7	75÷78
MM 170	185011101	260	5,2	2,6	925	1850	↻	0,92	99,5	7	75÷78
MM 130	185012101	260	7	3,5	700	1400	↻	1,2	133,5	7	75÷78
MM 80	185012801	260	12,4	6,2	395	790	↻	1,2	133,5	7	75÷78
MM 45	185012401	260	22,2	11,1	220	440	↻	1,2	133,5	7	75÷78
MM 32	185012301	260	32,6	16,3	150	300	↻	1,2	133,5	7	75÷78
MM 25	185012201	260	44,4	22,2	110	220	↻	1,2	133,5	7	75÷78
MM 13	185013101	260	45 ③	37,4	65	130	↻	1,48	167,5	7	75÷78
MM 9	185013901	260	45 ③	45 ③	35	70	↻	1,48	167,5	7	75÷78
MM 5	185013501	260	45 ③	45 ③	25	50	↻	1,48	167,5	7	75÷78
MN 1600	186010112	375	0,9	0,5	8000	16000	↻	1,45	149	10	82÷84
MN 480	186011412	375	3,1	1,6	2400	4800	↻	1,45	149	10	82÷84
MN 270	186011212	375	5,7	2,8	1350	2700	↻	1,45	149	10	82÷84
MN 190	186011112	375	7,5	3,8	950	1900	↻	1,45	149	10	82÷84
MN 140	186012112	375	10	5	700	1400	↻	1,85	183	10	82÷84
MN 85	186012812	375	17,5	8,8	425	850	↻	1,85	183	10	82÷84
MN 45	186012412	375	34,5	17,3	225	450	↻	1,85	183	10	82÷84
MN 32	186012313	375	44,5	22	160	320	↻	1,85	183	10	82÷84
MN 22	186012212	375	45 ③	29	110	220	↻	1,85	183	10	82÷84
MO 1550	187010102	800	3	1,6	7750	15500	↻	3,3	177,5	18	85÷88
MO 450	187011402	800	10	5,2	2250	4500	↻	3,4	187	18	85÷88
MO 280	187011202	800	18	9,3	1400	2800	↻	3,4	187	18	85÷88
MO 130	187012102	800	31	16	650	1300	↻	4,1	222	18	85÷88
MO 85	187012802	800	52	26,5	425	850	↻	4,1	222	18	85÷88
MO 40	187013402	800	90 ③	50	200	400	↻	4,8	257	18	85÷88
MO 25	187013202	800	90 ③	80	125	250	↻	4,8	257	18	85÷88

↻ REVERSIBILITY: right

- The figures shown are measured at a pressure of 6,3 bar (ISO 2787), the recommended operating pressure.
- Working air pressure: max 7 bar.
- Noise level has been measured in accordance with ISO 15744.
- The code number must be used when ordering.

① Conversion factor: 1 Watt ≅ 0,00136 HP.
② Conversion factor: 1 Nm ≅ 0,102 Kgm.
③ The torque indicated is the maximum at which the motor can be used in order to guaranty the life endurance of the internal gears.

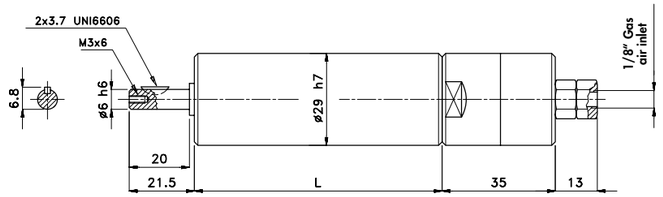
The above figures should be used as a guide only and could be changed without notice.
For all further details, please apply to the **Fiam Technical Assistance Service**.

Other technical features

Power (watt)	Air inlet	Recommended hose bore	Output shaft
100	1/8" gas	Ø 5 mm	Ø 6 mm with key 2x3,7 (UNI 6606)
150, 190, 260	1/4" gas	Ø 6 mm	Ø 13 mm with key 3x5 (UNI 6606)
375	1/4" gas	Ø 8 mm	Ø 14 mm with key 5x5x12 (UNI 6604)
800	3/8" gas	Ø 13 mm	Ø 24 mm with key 8x7x20 (UNI 6604)

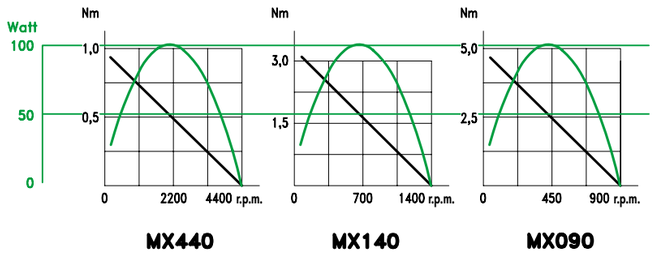
MODELS MX...

Dimensions



Performance diagrams

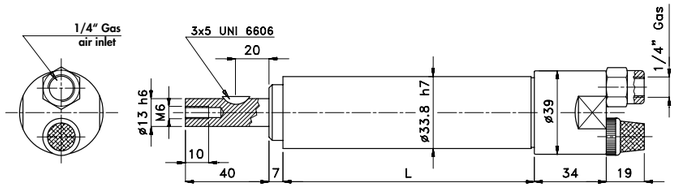
The diagrams show the theoretical curves for torque and power in function of the number of revolutions: = power = torque



MX440 MX140 MX090

MODELS ML...Z

Dimensions



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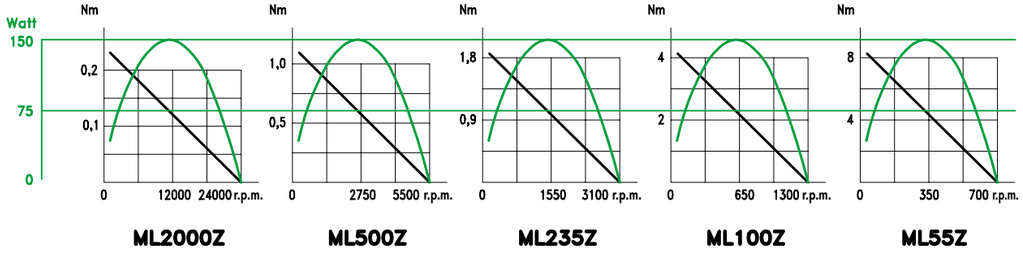
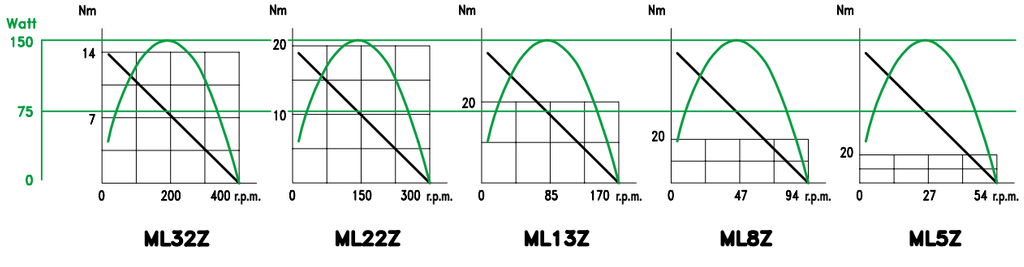


ML2000Z ML500Z ML235Z ML100Z ML55Z

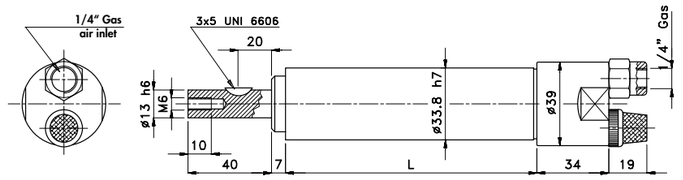


ML32Z ML22Z ML13Z ML8Z ML5Z

Other technical features

MODELS MK...Z

Dimensions



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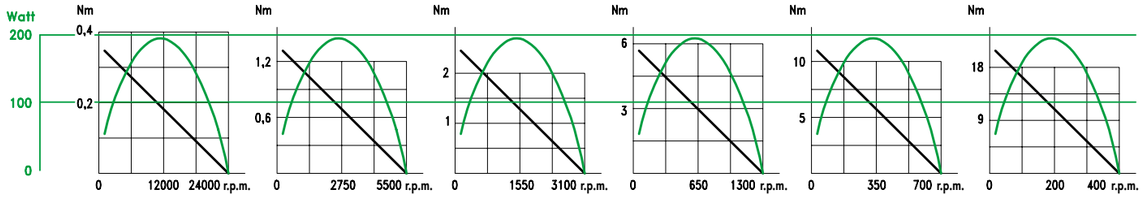
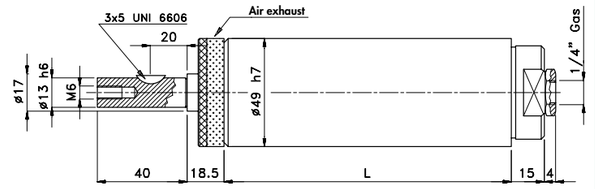


MK2000Z MK500Z MK235Z MK100Z MK55Z MK32Z

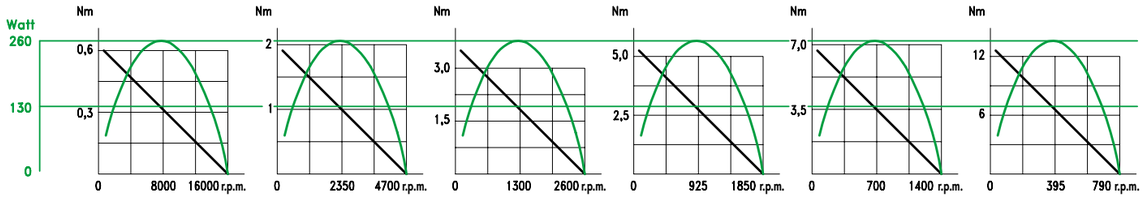
MODELS MM...

Dimensions

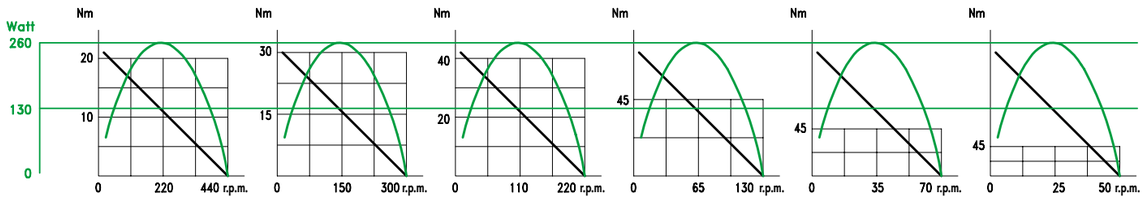


Performance diagrams

The diagrams show the theoretical curves for torque and power in function of the number of revolutions: = power = torque



MM1400 MM400 MM240 MM170 MM130 MM80

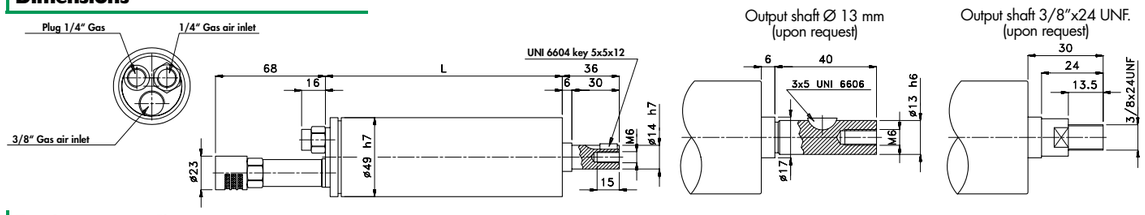


MM45 MM32 MM25 MM13 MM9 MM5

Other technical features

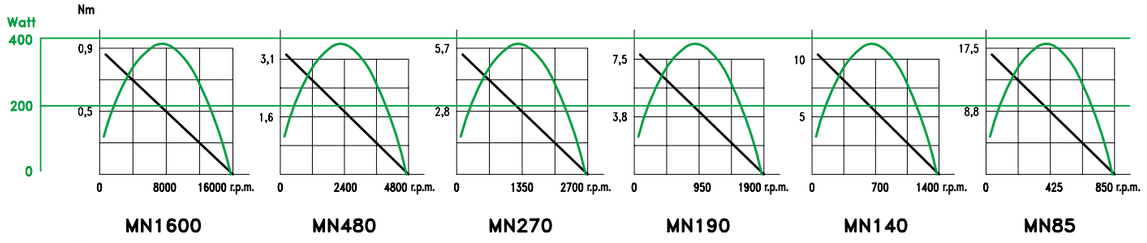
MODELS MN...

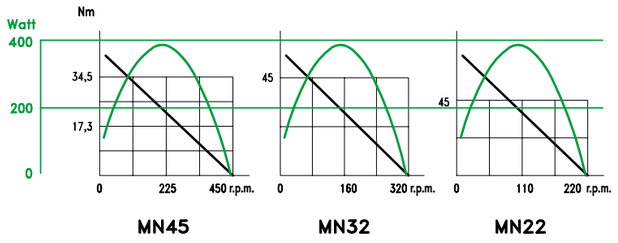
Dimensions



Performance diagrams

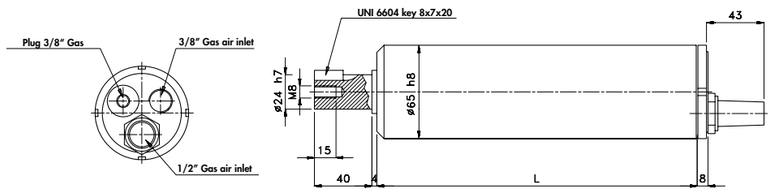
The diagrams show the theoretical curves for torque and power in function of the number of revolutions: **= power** **= torque**





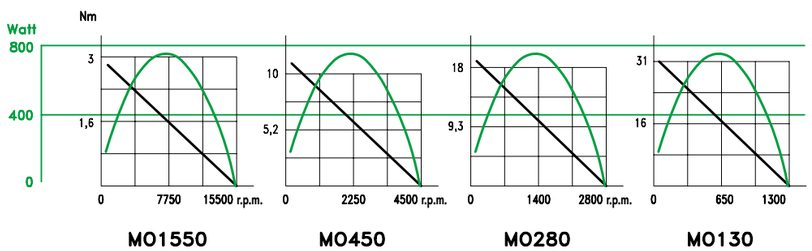
MODELS MO...

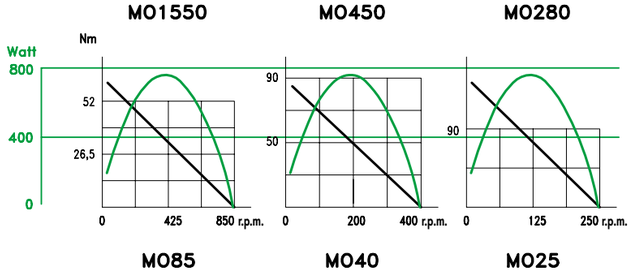
Dimensions



Performance diagrams

The diagrams show the theoretical curves for torque and power in function of the number of revolutions: **= power** **= torque**





Other technical features

Accessories available upon request

- Hoses, filters and accessories for compressed air (see Fiam Accessories Catalogue).

FRL group

- Filter, pressure regulator, lubricator. Suitable to obtain the required torque value by adjusting the air feed pressure.

Threaded attack	Flow rate	Complete assembly	Reduction compl. of gauge	Lubricator
mm	l/s	code	code	code
1/4" gas	1,7÷16	697331020	697331025	697281020
3/8" gas	4,2÷20	697351020	697351025	697291020
1/2" gas	8÷43	697371020	697371025	697301020

Air flow governor with scaled control

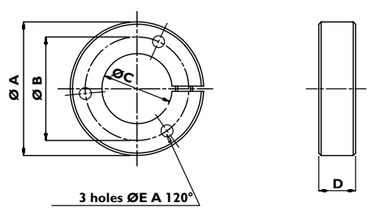
- For power from 100 to 190 watt. Suitable to obtain the required torque value and revolutions by adjusting the air feed flow (cod. 697451000).

Air flow governor with micrometer screw control

- For power from 100 to 375 watt. Suitable to obtain the required torque value and revolutions by adjusting the air feed flow (cod. 697431000).

Flange bracket

- Suggested for the motor's installation.



Code	Power (watt)	A mm	B mm	C mm	D mm	E mm
684011001	150, 190	64,5	50	33,8	18	5,2
684011002	260, 375	79,5	64	49	18	6,2
684011005	800	129	105	65	35	10,2

INDUSTRIAL AIR TOOLS

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System Certificate
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ICIM 0250

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Management
System Certificate
ISO 14001: 1996
ICIM 0002A

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QUALITY COMPONENTS

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