

# SINGLE PHASE - QM TYPE

## TECHNICAL DOCUMENTATION

### A. Mechanical

The motors are single phase totally enclosed, fan cooled with squirrel cage rotors in frame sizes IEC 63 to 90.

#### Construction Types

Foot mounted, flange-mounted and foot mounted with flange types are available for the above frame sizes.

#### Protection

The standard degree of protection is IP 55.

#### Bearings

Standard motors are equipped with ZZ deep groove ball bearings.

#### Shaft End

Motor shafts have tapped hole in the drive end according to DIN 6885-6888. Motors are delivered with keys.

#### Fan

Fans are made of durable synthetic material and the construction allows rotation in both directions.

#### Paint

Standard motors are painted in grey (RAL 7031)

### B. Construction Details

#### Stator Frame

Motor frames are manufactured by high pressure die casting of aluminum alloy which is light, resistant to corrosion and mechanical shocks, also have excellent thermal conductivity.

#### Feet

Motor feet can be mounted on three sides, permitting terminal box assembly on the desired side.

#### Endshields

Endshields are made of aluminium. Fan covers are made of sheet steel.

#### Terminal Box

QM types have terminal boxes on top close to the drive end.

#### Capacitors

Motors use run capacitors.

### C. Electrical Properties

#### Voltage and Frequency

The motors are normally designed for 230 V, 50 Hz. Other voltages and 60 Hz frequency is available.

#### Technical Data

The technical data given in the tables are valid for the following conditions;

- 230 V supply voltage
- 50 Hz frequency
- Max 40°C ambient temperature
- Altitudes up to 1000 m above the sea level.



#### Insulation Class

The standard insulation class is F. For 40 °C ambient temperature, the maximum temperature rise is 100 Kelvin.

### D. Special Constructions

The following special construction features are available upon request;

- Special shaft end and second shaft extension.
- Special flanges
- Other voltages and 60 Hz frequency
- Fixed bearing
- Condensation drainage
- Other colors



## SINGLEPHASE MOTORS: PERFORMANCE DATA

MOTOR TYPE	RATED VALUES				STARTING VALUES			Efficiency	Power Factor	Run Capacitor 400V	J		
	OUTPUT POWER		SPEED	CURRENT I <sub>N</sub>	MOMENT M <sub>N</sub>	CURRENT	TORQUE						
	HP	kW	rpm	A	Nm	I <sub>A</sub> / I <sub>N</sub>	M <sub>A</sub> / M <sub>N</sub>						M <sub>k</sub> / M <sub>n</sub>
2 POLE 3000 rpm 230V													
QM 63M2B	1/3	0,25	2780	2,30	0,86	4,0	0,50	1,80	58	0,81	8	0,00021	5,5
QM 63M2C	1/2	0,37	2780	2,80	1,27	4,0	0,50	1,70	61	0,94	15	0,00026	6,0
QM 63M2D	3/4	0,55	2780	4,00	1,89	4,5	0,50	2,20	64	0,93	18	0,00030	7,0
QM 71M2A	1/3	0,25	2780	1,85	0,86	5,0	0,70	2,20	63	0,93	12,5	0,00028	6,0
QM 71M2B	1/2	0,37	2780	2,60	1,27	5,0	0,70	2,20	66	0,94	18	0,00035	7,0
QM 71M2C	3/4	0,55	2780	4,10	1,89	5,0	0,70	2,20	67	0,87	20	0,00040	7,5
QM 71M2D	1	0,75	2780	4,80	2,56	5,0	0,50	2,20	72	0,94	25	0,00051	9,0
QM 80M2A	3/4	0,55	2800	3,95	1,88	4,0	0,80	2,10	64	0,95	20	0,00092	9,5
QM 80M2B	1	0,75	2800	4,95	2,56	4,0	0,70	2,10	68	0,97	25	0,00107	10,5
QM 80M2C	1,5	1,1	2800	7,60	3,75	5,0	0,65	2,00	69	0,91	30	0,00126	11,5
QM 90S2A	1,5	1,1	2800	7,60	3,75	5,0	0,65	2,10	72	0,87	30	0,00118	14
QM 90L2A	2	1,5	2800	10,0	5,12	5,0	0,65	2,15	74	0,88	40	0,00152	16
QM 90L2C	3	2,2	2780	14,5	7,56	5,0	0,55	2,10	73	0,90	50	0,00172	18
4 POLE 1500 rpm 230V													
QM 71M4A	1/4	0,18	1390	1,50	1,24	3,5	0,70	1,90	55	0,95	12,5	0,00071	6,5
QM 71M4B	1/3	0,25	1390	2,00	1,72	4,0	0,70	2,00	59	0,92	15	0,00095	7,5
QM 71M4C	1/2	0,37	1390	2,75	2,54	4,0	0,65	1,55	64	0,91	20	0,00107	8,0
QM 80M4A	1/2	0,37	1390	2,80	2,54	4,0	0,70	1,55	68	0,84	20	0,00167	9,5
QM 80M4B	3/4	0,55	1390	3,80	3,78	4,0	0,65	1,55	69	0,91	25	0,00204	10,5
QM 80M4C	1	0,75	1370	5,00	5,23	3,2	0,65	1,55	69	0,95	30	0,00229	11,5
QM 90S4A	1	0,75	1390	5,50	5,15	5,0	0,60	1,80	69	0,86	30	0,00237	14
QM 90L4A	1,5	1,1	1400	8,00	7,50	5,0	0,60	1,80	69	0,87	40	0,00309	16
QM 90L4C	2	1,5	1390	10,5	10,31	5,0	0,55	1,60	69	0,90	50	0,00351	18

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