MOT085, 140 series

MOT 85

Symbol


How to Order

MOT ① 085 ② - ③ B ④ C ⑤ -

① Series

MOT	Oil flooded type rotary vane vacuum pump

② Displacement

085	85 ℓ/min
140	140 ℓ/min

③ Motor voltage

Single-phase	
A	110/220V
B	220V
C	110V

④ Motor hertz (Hz)

A	60
B	50
C	50/60

⑤ Arrival pressure

Nil	Standard (Refer specification table)
B	2 mbar
C	20 mbar

Specifications

			MOT085	MOT140
Displacement	50Hz	ℓ/min	70	116
	60Hz		85	140
Max. pressure	Gas Ballast Close	Torr	5×10^{-3}	
			5×10^{-2}	
Rated voltage 3-phase	50Hz	V	-	
	60Hz			
Rated voltage Single-phase	50Hz	V	110, 220	
	60Hz			
Motor rated output 3-phase		kW	-	
Motor rated output Single-phase			0.42	0.55
Motor revolution	50Hz	min^{-1}	1430	
	60Hz		1725	
Noise		dB(A)	31	35
Max. vapor allowance		mbar	-	
Vapor volume		ℓ/hr	-	
Operating temperature (Ambient)		℃	40	
Oil volume		ℓ	1	0.8
Weight	50Hz	kg	15	16
	60Hz			

Features

• Reliability: High quality material, quality control according to ISO9001, CE, mark authentication standard, automated machining facility, computer control process etc. Guarantee standardized and accurate product manufacturing. Where operation of vacuum pump stops during vacuum work in direct coupling operation method of flange type. Check valve is installed at the suction hole in order to prevent reverse-flow.

• Environmentally safe: Air cooling, internal oil recirculation, installed special oil sump for oil mist separator, low vibration and low noise level allows this pump to be used in any environment.

• Easy to service: Compact design, air-cooling and easy maintenance without oil mist separator and can be using long periods. When needed change the oil, do not need to change the other consumption parts.

• Miniaturization: This is simple type that spindle of flange motor connect pump rotor & cylinder directly and cooling type used with cooling fan. This pump is small size and lightweight. Carrying convenience installed handle on the pumps.

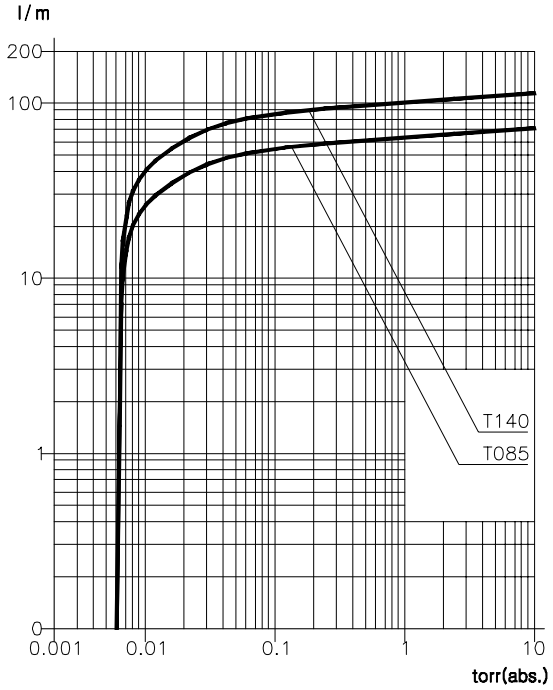
• Applications: Air conditioner refrigerant gas change, laboratory.

Operation Principle

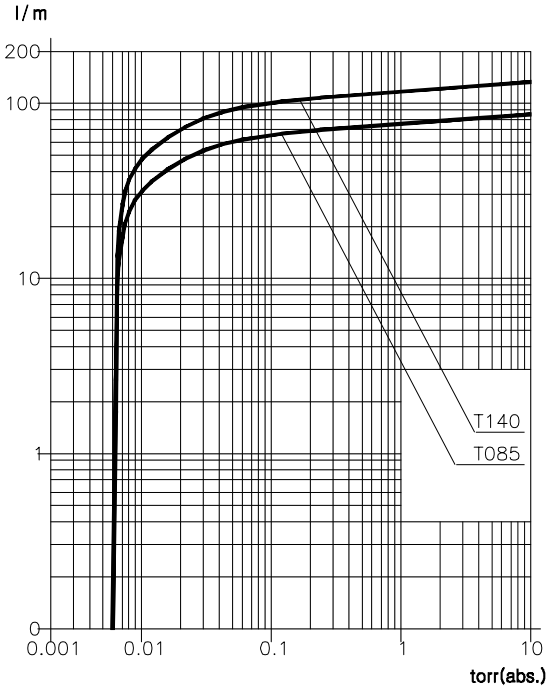
This vacuum pump is oil-flooded rotary vane type, which stages comprise rotor, vane and cylinder. Rotor and cylinder center are assembled eccentrically, and 2 vanes rotate by centrifugal force in pushed state to the inside wall of cylinder. At this time, cell takes place between vane and vane, happen to the vacuum whose volume change sucks, expanse compresses and discharges. Uses oil for lubrication of rotary part and maintenance of vacuum so that stable and reliable vacuum. This type is application to semiconductor equipment, laboratory, electric light bulb factory with high vacuum (Max 1x10-4 Torr) because by 2 stages. The oil lubrication and sealing is consistently supplied to cylinder without separate oil pump through pressure such as suction difference. Low vacuum (over 10 Torr) might cause problem.

Pressure & Flow Characteristics

50Hz

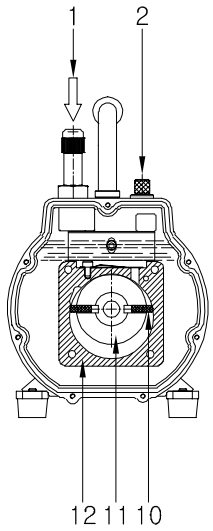


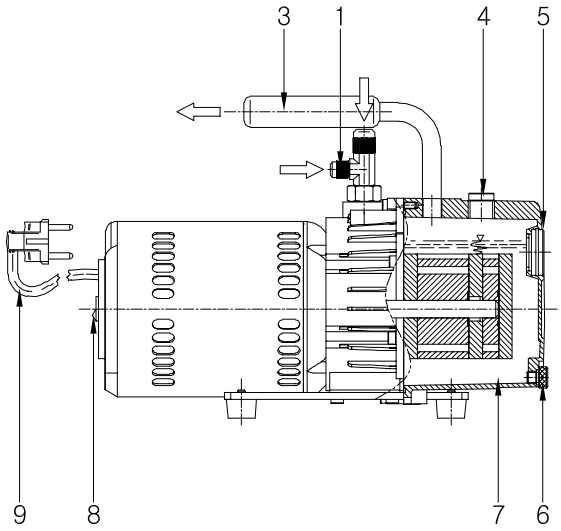
60Hz



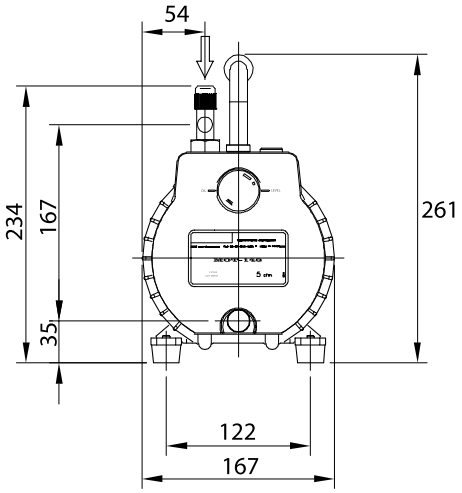
Structure- MOT085, MOT140

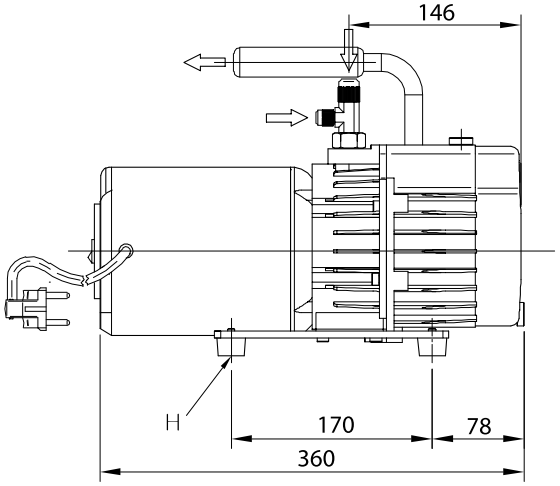
Part no	Parts
1	Inlet port
2	Gas ballast
3	Handle & exhaust port
4	Oil filling plug
5	Oil sight glass
6	Oil drain plug
7	Oil sump
8	On/Off switch
9	Power cord
10	Vane
11	Rotor
12	Cylinder





Dimensions- MOT085-BC, MOT140-BC





Part no	Parts	Remarks
A	Inlet port	7/16-20 UNF
A-1	Inlet port	5/8-18 UNF
B	Handle & exhaust port	-
C	Power cord	2M
D	Switch	-
E	Gas ballast	-
F	Oil filling plug	-
G	Oil drain plug	-
H	Rubber foot	-