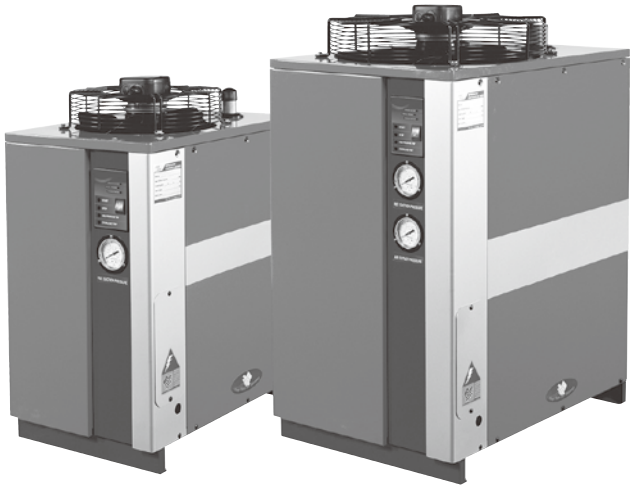
M2E series 10~100

REFRIGERATION **COMPRESSED AIR DRYER**

mindman



Features

- The "FAN-UP" plus "TWO-IN-ONE" air-cooled precooler & condenser make better result in ventilation. Compact, state-of-the-art. (Screen mesh for precooler & condenser optional.)
- "TWO-IN-ONE" heat exchanger & evaporator plus multi-stage stainless steel water separator provide 99% water separation and 2~10 P.D.P., meets first compressed air quality class of ISO 8573.1.
- Manual - Electronic auto drain valve with screen mesh keeps you free from daily maintenance.
- Compact SCS mircoprocessor details the operation of dryer.
- Stainless steel air-side piping or high essure models optional.
- 0.02 MPa pressure drop helps energy saving.
- Reheating reversed air flow and sub-cooling design completely increase the cooling capacity by 20%.
- Environmental friendly refrigerant R-134 a partially adopted.

Specification

Model	M2E-10GP	M2E-15GP	M2E-25GP	M2E-40GP	M2E-60GP	M2E-75GP	M2E-100GP
Max. capacity (Nm^3/min)	1.2	2.4	3.6	5.5	8.1	10.6	15
Connection (inch)	Rc3/4"	Rc1"	Rc1"	Rc1-1/2"	Rc1-1/2"	Rc2"	Rc2"
Power supply (50/60Hz)	220V/1ø					220V/3ø	
Ref. comp. (kw)	0.5	0.65	0.95	1.2	1.9	2.6	2.6
Operating current (A)	2.4	3	4.3	5	7.5	3.5	3.5
Full-load current (A)	2.75	3.35	4.9	5.7	8.7	4	4
Refrigerant	R134a			R-22			
Fan motor (W)	60	60	60	180	250	400	400
Dimension H (mm)	735	775	775	960	960	1050	1050
Dimension L (mm)	500	600	600	700	700	1020	1020
Dimension W (mm)	380	380	380	500	500	540	540
Net weight (kg)	40	50	54	83	93	127	173

Design condition

A. Working pressure: 0.7MPa	0.4	0.5	0.6	0.7	0.8	0.9	1.0
Correction factor	0.63	0.75	0.87	1.00	1.06	1.12	1.17
B. Dew point : 10°C	2	5	> 10				
Correction factor	0.65	0.85	1.00				
C. Power source frequency : 60Hz	50	60					
Correction factor	0.83	1.00					
D. Ambient temperature: 38°C	42	40	< 38				
Correction factor	0.90	0.95	1.00				
E. Inlet temperature:60°C	80	70	< 60				
Correction factor	0.88	0.94	1.00				

Operating scope

Inlet temperature: 5~80°C (@60°C).
Ambient temperature: 2~42°C (@38°C).
Working pressure: ≤ 1.0MPa (@0.7MPa).
Dew point: 2~10°C (@10°C).

Remarks

- Design condition @60Hz:
  1. Ref. comp.(kw): @ET10°C, CT54°C.
  2. Operating current (A): @ET5°C,CT45°C.
  3. Full-load current (A): @ET10°C,CT54°C.
- Max. working pressure 1.0 MPa, high pressure available.
  H_1(1.1~2.0MPa) Designate NH_1P. ex: M2E-15NH_1P.
  H_2(2.1~3.0MPa) Designate NH_2P. ex: M2E-15NH_2P.
  H_3(3.1~4.0MPa) Designate NH_3P. ex: M2E-15NH_3P.
  H_4(4.1~5.0MPa) Designate NH_4P. ex: M2E-15NH_4P.
  PS: High pressure inlet temperature @42°C.
- M2E-08G differs from other models in design without explanation.

Formula

- Actual capacity =
  M2E capacity × (A×B×C×D×E)
- Corrected capacity =
  Demanded capacity ÷ (A×B×C×D×E)

Features

1. Control panel
- Logic controller, complete auto function and standard wiring.
- Complete automatic, no adjustment is required.

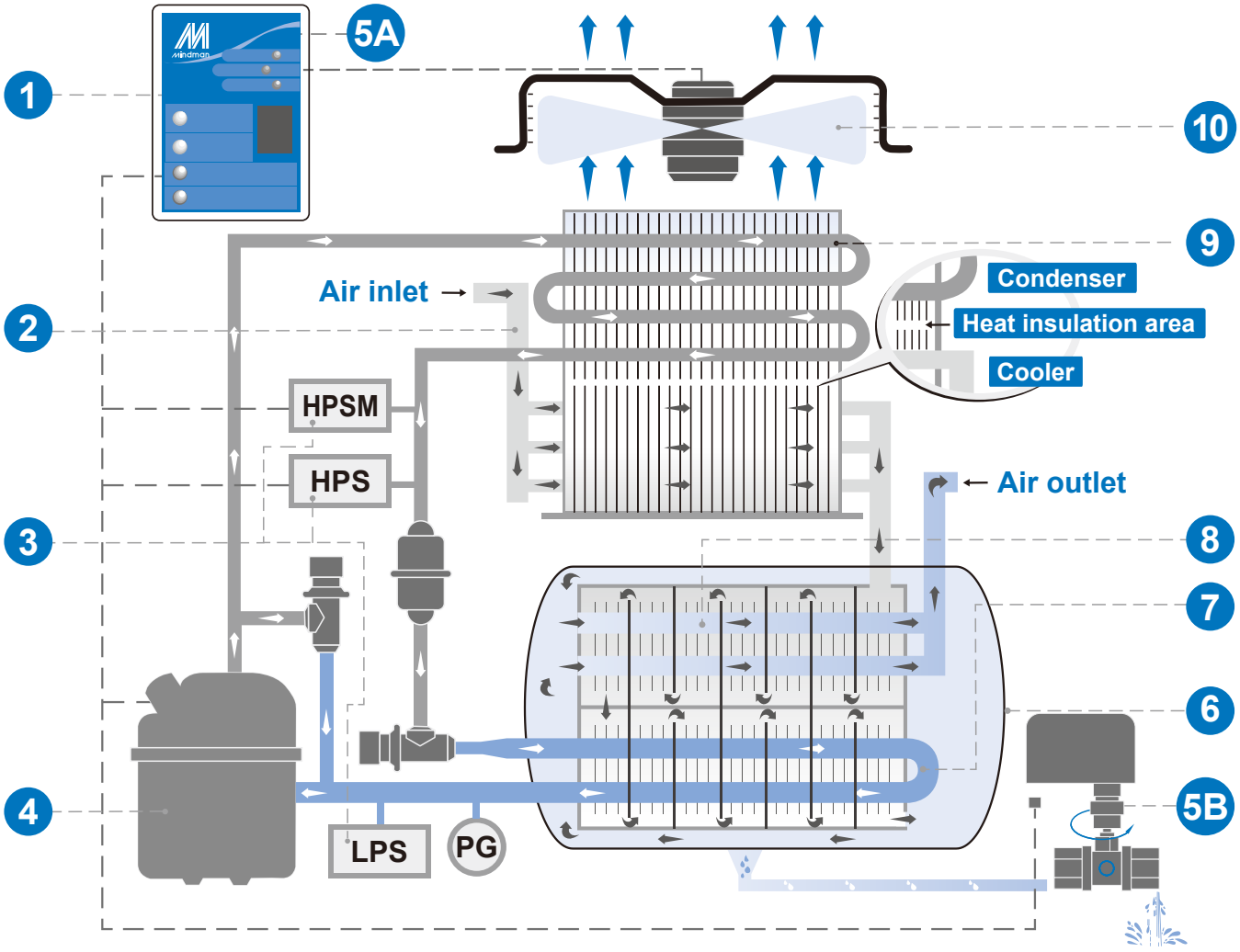
2. Pre-cooler
- Combined with air-to-refrigerant condenser by a heat insulation area. Compact of high technology.
- Excellent inlet air distribution results in high performance and low pressure drop.

3. Pressure control
- Pre-set type pressure switch (HPS&LPS) is used for better stability and fewer malfunctioning.
- Reset type high pressure switch (HPSM) is specially designed for models larger than M2E-75 to prevent compressor from overloading.

4. Refrigeration compressor
- Hermetic, High performance and efficiency.
- CE Certified.
- Class F, IP53.

5. Electronic drainage
- Timer control with manual drain test.
- Anti-blockage by a large ball valve.
- Driven by motor, no more coil burnt down concern.

6. Pressure vessel
- Stainless steel pressure vessel, antirust and life extend.
- Compact TWO-IN-ONE design:Air-to-air heat exchanger combined with evaporator.
- Leak test by high precision instrument, leakage free is guaranteed.
- CNS manufacturing standard;CE, ASME, CSQL standard upon request.



7. Evaporator

- Wave type aluminum fins with diversion plate increases the contact surface of air and refrigerant. The lower by-pass and higher cooling efficiency is easy to achieve.

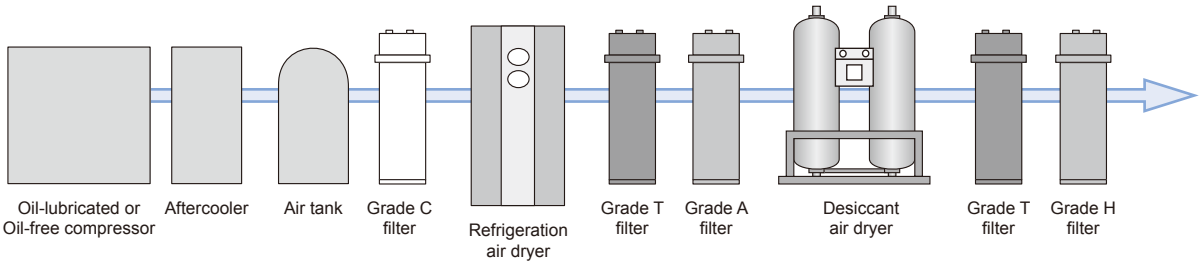
8. Heat exchanger

- Thread type bronze tubes with aluminum fins and diversion plate plus Reversed-Channel design makes better cooling efficiency, higher outlet air temperature and lower energy consumption.

9. Condenser

- Large air intake area and Blow-Up design is greatly helpful for better heat rejection and good ventilation.

10. Fan motor

- Low noise, high speed, large flow and static pressure.
- CE Certified, IP54.

Application