

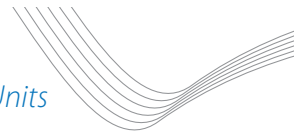


COMMERCIAL REFRIGERATION
AIR CONDITIONING AND HEATING SYSTEMS



M.K.M.ac
Package Air Conditioning Units
R-410A series E





Contents

| | |
|-----------------|---|
| FEATURES | 4 |
| GENERAL DATA | 6 |
| ELECTRICAL DATA | 7 |

MODELS

| | |
|------|----|
| E-10 | 8 |
| E-12 | 10 |
| E-16 | 12 |
| E-20 | 14 |
| E-25 | 16 |
| E-28 | 18 |
| E-31 | 20 |
| E-36 | 22 |





M.K.M. ac Package Air Conditioning Units

The new series of Mkm RTDX E R-410A incorporates economically designed units suitable to meet the needs of semi commercial customers, while accounting for the market changes in using new type refrigerants.

This series combines the well known Mkm quality design and engineering innovations that were required to meet the ever increasing global demand for energy efficiency.

This unit has a new design and implements high level engineering using the best equipment of top brand quality.

All units have a common condenser and condenser motors white a common control.

In the E package series units are high efficiency designed.

The compressors are scroll twin or triplet type and are connected in one circuit.

The units are equipped with a high tech microprocessor control to meet the demands of accurate temperature control by implementing multiple cooling and heating stages.

Economy control is "built in" the microprocessor and is an option in the unit accessories order.

All motors installed are top "high efficiency".

The design of the coils accounts for the dusty air and high ambiance Middle Eastern climate.

Unit installation is easy as "plug and play" by simplification of the duct and electrical connections.

The "smart" line of units and large number of unit capacity options enable the customer to choose the right product for his needs.

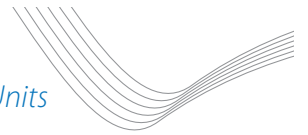
Various Unit colors are available for choice. .

Compressors

- Scroll high E.E.R
- Low noise operation
- Complete motor protection
- Internal and external vibration absorbers
- Full electronic control
- Oil level indicator

Axial Fans

External rotor type axial fans, equipped with three phase direct drive motors VSD or direct drive, low noise, provided with a protective outlet grille.



Condenser / Evaporator

Constructed of seamless 3/8" (5/8" option) copper tubes, corrugated edge aluminum fins, and galvanized steel or stainless steel frames by demand. Tubes are mechanically expanded into die-formed fin collars, providing a uniform mechanical bond that assures maximum heat transfer efficiency.

Refrigerant System

High-quality, carefully selected components ensure reliable and efficient system operation.

The system includes:

- Electronic expansion valve or thermostatic expansion-valves for heating and cooling by demand.
- Refrigerant charge indicator
- All the necessary pressure protections
- All the necessary electrical protections
- All the necessary flow protections

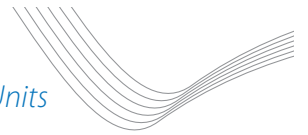
Electrical Panel

- Electric panel consist of:
 - Compressor contactor,
 - Fan motor contactor or vsd, compressor protection breaker,
 - Fan protection breaker,
 - Phase sequence relay
- Reliable microprocessor temperature control unit with full function display which dramatically reducing maintenance cost thanks to its microprocessor intelligent system

For special applications, please contact our Engineering Department, or sales manager.



| Series | | RTDX | | | | | | | |
|---|--------------------|------------|----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Model | | E-10 | E-12 | E-16 | E-20 | E-25 | E-28 | E-31 | E-36 |
| Nominal Capacities⁽¹⁾ | | | | | | | | | |
| Cooling | kW | 36 | 42 | 56 | 70 | 87 | 94 | 109 | 126 |
| | kBTU/Hr | 124.6 | 144.4 | 190.5 | 238.8 | 296.1 | 322.5 | 373.5 | 432 |
| Heating ⁽²⁾ | kW | 15 | 18 | 25 | 30 | 38 | 45 | 48 | 58 |
| | Stage | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Evaporator | | | | | | | | | |
| Coil | | | | | | | | | |
| Copper Tubes | | 3/8" | 3/8" | 3/8" | 3/8" | 3/8" | 3/8" | 3/8" | 3/8" |
| Rows Deep | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Fins | FPI | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Total Face-Area | SQ.M. | 0.8 | 0.9 | 1.2 | 1.5 | 1.9 | 2.1 | 2.5 | 2.7 |
| | SQ.FT. | 8.2 | 9.8 | 13.1 | 16.6 | 20.7 | 22.4 | 26.4 | 28.9 |
| Fans⁽³⁾ | | | | | | | | | |
| Normal Air Flow | m ³ /hr | 6800 | 8160 | 10880 | 13600 | 17000 | 19040 | 21760 | 24480 |
| | CFM | 4000 | 4800 | 6400 | 8000 | 10000 | 11200 | 12800 | 14400 |
| Size | inch | 2x 10"-10" | 2x12"-9" | 2x12"-12" | 2x15"-15" | 2x18"-18" | 2x18"-18" | 2x20"-20" | 2x20"-20" |
| Motor | kW | 3 | 3 | 4 | 4 | 5.5 | 7.5 | 7.5 | 11 |
| Filters⁽⁴⁾ | | | | | | | | | |
| Total Face-Area | SQ.FT. | 12 | 14 | 18 | 23 | 28 | 32 | 39 | 39 |
| Compressor | | | | | | | | | |
| Refrigerant | | R 410A | R 410A | R 410A | R 410A | R 410A | R 410A | R 410A | R 410A |
| Quantity | | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 |
| Total power consumption | kW | 11.8 | 13 | 17.5 | 21.6 | 25.5 | 29.4 | 32.4 | 38.7 |
| Cooling Circuits | No | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | Stage | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Condenser | | | | | | | | | |
| Coil | | | | | | | | | |
| Copper Tubes | | 3/8" | 3/8" | 3/8" | 3/8" | 3/8" | 3/8" | 3/8" | 3/8" |
| Rows Deep | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Fins | FPI | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Total Face-Area | SQ.M. | 1.6 | 1.8 | 2.4 | 2.8 | 3.6 | 4.5 | 4.9 | 5.6 |
| | SQ.FT. | 17.7 | 19.1 | 26.2 | 29.7 | 38.3 | 48.1 | 52.8 | 60.4 |
| Quantity | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Fans | | | | | | | | | |
| Normal Air Flow | m ³ /hr | 18020 | 18700 | 26350 | 37400 | 40800 | 42500 | 57834 | 61200 |
| | CFM | 10600 | 11000 | 15500 | 22000 | 24000 | 25000 | 34020 | 36000 |
| Diameter | mm | 630 | 630 | 710 | 800 | 800 | 800 | 800 | 800 |
| Motor | kW | 0.75 | 0.75 | 1.1 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 |
| Quantity | | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 |
| Dimensions | | | | | | | | | |
| Length | cm | 190 | 190 | 195 | 200 | 210 | 210 | 220 | 225 |
| Width | cm | 195 | 200 | 210 | 240 | 260 | 260 | 300 | 300 |
| Height | cm | 165 | 185 | 200 | 215 | 235 | 255 | 270 | 275 |
| Weight | kg | 890 | 970 | 1070 | 1250 | 1450 | 1540 | 1820 | 1860 |



► Electrical Data

| Model | | E-10 | E-12 | E-16 | E-20 | E-25 | E-28 | E-31 | E-36 |
|-------------|----|------|------|------|------|------|------|------|------|
| Power Input | kW | 16.3 | 17.5 | 23.7 | 29.4 | 34.8 | 40.7 | 45.6 | 55.4 |

◀ Notes:

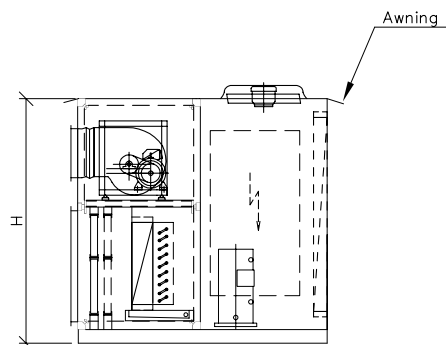
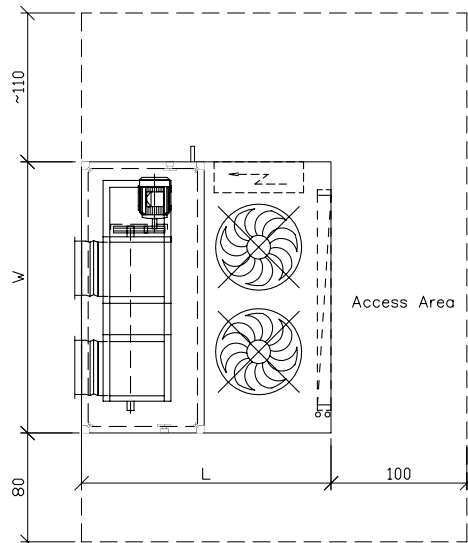
- Capacities are according to :
Cooling at Outdoor Air temp. DB=35°C WB=24°C and Indoor Air temp. DB=27°C RH=50%
Heating at Outdoor Air temp. DB=6°C and Indoor Air temp. DB=21°C
- Electrical Heater is Optional
- Nominal External Static Pressure of 150 Pa minimum
- Filter FARR30/30 is Optional
- Copper Tubes 5/8" to Evaporator & Condenser Coils is Optional
- 6 Rows Deep of Evaporator Coil is Optional
- 4 Rows Deep of Condenser Coil is Optional
- Other Refrigerant Type is Optional
- Preliminary Data, Subject to Change without Notice

General View

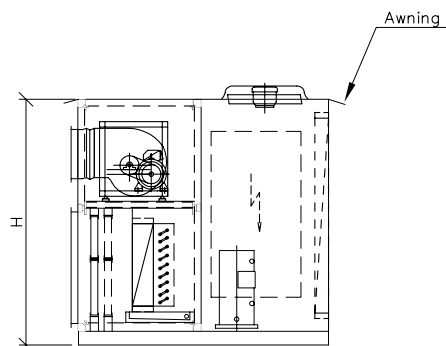
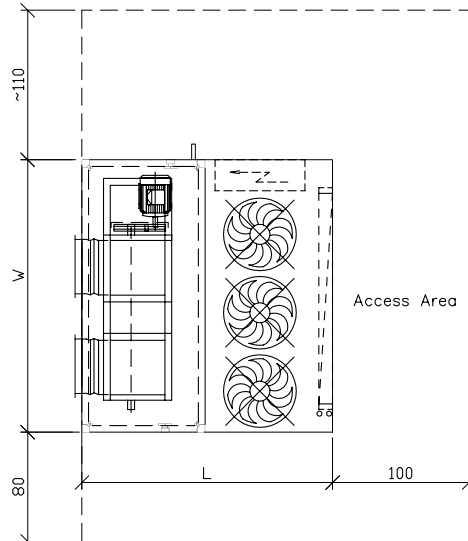
Plan

Side View

► Models: E-10, E-12, E-16, E-20, E-25, E-28



► Models: E-31, E-36



| Performance | | | |
|---------------------------------|---------|--------|----------|
| Refrigerant | | R-410A | |
| Cooling capacity ⁽¹⁾ | kW | 36 | |
| | kBTU/Hr | 124.6 | |
| Heating capacity ⁽²⁾ | kW | 15 | optional |
| | kBTU/Hr | 51 | optional |
| Power consumption | kW | 11.8 | |
| Operating current | A | 21.5 | |
| C.O.P | | 3.1 | |

◀ Notes:

- Nominal cooling capacity based on indoor air temp. DB=27°C RH=50% and outdoor air temp. DB=35°C WB=24°C.
- Nominal heating capacity based on indoor air temp. DB=21°C and outdoor air temp. DB=6°C.
- Power supply 400v, 3ph, 50hz

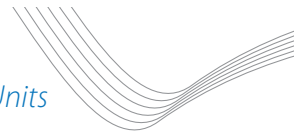
| Technical Data | | | | |
|--------------------------------|--------------------------------|--------------------|--------------------|--|
| Compressor | type | Scroll | | |
| | Quantity | 2 | | |
| | Stage of Cooling | 3 | | |
| Evaporator side ⁽¹⁾ | | | | |
| Air flow | | m ³ /hr | 6800 | |
| | | cfm | 4000 | |
| Centrifugal fan | Size | 2x 10"-10" | | |
| | Static Pressure ⁽²⁾ | Pa | 500 | |
| | | kW | 3 | |
| | Motor | RPM | 1415 | |
| Face area | | m ² | 0.8 | |
| Evaporator coil | | ft ² | 8.2 | |
| | Rows deep | | 4 optional 6 | |
| Filter | | Qty.-dim. | 3-24"x24" | |
| | 12% deep 2" | | | |
| | | Qty.-dim. | 3-24"x24" optional | |
| | 30% deep 2" | | | |
| Condenser side ⁽¹⁾ | | | | |
| Condenser coil | Quantity | 1 | | |
| | Face area | m ² | 1.6 | |
| | | ft ² | 17.7 | |
| Axial fan | Diameter | mm | 630 | |
| | Quantity | 2 | | |
| | Air flow | m ³ /hr | 9010 | |
| | | cfm | 5300 | |
| | Motor | kW | 0.75 | |
| | | RPM | 900 | |

| Stage of Cooling | |
|------------------|------|
| Comp. 1 | 37% |
| Comp. 2 | 63% |
| Comp. 1 + 2 | 100% |

| Dimensions | | |
|------------|----|-----|
| Length | cm | 190 |
| Width | cm | 195 |
| Height | cm | 165 |
| Weight | kg | 890 |

▲ Notes:

- One cooling circuits.
- Net static pressure available at fan discharge at nominal capacity.



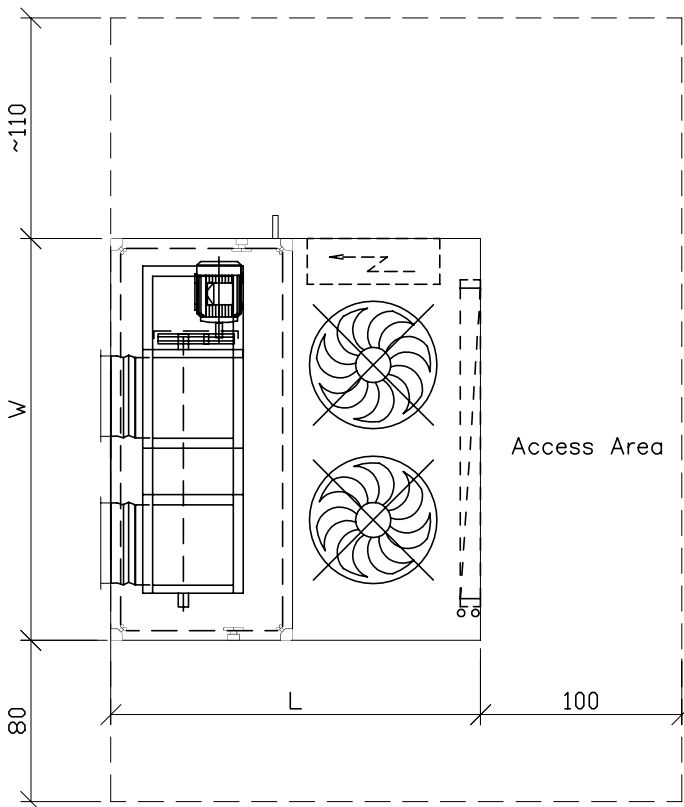
| Cooling Capacity - (Capacities are According to A.R.I. Standard) | | | | |
|--|-----------|---------|------------|-----------|
| Refrigerant | | R-410A | | |
| Entering Air Temperature | DB/WB, °C | 27/23.3 | 27/19.4 | 27/18 |
| | DB/WB, °F | 80.6/74 | 80.6/67 | 80.6/64.4 |
| Outside Air Temp °C (°F) | | | | |
| 30 (86) | TC | 141 | 130 | 125 |
| | SHC | 66 | 91 | 103 |
| | KW | 11 | 11 | 11 |
| 35 (95) | TC | 135 | 125 | 120 |
| | SHC | 63 | 88 | 98 |
| | KW | 12 | 12 | 12 |
| 40 (104) | TC | 126 | 116 | 111 |
| | SHC | 59 | 81 | 91 |
| | KW | 13 | 13 | 13 |

◀ Notes:

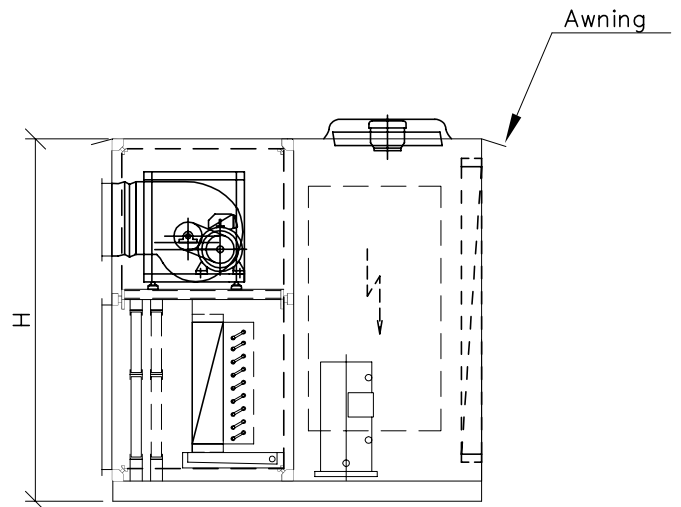
TC-Total Cooling Capacity, kBTU/Hr
 SHC-Sensible Heat Capacity, kBTU/Hr
 KW-Compressor Power Input, kW

▶ Model : **E-10**

Plan



Side View



| Performance | | | |
|---------------------------------|---------|--------|----------|
| Refrigerant | | R-410A | |
| Cooling capacity ⁽¹⁾ | kW | 42 | |
| | kBTU/Hr | 144.4 | |
| Heating capacity ⁽²⁾ | kW | 18 | optional |
| | kBTU/Hr | 61 | optional |
| Power consumption | kW | 13 | |
| Operating current | A | 23.6 | |
| C.O.P | | 3.2 | |

◀ Notes:

1. Nominal cooling capacity based on indoor air temp. DB=27°C RH=50% and outdoor air temp. DB=35°C WB=24°C.
2. Nominal heating capacity based on indoor air temp. DB=21°C and outdoor air temp. DB=6°C.
3. Power supply 400v, 3ph, 50hz

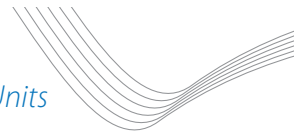
| Technical Data | | | | |
|--------------------------------|--------------------------------|--------------------|------------|----------|
| Compressor | type | Scroll | | |
| | Quantity | 2 | | |
| | Stage of Cooling | 3 | | |
| Evaporator side ⁽¹⁾ | | | | |
| Air flow | | m ³ /hr | 8160 | |
| | | cfm | 4800 | |
| Centrifugal fan | Size | 2x12"-9" | | |
| | Static Pressure ⁽²⁾ | Pa | 500 | |
| | | kW | 3 | |
| | Motor | RPM | 1415 | |
| | | | | |
| Evaporator coil | Face area | m ² | 0.9 | |
| | | ft ² | 9.84 | |
| | Rows deep | 4 | optional 6 | |
| Filter | 12% deep 2" | Qty.-dim. | 3-24"x16" | |
| | | | 3-24"x12" | |
| | 30% deep 2" | Qty.-dim. | 3-24"x16" | optional |
| | | | 3-24"x12" | |
| Condenser side ⁽¹⁾ | | | | |
| Condenser coil | Quantity | 1 | | |
| | Face area | m ² | 1.8 | |
| | | ft ² | 19.1 | |
| Axial fan | Diameter | mm | 630 | |
| | Quantity | 2 | | |
| | Air flow | m ³ /hr | 9350 | |
| | | cfm | 5500 | |
| | Motor | kW | 0.75 | |
| RPM | | 900 | | |

| Stage of Cooling | |
|------------------|------|
| Comp. 1 | 33% |
| Comp. 2 | 67% |
| Comp. 1 + 2 | 100% |

| Dimensions | | |
|------------|----|-----|
| Length | cm | 190 |
| Width | cm | 200 |
| Height | cm | 185 |
| Weight | kg | 970 |

▲ Notes:

1. One cooling circuits.
2. Net static pressure available at fan discharge at nominal capacity.



Cooling Capacity - (Capacities are According to A.R.I. Standard)

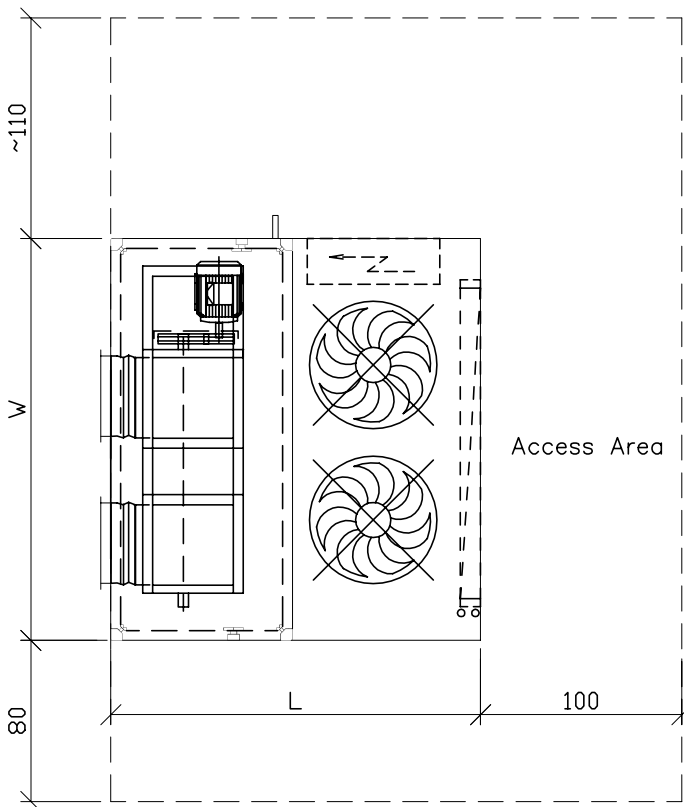
| Refrigerant | | R-410A | | |
|--------------------------|-----------|---------|------------|-----------|
| Entering Air Temperature | DB/WB, °C | 27/23.3 | 27/19.4 | 27/18 |
| | DB/WB, °F | 80.6/74 | 80.6/67 | 80.6/64.4 |
| Outside Air Temp °C (°F) | | | | |
| 30 (86) | TC | 164 | 148 | 142 |
| | SHC | 77 | 105 | 119 |
| | KW | 12 | 12 | 12 |
| 35 (95) | TC | 155 | 144 | 139 |
| | SHC | 73 | 102 | 117 |
| | KW | 13 | 13 | 13 |
| 40 (104) | TC | 143 | 133 | 127 |
| | SHC | 67 | 94 | 107 |
| | KW | 15 | 14 | 15 |

◀ Notes:

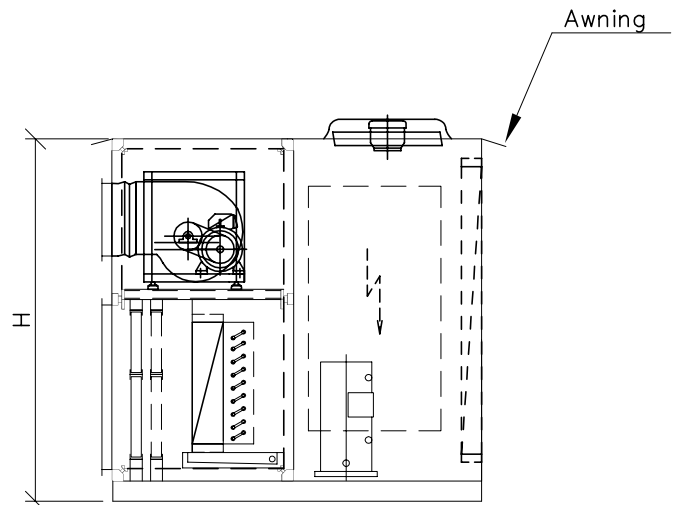
TC-Total Cooling Capacity, kBTU/Hr
 SHC-Sensible Heat Capacity, kBTU/Hr
 KW-Compressor Power Input, kW

▶ Model : E-12

Plan



Side View



| Performance | | | |
|---------------------------------|---------|--------|----------|
| Refrigerant | | R-410A | |
| Cooling capacity ⁽¹⁾ | kW | 56 | |
| | kBTU/Hr | 190.5 | |
| Heating capacity ⁽²⁾ | kW | 25 | optional |
| | kBTU/Hr | 85 | optional |
| Power consumption | kW | 17.5 | |
| Operating current | A | 31.5 | |
| C.O.P | | 3.2 | |

◀ Notes:

1. Nominal cooling capacity based on indoor air temp. DB=27°C RH=50% and outdoor air temp. DB=35°C WB=24°C.
2. Nominal heating capacity based on indoor air temp. DB=21°C and outdoor air temp. DB=6°C.
3. Power supply 400v, 3ph, 50hz

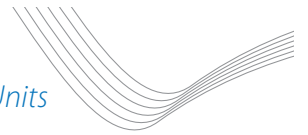
| Technical Data | | | | |
|--------------------------------|--------------------------------|--------------------|------------|----------|
| Compressor | type | Scroll | | |
| | Quantity | 2 | | |
| | Stage of Cooling | 3 | | |
| Evaporator side ⁽¹⁾ | | | | |
| Air flow | | m ³ /hr | 10880 | |
| | | cfm | 6400 | |
| Centrifugal fan | Size | 2x12"-12" | | |
| | Static Pressure ⁽²⁾ | Pa | 500 | |
| | | kW | 4 | |
| | Motor | RPM | 1435 | |
| | | | | |
| Evaporator coil | Face area | m ² | 1.2 | |
| | | ft ² | 13.1 | |
| | Rows deep | 4 | optional 6 | |
| Filter | 12% deep 2" | Qty.-dim. | 8-20"x16" | |
| | | | | |
| | 30% deep 2" | Qty.-dim. | 8-20"x16" | optional |
| | | | | |
| Condenser side ⁽¹⁾ | | | | |
| Condenser coil | Quantity | 1 | | |
| | Face area | m ² | 2.4 | |
| | | ft ² | 26.2 | |
| Axial fan | Diameter | mm | 710 | |
| | Quantity | 2 | | |
| | Air flow | m ³ /hr | 13175 | |
| | | cfm | 7750 | |
| | Motor | kW | 1.1 | |
| RPM | | 950 | | |

| Stage of Cooling | |
|------------------|------|
| Comp. 1 | 37% |
| Comp. 2 | 63% |
| Comp. 1 + 2 | 100% |

| Dimensions | | |
|------------|----|------|
| Length | cm | 195 |
| Width | cm | 210 |
| Height | cm | 200 |
| Weight | kg | 1070 |

▲ Notes:

1. One cooling circuits.
2. Net static pressure available at fan discharge at nominal capacity.



Cooling Capacity - (Capacities are According to A.R.I. Standard)

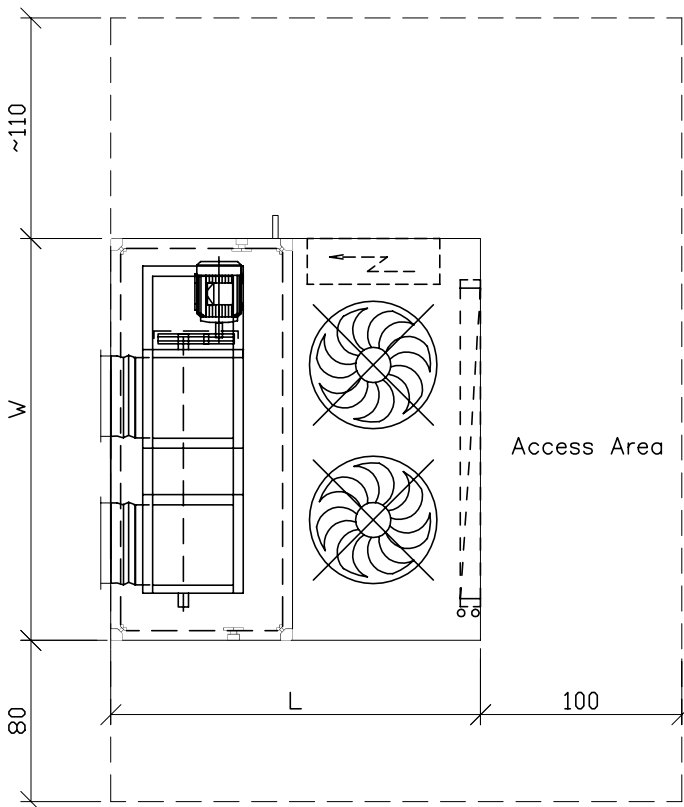
| Refrigerant | | R-410A | | |
|--------------------------|-----------|---------|------------|-----------|
| Entering Air Temperature | DB/WB, °C | 27/23.3 | 27/19.4 | 27/18 |
| | DB/WB, °F | 80.6/74 | 80.6/67 | 80.6/64.4 |
| Outside Air Temp °C (°F) | | | | |
| 30 (86) | TC | 214 | 198 | 190 |
| | SHC | 101 | 143 | 160 |
| | KW | 16 | 16 | 16 |
| 35 (95) | TC | 202 | 191 | 180 |
| | SHC | 95 | 138 | 151 |
| | KW | 18 | 18 | 18 |
| 40 (104) | TC | 188 | 177 | 170 |
| | SHC | 88 | 127 | 143 |
| | KW | 19 | 19 | 19 |

◀ Notes:

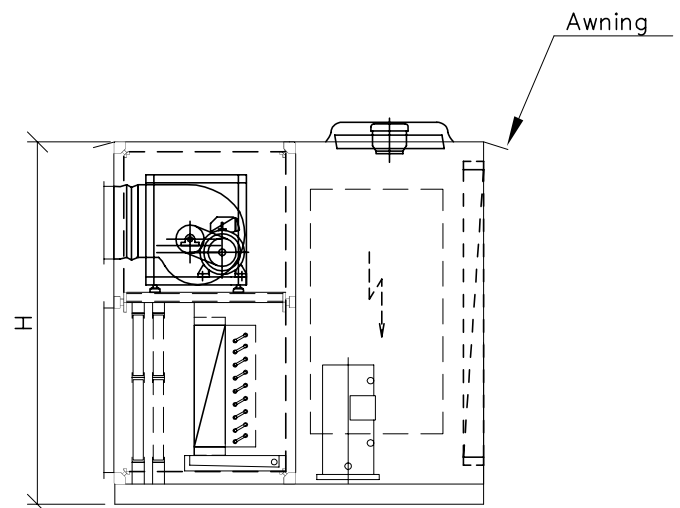
TC-Total Cooling Capacity, kBTU/Hr
 SHC-Sensible Heat Capacity, kBTU/Hr
 KW-Compressor Power Input, kW

▶ Model : E-16

Plan



Side View



| Performance | | | |
|---------------------------------|---------|--------|----------|
| Refrigerant | | R-410A | |
| Cooling capacity ⁽¹⁾ | kW | 70 | |
| | kBTU/Hr | 238.8 | |
| Heating capacity ⁽²⁾ | kW | 30 | optional |
| | kBTU/Hr | 102 | optional |
| Power consumption | kW | 21.6 | |
| Operating current | A | 40.6 | |
| C.O.P | | 3.2 | |

◀ Notes:

1. Nominal cooling capacity based on indoor air temp. DB=27°C RH=50% and outdoor air temp. DB=35°C WB=24°C.
2. Nominal heating capacity based on indoor air temp. DB=21°C and outdoor air temp. DB=6°C.
3. Power supply 400v, 3ph, 50hz

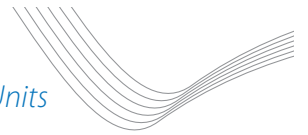
| Technical Data | | | | |
|--------------------------------|--------------------------------|--------------------|------------|----------|
| Compressor | type | Scroll | | |
| | Quantity | 2 | | |
| | Stage of Cooling | 3 | | |
| Evaporator side ⁽¹⁾ | | | | |
| Air flow | | m ³ /hr | 13600 | |
| | | cfm | 8000 | |
| Centrifugal fan | Size | 2x15"-15" | | |
| | Static Pressure ⁽²⁾ | Pa | 450 | |
| | | kW | 4 | |
| | Motor | RPM | 1435 | |
| | | | | |
| Evaporator coil | Face area | m ² | 1.5 | |
| | | ft ² | 16.6 | |
| | Rows deep | 4 | optional 6 | |
| Filter | 12% deep 2" | Qty.-dim. | 6-24"x18" | |
| | | | 2-20"x18" | |
| | 30% deep 2" | Qty.-dim. | 6-24"x18" | optional |
| | | | 2-20"x18" | |
| Condenser side ⁽¹⁾ | | | | |
| Condenser coil | Quantity | 1 | | |
| | Face area | m ² | 2.8 | |
| | | ft ² | 29.7 | |
| Axial fan | Diameter | mm | 800 | |
| | Quantity | 2 | | |
| | Air flow | m ³ /hr | 18700 | |
| | | cfm | 11000 | |
| | Motor | kW | 1.9 | |
| RPM | | 900 | | |

| Stage of Cooling | |
|------------------|------|
| Comp. 1 | 40% |
| Comp. 2 | 60% |
| Comp. 1 + 2 | 100% |

| Dimensions | | |
|------------|----|------|
| Length | cm | 200 |
| Width | cm | 240 |
| Height | cm | 215 |
| Weight | kg | 1250 |

▲ Notes:

1. One cooling circuits.
2. Net static pressure available at fan discharge at nominal capacity.



Cooling Capacity - (Capacities are According to A.R.I. Standard)

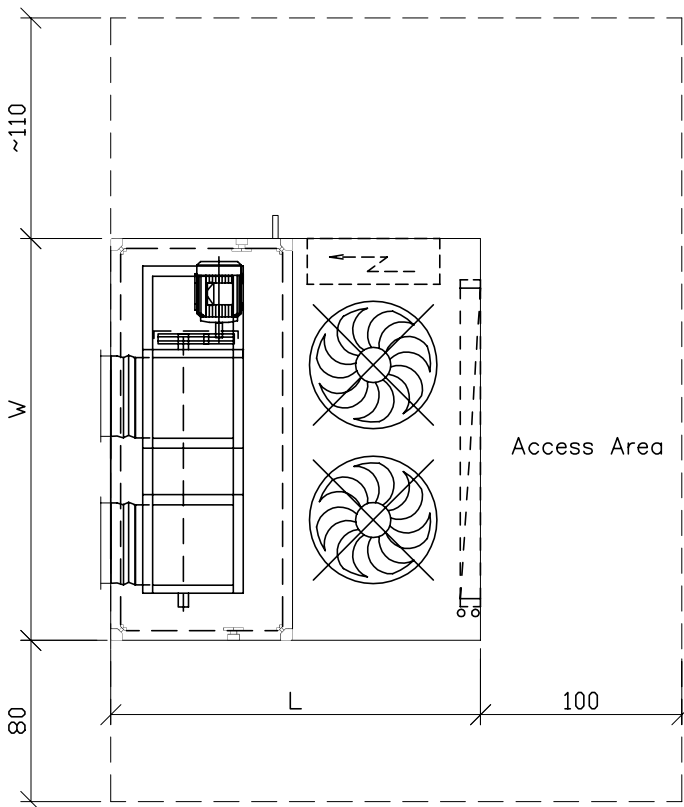
| Refrigerant | | R-410A | | |
|--------------------------|-----------|---------|------------|-----------|
| Entering Air Temperature | DB/WB, °C | 27/23.3 | 27/19.4 | 27/18 |
| | DB/WB, °F | 80.6/74 | 80.6/67 | 80.6/64.4 |
| Outside Air Temp °C (°F) | | | | |
| 30 (86) | TC | 272 | 252 | 237 |
| | SHC | 128 | 179 | 197 |
| | KW | 20 | 20 | 20 |
| 35 (95) | TC | 258 | 239 | 230 |
| | SHC | 121 | 170 | 191 |
| | KW | 22 | 22 | 22 |
| 40 (104) | TC | 241 | 224 | 216 |
| | SHC | 113 | 159 | 179 |
| | KW | 24 | 23 | 23 |

◀ Notes:

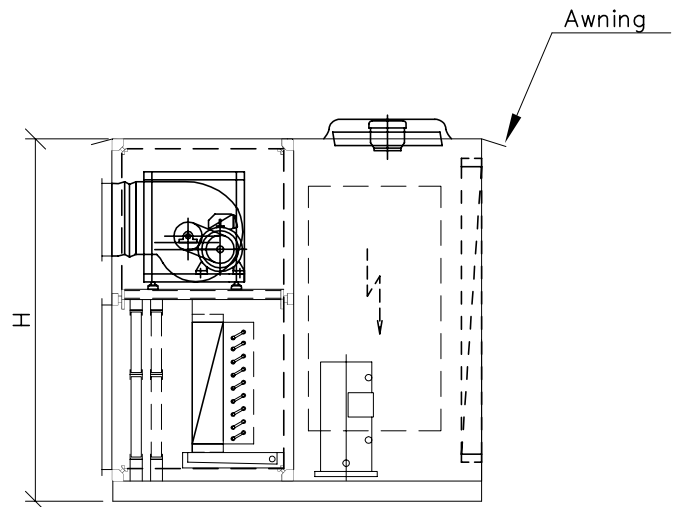
TC-Total Cooling Capacity, kBTU/Hr
 SHC-Sensible Heat Capacity, kBTU/Hr
 KW-Compressor Power Input, kW

▶ Model: **E-20**

Plan



Side View



| Performance | | | |
|---------------------------------|---------|--------|----------|
| Refrigerant | | R-410A | |
| Cooling capacity ⁽¹⁾ | kW | 70 | |
| | kBTU/Hr | 238.8 | |
| Heating capacity ⁽²⁾ | kW | 30 | optional |
| | kBTU/Hr | 102 | optional |
| Power consumption | kW | 21.6 | |
| Operating current | A | 40.6 | |
| C.O.P | | 3.2 | |

◀ Notes:

- Nominal cooling capacity based on indoor air temp. DB=27°C RH=50% and outdoor air temp. DB=35°C WB=24°C.
- Nominal heating capacity based on indoor air temp. DB=21°C and outdoor air temp. DB=6°C.
- Power supply 400v, 3ph, 50hz

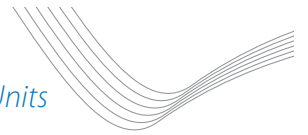
| Technical Data | | | | |
|--------------------------------|--------------------------------|--------------------|------------|----------|
| Compressor | type | Scroll | | |
| | Quantity | 3 | | |
| | Stage of Cooling | 3 | | |
| Evaporator side ⁽¹⁾ | | | | |
| Air flow | | m ³ /hr | 17000 | |
| | | cfm | 10000 | |
| Centrifugal fan | Size | 2x18"-18" | | |
| | Static Pressure ⁽²⁾ | Pa | 500 | |
| | | kW | 5.5 | |
| | Motor | RPM | 1430 | |
| | | | | |
| Evaporator coil | Face area | m ² | 1.9 | |
| | | ft ² | 20.7 | |
| | Rows deep | 4 | optional 6 | |
| Filter | 12% deep 2" | Qty.-dim. | 10-20"x20" | |
| | | | | |
| | 30% deep 2" | Qty.-dim. | 10-20"x20" | optional |
| | | | | |
| Condenser side ⁽¹⁾ | | | | |
| Condenser coil | Quantity | 1 | | |
| | Face area | m ² | 3.6 | |
| | | ft ² | 38.3 | |
| Axial fan | Diameter | mm | 800 | |
| | Quantity | 2 | | |
| | Air flow | m ³ /hr | 20400 | |
| | | cfm | 12000 | |
| | Motor | kW | 1.9 | |
| RPM | | 900 | | |

| Stage of Cooling | |
|------------------|------|
| Comp. 1 | 33% |
| Comp. 1 + 2 | 67% |
| Comp. 1 + 2 + 3 | 100% |

| Dimensions | | |
|------------|----|------|
| Length | cm | 210 |
| Width | cm | 260 |
| Height | cm | 235 |
| Weight | kg | 1450 |

▲ Notes:

- One cooling circuits.
- Net static pressure available at fan discharge at nominal capacity.



Cooling Capacity - (Capacities are According to A.R.I. Standard)

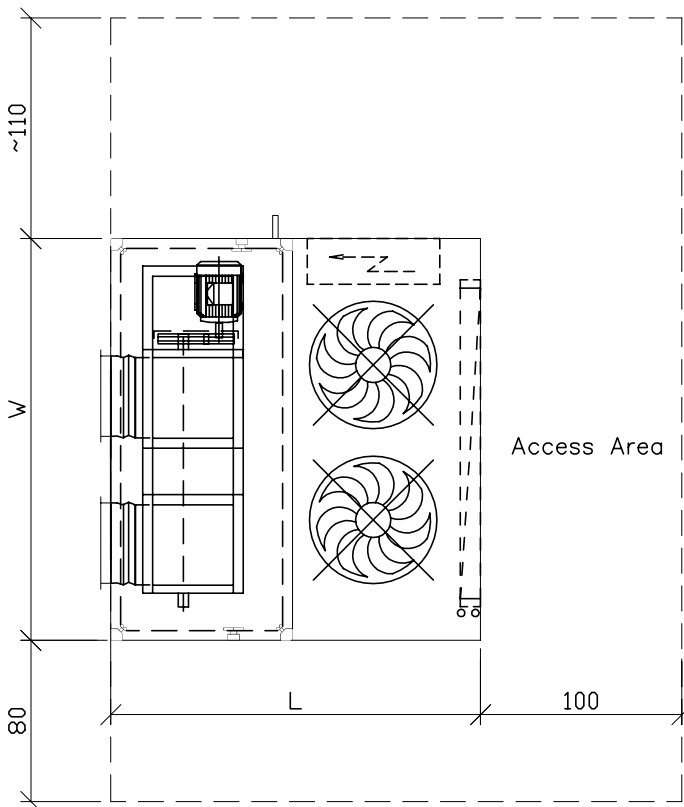
| Refrigerant | | R-410A | | |
|--------------------------|-----------|---------|------------|-----------|
| Entering Air Temperature | DB/WB, °C | 27/23.3 | 27/19.4 | 27/18 |
| | DB/WB, °F | 80.6/74 | 80.6/67 | 80.6/64.4 |
| Outside Air Temp °C (°F) | | | | |
| 30 (86) | TC | 329 | 311 | 292 |
| | SHC | 155 | 227 | 239 |
| | KW | 24 | 24 | 24 |
| 35 (95) | TC | 314 | 296 | 279 |
| | SHC | 148 | 216 | 229 |
| | KW | 26 | 26 | 26 |
| 40 (104) | TC | 290 | 275 | 259 |
| | SHC | 136 | 201 | 212 |
| | KW | 29 | 28 | 28 |

◀ Notes:

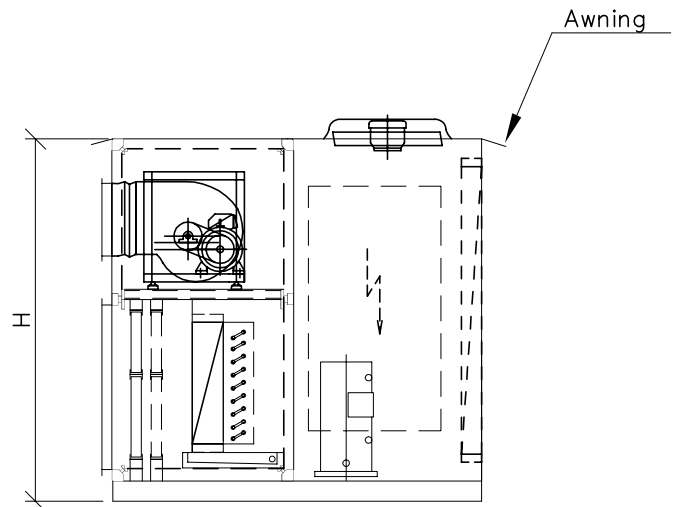
TC-Total Cooling Capacity, kBTU/Hr
 SHC-Sensible Heat Capacity, kBTU/Hr
 KW-Compressor Power Input, kW

▶ Model : E-25

Plan



Side View



| Performance | | | |
|---------------------------------|---------|--------|----------|
| Refrigerant | | R-410A | |
| Cooling capacity ⁽¹⁾ | kW | 94 | |
| | kBTU/Hr | 322.5 | |
| Heating capacity ⁽²⁾ | kW | 45 | optional |
| | kBTU/Hr | 154 | optional |
| Power consumption | kW | 29.4 | |
| Operating current | A | 52.2 | |
| C.O.P | | 3.2 | |

◀ Notes:

1. Nominal cooling capacity based on indoor air temp. DB=27°C RH=50% and outdoor air temp. DB=35°C WB=24°C.
2. Nominal heating capacity based on indoor air temp. DB=21°C and outdoor air temp. DB=6°C.
3. Power supply 400v, 3ph, 50hz

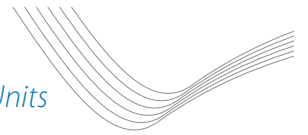
| Technical Data | | | | |
|--------------------------------|--------------------------------|--------------------|------------|----------|
| Compressor | type | Scroll | | |
| | Quantity | 3 | | |
| | Stage of Cooling | 3 | | |
| Evaporator side ⁽¹⁾ | | | | |
| Air flow | | m ³ /hr | 19040 | |
| | | cfm | 11200 | |
| Centrifugal fan | Size | 2x18"-18" | | |
| | Static Pressure ⁽²⁾ | Pa | 500 | |
| | | kW | 7.5 | |
| | Motor | RPM | 1430 | |
| | | | | |
| Evaporator coil | Face area | m ² | 2.1 | |
| | | ft ² | 22.4 | |
| | Rows deep | 4 | optional 6 | |
| Filter | 12% deep 2" | Qty.-dim. | 8-24"x24" | |
| | | | | |
| | 30% deep 2" | Qty.-dim. | 8-24"x24" | optional |
| | | | | |
| Condenser side ⁽¹⁾ | | | | |
| Condenser coil | Quantity | 1 | | |
| | Face area | m ² | 4.5 | |
| | | ft ² | 48.1 | |
| Axial fan | Diameter | mm | 800 | |
| | Quantity | 2 | | |
| | Air flow | m ³ /hr | 21250 | |
| | | cfm | 12500 | |
| | Motor | kW | 1.9 | |
| RPM | | 900 | | |

| Stage of Cooling | |
|------------------|------|
| Comp. 1 | 33% |
| Comp. 1 + 2 | 67% |
| Comp. 1 + 2 + 3 | 100% |

| Dimensions | | |
|------------|----|------|
| Length | cm | 210 |
| Width | cm | 260 |
| Height | cm | 255 |
| Weight | kg | 1540 |

▲ Notes:

1. One cooling circuits.
2. Net static pressure available at fan discharge at nominal capacity.



Cooling Capacity - (Capacities are According to A.R.I. Standard)

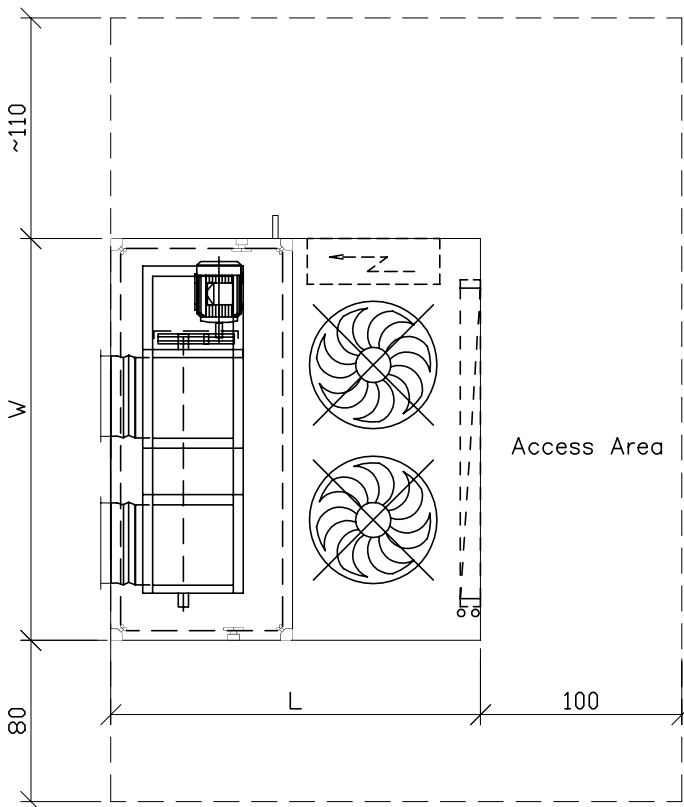
| Refrigerant | | R-410A | | |
|--------------------------|-----------|---------|------------|-----------|
| Entering Air Temperature | DB/WB, °C | 27/23.3 | 27/19.4 | 27/18 |
| | DB/WB, °F | 80.6/74 | 80.6/67 | 80.6/64.4 |
| Outside Air Temp °C (°F) | | | | |
| 30 (86) | TC | 369 | 336 | 323 |
| | SHC | 173 | 239 | 268 |
| | KW | 27 | 27 | 27 |
| 35 (95) | TC | 350 | 323 | 311 |
| | SHC | 165 | 229 | 258 |
| | KW | 29 | 29 | 29 |
| 40 (104) | TC | 324 | 303 | 290 |
| | SHC | 152 | 215 | 241 |
| | KW | 32 | 32 | 32 |

◀ Notes:

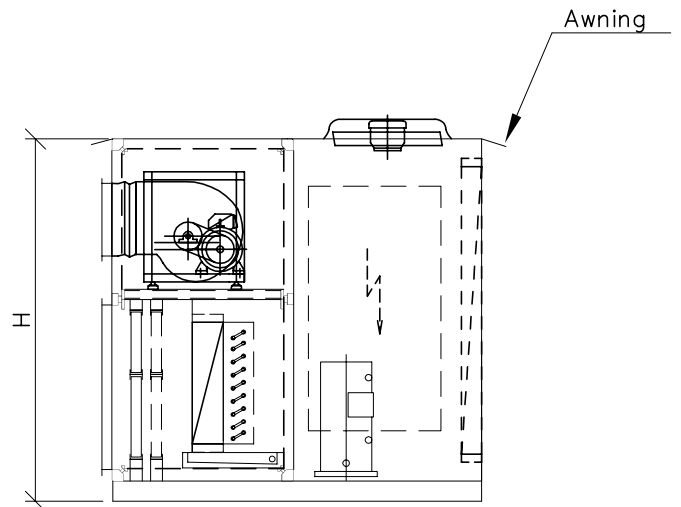
TC-Total Cooling Capacity, kBTU/Hr
 SHC-Sensible Heat Capacity, kBTU/Hr
 KW-Compressor Power Input, kW

► Model : E-28

Plan



Side View



| Performance | | | |
|---------------------------------|---------|--------|----------|
| Refrigerant | | R-410A | |
| Cooling capacity ⁽¹⁾ | kW | 109 | |
| | kBTU/Hr | 373.5 | |
| Heating capacity ⁽²⁾ | kW | 48 | optional |
| | kBTU/Hr | 164 | optional |
| Power consumption | kW | 32.4 | |
| Operating current | A | 58.5 | |
| C.O.P | | 3.4 | |

◀ Notes:

1. Nominal cooling capacity based on indoor air temp. DB=27°C RH=50% and outdoor air temp. DB=35°C WB=24°C.
2. Nominal heating capacity based on indoor air temp. DB=21°C and outdoor air temp. DB=6°C.
3. Power supply 400v, 3ph, 50hz

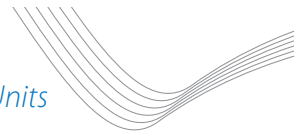
| Technical Data | | | | |
|--------------------------------|--------------------------------|--------------------|------------|----------|
| Compressor | type | Scroll | | |
| | Quantity | 3 | | |
| | Stage of Cooling | 3 | | |
| Evaporator side ⁽¹⁾ | | | | |
| Air flow | | m ³ /hr | 21760 | |
| | | cfm | 12800 | |
| Centrifugal fan | Size | 2x20"-20" | | |
| | Static Pressure ⁽²⁾ | Pa | 500 | |
| | | kW | 7.5 | |
| | Motor | RPM | 1430 | |
| | | | | |
| Evaporator coil | Face area | m ² | 2.5 | |
| | | ft ² | 26.4 | |
| | Rows deep | 4 | optional 6 | |
| Filter | 12% deep 2" | Qty.-dim. | 8-24"x24" | |
| | | | 2-20"x24" | |
| | 30% deep 2" | Qty.-dim. | 8-24"x24" | optional |
| | | | 2-20"x24" | |
| Condenser side ⁽¹⁾ | | | | |
| Condenser coil | Quantity | 1 | | |
| | Face area | m ² | 4.9 | |
| | | ft ² | 52.8 | |
| Axial fan | Diameter | mm | 800 | |
| | Quantity. | 3 | | |
| | Air flow | m ³ /hr | 19278 | |
| | | cfm | 11340 | |
| | Motor | kW | 1.9 | |
| RPM | | 900 | | |

| Stage of Cooling | |
|------------------|------|
| Comp. 1 | 33% |
| Comp. 1 + 2 | 67% |
| Comp. 1 + 2 +3 | 100% |

| Dimensions | | |
|------------|----|------|
| Length | cm | 220 |
| Width | cm | 300 |
| Height | cm | 270 |
| Weight | kg | 1820 |

▲ Notes:

1. One cooling circuits.
2. Net static pressure available at fan discharge at nominal capacity.



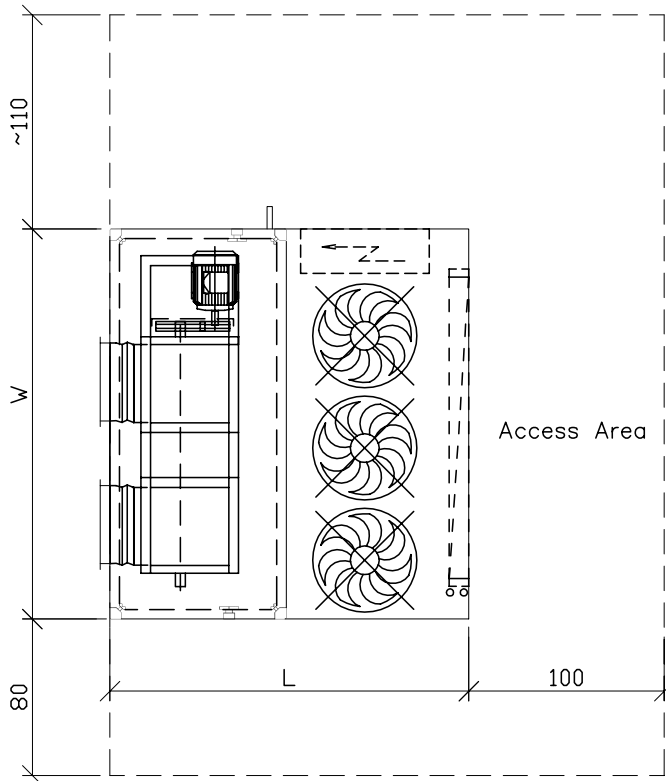
| Cooling Capacity - (Capacities are According to A.R.I. Standard) | | | | |
|--|-----------|---------|------------|-----------|
| Refrigerant | | R-410A | | |
| Entering Air Temperature | DB/WB, °C | 27/23.3 | 27/19.4 | 27/18 |
| | DB/WB, °F | 80.6/74 | 80.6/67 | 80.6/64.4 |
| Outside Air Temp °C (°F) | | | | |
| 30 (86) | TC | 414 | 392 | 362 |
| | SHC | 195 | 282 | 300 |
| | KW | 30 | 30 | 30 |
| 35 (95) | TC | 396 | 374 | 351 |
| | SHC | 186 | 269 | 291 |
| | KW | 32 | 32 | 32 |
| 40 (104) | TC | 363 | 347 | 326 |
| | SHC | 171 | 250 | 271 |
| | KW | 36 | 35 | 35 |

◀ Notes:

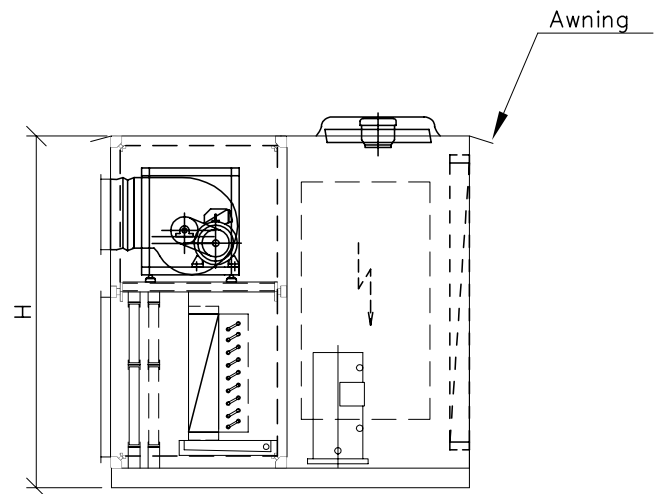
TC-Total Cooling Capacity, kBTU/Hr
 SHC-Sensible Heat Capacity, kBTU/Hr
 KW-Compressor Power Input, kW

▶ Model : E-31

Plan



Side View



| Performance | | | |
|---------------------------------|---------|--------|----------|
| Refrigerant | | R-410A | |
| Cooling capacity ⁽¹⁾ | kW | 126 | |
| | kBTU/Hr | 432 | |
| Heating capacity ⁽²⁾ | kW | 58 | optional |
| | kBTU/Hr | 198 | optional |
| Power consumption | kW | 38.7 | |
| Operating current | A | 73.2 | |
| C.O.P | | 3.3 | |

◀ Notes:

- Nominal cooling capacity based on indoor air temp. DB=27°C RH=50% and outdoor air temp. DB=35°C WB=24°C.
- Nominal heating capacity based on indoor air temp. DB=21°C and outdoor air temp. DB=6°C.
- Power supply 400v, 3ph, 50hz

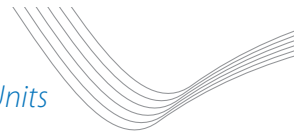
| Technical Data | | | |
|--------------------------------|--------------------------------|--------------------|------------|
| Compressor | type | Scroll | |
| | Quantity | 3 | |
| | Stage of Cooling | 3 | |
| Evaporator side ⁽¹⁾ | | | |
| Air flow | | m ³ /hr | 24480 |
| | | cfm | 14400 |
| Centrifugal fan | Size | 2x20"-20" | |
| | Static Pressure ⁽²⁾ | Pa | 500 |
| | | | |
| | Motor | kW | 11 |
| RPM | | 1460 | |
| Evaporator coil | Face area | m ² | 2.7 |
| | | ft ² | 28.9 |
| | Rows deep | 4 | optional 6 |
| Filter | 12% deep 2" | Qty.-dim. | 8-24"x24" |
| | | | 2-20"x24" |
| | 30% deep 2" | Qty.-dim. | 8-24"x24" |
| | | | 2-20"x24" |
| Condenser side ⁽¹⁾ | | | |
| Condenser coil | Quantity | 1 | |
| | Face area | m ² | 5.6 |
| | | ft ² | 60.4 |
| Axial fan | Diameter | mm | 800 |
| | Quantity | 3 | |
| | Air flow | m ³ /hr | 20400 |
| | | cfm | 12000 |
| | Motor | kW | 1.9 |
| RPM | | 900 | |

| Stage of Cooling | |
|------------------|------|
| Comp. 1 | 33% |
| Comp. 1 + 2 | 67% |
| Comp. 1 + 2 + 3 | 100% |

| Dimensions | | |
|------------|----|------|
| Length | cm | 225 |
| Width | cm | 300 |
| Height | cm | 275 |
| Weight | kg | 1860 |

▲ Notes:

- One cooling circuits.
- Net static pressure available at fan discharge at nominal capacity.

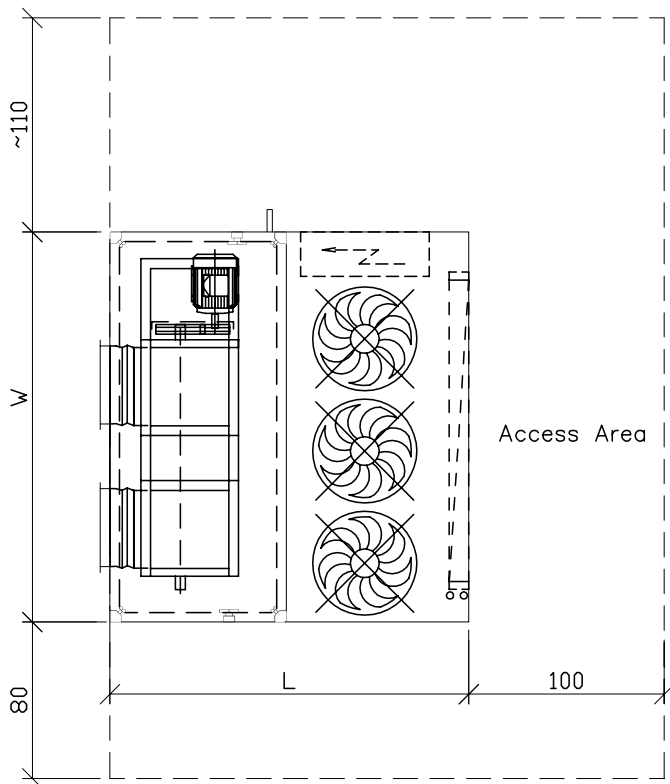


| Cooling Capacity - (Capacities are According to A.R.I. Standard) | | | | |
|--|-----------|---------|------------|-----------|
| Refrigerant | | R-410A | | |
| Entering Air Temperature | DB/WB, °C | 27/23.3 | 27/19.4 | 27/18 |
| | DB/WB, °F | 80.6/74 | 80.6/67 | 80.6/64.4 |
| Outside Air Temp °C (°F) | | | | |
| 30 (86) | TC | 488 | 452 | 426 |
| | SHC | 229 | 325 | 354 |
| | KW | 37 | 37 | 36 |
| 35 (95) | TC | 467 | 432 | 416 |
| | SHC | 219 | 311 | 345 |
| | KW | 39 | 39 | 38 |
| 40 (104) | TC | 432 | 404 | 389 |
| | SHC | 203 | 291 | 323 |
| | KW | 42 | 42 | 42 |

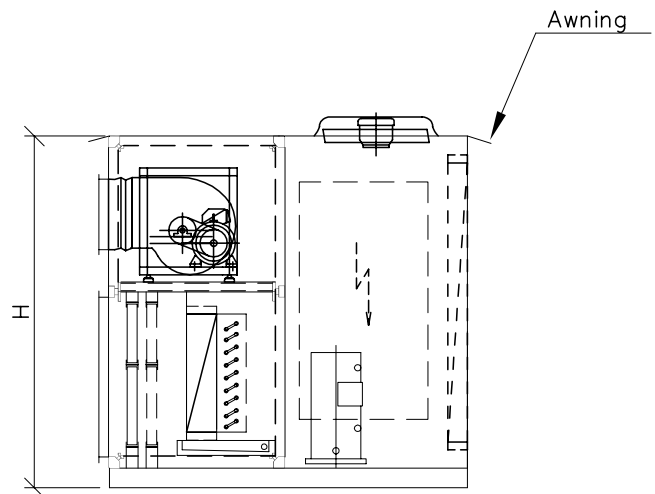
◀ Notes:
 TC-Total Cooling Capacity, kBTU/Hr
 SHC-Sensible Heat Capacity, kBTU/Hr
 KW-Compressor Power Input, kW

▶ Model: **E-36**

Plan



Side View





MKM

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