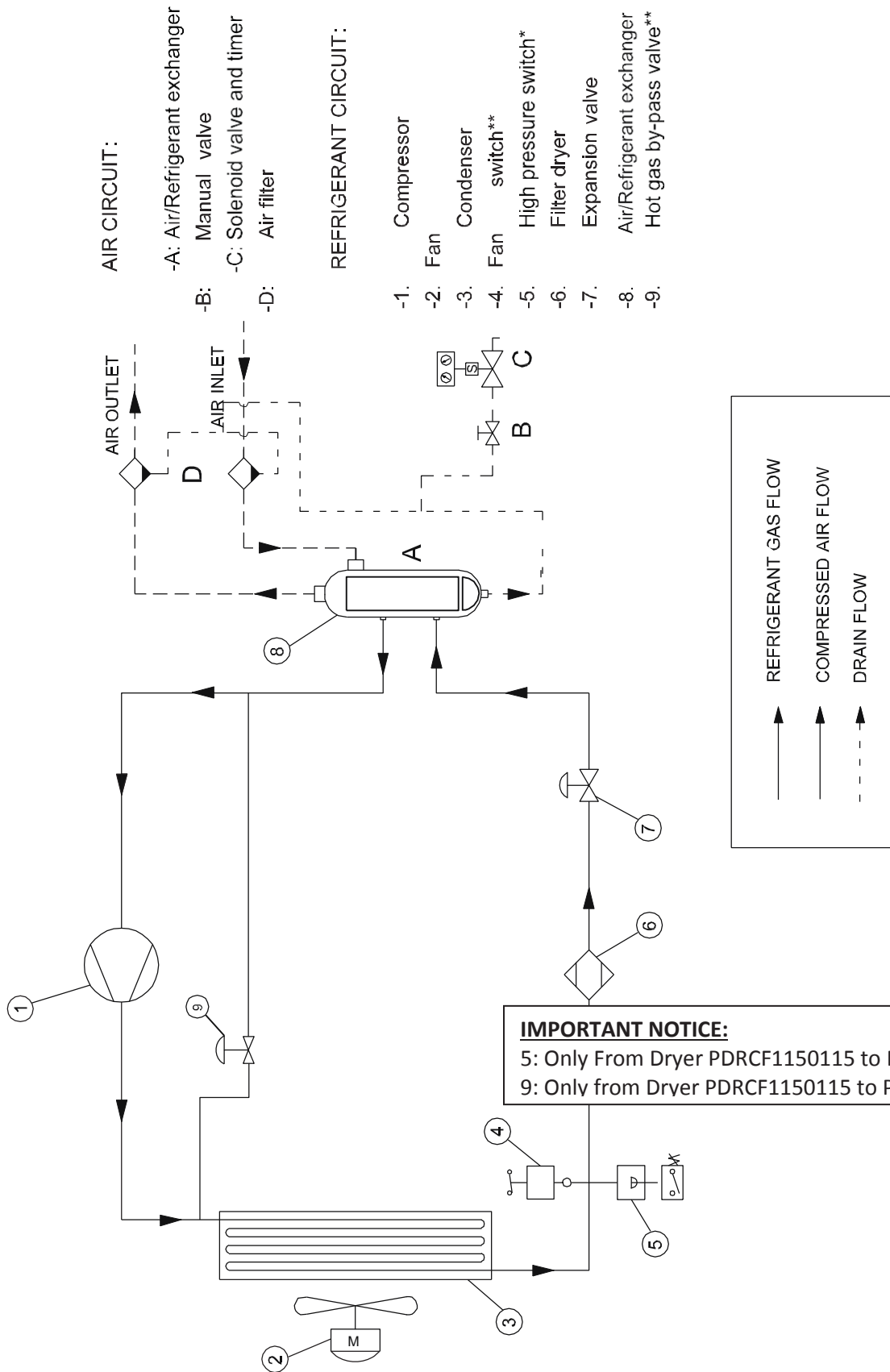
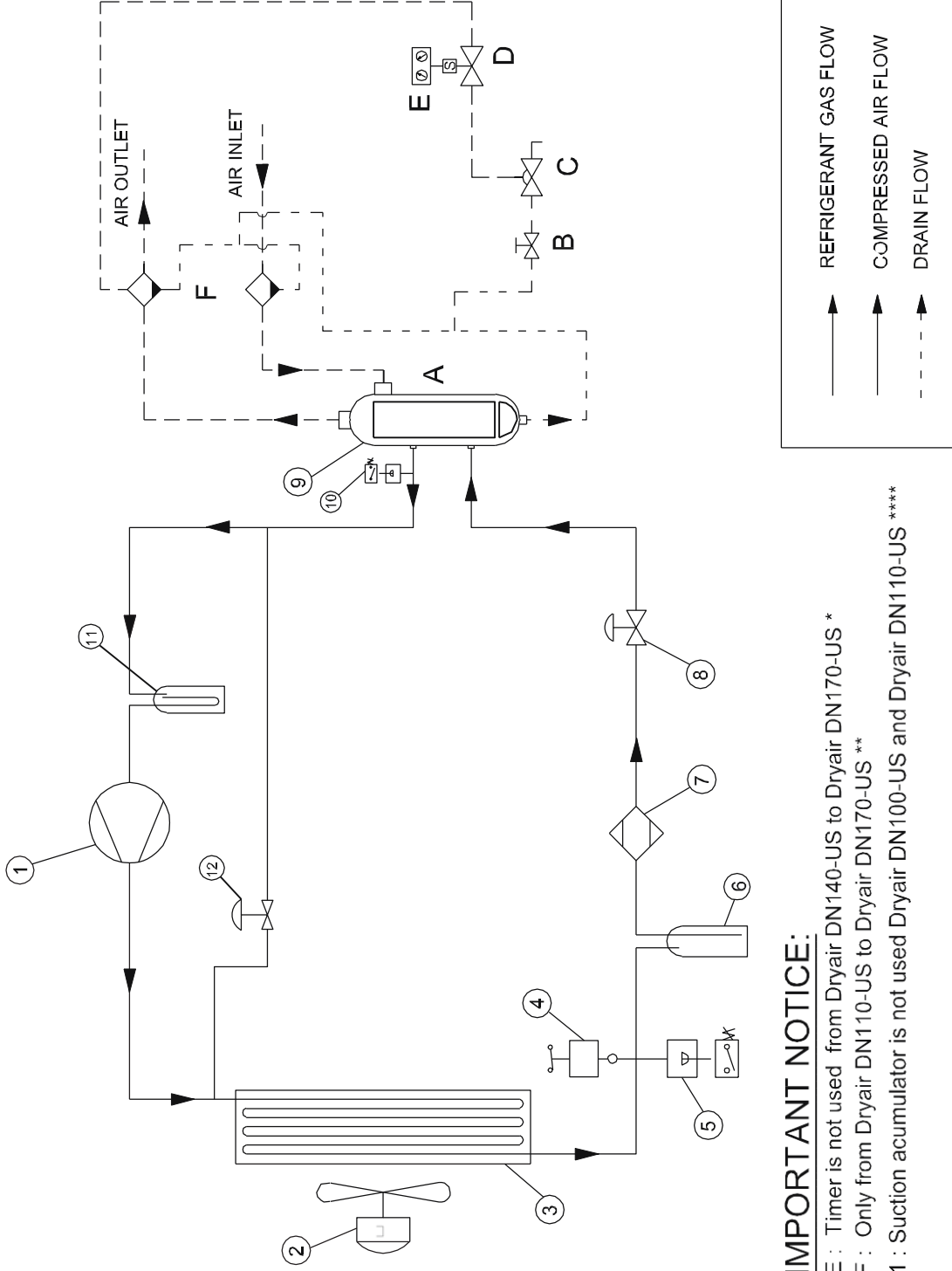


# 5.1 AIR FLOW DIAGRAMS

EDRCF1150029 - EDRCFR1150144



# Dryair DN100-US - Dryair DN170-US



## AIR CIRCUIT:

- A: Air/Refrigerant exchanger
- B: Manual valve
- C: Membrane valve
- D: Solenoid valve
- E: Timer\*
- F: Air filter\*\*

## REFRIGERANT CIRCUIT:

- 1. Compressor
- 2. Fan
- 3. Condenser
- 4. Fan switch
- 5. High pressure switch
- 6. Liquid receiver
- 7. Filter dryer
- 8. Expansion valve
- 9. Air/Refrigerant exchanger
- 10. Low pressure switch
- 11. Suction accumulator\*\*\*\*

### IMPORTANT NOTICE:

E : Timer is not used from Dryair DN140-US to Dryair DN170-US \*

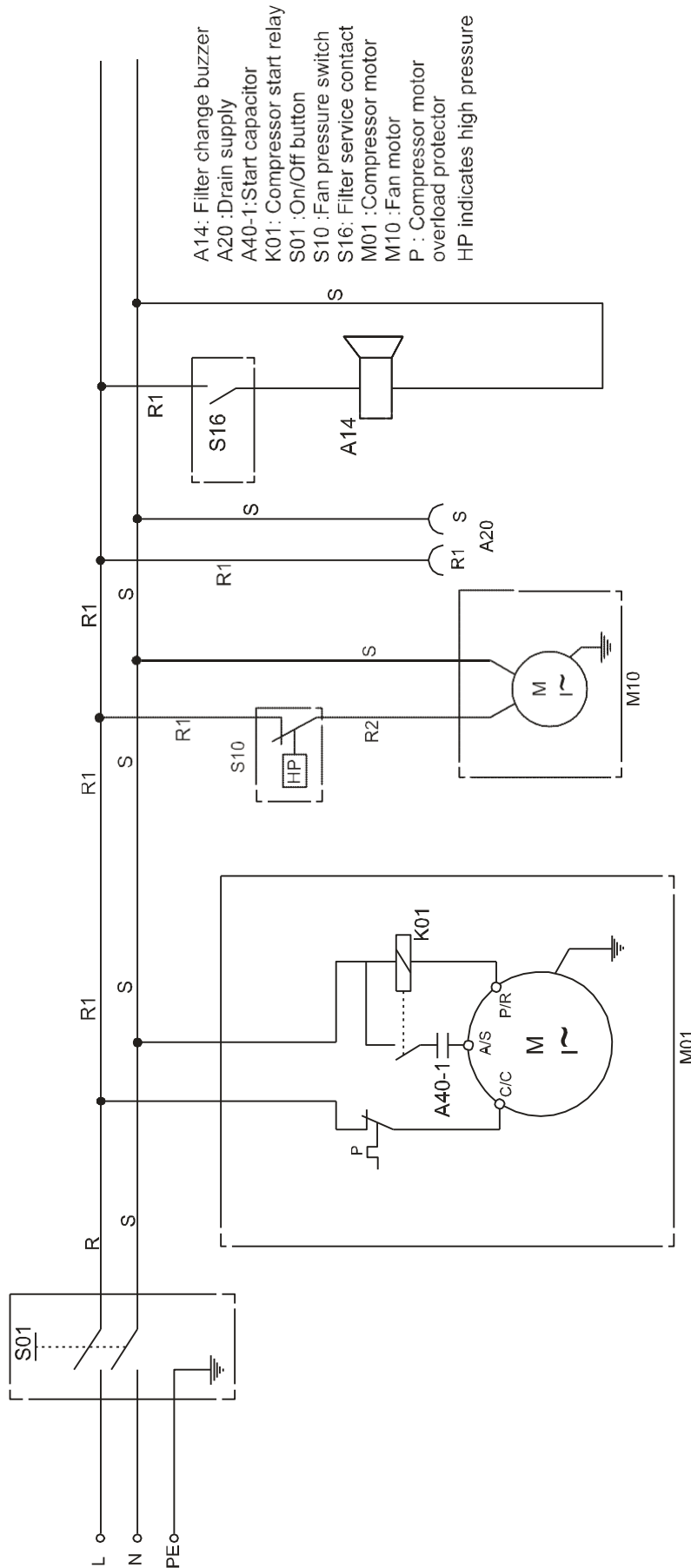
F : Only from Dryair DN110-US to Dryair DN170-US \*\*

11 : Suction accumulator is not used Dryair DN100-US and Dryair DN170-US \*\*\*\*

## 5.2 ELECTRICAL DIAGRAMS

## Dryair DN10-US - Dryair DN30-US

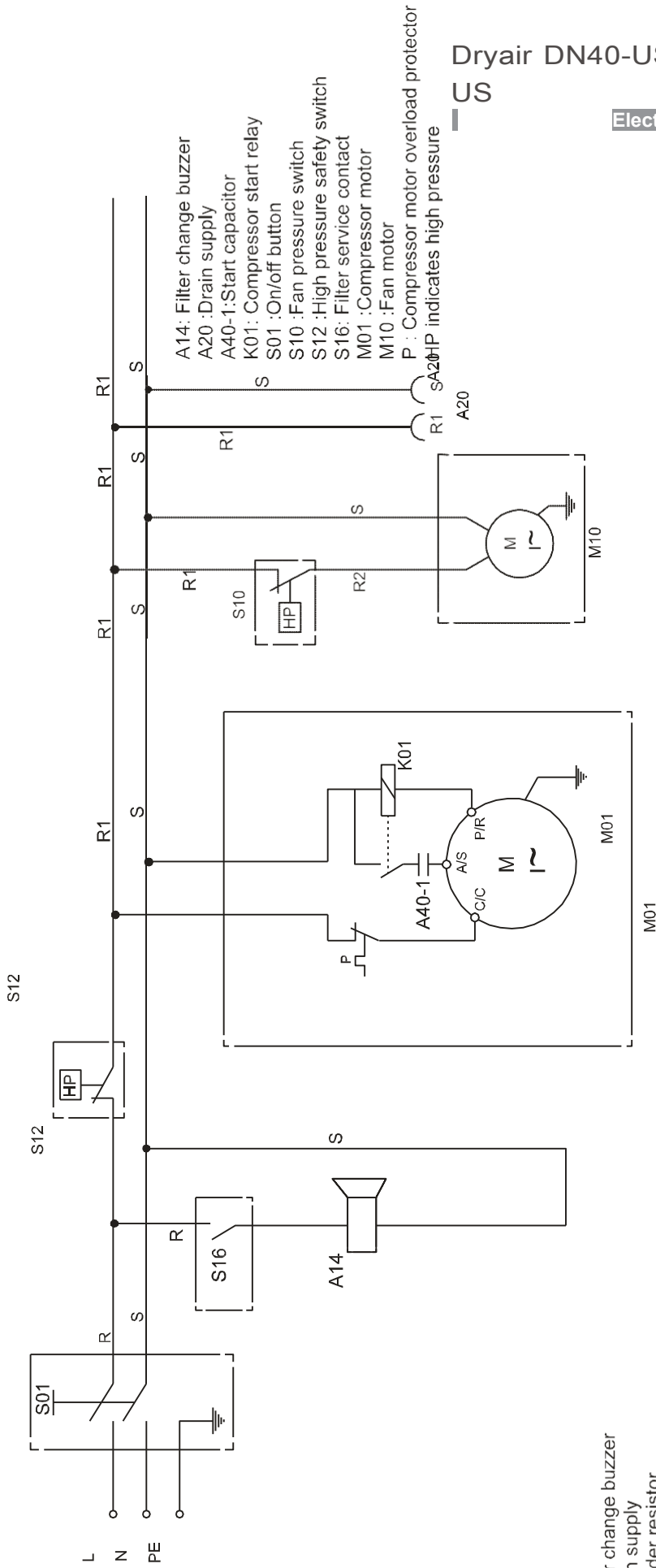
Electrical Circuit



- A14: Filter change buzzer
- A20 :Drain supply
- A40-1:Start capacitor
- K01: Compressor start relay
- S01 :On/Off button
- S10 :Fan pressure switch
- S16: Filter service contact
- M01 :Compressor motor
- M10 :Fan motor
- P : Compressor motor overload protector
- HP indicates high pressure

# Dryair DN40-US - Dryair DN80-US

## Electrical Circuit

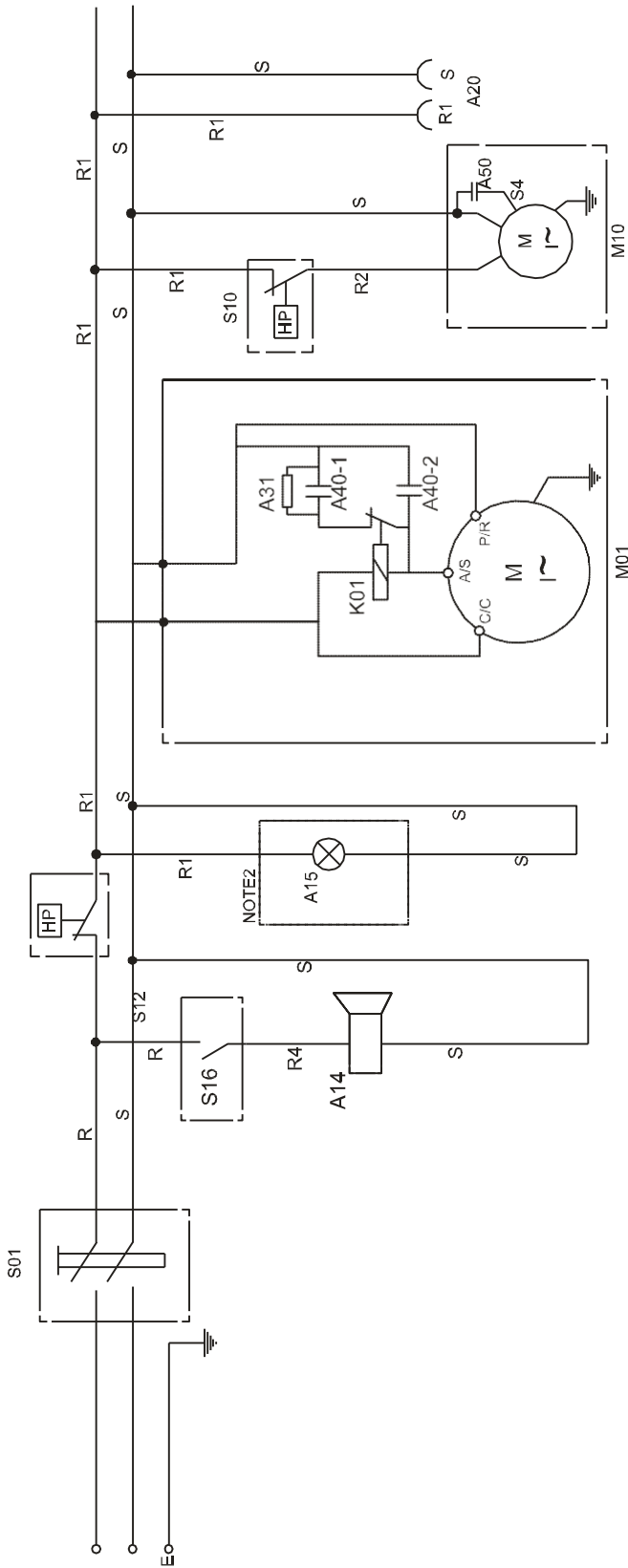


- A14: Filter change buzzer
- A20 : Drain supply
- A40-1:Start capacitor
- K01: Compressor start relay
- S01 : On/off button
- S10 :Fan pressure switch
- S12 :High pressure safety switch
- S16: Filter service contact
- M01 :Compressor motor
- M10 :Fan motor
- P : Compressor motor overload protector
- HP indicates high pressure

- A14: Filter change buzzer
- A20 : Drain supply
- A31: Bleeder resistor
- A40-1:Start capacitor
- A40-2: Run capacitor
- K01: Compressor start relay
- S01 : On/off button
- S10 :Fan pressure switch
- S12 :High pressure safety switch
- S16: Filter service contact
- M01 :Compressor motor
- M10 :Fan motor
- P : Compressor motor overload protector
- HP indicates high pressure

# Dryair DN100-US - Dryair DN110-US

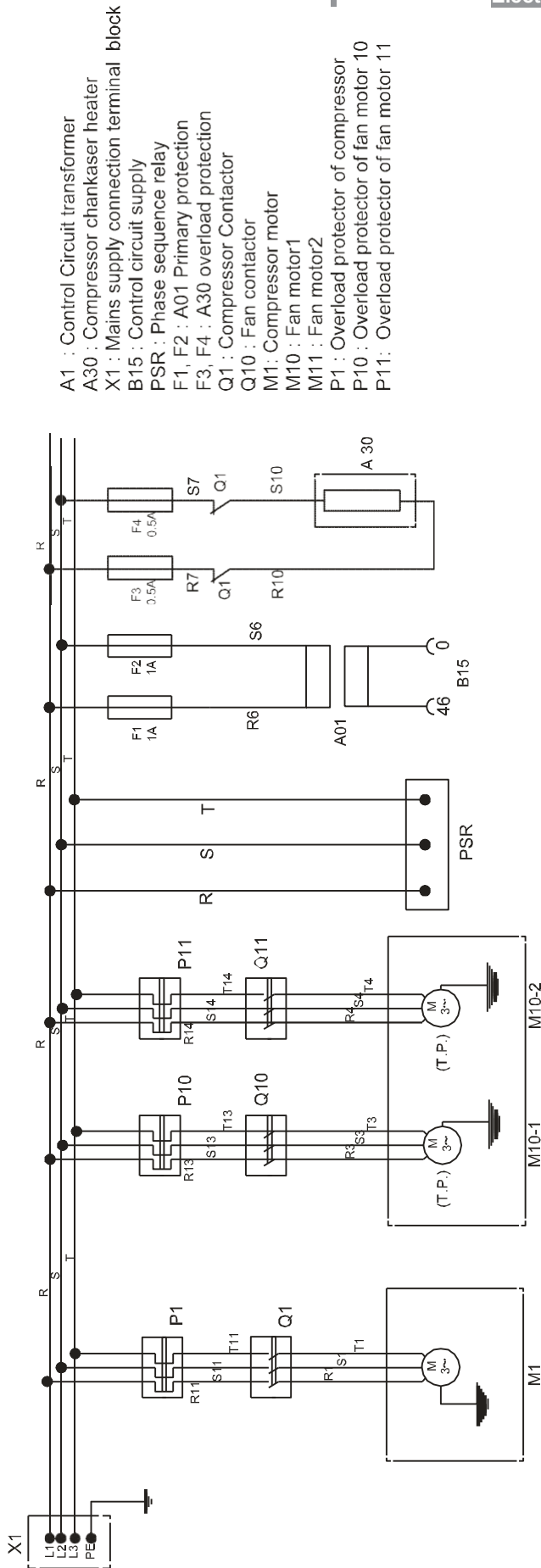
## Electrical Circuit



- A14: Filter change buzzer
- A15: Running lamp (green)
- A20: Drain supply
- A31: Bleeder resistor
- A40-1: Start capacitor
- A40-2: Run capacitor
- A50: Fan motor capacitor
- K01: Compressor start relay
- S01: Main switch
- S10: Fan pressure switch
- S12: High pressure safety switch
- S16: Filter service contact
- M01: Compressor motor
- M10: Fan motor
- HP indicates high pressure

# Dryair DN140-US - Dryair DN170-US

## Electrical Power Circuit



- A1 : Control Circuit transformer
- A30 : Compressor chankaiser heater
- X1 : Mains supply connection terminal block
- B15 : Control circuit supply
- PSR : Phase sequence relay
- F1, F2 : A01 Primary protection
- F3, F4 : A30 overload protection
- Q1 : Compressor Contactor
- Q10 : Fan contactor
- Q11 : Fan motor2
- M1 : Fan motor1
- M10 : Fan motor2
- M11 : Fan motor2
- P1 : Overload protector of compressor
- P10 : Overload protector of fan motor 10
- P11 : Overload protector of fan motor 11

# Emax Air Dryer

REFRIGERATED TYPE COMPRESSED AIR DRYERS

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General Arrangements

Main Settings

Drawings

## 6. GENERAL ARRANGEMENTS

Model						
Dryair DN10-US	1 * GKO50X + 1 * GKO50Y	MKO50 KIT	16.26	14.29	21.93	70.40
Dryair DN20-US	1 * GKO50X + 1 * GKO50Y	MKO50 KIT	16.26	14.29	21.93	70.40
Dryair DN30-US	1 * GKO50X + 1 * GKO50Y	MKO50 KIT	16.26	14.29	21.93	70.40
Dryair DN40-US	1 * GKO150X + 1 * GKO150Y	MKO150 KIT	18.62	17.83	32.76	112.20
Dryair DN50-US	1 * GKO150X + 1 * GKO150Y	MKO150 KIT	18.62	17.83	32.76	116.60
Dryair DN60-US	1 * GKO150X + 1 * GKO150Y	MKO150 KIT	18.62	17.83	32.76	121
Dryair DN70-US	1 * GKO500X + 1 * GKO500Y	MKO500 KIT	21.77	19.80	34.41	171.60
Dryair DN80-US	1 * GKO500X + 1 * GKO500Y	MKO500 KIT	21.77	19.80	34.41	182.60
Dryair DN90-US	1 * GKO500X + 1 * GKO500Y	MKO500 KIT	21.77	19.80	34.41	189.20
Dryair DN100-US	1 * GKO851X + 1 * GKO851Y	MKO851 KIT	26.69	25.51	45.55	352
Dryair DN110-US	1*GKO1210X+1*GKO1210Y	MKO1210KIT	26.69	25.51	45.55	363
Dryair DN120-US	1*GKO1210X+1*GKO1210Y	MKO1210KIT	37.32	28.66	53.94	484
Dryair DN130-US	1*GKO1210X+1*GKO1210Y	MKO1210KIT	37.32	28.66	53.94	506
Dryair DN140-US	1*GKO1820X+1*GKO1820Y	MKO1820KIT	37.32	31.42	57.48	594
Dryair DN150-US	1*GKO1820X+1*GKO1820Y	MKO1820KIT	37.32	31.42	57.48	627
Dryair DN160-US	1*GKO2700X+1*GKO2700Y	MKO2700KIT	45.79	30.63	67.91	862.40
Dryair DN170-US	1*GKO2700X+1*GKO2700Y	MKO2700KIT	45.79	30.63	67.91	902

## 7. MAIN SETTINGS

Superheat of thermostatic expansion valve	Evaporating pressure	Fan pressure switch	Security (*) high pressure switch	Security (**) low pressure switch	Drain timer (***)	Low pres. High Temp. switch (****)	Water flow valve (if water condenser)
41°F - 50°F	29.7 psi	130 - 174 psi	362.5 psi	23.2 psi	1 min. - 5- sec. 5 min. - 4- sec.	113°F	159.5 psi

(\*) Available up to Dryair DN40-US and above

(\*\*) Available up to Dryair DN140-US and above

(\*\*\*) 1 min. - 5 sec. (up to DN100-US and above)

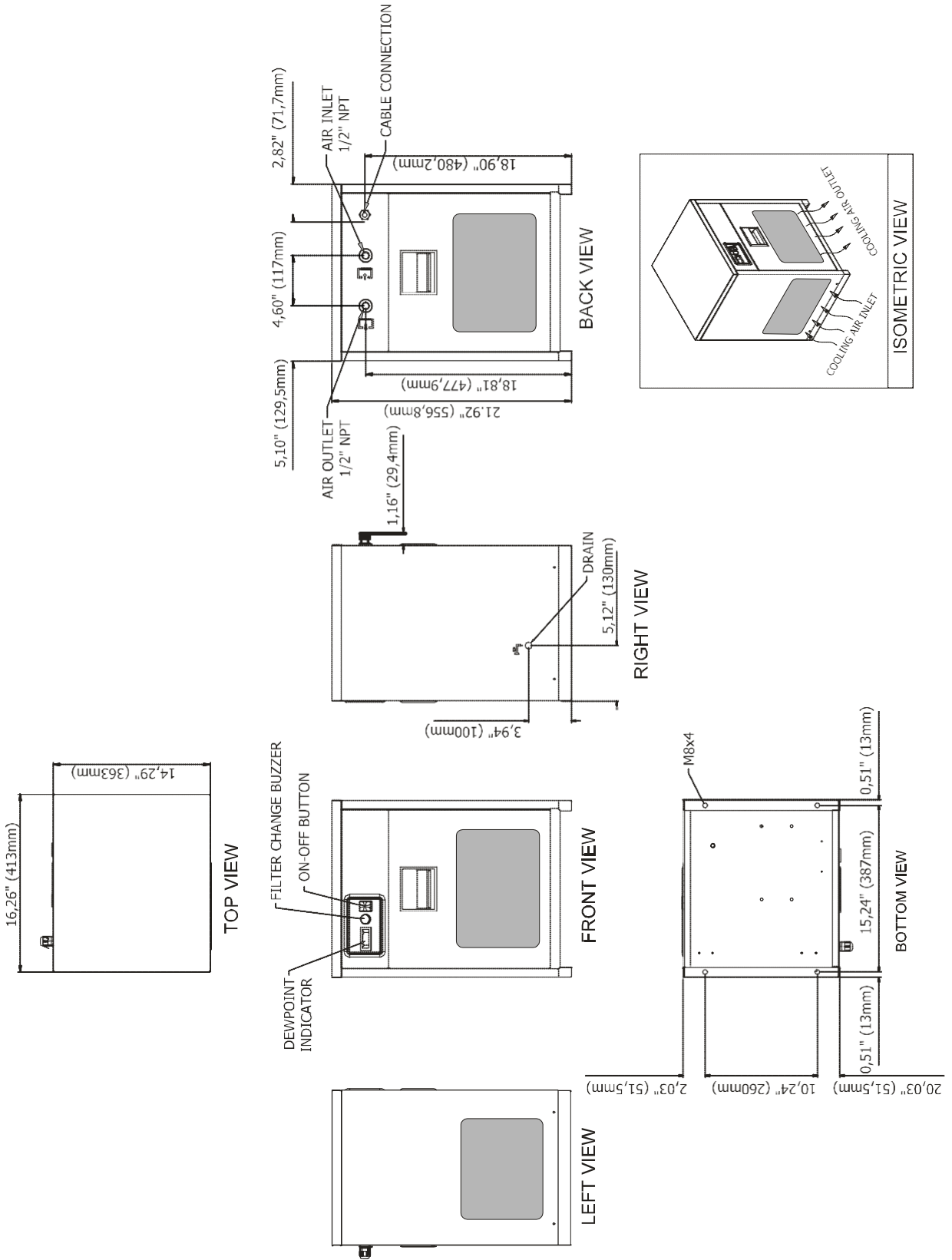
5 min. - 4 sec. (up to DN90-US and above)

(\*\*\*\*) Available up to Dryair DN140-US and above

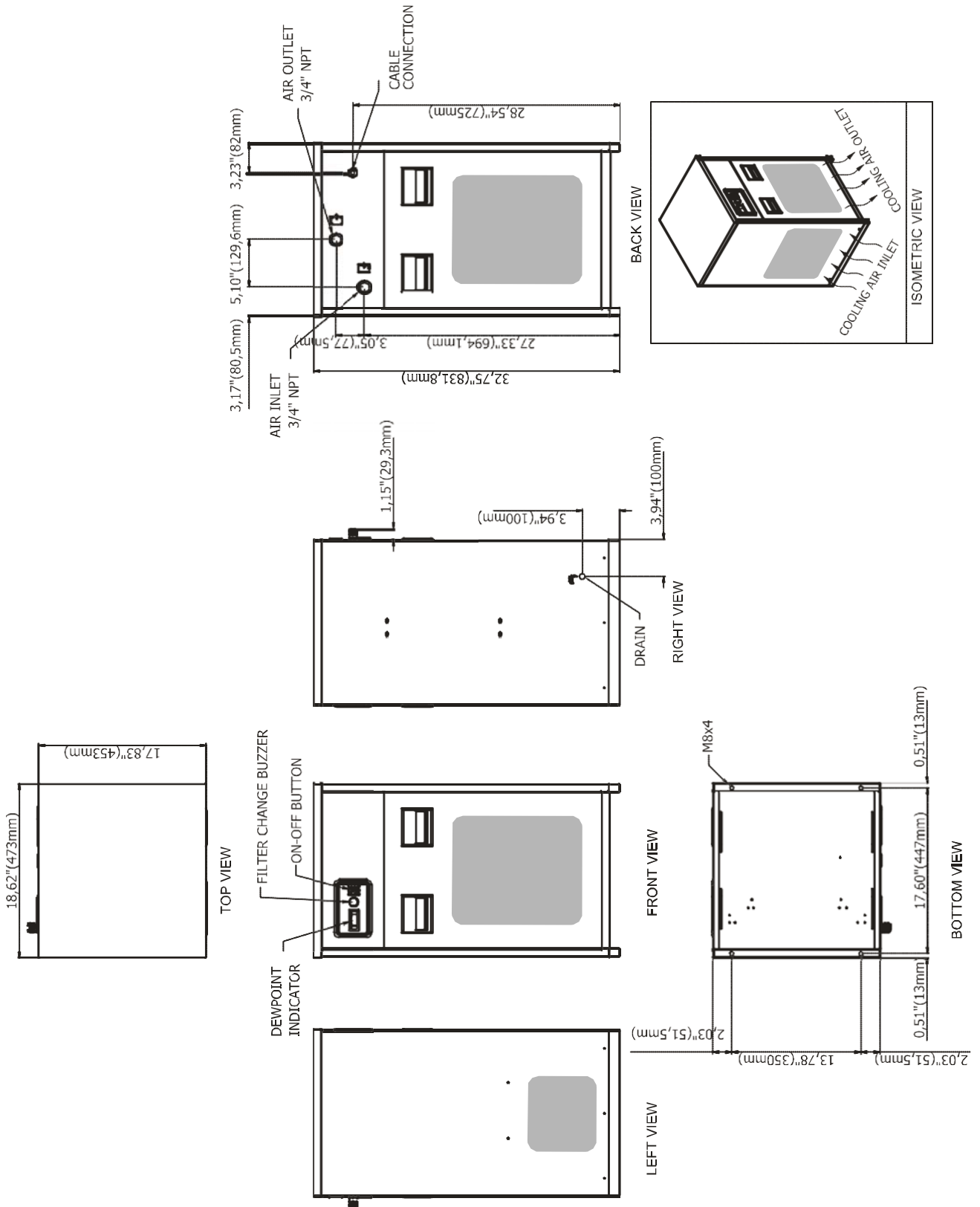


8. ED and ID DRAWINGS

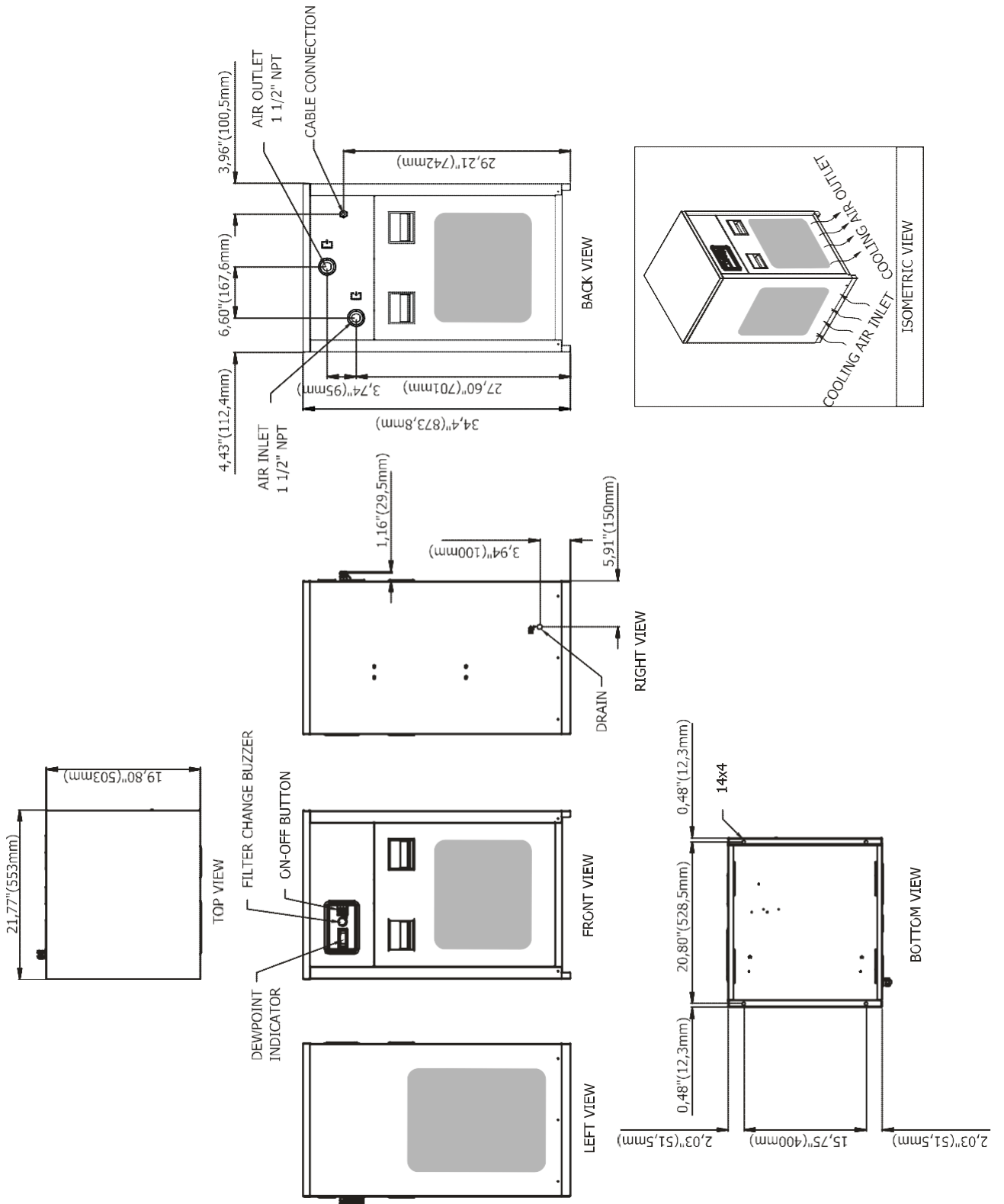
Dryair DN10-US - Dryair DN30-US



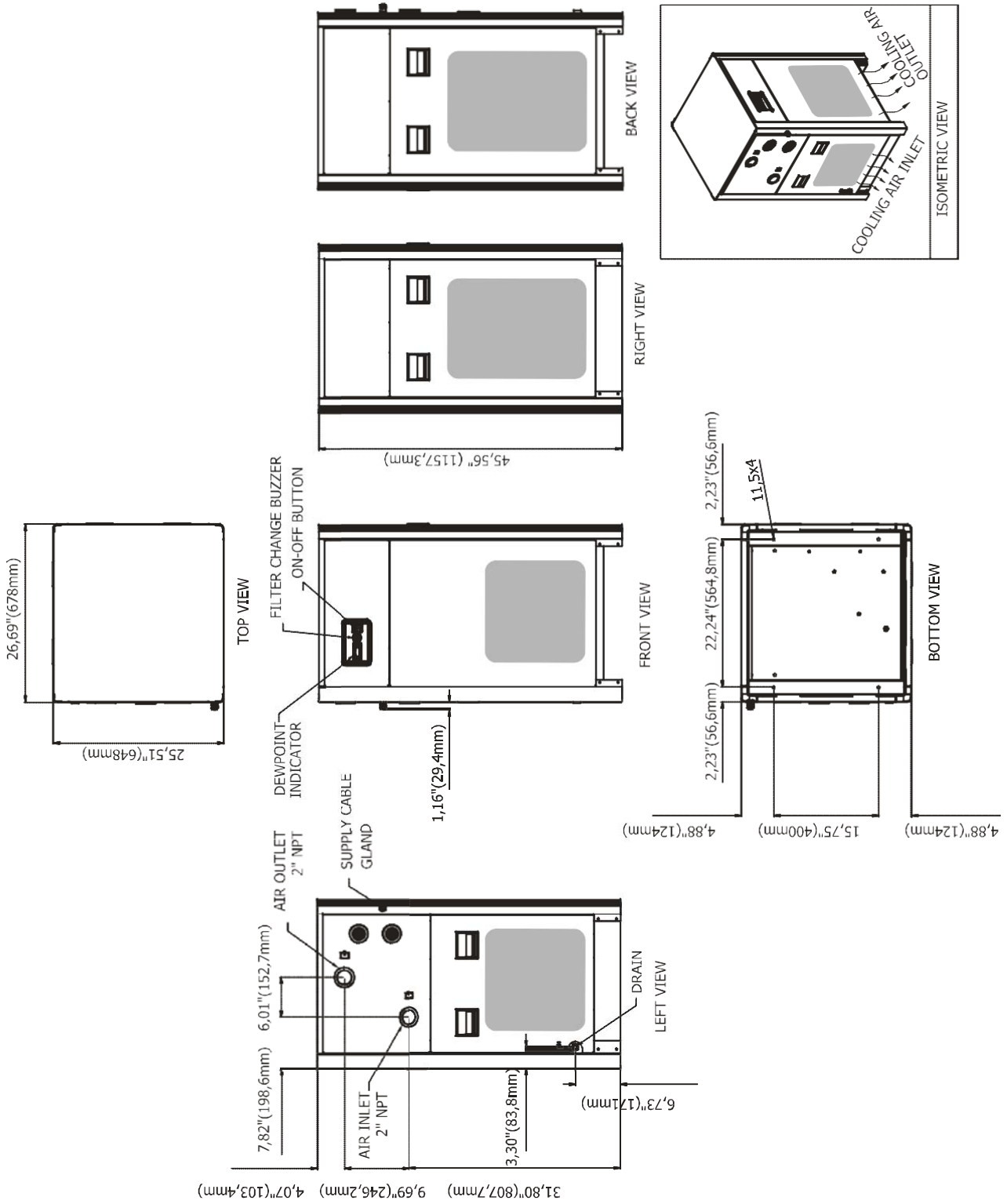
# Dryair DN40-US - Dryair DN60-US



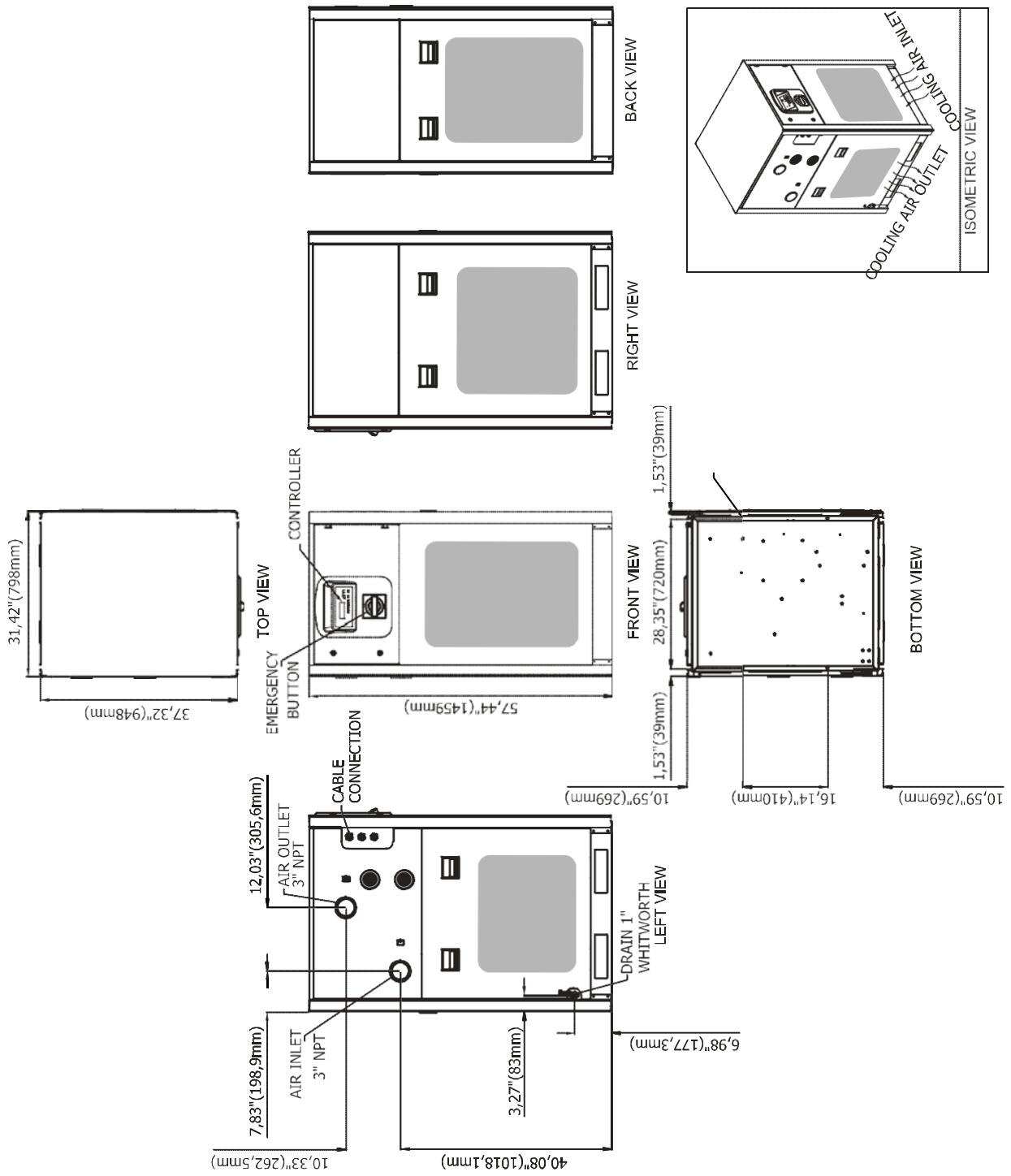
# Dryair DN70-US - Dryair DN90-US



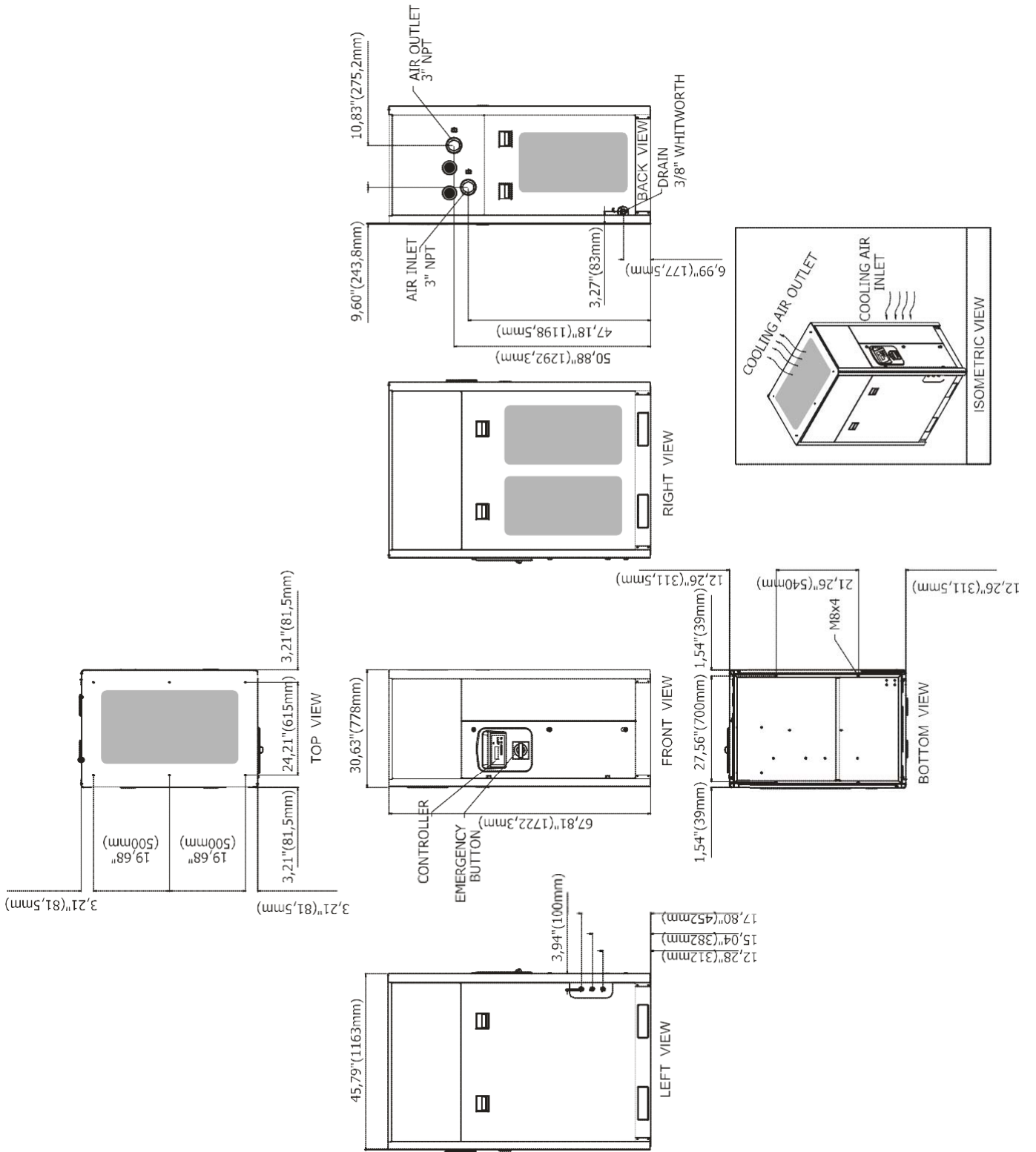
# Dryair DN100-US - Dryair DN110-US



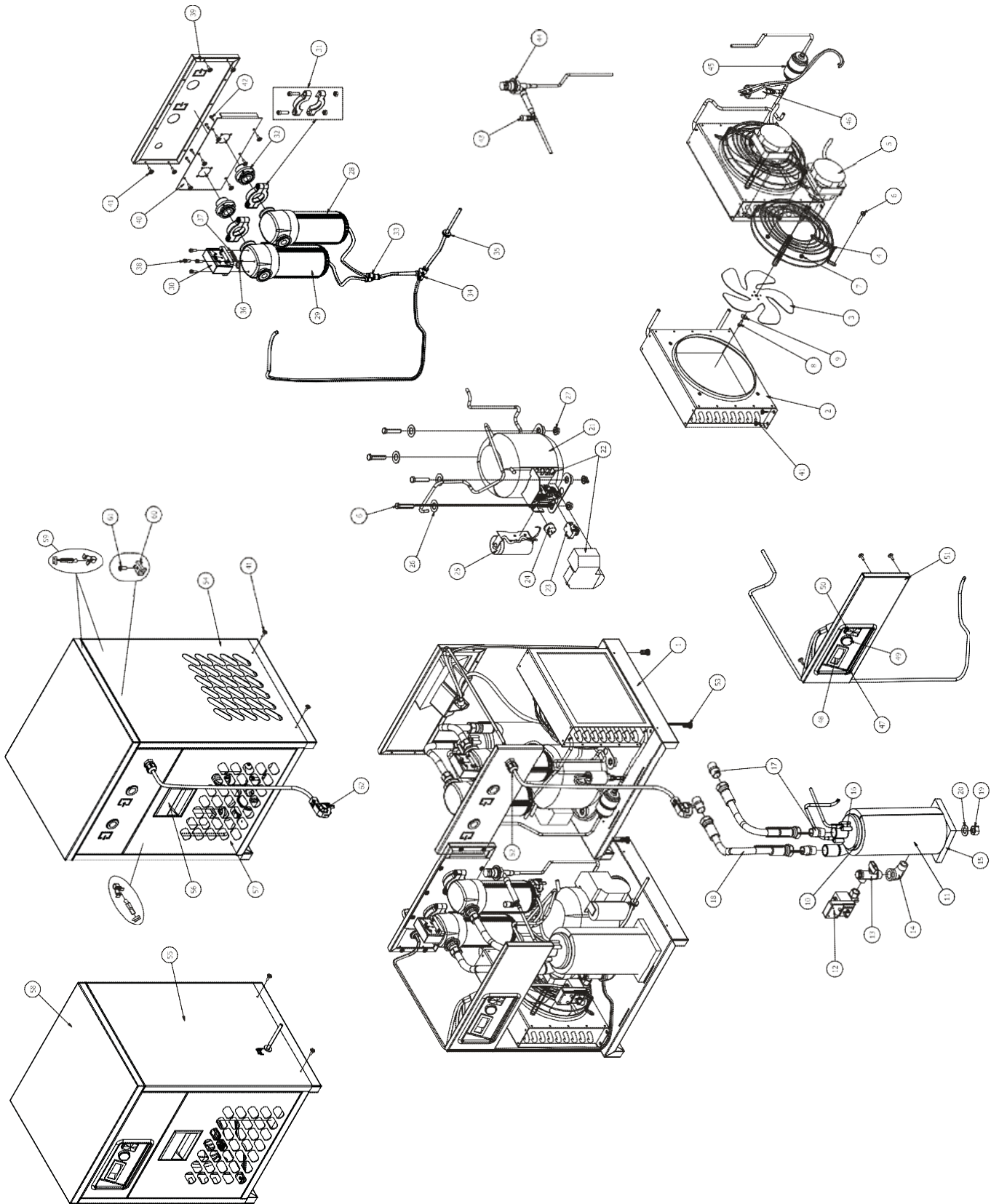
# Dryair DN140-US - Dryair DN150-US



# Dryair DN160-US - Dryair DN170-US



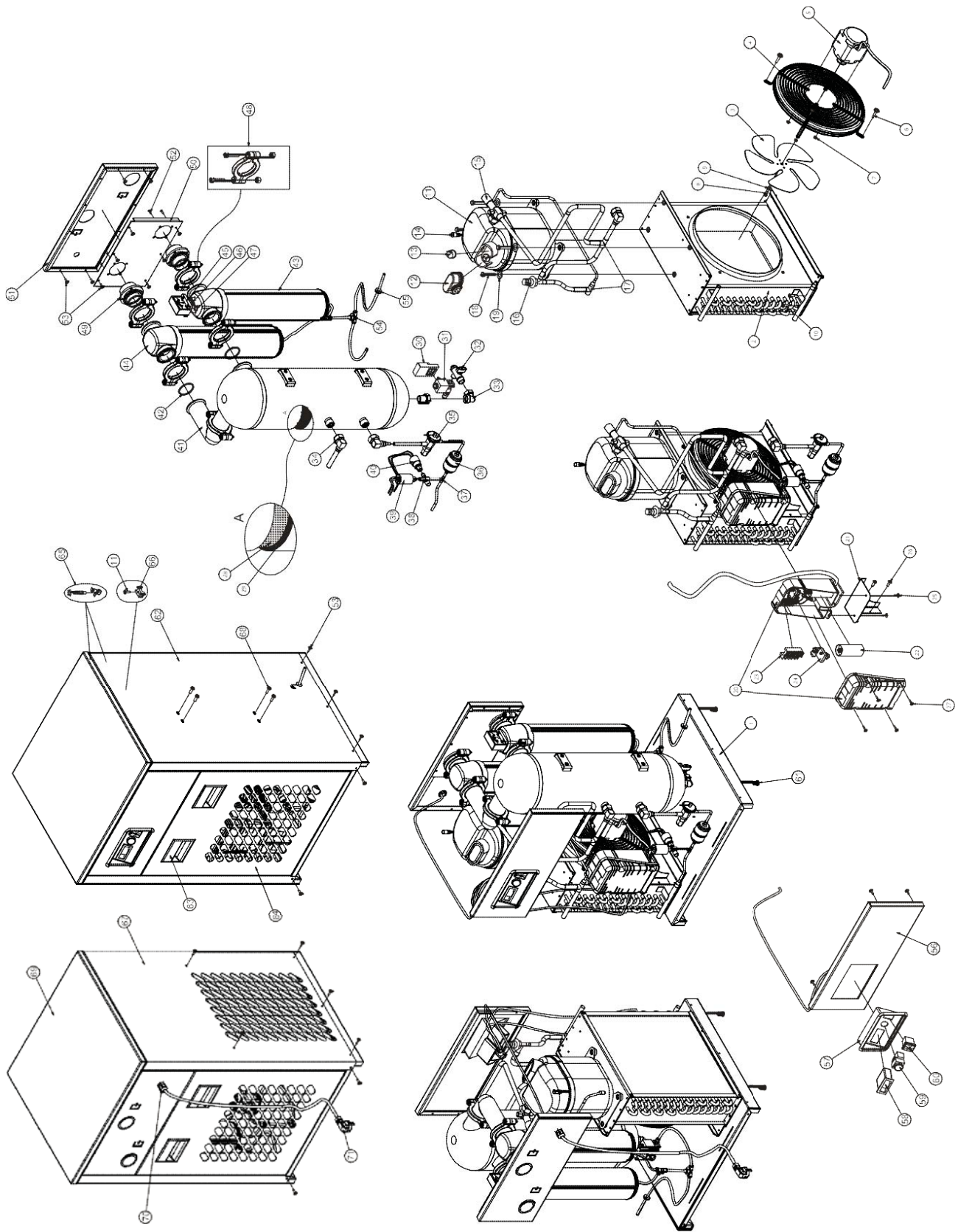
# Dryair DN30-US



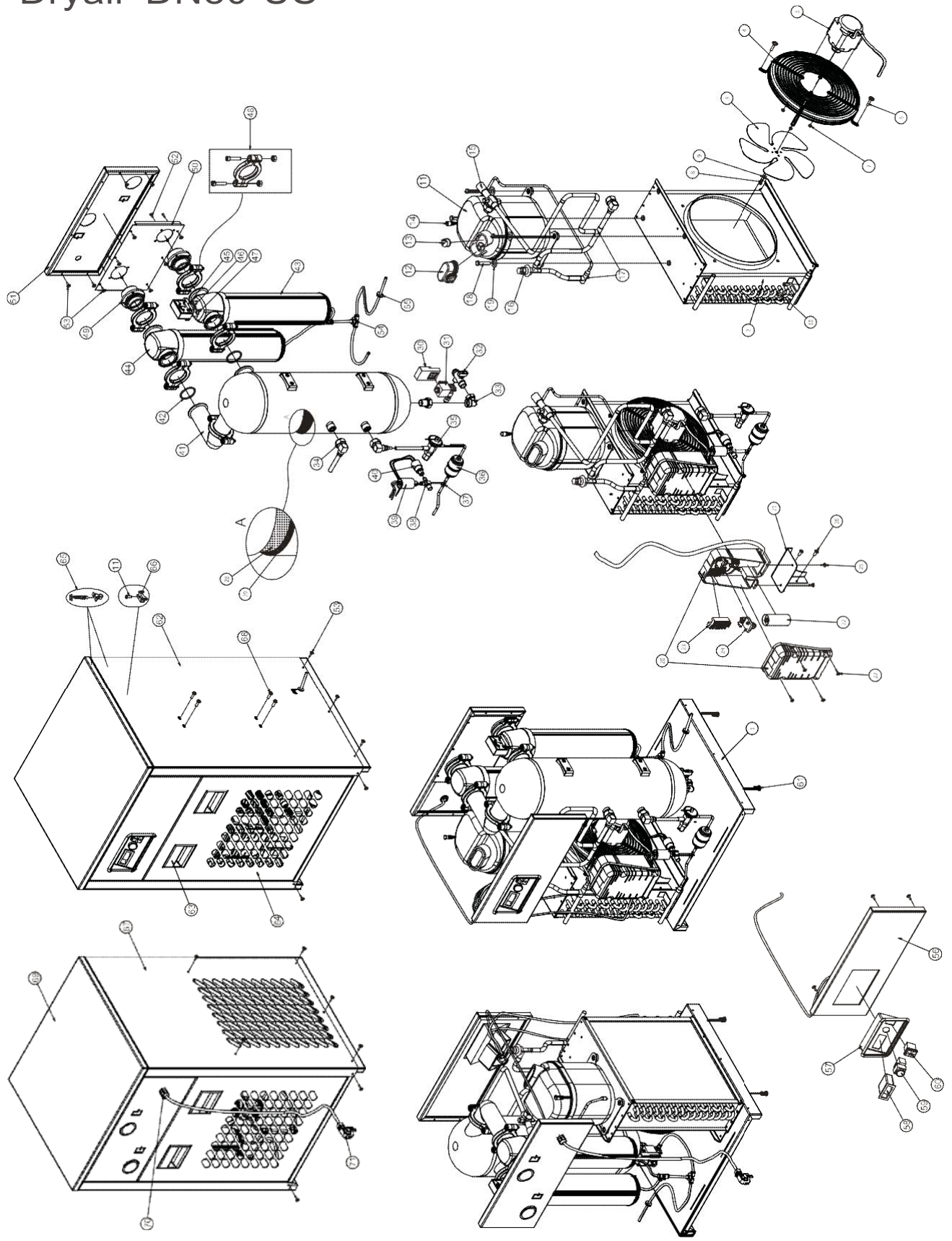




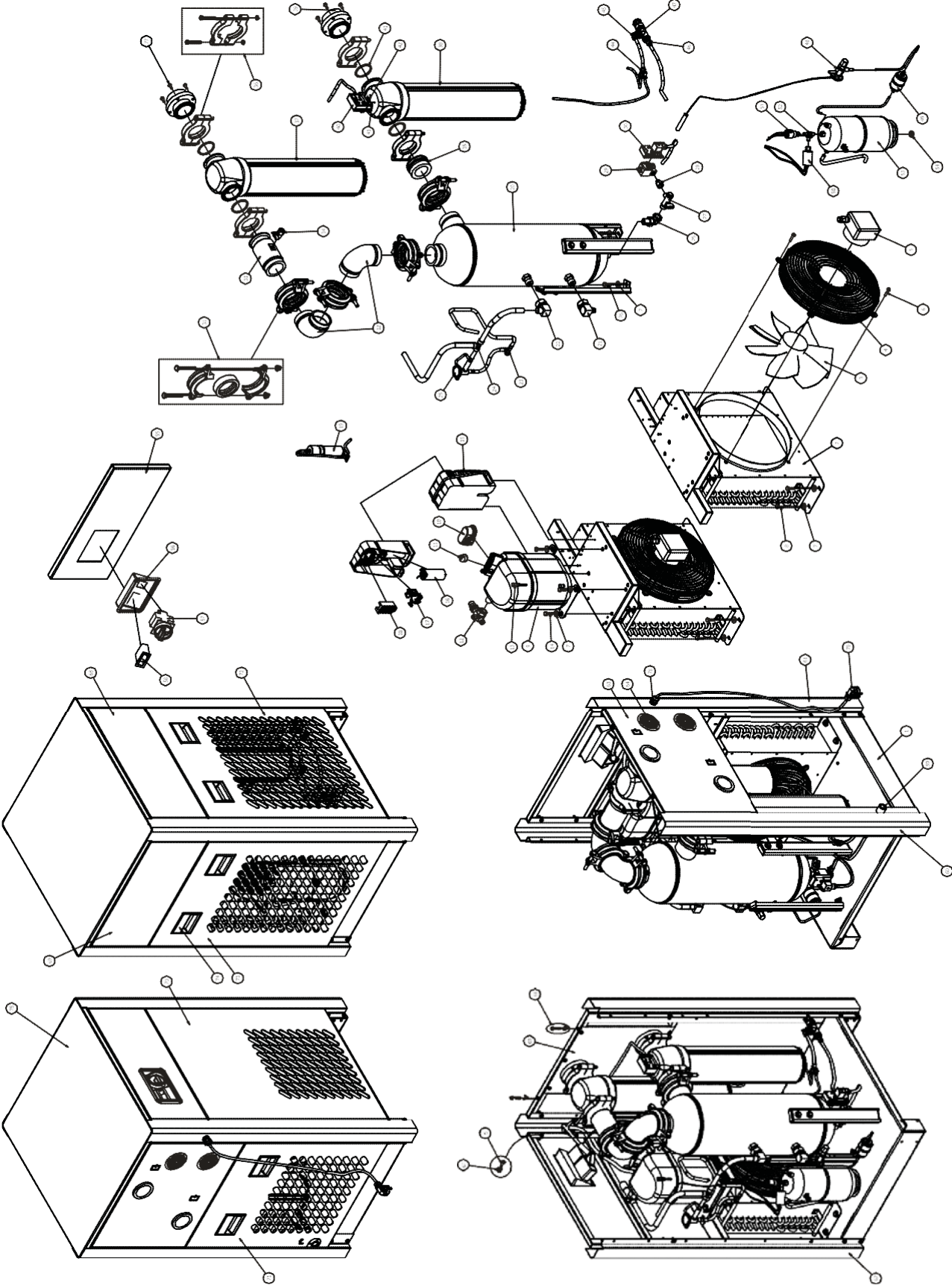
# Dryair DN70-US



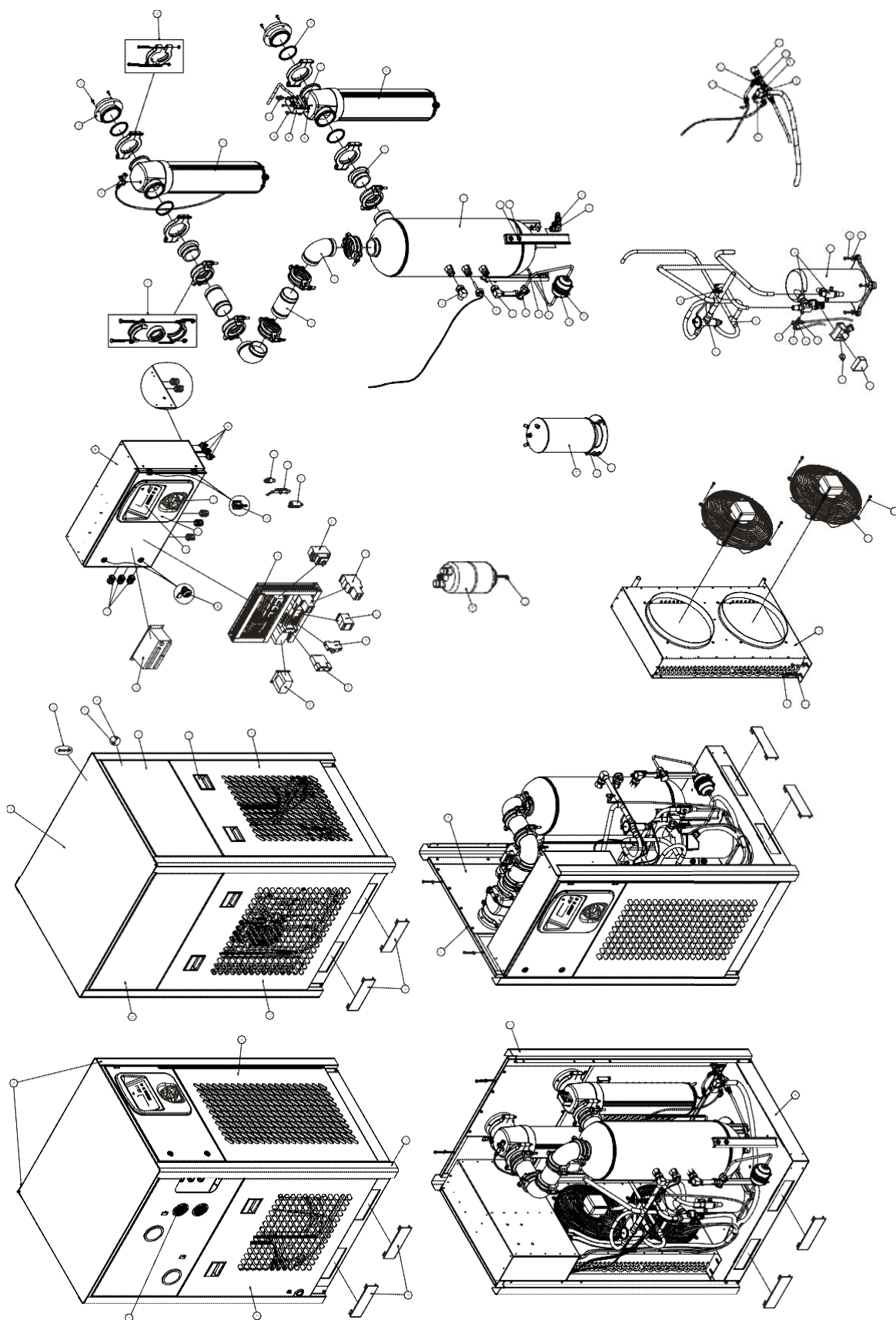
# Dryair DN80-US



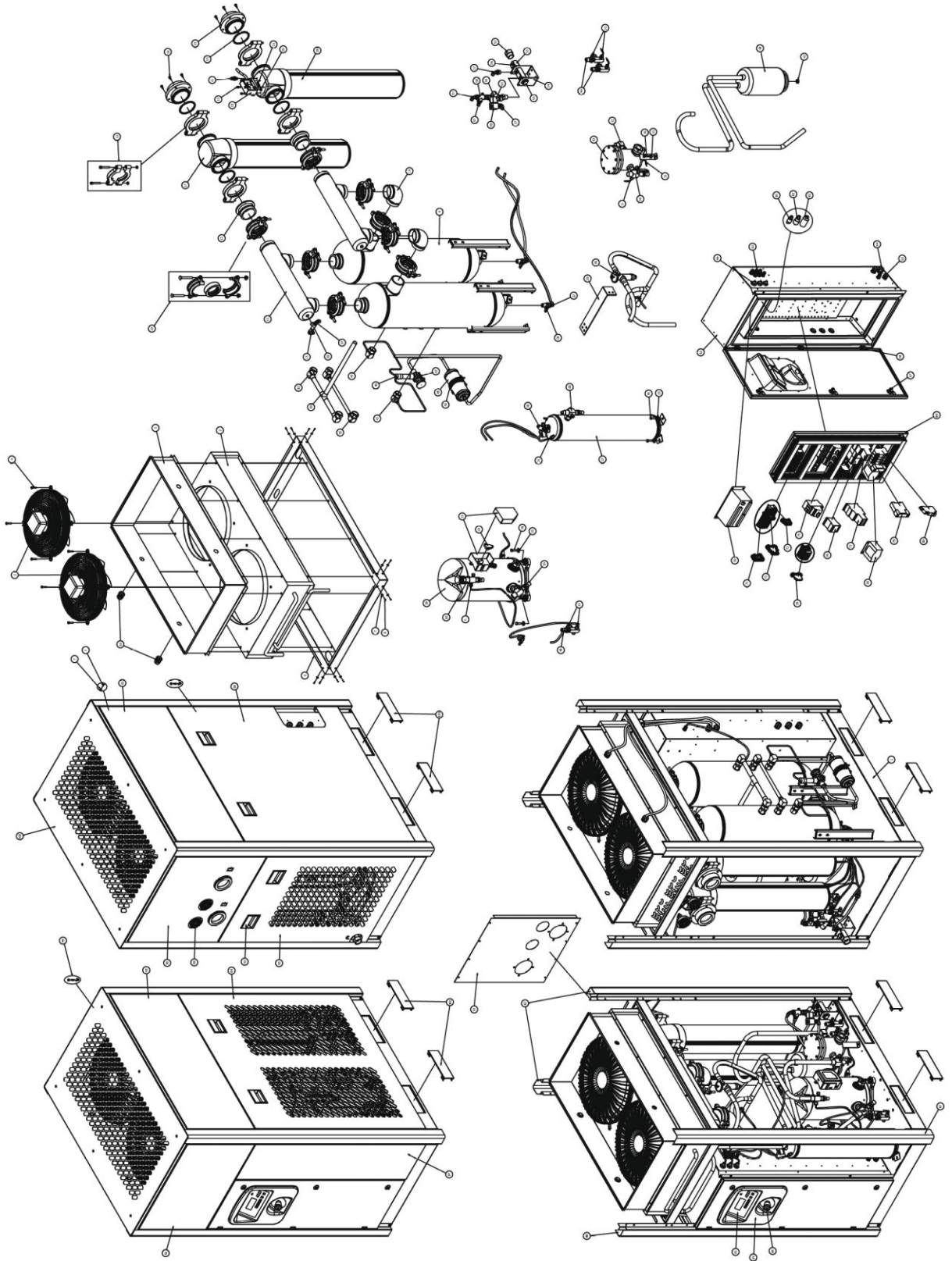
# Dryair DN110-US



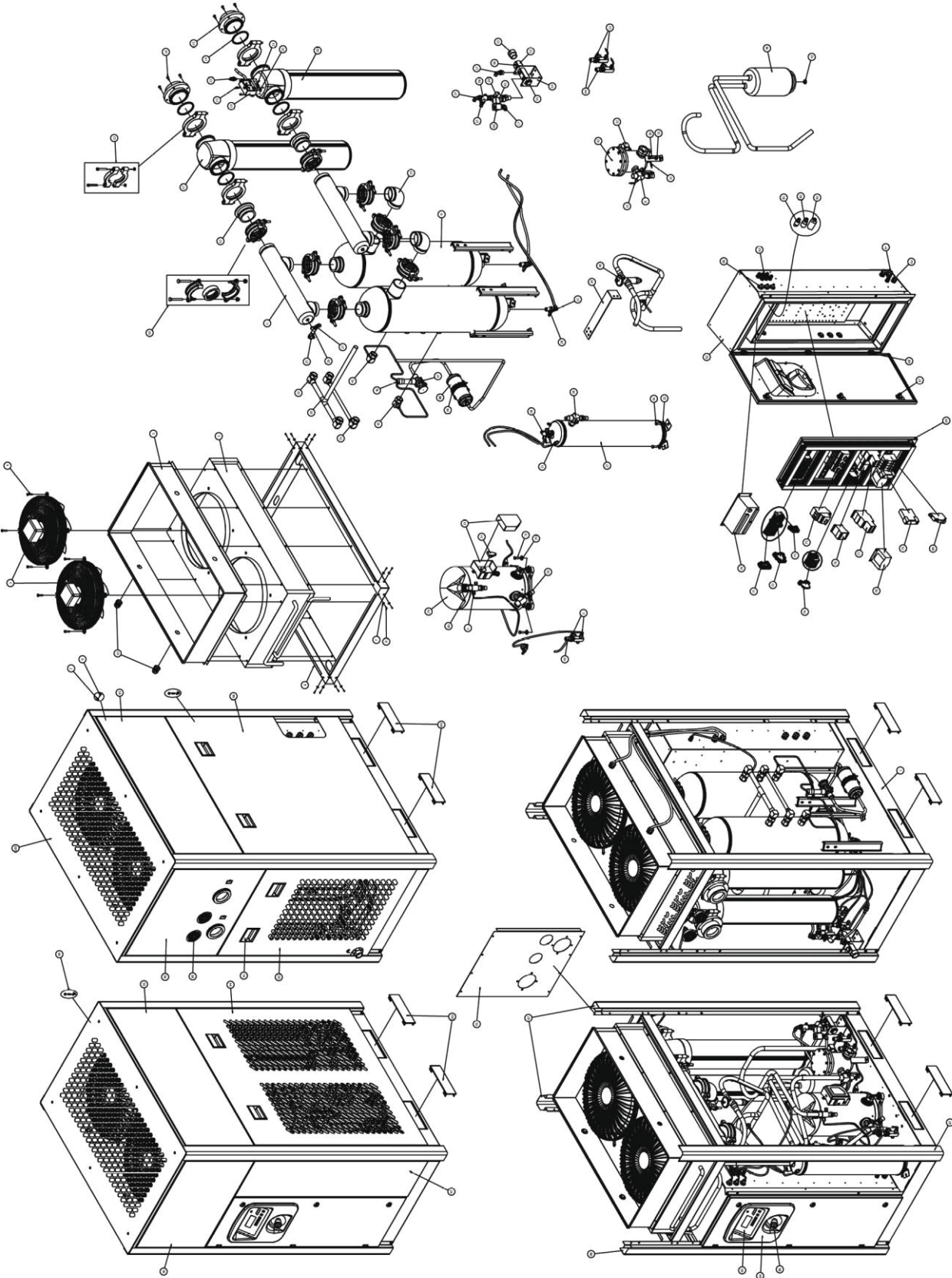
# Dryair DN140-US



# Dryair DN160-US



# Dryair DN170-US



## 9. COMPONENTS LOCATION

### Electrical components:

#### Accessories :

A01:	Control circuit transformer
A02:	Power circuit transformer
A10:	ON warning light
A11:	OFF warning light
A20:	Drain solenoid valve
A30:	Crankcase heater
A31:	Electrical resistor
A40:	Electrical capacity
A50-3:	Energy Saving Device 3 (ESD3)

S01 :

S02 :

S03 :

S10:

S11 :

S12 :

S13: K01: Compressor motor relay

S20: K10: Fan motor relay

S21: K20: Drain timer or Bekomat (optional)

K30: Temperature Controller

#### Switches :

Main switch  
Start push button  
Stop push button  
Fan pressure control  
High-low pressure security control  
High pressure security control  
Low pressure security control  
Refrigerant temperature control  
Air temperature control

#### Motors:

M01:	Refrigerant compressor motor
M10:	Fan motor

#### Thermal protections :

P01:	Refrigerant compressor thermal overload
P10:	Fan motor thermal overload

#### Fuses protections :

See complete identification into electrical sketch included in dryer

F- -:	Transformer protection
F- -:	Fan protection
F- -:	Compressor relay protection
F- -:	Transformer protection
F- -:	Drain protection
F- -:	Fan relay protection

### Refrigerant components:

G01:	Liquid receiver
G02:	Refrigerant drier
G03:	Expansion valve
G04:	Liquid separator
G05:	Hot gas bypass valve
G06:	Refrigerant solenoid valve
G10:	Water cooled condenser
G11:	Water control valve
G20:	Refrigerant evaporating pressure gauge
G21:	Refrigerant evaporating temperature gauge

### Compressed air components:

H01:	Air inlet prefilter
H11:	Drain filter
H12:	Pneumatic drain valve

### Terminal boxes:

B01:	Main terminal box
B11:	Refrigerant unit terminal box
B12:	Free of potential terminal box