



EMICON

ISO 9001 CERTIFIED



ED F
WATER CONDENSED UNITS WITH:
DIRECT EXPANSION COIL AND CHILLED
WATER COIL FOR FREE COOLING OPERATION

ED Z
INDEPENDENT UNITS
WITH DIRECT EXPANSIONS AND CHILLED WATER COIL

WITH SCROLL COMPRESSOR
COOLING CAPACITY 21-90 KW

REFRIGERANT
R22 R407C

UNITS FOR TECHNOLOGICAL ENVIRONMENTS

ENERGY – SAVING UNITS WITH: DIRECT EXPANSION COIL, CHILLED WATER COIL FOR FREE COOLING WATER CONDENSATION

EDF Line

Power range from 21kW to 90 kW



The free-cooling units of EDF series have been designed and produced thinking to energy saving and to keep the thermohygrometric parameters inside data processing rooms within the required values.

These units have an alternative operating system, giving priority to the chilled water cooler installed outside the unit, and sequential insertion of the cooling compressors on the direct expansion coil, in the case the room temperature does not reach the valves required.

The units are composed of:

Internal unit.

- Two versions:
 - U upflow air distribution
 - D downflow air distribution
- Weld-brazed plate water condenser mounted inside the machine.

External unit.

- ARW air cooler.

- Dimensions:
 - 2 hermetic compressors-2 circuits
 - 230-260-330-415-500-620-750-830

Each cooling circuit is provided with: solenoid indicator valve, liquid filter, liquid pressure switch receiver dehydrator.

- The structure is made of draw pieces and steel panels finely painted with epoxy powders and insulated by polyurethane panels with open cells placed on the internal part of the unit.
- Direct expansion cooling coil
 - made of copper pipes, aluminium fins and provided with expansion valve.
- Chilled water coil
 - made of copper pipes, aluminium fins and provided with modulating regulation valve automatically controlled.
- Water condensation drip tray in stainless steel.

The water circuit is made of zinc steel pipes coated with thermal insulated material with:

- check valve
- air outlets
- Filtration
 - Different alternatives
- Control and command panel
 - Main switches
 - Automatic switches
 - Remote control switches
 - Magnetothermal switches
 - Low tension auxiliary circuits
 - CEI approved terminal block

- Feeding 400/3/50hz

- Accessories:

- H Humidifier
- RE Electric coil
- B Base-frame
- PR Fresh air
- IS Serial interface
- AF Clogged filters alarm
- AA Flooding detector
- VP Pressostatic

UNITS FOR TECHNOLOGICAL ENVIRONMENTS

DIRECT EXPANSION INDEPENDENT UNITS WITH CHILLED WATER COIL

EDZ line

Power range from 21 kW to 90 kW



The EDZ line units have been designed and produced to obtain maximum safety in energy distribution and to keep within technological plants and environments and data processing centres. These units are provided with an accumulation system which allows to maintain the internal temperature in case of black out.

The main feature of these units is their direct expansion mix operation with sequence operation of cooling compressors or chilled water units.

- The units are composed of:
 - Internal unit only EDZ.W
 - Internal unit + external unit EDZ.A
- Two versions:
 - U upflow air distribution
 - D downflow air distribution
- Models:
 - EDZ.A with remote control air condenser mod. CR
 - EDZ.W with air condenser inside of the machine
- Dimensions:
 - 2 hermetic compressors
 - 2 circuits

- 230-260-330-415-500-620-750-830

- The structure is made of draw pieces and steel panels finely painted with epoxy powders and insulated by polyurethane panels with open cells placed on the internal part of the unit.
- Direct expansion cooling coil made of copper pipes, aluminium fins and provided with expansion valve.
- Chilled water coil made of copper pipes, aluminium fins and provided with expansion valve.
- Water condensation dip tray in stainless steel.
- The water circuit is made of zinc steel pipes coated with thermal insulated material with:
 - check valves
 - air outlets
- Filtration:
 - various alternatives
- Control and command panel
 - Main switch
 - Automatic switches
 - Remote control switches
 - Magnetothermal switches
 - Low tension auxiliary circuits
 - CEI approved terminal block
- Microprocessor
The microprocessor manages all the command, operation and alarm functions of the unit and passage from water to expansion working and viceversa.
- Feeding 400 / 3 / 50 Hz

Accessories

- H Humidifier
- RE Electric coil
- B Base-frame
- PR Fresh air
- IS Serial interface
- AF Clogged filter alarm
- AA Flooding detector
- VP Pressostatic meter valve (model W).

UNITS FOR TECHNOLOGICAL ENVIRONMENTS

DIRECT EXPANSION INDEPENDENT UNITS WITH CHILLED WATER COIL

TECHNICAL CHARACTERISTICS									
MODELS		EDZ							
DIMENSION		230	260	330	415	500	620	750	830
DIRECT EXPANSION OPERATION - AIR / WATER COND.									
Total cooling power	W	22600	26500	33500	41500	50000	62500	75500	83600
Sensible cooling power	W	20300	23000	32000	39400	46500	56400	70300	78500
Start power of pressors	W	6700	7600	9900	12500	14000	18700	20800	23285
CHILLED WATER OPERATION									
Total cooling power	W	22800	26000	33300	39000	47500	57000	72000	80400
Sensible cooling power	W	20500	23400	30000	35100	42750	51400	64800	72400
Water flow	l/s	1,4	1,7	2,2	2,6	3,2	3,9	4,9	5,3
pressure drop	kPa	90	110	90	104	105	105	130	130
DISTRIBUTION FAN									
Air flow	l/s	1830	2110	2670	3330	3970	4860	5970	6670
Quantity and absorbed power	n°xW	1500	1500	1800	2200	3000	3X1100	3X1500	4X1100
Available discharge head	Pa	100	120	100	100	130	120	120	100
ELECTRIC COIL (optional)									
N° steps and power	n°xW	3X3700	3X3700	3X3700	3X3701	3X5000	3X5001	3X7500	3X7500
Absorbed power	W	3600	3600	3600	3600	9200	9200	9200	9200
Steam production	Kg/h	1,5/5	1,5/5	1,5/5	1,5/5	3,8/12,8	3,8/12,8	3,8/12,8	3,8/12,8
HUMIDIFIER									
Types of air coolers		2xCR17	2xCR20	2xCR25	2xCR29	2xCR36	2xCR64	2xCR64	2xCR64
REMOTE CONDENSER									
DIMENSION									
Width	mm.	840	840	840	840	840	840	840	840
Length	mm.	1690	1690	1850	1850	2500	2500	2900	2900
Height	mm.	1950	1950	1950	1950	1950	1950	1950	1950
Unit weight	kg.	600	620	660	680	850	880	930	980
Choice conditions: Air temperature in the environment: +24°C 50% relative humidity - External temperature + 32°C Chilled water temperature + 7/12°C									

