

AIR COOLED CONDENSING UNITS

BA-506-8 AUS



EVOLUTION 7 & 8



BEST
SOFTWARE



HFO
READY



PRODUCT SPECIFICATIONS

The EVOLUTION Series 2 Range of Outdoor Air Cooled Condensing Unit Series 7 & 8 is the latest addition to BITZER Australia's Air Cooled Condensing Unit Range. The EVOLUTION Series 2 Range incorporates the latest compressor developments including BITZER ECOLINE compressors, capacity regulation by Frequency Inverter or VARISTEP in combination with highly efficient condenser technology and world class fan technology to produce an extremely efficient unit.

The unit is a cost effective air cooled condensing unit with several options available. Due to the extended capacity range of the EVOLUTION 7 & 8 there are many options available to meet your requirements.

STANDARD FEATURES

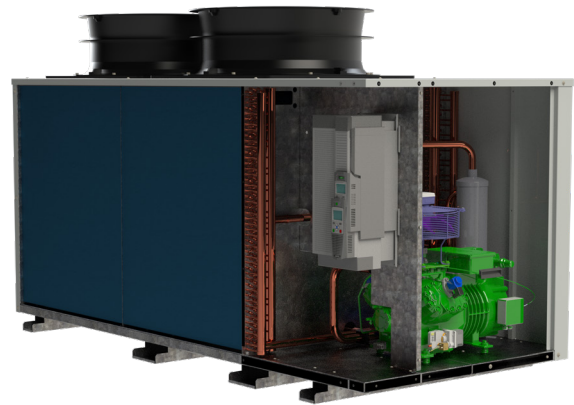
- // Option of BITZER proprietary unit controllers
- // BITZER ECOLINE compressor
- // Blue epoxy fin & copper tube condenser
- // Internal reservoir centrifugal oil separator
- // Liquid receiver
- // Demountable liquid line filter drier and sight glass
- // Liquid line ball valve
- // 3 Phase EC condenser fans
- // Vertical airflow design
- // Pre-wired electrical panel and componentry
- // Galvanised steel base
- // High quality powder coated panel set
- // Mechanical dual pressure control
- // DPIL oil pressure switch
- // Oil level monitoring and control

STANDARD

- // 8 Displacements & 2 Condenser sizes available
- // HP/LP Safety
- // Demountable Liquid Line Drier and Sight Glass
- // Centrifugal Oil Separator
- // Electronic Oil Level Management
- // High Efficiency EC Condenser Fans as standard
- // All models are delivered with VARISTEP capacity regulation as standard;
 - › 10..100% for 4-cyl compressors; and
 - › 33..100% for 6-cyl models
- // Simple set up and commissioning via BEST tool

STANDARD OPTIONAL ACCESSORIES

- // Suction Accumulator
- // Liquid line solenoid
- // Phase asymmetry and voltage protection
- // Head Fan



The EVOLUTION Outdoor Air Cooled Condensing Unit Series 7 & 8 is available in Standard and Plus models.

PLUS

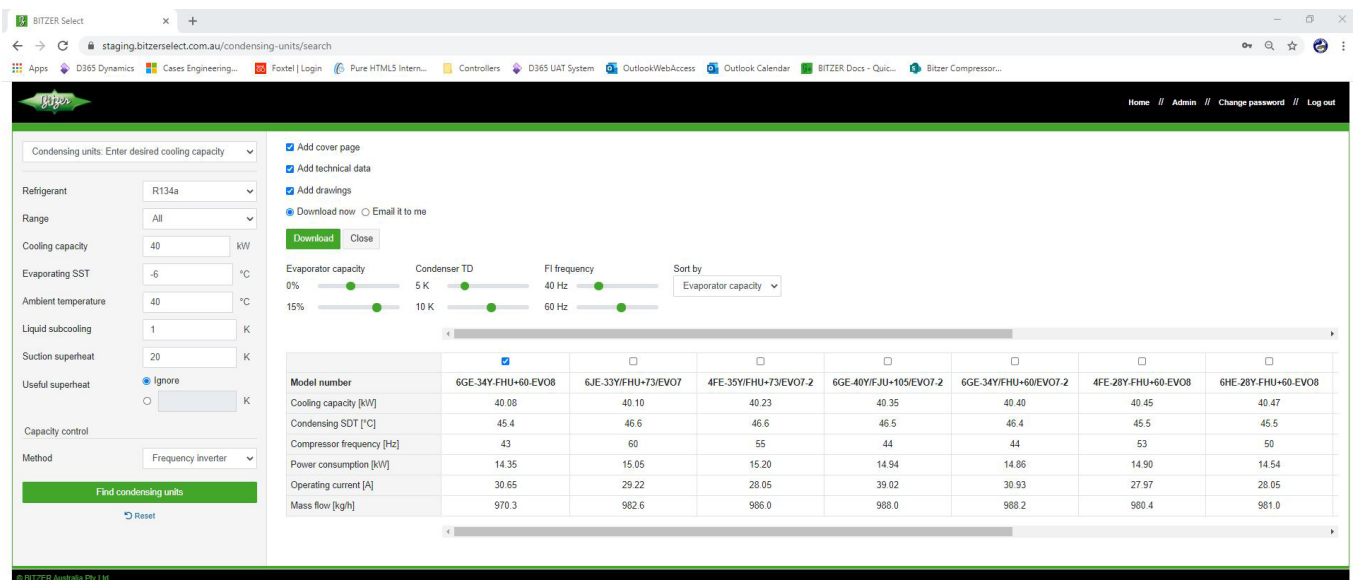
- // 8 Displacements & 2 Condenser sizes available
 - › Several motor options available for maximum frequency range in MT and LT application
- // BITZER VARIPACK Frequency Inverter c/w expansion module for self regulation included as standard
- // HP/LP Safety
- // Demountable Liquid Line Drier and Sight Glass
- // Centrifugal Oil Separator
- // Electronic Oil Level Management
- // High Efficiency EC Condenser Fans as standard
- // Simple set up and commissioning via BEST tool 8 Displacements & 2 Condenser sizes available

BITZER SELECT SOFTWARE

The BITZER SELECTOR SOFTWARE is available as an online version, it is compatible with all browsers including iOS and Android is always up to date. It covers:

- // Performance data for most common refrigerants at freely selectable operating conditions
- // All relevant technical data
- // 2 modes of selection and calculation results
 - › Mode 1: Match a unit to known capacity
 - › Mode 2: Find capacity for a given unit
- // Ability to filter results by inverter frequency and by condenser TD range
- // Instantly download or email selection results, complete with compressor and condensing unit technical data as well as drawings.

<https://bitzerselect.com.au>



The screenshot shows the Bitzer Select software interface. On the left, there are input fields for search criteria: Refrigerant (R134a), Range (All), Cooling capacity (40 kW), Evaporating SST (-6 °C), Ambient temperature (40 °C), Liquid subcooling (1 K), Suction superheat (20 K), Useful superheat (Ignore), Capacity control (Frequency inverter), and Method (Frequency inverter). A 'Find condensing units' button is at the bottom of the left panel. The main area displays a table of results with columns for Model number, Cooling capacity [kW], Condensing SDT [°C], Compressor frequency [Hz], Power consumption [kW], Operating current [A], and Mass flow [kg/h]. The table lists several models, including 6GE-34Y-FHU+60-EV08, 6JE-33Y-FHU+73-EV07, 4FE-35Y-FHU+73-EV07-2, 6GE-40Y-FJU+105-EV07-2, 6GE-34Y-FHU+60-EV07-2, 4FE-28Y-FHU+60-EV08, and 6HE-28Y-FHU+60-EV08. A 'Download' button is visible above the table.

Model number	Cooling capacity [kW]	Condensing SDT [°C]	Compressor frequency [Hz]	Power consumption [kW]	Operating current [A]	Mass flow [kg/h]
6GE-34Y-FHU+60-EV08	40.08	45.4	43	14.35	30.65	970.3
6JE-33Y-FHU+73-EV07	40.10	46.6	60	15.05	29.22	982.6
4FE-35Y-FHU+73-EV07-2	40.23	46.6	55	15.20	28.05	986.0
6GE-40Y-FJU+105-EV07-2	40.35	46.5	44	14.94	39.02	988.0
6GE-34Y-FHU+60-EV07-2	40.40	46.4	44	14.86	30.93	988.2
4FE-28Y-FHU+60-EV08	40.45	45.5	53	14.90	27.97	980.4
6HE-28Y-FHU+60-EV08	40.47	45.5	50	14.54	28.05	981.0



COMPREHENSIVE EQUIPMENT, INCLUDING;

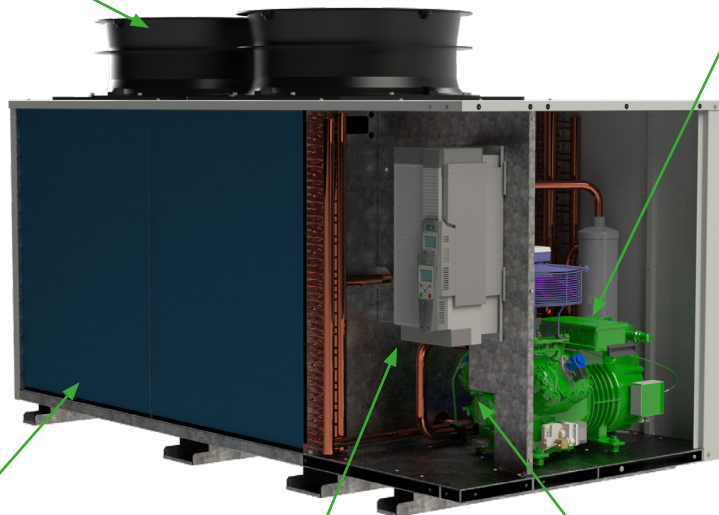
- // Centrifugal Oil Separator
- // 45L Liquid Receiver
- // High and Low Pressure transmitters
- // Demountable liquid line drier and sight glass

BITZER ECOLINE COMPRESSOR

- // Highly efficiency BITZER ECOLINE compressor with capacity control by VARISTEP or Frequency Inverter
- // Suitable for a wide range of refrigerants, including HFC and HFO
- // Blends with reduced GWP (Global Warming Potential)
- // All models with electronic oil level regulator

SPEED CONTROLLED FANS

- // Highest efficiency EC fans



CONDENSER

- // Blue epoxy to all models to provide excellent resistance to corrosion

BITZER VARIPACK FREQUENCY INVERTER (Plus Model)

- // Includes expansion card for integral regulation of compressor and condenser fans
- // BEST Software connectivity for simple commissioning, system monitoring + data logging

CONTROLLER WITH DISPLAY + PRE-WIRED SWITCHBOARD (Plus Model)

- // Includes propriety software developed by BITZER for highest efficiency control
- // BEST Software connectivity for entire system monitoring + data logging
- // Pumpdown function
- // Simple commissioning through Plug and Play concept

TECHNICAL DATA

Compressor Data									
Compressor Model	Motor Version	Motor Connection Volt	Max Operating Current Amps	Maximum Power Consumption kW	Capacity Control	Oil Charge dm ³	Compressor Weight kg	Crankcase Heater 240/1/50	EVO Suction Line Size Inlet inch
4JE-15Y	2	PW 380..420V YY/3/50Hz	30.8	19.0	10..100% Quazi-Stepless Capacity Regulation by VARISTEP (Standard Model) or Frequency Inverter Regulation (PLUS Model)	4	190	0 .. 140W Heater	1 5/8
4JE-22Y	1		37.2	21.0			190		1 5/8
4HE-18Y	2		36.7	22.0			190		1 5/8
4HE-25Y	1		44.0	25.0			194		2 1/8
4GE-23Y	2		43.9	27.0		4.5	192		2 1/8
4GE-30Y	1		51.2	28.0			206		2 1/8
4FE-28(Y)	2		52.8	31.0	33..100% Quazi-Stepless Capacity Regulation by VARISTEP (Standard Model) or Frequency Inverter Regulation (PLUS Model)	4.75	207		2 1/8
4FE-35(Y)	1		62.1	35.0			207		2 1/8
6JE-25(Y)	2		46.4	27.0			228		2 1/8
6JE-33(Y)	1		53.2	30.0			231		2 1/8
6HE-28(Y)	2		53.2	33.0			228		2 1/8
6HE-35(Y)	1		64.4	36.0			235		2 1/8
6GE-34(Y)	2		65.5	40.0			228		2 1/8
6GE-40(Y)	1		73.9	42.0			238		2 1/8
6FE-44(Y)	2		83.2	46.0			241		2 1/8
6FE-50(Y)	1	380..400V YY/3/50Hz 440..460V YY/3/60Hz	96.2	51.0			241		2 1/8

Note for total unit power consumption, add compressor and condensing unit values together.





TECHNICAL DATA CONTINUED

Condenser Data					
Model	Number of EC Fans	Fan Voltage	Fan Total Amps	Fan Total KW	Condenser Airflow L/S
EVO7	2 x 800mm	415 / 3 / 50	8.8	5.6	10880
EVO8	2 x 800mm		8.8	5.6	10880

Note for total unit power consumption, add compressor and condensing unit values together.

Condensing Unit Data					
Model	Base Unit Weight KG	Receiver Pump Down KG			EVO Liquid Line Size Outlet inch
		R134a	R404A	R507A	
EVO7	1017	43	36	38	1-1/8
EVO8	1028	43	36	38	1-1/8

Note for total unit weight, add compressor and condensing unit values together.

Receiver pump down capacity calculated @ 80% of full capacity and +25°C ambient temperature.

Sound Data	
Model	Total Max Sound Pressure level @ 3m dB(A)
EVO7	Contact BITZER for specific model data
EVO8	

Sound pressure levels dB(A) are an approximate total max system noise, with compressor and fan noise added at 3m equal distance from ce.





BITZER Australia Pty Ltd

134-136 Dunheved Circuit // St Marys 2760 // NSW // Australia

Tel +61 1300 BITZER

www.bitzer.com.au // info@bitzer.com.au

BITZER New Zealand Pty Ltd

Unit 5, 5-7 Henry Rose Place // Albany // Auckland // New Zealand

Tel +64 [9] 415 2030

www.bitzer.com.au // info@bitzer.com.au