

Energy saving and reliable solution for low temperatures -18 to -32°C
Energy savings 30% to 40%



Applications

- Freezing medium and long time storage warehouses
- Fast freezing chambers
- Freezing display cabinets
- Industrial applications
- Cooling of CO₂ liquid storage tanks
- Replacement of energy & environmentally obsolete technologies

Main Advantages

- Energy savings compare to conventional technology
- Easy to install and commission (contains integrated el. box)
- High reliability and durability
- Low noise emissions
- Ready for outdoor use
- Published capacity data
- Acceptable price level
- Optional accessories

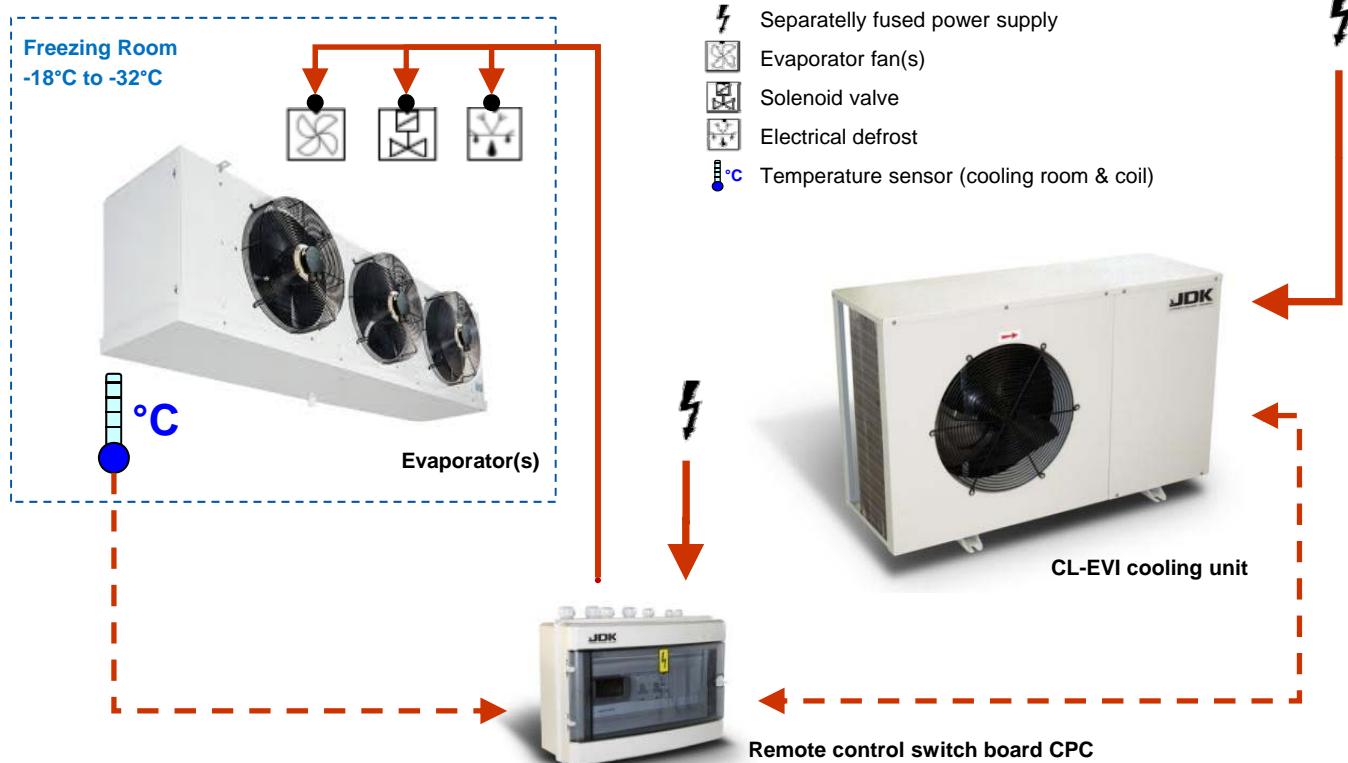
Standard Accessories

- Energy-efficient Scroll EVI compressor with economizer
- Built-in electric switchboard with main switch
- Built-in filterdrier and sightglass
- Stepless fan(s) speed control
- Compressor oil heating
- HP/LP compressor pressure safety protection
- Built-in receiver tank
- Casing colour RAL 7035

Optional Accessories

- Built-in waste heat recovery exchanger
- LP/HP refrigeration gauges
- Remote control switch board for cold room management
- Adjustable mounting feet (for installation on a concrete base)
- Different casing colour according RAL scale
- Properly sized expansion valve with nozzle

Typical Application



Technical Specification

JDK condensing units series CL-EVI are primarily designed for freezing applications with evaporating temperatures down to -40°C. Units use two-stage compression technology with liquid refrigerant subcooling. Used is the latest Copeland Scroll™ compressors technology ZF-EVI series. This allows you to achieve in the freezing operation from 30 to 40% energy savings compared to the conventional way of the solution (one stage of compression without refrigerant subcooling).

With respect to the fact that unit is producing subcooled refrigerant from +5 to -10°C no formation of unwanted steam bubbles in the liquid refrigerant distribution pipes appear. The expansion valve is always supplied enough liquid. To avoid unwanted reheating of subcooled liquid it is necessary to insulate refrigerant distribution pipes.

Units can be equipped with optional heat recovery kit suitable to use part of the waste heat. Furthermore, you can easily obtain energy for heating water to a temperature of +55°C.

Unit frame structure and covering are made of steel sheet metal protected with powder coating resistant to weathering. The inner part of the compressor compartment is covered with the sound-damping material.

Air cooled condenser bent into L-shape allows install the unit at a minimum distance from the wall.

Condenser fan in combination with stepless speed control ensures optimal operating conditions, low noise and reduced power consumption.

The unit includes a built-in electric switchboard fitted with main switch and a suitably sized circuit breakers and switching elements of compressor and condenser fan. The unit control is possible via external voltage signal 230V. Unit status (OK/Failure) is available via voltage free contact.

For the remote control of refrigerated room is ready wide range of separate series JDK CPC control boxes. They are designed for mounting on a wall near the refrigerated place. Cabinets are equipped with a suitable digital temperature controller with programmable control defrost of the evaporator. For its function requires a separate power supply.

With the unit can be supplied also properly sized expansion valve whose selection is made with respect to refrigerant subcooling. The valve shall be with MOP function (function is limiting the maximum evaporating temperature at the system start-up).

Technical Data

Model	Capacity / Consumption ⁽¹⁾ Q _E /P _{EL} (kW/kW)		Current max [A]	Dimensions WxDxH [mm]	Piping (suc/liq) [mm]	Mass ⁽²⁾ [kg]	Noise Pressure ⁽³⁾ L _p [dB(A)]
	T _e =-25°C	T _e =-35°C					
CL-12-E3A	5.6 / 3.7	3.7 / 3.4	8.2	1376x560x840	22/10	135	45
CL-17-E3A	7.9 / 5.1	5.6 / 4.4	11	1376x560x840	28/10	140	47
CL-21-E3A	10.1 / 6.6	6.9 / 5.8	14	1530x560x840	35/12	180	48
CL-29-E3A	13.4 / 9.1	9.3 / 8.2	21.1	1530x560x840	35/12	220	49
CL-36-E3A	17.5 / 11.2	11.2 / 9.2	24.5	1600x630x1700	42/16	240	50
CL-43-E3A	20.2 / 13.0	14.1 / 11.2	29	1600x630x1700	42/16	360	51
CL-58-E3A	26.8 / 18.3	18.7 / 16.3	42	1600x630x1700	42/16	420	52

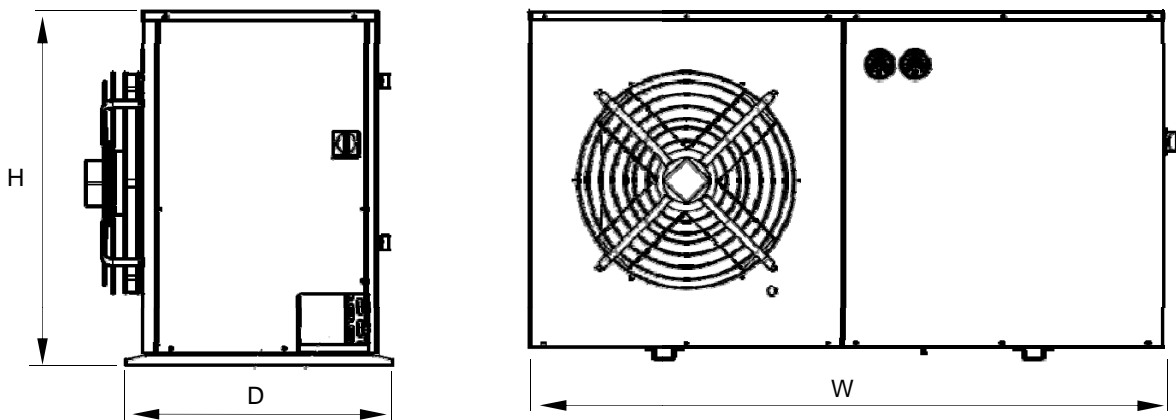
⁽¹⁾ Valid for above mentioned evaporating temperature up to +32°C ambient temperature, 6K useful suction superheat 15K and refrigerant R404A; data for other temperatures upon request

⁽²⁾ Unit weight with standard configuration and without charge

⁽³⁾ Unit sound pressure level L_p at 10 m distance

Unit Design and Outline Dimensions

Illustrative picture



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