


**EWAD450TZ-SL B2+OP08** 

- > Air cooled chiller
- > Inverter Driven Single Screw compressor
- > Silver efficiency version
- > Low sound configuration
- > R134a refrigerant

- **Unit description:** Daikin air-cooled chiller with inverter driven screw compressor and R134a refrigerant. Color: Ivory White (Munsell code 5Y7.5/1) (±RAL7044).
- **Compressor:** Latest design Daikin single screw compressor enjoying Variable Volume Ratio (VVR) technology for optimized unit performances at any load and operating condition. Daikin design refrigerant cooled inverter integrated within compressor casing. Sophisticated unit control logic allows the inverter to modulate compressor speed minimizing power consumption and noise emission at any load condition.
- **Evaporator:** New generation shell and tube (dual compressor models) or plate heat type (single compressor models) assuring optimal heat transfer and minimized water pressure drops.
- **Condenser:** Full body Aluminum “Long Life Alloy” Microchannel coils providing superior resistance to corrosion compared to standard aluminum alloy. Coils’ layout designed to guarantee optimized heat transfer allowing maximized performances and reduced turbulence for low noise emission.
- **Condenser coil fans:** The condenser fans are propeller type with high efficiency design blades to maximize performances. The material of the blades is glass-reinforced resin and each fan is protected by a guard. Fan motors are internally protected from over temperature and are IP54.
- **Refrigerant circuit:** Each unit has one or two independent refrigerant circuits and each one includes: Compressor Inverter driven with integrated oil separator, Electronic expansion valve, Discharge line shut off valve, Liquid line shut off valve, Sight glass with moisture indicator, Filter drier, Charging valves, High pressure switch, High pressure transducers, Low pressure transducers, Oil pressure transducer, Suction temperature sensor.
- **Electrical:** Control and power sections are located in the main panel that is manufactured to ensure protection against all weather conditions. The electrical panel is IP54 and internally protected against possible accidental contact with live parts. The main panel is fitted with a main switch interlocked door that shuts off power supply when opening.
- **Controller:** Latest generation MicroTech III Type. Providing monitoring and control functions required for an efficient and trouble free operation of the chiller. Sophisticated software with predictive logic selects the most energy efficient combination of compressor load and electronic expansion valve position keeping stable operating conditions and maximizing chiller efficiency and reliability. Unit is compatible with Daikin on Site platform for remote monitoring, preventive maintenance and system optimization.



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Performances calculated according to EN14511-3:2013


**Cooling mode performances**

Cooling capacity	<b>252.9 kW</b>	Evaporator water IN/OUT	<b>-4.00 °C / -8.00 °C</b>
Power input	<b>127.7 kW</b>	Evaporator water flow	<b>16.10 l/s</b>
EER Cooling Efficiency	<b>1.981 kW / kW</b>	Evaporator pressure drops	<b>29.3 kPa</b>
ESEER	<b>4.490 kW / kW</b>	Ambient temperature	<b>35.0 °C</b>
IPLV.IP	<b>5.550 kW / kW</b>	Lw / Lp @ 1m	<b>94 dB(A) / 74 dB(A)</b>
		Evaporator fluid	<b>Propylene glycol 30%</b>
		Evaporator fouling factor	<b>0 m<sup>2</sup>/C/W</b>

Sound power level according to ISO 9614-1.

**Heat recovery mode performances (total heat recovery)**

Cooling capacity	<b>237.2 kW</b>	Evaporator water IN/OUT	<b>-4.00 °C / -8.00 °C</b>
Heat recovery capacity	<b>243.3 kW</b>	Evaporator water flow	<b>16.10 l/s</b>
Power input	<b>141.8 kW</b>	Evaporator pressure drops	<b>29.3 kPa</b>
TEER (Total energy efficiency ratio) = (C.C. + H.C.) / P.I.	<b>3.390</b>	HR water IN/OUT	<b>35.00 °C / 40.00 °C</b>
		HR water flow	<b>11.80 l/s</b>
		HR pressure drops	<b>10.0 kPa</b>
		Ambient temperature	<b>35.0 °C</b>

**Unit information**

Compressor type	<b>Inverter Driven Single Screw</b>	Refrigerant type	<b>R134a</b>
Capacity control	<b>Stepless</b>	Condenser type	<b>Microchannel</b>
Compressor N°	<b>2</b>	Condenser fans N°	<b>8</b>
Circuit N°	<b>2</b>	Condenser fans control	<b>On/Off</b>
Refrigerant charge	<b>59 kg</b>	Altitude	<b>0 MSL</b>
		Evaporator type	<b>Shell &amp; Tubes</b>

Actual refrigerant charge depends on the final unit construction, refer to unit nameplate.

**Electrical information**

Power supply	<b>400 V / 50.0 Hz / 3 Ph</b>	Max. inrush current	<b>0 A</b>
Running current	<b>221 A</b>	Compressor starting method	<b>Inverter</b>
Max. Running current	<b>331 A</b>		
Max. current wires sizing	<b>349 A</b>		

Voltage tolerance ± 10%. Phase Voltage unbalance ± 3%. Electrical data referred to standard unit without options, refer to unit name plate data.



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### Acoustic information

Sound pressure level at 1 m from the unit (rif.  $2 \times 10^{-5}$  Pa)

63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	db(A)
74.0	71.0	71.0	73.0	68.0	64.0	56.0	48.0	<b>74.0</b>

Values referred to Evap. IN/OUT 12/7°C and 35°C Amb., full load operation, standard unit configuration without options. Sound pressure level calculated from sound power level. Sound pressure in octave band is for information only and not considered binding.

### Physical information

Evap. connections size	<b>139.7 mm</b>	Length	<b>4083 mm</b>
Weight shipping/operating	<b>4090 kg / 4254 kg</b>	Width	<b>2258 mm</b>
		Height	<b>2483 mm</b>

Information referred to standard unit configuration without options, refer to certified unit drawing.



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**Certification notes**

Eurovent: Certified in accordance with Eurovent Certification Program: Liquid Chilling Packages and Heat Pumps (LCP-HP). Standard ratings are specified in the section "Rating requirements" of the Rating Standards. All standard ratings are verified by tests conducted in accordance with the following standards: EN 14511-3:2013 (performance testing) and ISO 9614 (acoustic testing).

**General notes**

For more information about the above selected product, please go to <http://www.daikineurope.com/industrial/>. Unit performances are reproducible in laboratory test environment only in accordance to recognized industry standards. This technical data sheet is generated by Daikin Applied Tool software designed and distributed by Daikin Applied Europe S.p.A. The present software does not constitute an offer binding upon Daikin Applied Europe S.p.A who compiled the content of this software to the best of its knowledge. No express or implied warranty is given for the completeness, accuracy, reliability or fitness for particular purpose of its content and the products and services presented therein. Specifications are subject to change without prior notice. Daikin Applied Europe S.p.A. explicitly rejects any liability for any direct or indirect damage, in the broadest sense, arising from or related to the use and/or interpretation of this document. All content is copyrighted by Daikin Applied Europe S.p.A.

