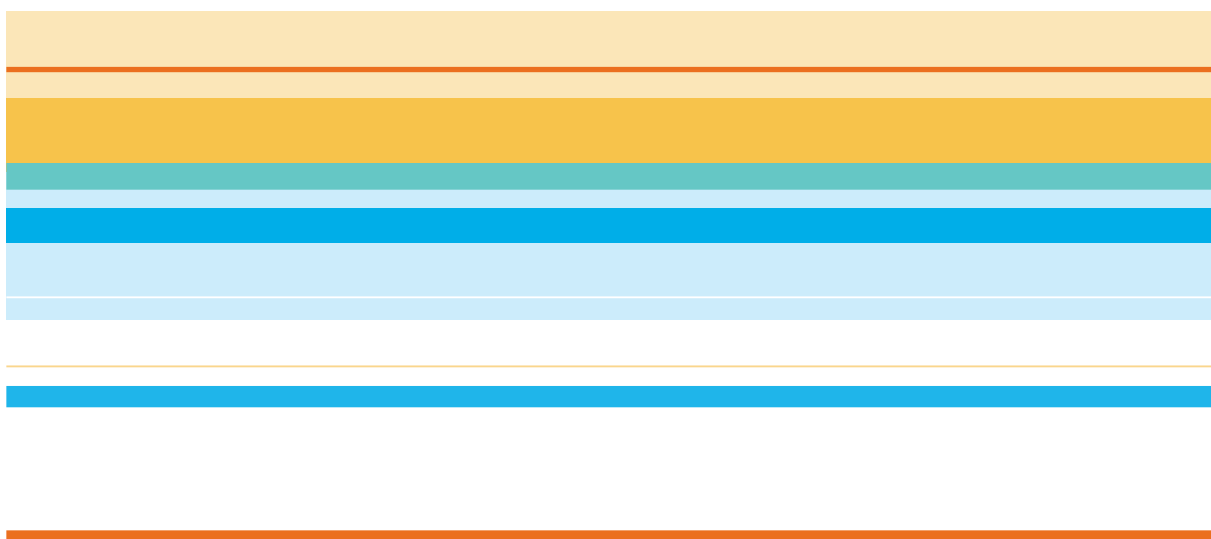


# Air-cooled mini-chillers



**R-410A**

EWAQ005-007ACV3 / EWYQ005-007ACV3  
*Applied systems*

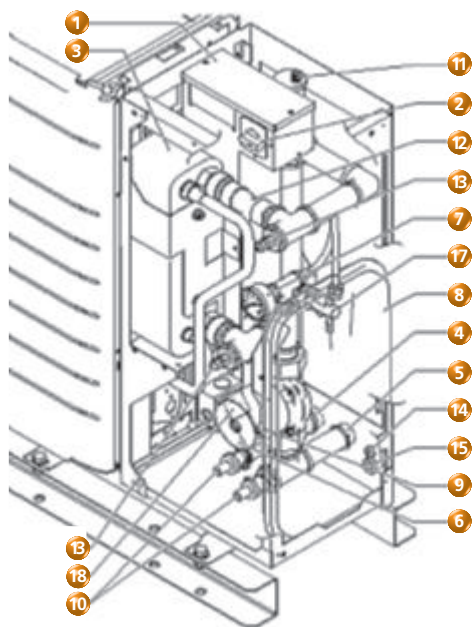




Daikin's unique position as a manufacturer of air conditioning equipment, compressors and refrigerants has led to its close involvement in environmental issues. For several years Daikin has had the intention to become a leader in the provision of environmental friendly products. This challenge demands the eco design and development of a wide range of products and an energy management system; which involves energy conservation and reduction of waste.



## Flexible application & Easy installation



The mini-chiller is the first inverter controlled R-410A unit of its type on the market and is available in cooling only and heat-pump version. The main advantage of the inverter is the precise control offered in function of the load.

The single phase power requirement and low starting currents afforded by the inverter make it ideal for residential applications.

- |                                      |  |
|--------------------------------------|--|
| 1. Switchbox                         | 11. Air Purge Valve                      |
| 2. Main Isolator Switch              | 12. Water Filter                         |
| 3. Plate Heat Exchanger              | 13. Inlet and Outlet Temperature Sensors |
| 4. Water Inlet Connection (1" MBSP)  | 14. Digital Control Cable Intake         |
| 5. Water Outlet Connection (1" MBSP) | 15. Power Supply Intake                  |
| 6. 3 Speed Pump                      | 16. OP10 Heater Tape                     |
| 7. Manometer                         | 17. Flow Switch                          |
| 8. 6l Expansion Vessel               | 18. Pressure Relief Valve                |
| 9. Expansion Vessel Service Point    |  |
| 10. Drain & Fill Valve               |  |

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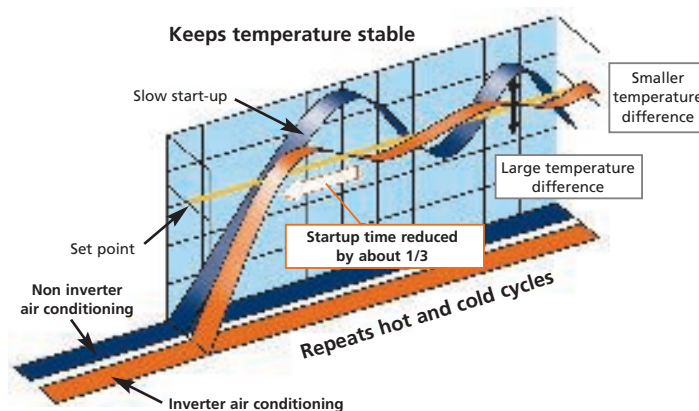
## Energy Efficient Inverter Technology

**INVERTER**

Inverter technology used in the new mini-chiller allows more precise control of the leaving water condition in function of the load. This leads to energy savings and high comfort levels even at part load, ensuring it is never too cool or too hot.

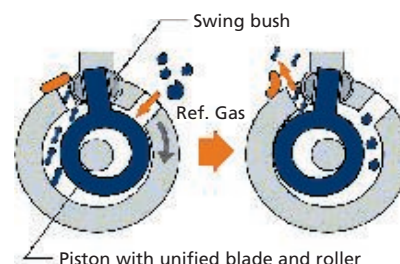
This is a major advantage over standard fixed speed models, which use on/off cycling of the compressor, creating greater fluctuations in control conditions.

The temperature control is based on the evaporator leaving water temperature. The speed of the inverter is determined by the  $\Delta T$  between outlet water setpoint and actual leaving evaporator water temperature. The smaller the  $\Delta T$  the lower the inverter frequency and vice versa.



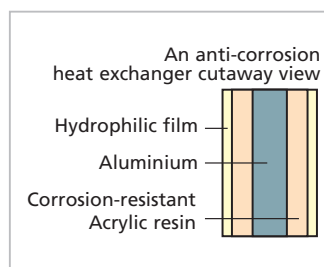
## Innovative Swing *compressor*

This innovative design by Daikin with fewer moving parts allows smoother more reliable operation with low vibration and low noise levels. The newly developed high efficiency motor further reduces energy consumption resulting in higher energy cost savings.



## Efficient heat *transfer*

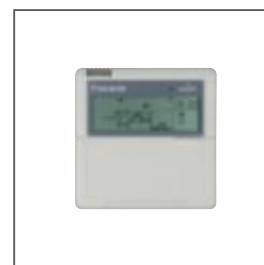
The use of stainless steel brazed plate evaporators leads to the overall compactness of the unit. With refrigerant R-410A in counterflow to the chilled water the unit is optimised in cooling. The close contact between the refrigerant and water circuits ensures a high heat transfer rate for optimum efficiency.



Condenser coils are constructed from specially designed header distribution pipes, in combination with internally grooved Hi-X tubing and aluminium waffle louver pressed fins. This unique combination of increased contact surfaces and reduced overall coil size ensures optimum heat rejection. The fins are pre-treated with polyacryl (PE) coating to provide greater resistance against acid rain and salt corrosion.

## Flexible *control*

The digital remote controller is supplied standard with the unit and can be mounted up to 500m from the chiller. Beside the basic "ON/OFF" and "COOL/HEAT" operation there is the possibility of "Silent Mode" operation and adjustment of the set-point temperature. Automatic operation is possible in heating mode, whereby the controller will calculate the heating set-point temperature based on the outside ambient temperature (ie: Floating set-point). The built in schedule timer allows different routines to be programmed and executed automatically. Up to 5 cooling and heating actions can be programmed per day from changing the operating mode to changing the setpoint temperature to switching the unit on or off.



## Sound

Noise is critical in most residential applications and an important factor of everyday quality of life. By using inverter technology on the compressor and fans a low average noise level of 64dBA is achievable. In addition the "Silent Mode" can be activated to reduce the noise level by a further 3dBA.



**AIR-COOLED (cooling only)**

			<b>EWAQ005ACV3</b>	<b>EWAQ006ACV3</b>	<b>EWAQ007ACV3</b>
Nominal capacity (min-nom-max)		kW	4.01 - 5.2 - 5.2	4.01 - 6.0 - 6.0	4.01 - 7.1 - 7.1
Nominal input		kW	1.89	2.35	2.95
EER			2.75	2.55	2.41
Dimensions (HxWxD)		mm	805 x 1,190 x 360		
Machine weight		kg	100		
Sound pressure level		dB(A)	48	48	50
Sound power level		dB(A)	62	62	63
Operation range	water side	°CDB	5°C ~ 20°C		
	air side	°CDB	10°C ~ 43°C		
Refrigerant type			R-410A		
Power supply		V3	230V/1 ~ /50Hz		
Minimum water volume		l	12	12	12
Piping connections	water heat exchanger inlet/outlet		1"MBSP		
	water heat exchanger drain		Hose nipple 1/2" FBSP		

**AIR-COOLED (heat pump)**

			<b>EWYQ005ACV3</b>	<b>EWYQ006ACV3</b>	<b>EWYQ007ACV3</b>
Nominal capacity	cooling	kW	4.01 - 5.2 - 5.2	4.01 - 6.0 - 6.0	4.01 - 7.1 - 7.1
	heating (1)	kW	4.5 - 6.1 - 7.27	4.5 - 6.8 - 8.58	4.5 - 8.2 - 9.18
	heating (2)	kW	4.09 - 5.65 - 6.83	4.09 - 6.35 - 8.13	4.09 - 7.75 - 8.73
Nominal input	cooling	kW	1.89	2.35	2.95
	heating (1)	kW	1.60	1.84	2.36
	heating (2)	kW	1.97	2.24	2.83
EER			2.75	2.55	2.41
COP (1)			3.81	3.70	3.47
COP (2)			2.87	2.83	2.74
Dimensions (HxWxD)		mm	805 x 1,190 x 360		
Machine weight		kg	100		
Sound pressure level	cooling	dB(A)	48	48	50
	heating	dB(A)	48	48	49
Sound power level		dB(A)	62	62	63
Operation range - water side	cooling	°C	5°C ~ 20°C		
	heating	°C	25°C ~ 50°C		
Operation range - air side	cooling	°CDB	10°C ~ 43°C		
	heating	°CDB	-15°C ~ 25°C		
Refrigerant type			R-410A		
Power supply		V3	230V/1 ~ /50Hz		
Minimum water volume		l	12	12	12
Piping connections	water heat exchanger inlet/outlet		1"MBSP		
	water heat exchanger drain		Hose nipple 1/2" FBSP		

Notes: Measuring conditions: Heating: (1) Water 35°C/40°C - Ambient temperature: 7°C • (2) Water 45°C/50°C - Ambient temperature: 7°C

**OPTIONS**

Option number	Option description	Unit size			Availability
		005	006	007	
OP10	Evaporator heatertape	0	0	0	Factory mounted

**DAIKIN EUROPE N.V.**

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Daikin Europe N.V. is approved by LRQA for its Quality Management System in accordance with the ISO9001 standard. ISO9001 pertains to quality assurance regarding design, development, manufacturing as well as to services related to the product.



ISO14001 assures an effective environmental management system in order to help protect human health and the environment from the potential impact of our activities, products and services and to assist in maintaining and improving the quality of the environment.



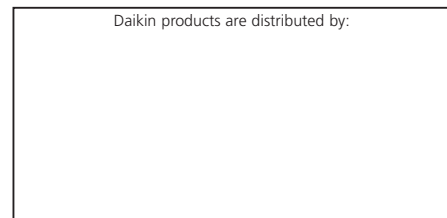
Daikin units comply with the European regulations that guarantee the safety of the product.



Daikin Europe NV participates in the Eurovent Certification Programme for Air Conditioners (AC), Liquid Chilling Packages (LCP) and Fan Coil Units (FC); the certified data of certified models are listed in the Eurovent Directory.

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