

DAIKIN

UAMV

HFC-R410a

20RT

AIR-COOLED
VARIABLE
SPEED
SCROLL
CHILLER



OPTIMUM COOLING

PACKAGE AIR COOLED SCROLL INVERTER CHILLER
WITH IMPROVED PART LOAD EFFICIENCY



20^{RT}
Nominal Capacity⁽¹⁾

3.03 kW/kW
COP⁽¹⁾

5.15 kW/kW
IPLV⁽¹⁾



(1) Nominal Capacity, COP, and IPLV based on AHRI 551/591 conditions @ 12°C/7°C EEWT/ELWT, 35°C Ambient Temperature

Daikin continuously focuses on innovative product development and strives to deliver products beyond our customers' expectations.

Our UAMV series - the Air Cooled Scroll Variable Speed Chiller with a cooling capacity of 20RT [70.3kW] - utilizes the environmentally-sound HFC-R410A refrigerant. With the Variable Speed drive, the chiller can achieve very good Integral Part Load Value (IPLV) of 5.15kW/kW, far superior compared to a constant-speed drive chiller.

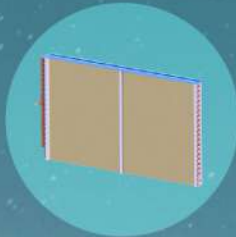
The UAMV offers good energy efficiency, ease of installation, control flexibility, high reliability, compact footprint and advanced control.

BEST IN CLASS

CHILLER COMPONENTS



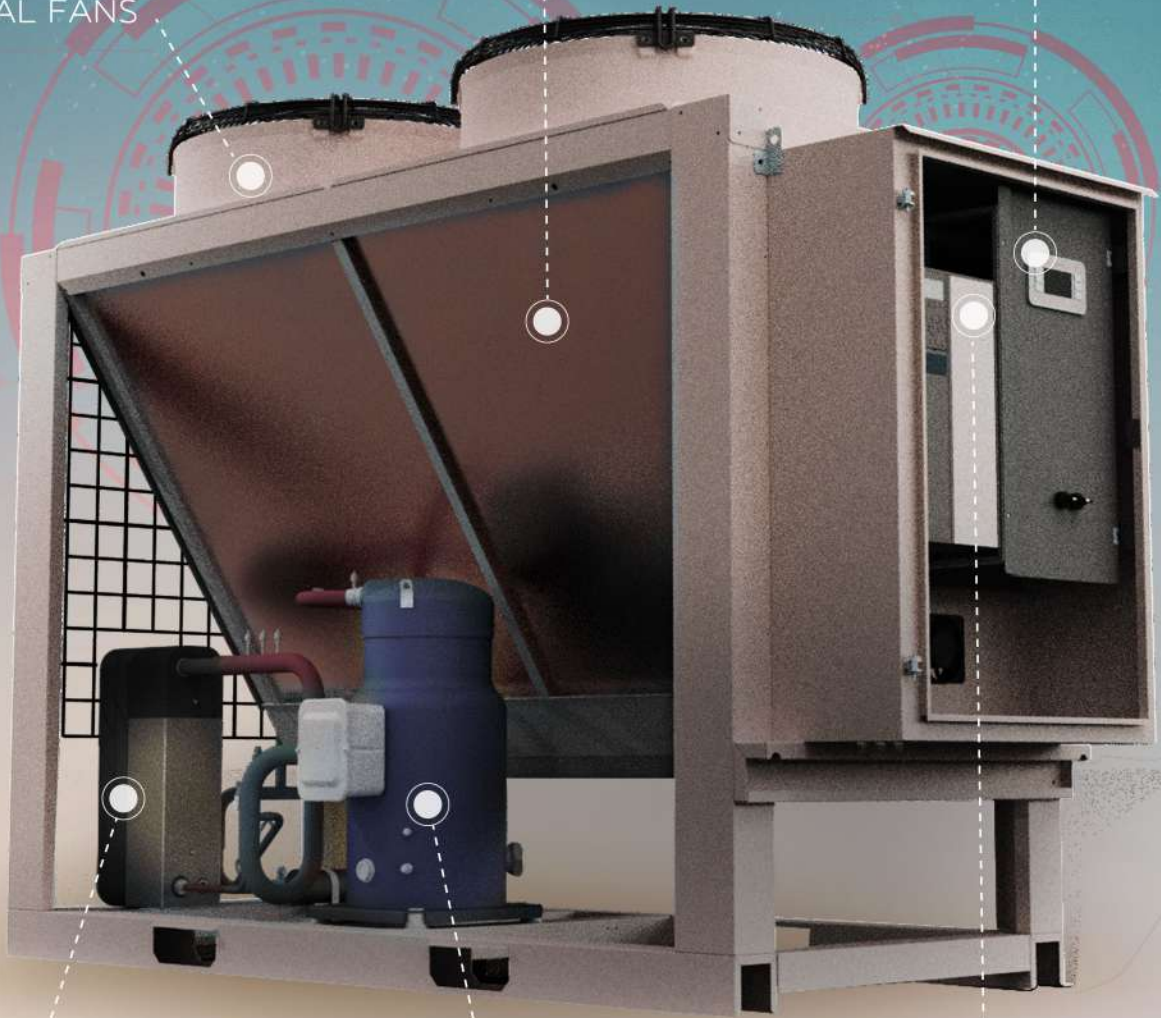
DIRECT-DRIVEN
AXIAL FANS



CONDENSER COIL



HUMAN MACHINE
INTERFACE (HMI)



BRAZED PLATE
HEAT EXCHANGER



INVERTER SCROLL
COMPRESSOR

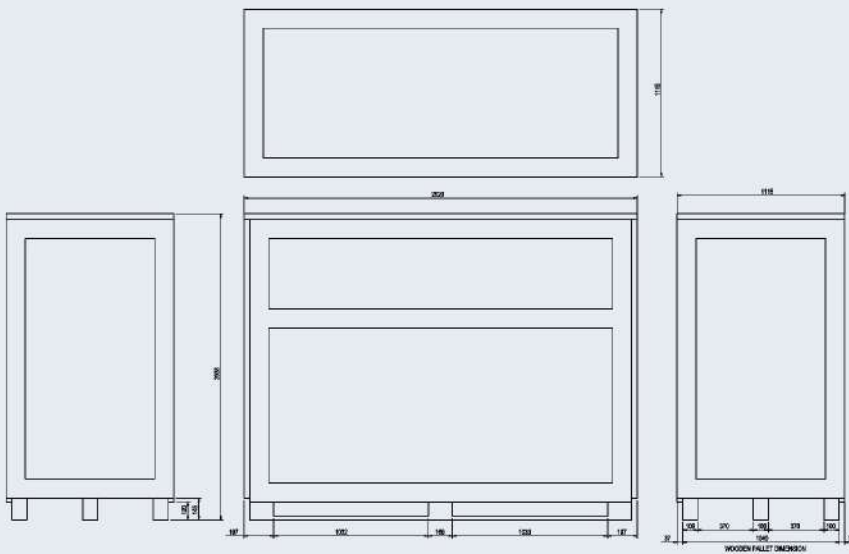


VARIABLE SPEED DRIVE
IMPROVES PART LOAD
EFFICIENCY

BEING DIFFERENT IS BEING AHEAD

KEY FEATURES

1 COMPACT FOOTPRINT; LOGISTICAL ADVANTAGE



UAMV20

- L: 2460 mm W: 994mm H: 1810 mm**
- UAMV only require standard height containers instead of High Cube Containers.
- UAMV can also be shipped as loose cargo (without oil and refrigerant charge)

	Quantity of Chillers	
	20ft Standard Container	40ft Standard Container
UAMV20	2	4

2 LOW NOISE LEVEL



3 EASE OF MAINTENANCE



4 HIGH PART LOAD EFFICIENCY @ IPLV, SUITABLE FOR BUILDING ENERGY SAVING

- UAMV series air cooled inverter unit adopts the Variable Frequency Drive (VFD) as the standard offer, which improves part-load operation efficiency and features a high IPLV of 5.15 kW/kW.
- The VFD technology is capable of reducing energy costs sharply during the long part-load operation time.



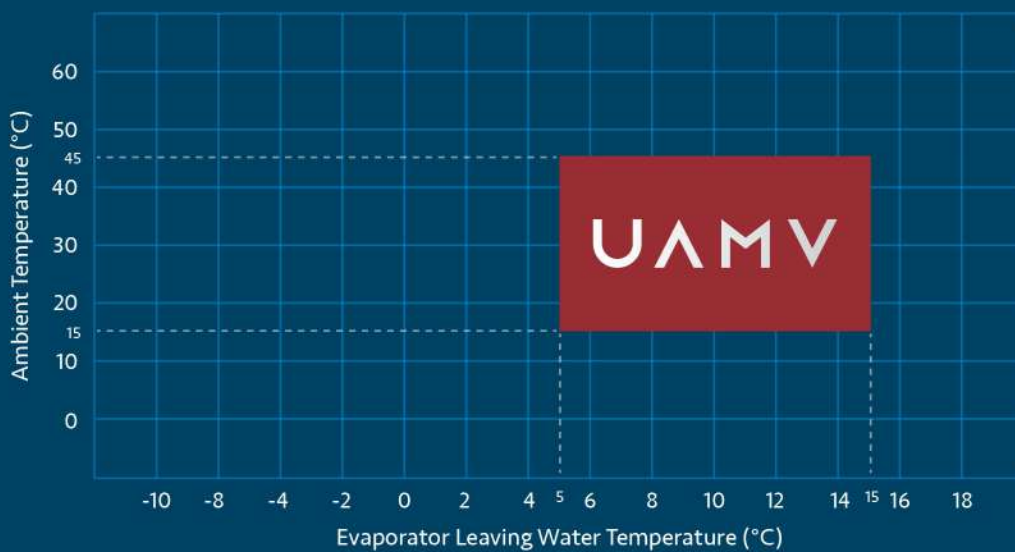
5 TEMPERATURE PROFILE & LEAVING WATER TEMPERATURE SETTING

Temperature Profile

Operation outside these limits can cause the protective devices to intervene and interrupt unit operation. In extreme condition, damage to the equipment may occur. If in doubt, consult the manufacturer.

Leaving Water Temperature Setting

The workload of a Daikin water chiller is controlled by the Evaporator Leaving Water Temperature (ELWT) which can be set by using the equipment controller. By default, the ELWT is set to 7°C. It can be set from 5~15°C. Out of this range, some other parameters are needed to be changed as well. Please contact local Daikin office or distributor to have qualified technician to do the setting accordingly.



6 OPTIONAL ITEMS LIST

CONDENSER
OPTION

Gold Fin

Hydrophilic Gold Fins for slightly better corrosion resistance

Heresite Coating

Baked Phenolic Epoxy Coating for superb corrosion resistance against large variety of atmosphere

EVAPORATOR
OPTION

Flow Switch

Paddle Flow Switch can be added

CHILLER
OPTION

Spring Isolators

Reduces vibration of the chiller

Coil Guard

Bottom Cover
Improves outlook and protects chiller's coil

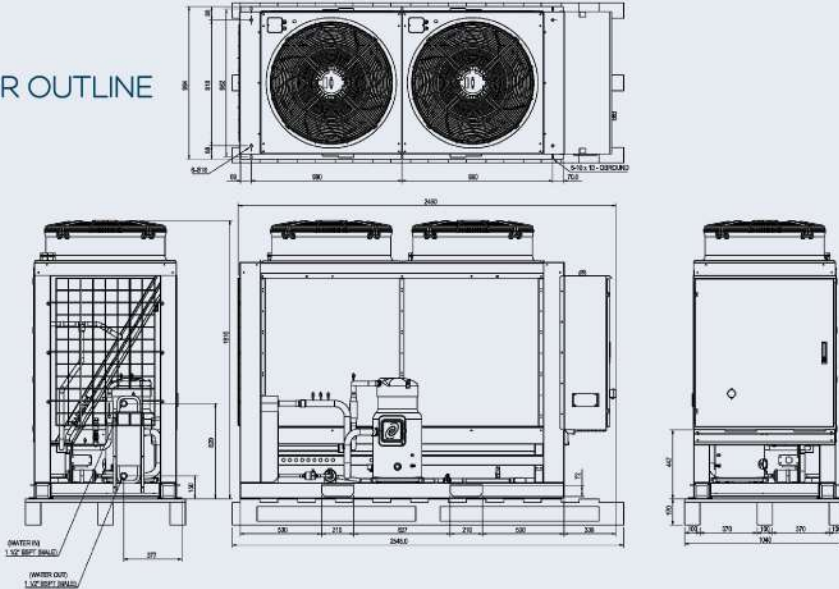
CONTROLLER
OPTION

Communication



DETAILS MATTER

CHILLER OUTLINE



UAMV 20 50HZ TECHNICAL DATA

MODEL UAMV 20

GENERAL

Nominal Cooling Capacity (R410A)	TR	20
	kW	70.33
Power Supply	V/PH/Hz	380 -415 / 3N- / 50
Nominal kW Input (Total)	kW	23.2
IPLV	-	5.145
COP	kW/kW	3.032
RLA (Total)	A	*Note 4 / Installation-Manual (Electrical Data)
Sound Level (Lw/Lp)	dB(A)	90.5/79.3
No of Refrigerant Circuit	Circuit	1
Unit Capacity Control	Steps	Stepless
Nominal Refrigerant Charge / Circuit	kg	21.5

COMPRESSOR

Type	-	Hermetic-sealed (Scroll)
Quantity / Unit	-	1
Max. Operating Current	A	61
Oil Charge	Litre	7.7

EVAPORATOR

Type	-	Plate Heat Exchanger
Water Connection Size	Type	1.25" BSPT Male
Nominal Water Flow Rate	m ³ /h	12.14
Nominal Water Pressure Drop	kPa	45.9
Fouling Factor	m ² K/kW	0.018

CONDENSER COIL

Tube Type	-	Copper Tube
Tube Size / Thickness	mm	0.35
Fin Type / Thickness	mm	Aluminium Fin / 0.11mm
Quantity (Number of Straight Coil)	Qty	2
Number of Column/Coil	-	3
Fins per Inch	-	14
Surface Area per Coil	m ²	2.05

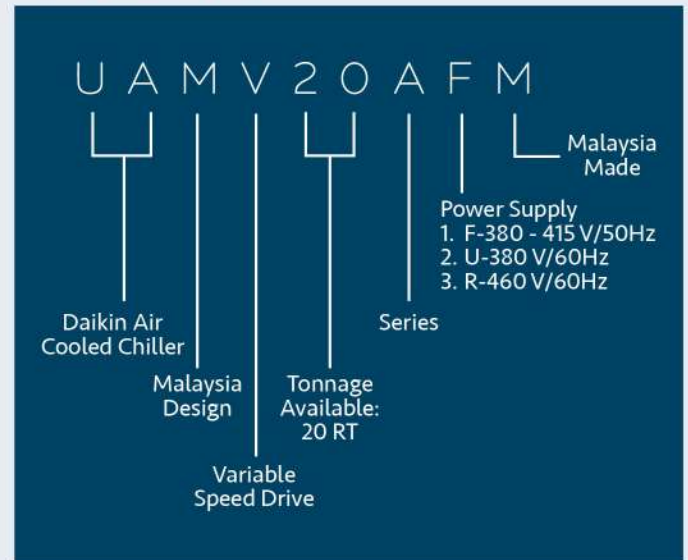
CONDENSER FAN

Type / Drive	-	Axial / Direct
Size	mm	760
Quantity / Unit	-	2
Nominal Motor kW / Each	kW	0.9
Total Nominal Air Flow / Fan	m ³ /h	15200
Nominal Motor FLA / Each	A	2.4

UNIT DIMENSION

Width	mm	994
Depth	mm	2,460
Height	mm	1,810
Shipping Weight	kg	590
Operating Weight	kg	595

NOMENCLATURE



CONTAINER ARRANGEMENT

Quantity of Container		
20ft GP Container	40ft GP Container	Loose Cargo (Without Refrigerant Charge)
4	8	Available upon request



Daikin Refrigeration Malaysia Sdn. Bhd. (Shah Alam)

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