EEDEN10-107

technical data

Rooftops

UATYQ250-550BY1

R-410A

DAIKIN

technical data

Rooftops

UATYQ250-550BY1

R-410A

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UATYQ-BY1

1 Specification text

UATYQ-BY1

Features Write up

1. **Package Unit:** Daikin's new range of rooftop packaged units has been developed specifically to suit commercial applications and are designed to be easy to install, requiring only ducting (and associated fittings), power/ control wiring and drain piping. Along with the light grey colour, the flat top and compact design gives an aesthetic and neat appearance when installed in line of sight. The unit cabinet is made of powder coated sheet metal especially suitable for outdoor use. All parts of the structure are fastened with corrosion resistant screws and bolts.

2. **Base Beam:** The base beams are fixed and provide a rigid foundation for the entire unit. The beam has the forklift slots and rigging holes for better handling purpose. It is also designed to allow mounting on a roof curb, the dimension of the roof curb should be followed strictly in accordance with the installation manual.

3. **Flexible Air Supply:** Since all the units utilize a belt/ pulley driven supply air fan, the units are able to meet a wide range of supply air volumes and external static pressures. Furthermore, the supply air fan motors, pulleys and belts (field supplied) can be easily changed on site to meet exact air flow and ESP requirement if required.

4. **Convertible Return and Supply Air:** Unit can be easily converted from horizontal to vertical (downward) supply and return air duct configuration by relocating the panels and supply air fan mounting.

5. **Scroll Compressor:** Units are equipped with high efficiency and reliable scroll compressors. Each compressor is mounted on rubber vibration isolators in order to reduce the noise level and vibration transmissions.

6. **Powder Coated Condensate Drain Pan:** The sheet metal condensate drain pan is powder coated to resist corrosion.

7. **Slots for 2 inches Return Air Filters:** A 2 inches rail is provided as standard in instances where a field supplied filter casement need to be installed.

8. **Higher Energy Efficiency Rating:** The UATYQ series is designed in line with market requirement for better energy saving. Its' performance is claimed to be among the best in the market.

1 Specification text

UATYQ-BY1

Technical Write Up:

1. Compressor

Compressor used in UATYQ series Packaged Units are hermetically sealed scroll type. All the compressors are provided with an internal overload protection.

2. Condenser

Condenser coils are manufactured from seamless inner grooved copper tubes mechanically bonded to aluminium fins to ensure optimum heat transfer. All coils are tested against by Nitrogen holding at 609psig and highly precise Helium leak test at 235psig. ALL standard coils are up to 3 rows / 14-16 FPI, 3/8” (9.52mm) O.D. tubes. Hydrophilic Gold Fin coating (NA549) is offered as standard, which has longer life span under corrosive environment.

3. Evaporator

Evaporator coils are manufactured from seamless inner grooved copper tubes mechanically bonded to aluminium fins to ensure optimum heat transfer. All coils are tested against by Nitrogen holding at 609psig and highly precise Helium leak test at 235psig. ALL standard coils are 3-4 rows / 14-16 FPI, 3/8” (9.52mm) O.D. tubes. Hydrophilic Gold Fin coating (NA549) is offered as standard, which has longer life span under corrosive environment.

4. Condenser Fan and Motor

Fans are of propeller type, direct driven by weatherproof electrical induction motors. Condenser fan motor has class F insulation and splash-proof enclosure, IP44.

5. Evaporator Fan and Drive

Blower is DWDI centrifugal, forward curved type. It is mechanically and dynamically balanced and being mounted on a rigid shaft in a self aligned bearing block. The motor is fitted with an adjustable V-belt drive, as standard. It has class B insulation and dripping water proof, IP22.

6. Refrigerant Circuit

Each refrigerant circuit shall have independent electronic expansion devices, HP/LP switch and refrigerant line service pressure ports as standard factory installed.

7. Expansion device:

Electronic Expansion Valve is being used to ensure accurate control of refrigerant flow.

8. Casing/ Structure

The unit casing used in UATYQ series is made of zinc coated galvanized steel sheets. It is further coated with an electrostatic powder coat and then oven-baked for a tough and lasting weather resistant finish. Zinc plated screws are used throughout to further reduce possibility of unit rusting.

1 Specification text

UATYQ-BY1

9. Insulation

ALL possible areas of condensation to happen are insulated by PE, Polyethelene. Panel insulation is 10mm thickness while drain pan insulation is 5mm thickness.

10. Control

Units shall be completely factory supplied with an integrated controlled Module, with built in resident control algorithms to make decide heating, cooling, or ventilating operations in response to electronic signals from indoor & outdoor temperature sensors.

11. Rooftop Panel - handset

Rooftop Panel comprises all starting, operating and safety controls setting. It is connected to the IC module PCB and supplied as standard.

12. Optional Features

I. 3rd Party Thermostat

For application that requires uniform thermostat outlook with other electrical appliances. 3rd Party thermostat can be connected to the factory supplied module via the contact point available on PCB board.

II. Basic BMS Connection

Unit's standard PCB board provides dry contact for basic BMS connection. Input signal will go to dry contact ON/OFF, COOL/HEAT, and 4 to 20 mA temperature adjuster while output signal will come from ON/OFF, COOL/HEAT, ALARM and DEFROST dry contact.

III. Higher Level BMS Connection

Connection to higher level BMS is possible via Daikin compatible interface, DEC101/102A55.

IV. Economizer

Field installed economizer is supplied from factory as an accessory. It is also designed to cater for horizontal or vertical down throw air discharge orientation.

V. CO2 Sensor

Field specified CO2 sensor can be easily plug on the control board's dry contact, which is come as standard.

2 Selection procedure

Calculation Steps

Interpolation method can be used to get the total capacity, TC and sensible capacity, SC and power input, PI at those temperatures which are not stated out in the table. Extrapolation method are not allowed to be used to get the TC, SC and PI.

Example:

Model: UATYQ450BY1
Indoor Condition: 25°C DB, 17°C WB
Outdoor Condition: 37°C DB
Fan Speed: High (5650CFM)

Solution:

Overall
Based on the Performance Table

1. Refer to the Indoor DB column,
   - 25°C is located between 24°C and 27°C for 16˚CWB (Thus, Interpolation need to be applied)
   - 25°C is located between 24°C and 27°C for 19˚CWB (Thus, Interpolation need to be applied)

2. Refer to the Indoor WB column,
   - 17°C is located between 16°CWB and 19°CWB for 25°CDB
   (Thus, Interpolation need to be applied)

3. Refer to the Outdoor DB column,
   - 37°C is located between 35°C and 40°C. (Thus, Interpolation need to be applied)

Please follow the steps below in order to get the required capacity.

1st Step
Interpolation of Indoor DB

Find TC, SC, PI for

(a) Indoor: ***25°C DB***, 16°C WB
Outdoor: 35°C DB
(b) Indoor: ***25°C DB***, 19°C WB
Outdoor: 35°C DB

(c) Indoor: ***25°C DB***, 16°C WB
Outdoor: 40°C DB
(d) Indoor: ***25°C DB***, 19°C WB
Outdoor: 40°C DB

➪

2nd Step
Interpolation of Indoor WB

Find TC, SC, PI for

(a) Indoor: ***25°C DB***, 17°C WB
Outdoor: 35°C DB

(b) Indoor: ***25°C DB***, 17°C WB
Outdoor: 40°C DB

➪

3rd Step
Interpolation of Outdoor DB

Find TC, SC, PI for

(a) Indoor: 25°C DB, 17°C WB
Outdoor: ***37°C DB***

2 Selection procedure

Details:

1st Step:
To obtain the Total capacity and Sensible capacity and Power input for
(a) Indoor Condition: *25˚C DB*, 16˚C WB
Outdoor Condition: 35°C DB

Indoor WB ˚C	Indoor DB ˚C	Outdoor DB, ˚C			
			35		
			TC (kW)	SHC (kW)	PI (kW)
16					
	24		41.41	35.59	12.81
	25	.....	X_1	Y_1	Z_1
	27		43.48	41.63	12.94

Total capacity, TC

Interpolation Method:

$$\Rightarrow \frac{27^{o}\,C - 24^{o}\,C}{27^{o}\,C - 25^{o}\,C} = \frac{43.48kW - 41.41kW}{43.48kW - x_1 kW}$$

$$\Rightarrow x_1 = 42.10kW$$

Sensible capacity, SHC

Interpolation Method:

$$\Rightarrow \frac{27^{o}\,C - 24^{o}\,C}{27^{o}\,C - 25^{o}\,C} = \frac{41.63kW - 35.59kW}{43.48kW - x1kW}$$

$$\Rightarrow y_1 = 37.60kW$$

Power Input, PI

Interpolation Method:

$$\Rightarrow \frac{27^{o}\,C - 24^{o}\,C}{27^{o}\,C - 25^{o}\,C} = \frac{12.94kW - 12.81kW}{12.94kW - z_1 kW}$$

$$\Rightarrow z_1 = 12.85kW$$

2 Selection procedure

(b) Indoor Condition: *25˚C DB*, 16˚C WB
Outdoor Condition: 40°C DB

Indoor WB ˚C	**Indoor DB ˚C**	**Outdoor DB, ˚C**			
			40		
			TC (kW)	**SHC (kW)**	**PI (kW)**
16					
	24		38.59	33.52	13.91
	25	.....	X_2	Y_2	Z_2
	27		40.74	39.20	14.06

Total capacity, TC

Interpolation Method:

$$\Rightarrow \frac{27^{o}\,C - 24^{o}\,C}{27^{o}\,C - 25^{o}\,C} = \frac{43.48kW - 41.41kW}{40.74kW - x_2 kW}$$

$$\Rightarrow x_2 = 39.31kW$$

Sensible capacity, SHC

Interpolation Method:

$$\Rightarrow \frac{27^{o}\,C - 24^{o}\,C}{27^{o}\,C - 25^{o}\,C} = \frac{39.20kW - 33.52kW}{39.20kW - y_2 kW}$$

$$\Rightarrow y_2 = 35.41kW$$

Power Input, PI

Interpolation Method:

$$\Rightarrow \frac{27^{o}\,C - 24^{o}\,C}{27^{o}\,C - 25^{o}\,C} = \frac{14.06kW - 13.91kW}{14.06kW - z_2 kW}$$

$$\Rightarrow z_2 = 13.96kW$$

* Repeat process (a) and (b) in 1st step for the condition below:

(c) Indoor Condition: 25˚C DB, 19˚C WB
Outdoor Condition: 35°C DB

$\Rightarrow x_3 = 44.55kW$
$\Rightarrow y_3 = 31.63kW$
$\Rightarrow z_3 = 13.03kW$

(c) Indoor Condition: 25˚C DB, 19˚C WB
Outdoor Condition: 40°C DB

$\Rightarrow x_4 = 41.46kW$
$\Rightarrow y_4 = 31.63kW$
$\Rightarrow z_4 = 14.13kW$

2 Selection procedure

2nd Step:

To obtain the Total capacity, Sensible capacity and Power Input for
(a) Indoor Condition: 25°C DB, **17°C WB**
Outdoor Condition: 35°C DB

Indoor WB ˚C	**Indoor DB ˚C**	**Outdoor DB, ˚C**			
			35		
			TC (kW)	**SHC (kW)**	**PI (kW)**
			⋮	⋮	
16			42.10	37.60	12.85
17	**25**	.....	X_5	Y_5	Z_5
19			44.55	31.63	13.03

Total capacity, TC

Interpolation Method:

$$\Rightarrow \frac{19ºC - 16ºC}{19ºC - 17ºC} = \frac{44.55kW - 42.10kW}{44.55kW - x_5kW}$$

$$\Rightarrow x_5 = 42.92kW$$

Sensible capacity, SHC

Interpolation Method:

$$\Rightarrow \frac{19ºC - 16ºC}{19ºC - 17ºC} = \frac{31.63kW - 37.60kW}{31.63kW - y_5kW}$$

$$\Rightarrow y_5 = 35.61kW$$

Power Input, PI

Interpolation Method:

$$\Rightarrow \frac{19ºC - 16ºC}{19ºC - 17ºC} = \frac{13.03kW - 12.85kW}{13.03kW - z_5kW}$$

$$\Rightarrow z_5 = 12.91kW$$

2 Selection procedure

(b) Indoor Condition: 25°C DB, ***17°C WB***
Outdoor Condition: 40°C DB

Indoor WB ˚C	**Indoor DB ˚C**	**Outdoor DB, ˚C**			
			40		
			TC (kW)	**SHC (kW)**	**PI (kW)**
			⋮	⋮	
16			39.31	35.41	13.96
17	**25**	.....	X_6	Y_6	Z_6
19			41.46	29.99	14.13

Total capacity, TC

Interpolation Method:

$$\Rightarrow \frac{19ºC - 16ºC}{19ºC - 17ºC} = \frac{41.46kW - 39.31kW}{41.46kW - x_6kW}$$

$$\Rightarrow x_6 = 40.03kW$$

Sensible capacity, SHC

Interpolation Method:

$$\Rightarrow \frac{19ºC - 16ºC}{19ºC - 17ºC} = \frac{29.99kW - 35.41kW}{29.99kW - y_6kW}$$

$$\Rightarrow y_6 = 33.60kW$$

Power Input, PI

Interpolation Method:

$$\Rightarrow \frac{19ºC - 16ºC}{19ºC - 17ºC} = \frac{14.13kW - 13.96kW}{14.13kW - z_6kW}$$

$$\Rightarrow z_6 = 14.02kW$$

2 Selection procedure

3rd Step:

To obtain the Total capacity and Sensible capacity for
(a) Indoor Condition: 25°C DB, 17°C WB
Outdoor Condition: 37°C DB

Indoor WB ˚C	Indoor DB ˚C	Outdoor DB, ˚C									
			35			35			40		
			TC (kW)	SHC (kW)	PI (kW)	TC (kW)	SHC (kW)	PI (kW)	TC (kW)	SHC (kW)	PI (kW)
25	**17**	.....	42.92	**35.61**	**12.91**	x	y	z	**40.03**	**33.60**	**14.02**

Total capacity, TC

Interpolation Method:

$$\Rightarrow \frac{40^{o}\,C - 35^{o}\,C}{40^{o}\,C - 37^{o}C} = \frac{40.03kW - 42.92kW}{40.03kW - xkW}$$

$$\Rightarrow x = 41.76kW$$

Sensible capacity, SHC

Interpolation Method:

$$\Rightarrow \frac{40^{o}\,C - 35^{o}\,C}{40^{o}\,C - 37^{o}\,C} = \frac{33.60kW - 35.61kW}{33.60kW - ykW}$$

$$\Rightarrow y = 34.81kW$$

Power Input, PI

Interpolation Method:

$$\Rightarrow \frac{40^{o}\,C - 35^{o}\,C}{40^{o}\,C - 37^{o}\,C} = \frac{14.02kW - 12.91kW}{14.02kW - zkW}$$

$$\Rightarrow z = 13.35kW$$

3 Specifications

3-1 General data - Heat pump				UATYQ250BY1	UATYQ350BY1	UATYQ450BY1	UATYQ550BY1
Nominal cooling capacity (Gross)			Btu/h	93300	121400	152600	190000
			W	27340	35580	44720	55690
Nominal heating capacity (Nett)			Btu/h	85000	118700	142600	184000
			W	24910	34790	41790	53930
Nominal total input power (Cooling)			W	8140	10780	13040	16740
Nominal total input power (Heating)			W	7330	10840	12860	15540
Nominal running current (Cooling)			W	16.6	21.2	28.3	30.2
Nominal running current (Heating)			W	14.8	20.8	26.9	28.8
Power source			V/Ph/Hz	380 ~ 415 / 3 / 50			
Refrigerant type / contol				R410A / EXV			
EER (Gross)			W/W	3.36	3.30	3.43	3.33
COP (Net)			W/W	3.40	3.21	3.25	3.47
Evaporator	Sound power level @ 100 ESP		dBA	68	72	75	82
	Sound power level @ Std ESP		dBA	73	76	80	84
	Control	Air discharge		Ducted			
		Operation		Wired			
	Air flow		l/s / cfm	1560 / 3300	2030 / 4300	2670 / 5650	3160 / 6700
	External static pressure		Pa/in.wg.	147 / 0.6	147 / 0.6	147 / 0.6	206 / 0.8
	Condensate drain size		mm/in	25.4 / 1	24.4 / 1.0	25.4 / 1	25.4 / 1.0
Condensor	Air flow		l/s / cfm	3884 / 8230	5664 / 12000	5710 / 1210	6090 / 12900
	Sound power level		dBA	82	83	83	87
	Unit dimension	Height	mm/in	1150 / 45.3	1028 / 40.5	1130 / 44.5	1048 / 41.3
		Width	mm/in	1638 / 64.5	2209 / 87.0	2209 / 87.0	2209 / 87.0
		Depth	mm/in	2063 / 53.0	2113 / 83.2	2113 / 83.2	2670 / 105.1
	Packing dimension	Height	mm/in	1345 / 53.0	1223 / 48.1	1325 / 52.2	1252 / 49.3
		Width	mm/in	2321 / 91.4	2372 / 93.4	2304 / 90.7	2304 / 90.7
		Depth	mm/in	1758 / 69.2	2304 / 90.7	2372 / 93.4	2929 / 115.3
	Unit weight (Net)		kg/lb	490 / 1080	660 / 1455	610 / 1345	780 / 1720
	Refrigerant charge		kg/lb	6.1 / 13.4	(5.8 x 2) / (12.8 x 2)	(7.2 x 2) / (15.9 x 2)	(8.7 x 2) / (19.2 x 2)
Notes				All specifications are subjected to change by the manufacturer without prior notice.			
				All units are being tested and comply to ISO 5151.			
				Nominal cooling and heating capacity are based on the conditions below: a) Cooling - 27°C DB / 19°C WB indoor and 35°C DB / 24°C WB outdoor. b) Heating- 20°C DB indoor and 7°C DB / 6°C WB outdoor.			
				Sound pressure levels are measured according to JIS standard.			
				EER/COP calculation is based on effective power input as per ISO 5151.			

3 Specifications

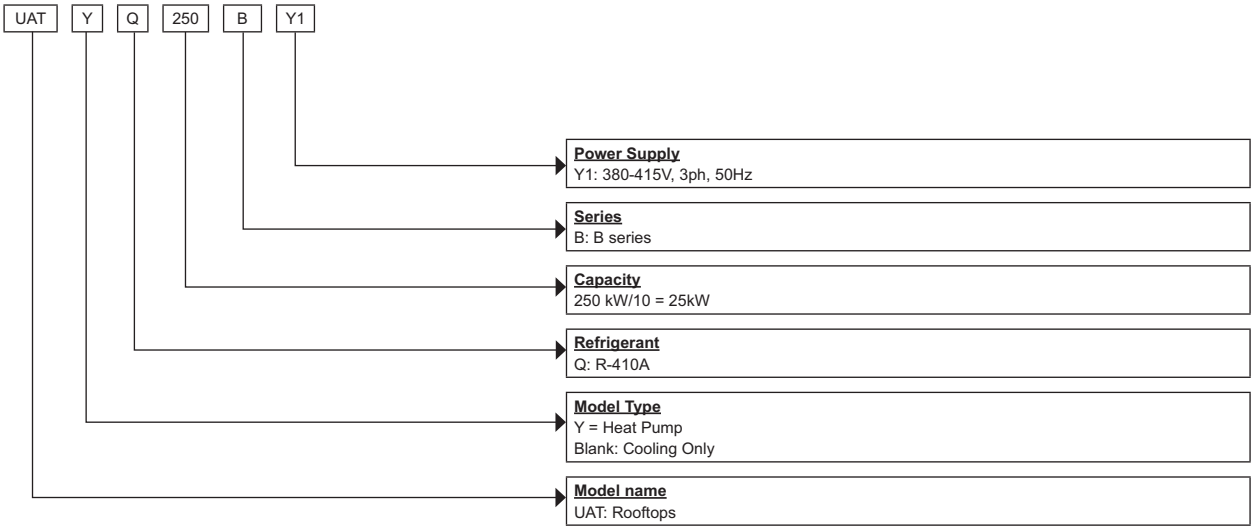
3-2 Components data - Heat pump				UATYQ250BY1	UATYQ350BY1	UATYQ450BY1	UATYQ550BY1
Evaporator fan	Type			Centrifugal forward curve			
	Quantity			1			
	Material			Galvanised steel			
	Drive			Belt drive			
	Diameter		mm/in	381 / 15	381 / 15	381 / 15	400 / 15.7
	Length		mm/in	381 / 15	381 / 15	381 / 15	400 / 15.7
Evaporator fan motor	Type			Induction motor			
	Quantity			1			
	Index of protection (IP)			IP22			
Condenser fan1	Type			Propeller			
	Quantity			1			
	Material			Plastic			
	Drive			Direct drive			
	Diameter		mm/in	610 / 24.0	681 / 26.8	681 / 26.8	681 / 26.8
Condenser fan2	Type			Propeller			
	Quantity			1			
	Material			Plastic			
	Drive			Direct drive			
	Diameter		mm/in	681 / 26.8			
Condenser fan motor 1	Type			Induction motor			
	Quantity			1			
	Index of protection (IP)			IP44			
Condenser fan motor 2	Type			Induction motor			
	Quantity			1			
	Index of protection (IP)			IP44			
Compressor 1	Type			Scroll			
	Quantity			1			
	Oil type			POE			
	Oil amount		cm³/fl.oz	3253 / 110	1656 / 56	1774 / 60	3253 / 110
Compressor 2	Type			NA	Scroll		
	Quantity			NA	1		
	Oil type			NA	POE		
	Oil amount		cm³/fl.oz	NA	1656 / 56	1774 / 60	3253 / 110
Evaporator coil 1	Tube	Material		S.I.G.C.			
		Diameter	mm/in	9.53 / 3/8			
		Thickness	mm/in	0.35 / 0.014			
	Fin	Material		Aluminium			
		Thickness	mm/in	0.11 / 0.004			
		Face Area	m²/ft²	0.07 / 0.80	0.04 / 0.46	0.51 / 5.49	0.61 / 6.55
		Row		3	3	4	4
		Fin per inch		16	16	14	14
Evaporator coil 2	Tube	Material		NA	S.I.G.C.		
		Diameter	mm/in	NA	9.53 / 3/8		
		Thickness	mm/in	NA	0.35 / 0.011	0.35 / 0.014	0.35 / 0.014
	Fin	Material		NA	Aluminium		
		Thickness	mm/in	0.11 / 0.004			
		Face Area	m²/ft²	NA	0.04 / 0.46	0.51 / 5.49	0.61 / 6.55
		Row		NA	3	4	4
		Fin per inch		NA	16	14	14
Condenser coil 1	Tube	Material		S.I.G.C.			
		Diameter	mm/in	9.53 / 3/8			
		Thickness	mm/in	0.35 / 0.014			
	Fin	Material		Aluminium			
		Thickness	mm/in	0.11 / 0.004			
		Face Area	m²/ft²	0.12 / 1.28	0.10 / 1.10	1.24 / 13.35	1.33 / 14.34
		Row		2	3	3	3
		Fin per inch		16	14	14	14

3 Specifications

3-2 Components data - Heat pump				UATYQ250BY1	UATYQ350BY1	UATYQ450BY1	UATYQ550BY1
Condenser coil 2	Tube	Material		NA	S.I.G.C.		
		Diameter	mm/in	NA	9.53 / 3/8		
		Thickness	mm/in	NA	0.35 / 0.014		
	Fin	Material		NA	Aliminium		
		Thickness	mm/in	NA	0.11 / 0.004		
		Face Area	m²/ft²	NA	0.10 / 1.10	1.24 / 13.35	1.33 / 14.34
		Row		NA	3	3	3
		Fin per inch		NA	14	14	14
Air quality	Filter	Type		Washable saranet			
		Quantity	pc	2	2	2	2
	Filter size	Length	mm/in	880 / 34.65	1126 / 44.3	1126 / 44.33	1497 / 58.9
		Width	mm/in	467 / 18.39	385 / 15.16	435 / 17.16	392 / 15.43
		Thickness	mm/in	4 / 0.16			
Casing	Material			Electro galvanised mild steel			
	External finishing			Epoxy polyester powder			
	Colour			Light grey			
	Insulation / thickness			PE / 10mm			
Notes				All specifications are subjected to change by the manufacturer without prior notice			
				S.I.G.C. - Seamless Inner Grooved Copper			

4 Nomenclature

UATYQ-BY1



5 Safety device settings

UATYQ250-350BY1

Model				UATYQ250BY1	UATYQ350BY1
Safety device	High pressure switch	Type		NC, Auto Reset	
		Open	kPa/psi	4137 / 600	
		Close	kPa/psi	3309 / 480	
	Low pressure switch	Type		NC, Auto Reset	
		Open	kPa/psi	124 / 18	
		Close	kPa/psi	193 / 28	
	Phase sequencer			YES	
	Discharge thermostat setting		°C/°F	120 / 248	

UATYQ450-550BY1

Model				**UATYQ450BY1**	**UATYQ550BY1**
Safety device	**High pressure switch**	**Type**		NC, Auto Reset	
		Open	**kPa/psi**	4137 /600	
		Close	**kPa/psi**	3309 / 480	
	Low pressure switch	**Type**		NC, Auto Reset	
		Open	**kPa/psi**	124 / 18	
		Close	**kPa/psi**	193 / 28	
	Phase sequencer			YES	
	Discharge Thermostat setting		**°C/°F**	120 / 248	

6 Options

UATYQ-BY1

Model		Classification										
		Rooftop controller	PCB	EXV	Gold Fin (NA549)	Scroll compressor	Saranet Air Filter	Side flow	Convertible	Filter Drier	High pressure switch	Low pressure switch
UATYQ-BY1	250	X	X	X	X	X	X	X	X	X	X	X
	350	X	X	X	X	X	X	X	X	X	X	X
	450	X	X	X	X	X	X	X	X	X	X	X
	550	X	X	X	X	X	X	X	X	X	X	X

Remarks: Economizers & CO2 sensor will be ready soon.

7 Capacity tables

7 - 1 Capacity tables cooling

UATYQ250BY1

AFR (CFM)	EWB	EDB	Outdoor temperature																	
			19°C			25°C			30°C			35°C			40°C			46°C		
			TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
2640	16°C	21°C	26.92	17.79	6.55	25.90	17.33	6.93	25.31	17.19	7.46	24.12	16.64	7.91	22.42	15.75	8.60	50.86	15.04	9.52
		24°C	27.02	20.73	6.56	26.00	20.27	6.94	25.41	20.17	7.47	24.23	19.64	7.92	22.60	18.55	8.61	21.16	17.59	9.54
		28°C	27.60	25.41	6.58	26.65	24.72	6.97	26.15	24.48	7.51	25.07	26.64	7.97	23.52	22.40	8.67	22.18	21.23	9.62
		30°C	28.31	28.31	28.31	6.65	27.43	27.43	7.05	26.49	7.60	25.49	25.49	8.08	23.92	23.92	8.78	22.61	22.61	9.72
	19°C	24°C	29.44	16.79	6.69	28.30	16.35	7.08	27.67	16.22	7.61	26.39	15.74	8.07	24.56	14.94	8.76	22.90	14.29	9.68
		27°C	29.52	20.66	6.70	28.39	20.20	7.09	27.75	20.12	7.62	26.48	19.60	8.08	24.65	18.68	8.76	23.00	18.02	9.59
		30°C	29.67	24.23	6.71	28.66	23.57	7.10	28.13	23.34	7.64	26.94	22.58	8.11	25.20	21.36	8.80	23.69	20.39	9.74
		33°C	30.23	30.23	6.75	28.93	28.93	7.15	29.12	29.12	7.71	28.05	28.05	8.18	25.58	25.58	8.89	24.48	24.48	9.84
	22°C	27°C	31.94	16.47	6.85	30.87	16.13	7.25	30.19	16.01	7.79	28.81	15.54	8.25	26.84	14.76	8.93	25.10	14.19	9.86
		30°C	32.17	20.48	6.86	30.94	250.03	7.25	30.25	19.95	7.79	28.89	19.46	8.25	26.91	18.57	8.94	25.16	17.95	9.86
		33°C	32.25	24.19	6.86	31.02	23.73	7..26	30.32	23.72	7.80	28.97	23.22	8.26	27.10	21.99	8.96	25.53	21.02	9.89
		36°C	32.40	26.87	6.89	31.28	26.17	7.29	30.91	26.12	7.84	29.66	25.35	8.31	27.94	24.19	9.02	26.43	23.19	9.96
3300	16°C	21°C	27.89	18.62	6.60	26.78	18.12	6.98	26.14	17.97	7.51	24.90	17.42	7.97	23.11	16.51	8.65	21.47	15.80	9.57
		24°C	28.06	22.96	6.62	27.05	22.29	7.00	26.49	22.00	7.54	25.32	21.22	7.99	23.59	19.99	8.68	22.07	18.98	9.61
		28°C	29.12	26.80	6.67	28.17	26.05	7.07	27.69	25.74	7.61	26.58	24.83	8.08	24.90	23.38	8.78	23.45	22.13	9.72
		30°C	30.19	30.19	6.77	29.19	29.19	7.17	28.15	28.15	7.72	27.06	27.06	8.20	25.10	25.10	8.90	23.69	23.69	9.84
	19°C	24°C	30.42	18.53	6.75	29.22	18.04	7.14	28.53	17.90	7.67	27.19	17.36	8.13	25.27	16.47	8.81	23.53	15.79	9.73
		27°C	30.57	22.98	6.76	29.37	22.49	7.15	28.69	22.42	7.68	27.34	21.87	8.14	25.50	20.72	8.83	23.88	19.68	9.76
		30°C	31.20	26.32	6.79	30.07	25.60	7.19	29.48	25.35	7.74	28.23	24.56	8.20	26.44	23.20	8.90	24.97	22.02	9.84
		33°C	31.86	31.86	6.87	30.85	30.85	7.28	29.77	29.77	7.84	28.63	28.63	8.32	26.87	26.87	9.03	25.43	25.43	9.97
	22°C	27°C	33.11	18.28	6.91	31.80	17.84	7.31	31.07	17.74	7.85	29.63	17.22	8.31	27.56	16.35	9.00	25.73	15.70	9.91
		30°C	33.22	22.84	6.92	31.92	22.36	7.32	31.19	22.30	7.86	29.75	21.77	8.32	27.69	20.80	9.01	25.88	20.15	9.92
		33°C	33.46	27.07	6.94	32.26	26.33	7.34	31.64	26.07	7.89	30.30	25.24	8.36	28.32	23.90	9.06	26.66	22.87	9.99
		36°C	34.08	29.22	6.99	32.88	28.63	7.39	32.05	28.12	7.96	30.87	27.22	8.44	28.71	25.44	9.16	26.93	23.98	10.11
3960	16°C	21°C	28.55	20.03	6.64	27.41	19.53	7.02	26.74	19.37	7.55	25.45	18.80	8.01	23.61	17.83	8.69	21.92	17.08	9.60
		24°C	29.05	24.35	6.67	27.95	23.62	7.06	27.35	23.32	7.59	26.12	22.50	8.05	24.34	21.22	8.74	22.83	20.03	9.67
		28°C	30.46	28.03	6.75	29.39	27.18	7.14	28.90	26.86	7.69	27.71	25.88	8.16	25.94	24.35	8.86	24.39	23.02	9.80
		30°C	31.28	31.28	6.85	30.22	30.22	7.26	29.11	29.11	7.82	27.95	27.95	8.29	26.31	26.31	8.99	24.55	24.55	9.93
	19°C	24°C	31.12	19.98	6.79	29.87	19.47	7.18	29.13	19.32	7.72	27.73	18.76	8.17	25.77	17.83	8.85	24.00	17.13	9.77
		27°C	31.33	25.03	6.81	30.11	24.43	7.20	29.49	24.14	7.74	28.17	23.28	8.20	26.26	21.96	8.89	24.60	20.89	9.81
		30°C	32.28	27.64	6.86	31.18	26.95	7.26	30.65	26.63	7.82	29.43	25.69	8.29	27.58	24.20	8.99	26.01	22.94	9.93
		33°C	33.03	33.03	6.97	31.95	31.95	7.38	31.12	31.12	7.94	29.92	29.92	8.42	28.06	28.06	9.13	26.23	26.23	10.07
	22°C	27°C	33.81	19.81	6.96	32.47	19.31	7.35	31.68	19.18	7.90	30.17	18.63	8.35	28.08	17.73	9.04	26.22	17.07	9.95
		30°C	34.00	24.92	6.97	32.65	24.41	7.37	31.86	24.37	7.91	30.36	23.82	8.37	28.30	22.72	9.05	26.55	21.64	9.98
		33°C	34.64	28.87	7.01	33.36	28.08	7.41	32.68	27.82	7.96	31.30	26.96	8.43	29.24	25.53	9.13	27.65	24.26	10.07
		36°C	35.21	30.28	7.08	33.71	29.13	7.50	33.22	28.86	8.08	31.96	27.90	8.56	29.70	26.06	9.27	28.12	24.80	10.22

NOTES - ANMERKUNGEN - ΣΗΜΕΙΩΣΕΙΣ - NOTAS - REMARQUES - NOTE - OPMERKINGEN - ПРИМЕЧАНИЯ - NOTLAR

1. Ratings shown are gross capacities which do not include a deduction for indoor fan motor heat. - *Die Nennwerte sind Bruttoleistungen, die keine Abzüge für die Motorwärme der Innenventilatoren enthalten.* - Οι τιμές που αναφέρονται αντιπροσωπεύουν μικτή απόδοση, χωρίς κάποια μικρή απόκλιση που αντιστοιχεί στη θέρμανση του κινητήρα του ανεμιστήρα της εσωτερικής μονάδας. - *Los valores indicados son capacidades brutas a las que no se ha restado el valor correspondiente al calor del motor del ventilador interior.* - Les valeurs nominales indiquées correspondent à des puissances brutes qui n'incluent aucune déduction pour la chaleur du moteur de ventilateur de l'unité intérieure. - *I valori indicati si riferiscono alle capacità lorde e non comprendono la riduzione per l'apporto di calore generato dal motore del ventilatore dell'unità interna.* - De weergegeven cijfers zijn brutocapaciteiten excl. reductiefactor voor warmte afgegeven door de binnenventilatormotor. - *Указанные номинальные значения являются общими, т.е. не учитывают нагревание от двигателя внутреннего вентилятора.* - Gösterilen değerler, iç ünite fan motoru sıcaklığının dikkate alınmadığı brüt kapasite değerleridir.
2. shows nominal capacities. - *stellt Nennleistungen dar.* - υποδεικνύει ονομαστικές τιμές απόδοσης.- *indica capacidades nominales.*- indique les puissances nominales.- *mostra le capacità nominali.*- geeft nominale capaciteiten weer.- *показывает номинальные значения мощности.*- nominal kapasite değerlerini gösterir.
3. Direct interpolation is permissible. Do not extrapolate. - *Direkte Interpolation ist zulässig. Extrapolieren ist nicht zulässig.* - Επιτρέπεται η απευθείας παρεμβολή. Όχι όμως η παρεκβολή. - *Se permite la interpolación directa. Sin embargo, no extrapole.* - Interpolation directe autorisée. Ne pas extrapoler. - *È consentita l'interpolazione diretta. Non è tuttavia permessa l'estrapolazione.* - Directe interpolatie is toegestaan. Extrapoleer niet. - *Допускается прямая интерполяция. Экстраполяция не допускается.* - Doğrudan interpolasyon yapılmasına izin verilir. Ekstrapolasyon yapmayın.
4. Unit is able to operate at ambient from 0°C to 46°C without pressure trip. - *Gerät kann bei Umgebungstemperaturen von 0°C bis 46°C ohne Druckabfall betrieben werden.* - Η μονάδα έχει τη δυνατότητα να λειτουργεί σε θερμοκρασία περιβάλλοντος από 0°C έως 46°C χωρίς πτώση πίεσης. - *La unidad puede funcionar con temperaturas ambiente de entre 0 y 46°C sin cortes por presión.* - L'unité est en mesure de fonctionner par température extérieure comprise entre 0 °C et 46 °C sans déclenchement pression. - *L'unità è in grado di funzionare con temperature esterne comprese tra 0° e 46° senza cali di pressione.* - De unit kan werken bij omgevingstemperaturen van 0°C tot 46°C zonder drukuitschakeling. - *Блок может работать при температуре окружающей среды от 0 до 46°C без отключения, вызываемого давлением.* - Ünite, 0°C ila 46°C ortam sıcaklığında basınç problemi olmadan çalışabilir.

REMARK - BEMERKUNGEN - ΠΑΡΑΤΗΡΉΣΕΙΣ - OBSERVACIONES - REMARQUES - NOTE - OPMERKINGEN - ЗАМЕЧАНИЯ - DÜŞÜNCELER

AFR: Air flow rate - *Luftdurchsatz* - Ταχύτητα ροής αέρα - *Caudal de aire* - Débit d'air - *Portata d'aria* - Luchtdebiet - *Скорость воздушного потока* - Hava akış hızı (CFM)

EWB: Entering Wet Bulb Temp. - *Eingangs-Feuchttemp.* - Είσοδος σε θερμ. υγρού βολβού - *Temperatura de bulbo húmedo de entrada* - Température d'entrée du réservoir humide - *Temp. bulbo umido in entrata* - Temperatuur ingaand natte bol - *Температура на входе влажного термометра.* - Giriş ıslak hazne sıcaklığı (°C)

EDB: Entering Dry Bulb Temp. - *Eingangs-Trockentemp.* - Είσοδος σε θερμ. λυχνίας αφύγρανσης - *Temperatura de bulbo seco de entrada* - Température d'entrée du réservoir sec - *Temp. bulbo secco in entrata* - Temperatuur ingaand droge bol - *Температуре на входе сухого термометра.* - Giriş kuru hazne sıcaklığı (°C)

TC: Total Cooling Capacity - *Gesamte Kühlleistung* - Συνολική απόδοση ψύξης - *Capacidad de refrigeración total* - Puissance totale de refroidissement - *Capacità di raffreddamento totale* - Totaal koelvermogen - *Общая охлаждающая способность* - Toplam soğutma kapasitesi (kW)

SHC: Sensible Heat Capacity - *Sensible Wärmekapazität* - Απόδοση αισθητής θέρμανσης - *Capacidad de calor sensible* - Puissance calorifique sensible - *Capacità termica sensibile* - Voelbaar verwarmingsvermogen - *Производительность по сухому теплу* - Hissedilebilir ısı kapasitesi (kW)

PI: Power Input - *Leistungsaufnahme* - Είσοδος ισχύος - *Consumo* - Puissance absorbée - *Potenza assorbita* - Vermogeninput - *Потребляемая мощность* - Güç girişi

7 Capacity tables

7 - 1 Capacity tables cooling

UATYQ350BY1

AFR (CFM)	EWB	EDB	Outdoor temperature																	
			19°C			25°C			30°C			35°C			40°C			46°C		
			TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
3440	16°C	21°C	35.03	23.44	8.48	33.71	22.84	8.97	32.94	22.65	9.66	31.40	21.92	10.25	29.18	20.75	11.13	27.15	19.82	12.33
		24°C	35.17	27.32	8.49	33.84	26.70	8.98	33.07	26.58	9.67	31.54	25.88	10.26	29.41	24.44	11.15	27.53	23.17	12.35
		28°C	35.91	33.48	8.52	34.68	32.58	9.03	34.04	32.25	9.72	32.62	31.14	10.33	30.61	29.52	11.23	28.86	27.97	12.45
		30°C	36.85	36.85	8.62	35.70	35.70	9.13	34.47	34.47	9.84	33.17	33.17	10.46	31.13	31.13	11.37	29.42	29.42	12.59
	19°C	24°C	38.31	22.12	8.67	36.83	21.54	9.17	36.02	21.38	9.86	34.34	20.74	10.45	31.97	19.68	11.34	29.80	18.83	12.53
		27°C	38.41	27.23	8.67	36.95	26.62	9.17	36.12	26.51	9.87	34.46	25.83	10.46	32.08	24.62	11.35	29.93	23.75	12.54
		30°C	38.61	31.92	8.68	37.30	31.06	9.19	36.60	30.75	9.90	35.06	29.75	10.50	32.80	28.14	11.40	30.84	26.87	12.61
		33°C	39.34	39.34	8.74	37.65	37.65	9.26	37.89	37.89	9.98	36.50	36.50	10.60	33.28	33.28	11.51	31.86	31.86	12.74
	22°C	27°C	41.56	21.70	8.87	40.17	21.25	9.38	39.29	21.10	10.08	37.49	20.48	10.68	34.93	19.45	11.57	32.66	18.70	12.76
		30°C	41.87	26.99	8.88	40.27	26.39	9.39	39.36	26.29	10.09	37.59	25.64	10.69	35.02	24.47	11.58	32.75	23.65	12.77
		33°C	41.97	31.88	8.88	40.37	31.27	9.39	39.46	31.25	10.10	37.71	30.59	10.69	35.27	28.97	11.60	33.22	27.70	12.81
		36°C	42.16	35.40	8.92	40.71	34.49	9.44	40.22	34.41	10.16	38.60	33.40	10.77	36.36	31.87	11.68	34.39	30.55	12.90
4300	16°C	21°C	36.29	24.53	8.55	34.85	23.88	9.04	34.02	23.68	9.73	32.40	22.96	10.32	30.07	21.76	11.20	27.95	20.82	12.39
		24°C	36.52	30.25	8.57	35.20	29.37	9.06	34.48	28.99	9.76	32.95	27.97	10.35	30.70	26.34	11.24	28.72	25.01	12.44
		28°C	37.90	35.31	8.63	36.66	34.33	9.15	36.04	33.91	9.85	34.59	32.72	10.46	32.41	30.81	11.37	30.52	29.16	12.58
		30°C	39.29	39.29	8.76	37.99	37.99	9.28	36.64	36.64	10.00	35.22	35.22	10.61	32.66	32.66	11.52	30.84	30.84	12.74
	19°C	24°C	39.59	24.42	8.74	38.02	23.77	9.24	37.13	23.58	9.94	35.38	22.87	10.53	32.88	21.70	11.41	30.63	20.80	12.60
		27°C	39.78	30.28	8.75	38.22	29.63	9.26	37.33	29.54	9.95	35.58	28.82	10.54	33.19	27.31	11.43	31.08	25.94	12.63
		30°C	40.60	34.68	8.80	39.13	33.73	9.31	38.36	33.40	10.02	36.74	32.36	10.62	34.41	30.57	11.52	32.50	29.01	12.74
		33°C	41.47	41.47	8.89	40.14	40.14	9.42	38.74	38.74	10.15	37.25	37.25	10.77	34.97	34.97	11.69	33.09	33.09	12.91
	22°C	27°C	43.08	24.09	8.95	41.39	23.51	9.46	40.44	23.37	10.17	38.56	22.69	10.76	35.87	21.54	11.65	33.48	20.68	12.84
		30°C	43.24	30.09	8.96	41.54	29.46	9.47	40.59	29.39	10.18	38.72	28.69	10.77	36.04	27.41	11.66	33.68	26.54	12.85
		33°C	43.54	35.67	8.98	41.98	34.70	9.50	41.17	34.36	10.22	39.43	33.26	10.82	36.85	31.49	11.73	34.69	30.14	12.93
		36°C	44.35	38.50	9.05	42.79	37.73	9.57	41.71	37.05	10.30	40.17	35.87	10.93	37.36	33.52	11.86	35.05	31.60	13.09
5160	16°C	21°C	37.15	26.40	8.60	35.67	25.73	9.10	34.80	25.53	9.78	33.12	24.77	10.37	30.72	23.49	11.25	28.53	22.51	12.44
		24°C	37.81	32.08	8.64	36.37	31.12	9.14	35.60	30.73	9.83	33.99	29.65	10.42	31.67	27.96	11.31	29.72	26.40	12.52
		28°C	39.64	36.93	8.74	38.25	35.82	9.25	37.61	35.39	9.96	36.06	34.11	10.57	33.75	32.08	11.47	31.75	30.33	12.69
		30°C	40.70	40.70	8.88	39.33	39.33	9.40	37.89	37.89	10.12	36.38	36.38	10.73	34.24	34.24	11.64	31.95	31.95	12.86
	19°C	24°C	40.50	26.32	8.80	38.87	25.65	9.30	37.91	25.46	9.99	36.08	24.72	10.58	33.54	23.49	11.46	31.23	22.57	12.65
		27°C	40.77	32.98	8.81	39.19	32.20	9.32	38.38	31.80	10.02	36.66	30.68	10.62	34.18	28.93	11.51	32.02	27.53	12.71
		30°C	42.01	36.43	8.88	40.57	35.51	9.40	39.89	35.08	10.12	38.30	33.85	10.73	35.89	31.89	11.64	33.85	30.22	12.86
		33°C	42.99	42.99	9.02	41.59	41.59	9.55	40.50	40.50	10.28	38.94	38.94	10.90	36.52	36.52	11.82	34.14	34.14	13.04
	22°C	27°C	44.00	26.10	9.01	42.25	25.45	9.52	41.23	25.28	10.23	39.27	24.55	10.82	36.55	23.36	11.70	34.12	22.49	12.89
		30°C	44.25	32.84	9.03	42.49	32.17	9.54	41.47	32.11	10.24	39.52	31.38	10.84	36.83	29.94	11.72	34.56	28.51	12.92
		33°C	45.08	38.04	9.07	43.41	37.00	9.60	42.53	36.65	10.31	40.73	35.53	10.92	38.05	33.64	11.82	35.98	31.96	13.04
		36°C	45.82	39.90	9.17	43.87	38.39	9.72	43.23	38.03	10.46	41.59	36.77	11.08	38.65	34.34	12.00	36.60	32.68	13.24

NOTES - ANMERKUNGEN - ΣΗΜΕΙΩΣΕΙΣ - NOTAS - REMARQUES - NOTE - OPMERKINGEN - ПРИМЕЧАНИЯ - NOTLAR

1. Ratings shown are gross capacities which do not include a deduction for indoor fan motor heat. - *Die Nennwerte sind Bruttoleistungen, die keine Abzüge für die Motorwärme der Innenventilatoren enthalten.* - Οι τιμές που αναφέρονται αντιπροσωπεύουν μικτή απόδοση, χωρίς κάποια μικρή απόκλιση που αντιστοιχεί στη θέρμανση του κινητήρα του ανεμιστήρα της εσωτερικής μονάδας. - *Los valores indicados son capacidades brutas a las que no se ha restado el valor correspondiente al calor del motor del ventilador interior.* - Les valeurs nominales indiquées correspondent à des puissances brutes qui n'incluent aucune déduction pour la chaleur du moteur de ventilateur de l'unité intérieure. - *I valori indicati si riferiscono alle capacità lorde e non comprendono la riduzione per l'apporto di calore generato dal motore del ventilatore dell'unità interna.* - De weergegeven cijfers zijn brutocapaciteiten excl. reductiefactor voor warmte afgegeven door de binnenventilatormotor. - *Указанные номинальные значения являются общими, т.е. не учитывают нагревание от двигателя внутреннего вентилятора.* - Gösterilen değerler, iç ünite fan motoru sıcaklığının dikkate alınmadığı brüt kapasite değerleridir.
2. [redacted] shows nominal capacities. - [redacted] *stellt Nennleistungen dar.* - [redacted] υποδεικνύει ονομαστικές τιμές απόδοσης.- [redacted] *indica capacidades nominales.*- [redacted] indique les puissances nominales.- [redacted] *mostra le capacità nominali.*- [redacted] geeft nominale capaciteiten weer.- [redacted] *показывает номинальные значения мощности.*- [redacted] nominal kapasite değerlerini gösterir.
3. Direct interpolation is permissible. Do not extrapolate. - *Direkte Interpolation ist zulässig. Extrapolieren ist nicht zulässig.* - Επιτρέπεται η απευθείας παρεμβολή. Όχι όμως η παρεκβολή. - *Se permite la interpolación directa. Sin embargo, no extrapole.* - Interpolation directe autorisée. Ne pas extrapoler. - *È consentita l'interpolazione diretta. Non è tuttavia permessa l'estrapolazione.* - Directe interpolatie is toegestaan. Extrapoleer niet. - *Допускается прямая интерполяция. Экстраполяция не допускается.* - Doğrudan interpolasyon yapılmasına izin verilir. Ekstrapolasyon yapmayın.
4. Unit is able to operate at ambient from 0°C to 46°C without pressure trip. - *Gerät kann bei Umgebungstemperaturen von 0°C bis 46°C ohne Druckabfall betrieben werden.* - Η μονάδα έχει τη δυνατότητα να λειτουργεί σε θερμοκρασία περιβάλλοντος από 0°C έως 46°C χωρίς πτώση πίεσης. - *La unidad puede funcionar con temperaturas ambiente de entre 0 y 46°C sin cortes por presión.* - L'unité est en mesure de fonctionner par température extérieure comprise entre 0 °C et 46 °C sans déclenchement pression. - *L'unità è in grado di funzionare con temperature esterne comprese tra 0° e 46° senza cali di pressione.* - De unit kan werken bij omgevingstemperaturen van 0°C tot 46°C zonder drukuitschakeling. - *Блок может работать при температуре окружающей среды от 0 до 46°C без отключения, вызываемого давлением.* - Ünite, 0°C ila 46°C ortam sıcaklığında basınç problemi olmadan çalışabilir.

REMARK - BEMERKUNGEN - ΠΑΡΑΤΗΡΉΣΕΙΣ - OBSERVACIONES - REMARQUES - NOTE - OPMERKINGEN - ЗАМЕЧАНИЯ - DÜŞÜNCELER

AFR: Air flow rate - *Luftdurchsatz* - Ταχύτητα ροής αέρα - *Caudal de aire* - Débit d'air - *Portata d'aria* - Luchtdebiet - *Скорость воздушного потока* - Hava akış hızı (CFM)

EWB: Entering Wet Bulb Temp. - *Eingangs-Feuchttemp.* - Είσοδος σε θερμ. υγρού βολβού - *Temperatura de bulbo húmedo de entrada* - Température d'entrée du réservoir humide - *Temp. bulbo umido in entrata* - Temperatuur ingaand natte bol - *Температура на входе влажного термометра.* - Giriş ıslak hazne sıcaklığı (°C)

EDB: Entering Dry Bulb Temp. - *Eingangs-Trockentemp.* - Είσοδος σε θερμ. λυχνίας αφύγρανσης - *Temperatura de bulbo seco de entrada* - Température d'entrée du réservoir sec - *Temp. bulbo secco in entrata* - Temperatuur ingaand droge bol - *Температуре на входе сухого термометра.* - Giriş kuru hazne sıcaklığı (°C)

TC: Total Cooling Capacity - *Gesamte Kühlleistung* - Συνολική απόδοση ψύξης - *Capacidad de refrigeración total* - Puissance totale de refroidissement - *Capacità di raffreddamento totale* - Totaal koelvermogen - *Общая охлаждающая способность* - Toplam soğutma kapasitesi (kW)

SHC: Sensible Heat Capacity - *Sensible Wärmekapazität* - Απόδοση αισθητής θέρμανσης - *Capacidad de calor sensible* - Puissance calorifique sensible - *Capacità termica sensibile* - Voelbaar verwarmingsvermogen - *Производительность по сухому теплу* - Hissedilebilir ısı kapasitesi (kW)

PI: Power Input - *Leistungsaufnahme* - Είσοδος ισχύος - *Consumo* - Puissance absorbée - *Potenza assorbita* - Vermogeninput - *Потребляемая мощность* - Güç girişi

7 Capacity tables

7 - 1 Capacity tables cooling

UATYQ450BY1

AFR (CFM)	EWB	EDB	Outdoor temperature																	
			19°C			25°C			30°C			35°C			40°C			46°C		
			TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
4520	16°C	21°C	44.03	29.82	10.49	42.37	29.06	11.10	41.41	28.82	11.95	39.46	27.89	12.68	36.67	26.40	13.77	34.12	25.22	15.25
		24°C	44.20	34.76	10.50	42.53	33.98	11.11	41.57	33.82	11.96	39.64	32.93	12.69	36.97	31.10	13.79	34.60	29.48	15.28
		28°C	45.14	42.60	10.55	43.59	41.45	11.17	42.78	41.04	12.03	41.00	39.63	12.77	38.48	37.56	13.89	36.28	35.59	15.40
		30°C	46.31	46.31	10.66	44.87	44.87	11.30	43.33	43.33	12.18	41.69	41.69	12.94	39.13	39.13	14.06	36.98	36.98	15.58
	19°C	24°C	48.15	28.14	10.72	46.29	27.41	11.34	45.27	27.20	12.20	43.16	26.39	12.93	40.18	25.04	14.03	37.46	23.96	15.50
		27°C	48.28	34.64	10.73	46.44	33.87	11.35	45.40	33.74	12.21	43.31	32.87	12.94	40.32	31.33	14.04	37.62	30.22	15.52
		30°C	48.53	40.62	10.74	46.88	39.53	11.37	46.01	39.13	12.24	44.06	37.85	12.99	41.23	35.81	14.10	38.76	34.19	15.60
		33°C	49.45	49.45	10.81	47.32	47.32	11.45	47.63	47.63	12.35	45.88	45.88	13.11	41.83	41.83	14.24	40.04	40.04	15.76
	22°C	27°C	52.24	27.61	10.98	50.49	27.04	11.61	49.38	26.84	12.48	47.12	26.05	13.21	43.90	24.75	14.31	41.05	23.79	15.79
		30°C	52.63	34.34	10.98	50.61	33.58	11.61	49.48	33.46	12.49	47.25	32.63	13.22	44.01	31.13	14.32	41.16	30.10	15.80
		33°C	52.76	40.56	10.99	50.74	39.79	11.62	49.60	39.76	12.49	47.39	38.93	13.23	44.33	36.87	14.35	41.76	35.24	15.84
		36°C	52.99	45.05	11.03	51.17	43.88	11.68	50.55	43.79	12.57	48.52	42.50	13.32	45.70	40.55	14.44	43.22	38.87	15.96
5650	16°C	21°C	45.61	31.21	10.58	43.80	30.39	11.19	42.77	30.13	12.04	40.72	29.21	12.76	37.80	27.69	13.86	35.12	26.50	15.33
		24°C	45.90	38.49	10.60	44.24	37.37	11.21	43.33	36.89	12.07	41.41	35.59	12.81	38.59	33.52	13.91	36.09	31.82	15.39
		28°C	47.64	44.93	10.68	46.08	43.68	11.32	45.29	43.15	12.19	43.48	41.63	12.94	40.74	39.20	14.06	38.36	37.10	15.57
		30°C	49.38	49.38	10.84	47.75	47.75	11.48	46.05	46.05	12.37	44.27	44.27	13.13	41.05	41.05	14.26	38.76	38.76	15.76
	19°C	24°C	49.76	31.07	10.82	47.79	30.25	11.44	46.67	30.00	12.29	44.47	29.11	13.02	41.33	27.61	14.12	38.49	26.47	15.59
		27°C	50.00	38.53	10.83	48.04	37.70	11.45	46.92	37.59	12.31	44.72	36.67	13.04	41.71	34.75	14.14	39.07	33.00	15.63
		30°C	51.03	44.13	10.88	49.19	42.92	11.52	48.22	42.50	12.39	46.18	41.17	13.13	43.26	38.90	14.26	40.85	36.92	15.76
		33°C	52.12	52.12	11.00	50.46	50.46	11.66	48.70	48.70	12.56	46.82	46.82	13.32	43.95	43.95	14.46	41.59	41.59	15.97
	22°C	27°C	54.15	30.65	11.08	52.02	29.91	11.71	50.82	29.74	12.58	48.46	28.87	13.31	45.08	27.41	14.41	42.08	26.32	15.88
		30°C	54.34	38.29	11.09	52.22	37.49	11.72	51.02	37.40	12.59	48.67	36.51	13.33	45.29	34.88	14.43	42.33	33.78	15.90
		33°C	54.72	45.39	11.11	52.77	44.15	11.75	51.75	43.71	12.64	49.56	42.32	13.39	46.32	40.07	14.51	43.60	38.35	16.00
		36°C	55.74	48.99	11.19	53.78	48.01	11.84	52.42	47.14	12.75	50.49	45.64	13.52	46.96	42.65	14.67	44.05	40.21	16.20
6780	16°C	21°C	46.70	33.59	10.64	44.83	32.74	11.25	43.73	32.48	12.10	41.63	31.51	12.82	38.61	29.89	13.91	35.86	28.64	15.39
		24°C	47.52	40.82	10.69	45.72	39.59	11.30	44.74	39.10	12.16	42.73	37.73	12.90	39.81	35.57	13.99	37.35	33.59	15.49
		28°C	49.82	46.99	10.81	48.08	45.57	11.44	47.27	45.04	12.33	45.32	43.40	13.07	42.42	40.82	14.19	39.90	38.59	15.70
		30°C	51.16	51.16	10.98	49.43	49.43	11.63	47.62	47.62	12.52	45.72	45.72	13.28	43.03	43.03	14.40	40.15	40.15	15.91
	19°C	24°C	50.91	33.49	10.88	48.86	32.64	11.50	47.65	32.40	12.36	45.35	31.45	13.09	42.15	29.89	14.18	39.25	28.72	15.65
		27°C	51.25	41.96	10.90	49.26	40.97	11.53	48.24	40.47	12.40	46.07	39.04	13.14	42.96	36.82	14.24	40.24	35.02	15.72
		30°C	52.80	46.35	10.99	51.00	45.18	11.63	50.14	44.64	12.52	48.13	43.07	13.28	45.11	40.57	14.40	42.55	38.45	15.91
		33°C	54.03	54.03	11.16	52.27	52.27	11.82	50.90	50.90	12.72	48.94	48.94	13.49	45.90	45.90	14.62	42.91	42.91	16.14
	22°C	27°C	55.30	33.21	11.15	53.11	32.38	11.78	51.83	32.16	12.65	49.35	31.24	13.38	45.93	29.72	14.48	42.88	28.61	15.95
		30°C	55.62	41.78	11.17	53.40	40.93	11.80	52.12	40.86	12.67	49.67	39.93	13.41	46.29	38.09	14.51	43.44	36.28	15.99
		33°C	56.66	48.41	11.22	54.57	47.07	11.87	53.46	46.64	12.76	51.20	45.21	13.51	47.83	42.80	14.63	45.22	40.67	16.14
		36°C	57.59	50.76	11.35	55.14	48.85	12.02	54.34	48.38	12.94	52.28	46.78	13.71	48.58	43.69	14.85	46.00	41.58	16.38

NOTES - ANMERKUNGEN - ΣΗΜΕΙΩΣΕΙΣ - NOTAS - REMARQUES - NOTE - OPMERKINGEN - ПРИМЕЧАНИЯ - NOTLAR

1. Ratings shown are gross capacities which do not include a deduction for indoor fan motor heat. - *Die Nennwerte sind Bruttoleistungen, die keine Abzüge für die Motorwärme der Innenventilatoren enthalten.* - Οι τιμές που αναφέρονται αντιπροσωπεύουν μικτή απόδοση, χωρίς κάποια μικρή απόκλιση που αντιστοιχεί στη θέρμανση του κινητήρα του ανεμιστήρα της εσωτερικής μονάδας. - *Los valores indicados son capacidades brutas a las que no se ha restado el valor correspondiente al calor del motor del ventilador interior.* - Les valeurs nominales indiquées correspondent à des puissances brutes qui n'incluent aucune déduction pour la chaleur du moteur de ventilateur de l'unité intérieure. - *I valori indicati si riferiscono alle capacità lorde e non comprendono la riduzione per l'apporto di calore generato dal motore del ventilatore dell'unità interna.* - De weergegeven cijfers zijn brutocapaciteiten excl. reductiefactor voor warmte afgegeven door de binnenventilatormotor. - *Указанные номинальные значения являются общими, т.е. не учитывают нагревание от двигателя внутреннего вентилятора.* - Gösterilen değerler, iç ünite fan motoru sıcaklığının dikkate alınmadığı brüt kapasite değerleridir.
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REMARK - BEMERKUNGEN - ΠΑΡΑΤΗΡΉΣΕΙΣ - OBSERVACIONES - REMARQUES - NOTE - OPMERKINGEN - ЗАМЕЧАНИЯ - DÜŞÜNCELER

AFR: Air flow rate - *Luftdurchsatz* - Ταχύτητα ροής αέρα - *Caudal de aire* - Débit d'air - *Portata d'aria* - Luchtdebiet - *Скорость воздушного потока* - Hava akış hızı (CFM)

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TC: Total Cooling Capacity - *Gesamte Kühlleistung* - Συνολική απόδοση ψύξης - *Capacidad de refrigeración total* - Puissance totale de refroidissement - *Capacità di raffreddamento totale* - Totaal koelvermogen - *Общая охлаждающая способность* - Toplam soğutma kapasitesi (kW)

SHC: Sensible Heat Capacity - *Sensible Wärmekapazität* - Απόδοση αισθητής θέρμανσης - *Capacidad de calor sensible* - Puissance calorifique sensible - *Capacità termica sensibile* - Voelbaar verwarmingsvermogen - *Производительность по сухому теплу* - Hissedilebilir ısı kapasitesi (kW)

PI: Power Input - *Leistungsaufnahme* - Είσοδος ισχύος - *Consumo* - Puissance absorbée - *Potenza assorbita* - Vermogeninput - *Потребляемая мощность* - Güç girişi

7 Capacity tables

7 - 1 Capacity tables cooling

UATYQ550BY1

AFR (CFM)	EWB	EDB	Outdoor temperature																	
			19°C			25°C			30°C			35°C			40°C			46°C		
			TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
5360	16°C	21°C	54.83	38.04	13.47	52.77	37.07	14.25	51.56	36.77	15.34	49.14	35.58	16.28	45.67	33.68	17.68	42.49	32.17	19.58
		24°C	55.05	44.34	13.48	52.96	43.34	14.26	51.76	43.15	15.35	49.36	42.01	16.29	46.04	39.67	17.71	43.09	37.61	19.62
		28°C	56.21	54.34	13.54	54.29	52.88	14.34	53.27	52.35	15.44	51.06	50.55	16.40	47.92	47.91	17.83	45.18	45.18	19.78
		30°C	57.67	57.67	13.68	55.88	55.88	14.50	53.95	53.95	15.63	51.92	51.92	16.61	48.73	48.73	18.05	46.05	46.05	20.00
	19°C	24°C	59.96	35.90	13.76	57.64	34.96	14.56	56.37	34.70	15.66	53.75	33.66	16.60	50.04	31.95	18.01	46.65	30.56	19.90
		27°C	60.12	44.19	13.77	57.83	43.21	14.57	56.53	43.04	15.67	53.94	41.93	16.61	50.21	39.96	18.02	46.85	38.55	19.92
		30°C	60.43	51.81	13.79	58.38	50.42	14.60	57.29	49.91	15.72	54.87	48.29	16.68	51.34	45.68	18.10	48.26	43.62	20.02
		33°C	61.57	61.57	13.88	58.92	58.92	14.70	59.31	59.31	15.85	57.14	57.14	16.83	52.10	52.10	18.29	49.86	49.86	20.24
	22°C	27°C	65.06	35.23	14.09	62.88	34.50	14.90	61.49	34.24	16.02	58.67	33.24	16.96	54.67	31.57	18.37	51.12	30.35	20.27
		30°C	65.54	43.81	14.10	63.03	42.84	14.91	61.61	42.68	16.03	58.84	41.62	16.97	54.81	39.72	18.39	51.25	38.39	20.28
		33°C	65.70	51.74	14.11	63.19	50.75	14.92	61.77	50.72	16.04	59.02	49.66	16.98	55.21	47.03	18.42	52.00	44.95	20.34
		36°C	65.99	57.46	14.16	63.72	55.98	14.99	62.96	55.86	16.13	60.42	54.22	17.10	56.91	51.73	18.54	53.83	49.59	20.49
6700	16°C	21°C	56.80	39.81	13.58	54.55	38.76	14.36	53.26	38.44	15.45	50.71	37.27	16.38	47.07	35.32	17.79	43.74	33.80	19.67
		24°C	57.15	49.10	13.60	55.10	47.67	14.40	53.96	47.06	15.50	51.57	45.40	16.44	48.05	42.76	17.85	44.95	40.60	19.76
		28°C	59.32	57.31	13.71	57.38	55.72	14.53	56.40	55.05	15.65	54.14	53.11	16.62	50.73	50.01	18.05	47.78	47.33	19.98
		30°C	61.50	61.50	13.92	59.47	59.47	14.74	57.35	57.35	15.88	55.13	55.13	16.85	51.13	51.13	18.30	48.26	48.26	20.23
	19°C	24°C	61.97	39.63	13.88	59.52	38.59	14.68	58.12	38.28	15.78	55.38	37.13	16.72	51.47	35.22	18.12	47.93	33.77	20.01
		27°C	62.27	49.15	13.90	59.82	48.09	14.70	58.43	47.95	15.80	55.69	46.78	16.74	51.95	44.33	18.15	48.65	42.10	20.06
		30°C	63.54	56.30	13.97	61.25	54.75	14.78	60.05	54.22	15.91	57.51	52.52	16.86	53.87	49.63	18.30	50.87	47.10	20.24
		33°C	64.91	64.91	14.13	62.83	62.83	14.97	60.64	60.64	16.12	58.31	58.31	17.10	54.73	54.73	18.56	51.79	51.79	20.51
	22°C	27°C	67.44	39.11	14.22	64.78	38.16	15.03	63.29	37.94	16.15	60.35	36.82	17.09	56.14	34.96	18.50	52.40	33.57	20.39
		30°C	67.67	48.84	14.24	65.03	47.82	15.05	63.54	47.70	16.17	60.61	46.57	17.11	56.41	44.49	18.52	52.71	43.09	20.41
		33°C	68.15	57.90	14.26	65.71	56.32	15.09	64.44	55.77	16.23	61.72	53.99	17.19	57.68	51.11	18.63	54.30	48.92	20.54
		36°C	69.42	62.50	14.37	66.98	61.24	15.21	65.28	60.14	16.37	62.88	58.22	17.36	58.48	54.41	18.83	54.86	51.30	20.79
8040	16°C	21°C	58.15	42.85	13.66	55.83	41.76	14.45	54.46	41.43	15.53	51.84	40.20	16.46	48.09	38.13	17.86	44.66	36.54	19.75
		24°C	59.18	52.07	13.72	56.93	50.51	14.51	55.71	49.88	15.61	53.21	48.13	16.56	49.58	45.38	17.96	46.51	42.85	19.89
		28°C	62.04	59.94	13.88	59.87	58.14	14.69	58.87	57.45	15.82	56.44	55.36	16.78	52.83	52.08	18.22	49.69	49.23	20.15
		30°C	63.71	63.71	14.10	61.56	61.56	14.93	59.30	59.30	16.07	56.94	56.94	17.04	53.59	53.59	18.49	50.00	50.00	20.42
	19°C	24°C	63.40	42.73	13.97	60.84	41.64	14.77	59.34	41.33	15.87	56.48	40.13	16.80	52.49	38.13	18.20	48.88	36.63	20.09
		27°C	63.82	53.53	14.00	61.34	52.26	14.80	60.07	51.62	15.91	57.37	49.80	16.86	53.49	46.97	18.28	50.11	44.68	20.18
		30°C	65.76	59.13	14.11	63.51	57.63	14.93	62.43	56.95	16.07	59.94	54.95	17.05	56.18	51.76	18.49	52.98	49.05	20.42
		33°C	67.29	67.29	14.33	65.09	65.09	15.17	63.39	63.39	16.33	60.95	60.95	17.31	57.16	57.16	18.77	53.44	53.44	20.72
	22°C	27°C	68.87	42.37	14.31	66.13	41.31	15.13	64.54	41.03	16.24	61.46	39.85	17.18	57.20	37.92	18.59	53.40	36.50	20.47
		30°C	69.26	53.30	14.34	66.50	52.21	15.15	64.91	52.13	16.27	61.85	50.94	17.21	57.65	48.59	18.62	54.09	46.28	20.53
		33°C	70.56	61.75	14.41	67.95	60.05	15.24	66.57	59.49	16.38	63.75	57.67	17.34	59.56	54.60	18.78	56.32	51.88	20.72
		36°C	71.72	64.76	14.57	68.66	62.31	15.43	67.67	61.72	16.61	65.10	59.68	17.59	60.50	55.73	19.07	57.28	53.04	21.03

NOTES - ANMERKUNGEN - ΣΗΜΕΙΩΣΕΙΣ - NOTAS - REMARQUES - NOTE - OPMERKINGEN - ПРИМЕЧАНИЯ - NOTLAR

1. Ratings shown are gross capacities which do not include a deduction for indoor fan motor heat. - *Die Nennwerte sind Bruttoleistungen, die keine Abzüge für die Motorwärme der Innenventilatoren enthalten.* - Οι τιμές που αναφέρονται αντιπροσωπεύουν μικτή απόδοση, χωρίς κάποια μικρή απόκλιση που αντιστοιχεί στη θέρμανση του κινητήρα του ανεμιστήρα της εσωτερικής μονάδας. - *Los valores indicados son capacidades brutas a las que no se ha restado el valor correspondiente al calor del motor del ventilador interior.* - Les valeurs nominales indiquées correspondent à des puissances brutes qui n'incluent aucune déduction pour la chaleur du moteur de ventilateur de l'unité intérieure. - *I valori indicati si riferiscono alle capacità lorde e non comprendono la riduzione per l'apporto di calore generato dal motore del ventilatore dell'unità interna.* - De weergegeven cijfers zijn brutocapaciteiten excl. reductiefactor voor warmte afgegeven door de binnenventilatormotor. - *Указанные номинальные значения являются общими, т.е. не учитывают нагревание от двигателя внутреннего вентилятора.* - Gösterilen değerler, iç ünite fan motoru sıcaklığının dikkate alınmadığı brüt kapasite değerleridir.
2. [redacted] shows nominal capacities. - [redacted] *stellt Nennleistungen dar.* - [redacted] υποδεικνύει ονομαστικές τιμές απόδοσης.- [redacted] *indica capacidades nominales.*- [redacted] indique les puissances nominales.- [redacted] *mostra le capacità nominali.*- [redacted] geeft nominale capaciteiten weer.- [redacted] *показывает номинальные значения мощности.*- [redacted] nominal kapasite değerlerini gösterir.
3. Direct interpolation is permissible. Do not extrapolate. - *Direkte Interpolation ist zulässig. Extrapolieren ist nicht zulässig.* - Επιτρέπεται η απευθείας παρεμβολή. Όχι όμως η παρεκβολή. - *Se permite la interpolación directa. Sin embargo, no extrapole.* - Interpolation directe autorisée. Ne pas extrapoler. - *È consentita l'interpolazione diretta. Non è tuttavia permessa l'estrapolazione.* - Directe interpolatie is toegestaan. Extrapoleer niet. - *Допускается прямая интерполяция. Экстраполяция не допускается.* - Doğrudan interpolasyon yapılmasına izin verilir. Ekstrapolasyon yapmayın.
4. Unit is able to operate at ambient from 0°C to 46°C without pressure trip. - *Gerät kann bei Umgebungstemperaturen von 0°C bis 46°C ohne Druckabfall betrieben werden.* - Η μονάδα έχει τη δυνατότητα να λειτουργεί σε θερμοκρασία περιβάλλοντος από 0°C έως 46°C χωρίς πτώση πίεσης. - *La unidad puede funcionar con temperaturas ambiente de entre 0 y 46°C sin cortes por presión.* - L'unité est en mesure de fonctionner par température extérieure comprise entre 0 °C et 46 °C sans déclenchement pression. - *L'unità è in grado di funzionare con temperature esterne comprese tra 0° e 46° senza cali di pressione.* - De unit kan werken bij omgevingstemperaturen van 0°C tot 46°C zonder drukuitschakeling. - *Блок может работать при температуре окружающей среды от 0 до 46°C без отключения, вызываемого давлением.* - Ünite, 0°C ila 46°C ortam sıcaklığında basınç problemi olmadan çalışabilir.

REMARK - BEMERKUNGEN - ΠΑΡΑΤΗΡΉΣΕΙΣ - OBSERVACIONES - REMARQUES - NOTE - OPMERKINGEN - ЗАМЕЧАНИЯ - DÜŞÜNCELER

AFR: Air flow rate - *Luftdurchsatz* - Ταχύτητα ροής αέρα - *Caudal de aire* - Débit d'air - *Portata d'aria* - Luchtdebiet - *Скорость воздушного потока* - Hava akış hızı (CFM)

EWB: Entering Wet Bulb Temp. - *Eingangs-Feuchttemp.* - Είσοδος σε θερμ. υγρού βολβού - *Temperatura de bulbo húmedo de entrada* - Température d'entrée du réservoir humide - *Temp. bulbo umido in entrata* - Temperatuur ingaand natte bol - *Температура на входе влажного термометра.* - Giriş ıslak hazne sıcaklığı (°C)

EDB: Entering Dry Bulb Temp. - *Eingangs-Trockentemp.* - Είσοδος σε θερμ. λυχνίας αφύγρανσης - *Temperatura de bulbo seco de entrada* - Température d'entrée du réservoir sec - *Temp. bulbo secco in entrata* - Temperatuur ingaand droge bol - *Температуре на входе сухого термометра.* - Giriş kuru hazne sıcaklığı (°C)

TC: Total Cooling Capacity - *Gesamte Kühlleistung* - Συνολική απόδοση ψύξης - *Capacidad de refrigeración total* - Puissance totale de refroidissement - *Capacità di raffreddamento totale* - Totaal koelvermogen - *Общая охлаждающая способность* - Toplam soğutma kapasitesi (kW)

SHC: Sensible Heat Capacity - *Sensible Wärmekapazität* - Απόδοση αισθητής θέρμανσης - *Capacidad de calor sensible* - Puissance calorifique sensible - *Capacità termica sensibile* - Voelbaar verwarmingsvermogen - *Производительность по сухому теплу* - Hissedilebilir ısı kapasitesi (kW)

PI: Power Input - *Leistungsaufnahme* - Είσοδος ισχύος - *Consumo* - Puissance absorbée - *Potenza assorbita* - Vermogeninput - *Потребляемая мощность* - Güç girişi

7 Capacity tables

7 - 2 Capacity tables heating

UATYQ250BY1

Indoor DB, °C	Outdoor WB, °C									
	-5		6		12		15		18	
	TC (kW)	PI (kW)	TC (kW)	PI (kW)	TC (kW)	PI (kW)	TC (kW)	PI (kW)	TC (kW)	PI (kW)
15	17.71	5.41	24.99	6.49	28.96	7.08	30.95	7.38	32.93	7.67
17	17.23	5.64	24.96	6.77	28.12	7.39	30.04	7.70	31.96	8.01
19	16.75	5.87	24.93	7.05	27.27	7.70	29.12	8.02	30.98	8.34
51	16.27	6.09	24.31	7.33	26.42	8.00	28.21	8.34	30.00	8.68
23	15.79	6.32	23.10	7.61	25.57	8.31	27.30	8.66	29.03	9.01
25	15.31	6.55	21.89	7.89	24.73	68.62	26.39	8.98	28.05	9.35
27	14.83	6.78	20.69	8.17	23.88	8.92	25.48	9.30	27.08	9.68

UATYQ350BY1

Indoor DB, °C	Outdoor WB, °C									
	-5		6		12		15		18	
	TC (kW)	PI (kW)	TC (kW)	PI (kW)	TC (kW)	PI (kW)	TC (kW)	PI (kW)	TC (kW)	PI (kW)
15	24.73	7.83	34.90	9.40	40.44	10.25	43.21	10.68	45.99	11.11
17	24.23	8.18	34.86	9.88	40.18	10.80	42.99	11.27	45.80	11.73
19	23.74	8.53	34.81	10.36	39.91	11.36	42.76	11.86	45.61	12.35
51	23.24	8.88	34.51	10.84	39.64	11.91	42.53	12.44	45.43	12.98
23	22.74	9.23	33.94	11.32	39.37	12.46	42.31	13.03	45.24	13.60
25	22.25	9.58	33.37	11.80	39.11	13.01	42.08	13.62	45.06	41.22
27	21.75	9.93	32.81	12.28	38.84	13.57	41.85	14.21	44.87	14.85

NOTES - Hinweise - Σημειώσεις - Notas - Remarques - Note - Aantekeningen - Примечания - Notlar

TC = Total Cooling Capacity (kW) - *Gesamte Kühlleistung* (kW) - Συνολική απόδοση ψύξης (kW) - *Capacidad de refrigeración total* (kW) - Puissance totale de refroidissement (kW) - *Capacità di raffreddamento totale* (kW) - Totaal koelvermogen (kW) - *Общая охлаждающая способность* (kW) - Toplam soğutma kapasitesi (kW)

PI = Power Input (kW) - *Leistungsaufnahme* (kW) - Είσοδος ισχύος (kW) - *Consumo* (kW) - Puissance absorbée (kW) - *Potenza assorbita* (kW) - Vermogeninput (kW) - *Потребляемая мощность* (kW) - Güç girişi (kW)

UATYQ450BY1

Indoor DB, °C	Outdoor WB, °C									
	-5		6		12		15		18	
	TC (kW)	PI (kW)	TC (kW)	PI (kW)	TC (kW)	PI (kW)	TC (kW)	PI (kW)	TC (kW)	PI (kW)
15	29.71	9.55	41.92	11.46	48.58	12.50	51.92	13.02	55.25	13.54
17	29.15	9.94	41.87	11.92	48.43	13.00	51.83	13.55	55.24	14.09
19	28.58	10.34	41.82	12.39	48.28	13.51	51.75	14.07	55.23	14.63
51	28.01	10.73	41.56	12.86	48.12	14.02	51.67	14.60	55.22	15.18
23	27.45	11.13	41.08	13.33	47.97	14.53	51.59	15.13	55.21	15.73
25	26.88	11.52	40.61	13.80	47.82	15.04	51.51	15.66	55.21	16.28
27	26.32	11.92	40.13	14.26	47.67	15.54	51.43	16.18	55.20	16.82

UATYQ550BY1

Indoor DB, °C	Outdoor WB, °C									
	-5		6		12		15		18	
	TC (kW)	PI (kW)	TC (kW)	PI (kW)	TC (kW)	PI (kW)	TC (kW)	PI (kW)	TC (kW)	PI (kW)
15	38.34	11.76	54.09	14.11	62.69	15.39	66.99	16.03	71.28	16.67
17	37.53	12.22	54.03	14.58	62.09	15.88	66.42	16.52	70.76	17.17
19	36.72	12.68	53.96	15.06	61.49	16.36	65.86	17.01	70.23	17.66
51	35.92	13.14	53.38	15.54	60.89	16.85	65.29	17.51	69.70	18.16
23	35.11	13.60	52.27	16.02	60.29	17.34	64.73	18.00	69.17	18.66
25	34.30	14.06	51.16	16.49	59.69	17.82	64.17	18.49	68.64	19.15
27	33.50	14.52	50.05	16.97	59.09	18.31	63.60	18.98	68.12	19.65

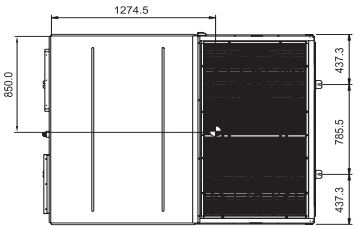
NOTES - Hinweise - Σημειώσεις - Notas - Remarques - Note - Aantekeningen - Примечания - Notlar

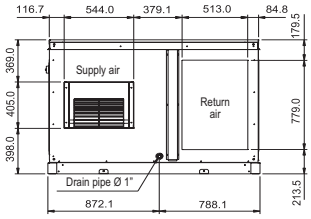
TC = Total Cooling Capacity (kW) - *Gesamte Kühlleistung* (kW) - Συνολική απόδοση ψύξης (kW) - *Capacidad de refrigeración total* (kW) - Puissance totale de refroidissement (kW) - *Capacità di raffreddamento totale* (kW) - Totaal koelvermogen (kW) - *Общая охлаждающая способность* (kW) - Toplam soğutma kapasitesi (kW)

PI = Power Input (kW) - *Leistungsaufnahme* (kW) - Είσοδος ισχύος (kW) - *Consumo* (kW) - Puissance absorbée (kW) - *Potenza assorbita* (kW) - Vermogeninput (kW) - *Потребляемая мощность* (kW) - Güç girişi (kW)

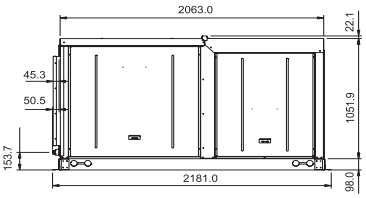
8 Dimensional drawing & centre of gravity

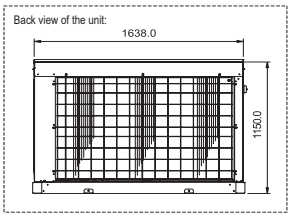
UATYQ250BY1





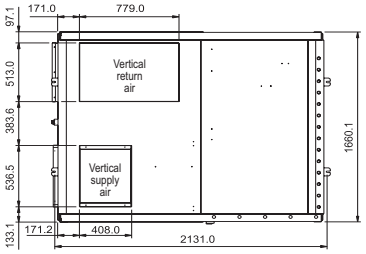
For Horizontal discharge





Back view of the unit

Center of gravity

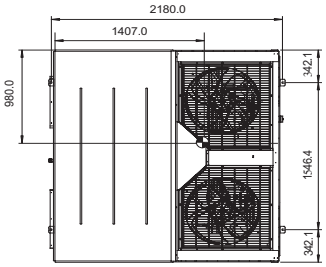


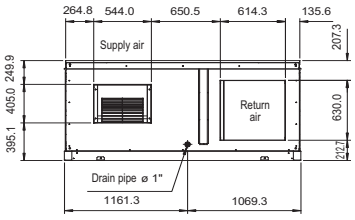
For vertical discharge

NOTES

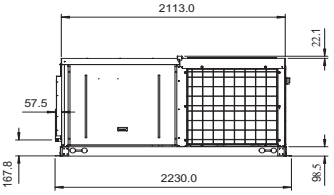
1 All dimensions are in mm

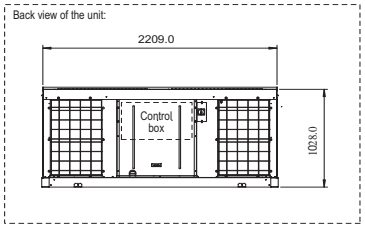
UATYQ350BY1



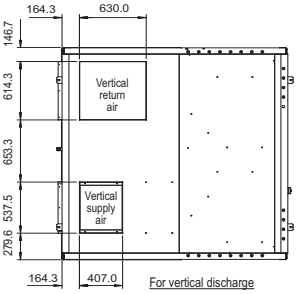


For Horizontal discharge





Center of gravity



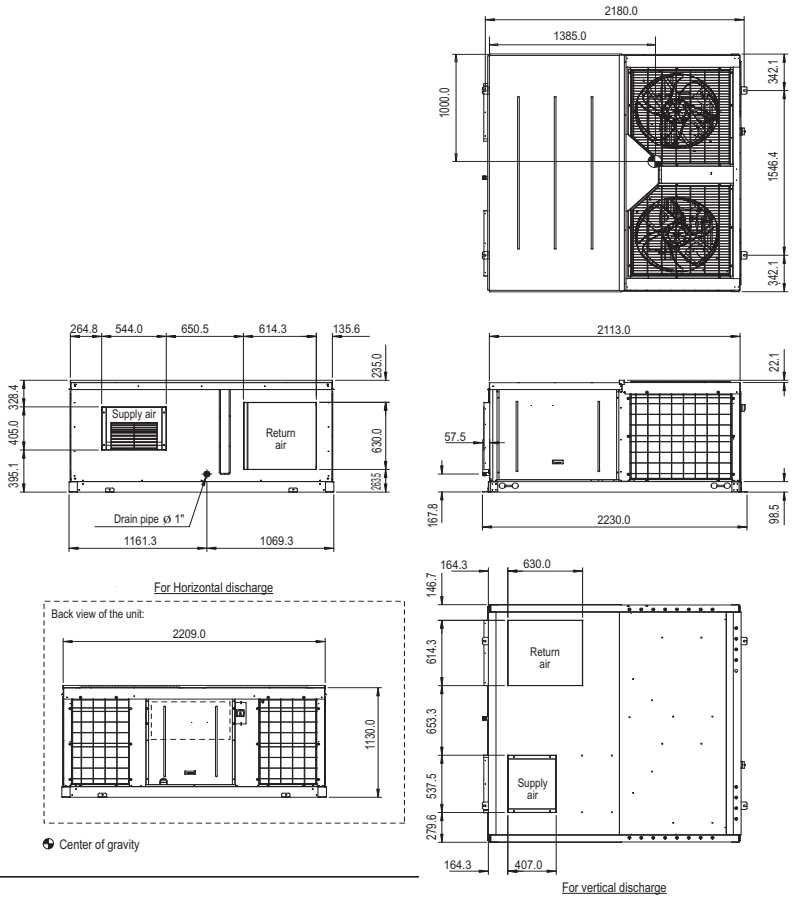
For vertical discharge

NOTES

1 All dimensions are in mm

8 Dimensional drawing & centre of gravity

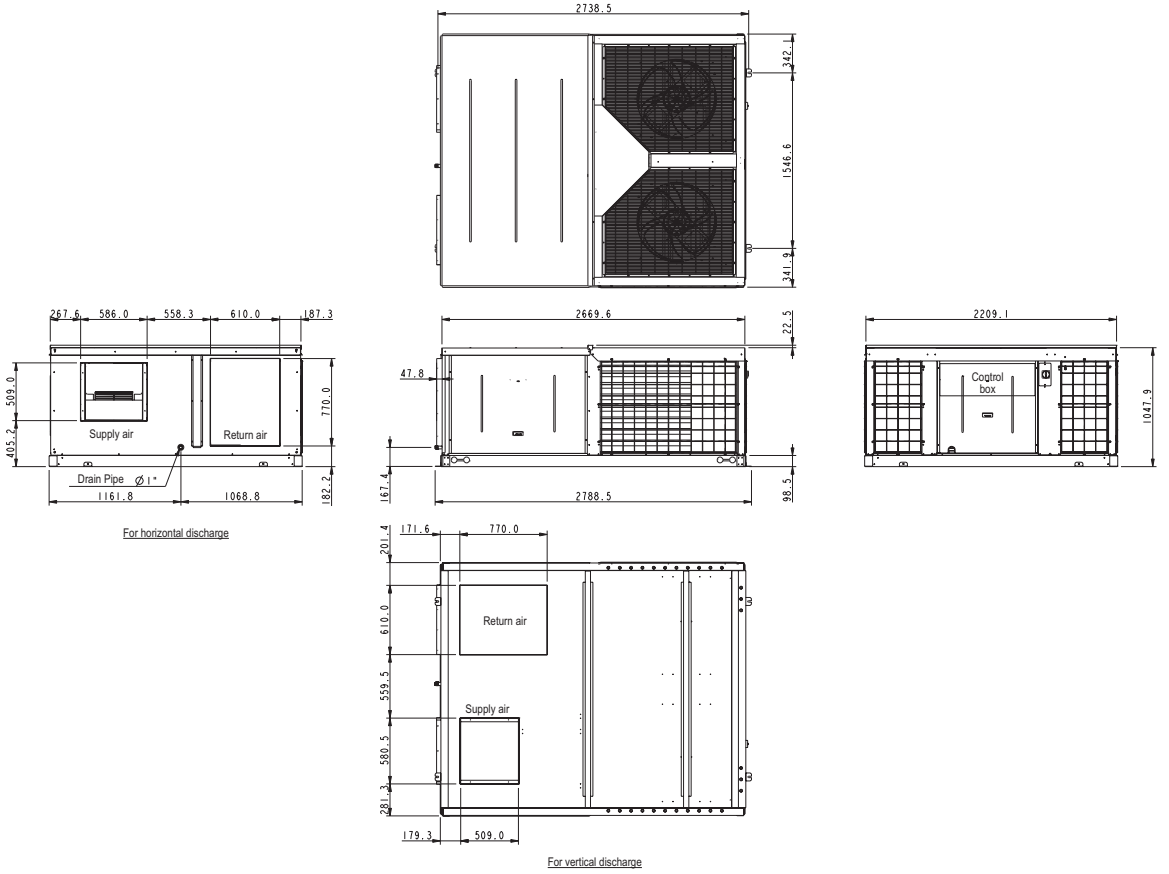
UATYQ450BY1



NOTES

1 All dimensions are in mm

UATYQ550BY1



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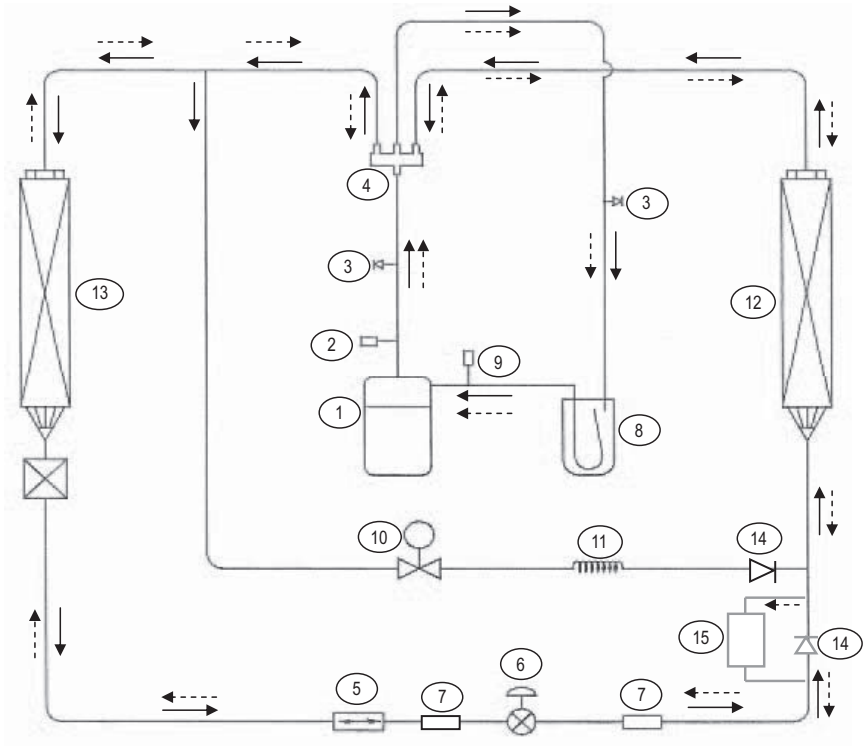
9 Piping diagram

UATYQ-BY1



Item	Part's model / part no / size
1	Compressor
2	Pressure Switch 600PSI N/C
3	Access value
4	4WV
5	Filter Drier
6	EXV
7	Strainer
8	Accumulator
9	Pressure Switch 18PSI N/C
10	Solenoid Valve
11	Bypass Capillary Tube
12	ID Coil
13	OD Coil
14	Check Valve
15	Compensator

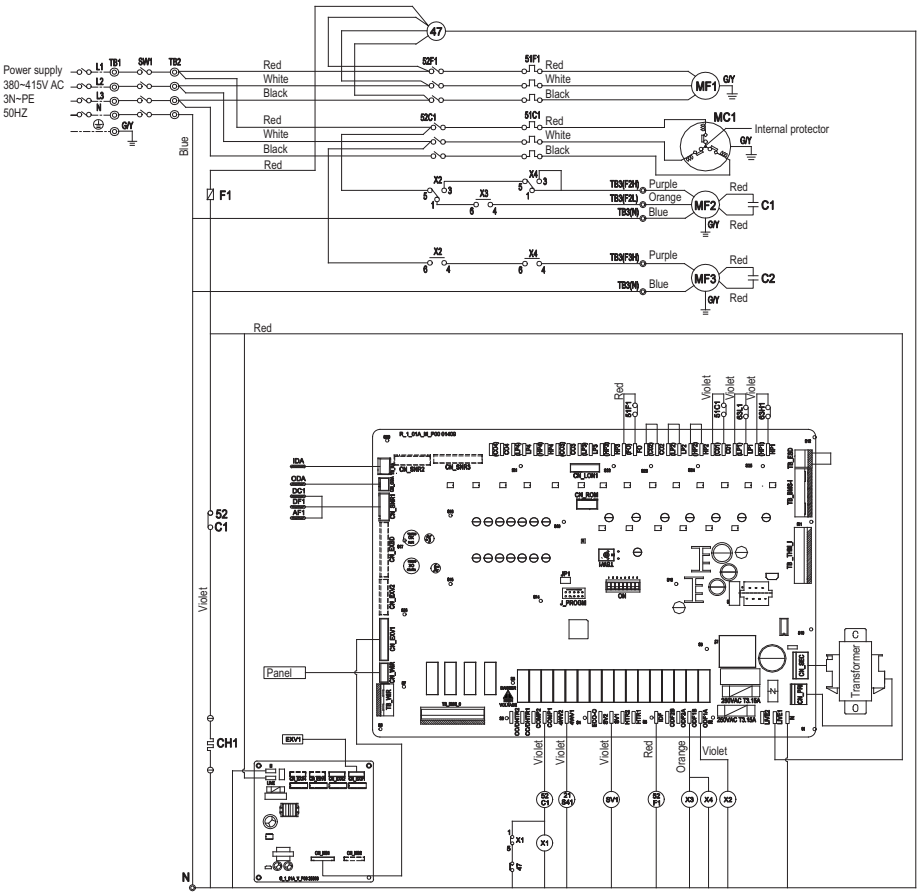
——→	Cooling operation
←- - - -	Heating Operation

NOTES

(a) UATYQ350,450,550BY1 consists of 2 circuits in the systems.
(b) Item 15 is applicable for UATYQ350BY1 only.

10 Wiring diagram

UATYQ250BY1



Symbol	Name
MC1/MC2	Compressor motor
MF1	Fan Motor (Indoor)
MF2,3	Fan Motor (Outdoor)
52C1/51C2	Contactor (Compressor)
TB 1,2,3,4	Terminal Block
F1	Fuse
51F1	Over current Relay (Fan I/D)
CH1/CH2	Crankcase Heater
47	Phase Protector
63H1/63H2	High Pressure Switch
63L1/63L2	Low Pressure Switch
C1, C2	Capacitor (O/D Fan Motor)
SV1/SW2	Solenoid Coil
21S41/21S42	4-Way Valve
X1,X2, X3, X4	Auxilliary Relays
SW1	Selector Switch
TR	Transformer 230V~24V
TB_RA	I/D Return Air Sensor
CN_ODA	O/D Air Sensor
CN_SNR1	Sensor DC1, DF1 & AF1
CN_SNR2	Sensor DC2, DF2 & AF2
CN_EXV1/CN_EXV2	Expansion Valve
CN_WIR	Panel Remote Control

0802 4 106498B

NOTES

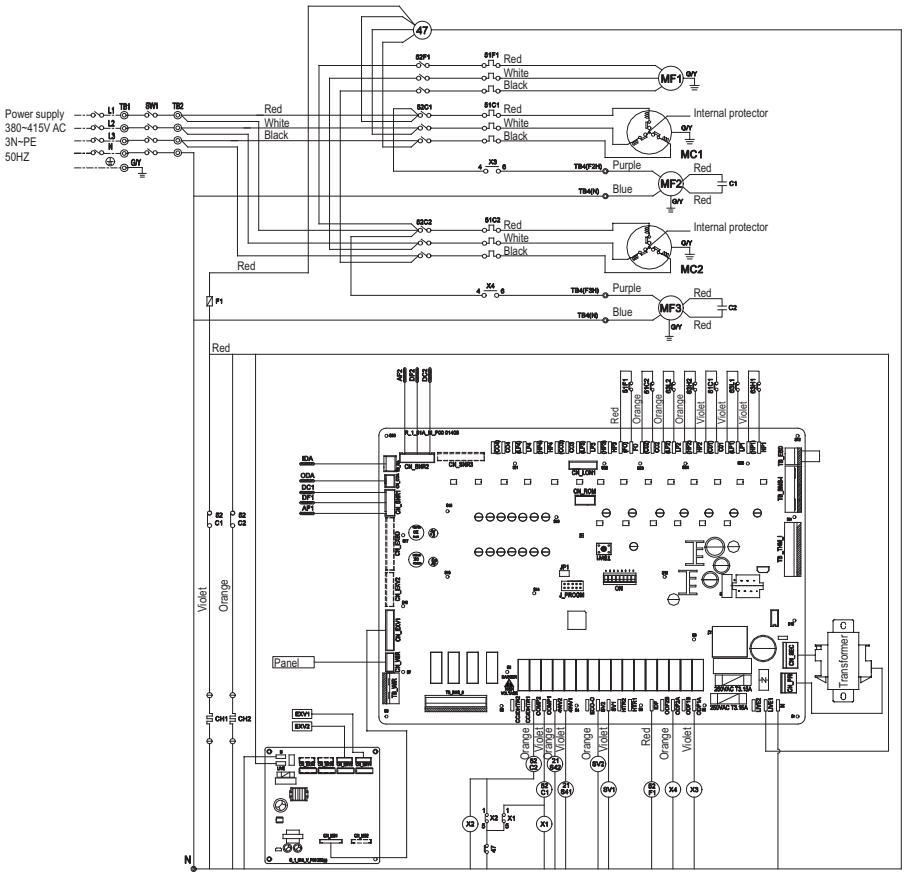
1. The dotted lines show field wiring.
2. The figure in the parenthesis show field supply parts.
3. Color of earth wire is yellow and green twisting.
4. Specification subject to change without notice.

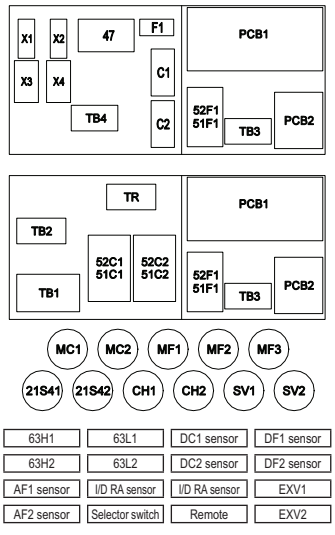
CAUTION

1. To protect Indoor Fan motor from abnormal current, Over Current Relay <51F>, is installed. Therefore, do not change factory set value of the Over Current Relay.

10 Wiring diagram

UATYQ350-550BY1





Symbol	Name
MC1/MC2	Compressor motor
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MF2,3	Fan Motor (Outdoor)
52C1/51C2	Contactor (Compressor)
52F1	Contactor (Fan I/D)
51C1/51C2	Over Current Relay (compressor)
TB 1,2,3,4	Terminal Block
F1	Fuse
51F1	Over current Relay (Fan I/D)
CH1/CH2	Crankcase Heater
47	Phase Protector
63H1/63H2	High Pressure Switch
63L1/63L2	Low Pressure Switch
C1, C2	Capacitor (O/D Fan Motor)
SV1/SW2	Solenoid Coil
21S41/21S42	4-Way Valve
X1,X2, X3, X4	Auxilliary Relays
SW1	Selector Switch
TR	Transformer 230V~24V
TB_RA	I/D Return Air Sensor
CN_ODA	O/D Air Sensor
CN_SNR1	Sensor DC1, DF1 & AF1
CN_SNR2	Sensor DC2, DF2 & AF2
CN_EXV1/CN_EXV2	Expansion Valve
CN_WIR	Panel Remote Control

0802 4 106505B

NOTES

1. The dotted lines show field wiring.
2. The figure in the parenthesis show field supply parts.
3. Color of earth wire is yellow and green twisting.
4. Specification subject to change without notice.

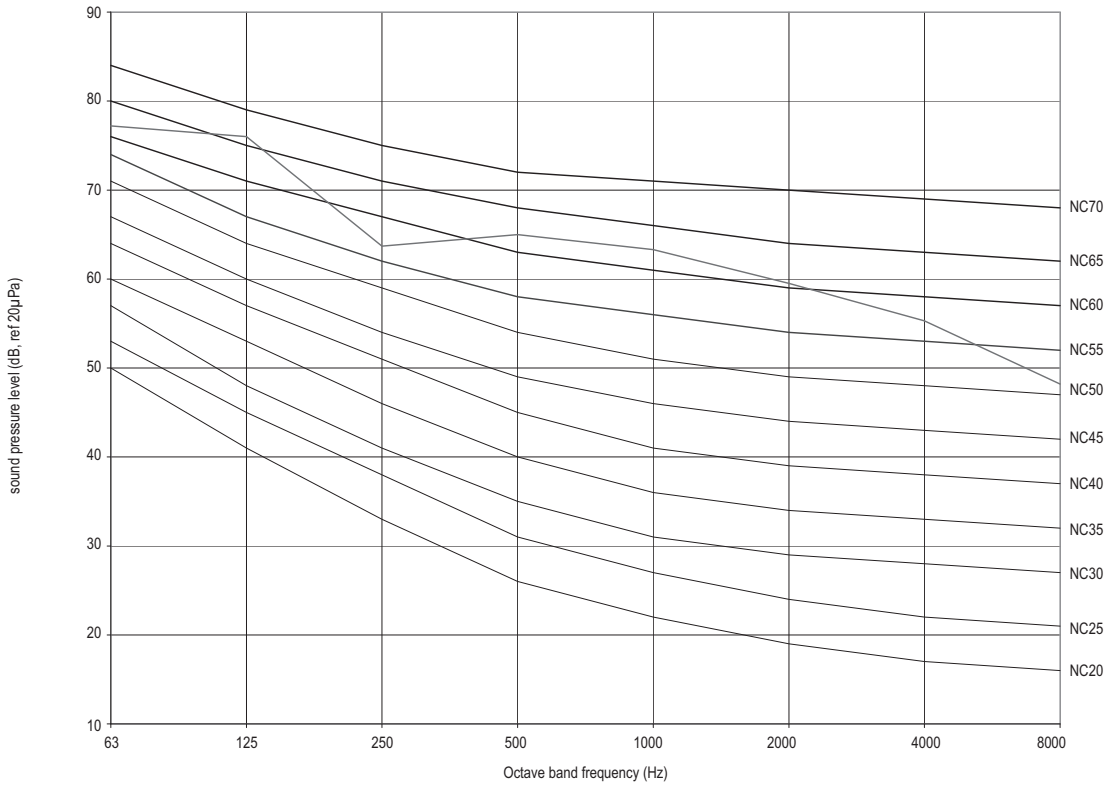
CAUTION

1. To protect Indoor Fan motor from abnormal current, Over Current Relay <51F>, is installed. Therefore, do not change factory set value of the Over Current Relay.

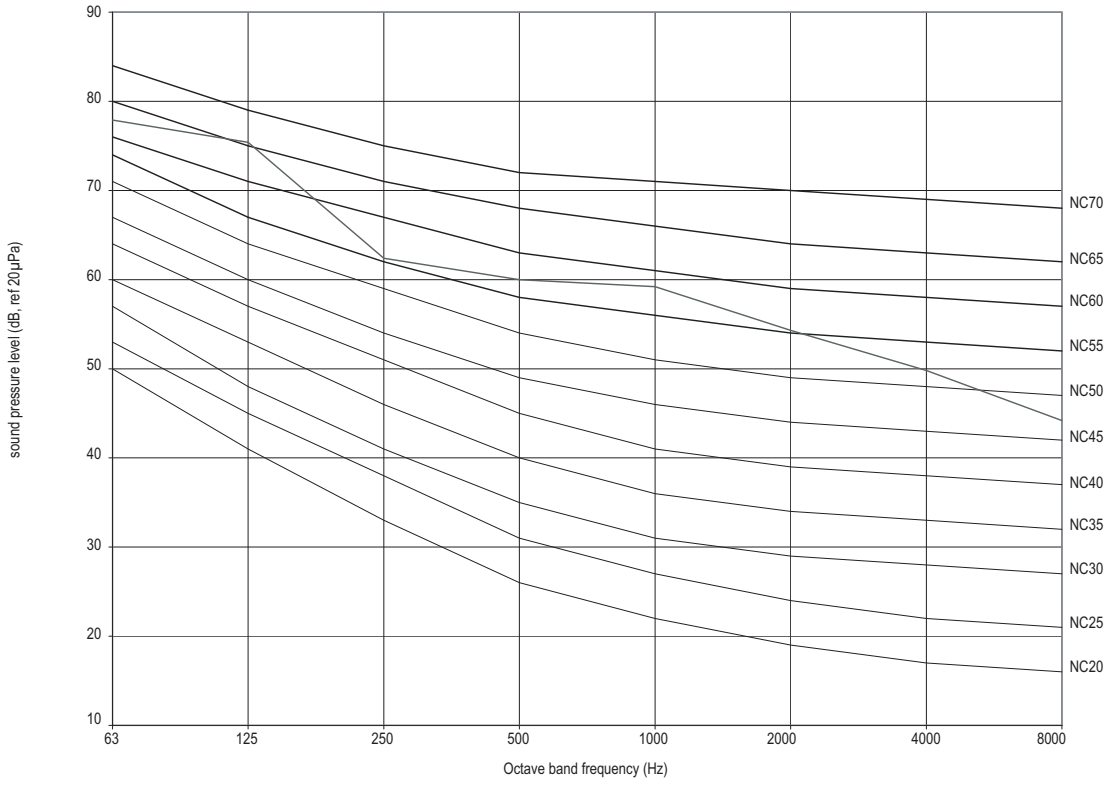
11 Sound data

11 - 1 Sound pressure spectrum

UATYQ250BY1



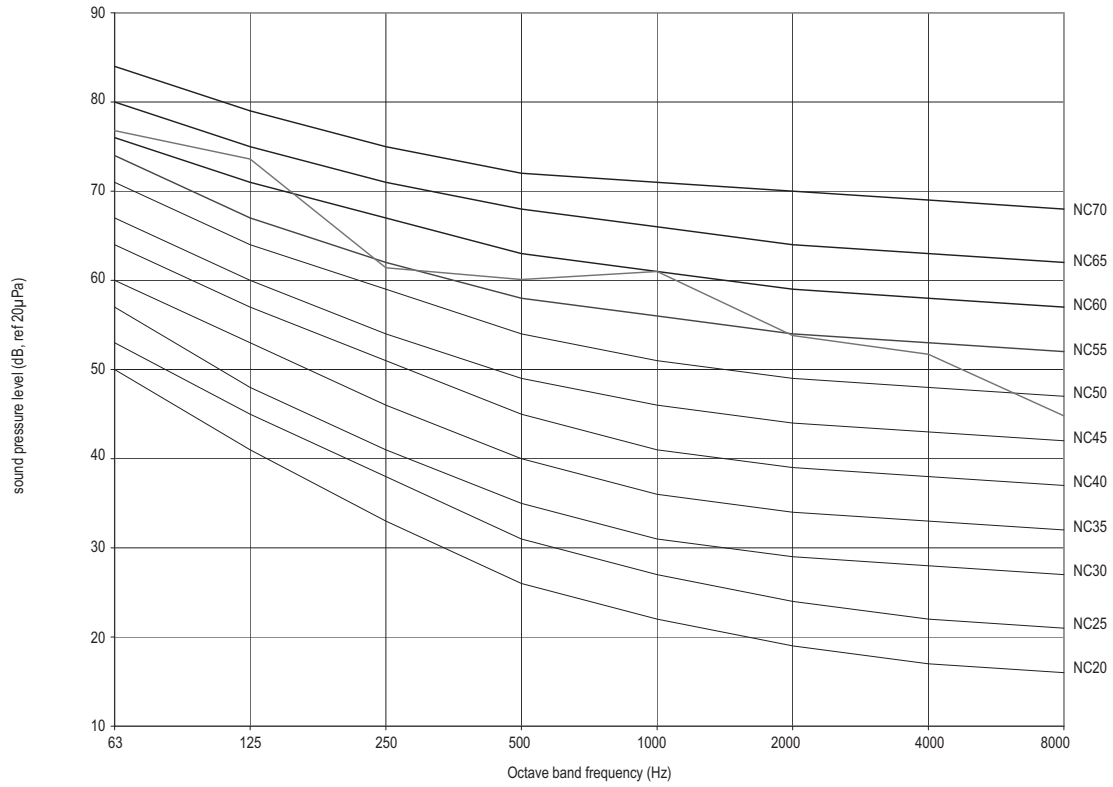
UATYQ350BY1



11 Sound data

11 - 1 Sound pressure spectrum

UATYQ450BY1



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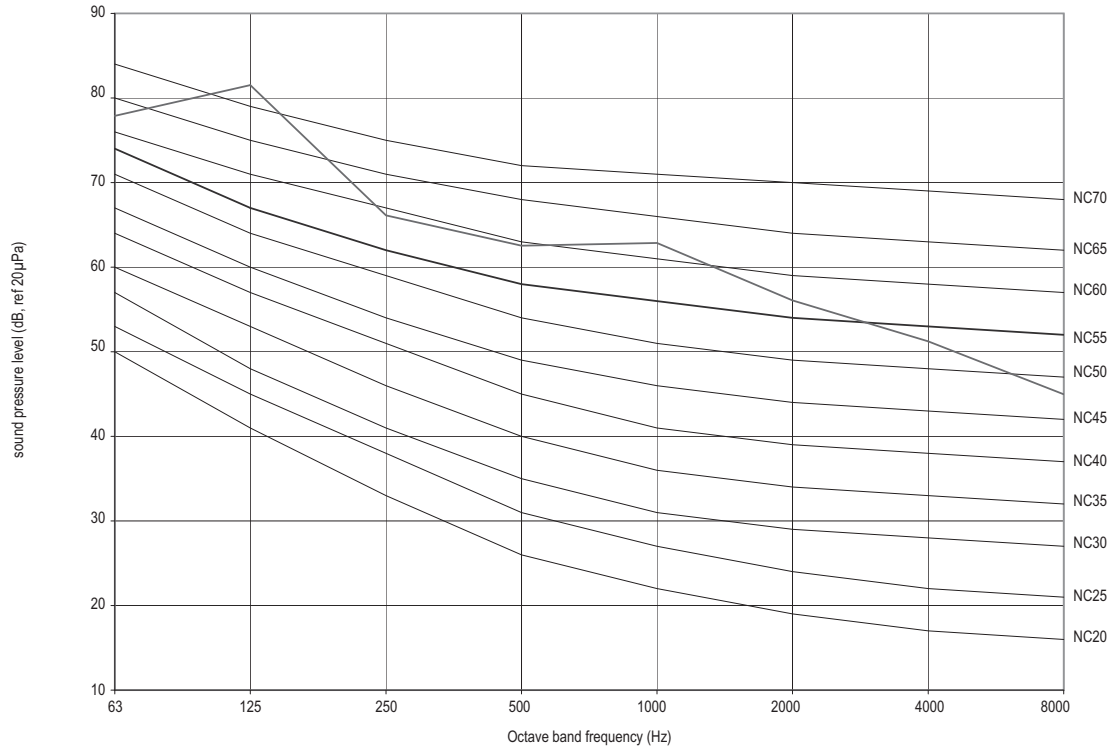


11 Sound data

11 - 2 Sound level data

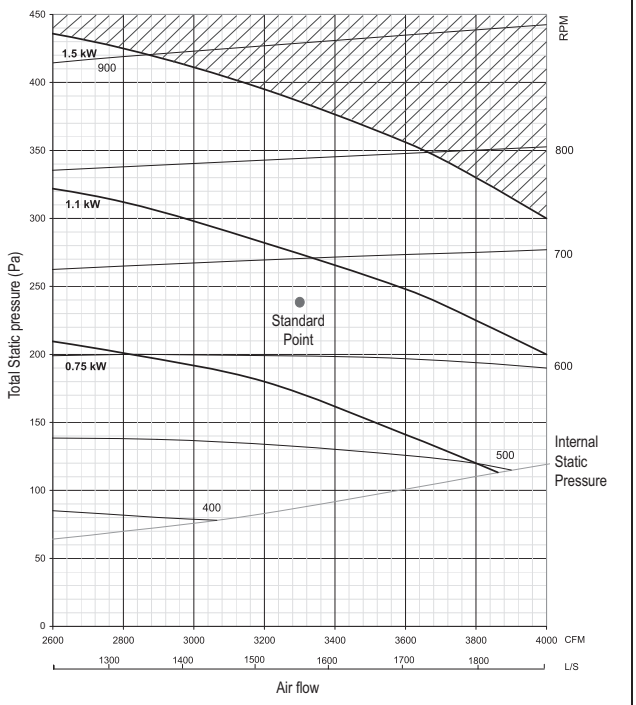
UATYQ250-550BY1

Model	1/1 Octave Sound Pressure Level (dB, ref 20µPa)								Overall dB(A)	Noise Criteria (NC)
	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz		
UATYQ250BY1	77	76	64	65	63	60	55	48	68	66
UATYQ350BY1	78	75	62	60	59	54	50	44	64	65
UATYQ450BY1	77	74	61	60	61	54	52	54	65	63
UATYQ550BY1	78	82	66	63	63	56	51	45	68	73

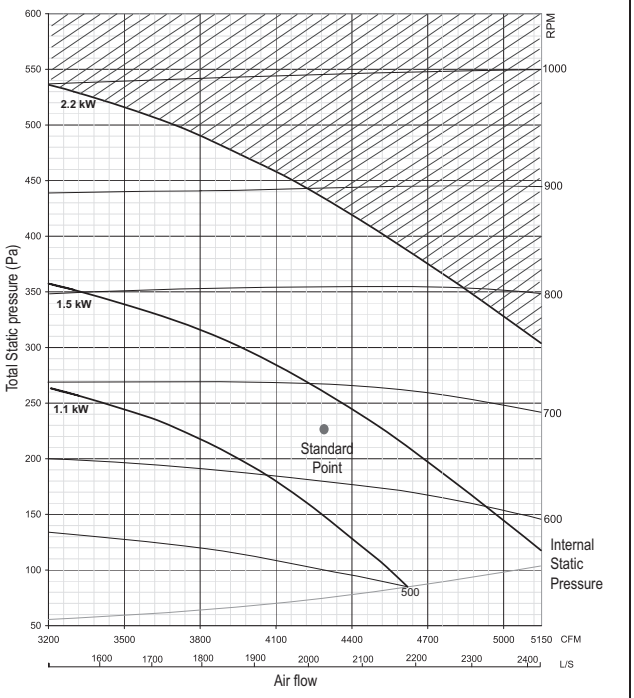
Model	1/1 Octave Sound Power Level (dB, ref 1pW)								Overall dB(A)
	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	
UATYQ250BY1	91	91	79	78	78	72	68	61	82
UATYQ350BY1	96	91	79	78	80	72	70	64	83
UATYQ450BY1	93	90	79	78	80	73	71	64	83
UATYQ550BY1	95	96	83	82	84	78	73	66	87

12 Fan charactristics

UATYQ250BY1



UATYQ350BY1



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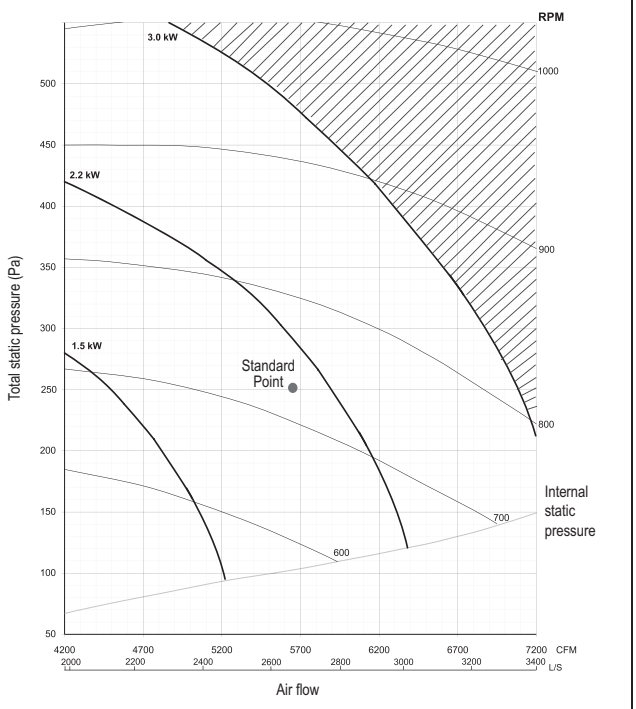

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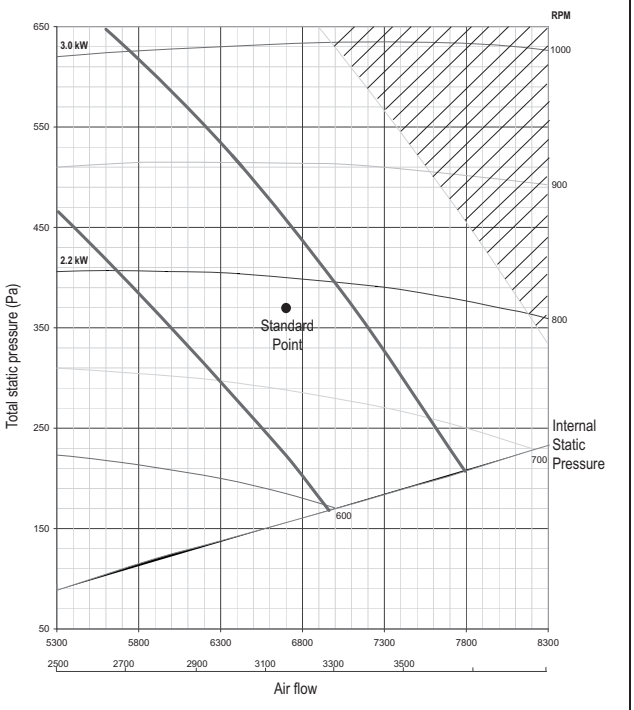


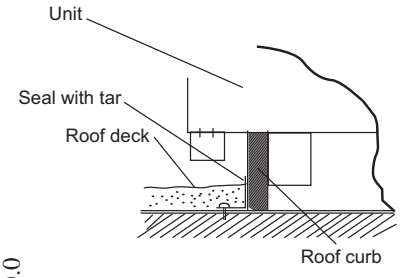
13 Installation

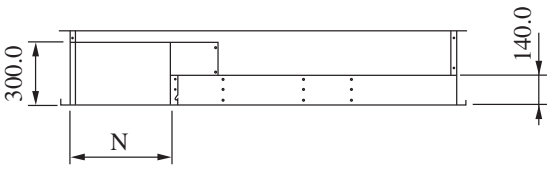
13 - 1 Roofcurb drawings

UATYQ250-550BY1

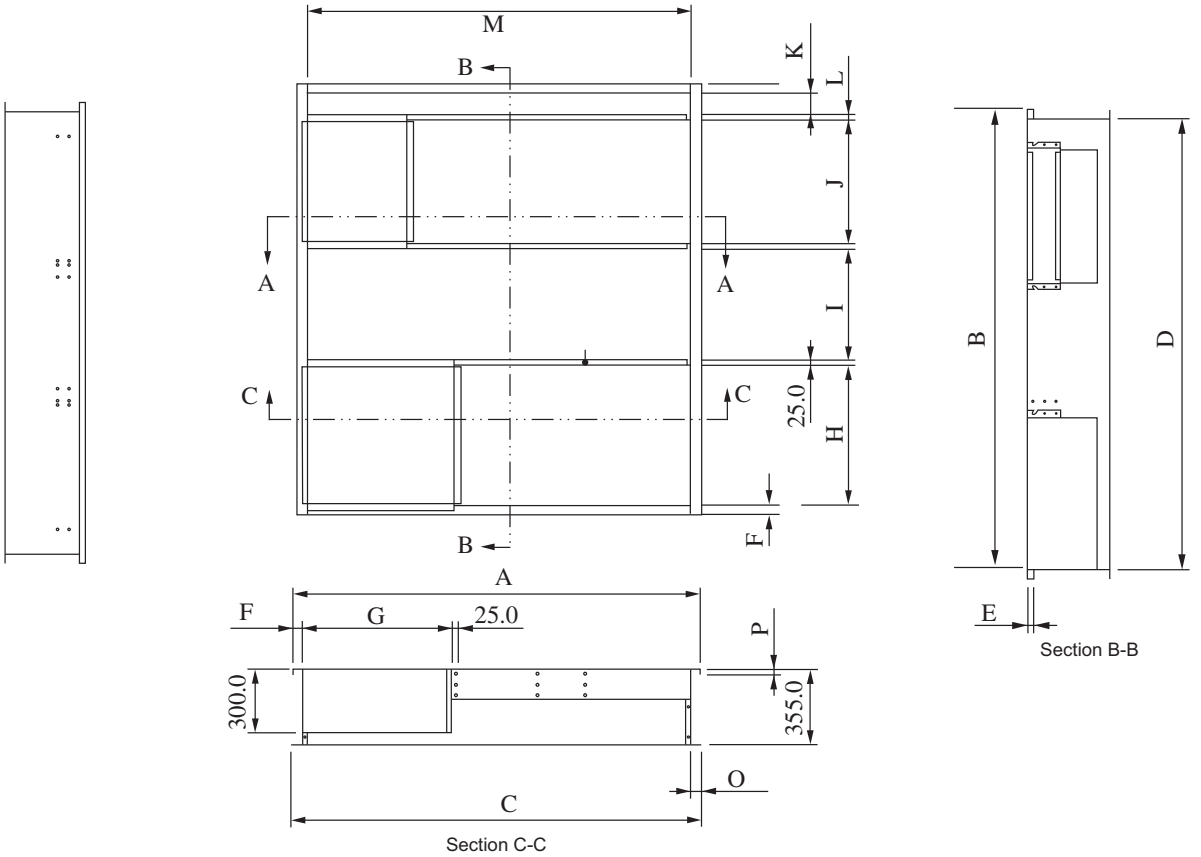
Unit Support (For down throw unit only)

1. The figure shows the use of the roof curb for mounting these units.
2. The curb should be sealed and fixed to the roof by weather stripping. A suggested means of sealing the unit and roof curb as shown in the right.
3. Recommended roof curb dimension is shown below.





Section A-A

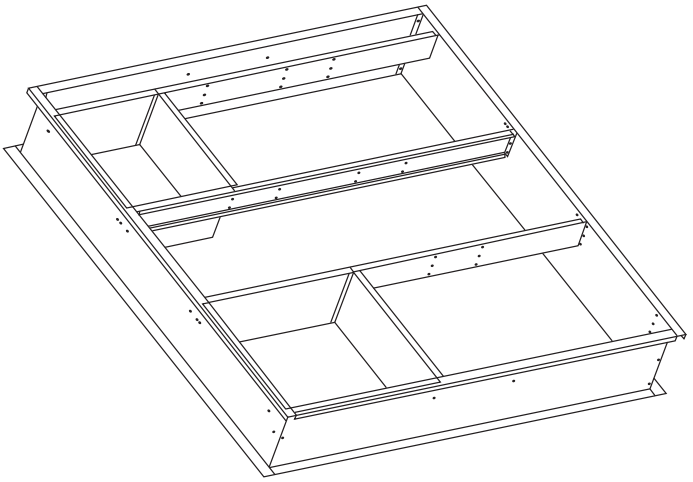


Section B-B

Section C-C

Model (UATYQ)	250	350/450	550
A	1821.0	1890.0	2448.0
B	1505.5	2081.0	2081.0
C	1881.0	1908.0	2466.0
D	1468.5	1998.0	1998.0
E	15.0	25.0	25.0
F	20.0	43.0	46.0
G	838.2	698.7	827.0
H	538.1	676.0	676.0
I	272.4	538.9	444.6
J	605.1	599.8	645.8
K	0.0	104.6	104.6
L	0.0	25.0	25.0
M	1781.0	1804.0	2362.0
N	479.7	475.7	589.0
O	50.0	52.0	52.0
P	15.0	25.0	25.0

Note: All dimensions are in mm



13 Installation

13 - 2 Pulley

UATYQ250BY1

The following are the design requirements for UATYQ250BY1 unit: Model : UATYQ250BY1 unit Supply air Quantity = 1600 l/s External Static Pressure = 175 Pa	
Step 1	From the blower curve (at 1600 l/s) Standard operating system; Internal Static Pressure = 90 Pa
Step 2:	Therefore at 1600 l/s and 175 Pa external static pressure Total Static Pressure = 175 + 90 Pa = 265 Pa
Step 3:	From the blower curve, the design requirement calls for RPM about 690 RPM. From the table: Motor pulley = 71 mm Blower pulley = 160 mm Motor RPM = 1480 RPM In order to obtain 680 RPM, we calculate the new blower pulley as: (while maintaining the motor pulley) Db = 71 x (1480/690) = 152.3 mm Let us take close approximation of 150 mm diameter pulley size Recheck, with Db = 150 mm Blower pulley = 1480 x (71/150) = 700 RPM We thus need to change the blower pulley from 160 mm to 150 mm in order to obtain the higher operating static pressure
Step 4:	When the pully is changed, the V-belt langth must be rechecked. V-belt length, L = $2C + 1.57 (Db = Dm) + (Db = Dm)^2 /4C$ = $(2x545) + 1.57 (150 + 71) + (150 - 71)^2 /4x545$ = 1439.8 We thus can use a belt with length of 1440 mm Where, C = 545 mm distance between the centres of the two pulleys
Step 5:	From the blower curve, we can also notice that the motor power input has maintained within the current operating range of the standard unit's motor. Summary: i) Fan motor kW = 1.1 kW ii) Blower pulley diameter = 150 mm iii) V-belt size = 1440 mm

13 Installation

13 - 2 Pulley

UATYQ250-550BY1

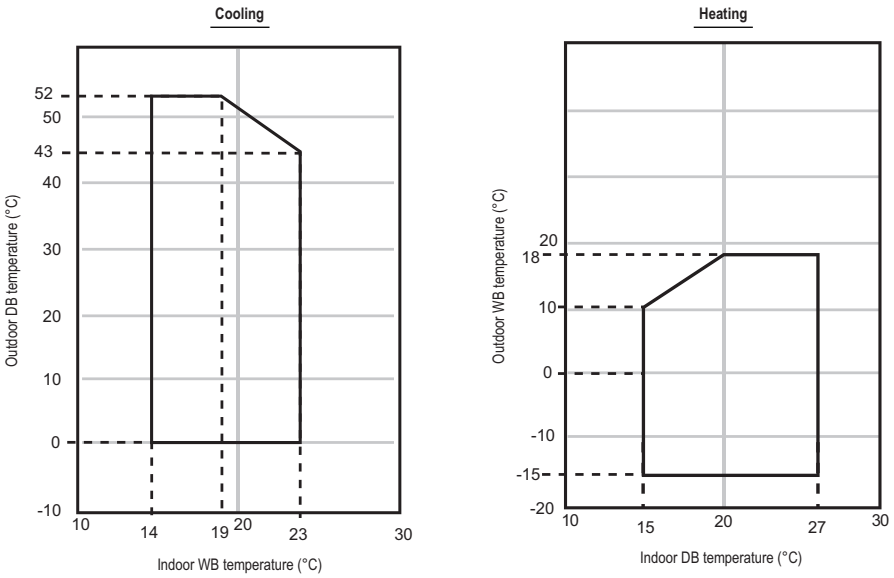
Model	Blower Pulley, Db			Motor Pulley, Dm	
	Type	Diameter (mm)	Bore (mm)	Diameter (mm)	Bore (mm)
UATYQ250BY1	SPZ 1	160	25	71	24
UATYQ350BY1	SPZ 1	160	25	71	24
UATYQ450BY1	SPZ 2	160	25	80	28
UATYQ550BY1	SPZ 2	180	30	95	28

Model	V-belt length L (mm)	Pulley Centre Distance, C (mm)	Motor kW	Motor RPM
		Nominal		
UATYQ250BY1	1450	545	1.1	1480
UATYQ350BY1	1600	620	1.5	1520
UATYQ450BY1	1420	590	2.2	1520
UATYQ550BY1	1862	715	3.0	1520

14 Operation range

UATYQ-BY1

Ensure the operating temperature is within the allowable range, as stated in diagram below:



CAUTION

The use of the air conditioner outside the range of working temperature and humidity can result in serious failure.

In all of us, a green heart

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 intension to become a leader in the provision of products that have limited impact on the environment. This challenge demands the eco design and development of a wide range of products and an energy management system, resulting in energy conservation and a reduction of waste.

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 N.V. is participating in the EUROVENT Certification Programme. Products are as listed in the EUROVENT Directory of Certified Products.

DAIKIN EUROPE N.V.

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