

# RHEEM THERMAL

EASY INTEGRATION – HIGHER EFFICIENCY – LONGER LASTING  
DESIGNED AND MANUFACTURED BY RHEEM

## COMMERCIAL POOL HEAT PUMP TECHNICAL BOOKLET



1.0 NOMENCLATURE ..... 2

2.0 EQUIPMENT SPECIFICATION SHEET, DRAWING & WIRING DIAGRAM ..... 4

2.1 AIR TO WATER POOL HEAT PUMP (50Hz), *RTHP###K#-#Q#-1* ..... 5

- RTHP024 ..... 6
- RTHP026 ..... 12
- RTHP030 ..... 18
- RTHP041 ..... 21
- RTHP052 ..... 24
- RTHP066 ..... 27
- RTHP087 ..... 30
- RTHP102 ..... 33
- RTHP132 ..... 36
- RTHP175 ..... 39
- RTHP199 ..... 42
- RTHP265 ..... 45
- RTHP350 ..... 48
- RTHP440 ..... 51
- RTHP540 ..... 54

**Note:**

**Different heating capacity available. Please consult Rheem or Rheem distributor for more information.**



# 1.0

## NOMENCLATURE





**2.0**

**EQUIPMENT**

**SPECIFICATION SHEET,**

**DRAWING &**

**WIRING DIAGRAM**



## 2.1

### AIR TO WATER POOL HEAT PUMP (50Hz),

*RTHP###K#-#Q#-1*



**POOL HEAT PUMP SPECIFICATIONS**  
Titanium Heat Exchanger / Rheem IQ Control **RTHP024KT-JQV-1**

<b>ELECTRICAL INPUT</b>	
Voltage/Phase	220 - 240 Volts / 1 Phase / 50 Hz
Full Load / Locked Rotor (Amps Per Phase)	27.3 FLA / 150 LRA
Min. Circuit Size	32 Amps
Refrigerant	R407c
Nominal Heating capacity	24.34 kW
Power input	4.36 kW
COP	5.58 COP
Noise Level	59 dBA @ 3 m
Rated Load Amps @ 10°C SST / 45°C SCT	18.6 Amps

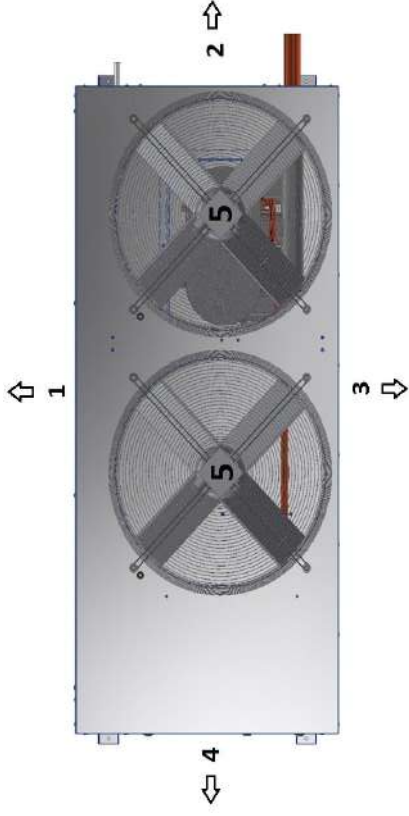
<b>TECHNICAL DATA</b>	
<b>Compressor</b>	<b>Fan</b>
Make	Copeland
Type	EBM-Papst
Number Per Unit	Scroll 20007
FLA (Full Load Amps, each)	1
Voltage / Phase	26.10 Amps
Pole/RPM	220 - 240 / 1
Air Flow	2/2900
	N/A
	1600 L/s

<b>HEAT EXCHANGER (Water Side)</b>	
Type of Water Tube	Titanium Tube / PVC Shell
Design	Shell and Tube
Flow Rate Excl. By Pass	2.80 L/s
Design Temperature Difference	2.07 °C
Max. Outlet Water Temp	42 °C
Design Pressure Drop	25 kPa
Max. Operating Pressure	300 kPa

<b>GENERAL INFORMATION</b>	
Water Connections	40mm PVC
Drain	20mm PVC
Defrost	Hot Gas Injection
Cabinet Construction	1.2mm Stucco Aluminium
Approx. shipping weight	110 kg
Size L x W x H	1200 mm x 565 mm x 985 mm

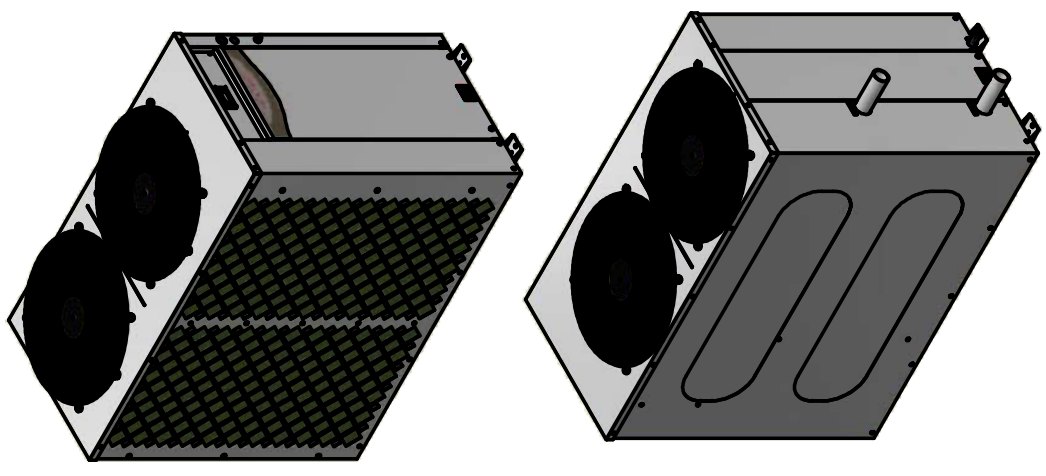
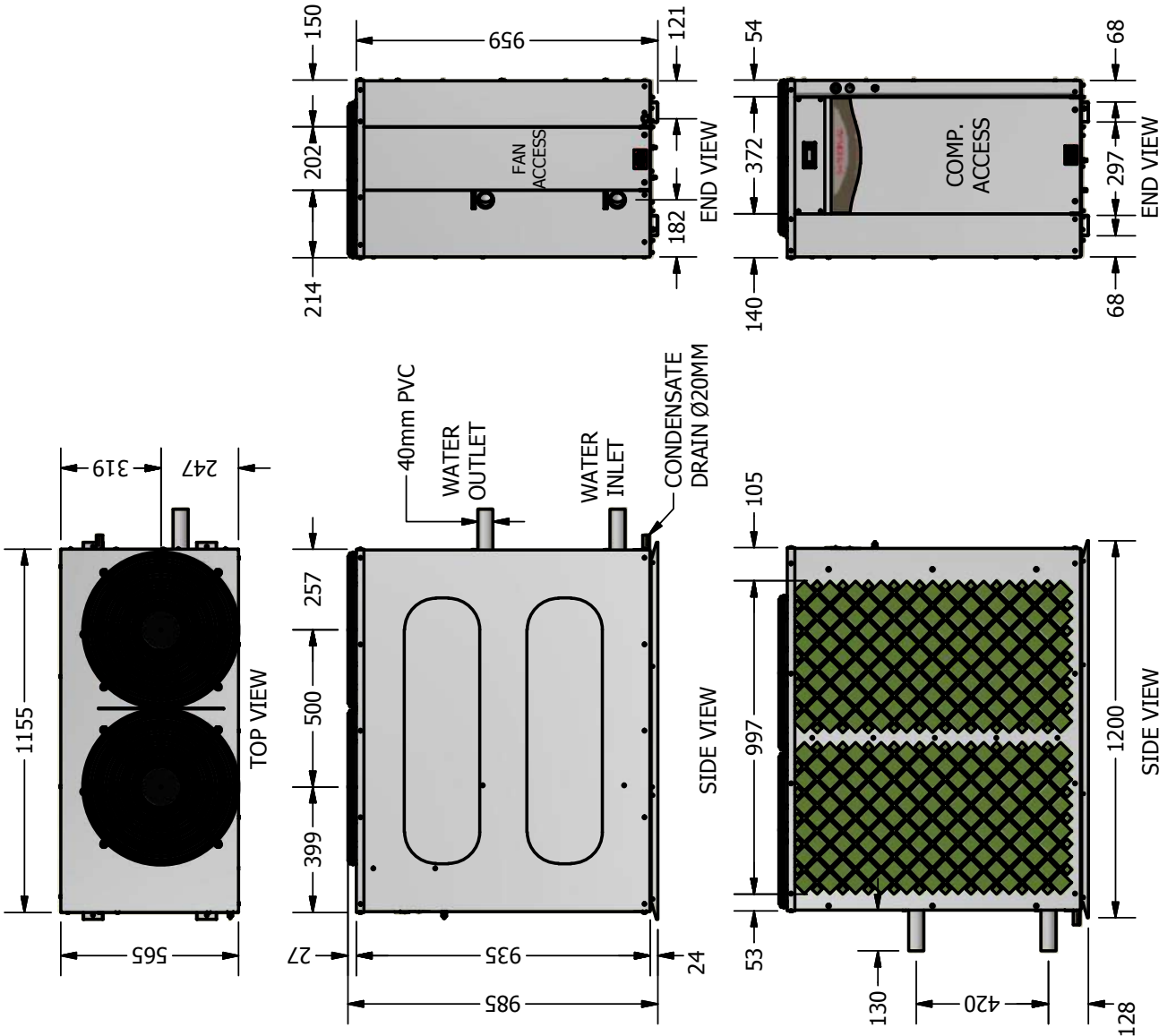
**COP TABLE**

Water In °C	Ambient Temperature								
	0 °C	5 °C	10 °C	15 °C	20 °C	25 °C	27 °C	30 °C	35 °C
27 °C	14.70 kW 3.45 COP	16.76 kW 3.91 COP	19.05 kW 4.42 COP	20.92 kW 4.83 COP	22.93 kW 5.27 COP	23.63 kW 5.43 COP	24.34 kW 5.58 COP	25.07 kW 5.74 COP	26.57 kW 6.07 COP
30 °C	14.58 kW 3.22 COP	16.59 kW 3.63 COP	18.82 kW 4.10 COP	20.65 kW 4.48 COP	22.60 kW 4.88 COP	23.29 kW 5.02 COP	23.98 kW 5.17 COP	24.70 kW 5.31 COP	26.17 kW 5.61 COP
33 °C	14.47 kW 3.00 COP	16.42 kW 3.38 COP	18.59 kW 3.80 COP	20.37 kW 4.15 COP	22.29 kW 4.52 COP	22.95 kW 4.65 COP	23.63 kW 4.78 COP	24.33 kW 4.91 COP	25.77 kW 5.19 COP
36 °C	14.38 kW 2.79 COP	16.27 kW 3.14 COP	18.38 kW 3.52 COP	20.11 kW 3.84 COP	21.97 kW 4.18 COP	22.62 kW 4.29 COP	23.29 kW 4.42 COP	23.97 kW 4.54 COP	25.37 kW 4.79 COP



UNIT CLEARANCES	
Direction	Description
1	Evaporator Coil
2	Water Connections
3	Plain Back
4	Compressor Access
5	Top - Fan Discharge
	Minimum Clearance Required
	350 mm
	500 mm
	Nil
	850 mm
	2500 mm

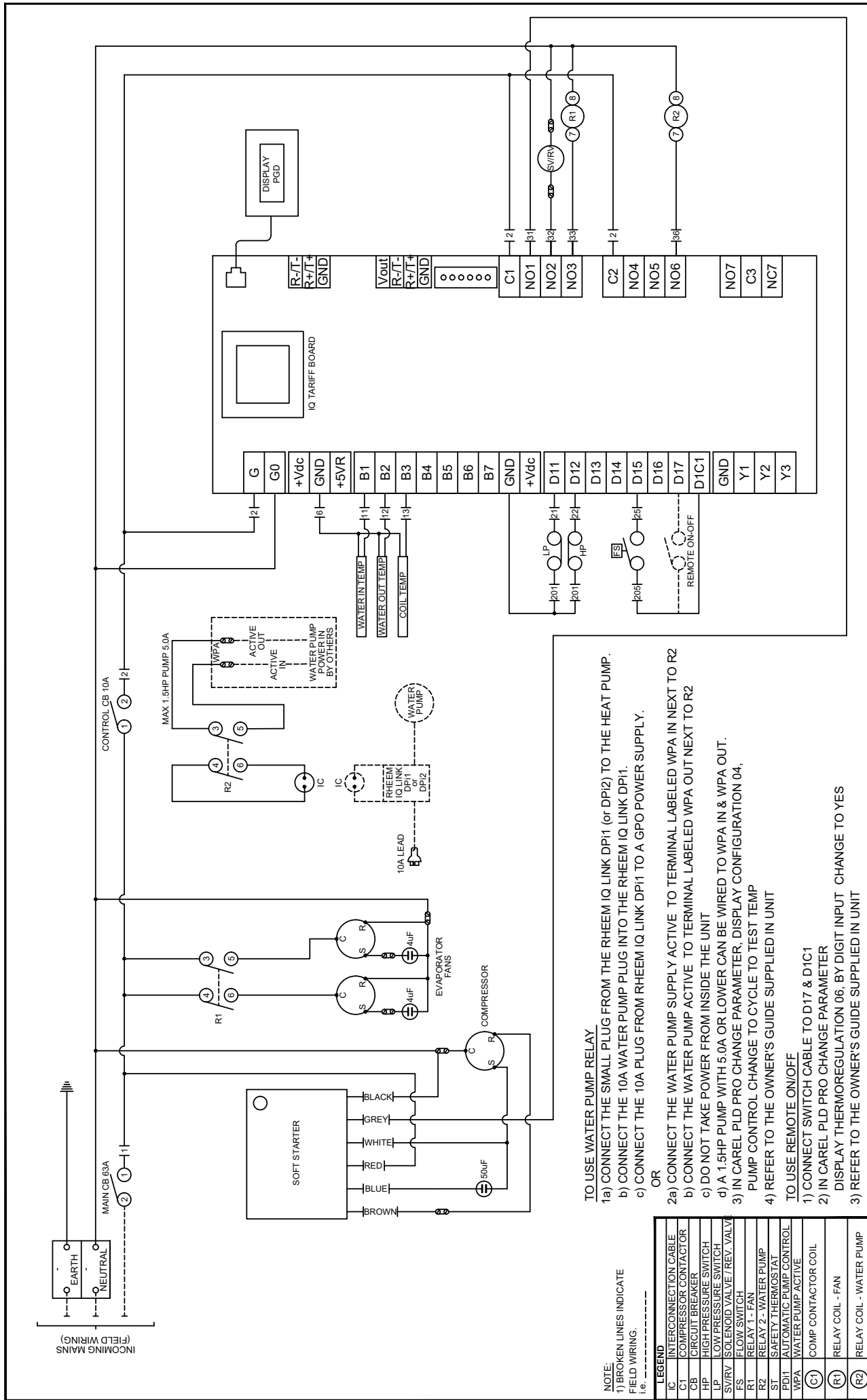
When units are placed side by side allow 700mm between evaporator coils.  
Rating Conditions: 27°C ambient, 60% RH, 27°C water in



<b>Rheem</b> THERMAL SYSTEMS GROUP		SHEET 1 OF 3	
<b>Description:</b>	POOL HTR 24KW 1PH R407C	<b>Rev.</b>	
<b>Part No:</b>	RTHP024KT-JQV-1	<b>Date:</b>	04/03/2019
<b>Material:</b>	j-bates	<b>Checked By:</b>	
<b>Drawn By:</b>		<b>General Tolerance:</b>	Sheetmetal - Cut Size - ± 0.5mm, Angle - ± 0.5°, Bend size - ± 0.3mm Tubes - Dimensions - ± 2, Angle - ± 2°
<b>Scale:</b>	N.T.S		

REV	ECN	DESCRIPTION	DATE





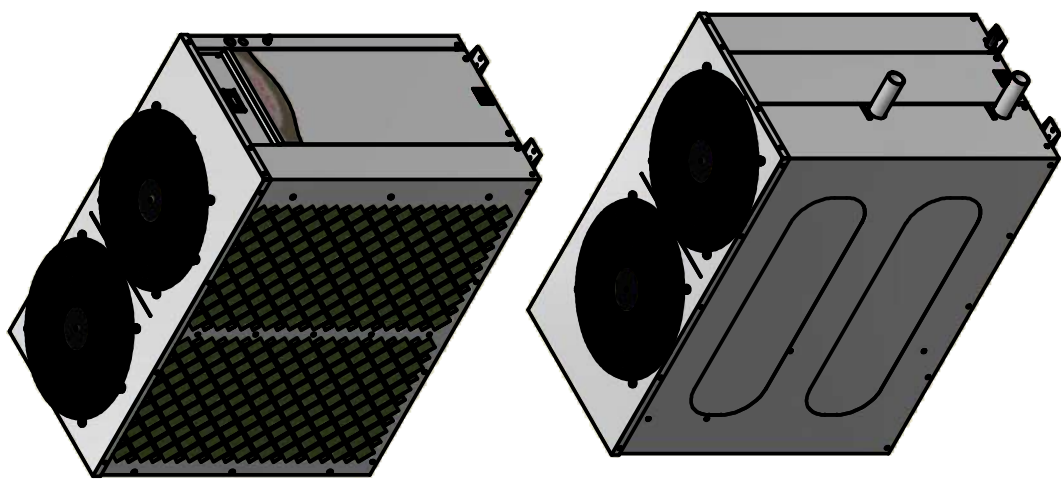
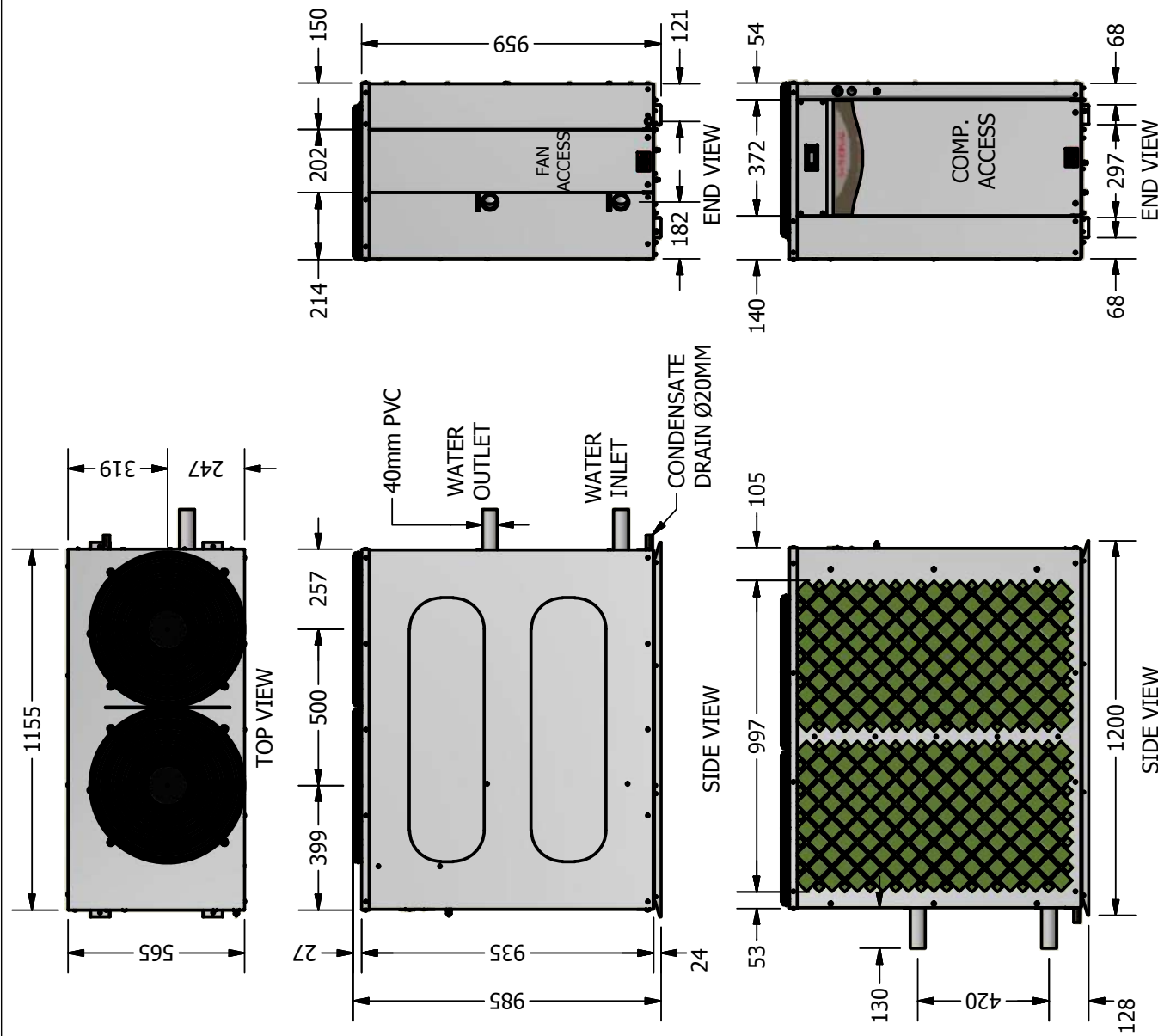
NOTE:  
1) BROKEN LINES INDICATE FIELD WIRING.  
i.e. -----

REV	ECN	DESCRIPTION	DATE

- TO USE WATER PUMP RELAY**
- CONNECT THE SMALL PLUG FROM THE RHEEM IQ LINK DP11 (or DP12) TO THE HEAT PUMP.
  - CONNECT THE 10A WATER PUMP PLUG INTO THE RHEEM IQ LINK DP11.
  - CONNECT THE 10A PLUG FROM RHEEM IQ LINK DP11 TO A GPO POWER SUPPLY.
- OR
- CONNECT THE WATER PUMP SUPPLY ACTIVE TO TERMINAL LABELED WPA IN NEXT TO R2
  - CONNECT THE WATER PUMP ACTIVE TO TERMINAL LABELED WPA OUT NEXT TO R2
  - DO NOT TAKE POWER FROM INSIDE THE UNIT
  - A 1.5HP PUMP WITH 5.0A OR LOWER CAN BE WIRED TO WPA IN & WPA OUT.
- 3) IN CAREL PLD PRO CHANGE PARAMETER, DISPLAY CONFIGURATION 04.  
PUMP CONTROL CHANGE TO CYCLE TO TEST TEMP
- REFER TO THE OWNER'S GUIDE SUPPLIED IN UNIT
- TO USE REMOTE ON/OFF**
- CONNECT SWITCH CABLE TO D17 & D1C1
  - IN CAREL PLD PRO CHANGE PARAMETER DISPLAY THERMOREGULATION 06, BY DIGIT INPUT CHANGE TO YES
  - REFER TO THE OWNER'S GUIDE SUPPLIED IN UNIT

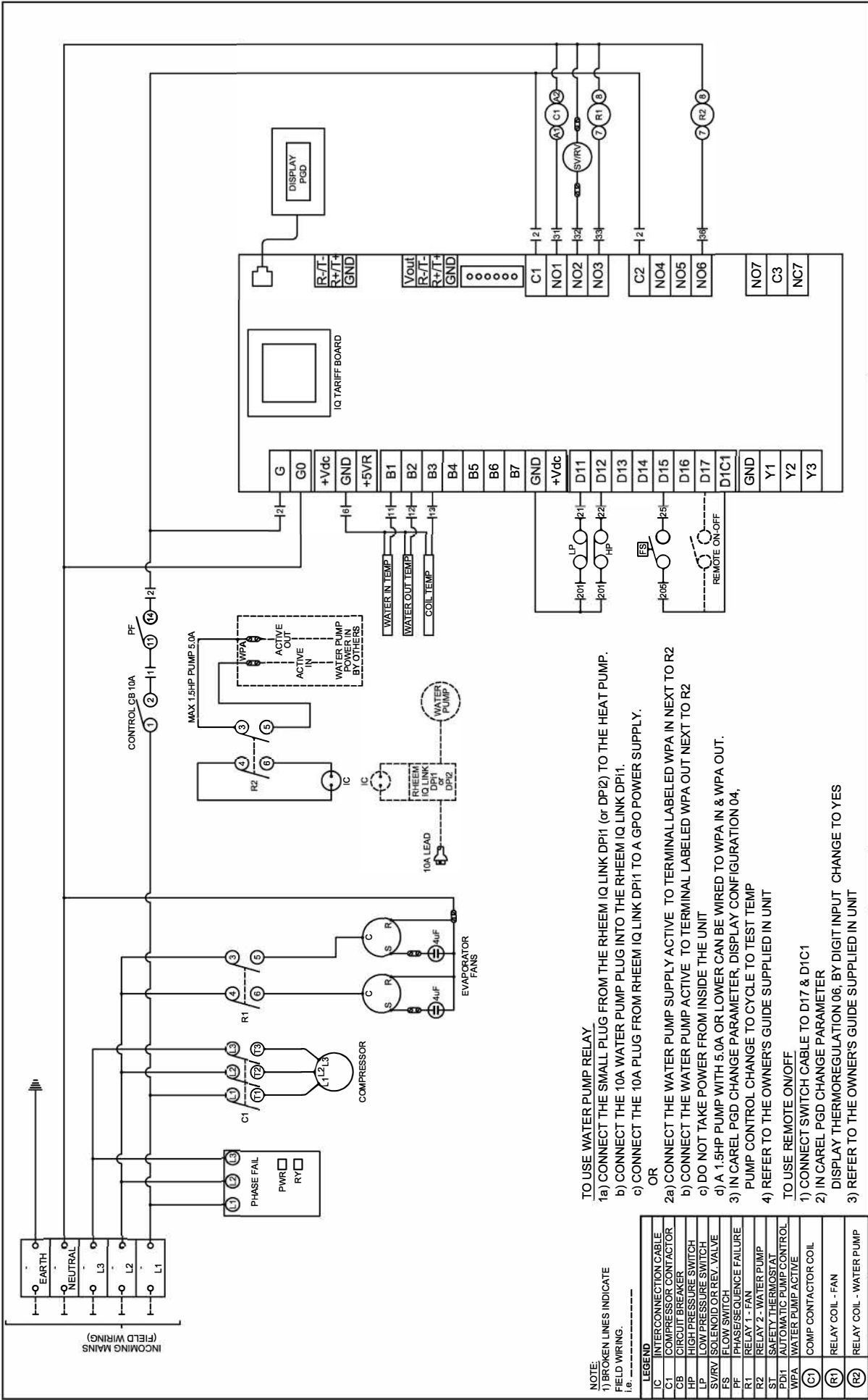
		<b>RTHP024K#-JQ#-1</b>	
43 Marigold Street Revesby NSW 2212 Phone: (02) 9684 3684 Fax: (02) 9684 3698		Part No: <b>47079E</b> Rev: <b>00</b>	
Drawn By: <b>J.Bates</b>	Date: <b>08/03/2019</b>	08/03/2019	





<b>Rheem</b> THERMAL SYSTEMS GROUP		SHEET 1 OF 3	
<b>Description:</b>	POOL HTR 24kW 3PH R407C	<b>Rev.</b>	04/03/2019
<b>Part No:</b>	RTHP024KT-DQV-1	<b>Date:</b>	
<b>Material:</b>		<b>Checked By:</b>	j.bates
<b>Drawn By:</b>		<b>Sheetmetal - Cut Size - ± 0.5mm, Angle - ± 0.5°, Bend size - ± 0.3mm</b>	
<b>General Tolerance:</b>		<b>Scale:</b>	N.T.S

REV	ECN	DESCRIPTION	DATE



**TO USE WATER PUMP RELAY**  
 1a) CONNECT THE SMALL PLUG FROM THE RHEEM IQ LINK DP11 (or DP12) TO THE HEAT PUMP.  
 b) CONNECT THE 10A WATER PUMP PLUG INTO THE RHEEM IQ LINK DP11.  
 c) CONNECT THE 10A PLUG FROM RHEEM IQ LINK DP11 TO A GPO POWER SUPPLY.

**OR**  
 2a) CONNECT THE WATER PUMP SUPPLY ACTIVE TO TERMINAL LABELED WPA IN NEXT TO R2  
 b) CONNECT THE WATER PUMP ACTIVE TO TERMINAL LABELED WPA OUT NEXT TO R2  
 c) DO NOT TAKE POWER FROM INSIDE THE UNIT  
 d) A 1.5HP PUMP WITH 5.0A OR LOWER CAN BE WIRED TO WPA IN & WPA OUT.  
 3) IN CAREL PGD CHANGE PARAMETER, DISPLAY CONFIGURATION 04,  
 PUMP CONTROL CHANGE TO CYCLE TO TEST TEMP  
 4) REFER TO THE OWNER'S GUIDE SUPPLIED IN UNIT

**TO USE REMOTE ON/OFF**  
 1) CONNECT SWITCH CABLE TO D17 & D1C1  
 2) IN CAREL PGD CHANGE PARAMETER  
 DISPLAY THERMOREGULATION 06. BY DIGIT INPUT CHANGE TO YES  
 3) REFER TO THE OWNER'S GUIDE SUPPLIED IN UNIT

NOTE:  
 1) BROKEN LINES INDICATE FIELD WIRING.  
 i.e. -----

**LEGEND**

IC	INTERCONNECTION CABLE
C1	COMPRESSOR CONTACTOR
CB	CIRCUIT BREAKER
HP	HIGH PRESSURE SWITCH
LP	LOW PRESSURE SWITCH
SVR/V	SOLENOID OR REV. VALVE
FS	FLOW SWITCH
PF	PHASE SEQUENCE FAILURE
R1	RELAY 1 - FAN
R2	RELAY 2 - WATER PUMP
ST	SAFETY THERMOSTAT
PDT	AUTOMATIC PUMP CONTROL
WPA	WATER PUMP ACTIVE
C1	COMP CONTACTOR COIL
R1	RELAY COIL - FAN
R2	RELAY COIL - WATER PUMP

REV	ECN	DESCRIPTION	DATE

	43 Marigold Street Revesby NSW 2212 Phone: (02) 9684 3684 Fax: (02) 9684 3698
RTHP024K#-DQ#-1	Part No: 47080E
Drawn By: J. Bates	Date: 08/03/2019
Rev: 00	Rev: 00

**POOL HEAT PUMP SPECIFICATIONS**  
Titanium Heat Exchanger / Rheem IQ Control **RTHP026KT-JQV-1**

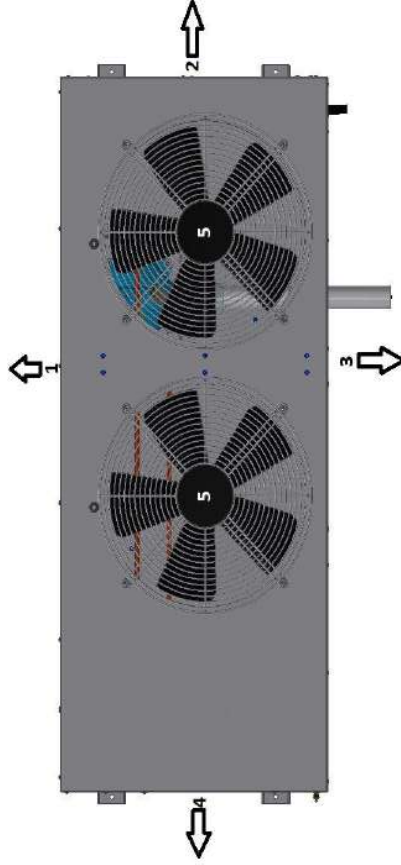
<b>ELECTRICAL INPUT</b>	
Voltage/Phase	220 - 240 Volts / 1 Phase / 50 Hz
Full Load / Locked Rotor (Amps Per Phase)	27.3 FLA / 150 LRA
Min. Circuit Size	32 Amps
Refrigerant	R407c
Nominal Heating capacity	25.81 kW
Power input	4.37 kW
COP	5.90 COP
Noise Level	59 dBa @ 3 m
Rated Load Amps @ 12°C SST / 45°C SCT	17.4 Amps

<b>TECHNICAL DATA</b>	
<b>Compressor</b>	<b>Fan</b>
Make	Copeland
Type	EBM-Papst
Number Per Unit	Scroll 20007
FLA (Full Load Amps, each)	1
Voltage / Phase	26.10 Amps
Pole/RPM	220 - 240 / 1
Air Flow	2/2900
	N/A
<b>HEAT EXCHANGER (Water Side)</b>	
Type of Water Tube	Titanium Tube / PVC Shell
Design	Shell and Tube
Flow Rate Excl. By Pass	2.80 L/s
Design Temperature Difference	2.20 °C
Max. Outlet Water Temp	42 °C
Design Pressure Drop	25 kPa
Max. Operating Pressure	300 kPa

<b>GENERAL INFORMATION</b>	
Water Connections	40mm PVC
Drain	20mm PVC
Defrost	Hot Gas Injection
Cabinet Construction	1.2mm Stucco Aluminium
Approx. shipping weight	145 kg
Size L x W x H	1536 mm x 617 mm x 983 mm

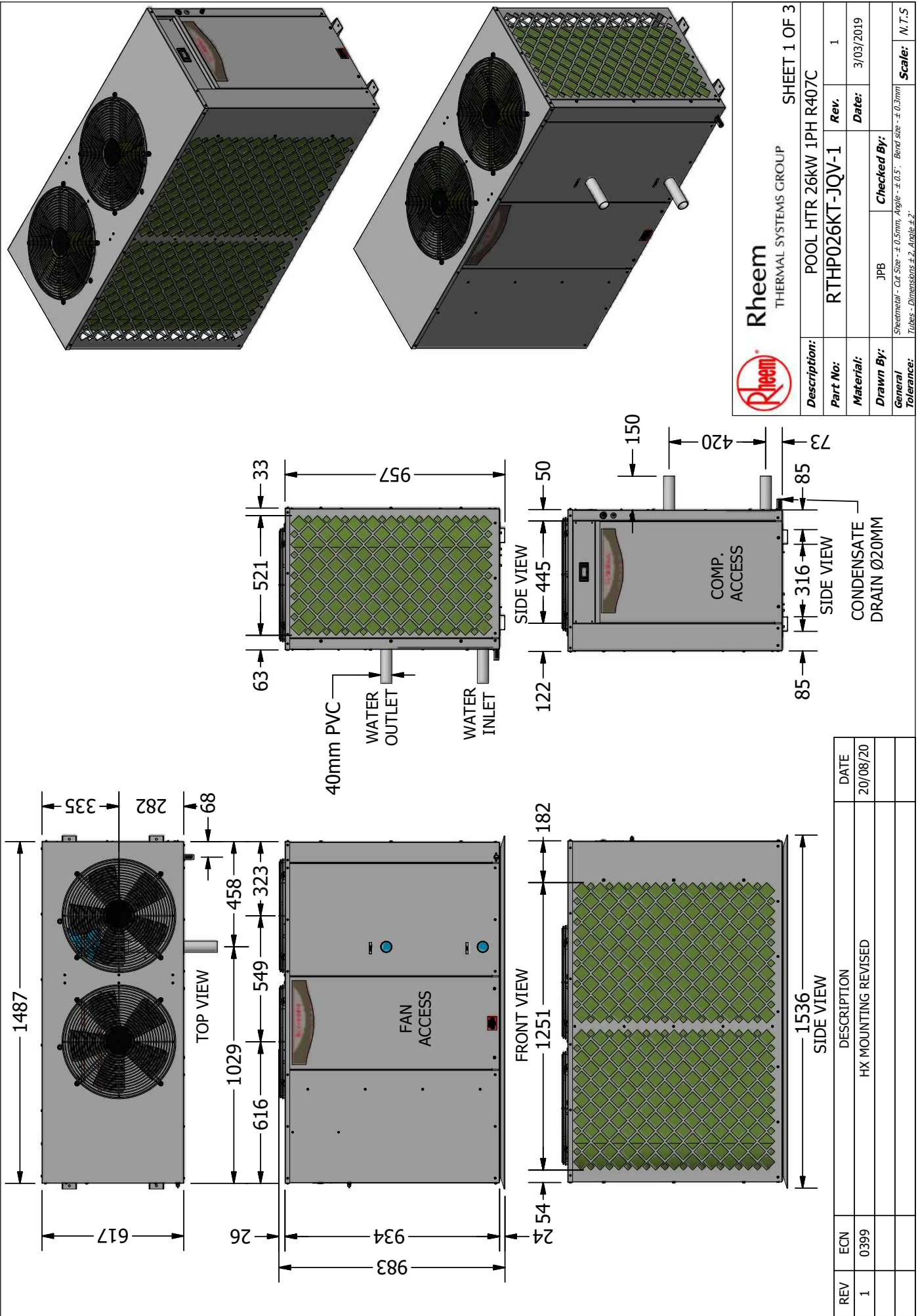
**COP TABLE**

Water In °C	Ambient Temperature									
	0 °C	5 °C	10 °C	15 °C	20 °C	25 °C	27 °C	30 °C	35 °C	
27 °C	14.70 kW 3.45 COP	16.76 kW 3.91 COP	19.05 kW 4.42 COP	20.92 kW 4.83 COP	22.93 kW 5.27 COP	25.07 kW 5.74 COP	25.81 kW 5.90 COP	26.57 kW 6.07 COP	27.35 kW 6.23 COP	
30 °C	14.58 kW 3.22 COP	16.59 kW 3.63 COP	18.82 kW 4.10 COP	20.65 kW 4.48 COP	22.60 kW 4.88 COP	24.70 kW 5.31 COP	25.43 kW 5.46 COP	26.17 kW 5.61 COP	26.93 kW 5.77 COP	
33 °C	14.47 kW 3.00 COP	16.42 kW 3.38 COP	18.59 kW 3.80 COP	20.37 kW 4.15 COP	22.29 kW 4.52 COP	24.33 kW 4.91 COP	25.04 kW 5.05 COP	25.77 kW 5.19 COP	26.51 kW 5.33 COP	
36 °C	14.38 kW 2.79 COP	16.27 kW 3.14 COP	18.38 kW 3.52 COP	20.11 kW 3.84 COP	21.97 kW 4.18 COP	23.97 kW 4.54 COP	24.66 kW 4.66 COP	25.37 kW 4.79 COP	26.09 kW 4.92 COP	



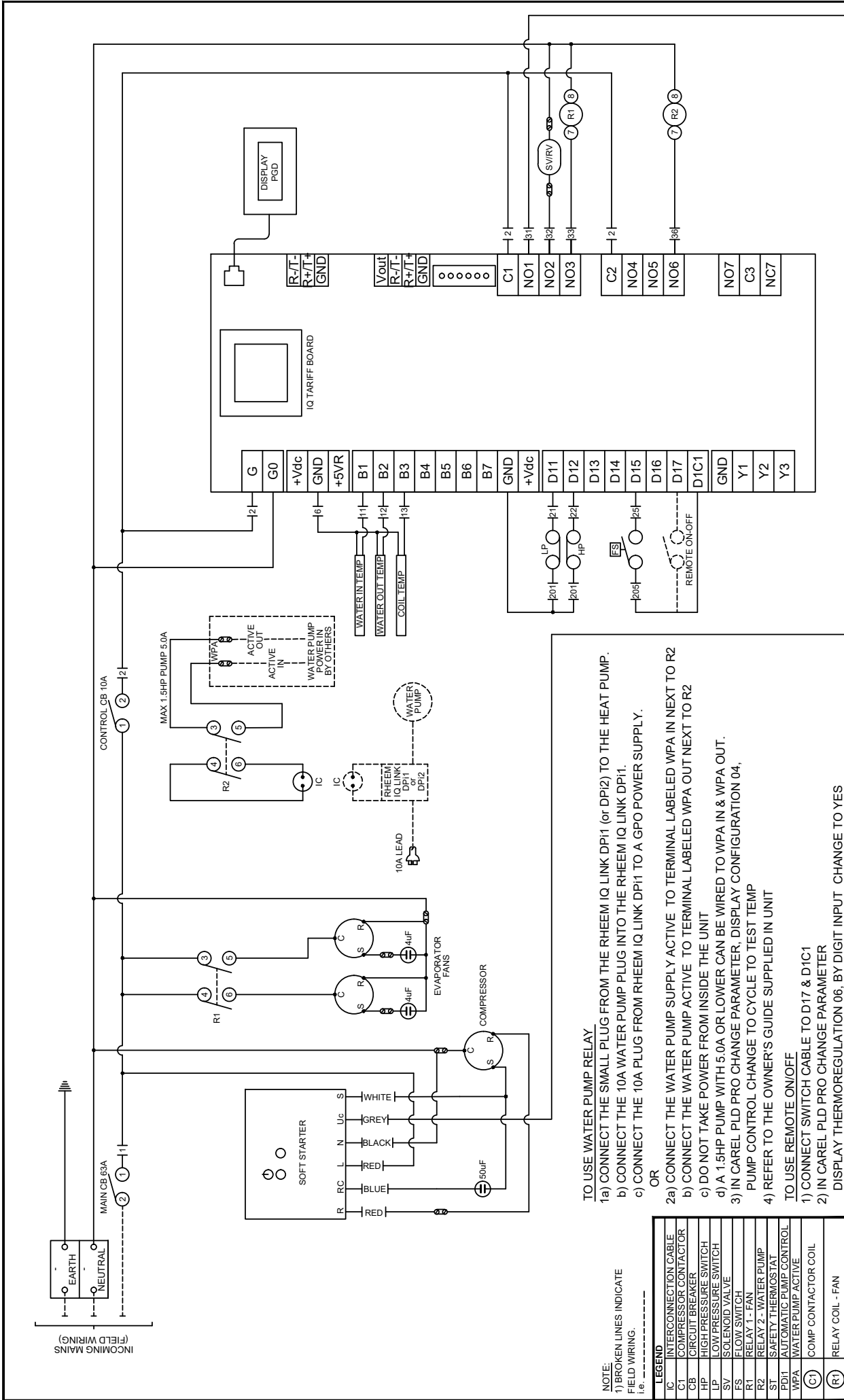
UNIT CLEARANCES	
Direction	Description
1	Evaporator Coil
2	Evaporator Coil
3	Water Connections
4	Compressor Access
5	Top - Fan Discharge
	Minimum Clearance Required
	350 mm
	350 mm
	500 mm
	500 mm
	3500 mm

When units are placed side by side allow 700mm between evaporator coils.  
Rating Conditions: 27°C ambient, 60% RH, 27°C water in



REV	ECN	DESCRIPTION	DATE
1	0399	HX MOUNTING REVISED	20/08/20

<b>Rheem</b> THERMAL SYSTEMS GROUP		SHEET 1 OF 3	
<b>Description:</b>	POOL HTR 26kW 1PH R407C		
<b>Part No:</b>	RTHP026KT-JQV-1	<b>Rev.</b>	1
<b>Material:</b>	Date: 3/03/2019		
<b>Drawn By:</b>	JPB	<b>Checked By:</b>	
<b>General Tolerance:</b>	Sheetmetal - Cut Size - ± 0.5mm, Angle - ± 0.5°, Bend Size - ± 0.3mm Tubes - Dimensions ± 2, Angle ± 2		
<b>Scale:</b>	N.T.S		



**TO USE WATER PUMP RELAY**

- 1a) CONNECT THE SMALL PLUG FROM THE RHEEM IQ LINK DP11 (OR DP12) TO THE HEAT PUMP.
- b) CONNECT THE 10A WATER PUMP PLUG INTO THE RHEEM IQ LINK DP11.
- c) CONNECT THE 10A PLUG FROM RHEEM IQ LINK DP11 TO A GPO POWER SUPPLY.

OR


- 2a) CONNECT THE WATER PUMP SUPPLY ACTIVE TO TERMINAL LABELED WPA IN NEXT TO R2
  - b) CONNECT THE WATER PUMP ACTIVE TO TERMINAL LABELED WPA OUT NEXT TO R2
  - c) DO NOT TAKE POWER FROM INSIDE THE UNIT
  - d) A 1.5HP PUMP WITH 5.0A OR LOWER CAN BE WIRED TO WPA IN & WPA OUT.
- 3) IN CAREL PLD PRO CHANGE PARAMETER, DISPLAY CONFIGURATION 04, PUMP CONTROL CHANGE TO CYCLE TO TEST TEMP
- 4) REFER TO THE OWNER'S GUIDE SUPPLIED IN UNIT

**TO USE REMOTE ON/OFF**

- 1) CONNECT SWITCH CABLE TO D17 & D1C1
- 2) IN CAREL PLD PRO CHANGE PARAMETER DISPLAY THERMOREGULATION 06, BY DIGIT INPUT CHANGE TO YES
- 3) REFER TO THE OWNER'S GUIDE SUPPLIED IN UNIT

NOTE:  
1) BROKEN LINES INDICATE FIELD WIRING.  
i.e. -----

REV	ECN	DESCRIPTION	DATE
01	0414	ADDED SV/RV	04/02/2021
02	0415	CHANGED SOFT STARTER MODEL	28/02/2021

	43 Marigold Street Revesby NSW 2212 Phone: (02) 9684 3684 Fax: (02) 9684 3698	<b>RTHP026K#-JQ#-1</b> Part No: <b>47081E</b> Rev: <b>02</b>
Drawn By: <b>J. Chaugule</b>		Date: <b>04/02/2021</b>

**POOL HEAT PUMP SPECIFICATIONS**  
Titanium Heat Exchanger / Rheem IQ Control **RTHP026KT-DQV-1**

<b>ELECTRICAL INPUT</b>	
Voltage/Phase	380 - 415 Volts / 3 Phase / 50 Hz
Full Load / Locked Rotor (Amps Per Phase)	13.38 FLA / 74 LRA
Min. Circuit Size	20 Amps
Refrigerant	R407c
Nominal Heating capacity	25.81 kW
Power input	4.37 kW
COP	5.90 COP
Noise Level	51 dBA @ 3 m
Rated Load Amps @ 12°C SST / 45°C SCT	8.7 Amps

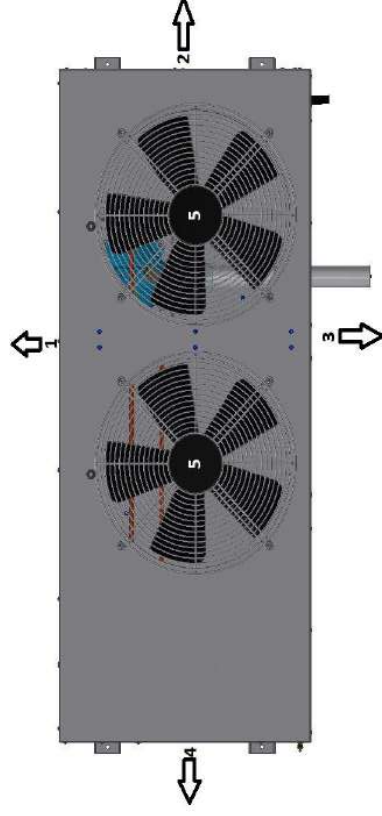
<b>TECHNICAL DATA</b>	
Make	<b>Compressor</b> Copeland
Type	Scroll 20012
Number Per Unit	1
FLA (Full Load Amps, each)	12.10 Amps
Voltage / Phase	380 - 415 / 3
Pole/RPM	2/2900
Air Flow	N/A
	Fan EBM-Papst Axial

<b>HEAT EXCHANGER (Water Side)</b>	
Type of Water Tube	Titanium Tube / PVC Shell
Design	Shell and Tube
Flow Rate Excl. By Pass	2.80 L/s
Design Temperature Difference	2.20 °C
Max. Outlet Water Temp	42 °C
Design Pressure Drop	25 kPa
Max. Operating Pressure	300 kPa

<b>GENERAL INFORMATION</b>	
Water Connections	40mm PVC
Drain	20mm PVC
Defrost	Hot Gas Injection
Cabinet Construction	1.2mm Stucco Aluminium
Approx. shipping weight	145 kg
Size L x W x H	1536 mm x 617 mm x 983 mm

**COP TABLE**

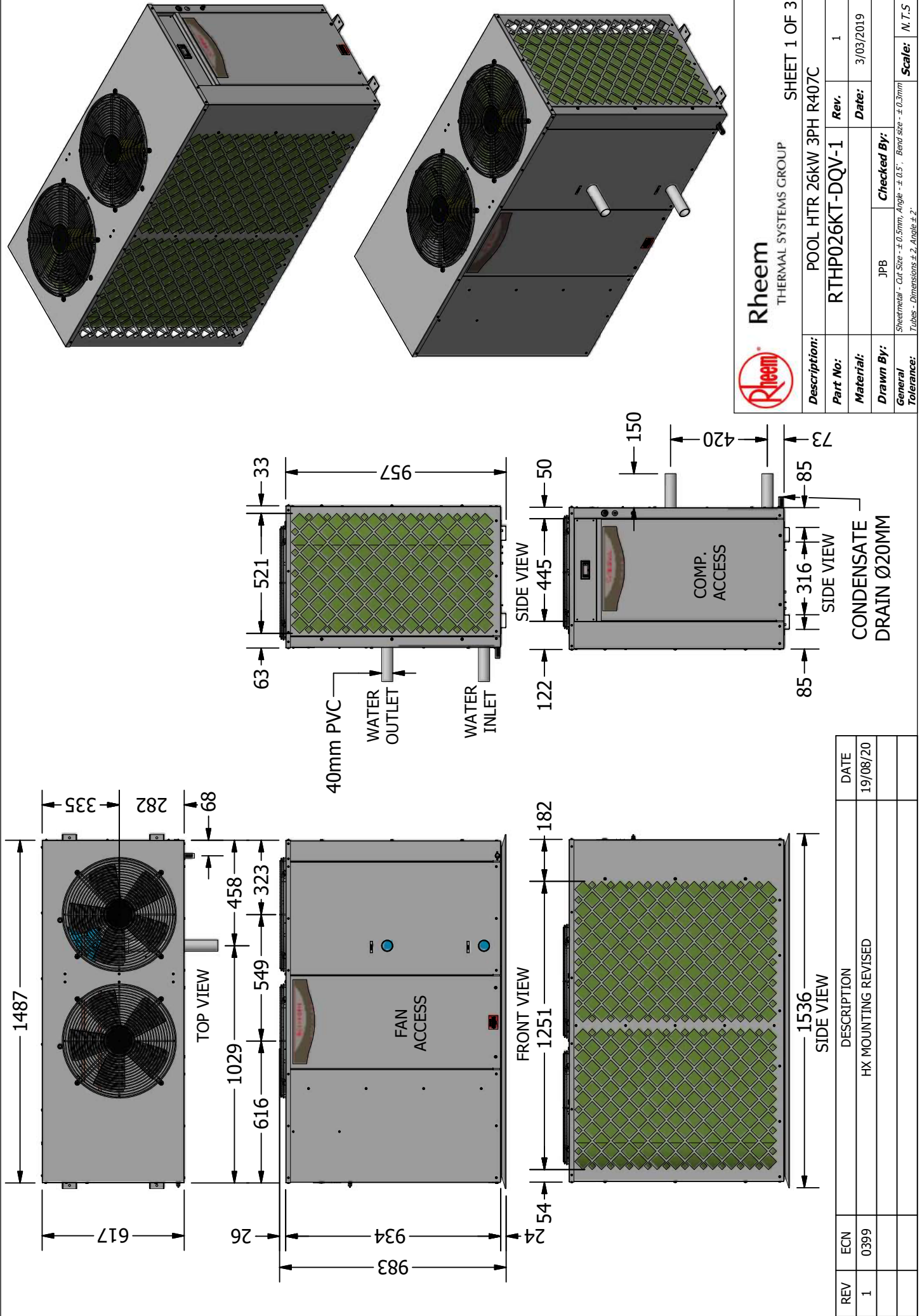
Water In °C	Ambient Temperature									
	0 °C	5 °C	10 °C	15 °C	20 °C	25 °C	27 °C	30 °C	35 °C	
27 °C	14.70 kW 3.45 COP	16.76 kW 3.91 COP	19.05 kW 4.42 COP	20.92 kW 4.83 COP	22.93 kW 5.27 COP	25.07 kW 5.74 COP	25.81 kW 5.90 COP	26.57 kW 6.07 COP	27.35 kW 6.23 COP	
30 °C	14.58 kW 3.22 COP	16.59 kW 3.63 COP	18.82 kW 4.10 COP	20.65 kW 4.48 COP	22.60 kW 4.88 COP	24.70 kW 5.31 COP	25.43 kW 5.46 COP	26.17 kW 5.61 COP	26.93 kW 5.77 COP	
33 °C	14.47 kW 3.00 COP	16.42 kW 3.38 COP	18.59 kW 3.80 COP	20.37 kW 4.15 COP	22.29 kW 4.52 COP	24.33 kW 4.91 COP	25.04 kW 5.05 COP	25.77 kW 5.19 COP	26.51 kW 5.33 COP	
36 °C	14.38 kW 2.79 COP	16.27 kW 3.14 COP	18.38 kW 3.52 COP	20.11 kW 3.84 COP	21.97 kW 4.18 COP	23.97 kW 4.54 COP	24.66 kW 4.66 COP	25.37 kW 4.79 COP	26.09 kW 4.92 COP	



<b>UNIT CLEARANCES</b>		
Direction	Description	Minimum Clearance Required
1	Evaporator Coil	350 mm
2	Evaporator Coil	350 mm
3	Water Connections	500 mm
4	Compressor Access	850 mm
5	Top - Fan Discharge	3500 mm

When units are placed side by side allow 700mm between evaporator coils.  
Rating Conditions: 27°C ambient, 60% RH, 27°C water in





**Rheem**  
 THERMAL SYSTEMS GROUP

Description:		POOL HTR 26kW 3PH R407C	
Part No:	RTHP026KT-DQV-1	Rev.	1
Material:	JPB	Checked By:	3/03/2019
Drawn By:	JPB	Date:	3/03/2019
General Tolerance:	Sheetmetal - Cut Size $\pm 0.5mm$ , Angle $\pm 0.5^\circ$ , Bend size $\pm 0.3mm$ Tubes - Dimensions $\pm 2$ , Angle $\pm 2$		
Scale:	N.T.S		

REV	ECN	DESCRIPTION	DATE
1	0399	HX MOUNTING REVISED	19/08/20

SHEET 1 OF 3



**POOL HEAT PUMP SPECIFICATIONS**  
Titanium Heat Exchanger / Rheem IQ Control **RTHP030KT-DQV-1**

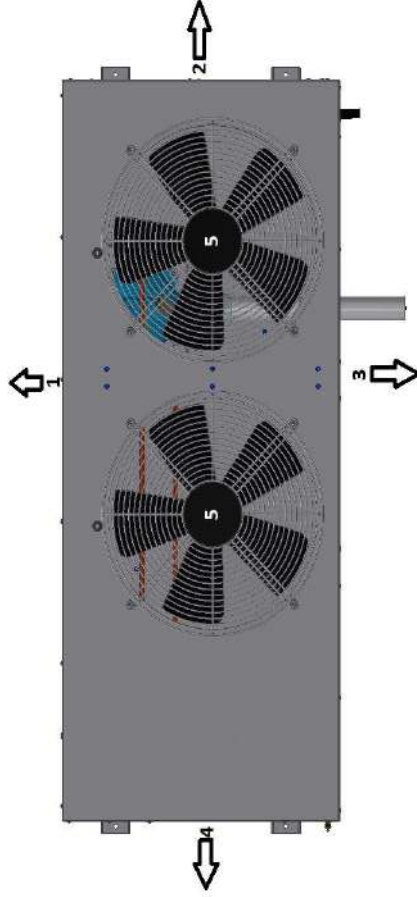
<b>ELECTRICAL INPUT</b>	
Voltage/Phase	380 - 415 Volts / 3 Phase / 50 Hz
Full Load / Locked Rotor (Amps Per Phase)	14.9 FLA / 101 LRA
Min. Circuit Size	20 Amps
Refrigerant	R407c
Nominal Heating capacity	28.28 kW
Power input	5.05 kW
COP	5.60 COP
Noise Level	51 dBA @ 3 m
Rated Load Amps @ 10°C SST / 45°C SCT	10.8 Amps

<b>TECHNICAL DATA</b>	
<b>Compressor</b>	<b>Fan</b>
Make	Copeland
Type	EBM-Papst
Number Per Unit	Scroll 20014
FLA (Full Load Amps, each)	1
Voltage / Phase	13.60 Amps
Pole/RPM	380 - 415 / 3
Air Flow	2/2900
	N/A
<b>HEAT EXCHANGER (Water Side)</b>	
Type of Water Tube	Titanium Tube / PVC Shell
Design	Shell and Tube
Flow Rate Excl. By Pass	2.80 L/s
Design Temperature Difference	2.41 °C
Max. Outlet Water Temp	42 °C
Design Pressure Drop	25 kPa
Max. Operating Pressure	300 kPa

<b>GENERAL INFORMATION</b>	
Water Connections	40mm PVC
Drain	20mm PVC
Defrost	Hot Gas Injection
Cabinet Construction	1.2mm Stucco Aluminium
Approx. shipping weight	160 kg
Size L x W x H	1536 mm x 617 mm x 983 mm

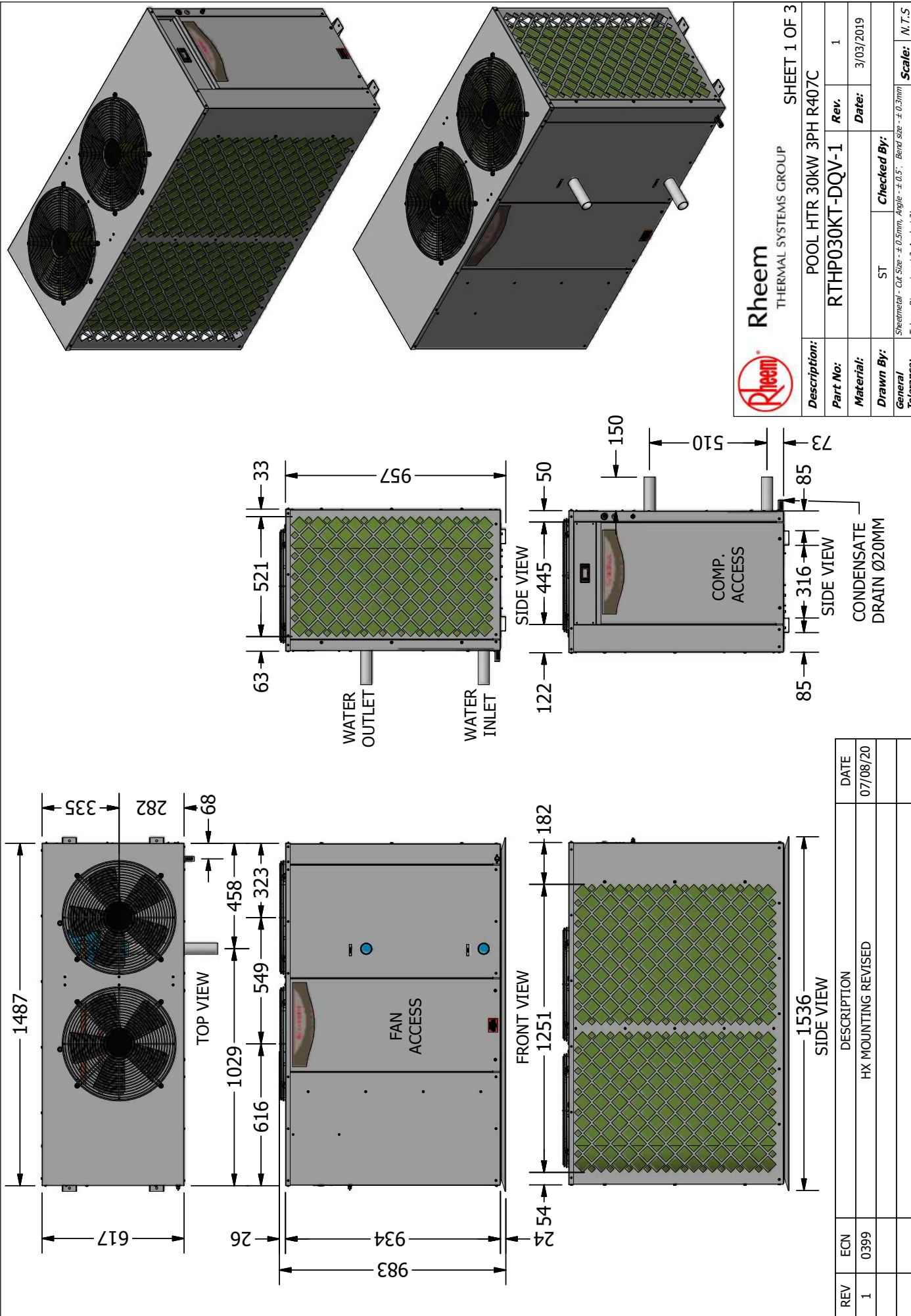
**COP TABLE**

Water In °C	Ambient Temperature									
	0 °C	5 °C	10 °C	15 °C	20 °C	25 °C	27 °C	30 °C	35 °C	
27 °C	16.89 kW 3.42 COP	19.24 kW 3.89 COP	21.89 kW 4.41 COP	24.10 kW 4.83 COP	26.53 kW 5.29 COP	27.39 kW 5.44 COP	28.28 kW 5.60 COP	29.20 kW 5.77 COP	31.12 kW 6.10 COP	
30 °C	16.73 kW 3.16 COP	19.02 kW 3.59 COP	21.60 kW 4.06 COP	23.75 kW 4.45 COP	26.11 kW 4.87 COP	26.95 kW 5.02 COP	27.82 kW 5.16 COP	28.71 kW 5.32 COP	30.58 kW 5.63 COP	
33 °C	16.59 kW 2.92 COP	18.81 kW 3.31 COP	21.31 kW 3.74 COP	23.39 kW 4.10 COP	25.69 kW 4.48 COP	26.50 kW 4.62 COP	27.34 kW 4.75 COP	28.21 kW 4.89 COP	30.03 kW 5.18 COP	
36 °C	16.48 kW 2.69 COP	18.62 kW 3.05 COP	21.03 kW 3.44 COP	23.04 kW 3.77 COP	25.26 kW 4.12 COP	26.05 kW 4.24 COP	26.87 kW 4.37 COP	27.71 kW 4.50 COP	29.47 kW 4.77 COP	



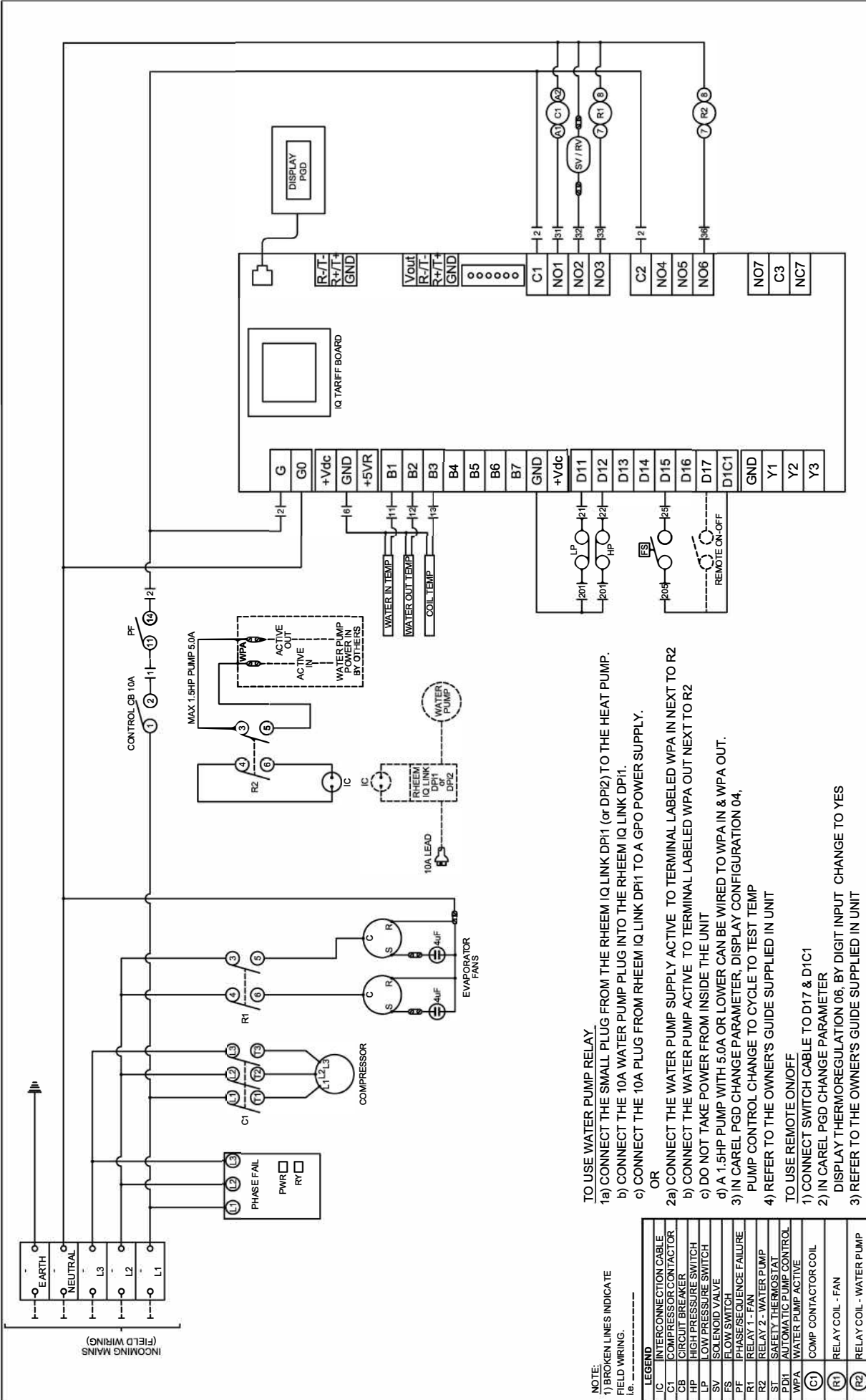
UNIT CLEARANCES	
Direction	Description
1	Evaporator Coil
2	Evaporator Coil
3	Water Connections
4	Compressor Access
5	Top - Fan Discharge
	Minimum Clearance Required
	350 mm
	350 mm
	500 mm
	500 mm
	3500 mm

When units are placed side by side allow 700mm between evaporator coils.  
Rating Conditions: 27°C ambient, 60% RH, 27°C water in



<b>Rheem</b> THERMAL SYSTEMS GROUP		SHEET 1 OF 3	
<b>Description:</b>	POOL HTR 30kW 3PH R407C	<b>Rev.</b>	1
<b>Part No:</b>	RTHP030KT-DQV-1	<b>Date:</b>	3/03/2019
<b>Material:</b>	ST	<b>Checked By:</b>	
<b>Drawn By:</b>	ST	<b>General Tolerance:</b>	Sheetmetal - Cut Size $\pm 0.5mm$ , Angle $\pm 0.5^\circ$ , Bend Size $\pm 0.3mm$ Tubes - Dimensions $\pm 2$ , Angle $\pm 2$
<b>Scale:</b>	N.T.S		

REV	ECN	DESCRIPTION	DATE
1	0399	HX MOUNTING REVISED	07/08/20



TO USE WATER PUMP RELAY.

- CONNECT THE SMALL PLUG FROM THE RHEEM IQ LINK DP1 (OR DP2) TO THE HEAT PUMP.
- CONNECT THE 10A WATER PUMP PLUG INTO THE RHEEM IQ LINK DP1.
- CONNECT THE 10A PLUG FROM RHEEM IQ LINK DP1 TO A GPO POWER SUPPLY.

OR

- CONNECT THE WATER PUMP SUPPLY ACTIVE TO TERMINAL LABELED WPA IN NEXT TO R2
- CONNECT THE WATER PUMP ACTIVE TO TERMINAL LABELED WPA OUT NEXT TO R2
- DO NOT TAKE POWER FROM INSIDE THE UNIT
- A 1.5HP PUMP WITH 5.0A OR LOWER CAN BE WIRED TO WPA IN & WPA OUT.

3) IN CAREL PGD CHANGE PARAMETER, DISPLAY CONFIGURATION 04, PUMP CONTROL CHANGE TO CYCLE TO TEST TEMP

4) REFER TO THE OWNER'S GUIDE SUPPLIED IN UNIT

TO USE REMOTE ON/OFF

- CONNECT SWITCH CABLE TO D17 & D1C1
- IN CAREL PGD CHANGE PARAMETER DISPLAY THERMOREGULATION 06, BY DIGIT INPUT CHANGE TO YES
- REFER TO THE OWNER'S GUIDE SUPPLIED IN UNIT

REV	ECN	DESCRIPTION	DATE

		43 Marigold Street Revesby NSW 2212 Phone: (02) 9684 3684 Fax: (02) 9684 3698
RTHP030K#-DQ#-1	Part No: 47083E	Rev: 00
Drawn By: J.Bates	Date: 08/03/2019	08/03/2019

**POOL HEAT PUMP SPECIFICATIONS**  
Titanium Heat Exchanger / Rheem IQ Control **RTHP041KT-DQV-1**

<b>ELECTRICAL INPUT</b>	
Voltage/Phase	380 - 415 Volts / 3 Phase / 50 Hz
Full Load / Locked Rotor (Amps Per Phase)	18.96 FLA / 101 LRA
Min. Circuit Size	25 Amps
Refrigerant	R407c
Nominal Heating capacity	38.34 kW
Power input	6.74 kW
COP	5.69 COP
Noise Level	62 dBA @ 3 m
Rated Load Amps @ 10°C SST / 45°C SCT	14.4 Amps

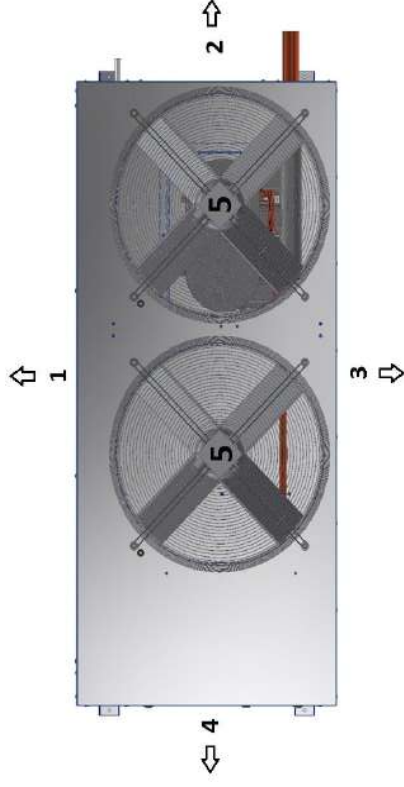
<b>TECHNICAL DATA</b>	
Make	<b>Compressor</b> Copeland
Type	Scroll 20016
Number Per Unit	1
FLA (Full Load Amps, each)	16.60 Amps
Voltage / Phase	380 - 415 / 3
Pole/RPM	2/2900
Air Flow	N/A
	<b>Fan</b> EBM-Papst
	Axial

<b>HEAT EXCHANGER (Water Side)</b>	
Type of Water Tube	Titanium Tube / PVC Shell
Design	Shell and Tube
Flow Rate Excl. By Pass	3.50 L/s
Design Temperature Difference	2.61 °C
Max. Outlet Water Temp	42 °C
Design Pressure Drop	25 kPa
Max. Operating Pressure	300 kPa

<b>GENERAL INFORMATION</b>	
Water Connections	40mm PVC
Drain	20mm Aluminium
Defrost	Hot Gas Injection
Cabinet Construction	1.2mm Stucco Aluminium
Approx. shipping weight	196 kg
Size L x W x H	1810 mm x 807 mm x 994 mm

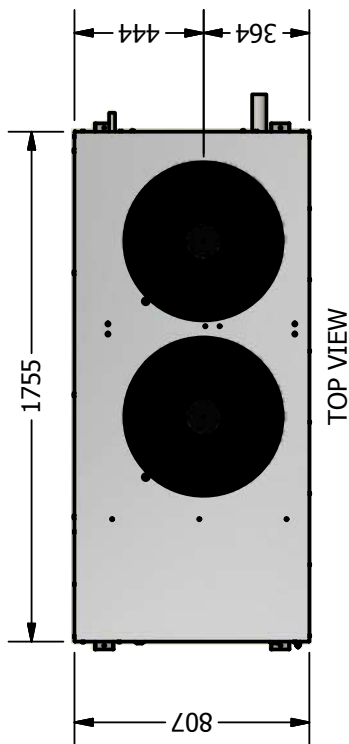
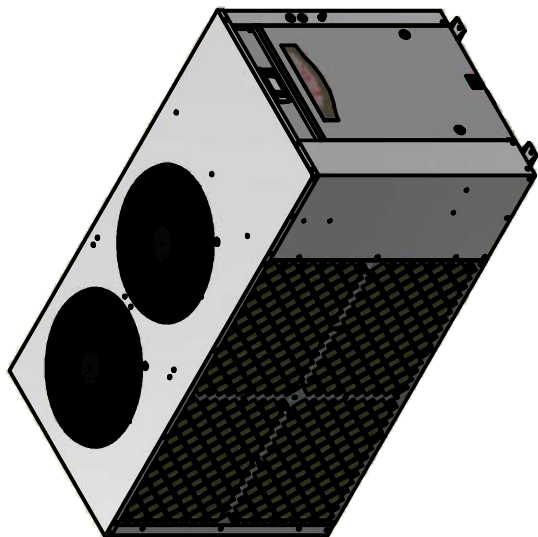
**COP TABLE**

<b>Water In °C</b>	<b>Ambient Temperature</b>									
	0 °C	5 °C	10 °C	15 °C	20 °C	25 °C	27 °C	30 °C	35 °C	
27 °C	23.21 kW 3.48 COP	26.34 kW 3.95 COP	29.88 kW 4.47 COP	32.82 kW 4.90 COP	36.03 kW 5.36 COP	37.17 kW 5.52 COP	38.34 kW 5.69 COP	39.54 kW 5.85 COP	42.05 kW 6.20 COP	
30 °C	22.97 kW 3.24 COP	26.02 kW 3.66 COP	29.45 kW 4.14 COP	32.31 kW 4.54 COP	35.43 kW 4.97 COP	36.53 kW 5.12 COP	37.67 kW 5.27 COP	38.83 kW 5.43 COP	41.27 kW 5.75 COP	
33 °C	22.75 kW 3.02 COP	25.70 kW 3.40 COP	29.04 kW 3.83 COP	31.81 kW 4.20 COP	34.84 kW 4.59 COP	35.91 kW 4.73 COP	37.01 kW 4.87 COP	38.14 kW 5.02 COP	40.51 kW 5.32 COP	
36 °C	22.53 kW 2.81 COP	25.40 kW 3.15 COP	28.64 kW 3.55 COP	31.32 kW 3.88 COP	34.26 kW 4.24 COP	35.30 kW 4.37 COP	36.36 kW 4.50 COP	37.46 kW 4.64 COP	39.75 kW 4.92 COP	

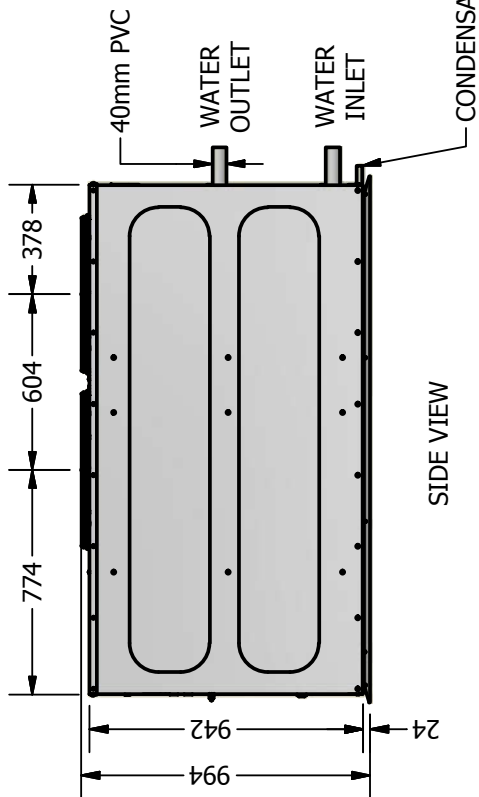


<b>UNIT CLEARANCES</b>	
Direction	Description
1	Evaporator Coil
2	Water Connections
3	Plain Back
4	Compressor Access
5	Top - Fan Discharge
	Minimum Clearance Required
	500 mm
	500 mm
	Nil
	850 mm
	3500 mm

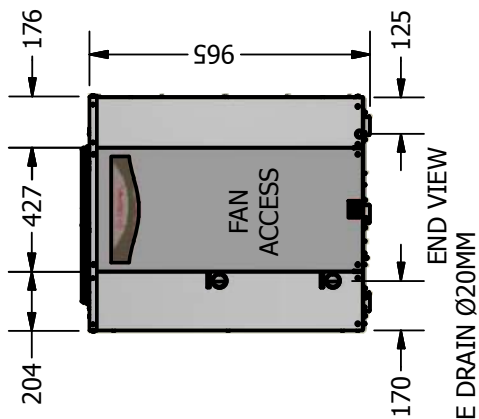
When units are placed side by side allow 1000mm between evaporator coils.  
Rating Conditions: 27°C ambient, 60% RH, 27°C water in



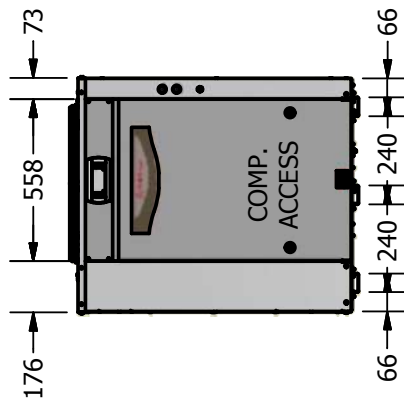
TOP VIEW



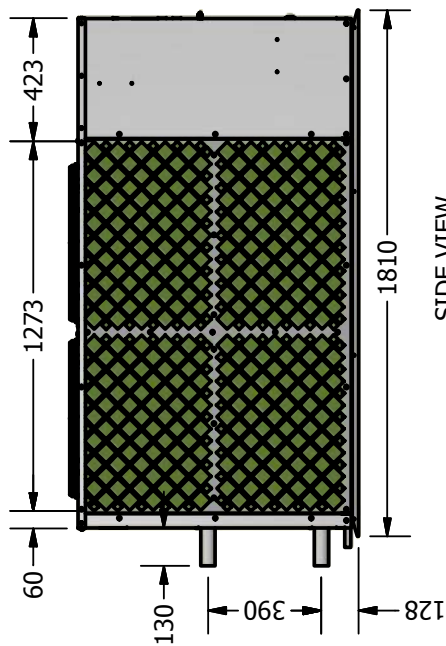
SIDE VIEW



END VIEW



END VIEW



SIDE VIEW



**Rheem**

THERMAL SYSTEMS GROUP

SHEET 1 OF 3

Description: RHEEM THERMAL POOL HTR 41kW 3PH

Part No: RTHP041KT-DQV-1

Rev.

Date: 15/10/2019

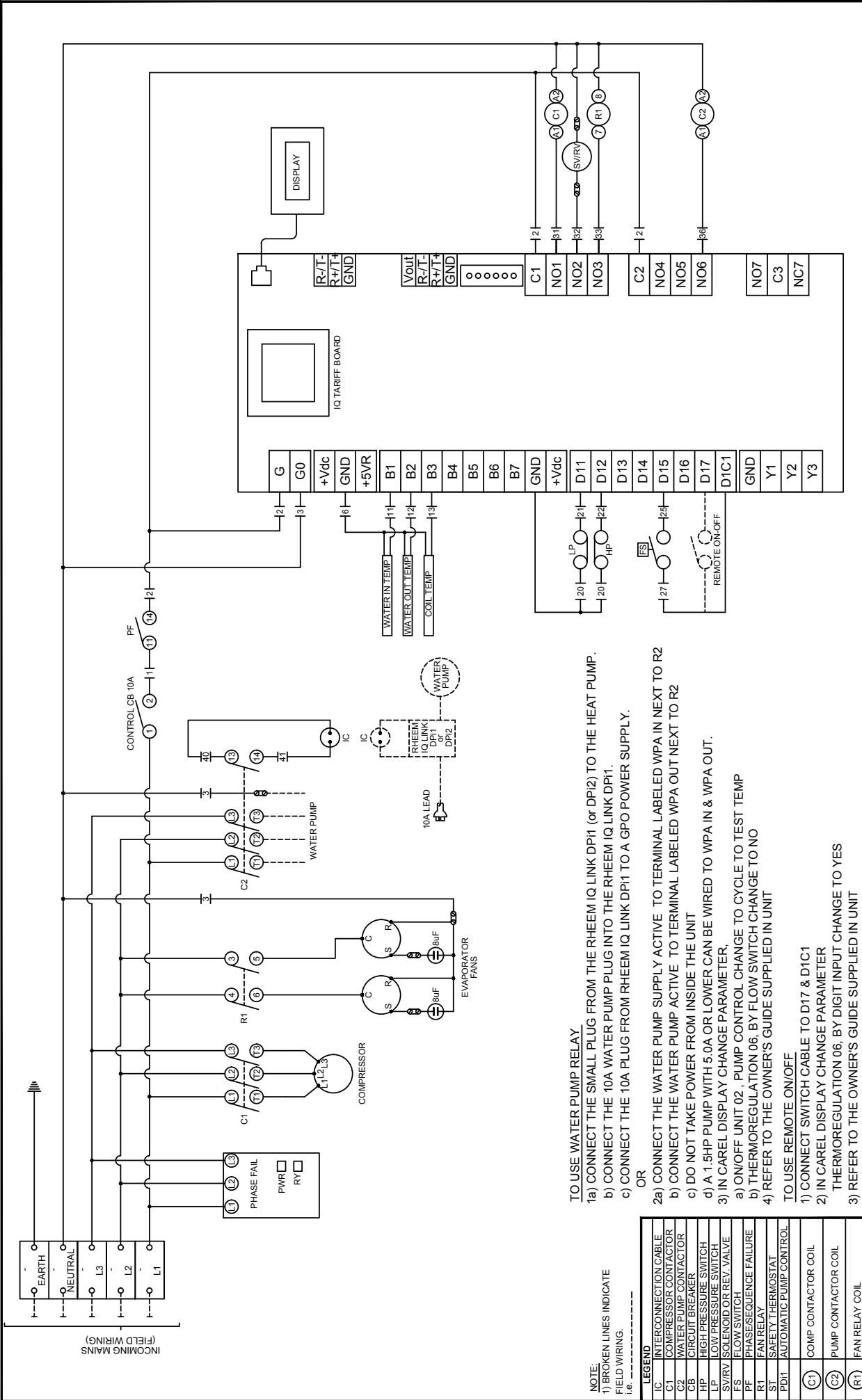
Material:

Checked By: JPB

General Tolerance: Sheetmetal - Cut Size - ± 0.5mm, Angle - ± 0.5°, Bend size - ± 0.3mm, Tubes - Dimensions ± 2, Angle ± 2°

Scale: N.T.S

REV	ECN	DESCRIPTION	DATE



**TO USE WATER PUMP RELAY**  
 1a) CONNECT THE SMALL PLUG FROM THE RHEEM IQ LINK DP1 (OR DP12) TO THE HEAT PUMP.  
 b) CONNECT THE 10A WATER PUMP PLUG INTO THE RHEEM IQ LINK DP1.  
 c) CONNECT THE 10A PLUG FROM RHEEM IQ LINK DP1 TO A GPO POWER SUPPLY.

**OR**  
 2a) CONNECT THE WATER PUMP SUPPLY ACTIVE TO TERMINAL LABELED WPA IN NEXT TO R2  
 b) CONNECT THE WATER PUMP ACTIVE TO TERMINAL LABELED WPA OUT NEXT TO R2  
 c) DO NOT TAKE POWER FROM INSIDE THE UNIT  
 d) A 1.5HP PUMP WITH 5.0A OR LOWER CAN BE WIRED TO WPA IN & WPA OUT.  
 3) IN CAREL DISPLAY CHANGE PARAMETER,  
 a) ON/OFF UNIT 02, PUMP CONTROL CHANGE TO CYCLE TO TEST TEMP  
 b) THERMOREGULATION 06, BY FLOW SWITCH CHANGE TO NO  
 4) REFER TO THE OWNER'S GUIDE SUPPLIED IN UNIT

**TO USE REMOTE ON/OFF**  
 1) CONNECT SWITCH CABLE TO D17 & D1C1  
 2) IN CAREL DISPLAY CHANGE PARAMETER THERMOREGULATION 06, BY DIGIT INPUT CHANGE TO YES  
 3) REFER TO THE OWNER'S GUIDE SUPPLIED IN UNIT

**NOTE:**  
 1) BROKEN LINES INDICATE FIELD WIRING.  
 i.e. -----

LEGEND	DESCRIPTION
IC	INTERCONNECTION CABLE
C1	COMPRESSOR CONTACTOR
C2	WATER PUMP CONTACTOR
CB	CIRCUIT BREAKER
HP	HIGH PRESSURE SWITCH
LP	LOW PRESSURE SWITCH
SVRV	SOLENOID OR REV. VALVE
FS	FLOW SWITCH
PF	PHASE SEQUENCE FAILURE
RT	FAN RELAY
ST	SAFETY THERMOSTAT
PDI1	AUTOMATIC PUMP CONTROL
(C1)	COMP CONTACTOR COIL
(C2)	PUMP CONTACTOR COIL
(R1)	FAN RELAY COIL

		<b>RTHP041K#-DQ#-1</b>	
43 Marigold Street Revesby NSW 2212 Phone: (02) 9684 3684 Fax: (02) 9684 3698		Part No: <b>47007E</b>	
Drawn By: <b>ST</b>		Date: <b>28/05/2019</b>	
REV 01	ECN 0374	DESCRIPTION Added DPi Link and pump contactor	DATE 14/10/19
		Rev: <b>01</b>	



**POOL HEAT PUMP SPECIFICATIONS**  
Titanium Heat Exchanger / Rheem IQ Control **RTHP052KT-DQV-1**

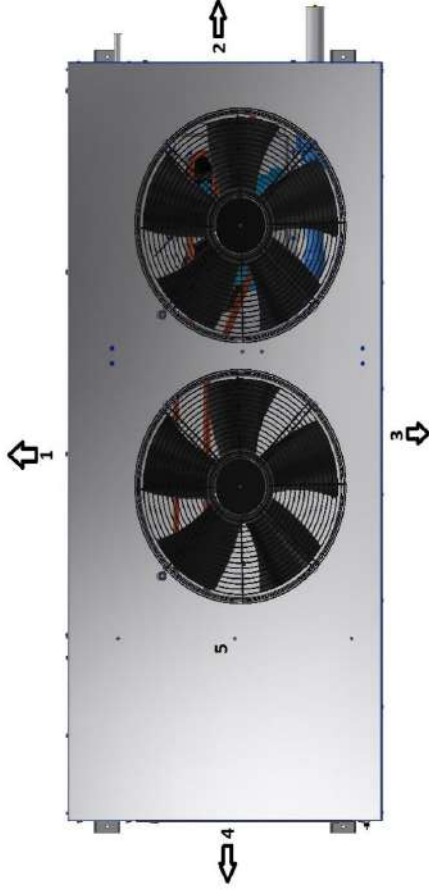
<b>ELECTRICAL INPUT</b>	
Voltage/Phase	380 - 415 Volts / 3 Phase / 50 Hz
Full Load / Locked Rotor (Amps Per Phase)	24.2 FLA / 118 LRA
Min. Circuit Size	32 Amps
Refrigerant	R407c
Nominal Heating capacity	51.28 kW
Power input	9.38 kW
COP	5.47 COP
Noise Level	69 dBA @ 3 m
Rated Load Amps @ 10°C SST / 45°C SCT	17.4 Amps

<b>TECHNICAL DATA</b>	
<b>Compressor</b>	<b>Fan</b>
Make	EBM-Papst
Type	Scroll 20018
Number Per Unit	2
FLA (Full Load Amps, each)	1.20 Amps
Voltage / Phase	380 - 415 / 3
Pole/RPM	2/2900
Air Flow	6/890
	4700 L/s
<b>HEAT EXCHANGER (Water Side)</b>	
Type of Water Tube	Titanium Tube / PVC Shell
Design	Shell and Tube
Flow Rate Excl. By Pass	3.50 L/s
Design Temperature Difference	3.50 °C
Max. Outlet Water Temp	42 °C
Design Pressure Drop	25 kPa
Max. Operating Pressure	300 kPa

<b>GENERAL INFORMATION</b>	
Water Connections	40mm PVC
Drain	20mm Aluminium
Defrost	Hot Gas Injection
Cabinet Construction	1.2mm Stucco Aluminium
Approx. shipping weight	270 kg
Size L x W x H	1860 mm x 807 mm x 1355 mm

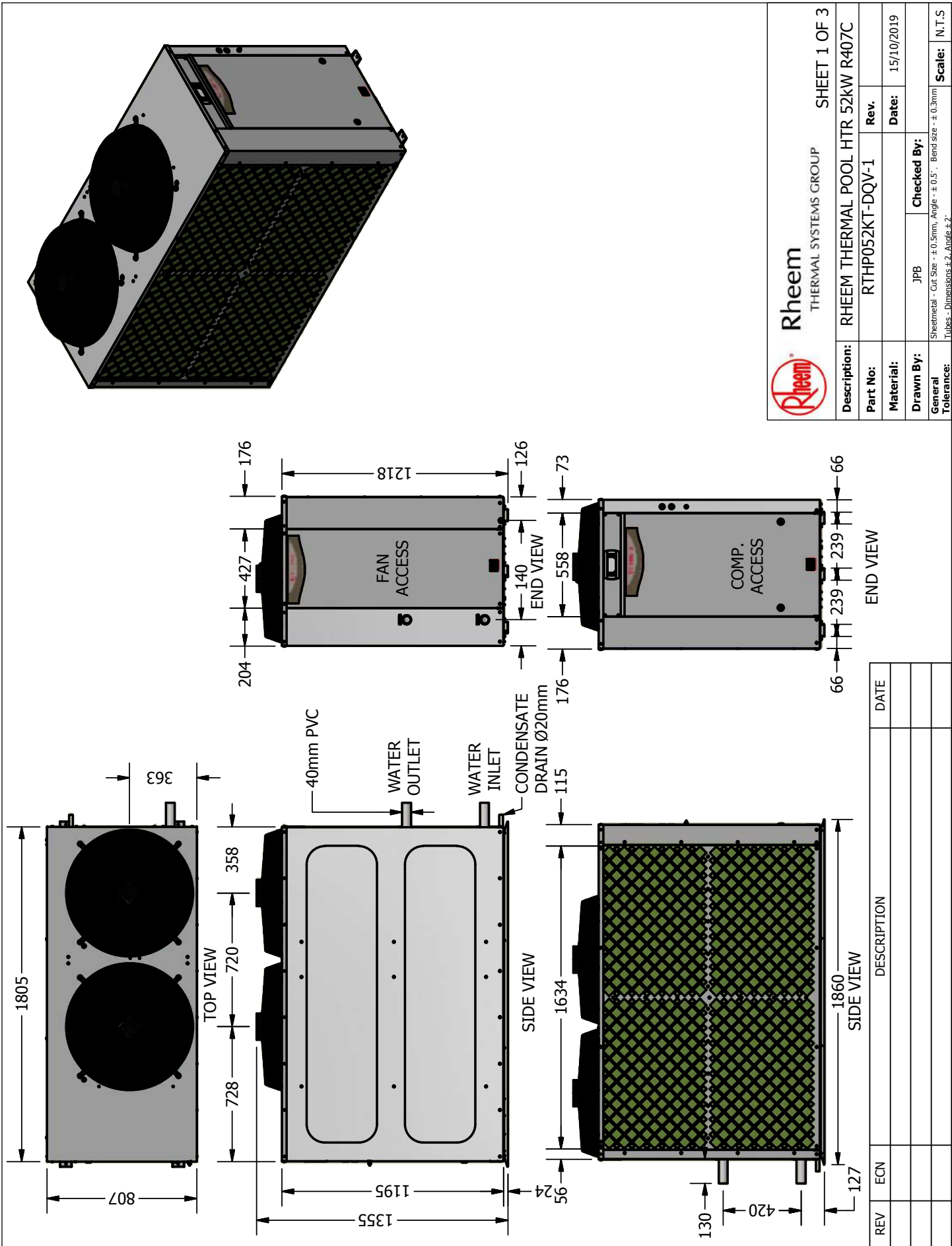
**COP TABLE**

Water In °C	Ambient Temperature								
	0 °C	5 °C	10 °C	15 °C	20 °C	25 °C	27 °C	30 °C	35 °C
27 °C	30.75 kW 3.32 COP	35.15 kW 3.78 COP	40.00 kW 4.29 COP	43.96 kW 4.70 COP	48.24 kW 5.15 COP	49.74 kW 5.31 COP	51.28 kW 5.47 COP	52.86 kW 5.63 COP	56.15 kW 5.97 COP
30 °C	30.30 kW 3.07 COP	34.65 kW 3.50 COP	39.41 kW 3.98 COP	43.30 kW 4.36 COP	47.48 kW 4.78 COP	48.95 kW 4.92 COP	50.46 kW 5.07 COP	52.00 kW 5.22 COP	55.21 kW 5.54 COP
33 °C	29.83 kW 2.84 COP	34.12 kW 3.24 COP	38.79 kW 3.68 COP	42.60 kW 4.03 COP	46.70 kW 4.42 COP	48.13 kW 4.55 COP	49.60 kW 4.69 COP	51.11 kW 4.83 COP	54.24 kW 5.12 COP
36 °C	29.34 kW 2.62 COP	33.56 kW 2.99 COP	38.15 kW 3.39 COP	41.88 kW 3.72 COP	45.88 kW 4.07 COP	47.28 kW 4.20 COP	48.71 kW 4.32 COP	50.18 kW 4.45 COP	53.24 kW 4.72 COP



UNIT CLEARANCES	
Direction	Description
1	Evaporator Coil
2	Water Connections
3	Plain Back
4	Compressor Access
5	Top - Fan Discharge
	Minimum Clearance Required
	500 mm
	500 mm
	Nil
	850 mm
	3500 mm

When units are placed side by side allow 1000mm between evaporator coils.  
Rating Conditions: 27°C ambient, 60% RH, 27°C water in

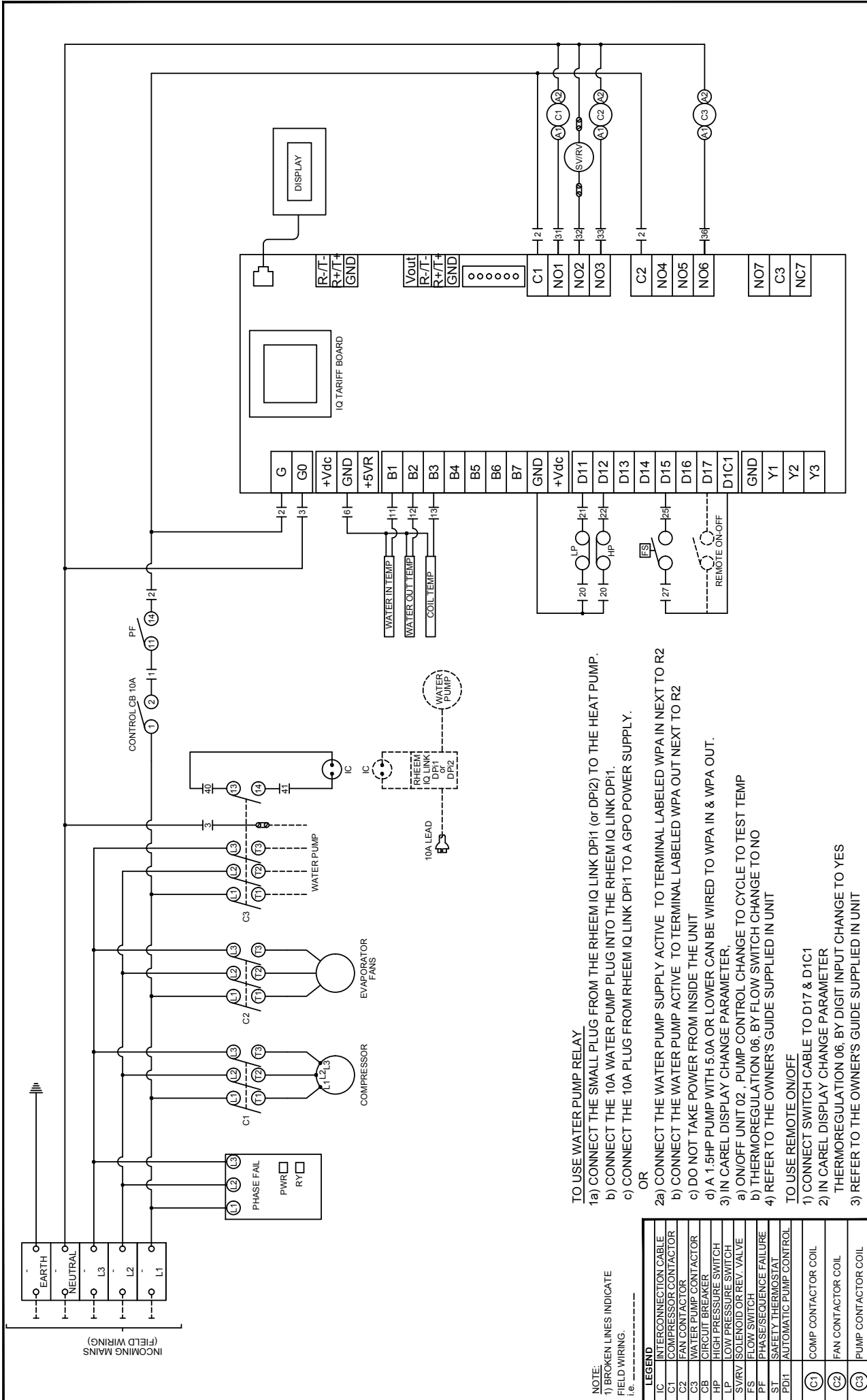


**Rheem**  
THERMAL SYSTEMS GROUP

**SHEET 1 OF 3**

<b>Description:</b>	RHEEM THERMAL POOL HTR 52kW R407C		
<b>Part No:</b>	RTHP052KT-DQV-1		
<b>Material:</b>		<b>Rev.</b>	
<b>Drawn By:</b>	JPB	<b>Date:</b>	15/10/2019
<b>Checked By:</b>			
<b>General Tolerance:</b>	Sheetmetal - Cut Size - ±0.5mm, Angle - ±0.5°, Bend size - ±0.3mm Tubes - Dimensions ±2, Angle ±2		
<b>Scale:</b>	N.T.S		

REV	ECN	DESCRIPTION	DATE



**TO USE WATER PUMP RELAY**

- 1a) CONNECT THE SMALL PLUG FROM THE RHEEM IQ LINK DP11 (or DP12) TO THE HEAT PUMP.
- b) CONNECT THE 10A WATER PUMP PLUG INTO THE RHEEM IQ LINK DP11.
- c) CONNECT THE 10A PLUG FROM RHEEM IQ LINK DP11 TO A GPO POWER SUPPLY.

OR

- 2a) CONNECT THE WATER PUMP SUPPLY ACTIVE TO TERMINAL LABELED WPA IN NEXT TO R2
- b) CONNECT THE WATER PUMP ACTIVE TO TERMINAL LABELED WPA OUT NEXT TO R2
- c) DO NOT TAKE POWER FROM INSIDE THE UNIT
- d) A 1.5HP PUMP WITH 5.0A OR LOWER CAN BE WIRED TO WPA IN & WPA OUT.

- 3) IN CAREL DISPLAY CHANGE PARAMETER,
  - a) ON/OFF UNIT 02, PUMP CONTROL CHANGE TO CYCLE TO TEST TEMP
  - b) THERMOREGULATION 06, BY FLOW SWITCH CHANGE TO NO
- 4) REFER TO THE OWNER'S GUIDE SUPPLIED IN UNIT

**TO USE REMOTE ON/OFF**

- 1) CONNECT SWITCH CABLE TO D17 & D1C1
- 2) IN CAREL DISPLAY CHANGE PARAMETER THERMOREGULATION 06, BY DIGIT INPUT CHANGE TO YES
- 3) REFER TO THE OWNER'S GUIDE SUPPLIED IN UNIT

**NOTE:**  
 1) BROKEN LINES INDICATE FIELD WIRING.  
 i.e. -----

REV	ECN	DESCRIPTION	DATE
01	0355	Description changed to RTH#05#K#DQ#1	31/7/19
02	0359	Added DPI LINK removed contactor for relay	09/8/19
03	0374	Added pump contactor was relay	14/10/19

	43 Marigold Street Revesby NSW 2212 Phone: (02) 9684 3684 Fax: (02) 9684 3698	<b>RTHP052K#-DQ#-1</b>
Drawn By: J.Bates		Part No: <b>47005E</b>
Date: 09/08/2019		Rev: <b>03</b>

**POOL HEAT PUMP SPECIFICATIONS**  
Titanium Heat Exchanger / Rheem IQ Control **RTHP066KT-DQV-1**

<b>ELECTRICAL INPUT</b>	
Voltage/Phase	380 - 415 Volts / 3 Phase / 50 Hz
Full Load / Locked Rotor (Amps Per Phase)	33.6 FLA / 174 LRA
Min. Circuit Size	40.0 Amps
Refrigerant	R407c
Nominal Heating capacity	66.23 kW
Power input	12.37 kW
COP	5.35 COP
Noise Level	69 dBa @ 3 m
Rated Load Amps @ 10°C SST / 45°C SCT	25.9 Amps

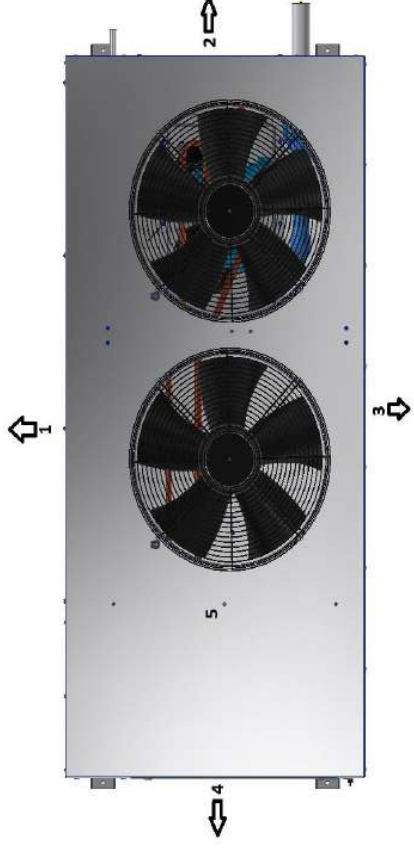
<b>TECHNICAL DATA</b>	
Make	<b>Compressor</b> Copeland
Type	Scroll 20056
Number Per Unit	1
FLA (Full Load Amps, each)	31.20 Amps
Voltage / Phase	380 - 415 / 3
Pole/RPM	2/2900
Air Flow	N/A
	Fan EBM-Papst Axial 2

<b>HEAT EXCHANGER (Water Side)</b>	
Type of Water Tube	Titanium Tube / PVC Shell
Design	Shell and Tube
Flow Rate Excl. By Pass	3.50 L/s
Design Temperature Difference	4.52 °C
Max. Outlet Water Temp	42 °C
Design Pressure Drop	25 kPa
Max. Operating Pressure	300 kPa

<b>GENERAL INFORMATION</b>	
Water Connections	40mm PVC
Drain	20mm Aluminium
Defrost	Hot Gas Injection
Cabinet Construction	1.2mm Stucco Aluminium
Approx. shipping weight	300 kg
Size L x W x H	1860 mm x 807 mm x 1355 mm

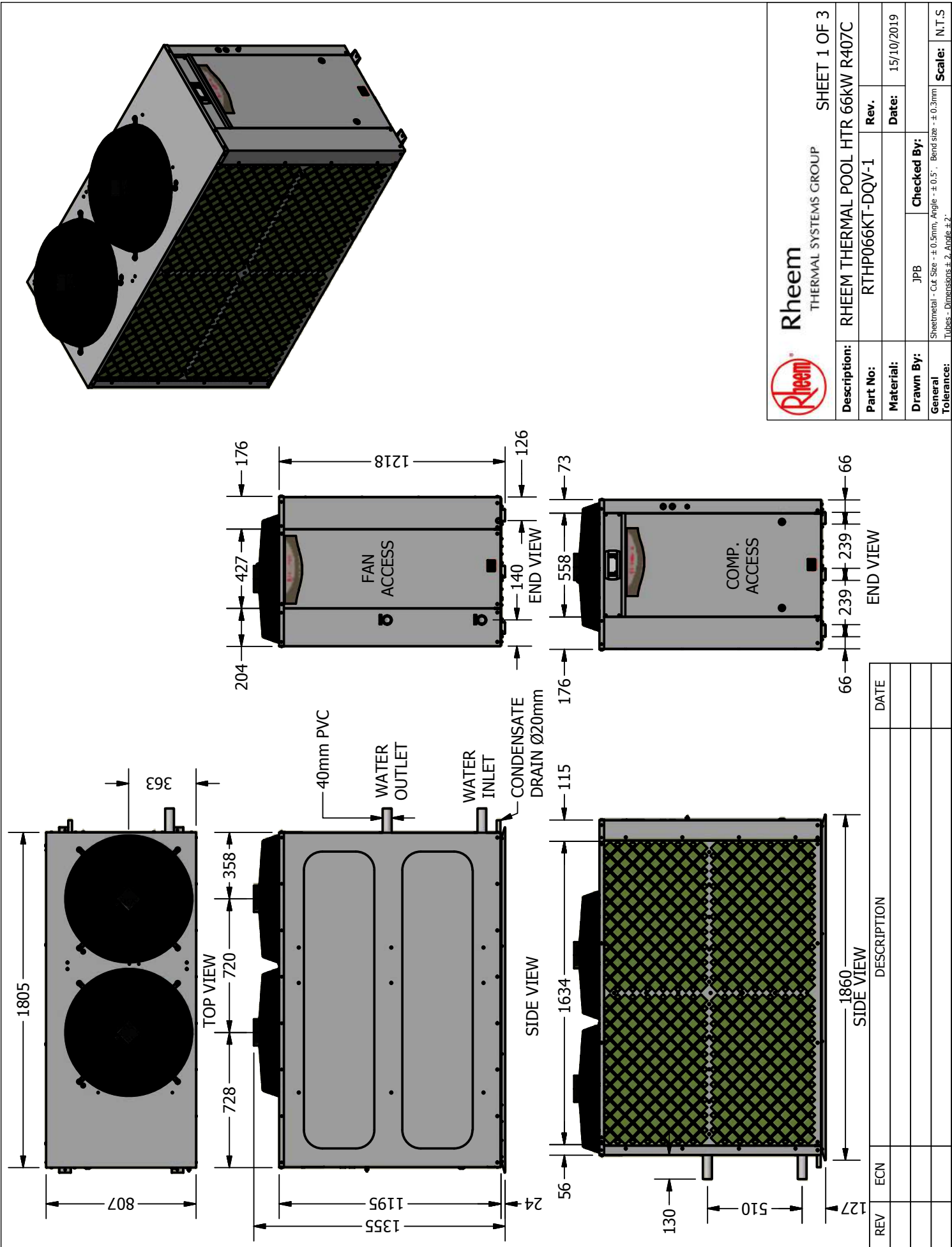
**COP TABLE**

Water In °C	Ambient Temperature									
	0 °C	5 °C	10 °C	15 °C	20 °C	25 °C	27 °C	30 °C	35 °C	
27 °C	39.74 kW 3.27 COP	45.33 kW 3.72 COP	51.55 kW 4.22 COP	56.68 kW 4.62 COP	62.25 kW 5.05 COP	64.21 kW 5.20 COP	66.23 kW 5.35 COP	66.23 kW 5.35 COP	68.30 kW 5.51 COP	
30 °C	39.20 kW 3.03 COP	44.69 kW 3.45 COP	50.79 kW 3.91 COP	55.80 kW 4.29 COP	61.25 kW 4.69 COP	63.16 kW 4.83 COP	65.13 kW 4.97 COP	65.13 kW 4.97 COP	67.15 kW 5.12 COP	
33 °C	38.64 kW 2.81 COP	44.03 kW 3.19 COP	49.99 kW 3.62 COP	54.89 kW 3.97 COP	60.20 kW 4.34 COP	62.07 kW 4.47 COP	63.99 kW 4.61 COP	63.99 kW 4.61 COP	65.96 kW 4.74 COP	
36 °C	38.06 kW 2.60 COP	43.34 kW 2.95 COP	49.17 kW 3.34 COP	53.96 kW 3.66 COP	59.14 kW 4.01 COP	60.96 kW 4.13 COP	62.82 kW 4.25 COP	62.82 kW 4.25 COP	64.74 kW 4.38 COP	



<b>UNIT CLEARANCES</b>		
Direction	Description	Minimum Clearance Required
1	Evaporator Coil	500 mm
2	Water Connections	500 mm
3	Plain Back	Nil
4	Compressor Access	850 mm
5	Top - Fan Discharge	3500 mm

When units are placed side by side allow 1000mm between evaporator coils.  
Rating Conditions: 27°C ambient, 60% RH, 27°C water in



<b>Rheem</b> THERMAL SYSTEMS GROUP		SHEET 1 OF 3	
<b>Description:</b>	RHEEM THERMAL POOL HTR 66kW R407C	<b>Rev.:</b>	
<b>Part No:</b>	RTHP066KT-DQV-1	<b>Date:</b>	15/10/2019
<b>Material:</b>		<b>Checked By:</b>	JPB
<b>Drawn By:</b>		Sheetmetal - Cut Size - ± 0.5mm, Angle - ± 0.5°, Bend size - ± 0.3mm	
<b>General Tolerance:</b>		Tubes - Dimensions ± 2, Angle ± 2°	
		<b>Scale:</b>	N.T.S

REV	ECN	DESCRIPTION	DATE



## POOL HEAT PUMP SPECIFICATIONS

Titanium Heat Exchanger / Rheem IQ Control **RTHP087KT-DQV-1**

ELECTRICAL INPUT	
Voltage/Phase	380 - 415 Volts / 3 Phase / 50 Hz
Full Load / Locked Rotor (Amps Per Phase)	40.9 FLA / 225 LRA
Min. Circuit Size	50.0 Amps
Refrigerant	R407C
Nominal Heating capacity	87.48 kW
Power input	16.56 kW
COP	5.28 COP
Noise Level	69 dBa @ 3 m
Rated Load Amps @ 10°C SST / 45°C SCT	28.9 Amps

### TECHNICAL DATA

	Compressor	Fan
Make	Copeland	EBM-Papst
Type	Scroll 20092	Axial
Number Per Unit	1	2
FLA (Full Load Amps, each)	37.50 Amps	1.70 Amps
Voltage / Phase	380 - 415 / 3	380 - 415 / 3
Pole/RPM	2/2900	6/890
Air Flow	N/A	7334 L/s

### HEAT EXCHANGER (Water Side)

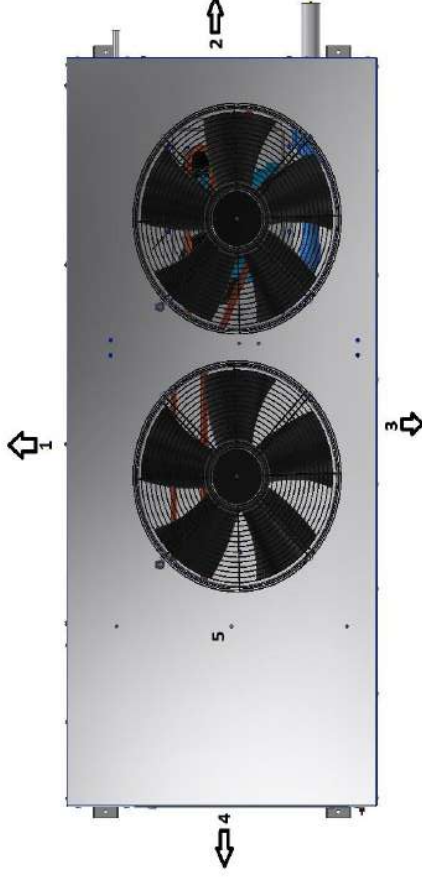
Type of Water Tube	Titanium Tube / PVC Shell
Design	Shell and Tube
Flow Rate Excl. By Pass	5.25 L/s
Design Temperature Difference	3.98 °C
Max. Outlet Water Temp	42 °C
Design Pressure Drop	40 kPa
Max. Operating Pressure	300 kPa

### GENERAL INFORMATION

Water Connections	80 mm PVC
Drain	20mm Aluminium
Defrost	Hot Gas Injection
Cabinet Construction	1.2mm Stucco Aluminium
Approx. shipping weight	500 kg
Size L x W x H	2180 mm x 1134 mm x 1205 mm

## COP TABLE

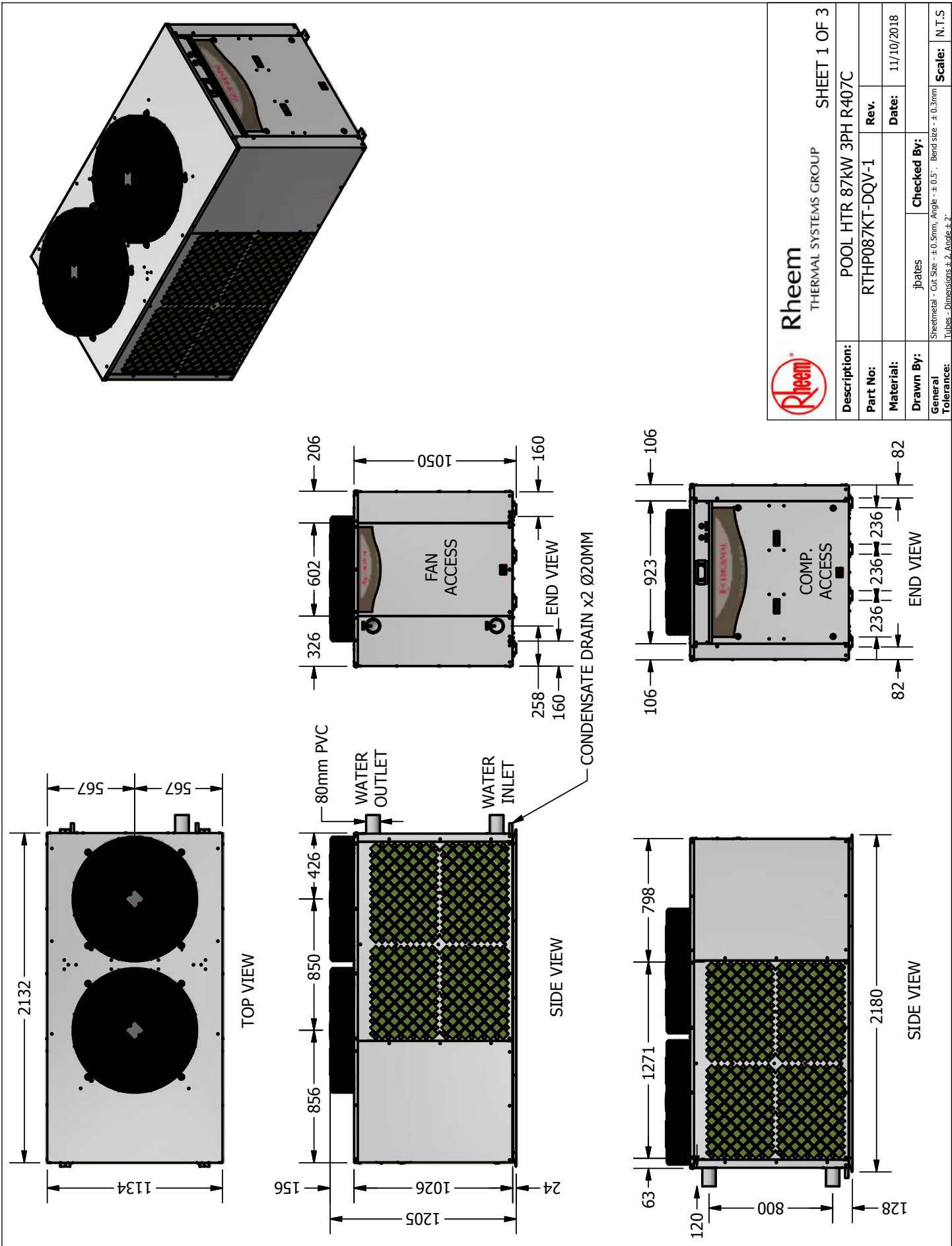
Water In °C	Ambient Temperature								
	0 °C	5 °C	10 °C	15 °C	20 °C	25 °C	27 °C	30 °C	35 °C
27 °C	52.98 kW 3.29 COP	60.17 kW 3.71 COP	68.28 kW 4.18 COP	75.00 kW 4.56 COP	82.29 kW 4.98 COP	84.85 kW 5.13 COP	87.48 kW 5.28 COP	87.48 kW 5.28 COP	90.18 kW 5.44 COP
30 °C	52.40 kW 3.06 COP	59.40 kW 3.45 COP	67.32 kW 3.88 COP	73.90 kW 4.23 COP	81.05 kW 4.62 COP	83.56 kW 4.75 COP	86.14 kW 4.89 COP	86.14 kW 4.89 COP	88.78 kW 5.03 COP
33 °C	51.88 kW 2.85 COP	58.68 kW 3.20 COP	66.40 kW 3.60 COP	72.82 kW 3.92 COP	79.81 kW 4.28 COP	82.28 kW 4.40 COP	84.80 kW 4.53 COP	84.80 kW 4.53 COP	87.40 kW 4.66 COP
36 °C	51.43 kW 2.64 COP	58.02 kW 2.97 COP	65.52 kW 3.34 COP	71.78 kW 3.64 COP	78.61 kW 3.96 COP	81.02 kW 4.07 COP	83.49 kW 4.19 COP	83.49 kW 4.19 COP	86.03 kW 4.30 COP




### UNIT CLEARANCES

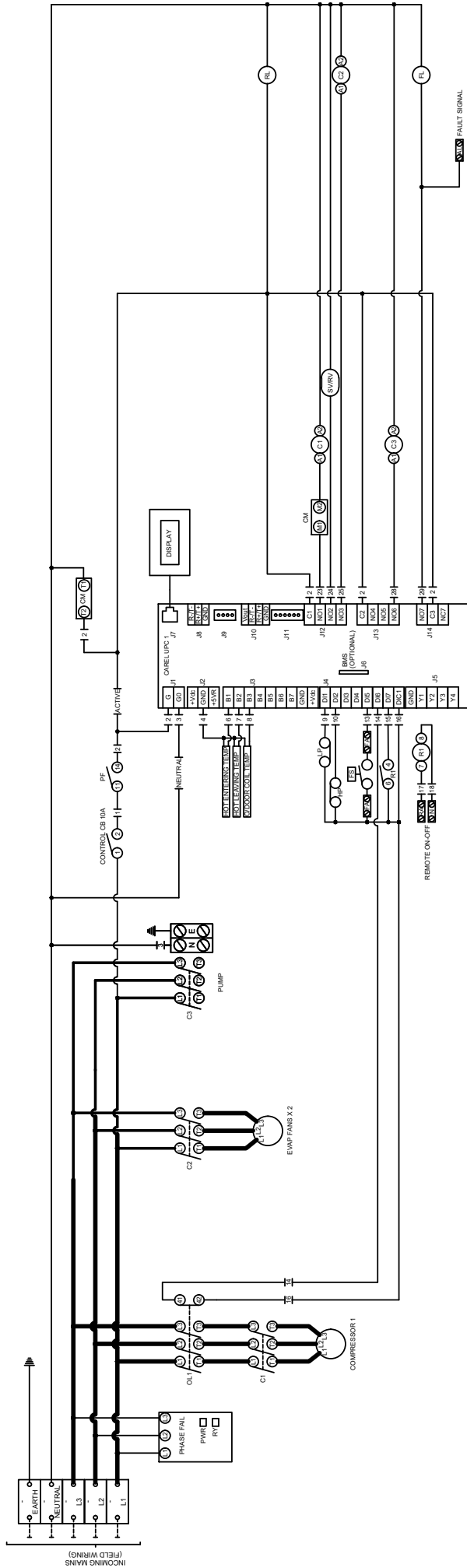
Direction	Description	Minimum Clearance Required
1	Evaporator Coil	500 mm
2	Water Connections	850 mm
3	Evaporator Coil	500 mm
4	Compressor Access	850 mm
5	Top - Fan Discharge	3500 mm

When units are placed side by side allow 1000mm between evaporator coils.  
Rating Conditions: 27°C ambient, 60% RH, 27°C water in



 <b>Rheem</b> THERMAL SYSTEMS GROUP		SHEET 1 OF 3	
		Description: POOL HTR 87KW 3PH R407C	
Part No:	RTHP087KT-DQV-1	Rev.	
Material:		Date:	11/10/2018
Drawn By:	j.bates	Checked By:	
General Tolerance:	Sheetmetal - Cut Size - ±0.5mm, Angle - ±0.5°, Bend size - ±0.3mm		Scale: N.T.S
	Tubes - Dimensions ± 2, Angle ± 2°		





NOTE:  
 1. BROWN LINES INDICATE  
 2. GREEN LINES INDICATE  
 3. BLUE LINES INDICATE  
 4. RED LINES INDICATE  
 5. BLACK LINES INDICATE  
 6. WHITE LINES INDICATE

LEGEND	WIRE SIZE
(C1)	1.0mm <sup>2</sup>
(C2)	2.5mm <sup>2</sup>
(C3)	6.0mm <sup>2</sup>

SYMBOL	DESCRIPTION
	TERMINAL BLOCK - FAULT SIGNAL
	TERMINAL BLOCK - RELAY ACTIVE
	TERMINAL BLOCK - EARTH
	TERMINAL BLOCK - NEUTRAL
	TERMINAL BLOCK - FLOW SWITCH

REV	ECN	DESCRIPTION

DATE	Drawn By:	B. Fleming	Date:	30/04/2020

**Rheem**  
THERMAL SYSTEMS GROUP

43 Marigold Street  
 Revesby NSW 2212  
 Phone: (02) 9684 3684  
 Fax: (02) 9684 3698

**RTHP087K#-DQ#-1**

Part No: **47290E** Rev: **00**

**POOL HEAT PUMP SPECIFICATIONS**  
Titanium Heat Exchanger / Rheem IQ Control      **RTHP102KT-DQV-1**

<b>ELECTRICAL INPUT</b>	
Voltage/Phase	380 - 415 Volts / 3 Phase / 50 Hz
Full Load / Locked Rotor (Amps Per Phase)	47.0 FLA / 118 LRA
Min. Circuit Size	63.0 Amps
Refrigerant	R407c
Nominal Heating capacity	102.56 kW
Power input	18.24 kW
COP	5.62 COP
Noise Level	69 dBa @ 3 m
Rated Load Amps @ 10°C SST / 45°C SCT	36.6 Amps

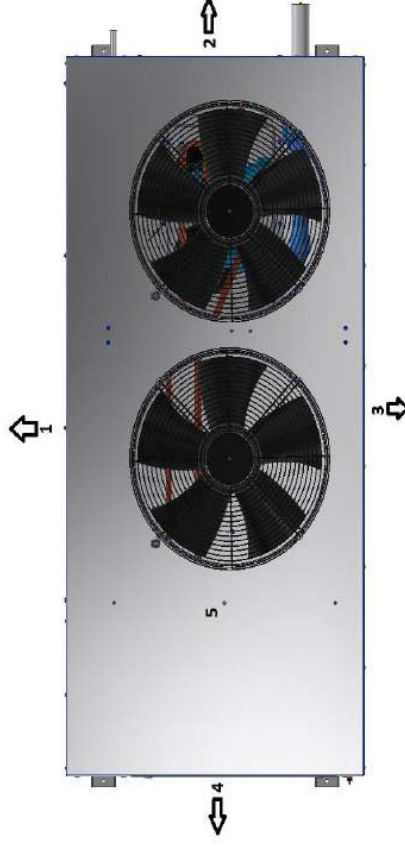
<b>TECHNICAL DATA</b>	
Make	<b>Compressor</b> Copeland
Type	Scroll 20018
Number Per Unit	2
FLA (Full Load Amps, each)	21.80 Amps
Voltage / Phase	380 - 415 / 3
Pole/RPM	2/2900
Air Flow	N/A
	Fan EBM-Papst Axial

<b>HEAT EXCHANGER (Water Side)</b>	
Type of Water Tube	Titanium Tube / PVC Shell
Design	Shell and Tube
Flow Rate Excl. By Pass	7.0 L/s
Design Temperature Difference	3.50 °C
Max. Outlet Water Temp	42 °C
Design Pressure Drop	40 kPa
Max. Operating Pressure	300 kPa

<b>GENERAL INFORMATION</b>	
Water Connections	80 mm PVC
Drain	20mm Aluminium
Defrost	Hot Gas Injection
Cabinet Construction	1.2mm Stucco Aluminium
Approx. shipping weight	600 kg
Size L x W x H	2180 mm x 1134 mm x 1373 mm

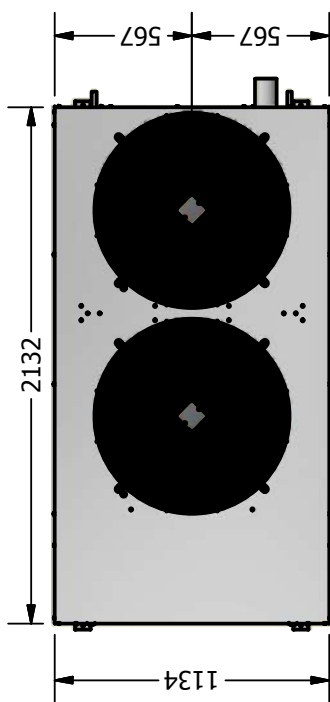
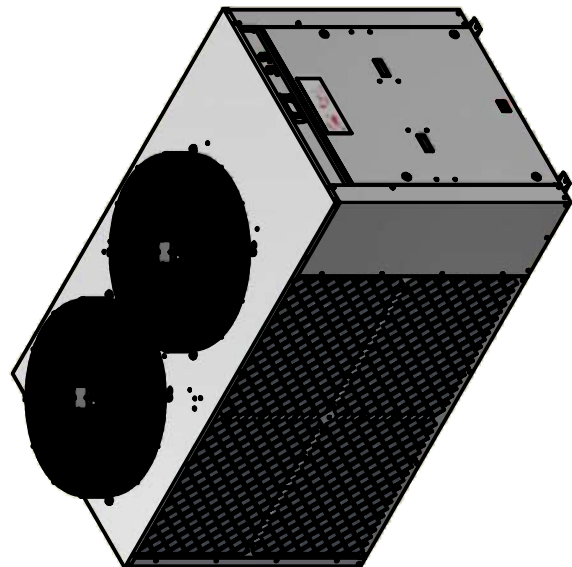
**COP TABLE**

Water In °C	Ambient Temperature									
	0 °C	5 °C	10 °C	15 °C	20 °C	25 °C	27 °C	30 °C	35 °C	
27 °C	61.49 kW 3.41 COP	70.30 kW 3.89 COP	79.99 kW 4.41 COP	87.92 kW 4.84 COP	96.48 kW 5.30 COP	99.48 kW 5.46 COP	<b>102.56 kW</b> <b>5.62 COP</b>	105.72 kW 5.79 COP	112.30 kW 6.14 COP	
30 °C	60.61 kW 3.16 COP	69.30 kW 3.60 COP	78.82 kW 4.08 COP	86.59 kW 4.48 COP	94.97 kW 5.05 COP	97.91 kW 5.21 COP	100.92 kW 5.21 COP	104.01 kW 5.36 COP	110.43 kW 5.69 COP	
33 °C	59.66 kW 2.91 COP	68.23 kW 3.32 COP	77.59 kW 3.77 COP	85.20 kW 4.13 COP	93.39 kW 4.53 COP	96.26 kW 4.67 COP	99.20 kW 4.81 COP	102.22 kW 4.95 COP	108.48 kW 5.25 COP	
36 °C	58.68 kW 2.68 COP	67.12 kW 3.06 COP	76.30 kW 3.47 COP	83.76 kW 3.81 COP	91.76 kW 4.17 COP	94.56 kW 4.30 COP	97.43 kW 4.43 COP	100.37 kW 4.56 COP	106.48 kW 4.84 COP	

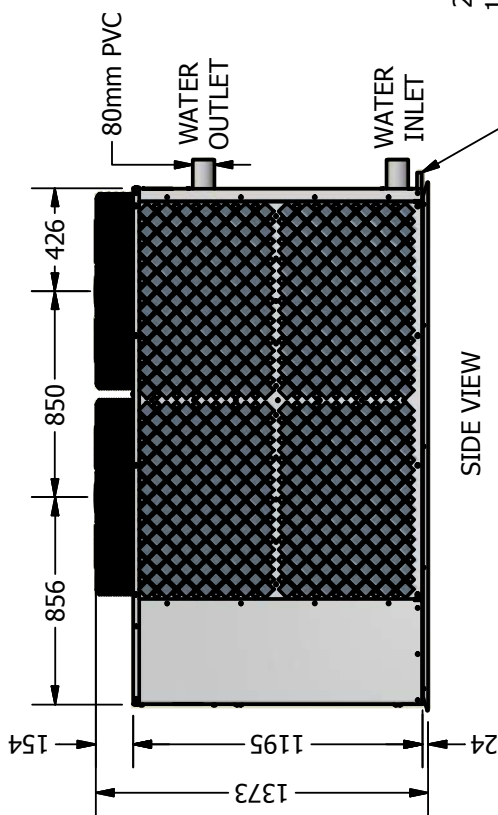


<b>UNIT CLEARANCES</b>		
Direction	Description	Minimum Clearance Required
1	Evaporator Coil	500 mm
2	Water Connections	500 mm
3	Evaporator Coil	500 mm
4	Compressor Access	850 mm
5	Top – Fan Discharge	3500 mm

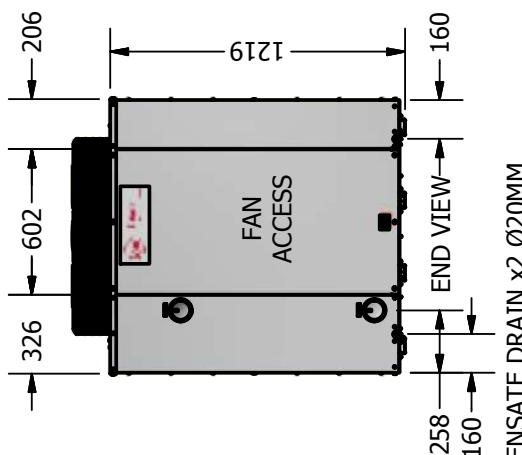
When units are placed side by side allow 1000mm between evaporator coils.  
Rating Conditions: 27°C ambient, 60% RH, 27°C water in



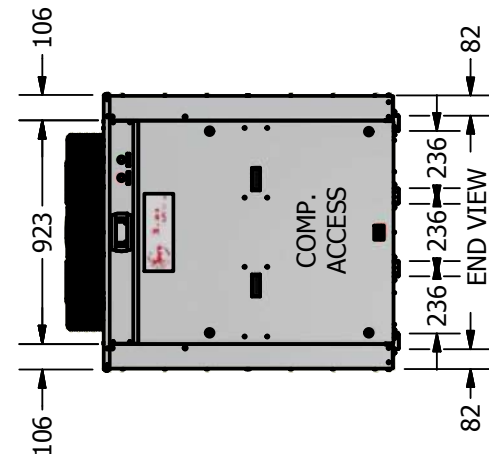
TOP VIEW



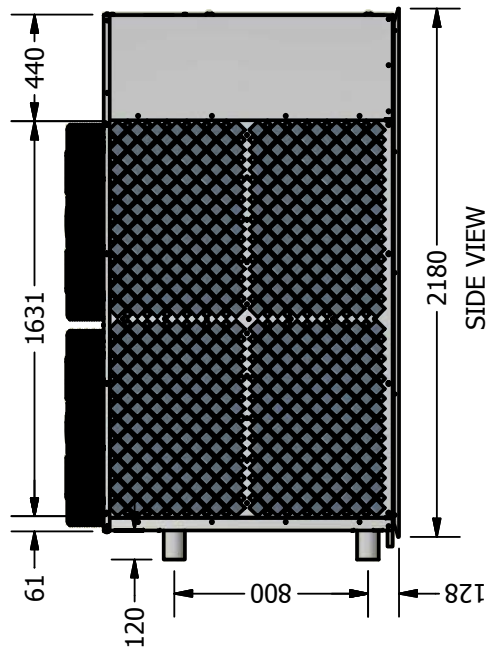
SIDE VIEW



CONDENSATE DRAIN x2 Ø20MM



SIDE VIEW



**Rheem**  
THERMAL SYSTEMS GROUP

SHEET 1 OF 4

<b>Description:</b>	POOL HTR 102KW 3PH R407C		
<b>Part No:</b>	RTHP102KT-	<b>Rev.</b>	1
<b>Material:</b>		<b>Date:</b>	17/01/2018
<b>Drawn By:</b>	j.bates	<b>Checked By:</b>	
<b>General Tolerance:</b>	Sheetmetal - Cut Size ± 0.5mm, Angle ± 0.5°, Bend size ± 0.3mm Tubes - Dimensions ± 2, Angle ± 2°		<b>Scale:</b> N.T.S



**POOL HEAT PUMP SPECIFICATIONS**  
Titanium Heat Exchanger / Rheem IQ Control **RTHP132KT-DQV-1**

<b>ELECTRICAL INPUT</b>	
Voltage/Phase	380 - 415 Volts / 3 Phase / 50 Hz
Full Load / Locked Rotor (Amps Per Phase)	65.8 FLA / 174 LRA
Min. Circuit Size	80.0 Amps
Refrigerant	R407C
Nominal Heating capacity	132.45 kW
Power input	24.22 kW
COP	5.47 COP
Noise Level	69 dBa @ 3 m
Rated Load Amps @ 10°C SST / 45°C SCT	50.4 Amps

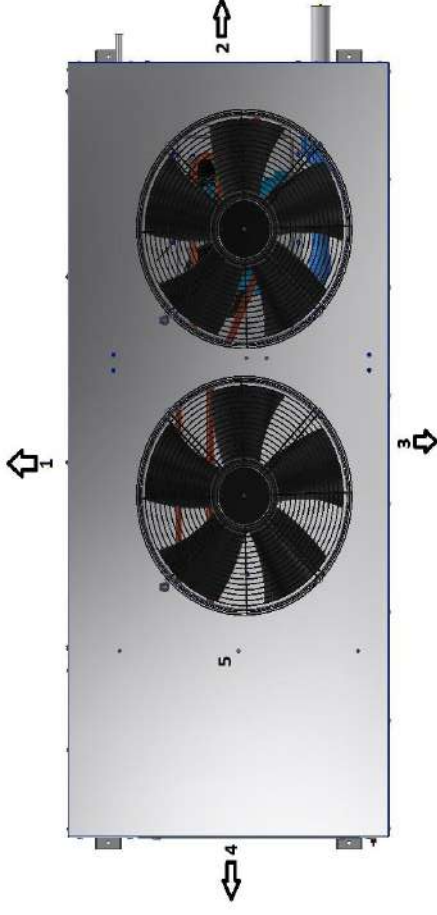
<b>TECHNICAL DATA</b>	
<b>Compressor</b>	<b>Fan</b>
Make	Copeland
Type	EBM-Papst
Number Per Unit	Scroll 20056
FLA (Full Load Amps, each)	2
Voltage / Phase	31.20 Amps
Pole/RPM	380 - 415 / 3
Air Flow	2/2900
	N/A
	7334 L/s

<b>HEAT EXCHANGER (Water Side)</b>	
Type of Water Tube	Titanium Tube / PVC Shell
Design	Shell and Tube
Flow Rate Excl. By Pass	7.00 L/s
Design Temperature Difference	4.52 °C
Max. Outlet Water Temp	42 °C
Design Pressure Drop	40 kPa
Max. Operating Pressure	300 kPa

<b>GENERAL INFORMATION</b>	
Water Connections	80 mm PVC
Drain	20mm Aluminium
Defrost	Hot Gas Injection
Cabinet Construction	1.2mm Stucco Aluminium
Approx. shipping weight	650 kg
Size L x W x H	2180 mm x 1134 mm x 1373 mm

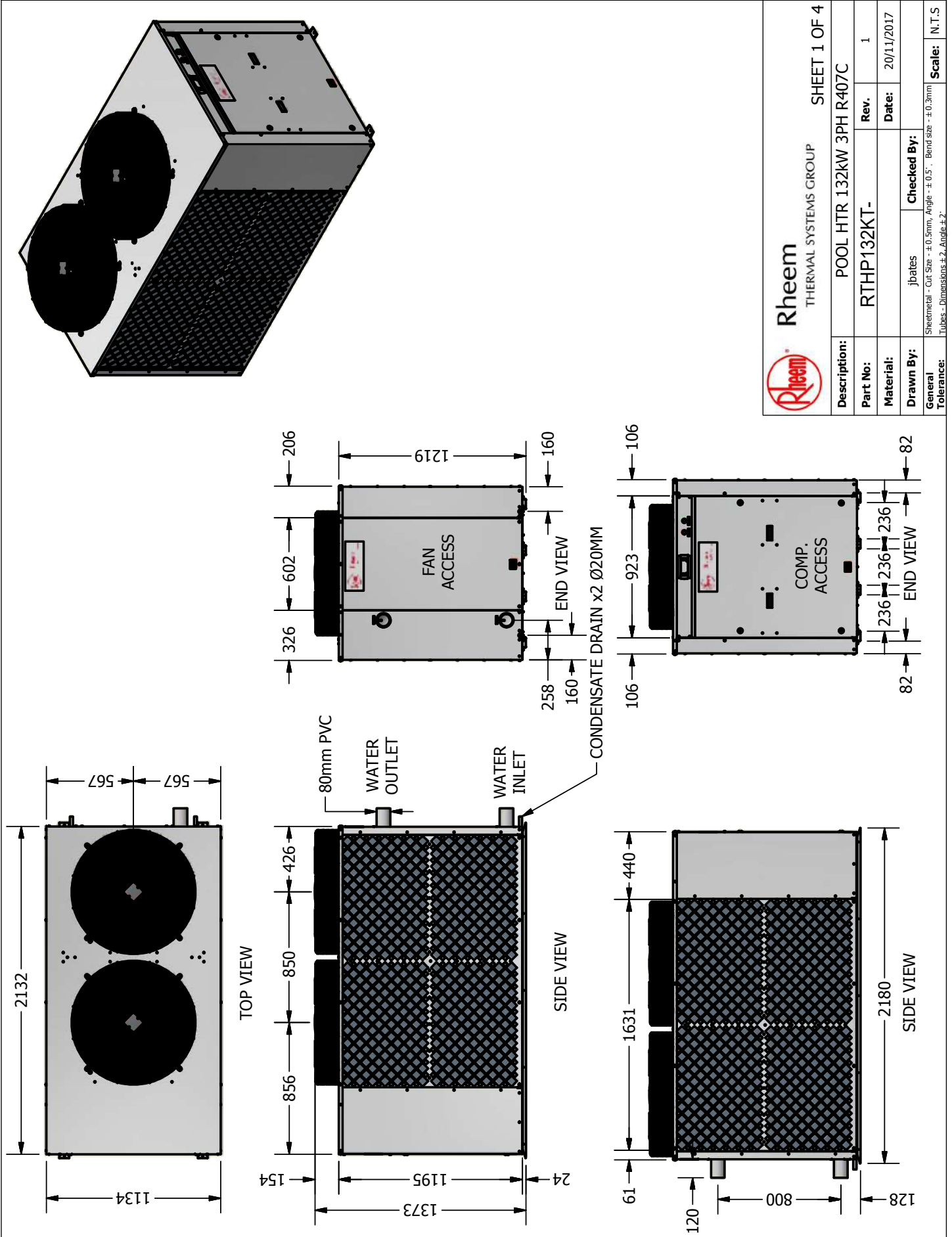
**COP TABLE**

Water In °C	Ambient Temperature							
	0 °C	5 °C	10 °C	15 °C	20 °C	25 °C	30 °C	35 °C
27 °C	79.48 kW 3.34 COP	90.66 kW 3.80 COP	103.10 kW 4.31 COP	113.36 kW 4.72 COP	124.50 kW 5.16 COP	128.42 kW 5.32 COP	136.59 kW 5.63 COP	145.21 kW 5.95 COP
30 °C	78.41 kW 3.09 COP	89.38 kW 3.52 COP	101.57 kW 3.99 COP	111.61 kW 4.38 COP	122.49 kW 4.79 COP	126.32 kW 4.93 COP	134.29 kW 5.22 COP	142.70 kW 5.52 COP
33 °C	77.28 kW 2.86 COP	88.05 kW 3.25 COP	99.98 kW 3.69 COP	109.79 kW 4.04 COP	120.41 kW 4.43 COP	124.14 kW 4.56 COP	127.98 kW 4.69 COP	140.12 kW 5.12 COP
36 °C	76.11 kW 2.64 COP	86.67 kW 3.00 COP	98.34 kW 3.40 COP	107.91 kW 3.73 COP	118.27 kW 4.08 COP	121.91 kW 4.20 COP	125.65 kW 4.33 COP	137.47 kW 4.72 COP

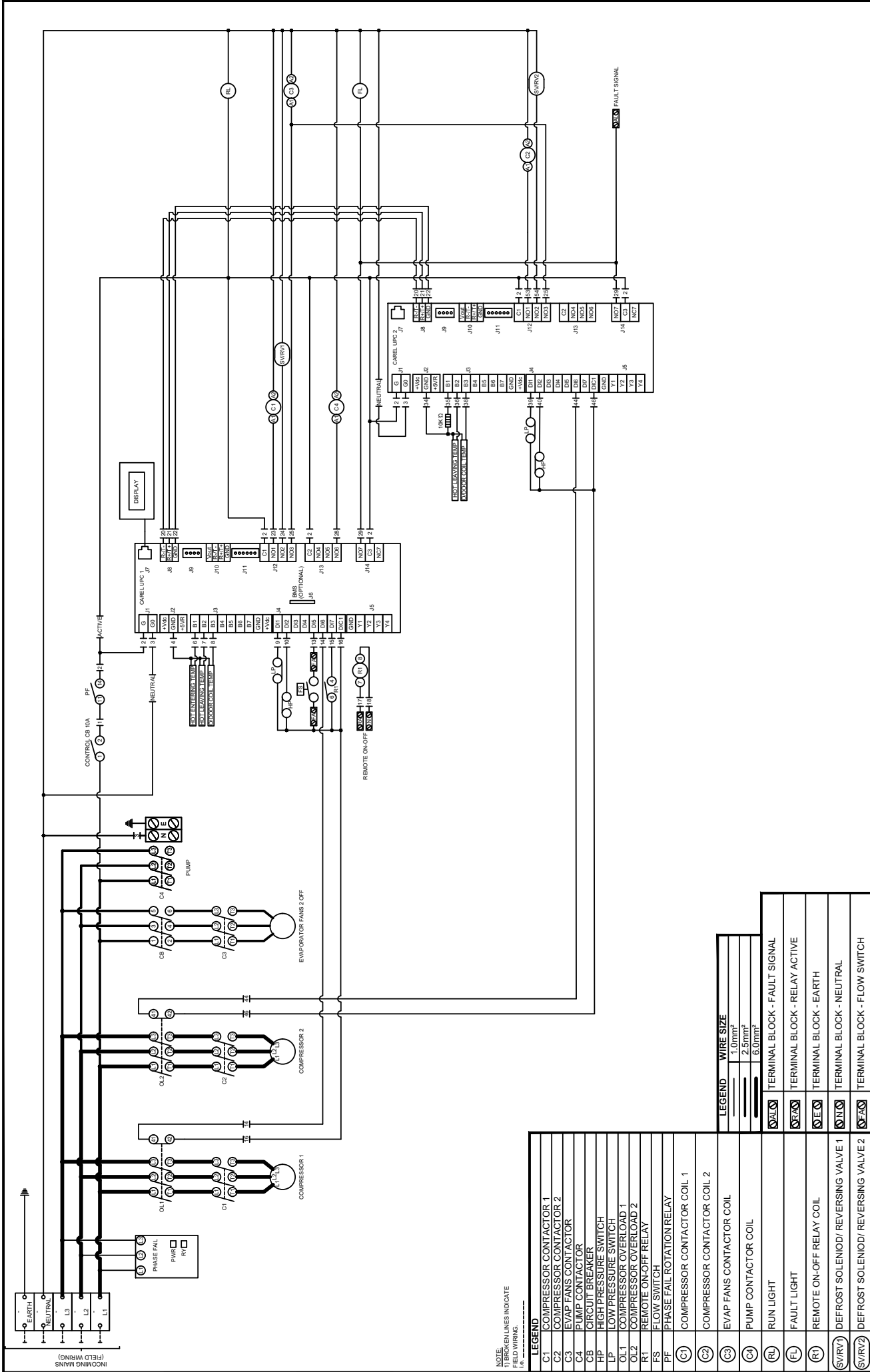


UNIT CLEARANCES	
Direction	Description
1	Evaporator Coil
2	Water Connections
3	Evaporator Coil
4	Compressor Access
5	Top - Fan Discharge
	Minimum Clearance Required
	500 mm
	500 mm
	500 mm
	850 mm
	3500 mm

When units are placed side by side allow 1000mm between evaporator coils.  
Rating Conditions: 27°C ambient, 60% RH, 27°C water in



<b>Rheem</b>		THERMAL SYSTEMS GROUP		SHEET 1 OF 4	
<b>Description:</b>	POOL HTR 132KW 3PH R407C		<b>Rev.</b>	1	
<b>Part No:</b>	RTHP132KT-		<b>Date:</b>	20/11/2017	
<b>Material:</b>	jboates		<b>Checked By:</b>		
<b>Drawn By:</b>			<b>General Tolerance:</b>	Sheetmetal - Cut Size - ±0.5mm, Angle - ±0.5°, Bend size - ±0.3mm Tubes - Dimensions ±0.2, Angle ±2°	
<b>Scale:</b>	N.T.S				



NOTE:  
 1. TERMINAL WIRE INDICATE  
 2. TERMINAL WIRE INDICATE  
 3. TERMINAL WIRE INDICATE  
 4. TERMINAL WIRE INDICATE

REV	ECN	DESCRIPTION
01	0381	REMOVED NEUTRAL LINK WIRE ON C03
02	0414	REMOVED DI3 BRIDGE
03	0411	ADDED RESISTOR

LEGEND	WIRE SIZE
	1.0mm²
	2.5mm²
	6.0mm²

	TERMINAL BLOCK - FAULT SIGNAL
	TERMINAL BLOCK - RELAY ACTIVE
	TERMINAL BLOCK - EARTH
	TERMINAL BLOCK - NEUTRAL
	TERMINAL BLOCK - FLOW SWITCH

DATE	DATE	DATE
10/12/19	05/11/21	10/12/20

**Rheem**  
 THERMAL SYSTEMS GROUP

43 Marigold Street  
 Revesby NSW 2212  
 Phone: (02) 9684 3684  
 Fax: (02) 9684 3698

**RTHP132K#-DQ#-1**  
 Part No: **47006E**  
 Rev: **03**  
 Date: **23/10/2019**  
 Drawn By: **J.Bates**

**POOL HEAT PUMP SPECIFICATIONS**  
Titanium Heat Exchanger / Rheem IQ Control **RTHP175KT-DQV-1**

<b>ELECTRICAL INPUT</b>	
Voltage/Phase	380 - 415 Volts / 3 Phase / 50 Hz
Full Load / Locked Rotor (Amps Per Phase)	81.9 FLA / 225 LRA
Min. Circuit Size	100.0 Amps
Refrigerant	R407C
Nominal Heating capacity	174.96 kW
Power input	33.12 kW
COP	5.28 COP
Noise Level	69 dBa @ 3 m
Rated Load Amps @ 10°C SST / 45°C SCT	63.8 Amps

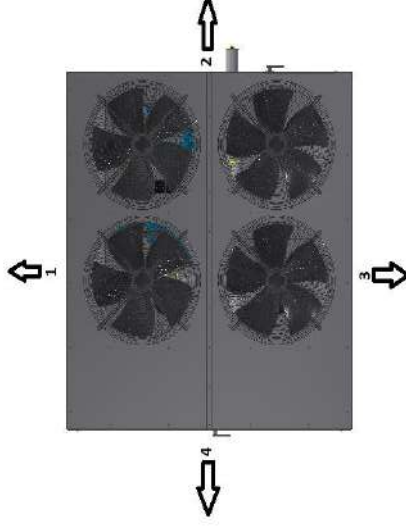
<b>TECHNICAL DATA</b>	
<b>Compressor</b>	<b>Fan</b>
Copeland	EBM-Papst
Scroll 20092	Axial
Number Per Unit	4
FLA (Full Load Amps, each)	1.70 Amps
Voltage / Phase	380 - 415 / 3
Pole/RPM	2/2900
Air Flow	N/A
	14668 L/s

<b>HEAT EXCHANGER (Water Side)</b>	
Type of Water Tube	Titanium Tube / PVC Shell
Design	Shell and Tube
Flow Rate Excl. By Pass	10.50 L/s
Design Temperature Difference	3.98 °C
Max. Outlet Water Temp	42 °C
Design Pressure Drop	40 kPa
Max. Operating Pressure	300 kPa

<b>GENERAL INFORMATION</b>	
Water Connections	80 mm PVC
Drain	40mm Aluminium
Defrost	Hot Gas Injection
Cabinet Construction	1.2mm Stucco Aluminium, Galvanised Base and Frame
Approx. shipping weight	1180 kg
Size L x W x H	2217 mm x 1967 mm x 2282 mm

**COP TABLE**

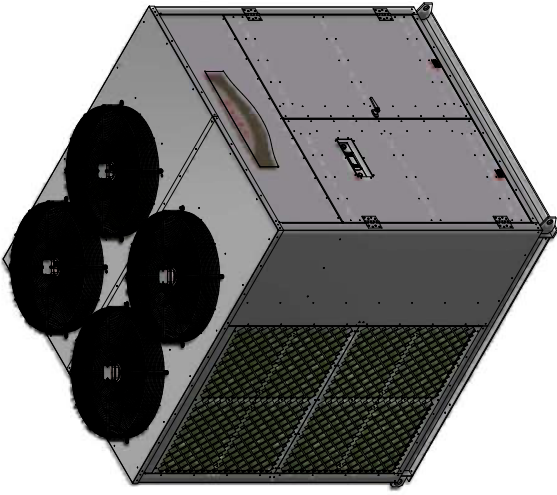
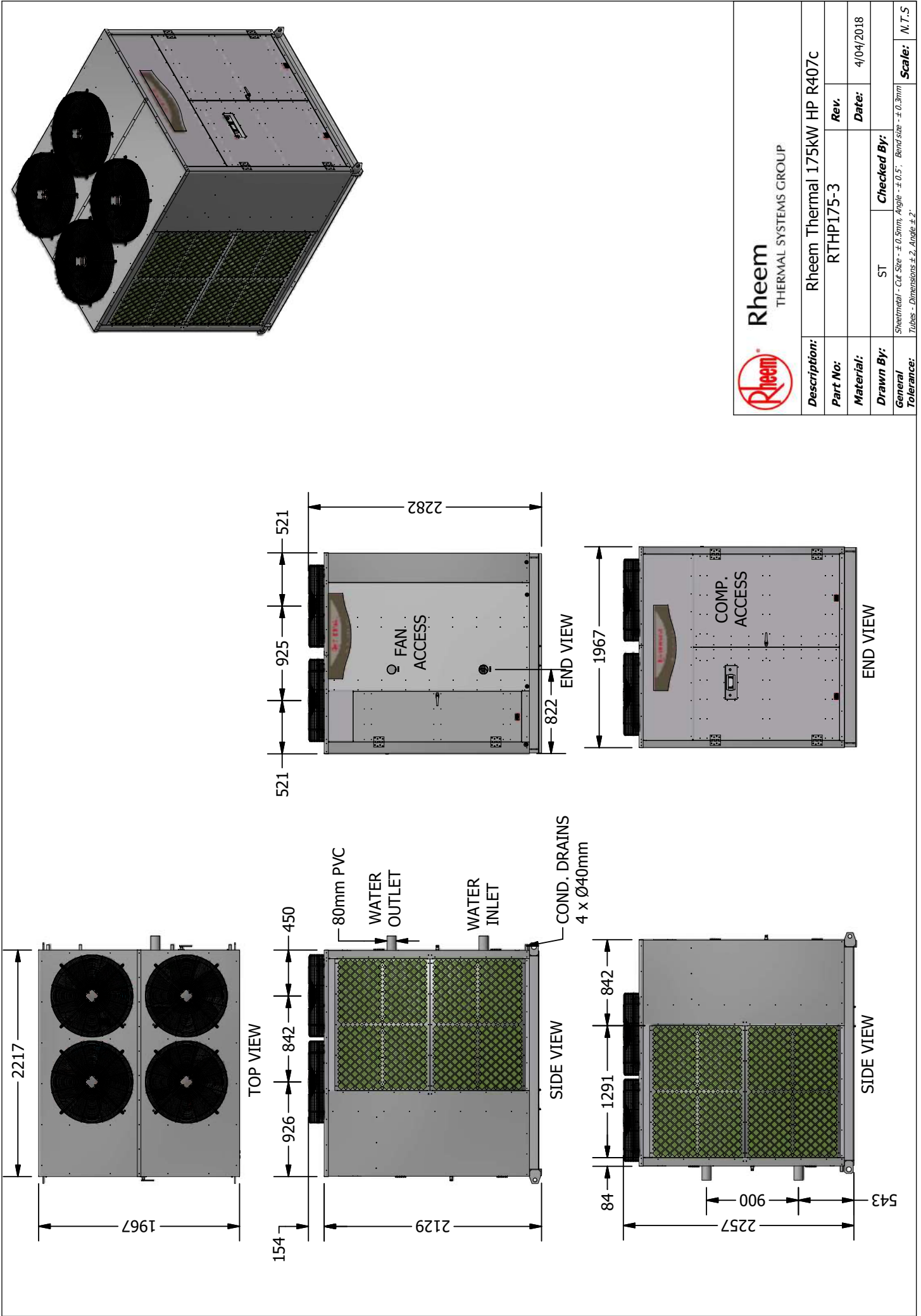
Water In °C	Ambient Temperature							
	0 °C	5 °C	10 °C	15 °C	20 °C	25 °C	30 °C	35 °C
27 °C	105.96 kW 3.29 COP	120.34 kW 3.71 COP	136.56 kW 4.18 COP	150.00 kW 4.56 COP	164.59 kW 4.98 COP	169.71 kW 5.13 COP	174.96 kW 5.28 COP	180.35 kW 5.44 COP
30 °C	104.81 kW 3.06 COP	118.81 kW 3.45 COP	134.85 kW 3.88 COP	147.80 kW 4.23 COP	162.09 kW 4.62 COP	167.12 kW 4.75 COP	172.27 kW 4.89 COP	177.57 kW 5.03 COP
33 °C	103.77 kW 2.85 COP	117.37 kW 3.20 COP	132.80 kW 3.60 COP	145.65 kW 3.92 COP	159.63 kW 4.28 COP	164.55 kW 4.40 COP	169.61 kW 4.53 COP	174.79 kW 4.66 COP
36 °C	102.87 kW 2.64 COP	116.04 kW 2.97 COP	131.04 kW 3.34 COP	143.56 kW 3.64 COP	157.22 kW 3.96 COP	162.03 kW 4.07 COP	166.98 kW 4.19 COP	172.06 kW 4.30 COP




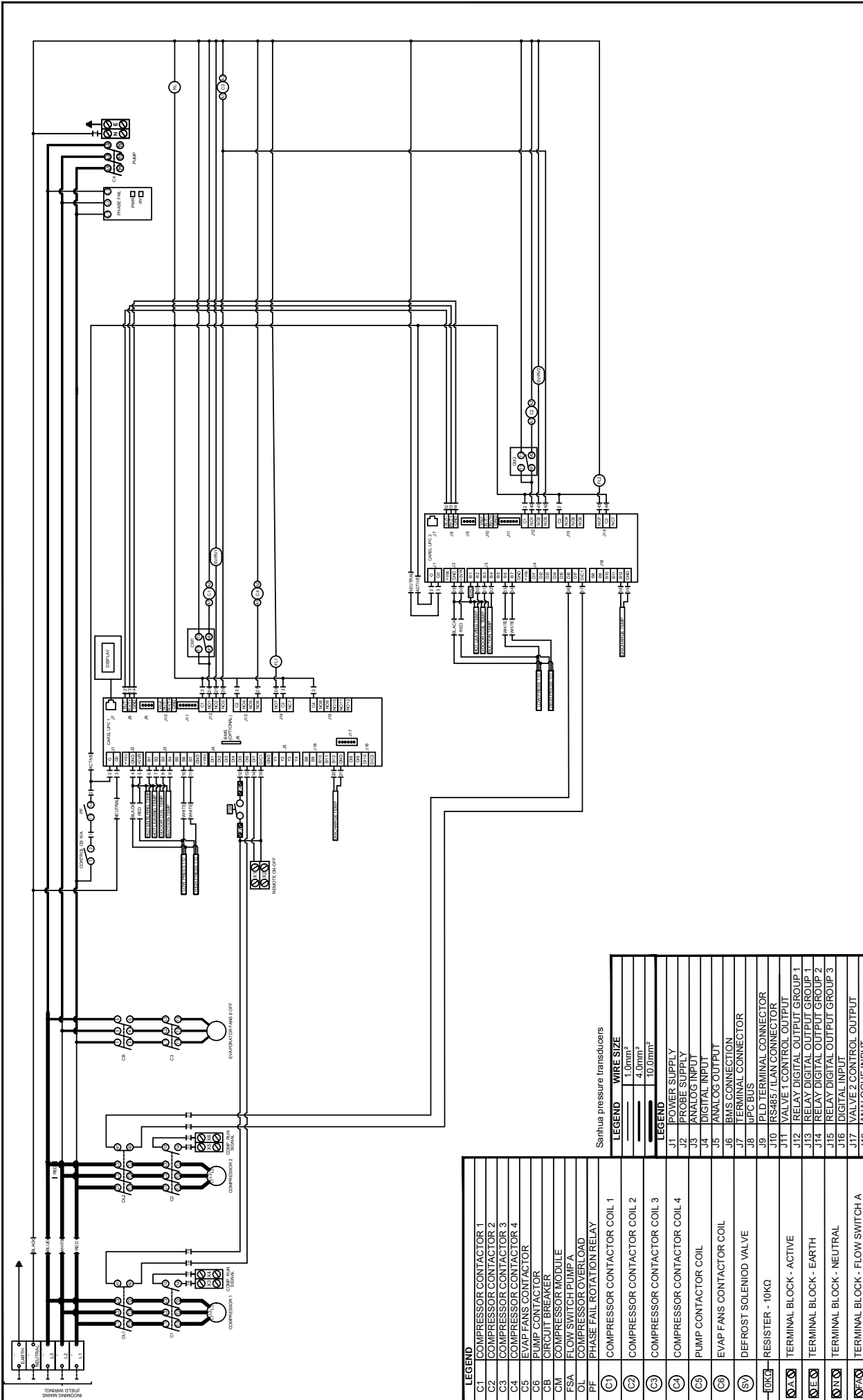
<b>UNIT CLEARANCES</b>		
Direction	Description	Minimum Clearance Required
1	Evaporator Coil	1000 mm
2	Water Connections	850 mm
3	Evaporator Coil	1000 mm
4	Compressor Access	850 mm
5	Top – Fan Discharge	3500 mm

When units are placed side by side allow 2000mm between evaporator coils.  
Rating Conditions: 27°C ambient, 60% RH, 27°C water in





 <b>Rheem</b> THERMAL SYSTEMS GROUP		Description: Rheem Thermal 175kW HP R407c	
		Part No: RTHP175-3	Rev.
Material:	Material:	Date: 4/04/2018	
Drawn By: ST	Checked By:		
General Tolerance:	Sheetmetal - Ckt. Size - ± 0.5mm, Angle - ± 0.5°, Bend size - ± 0.3mm		Scale: N.T.S
	Tubes - Dimensions ± 2, Angle ± 2		



REV	ECN	DESCRIPTION	DATE
01	0414	REMOVED BRIDGE DI3, ADDED SV/RV	05/1/21

LEGEND	WIRE SIZE
C1	1.0mm <sup>2</sup>
C2	4.0mm <sup>2</sup>
C3	10.0mm <sup>2</sup>
C4	
C5	
C6	
(S)	
(R)	
(A)	
(E)	
(N)	
(F)	

LEGEND	DESCRIPTION
J1	POWER SUPPLY
J2	PROBE SUPPLY
J3	ANALOG INPUT
J4	DIGITAL INPUT
J5	ANALOG OUTPUT
J6	BMS CONNECTION
J7	TERMINAL CONNECTOR
J8	IPC BUS
J9	PLD TERMINAL CONNECTOR
J10	RS485/ILAN CONNECTOR
J11	VALVE 1 CONTROL OUTPUT
J12	RELAY DIGITAL OUTPUT GROUP 1
J13	RELAY DIGITAL OUTPUT GROUP 1
J14	RELAY DIGITAL OUTPUT GROUP 2
J15	RELAY DIGITAL OUTPUT GROUP 3
J16	DIGITAL INPUT
J17	VALVE 2 CONTROL OUTPUT
J18	ANALOGUE INPUT

**Rheem**  
THERMAL SYSTEMS GROUP

43 Marigold Street  
Revesby NSW 2212  
Phone: (02) 9684 3684  
Fax: (02) 9684 3698

Part No: **47258E**

Rev: **01**

Drawn By: **B.Fleming**

Date: **28/10/2020**

**POOL HEAT PUMP SPECIFICATIONS**  
Titanium Heat Exchanger / Rheem IQ Control **RTHP199KT-DQV-1**

<b>ELECTRICAL INPUT</b>	
Voltage/Phase	380 - 415 Volts / 3 Phase / 50 Hz
Full Load / Locked Rotor (Amps Per Phase)	100.8 FLA / 174 LRA
Min. Circuit Size	120.0 Amps
Refrigerant	R407c
Nominal Heating capacity	198.75 kW
Power input	37.05 kW
COP	5.36 COP
Noise Level	69 dBa @ 3 m
Rated Load Amps @ 10°C SST / 45°C SCT	86.1 Amps

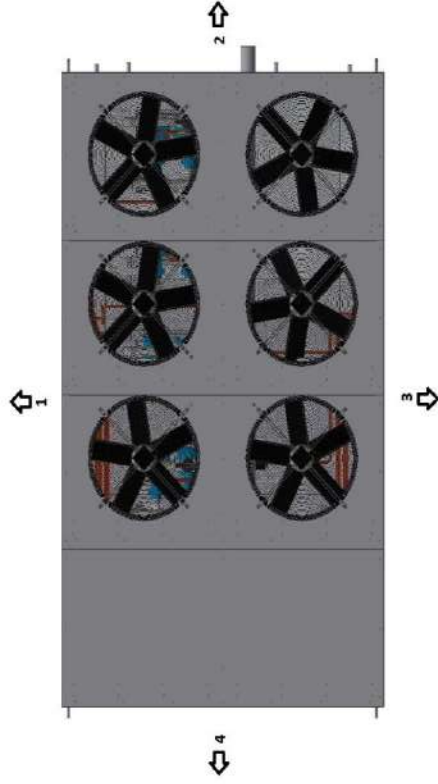
<b>TECHNICAL DATA</b>	
<b>Compressor</b>	<b>Fan</b>
Make	EBM-Papst
Type	Axial
Number Per Unit	6
FLA (Full Load Amps, each)	1.20 Amps
Voltage / Phase	380 - 415 / 3
Pole/RPM	2/2900
Air Flow	N/A
	14100 L/s

<b>HEAT EXCHANGER (Water Side)</b>	
Type of Water Tube	Titanium Tube / PVC Shell
Design	Shell and Tube
Flow Rate Excl. By Pass	10.5 L/s
Design Temperature Difference	4.52 °C
Max. Outlet Water Temp	42 °C
Design Pressure Drop	40 kPa
Max. Operating Pressure	300 kPa

<b>GENERAL INFORMATION</b>	
Water Connections	80 mm PVC
Drain	40mm Aluminium
Defrost	Hot Gas Injection
Cabinet Construction	1,2mm Stucco Aluminium, Galvanised Base and Frame
Approx. shipping weight	1350 kg
Size L x W x H	3463 mm x 1963 mm x 2288 mm

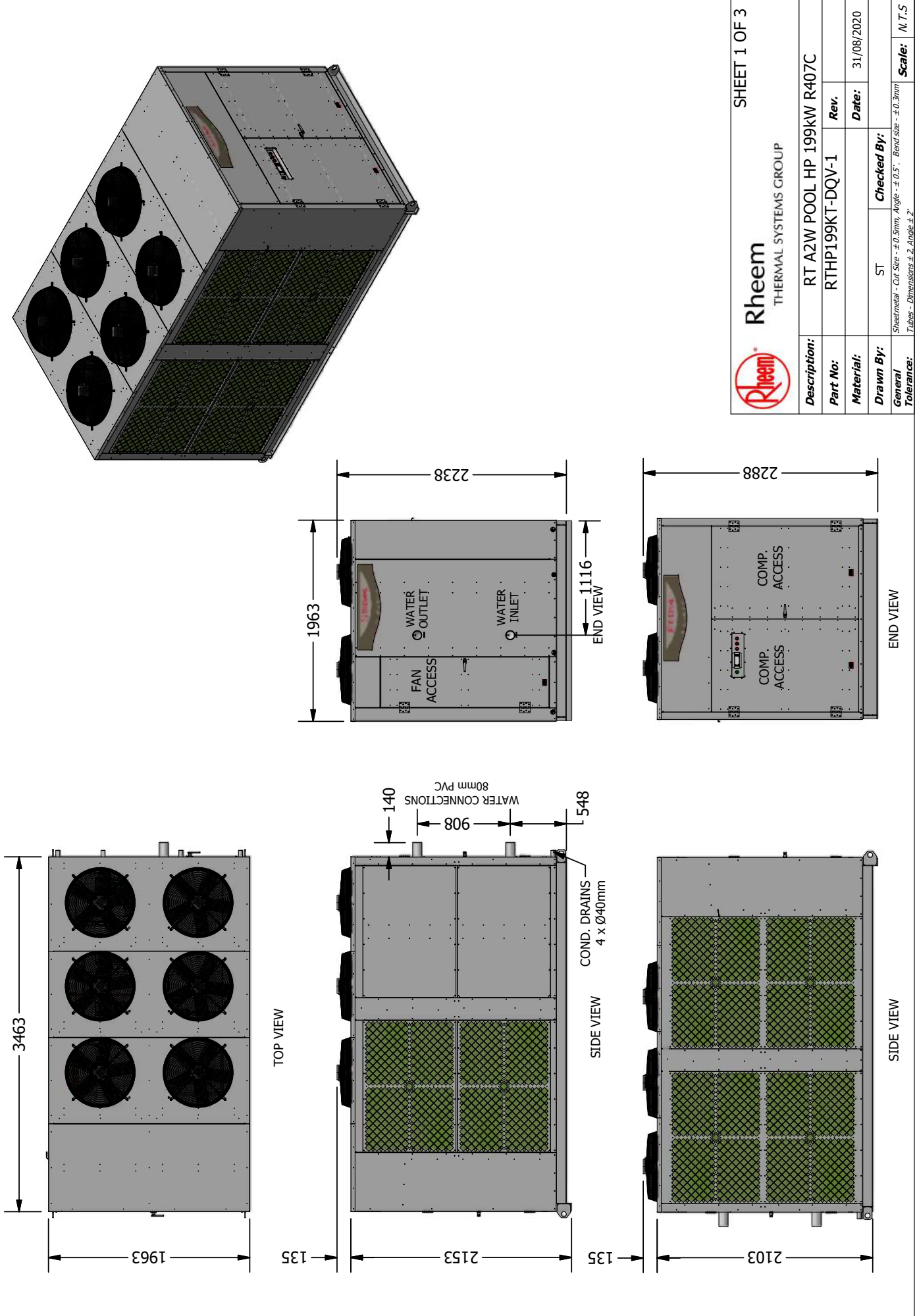
**COP TABLE**

Water In °C	Ambient Temperature							
	0 °C	5 °C	10 °C	15 °C	20 °C	25 °C	30 °C	35 °C
27 °C	124.26 kW 3.40 COP	138.27 kW 3.77 COP	155.13 kW 4.24 COP	170.25 kW 4.63 COP	186.95 kW 5.07 COP	192.85 kW 5.22 COP	204.98 kW 5.52 COP	216.58 kW 5.81 COP
30 °C	122.24 kW 3.16 COP	136.22 kW 3.51 COP	152.77 kW 3.92 COP	167.46 kW 4.29 COP	183.92 kW 4.70 COP	189.67 kW 4.83 COP	201.56 kW 5.12 COP	212.95 kW 5.39 COP
33 °C	118.87 kW 2.89 COP	134.16 kW 3.25 COP	150.33 kW 3.63 COP	164.64 kW 3.98 COP	180.81 kW 4.35 COP	186.42 kW 4.48 COP	198.03 kW 4.75 COP	209.19 kW 5.00 COP
36 °C	112.76 kW 2.58 COP	132.09 kW 3.00 COP	147.72 kW 3.36 COP	161.76 kW 3.67 COP	177.54 kW 4.02 COP	183.03 kW 4.14 COP	194.30 kW 4.26 COP	205.17 kW 4.63 COP



UNIT CLEARANCES	
Direction	Description
1	Evaporator Coil
2	Water Connections
3	Evaporator Coil
4	Compressor Access
5	Top – Fan Discharge
	Minimum Clearance Required
	1000 mm
	850 mm
	1000 mm
	850 mm
	3500 mm

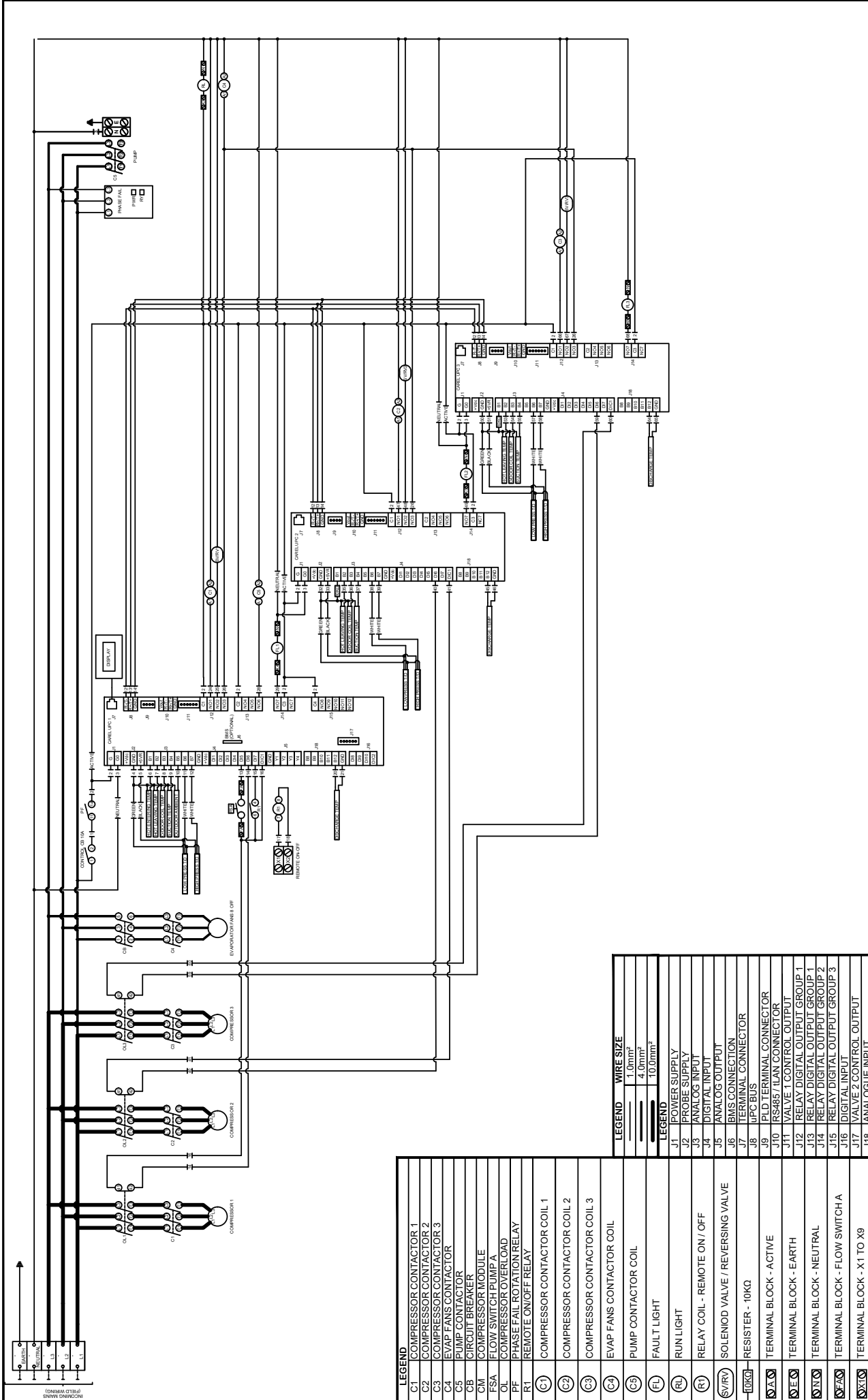
When units are placed side by side allow 2000mm between evaporator coils.  
Rating Conditions: 27°C ambient, 60% RH, 27°C water in



**Rheem**  
THERMAL SYSTEMS GROUP

SHEET 1 OF 3

<b>Description:</b>	RT A2W POOL HP 199kW R407C		
<b>Part No:</b>	RTHP199KT-DQV-1	<b>Rev.</b>	
<b>Material:</b>			
<b>Drawn By:</b>	ST	<b>Checked By:</b>	
<b>General Tolerance:</b>	Sheetmetal - Cut Size - ±0.5mm, Angle - ±0.5°, Bend size - ±0.3mm		<b>Date:</b> 31/08/2020
	Tubes - Dimensions ± 2, Angle ± 2		<b>Scale:</b> N.T.S



REV	ECN	DESCRIPTION	DATE
01	0414	REMOVED BRIDGE DI3-DI4	05/1/21
Part No: 47154E		Date: 16/12/2019	
Rev: 01		Drawn By: J.Bates	
RTHP199K#-DQ#-1			
43 Marigold Street Revesby NSW 2212 Phone: (02) 9684 3684 Fax: (02) 9684 3698		43 Marigold Street Revesby NSW 2212 Phone: (02) 9684 3684 Fax: (02) 9684 3698	

**POOL HEAT PUMP SPECIFICATIONS**  
Titanium Heat Exchanger / Rheem IQ Control **RTHP265KT-DQV-1**

<b>ELECTRICAL INPUT</b>	
Voltage/Phase	380 - 415 Volts / 3 Phase / 50 Hz
Full Load / Locked Rotor (Amps Per Phase)	134.4 FLA / 174 LRA
Min. Circuit Size	150.0 Amps
Refrigerant	R407C
Nominal Heating capacity	264.91 kW
Power input	49.47 kW
COP	5.35 COP
Noise Level	69 dBa @ 3 m
Rated Load Amps @ 10°C SST / 45°C SCT	103.6 Amps

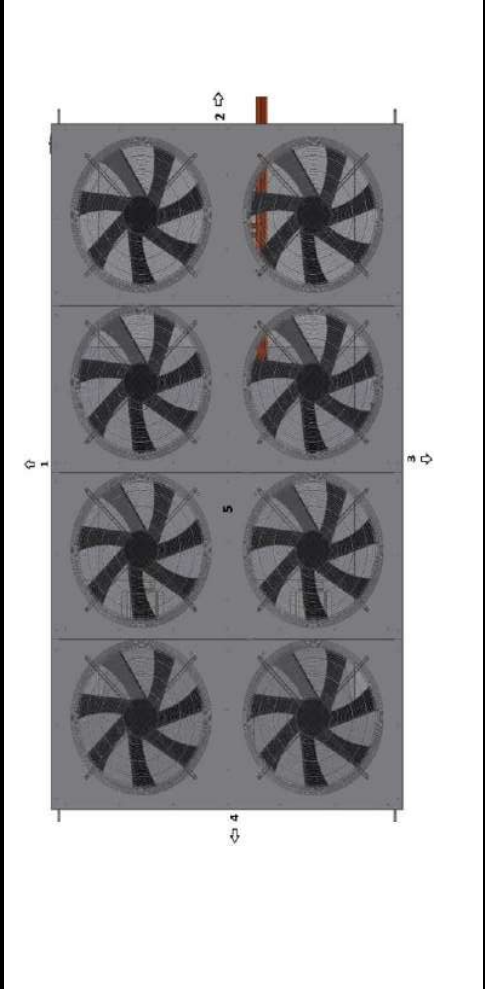
<b>TECHNICAL DATA</b>	
Make	<b>Compressor</b> Copeland
Type	Scroll 20056
Number Per Unit	4
FLA (Full Load Amps, each)	31.20 Amps
Voltage / Phase	380 - 415 / 3
Pole/RPM	2/2900
Air Flow	N/A
	<b>Fan</b> EBM-Papst
	Axial
	8
	1.20 Amps
	380 - 415 / 3
	6/690
	18800 L/s

<b>HEAT EXCHANGER (Water Side)</b>	
Type of Water Tube	Titanium Tube / PVC Shell
Design	Shell and Tube
Flow Rate Excl. By Pass	14.00 L/s
Design Temperature Difference	4.52 °C
Max. Outlet Water Temp	42 °C
Design Pressure Drop	40 kPa
Max. Operating Pressure	300 kPa

<b>GENERAL INFORMATION</b>	
Water Connections	80 mm PVC
Drain	40mm Aluminium
Defrost	Hot Gas Injection
Cabinet Construction	1.2mm Stucco Aluminium, Galvanised Base and Frame
Approx. shipping weight	1900 kg
Size L x W x H	3463 mm x 1963 mm x 2288 mm

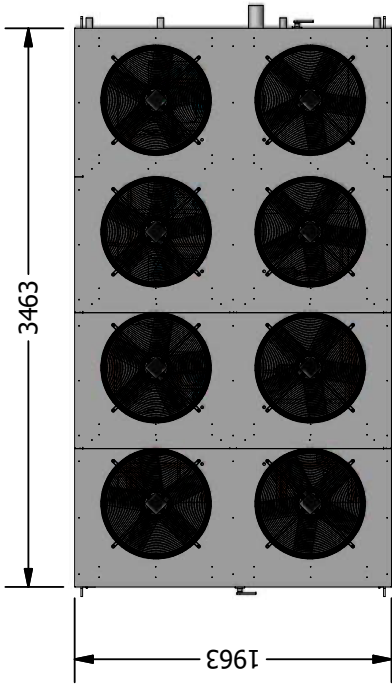
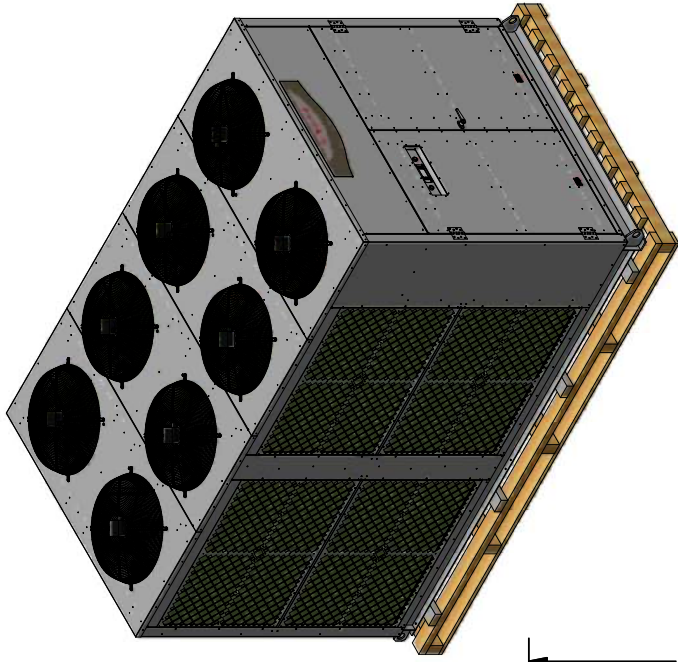
**COP TABLE**

Water In °C	Ambient Temperature							
	0 °C	5 °C	10 °C	15 °C	20 °C	25 °C	30 °C	35 °C
27 °C	158.96 kW 3.27 COP	181.31 kW 3.72 COP	206.20 kW 4.22 COP	226.72 kW 4.62 COP	249.01 kW 5.05 COP	256.85 kW 5.20 COP	273.19 kW 5.51 COP	290.43 kW 5.82 COP
30 °C	156.81 kW 3.03 COP	178.76 kW 3.45 COP	203.14 kW 3.91 COP	223.21 kW 4.29 COP	244.98 kW 4.69 COP	252.64 kW 4.83 COP	268.58 kW 4.97 COP	285.40 kW 5.42 COP
33 °C	154.56 kW 2.81 COP	176.10 kW 3.19 COP	199.96 kW 3.62 COP	219.58 kW 3.97 COP	240.82 kW 4.34 COP	248.29 kW 4.47 COP	255.96 kW 4.61 COP	263.84 kW 5.02 COP
36 °C	152.22 kW 2.60 COP	173.35 kW 2.95 COP	196.68 kW 3.34 COP	215.83 kW 3.66 COP	236.54 kW 4.01 COP	243.82 kW 4.13 COP	251.30 kW 4.25 COP	258.97 kW 4.38 COP

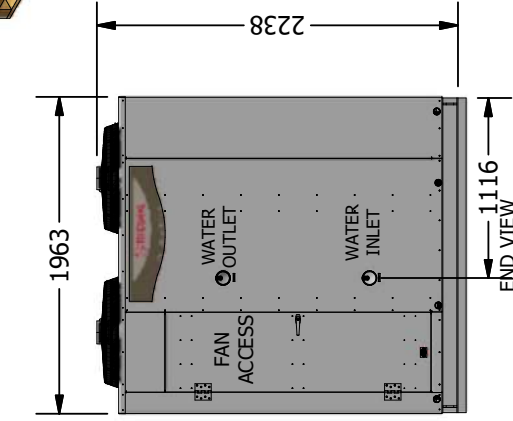


<b>UNIT CLEARANCES</b>		
Direction	Description	Minimum Clearance Required
1	Evaporator Coil	1000 mm
2	Water Connections	850 mm
3	Evaporator Coil	1000 mm
4	Compressor Access	850 mm
5	Top – Fan Discharge	3500 mm

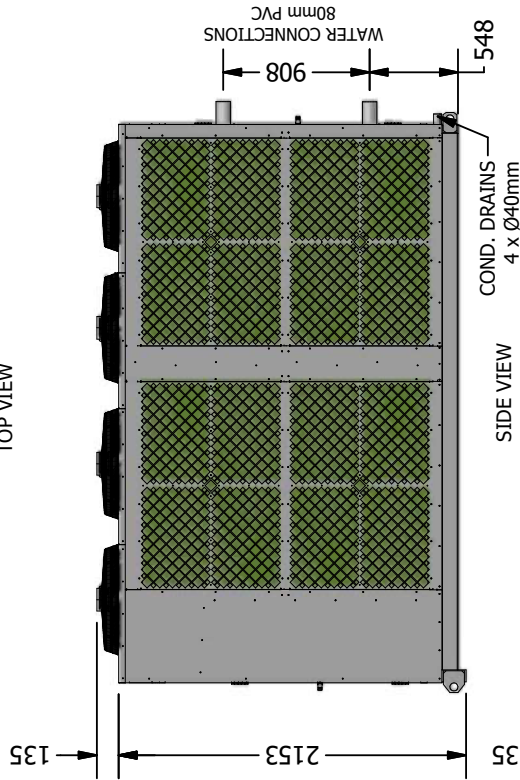
When units are placed side by side allow 2000mm between evaporator coils.  
Rating Conditions: 27°C ambient, 60% RH, 27°C water in



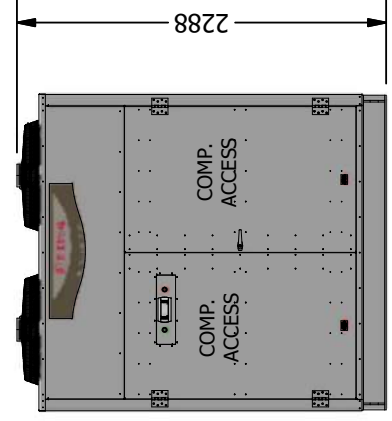
TOP VIEW



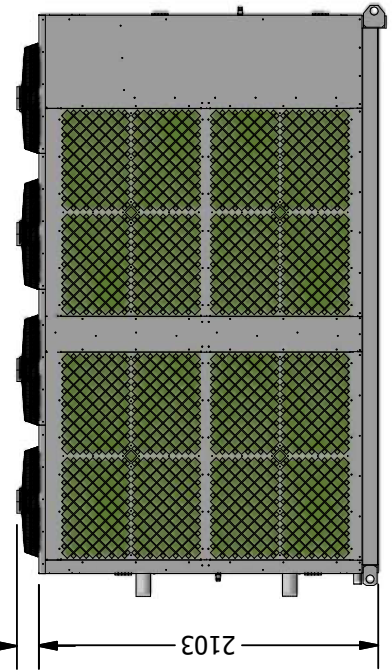
END VIEW




SIDE VIEW

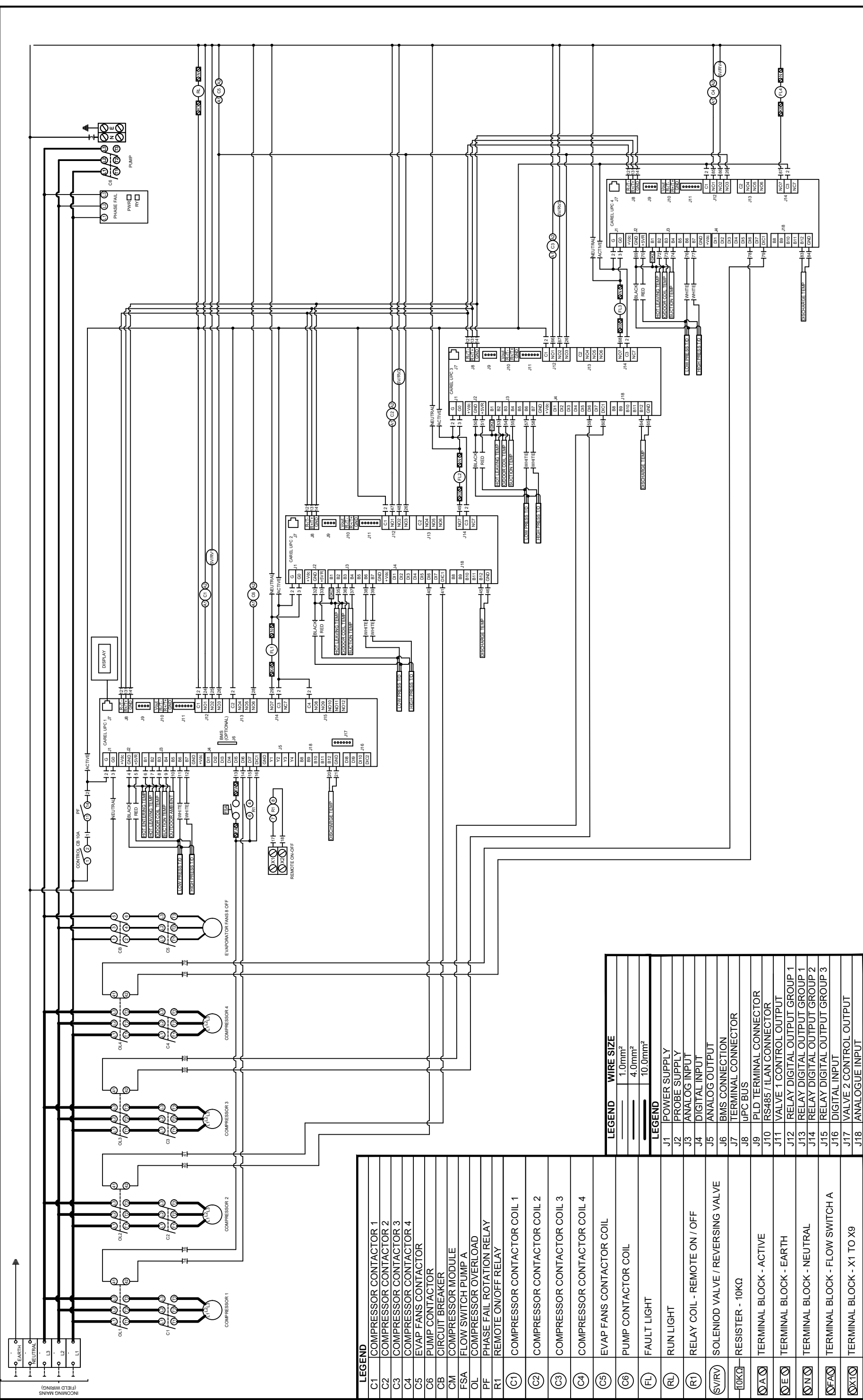


END VIEW



SIDE VIEW

 <b>Rheem</b> THERMAL SYSTEMS GROUP		SHEET 1 OF 3	
		Description:	RT A2W POOL HP 265kW R407C
Part No:	RTHP265KT-DQV-1	Rev.	
Material:		Date:	15/04/2020
Drawn By:	ST	Checked By:	
General Tolerance:	Sheetmetal - Cut Size - ±0.5mm, Angle - ±0.5°, Bend size - ±0.3mm		Scale:
	Tubes - Dimensions ±2, Angle ±2		N.T.5



REV	ECN	DESCRIPTION
01	0414	REMOVED BRIDGE DI3-DI4

LEGEND	WIRE SIZE
C1	1.0mm <sup>2</sup>
C2	4.0mm <sup>2</sup>
C3	10.0mm <sup>2</sup>

LEGEND	DESCRIPTION
J1	POWER SUPPLY
J2	PROBE SUPPLY
J3	ANALOG INPUT
J4	DIGITAL INPUT
J5	ANALOG OUTPUT
J6	BMS CONNECTION
J7	TERMINAL CONNECTOR
J8	µPC BUS
J9	PLD TERMINAL CONNECTOR
J10	RS485 / I-LAN CONNECTOR
J11	VALVE 1 CONTROL OUTPUT
J12	RELAY DIGITAL OUTPUT GROUP 1
J13	RELAY DIGITAL OUTPUT GROUP 1
J14	RELAY DIGITAL OUTPUT GROUP 2
J15	RELAY DIGITAL OUTPUT GROUP 3
J16	DIGITAL INPUT
J17	VALVE 2 CONTROL OUTPUT
J18	ANALOGUE INPUT

 <p><b>Rheem</b> THERMAL SYSTEMS GROUP</p>	<p>43 Marigold Street Revesby NSW 2212 Phone: (02) 9684 3684 Fax: (02) 9684 3698</p>	<p>Part No: <b>47210E</b> Rev: <b>01</b></p>
<p>DATE 05/1/21</p>	<p>Drawn By: <b>J.Bates</b>      Date: <b>24/04/20</b></p>	<p><b>RTHP265K#-DQ#-10</b></p>



**POOL HEAT PUMP SPECIFICATIONS**  
Titanium Heat Exchanger / Rheem IQ Control **RTHP350KT-DQV-1**

<b>ELECTRICAL INPUT</b>	
Voltage/Phase	380 - 415 Volts / 3 Phase / 50 Hz
Full Load / Locked Rotor (Amps Per Phase)	163.6 FLA / 225 LRA
Min. Circuit Size	200.0 Amps
Refrigerant	R407C
Nominal Heating capacity	349.93 kW
Power input	66.24 kW
COP	5.28 COP
Noise Level	73 dBA @ 3 m
Rated Load Amps @ 10°C SST / 45°C SCT	115.8 Amps

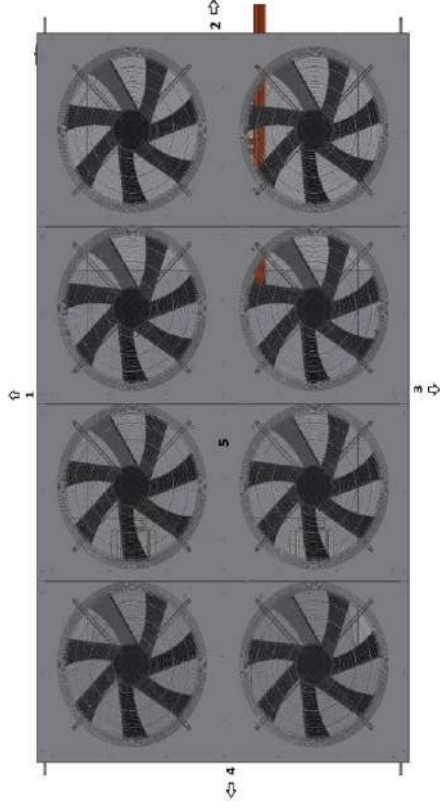
<b>TECHNICAL DATA</b>	
	<b>Compressor</b>
Make	Copeland
Type	Scroll 20092
Number Per Unit	4
FLA (Full Load Amps, each)	37.50 Amps
Voltage / Phase	380 - 415 / 3
Pole/RPM	2/2900
Air Flow	N/A
	<b>Fan</b>
Make	EBM-Papst
Type	Axial
Number Per Unit	8
FLA (Full Load Amps, each)	1.70 Amps
Voltage / Phase	380 - 415 / 3
Pole/RPM	6/890
Air Flow	29340 L/s

<b>HEAT EXCHANGER (Water Side)</b>	
Type of Water Tube	Titanium Tube / PVC Shell
Design	Shell and Tube
Flow Rate Excl. By Pass	21.00 L/s
Design Temperature Difference	3.98 °C
Max. Outlet Water Temp	42 °C
Design Pressure Drop	40 kPa
Max. Operating Pressure	300 kPa

<b>GENERAL INFORMATION</b>	
Water Connections	100 mm PVC
Drain	40mm Aluminium
Defrost	Hot Gas Injection
Cabinet Construction	1,2mm Stucco Aluminium, Galvanised Base and Frame
Approx. shipping weight	1900 kg
Size L x W x H	3463 mm x 1963 mm x 2348 mm

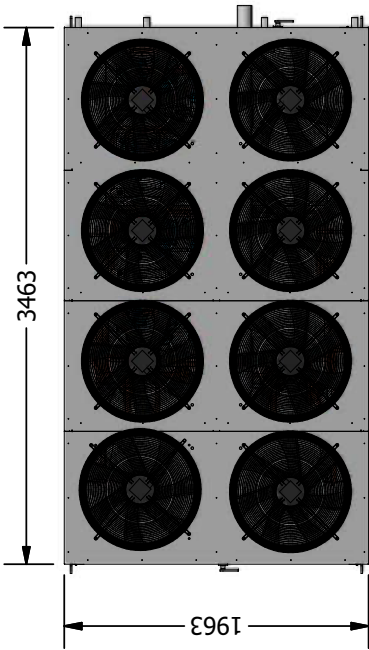
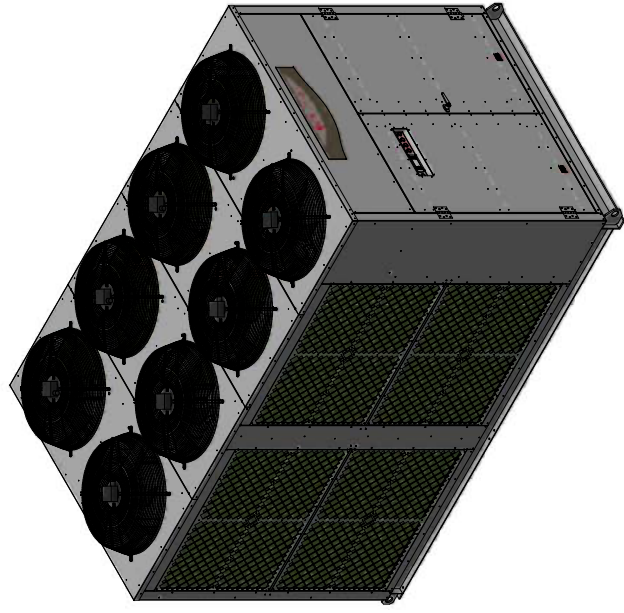
**COP TABLE**

Water In °C	Ambient Temperature								
	0 °C	5 °C	10 °C	15 °C	20 °C	25 °C	27 °C	30 °C	35 °C
27 °C	211.92 kW 3.29 COP	240.68 kW 3.71 COP	273.13 kW 4.18 COP	300.01 kW 4.56 COP	329.17 kW 4.98 COP	339.42 kW 5.13 COP	<b>349.93 kW</b> <b>5.28 COP</b>	360.71 kW 5.44 COP	383.10 kW 5.77 COP
30 °C	209.61 kW 3.06 COP	237.62 kW 3.45 COP	269.30 kW 3.88 COP	295.60 kW 4.23 COP	324.18 kW 4.62 COP	334.23 kW 4.75 COP	344.55 kW 4.89 COP	355.14 kW 5.03 COP	377.13 kW 5.33 COP
33 °C	207.54 kW 2.85 COP	234.73 kW 3.20 COP	265.60 kW 3.60 COP	291.29 kW 3.92 COP	319.26 kW 4.28 COP	329.10 kW 4.40 COP	339.21 kW 4.53 COP	349.59 kW 4.66 COP	371.17 kW 4.93 COP
36 °C	205.74 kW 2.64 COP	232.08 kW 2.97 COP	262.09 kW 3.34 COP	287.13 kW 3.64 COP	314.44 kW 3.96 COP	324.07 kW 4.07 COP	333.96 kW 4.19 COP	344.12 kW 4.30 COP	365.26 kW 4.55 COP



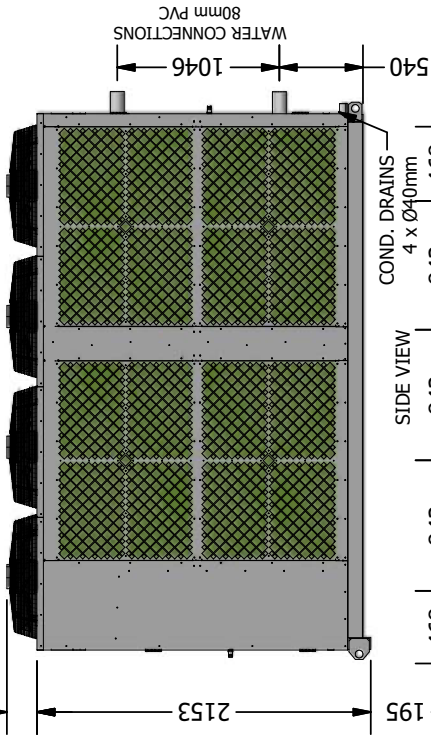
<b>UNIT CLEARANCES</b>	
Direction	Description
1	Evaporator Coil
2	Water Connections
3	Evaporator Coil
4	Compressor Access
5	Top – Fan Discharge
	Minimum Clearance Required
	1000 mm
	850 mm
	1000 mm
	850 mm
	3500 mm

When units are placed side by side allow 2000mm between evaporator coils.  
Rating Conditions: 27°C ambient, 60% RH, 27°C water in



TOP VIEW

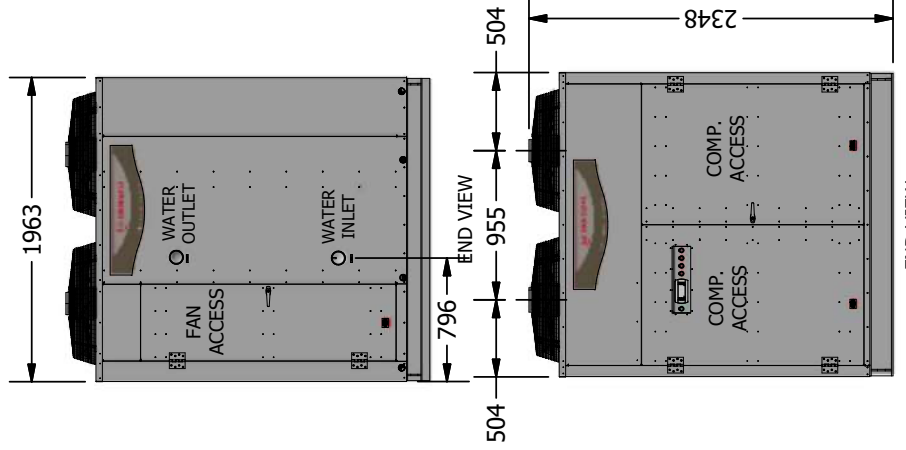
195



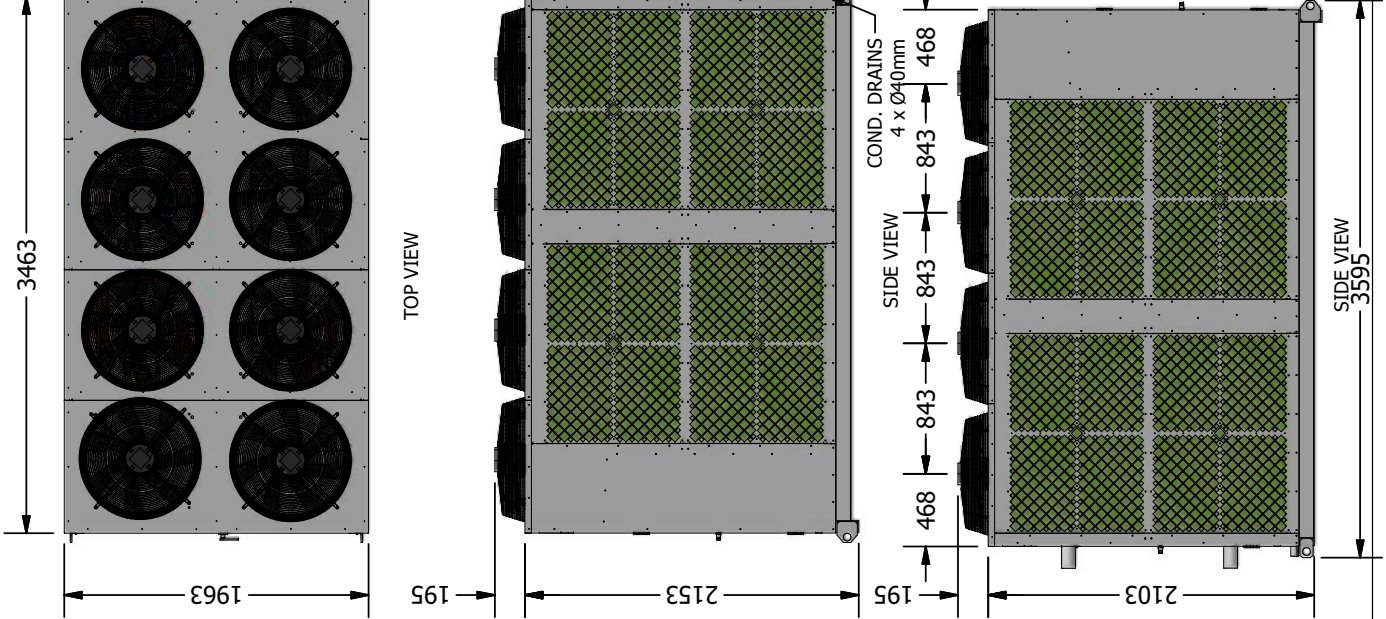
COND. DRAINS  
4 x Ø40mm

SIDE VIEW

195




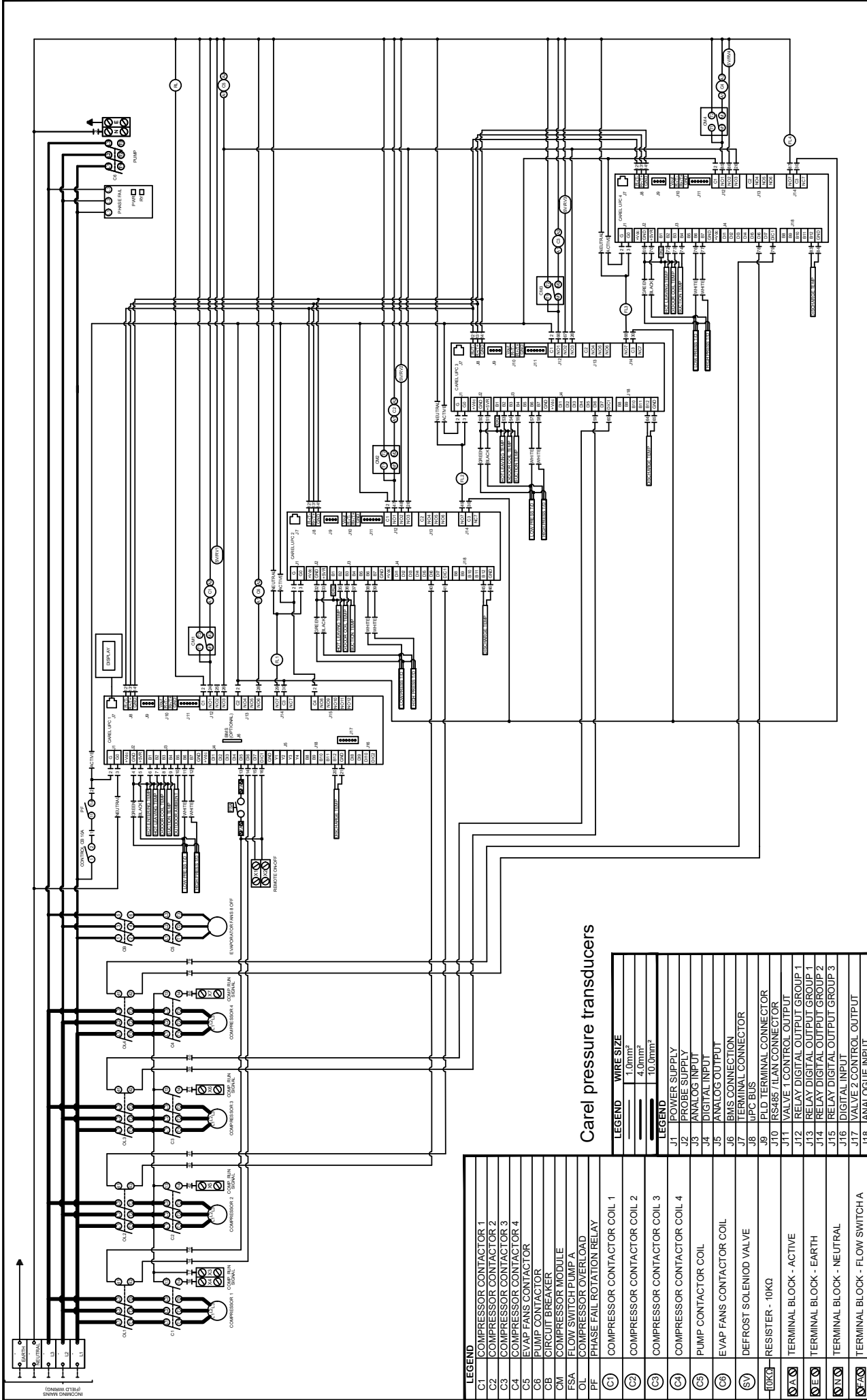
END VIEW



SIDE VIEW

3595

 <b>Rheem</b> THERMAL SYSTEMS GROUP		SHEET 1 OF 3	
		<b>Description:</b>	RTS A2W POOL HP 350KW R407C
<b>Part No:</b>	RTHP350KT-DQV-1	<b>Rev:</b>	
<b>Material:</b>	As Above	<b>Date:</b>	29/05/2020
<b>Drawn By:</b>	ST	<b>Checked By:</b>	
<b>General Tolerance:</b>	Sheetmetal - Cut Size $\pm 0.5mm$ , Angle $\pm 0.5^\circ$ , Bend size $\pm 0.3mm$ Tubes - Dimensions $\pm 2$ , Angle $\pm 2^\circ$		
		<b>Scale:</b>	N.T.S



Carel pressure transducers


REV	ECN	DESCRIPTION	DATE
01	0414	REMOVED BRIDGE DI3-DI4, ADDED SV/RV	05/11/21

LEGEND	WIRE SIZE
(C1)	1.0mm <sup>2</sup>
(C2)	4.0mm <sup>2</sup>
(C3)	10.0mm <sup>2</sup>

LEGEND	DESCRIPTION
J1	POWER SUPPLY
J2	PROBE SUPPLY
J3	ANALOG INPUT
J4	DIGITAL INPUT
J5	ANALOG OUTPUT
J6	BMS CONNECTION
J7	TERMINAL CONNECTOR
J8	4PC BUS
J9	PLD TERMINAL CONNECTOR
J10	RS485 / I CAN CONNECTOR
J11	VALVE 1 CONTROL OUTPUT
J12	RELAY DIGITAL OUTPUT GROUP 1
J13	RELAY DIGITAL OUTPUT GROUP 1
J14	RELAY DIGITAL OUTPUT GROUP 2
J15	RELAY DIGITAL OUTPUT GROUP 3
J16	DIGITAL INPUT
J17	VALVE 2 CONTROL OUTPUT
J18	ANALOGUE INPUT

 <p><b>Rheem</b> THERMAL SYSTEMS GROUP</p>	43 Marigold Street Revesby NSW 2212 Phone: (02) 9684 3684 Fax: (02) 9684 3698	<b>Part No: 47222E</b>	<b>Rev: 01</b>
<b>RTHP350K#-DQ#-1</b>			
<b>DATE</b> 05/11/21			
<b>DESCRIPTION</b> REMOVED BRIDGE DI3-DI4, ADDED SV/RV			
<b>Drawn By:</b> B.Fleming	<b>Date:</b> 2/6/2020		

**POOL HEAT PUMP SPECIFICATIONS**  
Titanium Heat Exchanger / Rheem IQ Control **RTHP440KT-DQV-1**

<b>ELECTRICAL INPUT</b>	
Voltage/Phase	380 - 415 Volts / 3 Phase / 50 Hz
Full Load / Locked Rotor (Amps Per Phase)	202.2 FLA / 272 LRA
Min. Circuit Size	250.0 Amps
Refrigerant	R407C
Nominal Heating capacity	441.02 kW
Power input	80.28 kW
COP	5.49 COP
Noise Level	73 dBa @ 3 m
Rated Load Amps @ 10°C SST / 45°C SCT	146.8 Amps

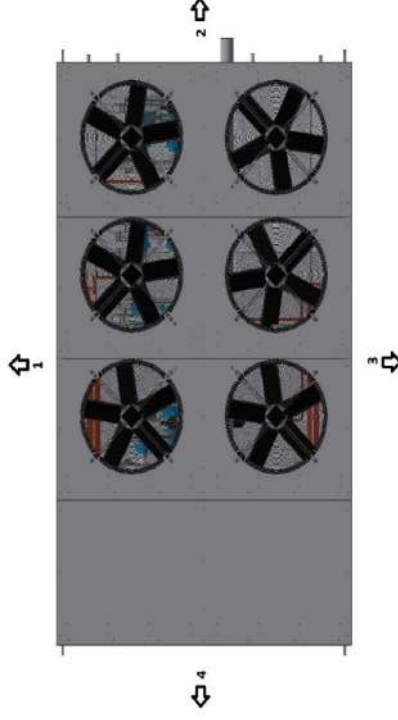
<b>TECHNICAL DATA</b>	
Make	<b>Compressor</b> Copeland
Type	Scroll 20103
Number Per Unit	4
FLA (Full Load Amps, each)	46.50 Amps
Voltage / Phase	380 - 415 / 3
Pole/RPM	2/2900
Air Flow	N/A
	Fan EBM-Papst Axial 6

<b>HEAT EXCHANGER (Water Side)</b>	
Type of Water Tube	Titanium Tube / PVC Shell
Design	Shell and Tube
Flow Rate Excl. By Pass	28 L/s
Design Temperature Difference	3.76 °C
Max. Outlet Water Temp	42 °C
Design Pressure Drop	60 kPa
Max. Operating Pressure	300 kPa

<b>GENERAL INFORMATION</b>	
Water Connections	150 mm PVC
Drain	40mm Aluminium
Defrost	Hot Gas Injection
Cabinet Construction	1.2mm Stucco Aluminium, Galvanised Base and Frame
Approx. shipping weight	2400 kg
Size L x W x H	4500 mm x 2262 mm x 2605 mm

**COP TABLE**

Water In °C	Ambient Temperature									
	0 °C	5 °C	10 °C	15 °C	20 °C	25 °C	27 °C	30 °C	35 °C	
27 °C	262.32 kW 3.37 COP	299.21 kW 3.83 COP	341.00 kW 4.33 COP	375.82 kW 4.74 COP	413.82 kW 5.18 COP	427.23 kW 5.34 COP	441.02 kW 5.49 COP	455.19 kW 5.65 COP	484.74 kW 5.98 COP	
30 °C	258.92 kW 3.12 COP	294.58 kW 3.54 COP	335.03 kW 4.00 COP	368.77 kW 4.38 COP	405.64 kW 4.79 COP	418.66 kW 4.94 COP	432.05 kW 5.08 COP	445.82 kW 5.23 COP	474.54 kW 5.54 COP	
33 °C	255.96 kW 2.89 COP	290.36 kW 3.27 COP	329.45 kW 3.70 COP	362.10 kW 4.05 COP	397.81 kW 4.43 COP	410.43 kW 4.56 COP	423.42 kW 4.69 COP	436.78 kW 4.83 COP	464.65 kW 5.12 COP	
36 °C	253.49 kW 2.67 COP	286.60 kW 3.02 COP	324.29 kW 3.41 COP	355.83 kW 3.73 COP	390.37 kW 4.08 COP	402.58 kW 4.20 COP	415.16 kW 4.33 COP	428.10 kW 4.45 COP	455.11 kW 4.72 COP	



<b>UNIT CLEARANCES</b>		
Direction	Description	Minimum Clearance Required
1	Evaporator Coil	1000mm
2	Water Connections	850mm
3	Evaporator Coil	1000mm
4	Compressor Access	1200mm
5	Top – Fan Discharge	3500mm

When units are placed side by side allow 2000mm between evaporator coils.  
Rating Conditions: 27°C ambient, 60% RH, 27°C water in

**POOL HEAT PUMP SPECIFICATIONS**  
Titanium Heat Exchanger / Rheem IQ Control **RTHP440KT-DQV-1**

<b>ELECTRICAL INPUT</b>	
Voltage/Phase	380 - 415 Volts / 3 Phase / 50 Hz
Full Load / Locked Rotor (Amps Per Phase)	202.2 FLA / 272 LRA
Min. Circuit Size	250.0 Amps
Refrigerant	R407C
Nominal Heating capacity	441.02 kW
Power input	80.28 kW
COP	5.49 COP
Noise Level	73 dBA @ 3 m
Rated Load Amps @ 10°C SST / 45°C SCT	148.8 Amps

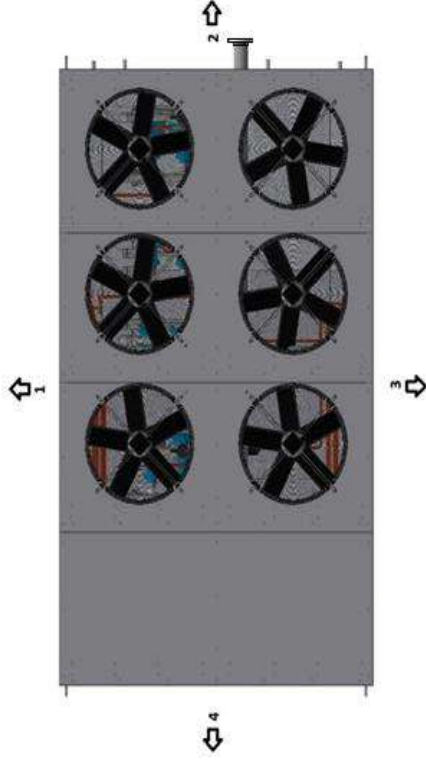
<b>TECHNICAL DATA</b>	
Make	<b>Compressor</b> Copeland
Type	Scroll 20103
Number Per Unit	4
FLA (Full Load Amps, each)	46.50 Amps
Voltage / Phase	380 - 415 / 3
Pole/RPM	2/2900
Air Flow	N/A
	<b>Fan</b> EBM-Papst
	Axial
	6
	2.70 Amps
	380 - 415 / 3
	6/890
	34956 L/s

<b>HEAT EXCHANGER (Water Side)</b>	
Type of Water Tube	Titanium Tube / PVC Shell
Design	Shell and Tube
Flow Rate Excl. By Pass	28 L/s
Design Temperature Difference	3.76 °C
Max. Outlet Water Temp	42 °C
Design Pressure Drop	60 kPa
Max. Operating Pressure	300 kPa

<b>GENERAL INFORMATION</b>	
Water Connections	150 mm PVC Flange
Drain	40mm Aluminium
Defrost	Hot Gas Injection
Cabinet Construction	1.2mm Stucco Aluminium, Galvanised Base and Frame
Approx. shipping weight	2400 kg
Size L x W x H	4500 mm x 2262 mm x 2605 mm

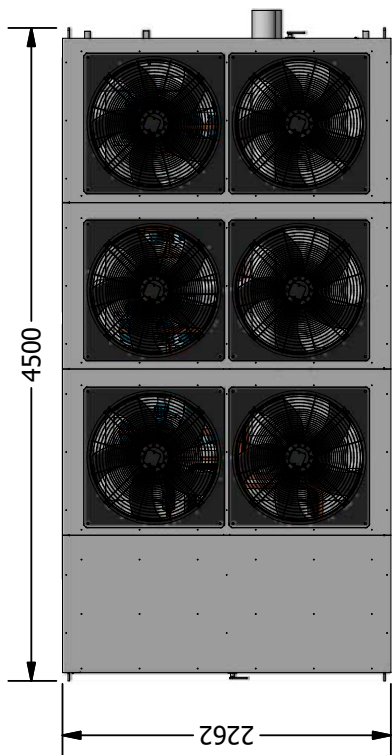
**COP TABLE**

Water In °C	Ambient Temperature									
	0 °C	5 °C	10 °C	15 °C	20 °C	25 °C	27 °C	30 °C	35 °C	
27 °C	262.32 kW 3.37 COP	299.21 kW 3.83 COP	341.00 kW 4.33 COP	375.82 kW 4.74 COP	413.82 kW 5.18 COP	427.23 kW 5.34 COP	<b>441.02 kW</b> <b>5.49 COP</b>	455.19 kW 5.65 COP	484.74 kW 5.98 COP	
30 °C	258.92 kW 3.12 COP	294.58 kW 3.54 COP	335.03 kW 4.00 COP	368.77 kW 4.38 COP	405.64 kW 4.79 COP	418.66 kW 4.94 COP	432.05 kW 5.08 COP	445.82 kW 5.23 COP	474.54 kW 5.54 COP	
33 °C	255.96 kW 2.89 COP	290.36 kW 3.27 COP	329.45 kW 3.70 COP	362.10 kW 4.05 COP	397.81 kW 4.43 COP	410.43 kW 4.56 COP	423.42 kW 4.69 COP	436.78 kW 4.83 COP	464.65 kW 5.12 COP	
36 °C	253.49 kW 2.67 COP	286.60 kW 3.02 COP	324.29 kW 3.41 COP	355.83 kW 3.73 COP	390.37 kW 4.08 COP	402.58 kW 4.20 COP	415.16 kW 4.33 COP	428.10 kW 4.45 COP	455.11 kW 4.72 COP	

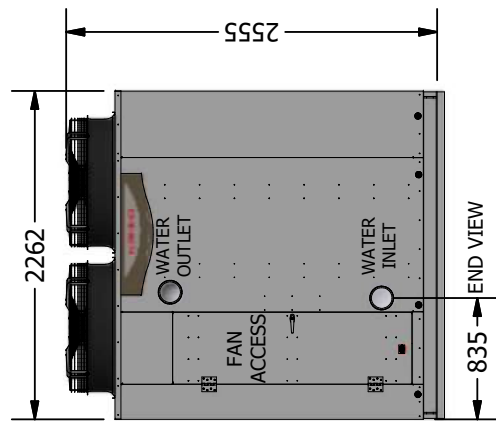


<b>UNIT CLEARANCES</b>	
Direction	Description
1	Evaporator Coil
2	Water Connections
3	Evaporator Coil
4	Compressor Access
5	Top – Fan Discharge
	Minimum Clearance Required
	1000mm
	850mm
	1000mm
	1200mm
	3500mm

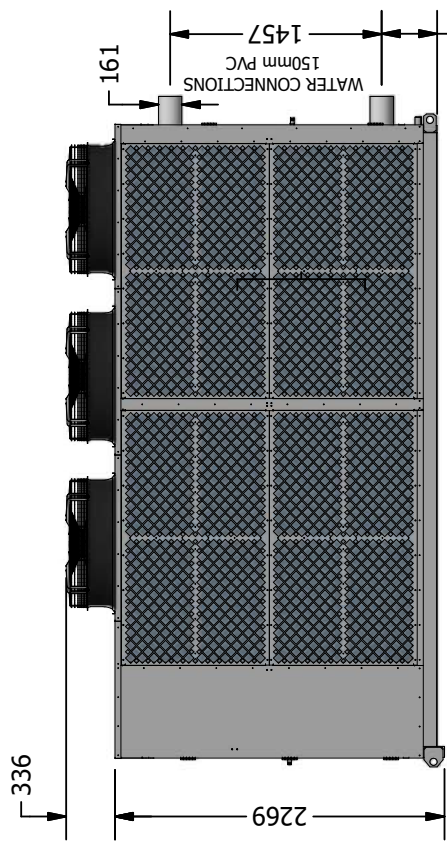
When units are placed side by side allow 2000mm between evaporator coils.  
Rating Conditions: 27°C ambient, 60% RH, 27°C water in



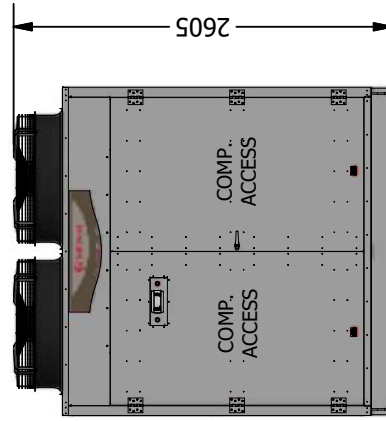
TOP VIEW



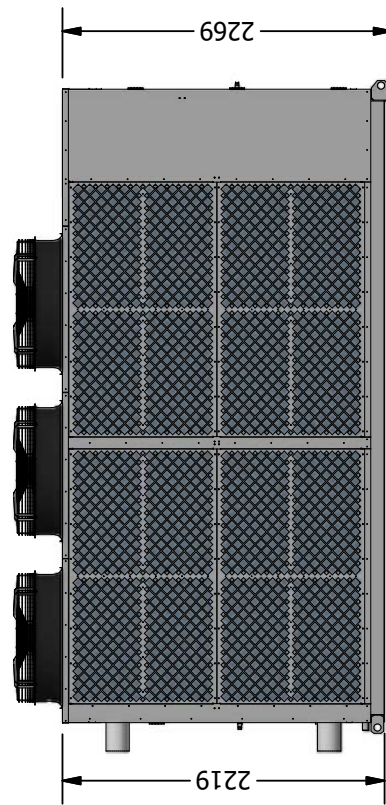
END VIEW




SIDE VIEW

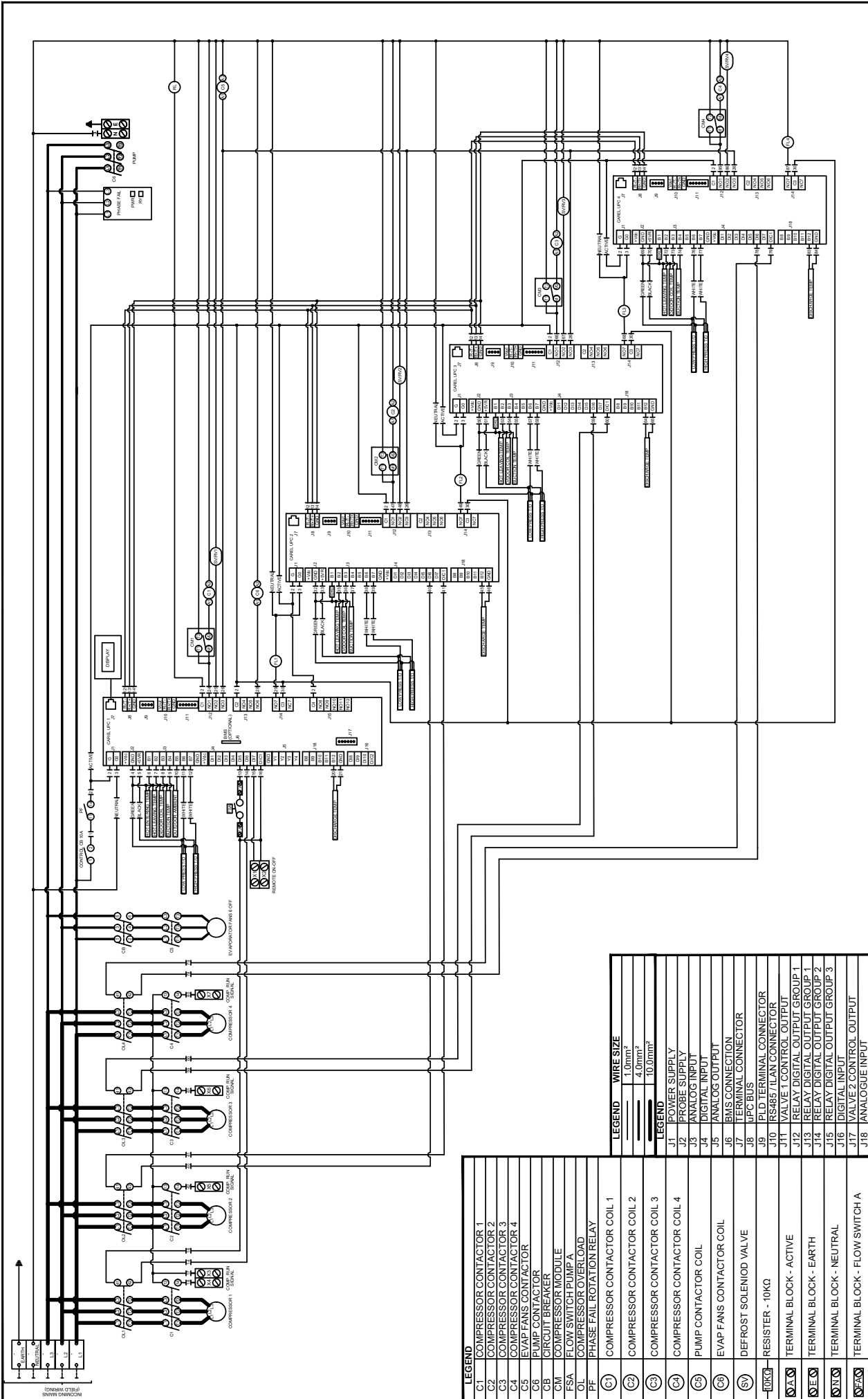


END VIEW



SIDE VIEW

 <b>Rheem</b> THERMAL SYSTEMS GROUP		SHEET 1 OF 3	
		<b>Description:</b>	RHEEM THERMAL A2W HWHP 440KW R407C
<b>Part No:</b>	RTHP440KT-	<b>Rev.</b>	
<b>Material:</b>	ST	<b>Date:</b>	1/11/2018
<b>Drawn By:</b>	ST	<b>Checked By:</b>	
<b>General Tolerance:</b>	Sheetmetal - Cut Size $\pm 0.5mm$ , Angle $\pm 0.5^\circ$ , Bend size $\pm 0.3mm$		<b>Scale:</b>
	Tubes - Dimensions $\pm 2$ , Angle $\pm 2$		N.T.S




REV	ECN	DESCRIPTION	DATE
01	0414	REMOVED BRIDGE DI3-DI4, ADDED SV/RV	05/1/21

LEGEND	WIRE SIZE
C1	1.0mm <sup>2</sup>
C2	4.0mm <sup>2</sup>
C3	10.0mm <sup>2</sup>
C4	
C5	
C6	
S1	
L10K0	
VA00	
VE00	
VS00	
SV00	

LEGEND	WIRE SIZE
J1	POWER SUPPLY
J2	PROBE SUPPLY
J3	ANALOG INPUT
J4	DIGITAL INPUT
J5	ANALOG OUTPUT
J6	BMS CONNECTION
J7	TERMINAL CONNECTOR
J8	I/PC BUS
J9	PLD TERMINAL CONNECTOR
J10	RS485/I/LAN CONNECTOR
J11	VALVE 1 CONTROL OUTPUT
J12	RELAY DIGITAL OUTPUT GROUP 1
J13	RELAY DIGITAL OUTPUT GROUP 1
J14	RELAY DIGITAL OUTPUT GROUP 2
J15	RELAY DIGITAL OUTPUT GROUP 3
J16	DIGITAL INPUT
J17	VALVE 2 CONTROL OUTPUT
J18	ANALOGUE INPUT



**Rheem**  
THERMAL SYSTEMS GROUP

43 Marigold Street  
Revesby NSW 2212  
Phone: (02) 9684 3684  
Fax: (02) 9684 3698

Part No: **47209E**

Rev: **01**

Drawn By: **B.Fleming**

Date: **29/04/2020**

**POOL HEAT PUMP SPECIFICATIONS**  
Titanium Heat Exchanger / Rheem IQ Control **RTHP540KT-DQV-1**

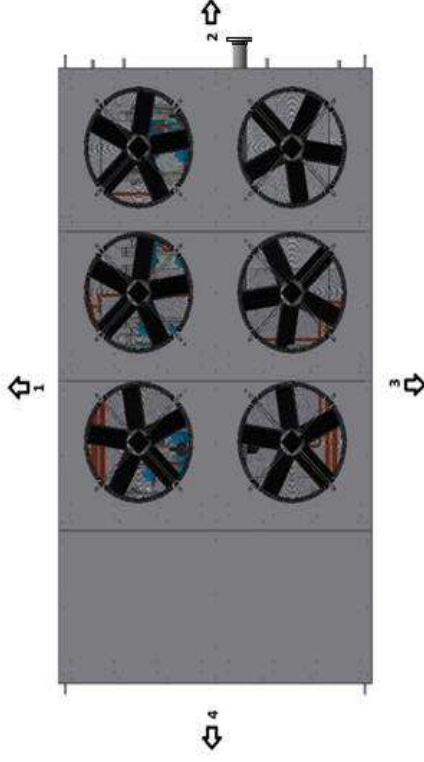
<b>ELECTRICAL INPUT</b>	
Voltage/Phase	380 - 415 Volts / 3 Phase / 50 Hz
Full Load / Locked Rotor (Amps Per Phase)	246.2 FLA / 310 LRA
Min. Circuit Size	300.0 Amps
Refrigerant	R407C
Nominal Heating capacity	540.31 kW
Power input	95.65 kW
COP	5.65 COP
Noise Level	73 dBA @ 3 m
Rated Load Amps @ 10°C SST / 45°C SCT	173.6 Amps

<b>TECHNICAL DATA</b>	
<b>Make</b>	<b>Compressor</b>
Type	Copeland
Number Per Unit	Scroll 20105
FLA (Full Load Amps, each)	4
Voltage / Phase	57.50 Amps
Pole/RPM	380 - 415 / 3
Air Flow	2/2900
	N/A
	34956 L/s
<b>HEAT EXCHANGER (Water Side)</b>	<b>Fan</b>
Type of Water Tube	EBM-Papst
Design	Shell and Tube
Flow Rate Excl. By Pass	28 L/s
Design Temperature Difference	4.61 °C
Max. Outlet Water Temp	42 °C
Design Pressure Drop	60 kPa
Max. Operating Pressure	300 kPa

<b>GENERAL INFORMATION</b>	
Water Connections	150 mm PVC Flange
Drain	40mm Aluminium
Defrost	Hot Gas Injection
Cabinet Construction	1.2mm Stucco Aluminium, Galvanised Base and Frame
Approx. shipping weight	2400 kg
Size L x W x H	4500 mm x 2262 mm x 2605 mm

**COP TABLE**

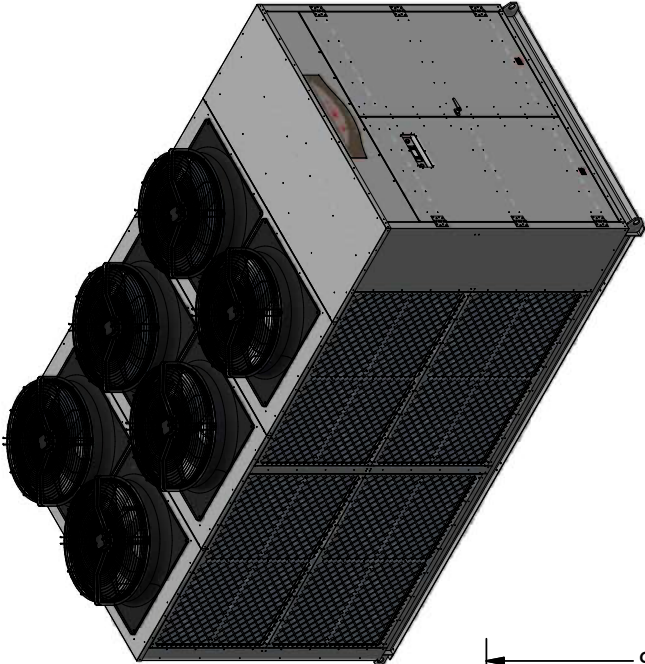
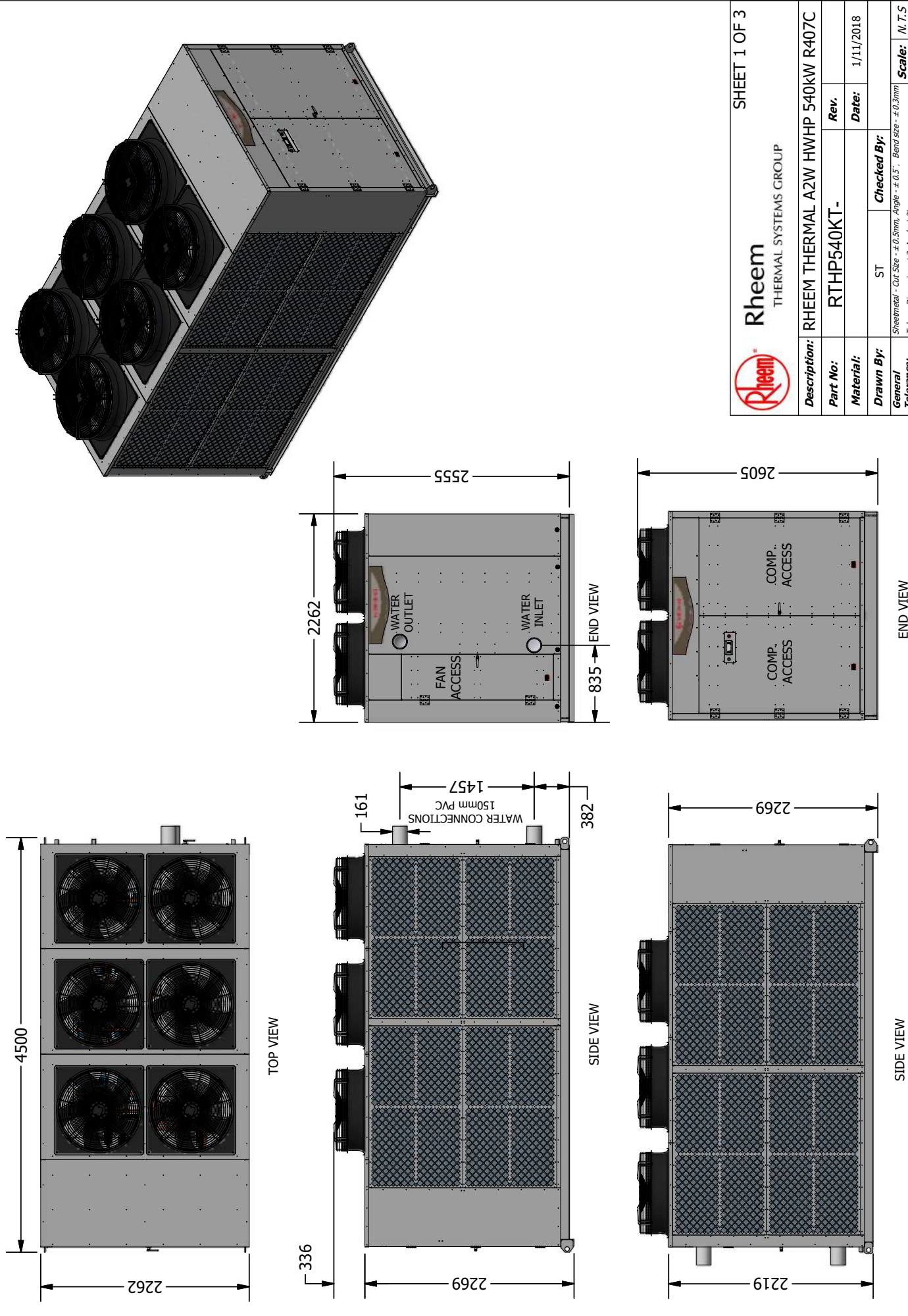
Water In °C	Ambient Temperature								
	0 °C	5 °C	10 °C	15 °C	20 °C	25 °C	27 °C	30 °C	35 °C
27 °C	319.61 kW 3.44 COP	365.34 kW 3.91 COP	416.59 kW 4.43 COP	459.35 kW 4.86 COP	506.37 kW 5.32 COP	523.07 kW 5.48 COP	<b>540.31 kW</b> <b>5.65 COP</b>	558.12 kW 5.82 COP	595.50 kW 6.16 COP
30 °C	315.16 kW 3.19 COP	360.15 kW 3.62 COP	410.26 kW 4.10 COP	451.90 kW 4.50 COP	497.55 kW 4.93 COP	513.75 kW 5.08 COP	530.47 kW 5.23 COP	547.72 kW 5.39 COP	583.92 kW 5.71 COP
33 °C	310.37 kW 2.94 COP	354.76 kW 3.35 COP	403.85 kW 3.79 COP	444.46 kW 4.16 COP	488.85 kW 4.55 COP	504.58 kW 4.69 COP	520.80 kW 4.84 COP	537.53 kW 4.98 COP	572.60 kW 5.28 COP
36 °C	305.16 kW 2.71 COP	349.08 kW 3.09 COP	397.29 kW 3.50 COP	436.96 kW 3.83 COP	480.19 kW 4.20 COP	495.47 kW 4.33 COP	511.23 kW 4.46 COP	527.47 kW 4.60 COP	561.48 kW 4.88 COP



<b>UNIT CLEARANCES</b>	
Direction	Description
1	Evaporator Coil
2	Water Connections
3	Evaporator Coil
4	Compressor Access
5	Top – Fan Discharge
	Minimum Clearance Required
	1000mm
	850mm
	1000mm
	1200mm
	3500mm

When units are placed side by side allow 2000mm between evaporator coils.  
Rating Conditions: 27°C ambient, 60% RH, 27°C water in





**Rheem**  
THERMAL SYSTEMS GROUP

SHEET 1 OF 3

<b>Description:</b>	RHEEM THERMAL A2W HWP 540kW R407C		
<b>Part No:</b>	RTHP540KT-		
<b>Material:</b>		<b>Rev:</b>	
<b>Drawn By:</b>	ST	<b>Date:</b>	1/11/2018
<b>General Tolerance:</b>	Sheetmetal - Cut Size - $\pm 0.5mm$ , Angle - $\pm 0.5^\circ$ , Bend size - $\pm 0.3mm$	<b>Checked By:</b>	
	Tubes - Dimensions $\pm 0.2$ , Angle $\pm 2$	<b>Scale:</b>	N.T.S



# RHEEM THERMAL

EASY INTEGRATION – HIGHER EFFICIENCY – LONGER LASTING  
DESIGNED AND MANUFACTURED BY RHEEM



REV: MARCH 21

## CONTACT US AT

Phone (Sales): +65-6872-1161

Phone (Service): +65-6872-2043

Email: [RheemAsia@Rheem.com](mailto:RheemAsia@Rheem.com)

Visit us at [www.RheemAsia.com](http://www.RheemAsia.com)

*Material and data subject to change without notice due to ongoing product improvements.*

