

# SPECIFICATIONS



Indoor Unit (525-561-712)	ISD 324KYX
Outdoor Unit (546-561-312)	OSA 324RKTFV (inverter)
Cooling capacity (net) to AS/NZS 3823 T1	33.3 kW
Heating capacity H1	32.2 kW
Electrical input - cooling	10.5 kW
Electrical input - heating	8.5 kW
EER / AEER (cooling)	3.18 / 3.16
COP / ACOP (heating)	3.78 / 3.76
Unit Controllers	UC8 / IUC
Refrigerant	R410A
Refrigerant precharge for 10 m	13.1 kg
Additional charge req'd for over 10 m	100 g/m
Base refrigerant charge OSA	12.1 kg
Maximum line length	90 m
Separation limit: OSA above ISD	20 m
Separation limit: OSA below ISD	20 m
Suction line	28 mm OD
Liquid line	13 mm OD
Compressor oil type	PVE FVC68D (or equivalent)
Additional oil charge over 40m line length	20 ml/m
Compressor type	inverter scroll
Power supply via OSA	3 ph. 400V ac 50Hz
Compressor (3ph.) run amps at rating cond.	16 A
Indoor fan motor size	900W + 1250W
Rated indoor fan speed	MED
Indoor fan motor (1ph.) - full load	12.5 A
Outdoor fan motor (1ph.) - full load	3 A
Outdoor fan capacitor size	6 $\mu$ fd (x2)
Control circuit breaker (internal)	20 A
Running amps (total system)	21 / 12.5 / 16 A
Max. running amps (total system)	33 / 16.5 / 19.5 A
Net weight ISD	143 kg
Net weight OSA	245 kg

## Accessories:

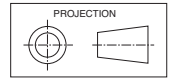
ISD Spring mounting kit	307-341-101
ISD Filter box c/w EU4/G4 filter (NZ only)	493-000-017
ISD Replacement filter (NZ only)	119-400-006 (x3)
ISD Supply air plenum $\varnothing$ 400 x 5 (NZ only)	492-000-031
ISD Return air plenum $\varnothing$ 400 x 5 (NZ only)	492-100-009
ISD Fresh air inlet spigot $\varnothing$ 200 (NZ only)	325-000-052
OSA Drain connection adaptor 25/13mm	060-000-039
OSA Anti-vibration mounts - rubber (x4)	060-000-170

## Optional Controls:

SAT-3 Room temperature controller	201-000-146
Six Zone Control kit for SAT-3	201-000-073
TZT-100 Room temperature controller	201-000-350

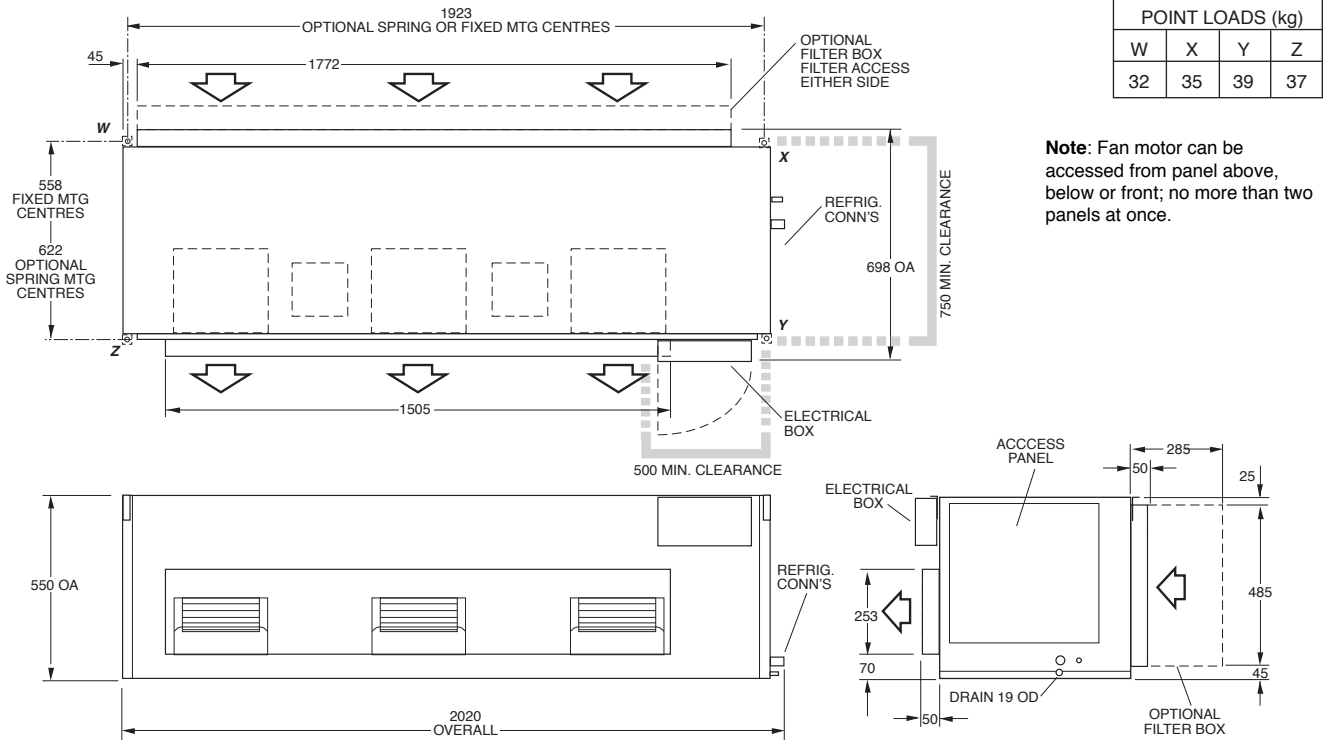
Refer to temperzone for other options, eg remote sensors, connection wires.

# DIMENSIONS (mm)

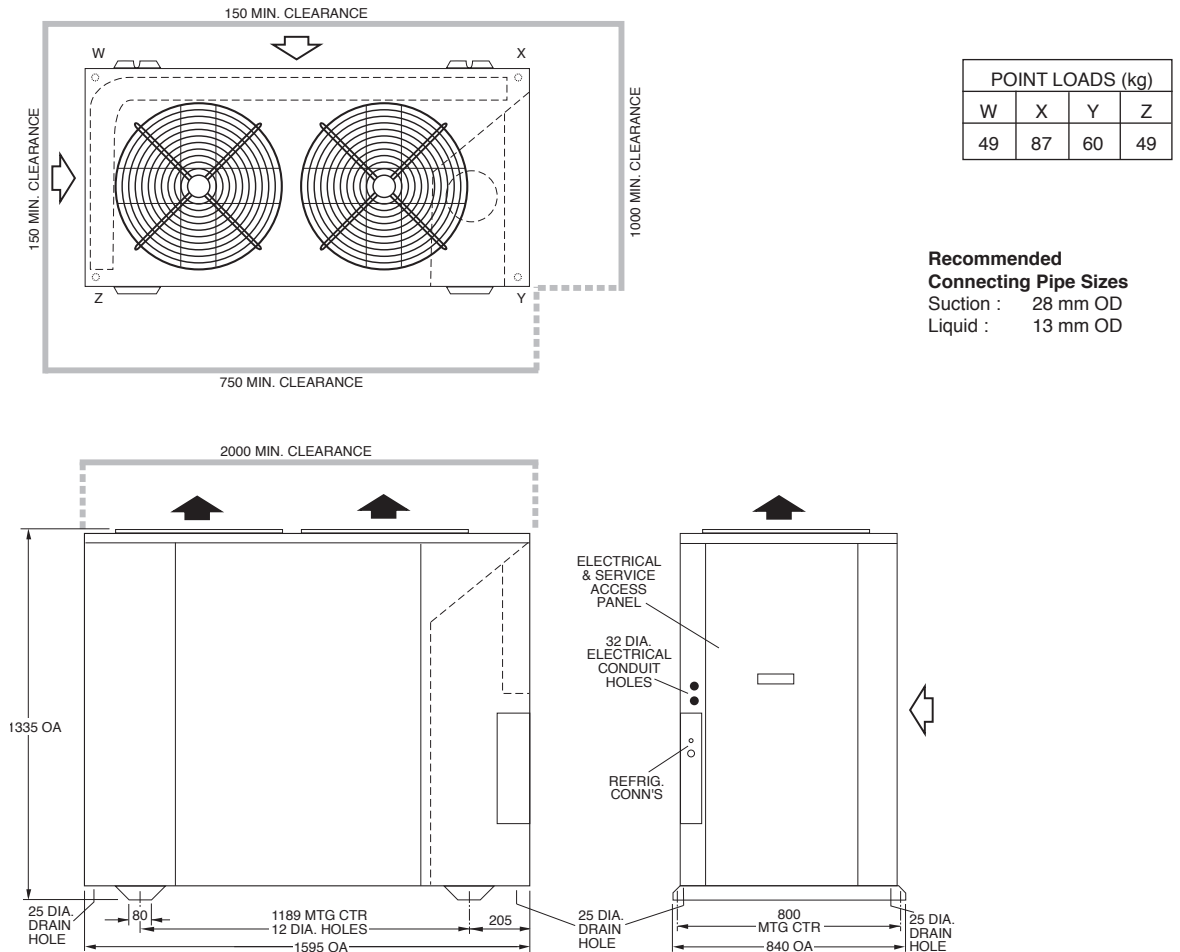


Not to Scale

## ISD 324KYX Indoor Unit

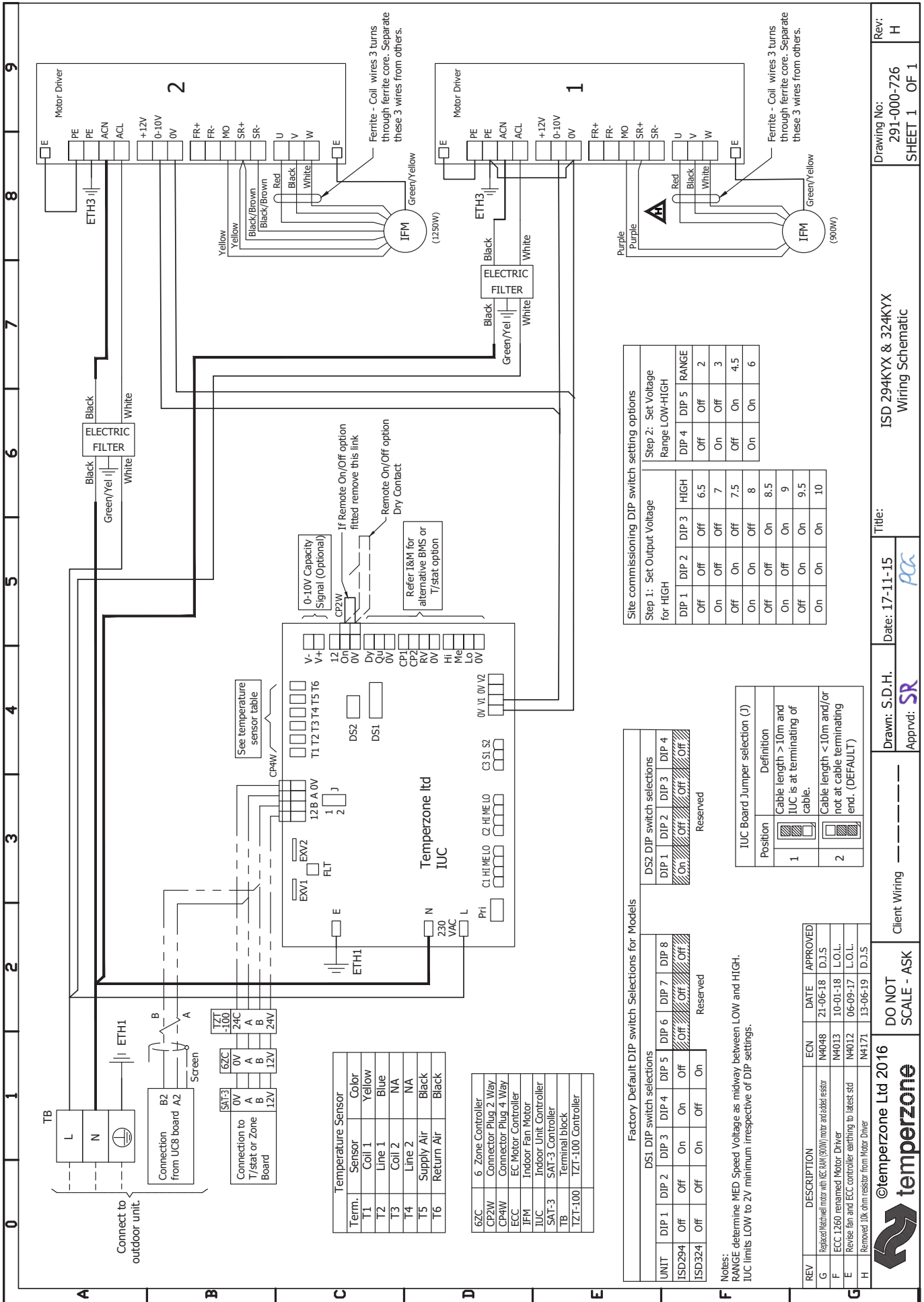


## OSA 324RKTFV Outdoor Unit



**NOTE**  
 Specifications are subject to change without notice due to the manufacturer's ongoing research and development programme.





Term.	Sensor	Color
T1	Coil 1	Yellow
T2	Line 1	Blue
T3	Coil 2	NA
T4	Line 2	NA
T5	Supply Air	Black
T6	Return Air	Black

6 Zone Controller
Connector Plug 2 Way
Connector Plug 4 Way
ECC Motor Controller
IFM
Indoor Fan Motor
IUC
Indoor Unit Controller
SAT-3
SAT-3 Controller
TB
Terminal block
TZT-100
TZT-100 Controller

Factory Default DIP switch Selections for Models								
DS1 DIP switch selections			DS2 DIP switch selections			Reserved		
UNIT	DIP 1	DIP 2	DIP 3	DIP 4	DIP 5	DIP 6	DIP 7	DIP 8
ISD294	Off	Off	On	On	Off	Off	Off	Off
ISD324	Off	Off	On	On	Off	On	Off	Off

Site commissioning DIP switch setting options						
Step 1: Set Output Voltage for HIGH			Step 2: Set Voltage Range LOW-HIGH			
DIP 1	DIP 2	DIP 3	HIGH	DIP 4	DIP 5	RANGE
Off	Off	Off	6.5	Off	Off	2
On	On	Off	7	On	Off	3
Off	On	Off	7.5	Off	On	4.5
On	On	Off	8	On	On	6
Off	Off	On	8.5			
On	Off	On	9			
Off	On	On	9.5			
On	On	On	10			

IUC Board Jumper selection (J)	
Position	Definition
1	Cable length > 10m and IUC is at terminating of cable.
2	Cable length < 10m and/or not at cable terminating end. (DEFAULT)

Notes:  
 RANGE determine MED Speed Voltage as midway between LOW and HIGH.  
 IUC limits LOW to 2V minimum irrespective of DIP settings.

REV	DESCRIPTION	ECN	DATE	DATE	APPROVED
G	Revised Internal motor with IEC kW (900W) motor and added resistor	N4048	21-06-18	D.J.S	
F	ECC 1260 re-named Motor Driver	N4013	10-01-18	L.O.L.	
E	Revised fan and ECC controller (switching to latest std)	N4012	06-09-17	L.O.L.	
H	Removed 10k ohm resistor from Motor Driver	N4171	13-06-19	D.J.S	



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 DO NOT SCALE - ASK

Client Wiring

Drawn: S.D.H.  
 Approved: SR

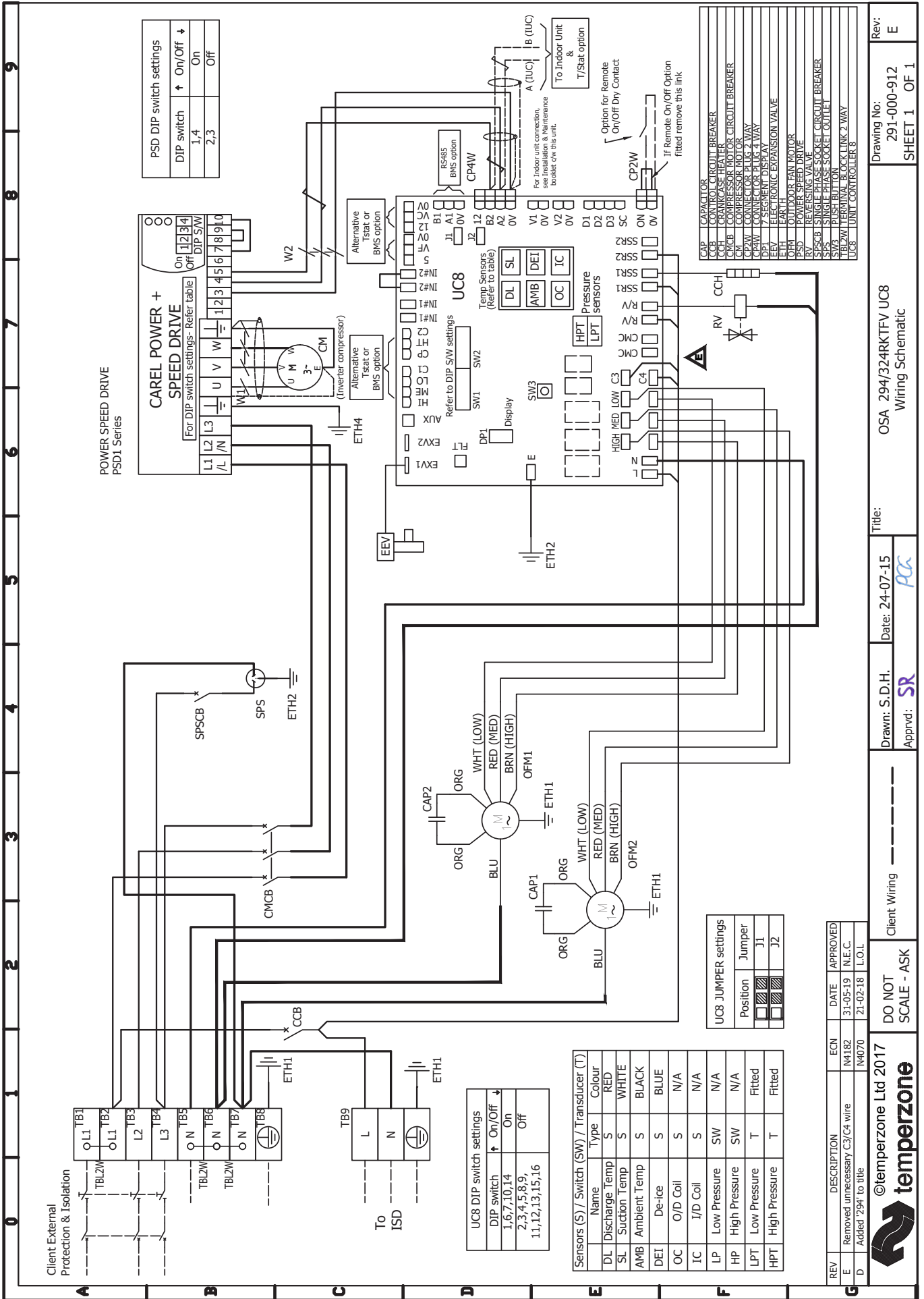
Date: 17-11-15  
 PCG

Title: ISD 294KX & 324KX  
 Wiring Schematic

Drawing No: 291-000-726  
 SHEET 1 OF 1  
 Rev: H

# OUTDOOR UNIT WIRING

Indoor-Outdoor Connection Wiring: refer 'Installation & Maintenance' pamphlet, page 6.



PSD DIP switch settings

DIP switch	↑ On/Off ↓
1,4	On
2,3	Off

CAREL POWER + SPEED DRIVE

For DIP switch settings- Refer table

On	1	2	3	4
Off	12	34	45	56
	7	8	9	10

UC8 DIP switch settings

DIP switch	↑ On/Off ↓
1,6,7,10,14	On
2,3,4,5,8,9	Off
11,12,13,15,16	Off

Sensors (S) / Switch (SW) / Transducer (T)

Name	Type	Colour
DL Discharge Temp	S	RED
SL Suction Temp	S	WHITE
AMB Ambient Temp	S	BLACK
DEI De-ice	S	BLUE
OC O/D Coil	S	N/A
IC I/D Coil	S	N/A
LP Low Pressure	SW	N/A
HP High Pressure	SW	N/A
LPT Low Pressure	T	Fitted
HPT High Pressure	T	Fitted

UC8 JUMPER settings

Position	Jumper
J1	<input type="checkbox"/>
J2	<input type="checkbox"/>

REV	DESCRIPTION	EGN	DATE	APPROVED
E	Removed unnecessary C3/C4 wire	N4182	31-05-19	N.E.C.
D	Added '294' to title	N4070	21-02-18	L.O.L.

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Client Wiring

DO NOT SCALE - ASK

Drawn: S.D.H.

Approved: SR

Title: OSA 294/324RKTfV UC8 Wiring Schematic

Drawing No: 291-000-912

Rev: E

SHEET 1 OF 1