



## Series 8

Intelligent Environmental Control System

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*Technical Data - 50Hz*

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## Air-cooled System

Model no.	8AU__ /8AD__	06	07	08	10
<b>Cooling Capacity - Rated at standard air volume, 35°C ambient temperature, R407c</b>					
<b>24°C(75.2°F)DB, 50%rh</b>					
Total	kW	21.5	23.2	30.8	34.8
Sensible	kW	19.9	23.2	28.7	32.8
THR	kW	26.1	28.1	37.1	42.2
<b>24°C(75.2°F)DB, 45%rh</b>					
Total	kW	21.0	22.7	30.0	34.0
Sensible	kW	21.0	22.7	30.0	34.0
THR	kW	25.7	27.6	36.4	41.4
<b>22°C(71.6°F)DB, 50%rh</b>					
Total	kW	20.3	21.9	29.0	32.9
Sensible	kW	19.1	21.9	28.0	32.0
THR	kW	25.0	26.9	35.3	40.2
<b>22°C(71.6°F)DB, 45%rh</b>					
Total	kW	20.0	21.7	28.4	32.3
Sensible	kW	19.7	21.7	28.4	32.3
THR	kW	24.6	26.6	35.3	39.6
<b>20°C(68.0°F)DB, 50%rh</b>					
Total	kW	19.3	20.9	27.5	31.2
Sensible	kW	19.1	20.9	27.5	31.2
THR	kW	23.9	25.8	33.7	38.5
<b>20°C(68.0°F)DB, 45%rh</b>					
Total	kW	18.9	20.5	27.2	30.9
Sensible	kW	18.9	20.5	27.2	30.9
THR	kW	23.6	25.5	33.5	38.3

### Fan Section - Two belts, variable pitch, single shaft centrifugal blower system

Standard Air Volume	m <sup>3</sup> /h	5780	8160	8840	10200
External Static Pressure	Pa	75	75	75	75
Quantity of Fans		1	1	1	1
Total Fan Motor Power	kW	0.75	1.12	1.49	2.24
Absorbed Power	kW	0.56	1.06	1.35	2.18

### Compressor - Refrigerant R407c

Quantity of Compressors		1	1	1	1
Type		Scroll	Scroll	Scroll	Scroll

### Air Cooled Condenser – Factory matched

Model	SC63SE	SC64SE	SC66SE	SC66SE
No. of Condenser	1	1	1	1

Model no.	8AU__ /8AD__	06	07	08	10
<b>Evaporator Coil - Copper tube / aluminium fin - Stainless steel drain pan</b>					
Face Area	m <sup>2</sup>	1.25	1.25	1.25	1.25
Rows Deep		3	3	4	4
Fins per inch		14	14	14	14
Face Velocity	m/s	1.29	1.82	1.97	2.27
<b>Reheat Section</b>					
<b>Electric Reheat<sup>1</sup> - Single stage, finned tubular type heater, SCR Controlled</b>					
Capacity	kW	6	6	6	6
Quantity of Heaters		3	3	3	3
<b>Hot Gas Reheat - Single stage - 22°C E.A.T.</b>					
Capacity	kW	9.5	11.2	11.6	12.3
<b>Hot Water Reheat - 82.2°C E.W.T., 22°C E.A.T. - 2-way modulating control valve, optional 3-way</b>					
Heating Capacity	kW	14.3	16.5	17.0	17.9
Water Flow Rate	l/s	0.32	0.32	0.32	0.32
Water Pressure Drop	kPa	17.2	17.2	17.2	17.2
<b>Steam Reheat - 108.3°C saturated steam, 22°C E.A.T. - 2-way modulating control valve</b>					
Max. Heating Capacity	kW	22.3	25.9	26.7	28.3
<b>Humidifier - Electrode boiler type, Serviceable Bottle</b>					
Steam Generation Capacity	kg/h	9	9	9	9
Humidifier Power	kW	6.8	6.8	6.8	6.8
<b>Filter Section - Pleated disposable type</b>					
<b>Upflow models</b>					
Quantity of Filters		3	3	3	3
Nominal Size	LxWxD mm	508 x 635 x 102	508 x 635 x 102	508 x 635 x 102	508 x 635 x 102
<b>Downflow models</b>					
Quantity of Filters		4	4	4	4
Nominal Size	LxWxD mm	406 x 635 x 102	406 x 635 x 102	406 x 635 x 102	406 x 635 x 102
<b>Piping Connection Size</b>					
Liquid Line	- ODM -mm	13	13	16	16
Hot Gas Line	- ODM -mm	22	22	29	29
Humidifier Water	- ODM -mm	6.4	6.4	6.4	6.4
Condensate Drain	- ODM -mm	19	19	19	19
Hot Water	- ODM - mm	22	22	22	22
Steam	- ODM -mm	22	22	22	22
<b>Physical Details</b>					
Width x Depth x Height	mm	1372 x 864 x 1880			
Weight	kg	420	420	450	450

<sup>1</sup> Standard options

## Water-cooled System

Model no. 8WU__/8WD__		06	07	08	10
<b>Cooling Capacity - Rated at standard air volume, R407c</b>					
<b>24°C(75.2°F)DB, 50%rh</b>					
Total	kW	22.2	23.8	31.1	35.6
Sensible	kW	20.2	23.8	28.8	33.2
THR	kW	26.9	28.7	37.4	43.0
<b>24°C(75.2°F)DB, 45%rh</b>					
Total	kW	21.8	23.3	30.2	34.8
Sensible	kW	21.3	23.3	30.2	34.8
THR	kW	26.4	28.2	36.6	42.2
<b>22°C(71.6°F)DB, 50%rh</b>					
Total	kW	21.0	22.4	29.1	33.4
Sensible	kW	19.4	22.4	28.0	32.3
THR	kW	25.7	27.4	35.4	40.9
<b>22°C(71.6°F)DB, 45%rh</b>					
Total	kW	20.5	22.0	28.5	32.8
Sensible	kW	20.0	22.0	28.5	32.8
THR	kW	25.3	27.0	34.9	40.2
<b>20°C(68.0°F)DB, 50%rh</b>					
Total	kW	19.9	21.2	27.5	31.5
Sensible	kW	19.4	21.2	27.5	31.5
THR	kW	24.5	26.1	33.7	39.0
<b>20°C(68.0°F)DB, 45%rh</b>					
Total	kW	19.5	20.8	27.2	31.4
Sensible	kW	19.5	20.8	27.2	31.4
THR	kW	24.1	25.7	33.5	38.7

### Fan Section - Two belts, variable pitch, single shaft centrifugal blower system

Standard Air Volume	m <sup>3</sup> /h	5780	8160	8840	10200
External Static Pressure	Pa	75	75	75	75
Quantity of Fans		1	1	1	1
Total Fan Motor Power	kW	0.75	1.12	1.49	2.24
Absorbed Power	kW	0.56	1.06	1.35	2.18

### Compressor - Refrigerant R407c

Quantity of Compressors		1	1	1	1
Type		Scroll	Scroll	Scroll	Scroll

Model no.	8WU__ /8WD__	06	07	08	10
<b>Evaporator Coil - Copper tube / aluminium fin - Stainless steel drain pan</b>					
Face Area	m <sup>2</sup>	1.25	1.25	1.25	1.25
Rows Deep		3	3	4	4
Fins per inch		14	14	14	14
Face Velocity	m/s	1.29	1.82	1.97	2.27
<b>Reheat Section</b>					
<b>Electric Reheat<sup>1</sup> - Single stage, finned tubular type heater, SCR Controlled</b>					
Capacity	kW	6	6	6	6
Quantity of Heaters		3	3	3	3
<b>Hot Gas Reheat - Single stage - 22°C E.A.T.</b>					
Capacity	kW	9.5	11.2	11.6	12.3
<b>Hot Water Reheat - 82.2°C E.W.T., 22°C E.A.T. - 2-way modulating control valve, optional 3-way</b>					
Heating Capacity	kW	14.3	16.5	17.0	17.9
Water Flow Rate	l/s	0.32	0.32	0.32	0.32
Water Pressure Drop	kPa	17.2	17.2	17.2	17.2
<b>Steam Reheat - 108.3°C saturated steam, 22°C E.A.T. - 2-way modulating control valve</b>					
Max. Heating Capacity	kW	22.3	25.9	26.7	28.3
<b>Humidifier - Electrode boiler type, Serviceable Bottle</b>					
Steam Generation Capacity	kg/h	9	9	9	9
Humidifier Power	kW	6.8	6.8	6.8	6.8
<b>Filter Section - Pleated disposable type</b>					
<b>Upflow models</b>					
Quantity of Filters		3	3	3	3
Nominal Size	LxWxD mm	508 x 635 x 102	508 x 635 x 102	508 x 635 x 102	508 x 635 x 102
<b>Downflow models</b>					
Quantity of Filters		4	4	4	4
Nominal Size	LxWxD mm	406 x 635 x 102	406 x 635 x 102	406 x 635 x 102	406 x 635 x 102
<b>Condensing Water Requirement</b>					
30°C EWT					
Flow Rate	l/s	0.61	0.65	0.85	0.98
Unit Pressure Drop	kPa	40.5	42.4	48.7	51.2
25°C EWT					
Flow Rate	l/s	0.41	0.44	0.57	0.66
Unit Pressure Drop	kPa	20.1	20.4	24.8	25.4

Model no. 8WU__ /8WD__		06	07	08	10
<b>Water Regulating Valve - 3-way, head pressure controlled</b>					
Size	mm	25.4	25.4	25.4	25.4
<b>Piping Connection Size</b>					
Liquid Line	- ODM -mm	13	13	16	16
Hot Gas Line	- ODM -mm	22	22	29	29
Humidifier Water	- ODM -mm	6.4	6.4	6.4	6.4
Condensate Drain	- ODM -mm	19	19	19	19
Condensing Water	- ODM -mm	28.6	28.6	28.6	28.6
Hot Water	- ODM - mm	22	22	22	22
Steam	- ODM -mm	22	22	22	22
<b>Physical Details</b>					
Indoor Unit					
Width x Depth x Height	mm	1372 x 864 x 1880			
Weight	kg	445	445	475	475

<sup>1</sup> Standard options

## Glycol-cooled System

Model no. 8GU__ /8GD__		06	07	08	10
<b>Cooling Capacity - Rated at standard air volume, R407c</b>					
<b>24°C(75.2°F)DB, 50%rh</b>					
Total	kW	22.2	23.8	31.1	35.6
Sensible	kW	20.2	23.8	28.8	33.2
THR	kW	26.9	28.7	37.4	43.0
<b>24°C(75.2°F)DB, 45%rh</b>					
Total	kW	21.8	23.3	30.2	34.8
Sensible	kW	21.3	23.3	30.2	34.8
THR	kW	26.4	28.2	36.6	42.2
<b>22°C(71.6°F)DB, 50%rh</b>					
Total	kW	21.0	22.4	29.1	33.4
Sensible	kW	19.4	22.4	28.0	32.3
THR	kW	25.7	27.4	35.4	40.9
<b>22°C(71.6°F)DB, 45%rh</b>					
Total	kW	20.5	22.0	28.5	32.8
Sensible	kW	20.0	22.0	28.5	32.8
THR	kW	25.3	27.0	34.9	40.2
<b>20°C(68.0°F)DB, 50%rh</b>					
Total	kW	19.9	21.2	27.5	31.5
Sensible	kW	19.4	21.2	27.5	31.5
THR	kW	24.5	26.1	33.7	39.0
<b>20°C(68.0°F)DB, 45%rh</b>					
Total	kW	19.5	20.8	27.2	31.4
Sensible	kW	19.5	20.8	27.2	31.4
THR	kW	24.1	25.7	33.5	38.7
<b>Fan Section - Two belts, variable pitch, single shaft centrifugal blower system</b>					
Standard Air Volume	m <sup>3</sup> /h	5780	8160	8840	10200
External Static Pressure	Pa	75	75	75	75
Quantity of Fans		1	1	1	1
Total Fan Motor Power	kW	0.75	1.12	1.49	2.24
Absorbed Power	kW	0.56	1.06	1.35	2.18
<b>Compressor - Refrigerant R407c</b>					
Quantity of Compressors		1	1	1	1
Type		Scroll	Scroll	Scroll	Scroll



Model no.	8GU__ /8GD__	06	07	08	10
<b>Evaporator Coil - Copper tube / aluminium fin - Stainless steel drain pan</b>					
Face Area	m <sup>2</sup>	1.25	1.25	1.25	1.25
Rows Deep		3	3	4	4
Fins per inch		14	14	14	14
Face Velocity	m/s	1.29	1.82	1.97	2.27
<b>Reheat Section</b>					
<b>Electric Reheat<sup>1</sup> - Single stage, finned tubular type heater, SCR Controlled</b>					
Capacity	kW	6	6	6	6
Quantity of Heaters		3	3	3	3
<b>Hot Gas Reheat - Single stage - 22°C E.A.T.</b>					
Capacity	kW	9.5	11.2	11.6	12.3
<b>Hot Water Reheat - 82.2°C E.W.T., 22°C E.A.T. - 2-way modulating control valve, optional 3-way</b>					
Heating Capacity	kW	14.3	16.5	17.0	17.9
Water Flow Rate	l/s	0.32	0.32	0.32	0.32
Water Pressure Drop	kPa	17.2	17.2	17.2	17.2
<b>Steam Reheat - 108.3°C saturated steam, 22°C E.A.T. - 2-way modulating control valve</b>					
Max. Heating Capacity	kW	22.3	25.9	26.7	28.3
<b>Humidifier - Electrode boiler type, Serviceable Bottle</b>					
Steam Generation Capacity	kg/h	9	9	9	9
Humidifier Power	kW	6.8	6.8	6.8	6.8
<b>Filter Section - Pleated disposable type</b>					
<b>Upflow models</b>					
Quantity of Filters		3	3	3	3
Nominal Size	LxWxD mm	508 x 635 x 102	508 x 635 x 102	508 x 635 x 102	508 x 635 x 102
<b>Downflow models</b>					
Quantity of Filters		4	4	4	4
Nominal Size	LxWxD mm	406 x 635 x 102	406 x 635 x 102	406 x 635 x 102	406 x 635 x 102
<b>Glycol Solution Requirement</b>					
40.5°C EWT					
Flow Rate	l/s	1.29	1.37	1.79	2.06
Unit Pressure Drop	kPa	77.2	86.4	65.9	84.9
35°C EWT					
Flow Rate	l/s	0.64	0.69	0.90	1.03
Unit Pressure Drop	kPa	21.0	23.0	16.7	23.2

Model no. 8GU__ /8GD__		06	07	08	10
<b><i>Glycol Solution Regulating Valve - 3-way, head pressure controlled</i></b>					
Size	mm	25.4	25.4	31.8	31.8
<b><i>Piping Connection Size</i></b>					
Liquid Line	- OD -mm	13	13	16	16
Hot Gas Line	- OD -mm	22	22	29	29
Humidifier Water	- OD -mm	6.4	6.4	6.4	6.4
Condensate Drain	- OD -mm	19	19	19	19
Glycol Solution	- OD -mm	28.6	28.6	34.9	34.9
Hot Water	- ODM - mm	22	22	22	22
Steam	- ODM -mm	22	22	22	22
<b><i>Physical Details*</i></b>					
Indoor Unit					
Width x Depth x Height	mm	1372 x 864 x 1880			
Weight	kg	445	445	475	475

\*See Section “Physical Details-Fluid Modules” for more information.

<sup>1</sup> Standard options

## Chilled-Water System

Model no.	8CU__ /8CD__	06	07	08	10
<b>Cooling Capacity - Rated at standard air volume, 7.2°C entering water &amp; 5.6°C temperature rise</b>					
<b>26°C(78.8°F)DB, 50%rh</b>					
Total	kW	31.1	40.1	52.3	58.2
Sensible	kW	23.2	30.1	38.0	42.9
Flow Rate	l/s	1.34	1.72	2.25	2.50
Coil Pressure Drop	kPa	18	28	60	73
<b>26°C(78.8°F)DB, 45%rh</b>					
Total	kW	27.9	35.8	46.7	52.0
Sensible	kW	23.5	30.5	38.4	42.9
Flow Rate	l/s	1.20	1.54	2.01	2.23
Coil Pressure Drop	kPa	15	23	49	59
<b>24°C(75.2°F)DB, 50%rh</b>					
Total	kW	25.2	32.2	40.9	46.0
Sensible	kW	20.8	26.9	33.3	37.5
Flow Rate	l/s	1.17	1.48	1.77	2.02
Coil Pressure Drop	kPa	15	21	40	50
<b>24°C(75.2°F)DB, 45%rh</b>					
Total	kW	22.8	29.2	37.0	41.6
Sensible	kW	21.3	27.6	34.1	38.5
Flow Rate	l/s	1.06	1.34	1.60	1.82
Coil Pressure Drop	kPa	12	18	33	41
<b>22°C(71.6°F)DB, 50%rh</b>					
Total	kW	18.8	22.8	31.4	35.0
Sensible	kW	17.8	22.8	29.4	32.7
Flow Rate	l/s	0.81	0.98	1.35	1.51
Coil Pressure Drop	kPa	7	10	24	30
<b>22°C(71.6°F)DB, 45%rh</b>					
Total	kW	17.6	22.8	29.1	32.6
Sensible	kW	17.6	22.8	29.1	32.6
Flow Rate	l/s	0.76	0.98	1.26	1.40
Coil Pressure Drop	kPa	7	10	22	26
<b>Fan Section - Two belts, variable pitch, single shaft centrifugal blower system</b>					
Standard Air Volume	m <sup>3</sup> /h	5780	8160	8840	10200
External Static Pressure	Pa	75	75	75	75
Quantity of Fans		1	1	1	1
Total Fan Motor Power	kW	0.75	1.12	1.49	2.24
Absorbed Power	kW	0.56	1.06	1.35	2.18

Model no.	8CU__ /8CD__	06	07	08	10
<b>Chilled-water Coil - Copper tube / aluminium fin - Stainless steel drain pan</b>					
Face Area	m <sup>2</sup>	1.25	1.25	1.25	1.25
Rows Deep		3	3	4	4
Fins per inch		14	14	14	14
Face Velocity	m/s	1.29	1.82	1.97	2.27
<b>Reheat Section</b>					
<b>Electric Reheat<sup>1</sup> - Single stage, finned tubular type heater, SCR Controlled</b>					
Capacity	kW	6	6	6	6
Quantity of Heaters		3	3	3	3
<b>Hot Water Reheat - 82.2°C E.W.T., 22°C E.A.T. - 2-way modulating control valve, optional 3-way</b>					
Heating Capacity	kW	14.3	16.5	17.0	17.9
Water Flow Rate	l/s	0.32	0.32	0.32	0.32
Water Pressure Drop	kPa	17.2	17.2	17.2	17.2
<b>Steam Reheat - 108.3°C saturated steam, 22°C E.A.T. - 2-way modulating control valve</b>					
Max. Heating Capacity	kW	22.3	25.9	26.7	28.3
<b>Humidifier - Electrode boiler type, Serviceable Bottle</b>					
Steam Generation Capacity	kg/h	9	9	9	9
Humidifier Power	kW	6.8	6.8	6.8	6.8
<b>Filter Section - Pleated disposable type</b>					
<b>Upflow models</b>					
Quantity of Filters		3	3	3	3
Nominal Size	LxWxD mm	508 x 635 x 102	508 x 635 x 102	508 x 635 x 102	508 x 635 x 102
<b>Downflow models</b>					
Quantity of Filters		4	4	4	4
Nominal Size	LxWxD mm	406 x 635 x 102	406 x 635 x 102	406 x 635 x 102	406 x 635 x 102
<b>Chilled-water Valve - 3-Way modulating</b>					
Valve Size	mm	25.4	25.4	25.4	38.1
<b>Piping Connection Size</b>					
Chilled-water	- OD -mm	29	29	29	41
Humidifier Water	- OD -mm	6.4	6.4	6.4	6.4
Condensate Drain	- OD -mm	19	19	19	19
Hot Water	- ODM - mm	22	22	22	22
Steam	- ODM -mm	22	22	22	22
<b>Physical Details</b>					
Width x Depth x Height	mm	1372 x 864 x 1880			
Weight	kg	375	375	390	390

<sup>1</sup> Standard options

## Electrical Data

### Air/Water/Glycol Cooled Systems\*†

Model Reheat Option / Humidifier Option	8_06			8_07			8_08			8_10		
	FLA	MCA	MFS	FLA	MCA	MFS	FLA	MCA	MFS	FLA	MCA	MFS
Electric / Boiler	24.7	29.9	35.0	27.7	33.5	45.0	31.6	38.1	50.0	34.7	41.7	50.0
Electric / None	23.5	28.4	35.0	26.5	32.0	40.0	30.4	36.6	50.0	33.5	40.2	50.0
None, Non-electric / Boiler	24.7	29.9	35.0	27.7	33.5	45.0	31.6	38.1	50.0	34.7	41.7	50.0
None, Non-electric / None	14.3	17.0	25.0	17.3	20.6	30.0	21.2	25.2	40.0	24.3	28.8	45.0

### Chilled Water Systems\*

Model Reheat Option / Humidifier Option	8CU06/8CD06			8CU07/8CD07			8CU08/8CD08			8CU10/8CD10		
	FLA	MCA	MFS	FLA	MCA	MFS	FLA	MCA	MFS	FLA	MCA	MFS
Electric / Boiler	21.8	24.2	30.0	22.6	25.2	30.0	23.4	26.2	30.0	24.6	27.7	30.0
Electric / None	11.5	13.9	15.0	12.3	14.9	20.0	13.1	15.9	20.0	14.3	17.4	20.0
None, Non-electric / Boiler	12.7	15.4	20.0	13.5	16.4	20.0	14.3	17.4	20.0	15.5	18.9	20.0
None, Non-electric / None	2.3	2.5	15.0	3.1	3.5	15.0	3.9	4.5	15.0	5.1	6.0	15.0

† Above FLA does not include air-cooled condenser amps.

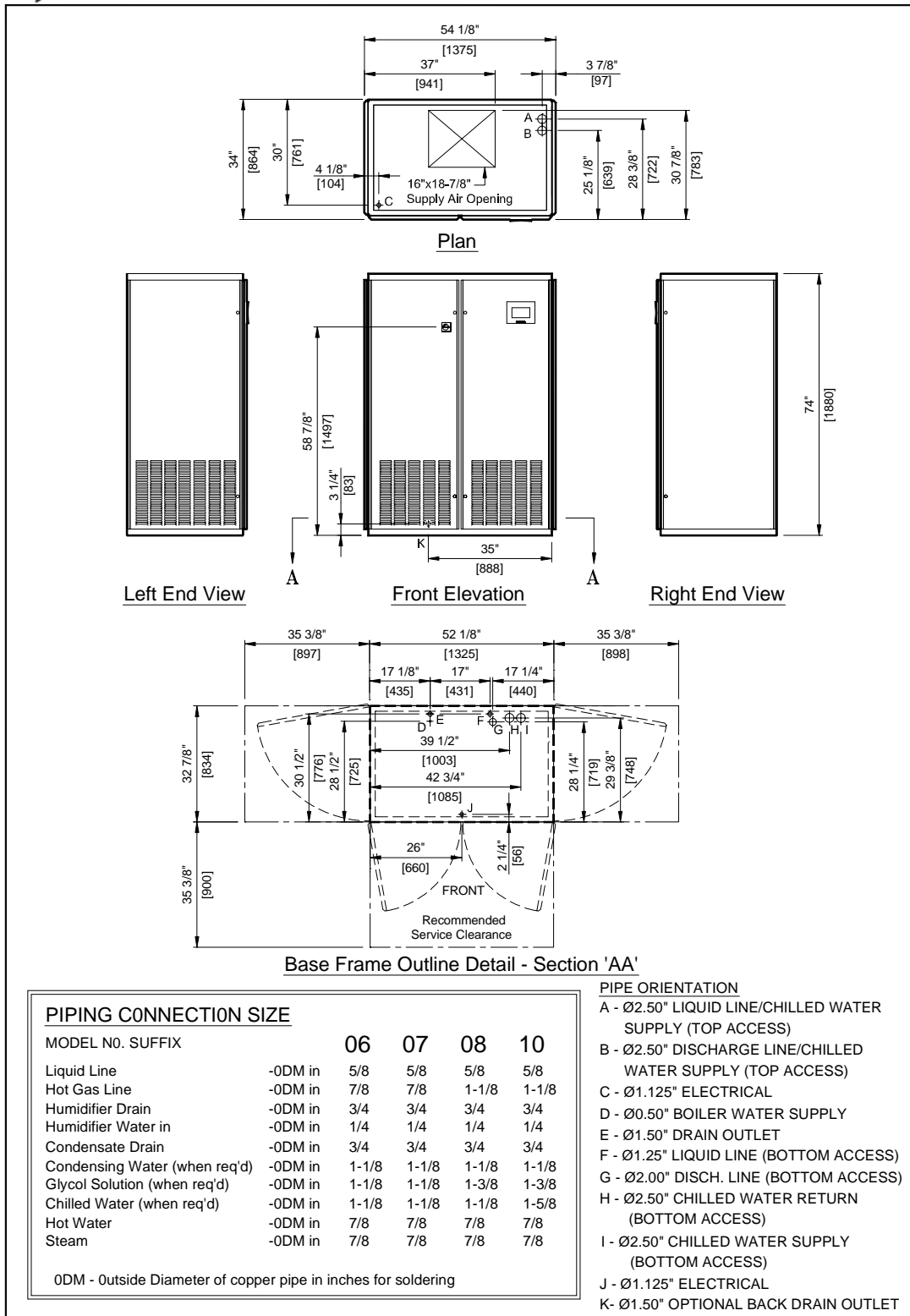
\* FLA is based on full load current of individual components that result in maximum electrical load condition during unit normal operation.  
FLA = Full Load Amps, MCA = Minimum Circuit Ampacity, MFS = Maximum Fuse Size

## ***Dimensional Drawings***

<b><u>Drawing Title</u></b>	<b><u>Drawing Number</u></b>
Upflow System	S8DD101A
Downflow System	S8DD102A
Upflow System - Rear Duct Connection	S8DD103A



**SERIES 8- VERTICAL FLOOR MOUNT UPFLOW UNIT  
DIMENSIONAL DETAIL**



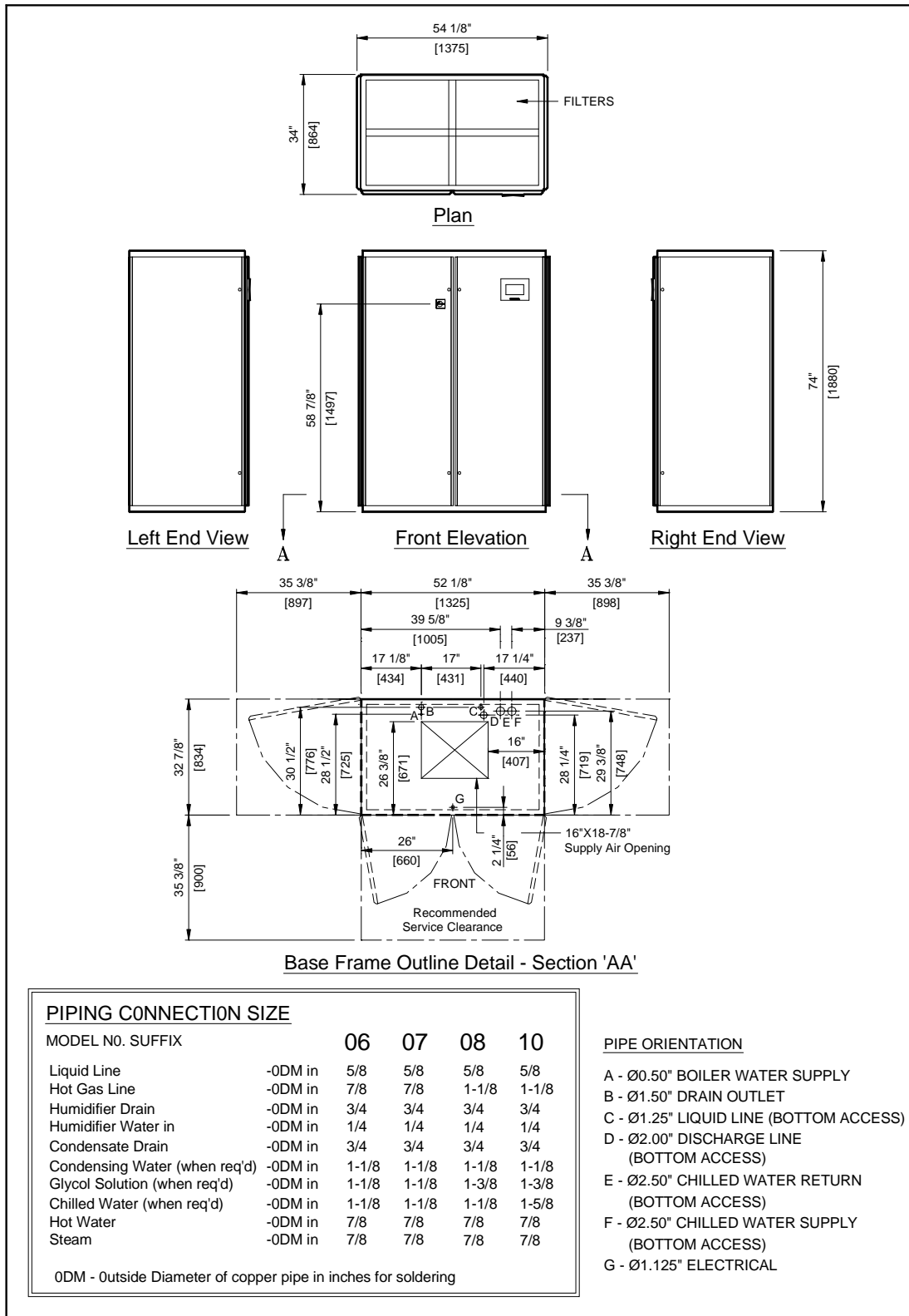
S8DD101B

19 APRIL 2002

NOT TO SCALE



**SERIES 8- VERTICAL FLR. MOUNT DOWNFLOW UNIT  
DIMENSIONAL DETAIL**



S8DD102B

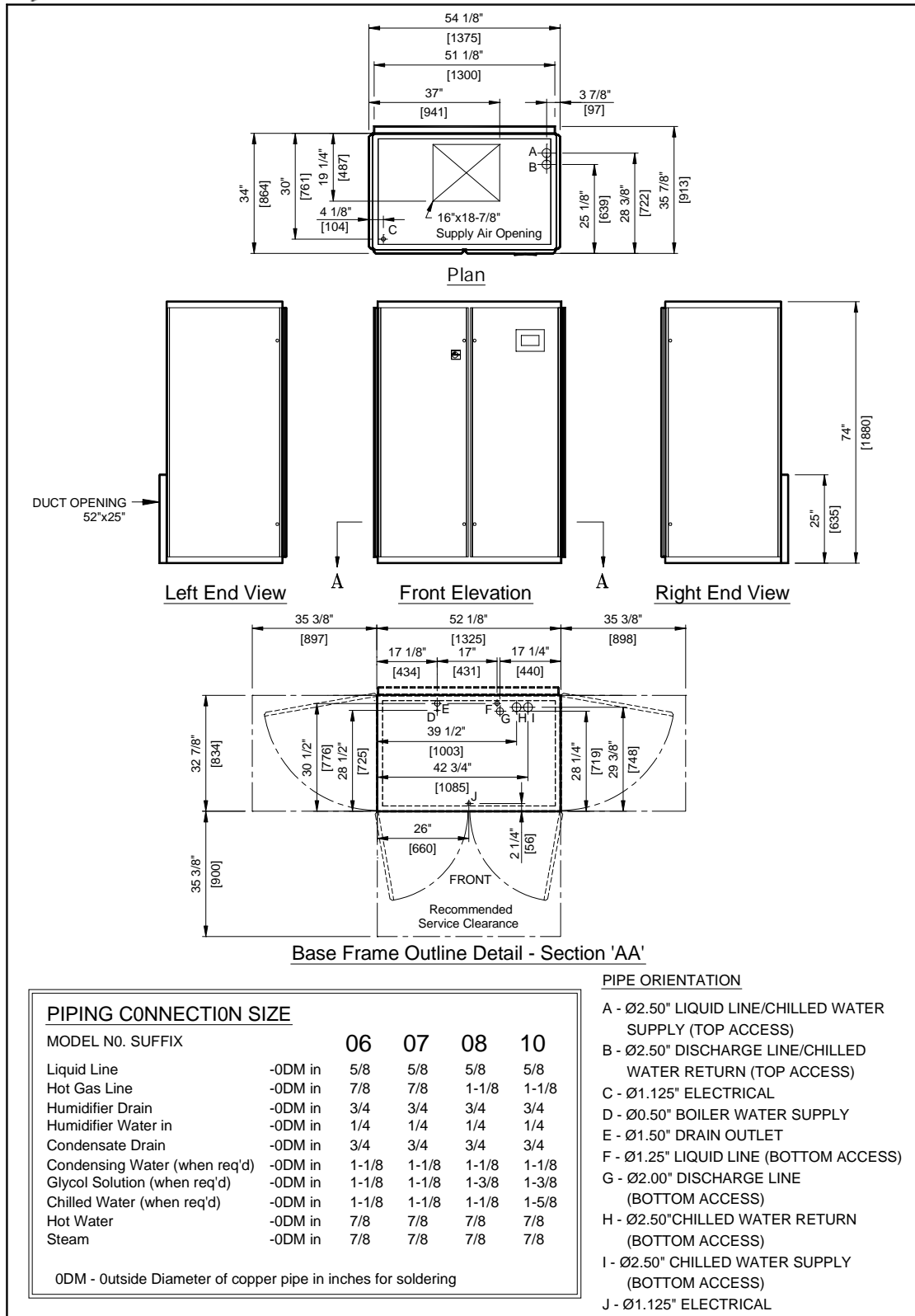
19 APRIL 2002

NOT TO SCALE





**SERIES 8- VERTICAL FLOOR MOUNT UPFLOW UNIT  
REAR RETURN DIMENSIONAL DETAIL**



S8DD103B

19 APRIL 2002

NOT TO SCALE