



Series 8

Intelligent Environmental Control System

Technical Data - 50Hz

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Air-cooled System

Model no.	8AU__ /8AD__	06	07	08	10
Cooling Capacity - Rated at standard air volume, 35°C ambient temperature					
24°C(75.2°F)DB, 50%rh					
Total	kW	22.7	24.8	31.7	36.6
Sensible	kW	21.0	24.8	29.9	34.5
THR	kW	27.7	30.0	38.4	44.5
24°C(75.2°F)DB, 45%rh					
Total	kW	22.2	24.4	31.0	35.8
Sensible	kW	22.1	24.4	31.0	35.8
THR	kW	27.2	29.6	37.7	43.6
22°C(71.6°F)DB, 50%rh					
Total	kW	21.5	23.6	29.9	34.6
Sensible	kW	20.2	23.6	29.2	33.7
THR	kW	26.5	28.8	36.6	42.4
22°C(71.6°F)DB, 45%rh					
Total	kW	21.1	23.2	29.4	34.0
Sensible	kW	20.8	23.2	29.4	34.0
THR	kW	26.0	28.4	36.0	41.7
20°C(68.0°F)DB, 50%rh					
Total	kW	20.5	22.4	28.4	32.8
Sensible	kW	20.1	22.4	28.4	32.8
THR	kW	25.4	27.6	35.0	40.5
20°C(68.0°F)DB, 45%rh					
Total	kW	20.1	22.0	28.2	32.6
Sensible	kW	20.1	22.0	28.2	32.6
THR	kW	25.0	27.2	34.8	40.3

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

Standard Air Volume	m ³ /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 R22

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

Air Cooled Condenser - Factory matched

Model	KCV08	KCV10	KD111	KD113
No. of Condenser	1	1	1	1

Alternative Air Cooled Condenser

Model	KD109	KD109	-	-
No. of Condenser	1	1	-	-

Model no.	8AU__ /8AD__	06	07	08	10
Evaporator Coil - Copper tube / aluminium fin - Stainless steel drain pan					
Face Area	m ²	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
Reheat Section					
Electric Reheat¹ - Single stage, finned tubular type heater, SCR Controlled					
Capacity	kW	6	6	6	6
Quantity of Heaters		3	3	3	3
Hot Gas Reheat - Single stage - 22°C E.A.T.					
Capacity	kW	9.5	11.2	11.6	12.3
Hot Water Reheat - 82.2°C E.W.T., 22°C E.A.T. - 2-way modulating control valve, optional 3-way					
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
Steam Reheat - 108.3°C saturated steam, 22°C E.A.T. - 2-way modulating control valve					
Max. Heating Capacity	kW	22.3	25.9	26.7	28.3
Humidifier - Electrode boiler type, Serviceable Bottle					
Steam Generation Capacity	kg/h	9	9	9	9
Humidifier Power	kW	6.8	6.8	6.8	6.8
Filter Section - Pleated disposable type					
Upflow models					
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
Downflow models					
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
Piping Connection Size					
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
Physical Details					
Width x Depth x Height	mm	1372 x 864 x 1880			
Weight	kg	420	420	450	450

¹ Standard options

Water-cooled System

Model no. 8WU__/8WD__		06	07	08	10
Cooling Capacity - Rated at standard air volume, 46°C condensing temperature					
24°C(75.2°F)DB, 50%rh					
Total	kW	23.4	25.0	32.7	37.5
Sensible	kW	21.3	25.0	30.3	34.9
THR	kW	28.3	30.2	39.4	45.3
24°C(75.2°F)DB, 45%rh					
Total	kW	22.9	24.5	31.8	36.6
Sensible	kW	22.4	24.5	31.8	36.6
THR	kW	27.8	29.7	38.5	44.4
22°C(71.6°F)DB, 50%rh					
Total	kW	22.1	23.6	30.6	35.2
Sensible	kW	20.4	23.6	29.5	34.0
THR	kW	27.0	28.8	37.3	43.0
22°C(71.6°F)DB, 45%rh					
Total	kW	21.6	23.2	30.0	34.5
Sensible	kW	21.0	23.2	30.0	34.5
THR	kW	26.6	28.4	36.7	42.3
20°C(68.0°F)DB, 50%rh					
Total	kW	20.9	22.3	28.9	33.2
Sensible	kW	20.4	22.3	28.9	33.2
THR	kW	25.8	27.5	35.5	41.0
20°C(68.0°F)DB, 45%rh					
Total	kW	20.5	21.9	28.6	33.0
Sensible	kW	20.5	21.9	28.6	33.0
THR	kW	25.4	27.1	35.3	40.7

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

Standard Air Volume	m ³ /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 R22

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

Model no.	8WU__ /8WD__	06	07	08	10
Evaporator Coil - Copper tube / aluminium fin - Stainless steel drain pan					
Face Area	m ²	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
Reheat Section					
Electric Reheat¹ - Single stage, finned tubular type heater, SCR Controlled					
Capacity	kW	6	6	6	6
Quantity of Heaters		3	3	3	3
Hot Gas Reheat - Single stage - 22°C E.A.T.					
Capacity	kW	9.5	11.2	11.6	12.3
Hot Water Reheat - 82.2°C E.W.T., 22°C E.A.T. - 2-way modulating control valve, optional 3-way					
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
Steam Reheat - 108.3°C saturated steam, 22°C E.A.T. - 2-way modulating control valve					
Max. Heating Capacity	kW	22.3	25.9	26.7	28.3
Humidifier - Electrode boiler type, Serviceable Bottle					
Steam Generation Capacity	kg/h	9	9	9	9
Humidifier Power	kW	6.8	6.8	6.8	6.8
Filter Section - Pleated disposable type					
Upflow models					
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
Downflow models					
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
Condensing Water Requirement					
35°C EWT					
Flow Rate	l/s	1.22	1.31	1.70	1.96
Unit Pressure Drop	kPa	59.2	66.1	59.5	71.2
32.2°C EWT					
Flow Rate	l/s	0.81	0.87	1.14	1.31
Unit Pressure Drop	kPa	27.9	29.6	33.9	37.5

8WU__/8WD__		06	07	08	10
Water Regulating Valve - 2-way, head pressure controlled					
Size	mm	25.4	25.4	31.8	31.8
Piping Connection Size					
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
Physical Details*					
Indoor Unit					
Width x Depth x Height	mm	1372 x 864 x 1880			
Weight	kg	445	445	475	475
¹ Standard options					

Glycol-cooled System

Model no. 8GU__/_/8GD__		06	07	08	10
Cooling Capacity - Rated at standard air volume, 46°C condensing temperature					
24°C(75.2°F)DB, 50%rh					
Total	kW	23.4	25.0	32.7	37.5
Sensible	kW	21.3	25.0	30.3	34.9
THR	kW	28.3	30.2	39.4	45.3
24°C(75.2°F)DB, 45%rh					
Total	kW	22.9	24.5	31.8	36.6
Sensible	kW	22.4	24.5	31.8	36.6
THR	kW	27.8	29.7	38.5	44.4
22°C(71.6°F)DB, 50%rh					
Total	kW	22.1	23.6	30.6	35.2
Sensible	kW	20.4	23.6	29.5	34.0
THR	kW	27.0	28.8	37.3	43.0
22°C(71.6°F)DB, 45%rh					
Total	kW	21.6	23.2	30.0	34.5
Sensible	kW	21.0	23.2	30.0	34.5
THR	kW	26.6	28.4	36.7	42.3
20°C(68.0°F)DB, 50%rh					
Total	kW	20.9	22.3	28.9	33.2
Sensible	kW	20.4	22.3	28.9	33.2
THR	kW	25.8	27.5	35.5	41.0
20°C(68.0°F)DB, 45%rh					
Total	kW	20.5	21.9	28.6	33.0
Sensible	kW	20.5	21.9	28.6	33.0
THR	kW	25.4	27.1	35.3	40.7
Fan Section - Two belts, variable pitch, single shaft centrifugal blower system					
Standard Air Volume	m ³ /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 R22					
Quantity of Compressors		1	1	1	1
Type		Scroll	Scroll	Scroll	Scroll

Model no.	8GU__ /8GD__	06	07	08	10
Evaporator Coil - Copper tube / aluminium fin - Stainless steel drain pan					
Face Area	m ²	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
Reheat Section					
Electric Reheat¹ - Single stage, finned tubular type heater, SCR Controlled					
Capacity	kW	6	6	6	6
Quantity of Heaters		3	3	3	3
Hot Gas Reheat - Single stage - 22°C E.A.T.					
Capacity	kW	9.5	11.2	11.6	12.3
Hot Water Reheat - 82.2°C E.W.T., 22°C E.A.T. - 2-way modulating control valve, optional 3-way					
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
Steam Reheat - 108.3°C saturated steam, 22°C E.A.T. - 2-way modulating control valve					
Max. Heating Capacity	kW	22.3	25.9	26.7	28.3
Humidifier - Electrode boiler type, Serviceable Bottle					
Steam Generation Capacity	kg/h	9	9	9	9
Humidifier Power	kW	6.8	6.8	6.8	6.8
Filter Section - Pleated disposable type					
Upflow models					
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
Downflow models					
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
Glycol Solution Requirement					
40.5°C EWT					
Flow Rate	l/s	1.36	1.44	1.88	2.16
Unit Pressure Drop	kPa	89.5	95.9	95.6	89.9
35°C EWT					
Flow Rate	l/s	0.67	0.72	0.94	1.08
Unit Pressure Drop	kPa	22.8	24.8	23.1	21.7

Model no. 8GU__/8GD__		06	07	08	10
<i>Glycol Solution Regulating Valve - 2-way, head pressure controlled</i>					
Size	mm	25.4	25.4	31.8	50.8
<i>Piping Connection Size</i>					
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
<i>Physical Details*</i>					
Width x Depth x Height	mm	1372 x 864 x 1880			
Weight	kg	445	445	475	475

¹ Standard options

Chilled-Water System

Model no.	8CU__ /8CD__	06	07	08	10
Cooling Capacity - Rated at standard air volume, 7.2°C entering water & 5.6°C temperature rise					
26°C(78.8°F)DB, 50%rh					
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
Unit Pressure Drop	kPa	37	53	81	99
26°C(78.8°F)DB, 45%rh					
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
Unit Pressure Drop	kPa	31	45	82	82
24°C(75.2°F)DB, 50%rh					
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
Unit Pressure Drop	kPa	31	42	67	69
24°C(75.2°F)DB, 45%rh					
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
Unit Pressure Drop	kPa	26	36	58	58
22°C(71.6°F)DB, 50%rh					
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
Unit Pressure Drop	kPa	18	24	44	42
22°C(71.6°F)DB, 45%rh					
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
Unit Pressure Drop	kPa	17	24	40	38
Fan Section - Two belts, variable pitch, single shaft centrifugal blower system					
Standard Air Volume	m³/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
Chilled-water Coil - Copper tube / aluminium fin - Stainless steel drain pan					
Face Area	m ²	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
Reheat Section					
Electric Reheat¹ - Single stage, finned tubular type heater, SCR Controlled					
Capacity	kW	6	6	6	6
Quantity of Heaters		3	3	3	3
Hot Water Reheat - 82.2°C E.W.T., 22°C E.A.T. - 2-way modulating control valve, optional 3-way					
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
Steam Reheat - 108.3°C saturated steam, 22°C E.A.T. - 2-way modulating control valve					
Max. Heating Capacity	kW	22.3	25.9	26.7	28.3
Humidifier - Electrode boiler type, Serviceable Bottle					
Steam Generation Capacity	kg/h	9	9	9	9
Humidifier Power	kW	6.8	6.8	6.8	6.8
Filter Section - Pleated disposable type					
Upflow models					
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
Downflow models					
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
Chilled-water Valve - 3-Way modulating					
Valve Size	mm	25.4	25.4	25.4	38.1
Piping Connection Size					
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
Physical Details					
Width x Depth x Height	mm	1372 x 864 x 1880			
Weight	kg	375	375	390	390

¹ Standard options

Electrical Data

Air/Water/Glycol Cooled Systems*†

Model	8_06			8_07			8_08			8_10		
	FLA	MCA	MFS	FLA	MCA	MFS	FLA	MCA	MFS	FLA	MCA	MFS
Electric (15kW)/Boiler	37.0	45.4	50	40.0	48.9	50	44.0	53.7	60	47.1	57.3	70
Electric (15kW)/None	37.0	45.4	50	40.0	48.9	50	44.0	53.7	60	47.1	57.3	70
Electric (6kW)/Boiler	24.7	29.9	35	27.7	33.5	45	31.6	38.1	50	34.7	41.7	50
Electric (6kW)/None	23.5	28.4	35	26.5	32.0	40	30.4	36.6	50	33.5	40.2	50
None, Non-electric/Boiler	24.7	29.9	35	27.7	33.5	45	31.6	38.1	50	34.7	41.7	50
None, Non-electric/None	14.3	17.0	25	17.3	20.6	30	21.2	25.2	40	24.3	28.8	45

Chilled Water Systems*

Model	8CU/CD06			8CU/CD07			8CU/CD08			8CU/CD10		
	FLA	MCA	MFS	FLA	MCA	MFS	FLA	MCA	MFS	FLA	MCA	MFS
Electric (15kW)/Boiler	35.4	41.2	45	36.2	42.2	45	37.1	43.3	45	38.3	44.8	50
Electric (15kW)/None	25.0	30.9	35	25.8	31.9	35	26.7	33.0	35	27.9	34.5	40
Electric (6kW)/Boiler	21.8	24.2	30	22.6	25.2	30	23.4	26.2	30	24.6	27.7	30
Electric (6kW)/None	11.5	13.9	15	12.3	14.9	20	13.1	15.9	20	14.3	17.4	20
None, Non-electric/Boiler	12.7	15.4	20	13.5	16.4	20	14.3	17.4	20	15.5	18.9	20
None, Non-electric/None	2.3	2.5	15	3.1	3.5	15	3.9	4.5	15	5.1	6.0	15

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

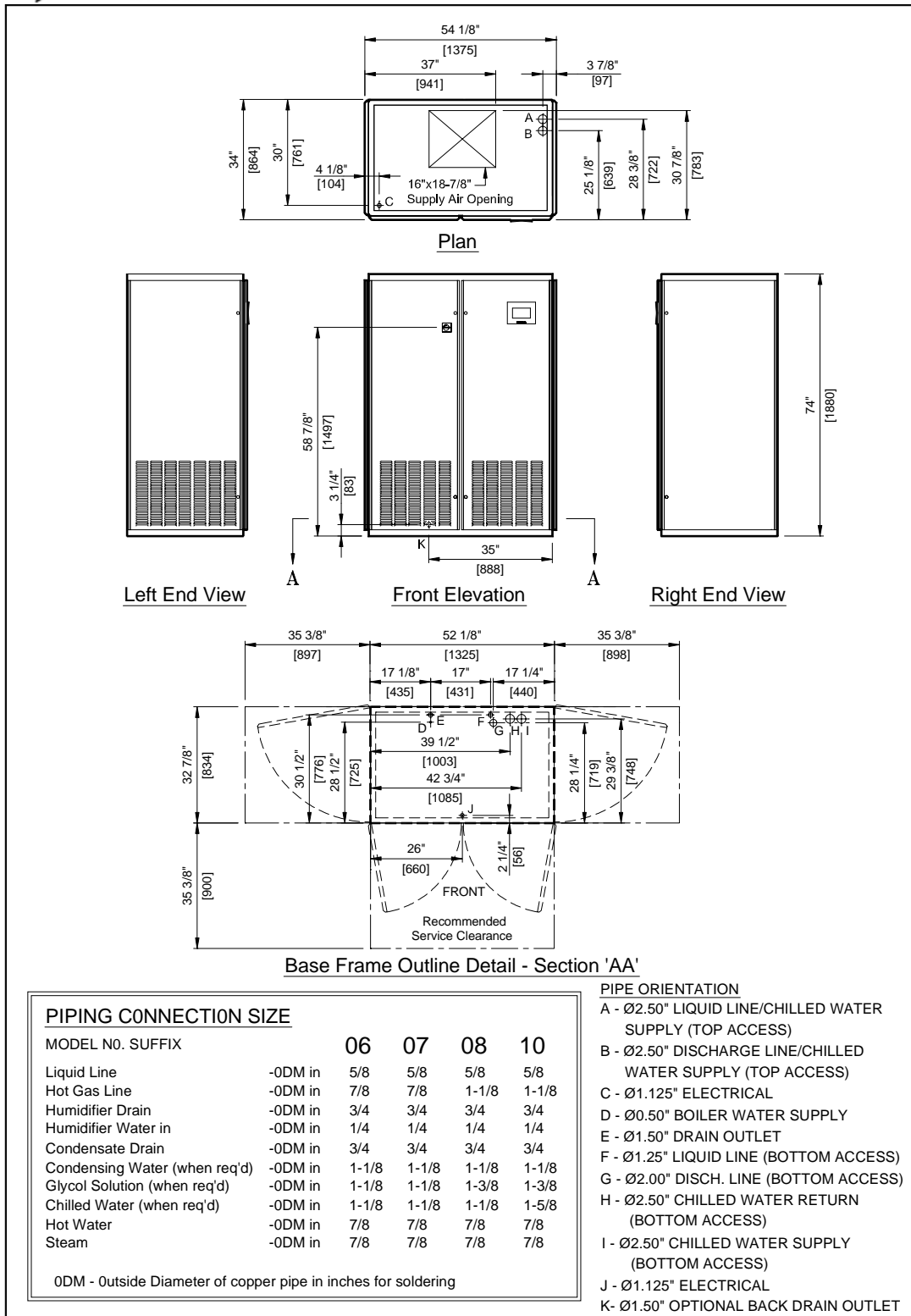
* FLA is based on full load current of individual components that result in maximum electrical load condition during unit normal operation.
FLA = Full Load Amps, MCA = Minimum Circuit Ampacity, MFS = Maximum Fuse Size

Dimensional Drawings

Drawing Title	Drawing Number	Page No.
Upflow System	S8DD101B	17
Downflow System	S8DD102B	38
Upflow System with Ducted Return Plenum	S8DD103B	19



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



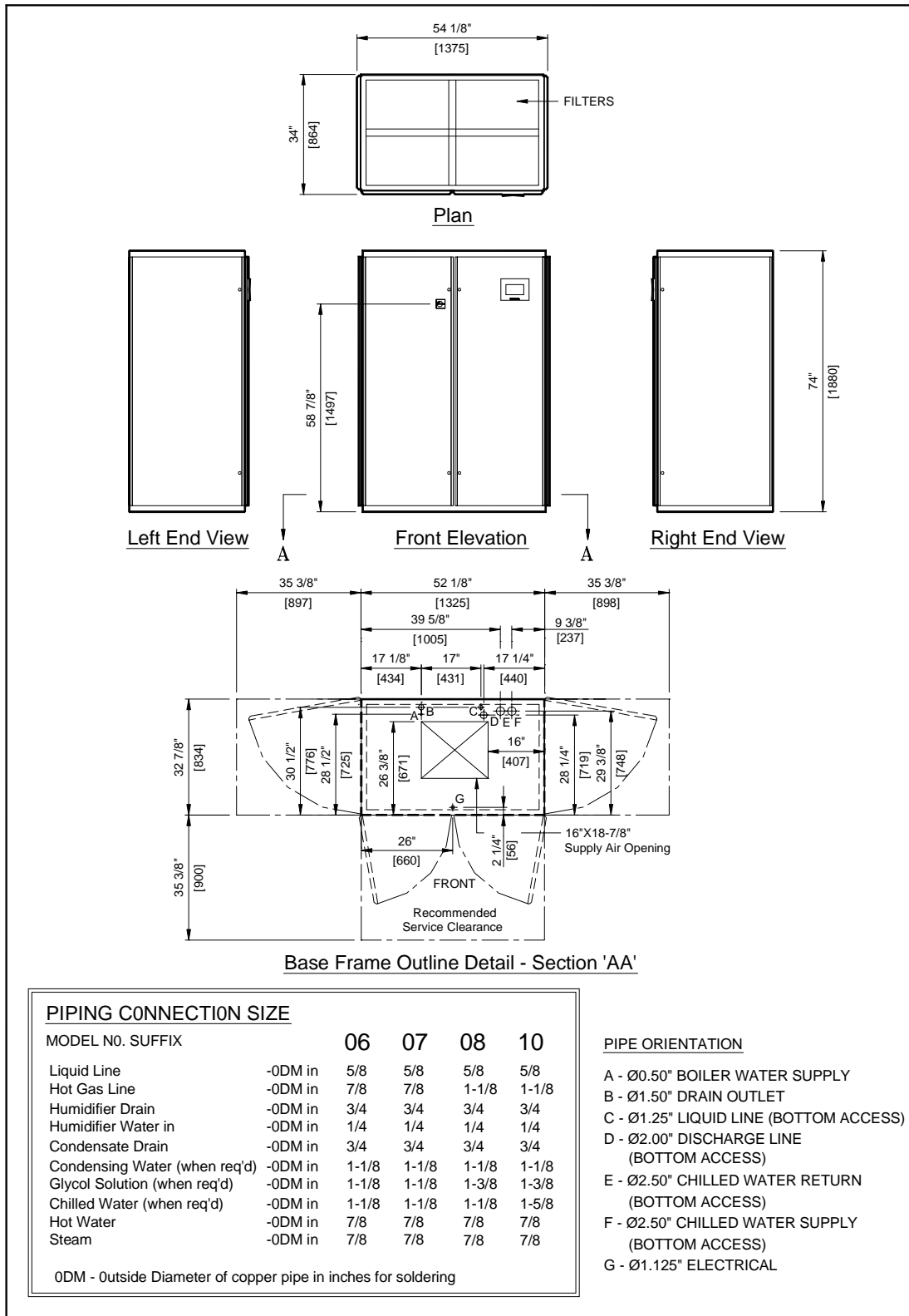
S8DD101B

19 APRIL 2002

NOT TO SCALE



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



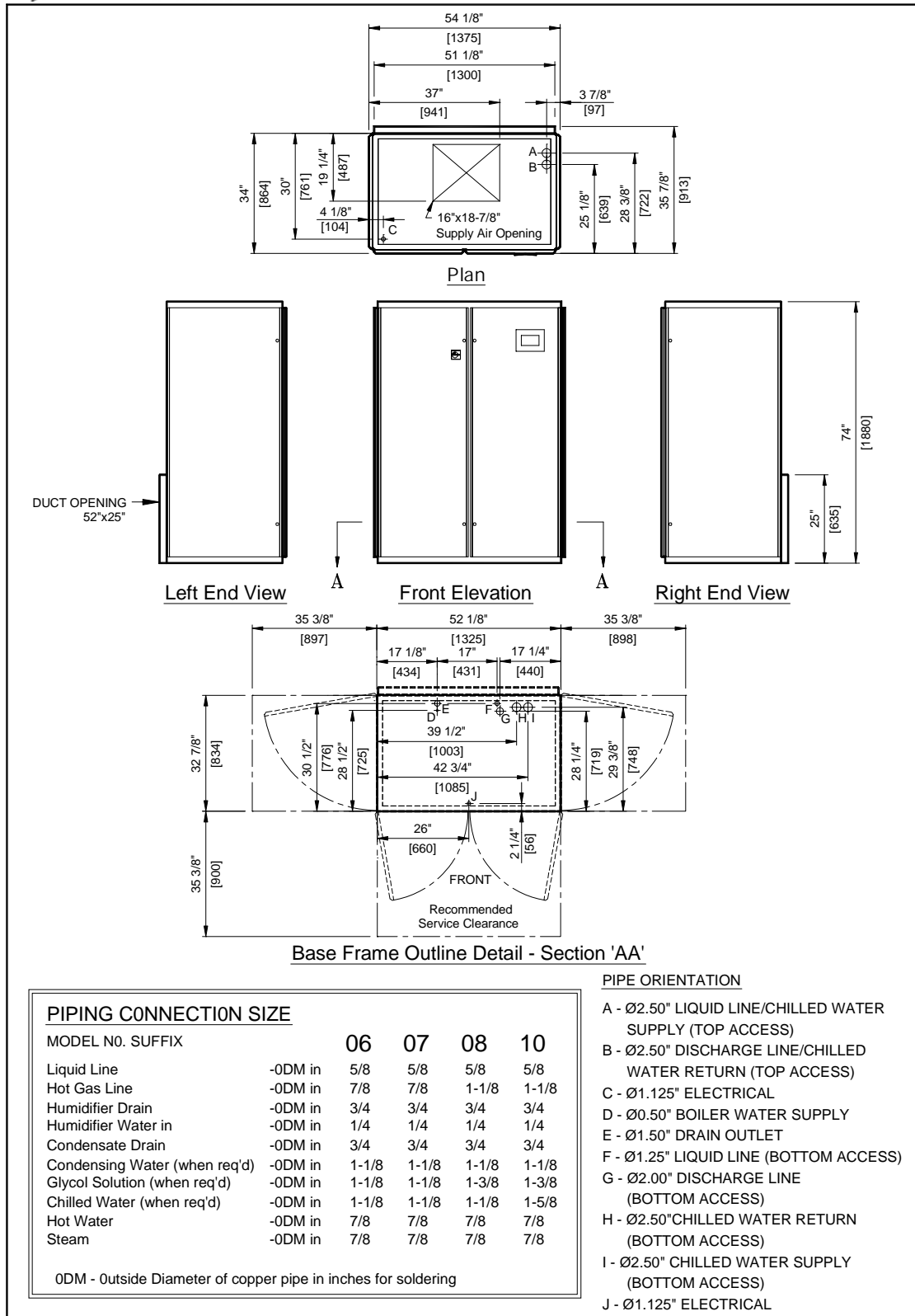
S8DD102B

19 APRIL 2002

NOT TO SCALE



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



S8DD103B

19 APRIL 2002

NOT TO SCALE