


Indoor M-Series Climate Changer air handler

3/25/2009

Job Name	Stennis Riverine Training Facility	
User Name	(B29)Rob Hoffman	
Address	New Orleans	

Indoor M-Series Climate Changer air handler	AHU-1 (Cages)
Quantity	1
Job Comments	

Unit level selections		Module Position: 0	
Actual airflow	2000 cfm	Single or front discharge - 1 kHz	75 dB
Unit elevation	0.00 ft	Single or front discharge - 2 kHz	72 dB
Size criteria component	Largest 1/2" coil	Single or front discharge - 4 kHz	70 dB
Target face velocity	500 ft/min	Single or front discharge - 8 kHz	62 dB
Unit split	Factory splits	Inlet and casing - 63 Hz	79 dB
Unit size	06	Inlet and casing - 125 Hz	77 dB
Unit base	6" mounting leg	Inlet and casing - 250 Hz	72 dB
Inlet type	Ducted	Inlet and casing - 500 Hz	55 dB
Run acoustics	Yes	Inlet and casing - 1 kHz	58 dB
Largest 1/2" coil-max face vel	600 ft/min	Inlet and casing - 2 kHz	59 dB
Largest 1/2" coil-min face vel	250 ft/min	Inlet and casing - 4 kHz	54 dB
Largest 5/8" coil-max face vel	600 ft/min	Inlet and casing - 8 kHz	41 dB
Largest 5/8" coil-min face vel	250 ft/min	Casing - 63 Hz	77 dB
Face & bypass coil-max face velocity	600 ft/min	Casing - 125 Hz	75 dB
Face & bypass coil-min face velocity	250 ft/min	Casing - 250 Hz	71 dB
Flat filter - max face vel	625 ft/min	Casing - 500 Hz	54 dB
Flat filter - min face vel	0 ft/min	Casing - 1 kHz	57 dB
Angled filter - max face vel	625 ft/min	Casing - 2 kHz	53 dB
Angled filter - min face vel	0 ft/min	Casing - 4 kHz	44 dB
Bag/cartridge-max face vel	625 ft/min	Casing - 8 kHz	32 dB
Bag/cartridge-min face vel	0 ft/min	Ducted inlet - 63 Hz	74 dB
HEPA filter - max face vel	500 ft/min	Ducted inlet - 125 Hz	66 dB
HEPA filter - min face vel	0 ft/min	Ducted inlet - 250 Hz	60 dB
UL listed unit	UL listed	Ducted inlet - 500 Hz	46 dB
Single or front discharge - 63 Hz	88 dB	Ducted inlet - 1 kHz	48 dB
Single or front discharge - 125 Hz	83 dB	Ducted inlet - 2 kHz	50 dB
Single or front discharge - 250 Hz	82 dB	Ducted inlet - 4 kHz	45 dB
Single or front discharge - 500 Hz	75 dB	Ducted inlet - 8 kHz	32 dB

Unit control module		Module Position: 0	
Factory controls package	No factory mount	Controller type	No controller
Low limit interlock wiring	No	LCD screen & keypad	No LCD
Controller mounting	No mount	Design sequence	G
Automatic selection	No auto selection		

Coil performance data is certified in accordance with ARI standard 410. Propylene glycol and calcium chloride, or mixtures thereof, are not covered under the scope of ARI 410.

Air-handling performance data is certified in accordance with ARI standard 430. Air handlers with Q-fans, air handlers with plenum fans, and vertical draw-thru air handlers where the coil is mounted immediately below the fan module are not covered under the scope of ARI 430.

Indoor M-Series Climate Changer air handler

3/25/2009

Filter module

Module Position:

1

Module type	Filter	Design sequence	C
Filter type	Flat	Filter airflow	2000 cfm
Insulation	1.5 lb insulation	Filter condition	Mid-life
Panel wall type	Solid double wall	Mid-life prefilter PD	0.59 in H2O
Access/inspection door	Right	Prefilter PD	0.59 in H2O
Filter frame	2" & 4" comb	Filter area	5.60 sq ft
Prefilter type	Pleated media - MERV 8	Filter module PD	1.43 in H2O
Primary filter type	4" high eff - 85% eff - MERV 13	Mid-life filter PD	0.84 in H2O
Primary filter type - 2nd set	4" High eff - 85% eff - MERV 13		

Coil module

Module Position:

2

Coil mo [2]-1			
Module type	Vertical coil	Coil fouling factor	0.00000 hr-sq ft-deg F/Btu
Module size	Large	Fluid type	Water
Insulation	1.5 lb insulation	Max fluid PD	20.00 ft H2O
Panel wall type	Solid double wall	Location	Draw through
Drain pan	Stainless steel	Coil type	UW
Drain pan connection side	Right side	Coil rows	6
Coil application	Cooling	Coil fin type	Delta-Flo H
System type	Chilled water	Coil fin material	Aluminum
Coil supply side	Right	Tube diameter	1/2" tube (12.7 mm)
Coil casing	Galvanized	Coil tube material	.016" copper
Coil height	Unit	Corrosion resistant coating	None
Design sequence	H	Face velocity	342 ft/min
Apply ARI ranges	Yes	Air pressure drop	0.44 in H2O
Coil design airflow	2000 cfm	Leaving fluid temperature	54.00 F
Elevation	0.00 ft	Fluid pressure drop	3.05 ft H2O
EDB	87.10 F	Fluid volume	3.88 gal
EWB	73.90 F	Fluid velocity	2.48 ft/sec
LDB	54.60 F	Nominal height stacked coil #1	23" (584 mm)
LWB	54.46 F	Face area	5.86 sq ft
Sensible capacity	72.14 MBh	Dry coil weight	100.2 lb
Total capacity	130.74 MBh	Wet coil weight	132.6 lb
Fin spacing	119 Per Foot	Coil module PD	0.44 in H2O
Entering fluid temperature	44.00 F	Module length	28.750 in
Fluid temperature rise	10.00 F	Module weight	281.6 lb
Standard fluid flow rate	26.05 gpm		

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All weights and dimensions are approximate. Certified prints on request.

Indoor M-Series Climate Changer air handler

3/25/2009

Fan module

Module Position:

3

Fan mod [3]-1			
Module type	Supply fan	Single or front discharge - 63 Hz	88 dB
Inlet location	Bottom inlet	Single or front discharge - 125 Hz	83 dB
Insulation	1.5 lb insulation	Single or front discharge - 250 Hz	82 dB
Panel wall type	Solid double wall	Single or front discharge - 500 Hz	75 dB
Access/inspection door	Right	Single or front discharge - 1 kHz	75 dB
Fan discharge	Top back	Single or front discharge - 2 kHz	72 dB
Drive location	Right	Single or front discharge - 4 kHz	70 dB
Design sequence	L	Single or front discharge - 8 kHz	62 dB
Motor hp	2 HP	Inlet and casing - 63 Hz	79 dB
Motor RPM	1800 RPM	Inlet and casing - 125 Hz	77 dB
Motor class	ODP EPACT high efficiency	Inlet and casing - 250 Hz	72 dB
Motor voltage	460/3	Inlet and casing - 500 Hz	55 dB
Cycle	60 cycles/sec	Inlet and casing - 1 kHz	58 dB
Drive service factor & type	1.5 fixed	Inlet and casing - 2 kHz	59 dB
Fan airflow	2000 cfm	Inlet and casing - 4 kHz	54 dB
ESP	0.60 in H2O	Inlet and casing - 8 kHz	41 dB
Elevation	0.00 ft	Ducted inlet - 63 Hz	74 dB
Min temperature	10.00 F	Ducted inlet - 125 Hz	66 dB
Design temperature	70.00 F	Ducted inlet - 250 Hz	60 dB
Max BHP	1.688 hp	Ducted inlet - 500 Hz	46 dB
Fan size and type	6B - 10.5" FC	Ducted inlet - 1 kHz	48 dB
Extended grease lines	w/ both bearings	Ducted inlet - 2 kHz	50 dB
BHP	1.497 hp	Ducted inlet - 4 kHz	45 dB
TSP	2.48 in H2O	Ducted inlet - 8 kHz	32 dB
Speed	1566 rpm	Casing - 63 Hz	77 dB
Outlet area	1.41 sq ft	Casing - 125 Hz	75 dB
Fan module PD	0.60 in H2O	Casing - 250 Hz	71 dB
Height	28.750 in	Casing - 500 Hz	54 dB
Length	41.000 in	Casing - 1 kHz	57 dB
Width	44.000 in	Casing - 2 kHz	53 dB
Weight	369.5 lb	Casing - 4 kHz	44 dB
Unit controller	No	Casing - 8 kHz	32 dB
Low limit interlock wiring	No LLT wired to starter,vfd		


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Indoor M-Series Climate Changer air handler

3/25/2009

Job Name	Stennis Riverine Training Facility	
User Name	(B29)Rob Hoffman	
Address	New Orleans	

Indoor M-Series Climate Changer air handler	AHU-2 1st/2nd
Quantity	1
Job Comments	

Unit level selections		Module Position: 0	
Actual airflow	6000 cfm	Single or front discharge - 1 kHz	87 dB
Unit elevation	0.00 ft	Single or front discharge - 2 kHz	79 dB
Size criteria component	Largest 1/2" coil	Single or front discharge - 4 kHz	70 dB
Target face velocity	500 ft/min	Single or front discharge - 8 kHz	65 dB
Unit split	Factory splits	Inlet and casing - 63 Hz	92 dB
Unit size	12	Inlet and casing - 125 Hz	89 dB
Unit base	6" mounting leg	Inlet and casing - 250 Hz	81 dB
Inlet type	Ducted	Inlet and casing - 500 Hz	82 dB
Run acoustics	Yes	Inlet and casing - 1 kHz	74 dB
Largest 1/2" coil-max face vel	600 ft/min	Inlet and casing - 2 kHz	67 dB
Largest 1/2" coil-min face vel	250 ft/min	Inlet and casing - 4 kHz	59 dB
Largest 5/8" coil-max face vel	600 ft/min	Inlet and casing - 8 kHz	49 dB
Largest 5/8" coil-min face vel	250 ft/min	Casing - 63 Hz	82 dB
Face & bypass coil-max face velocity	600 ft/min	Casing - 125 Hz	84 dB
Face & bypass coil-min face velocity	250 ft/min	Casing - 250 Hz	73 dB
Flat filter - max face vel	625 ft/min	Casing - 500 Hz	73 dB
Flat filter - min face vel	0 ft/min	Casing - 1 kHz	62 dB
Angled filter - max face vel	625 ft/min	Casing - 2 kHz	56 dB
Angled filter - min face vel	0 ft/min	Casing - 4 kHz	50 dB
Bag/cartridge-max face vel	625 ft/min	Casing - 8 kHz	41 dB
Bag/cartridge-min face vel	0 ft/min	Ducted inlet - 63 Hz	92 dB
HEPA filter - max face vel	500 ft/min	Ducted inlet - 125 Hz	88 dB
HEPA filter - min face vel	0 ft/min	Ducted inlet - 250 Hz	81 dB
UL listed unit	UL listed	Ducted inlet - 500 Hz	81 dB
Single or front discharge - 63 Hz	96 dB	Ducted inlet - 1 kHz	73 dB
Single or front discharge - 125 Hz	95 dB	Ducted inlet - 2 kHz	67 dB
Single or front discharge - 250 Hz	94 dB	Ducted inlet - 4 kHz	58 dB
Single or front discharge - 500 Hz	90 dB	Ducted inlet - 8 kHz	48 dB

Unit control module		Module Position: 0	
Factory controls package	No factory mount	Controller type	No controller
Low limit interlock wiring	No	LCD screen & keypad	No LCD
Controller mounting	No mount	Design sequence	G
Automatic selection	No auto selection		

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Filter module

Module Position:

1

Module type	Filter	Design sequence	C
Filter type	Flat	Filter airflow	6000 cfm
Insulation	1.5 lb insulation	Filter condition	Mid-life
Panel wall type	Solid double wall	Mid-life prefilter PD	0.63 in H2O
Access/inspection door	Right	Prefilter PD	0.63 in H2O
Filter frame	2" & 4" comb	Filter area	13.30 sq ft
Prefilter type	Pleated media - MERV 8	Filter module PD	1.57 in H2O
Primary filter type	4" high eff - 85% eff - MERV 13	Mid-life filter PD	0.94 in H2O

Access/turning module

Module Position:

2

Module type	Access/blank	Door swing	Outward
Access/inspection/blank size	Medium	Front opening	Yes
Insulation	1.5 lb insulation	Back opening	Yes
Panel wall type	Solid double wall	Design sequence	D
Access/inspection door	Right	ASP	0.00 in H2O

Coil module

Module Position:

3

Coil mo [3]-1			
Module type	Horizontal coil	Coil fouling factor	0.00000 hr-sq ft-deg F/Btu
Module size	Medium	Fluid type	Water
Insulation	1.5 lb insulation	Max fluid PD	20.00 ft H2O
Panel wall type	Solid double wall	Location	Draw through
Drain pan	Stainless steel	Coil type	UW
Drain pan connection side	Right side	Coil rows	6
Coil application	Cooling	Coil fin type	Delta-Flo H
System type	Chilled water	Coil fin material	Aluminum
Coil supply side	Right	Tube diameter	1/2" tube (12.7 mm)
Coil casing	Galvanized	Coil tube material	.016" copper
Coil height	Unit	Corrosion resistant coating	None
Design sequence	H	Face velocity	488 ft/min
Apply ARI ranges	Yes	Air pressure drop	0.73 in H2O
Coil design airflow	6000 cfm	Leaving fluid temperature	54.00 F
Elevation	0.00 ft	Fluid pressure drop	8.84 ft H2O
EDB	83.60 F	Fluid volume	8.06 gal
EWB	69.40 F	Fluid velocity	4.03 ft/sec
LDB	54.20 F	Nominal height stacked coil #1	32" (813 mm)
LWB	53.87 F	Face area	12.30 sq ft
Sensible capacity	194.79 MBh	Dry coil weight	192.4 lb
Total capacity	294.52 MBh	Wet coil weight	259.8 lb
Fin spacing	116 Per Foot	Coil module PD	0.73 in H2O
Entering fluid temperature	44.00 F	Module length	15.500 in
Fluid temperature rise	10.00 F	Module weight	398.4 lb
Standard fluid flow rate	58.69 gpm		

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3/25/2009

Fan module

Module Position:

4

Fan mod [4]-1			
Module type	Supply fan	Low limit interlock wiring	No LLT wired to starter,vfd
Inlet location	Back inlet	Single or front discharge - 63 Hz	96 dB
Insulation	1.5 lb insulation	Single or front discharge - 125 Hz	95 dB
Panel wall type	Solid double wall	Single or front discharge - 250 Hz	94 dB
Access/inspection door	Right	Single or front discharge - 500 Hz	90 dB
Fan discharge	Top back	Single or front discharge - 1 kHz	87 dB
Drive location	Right	Single or front discharge - 2 kHz	79 dB
Fan wheel balance	Inverter balance	Single or front discharge - 4 kHz	70 dB
Design sequence	L	Single or front discharge - 8 kHz	65 dB
Motor hp	7.5 HP	Inlet and casing - 63 Hz	92 dB
Motor RPM	1800 RPM	Inlet and casing - 125 Hz	89 dB
Motor class	ODP EPACT high efficiency	Inlet and casing - 250 Hz	81 dB
Motor voltage	460/3	Inlet and casing - 500 Hz	82 dB
Cycle	60 cycles/sec	Inlet and casing - 1 kHz	74 dB
Drive service factor & type	1.5 fixed	Inlet and casing - 2 kHz	67 dB
Fan airflow	6000 cfm	Inlet and casing - 4 kHz	59 dB
ESP	2.00 in H2O	Inlet and casing - 8 kHz	49 dB
Elevation	0.00 ft	Ducted inlet - 63 Hz	92 dB
Min temperature	10.00 F	Ducted inlet - 125 Hz	88 dB
Design temperature	70.00 F	Ducted inlet - 250 Hz	81 dB
Max BHP	7.235 hp	Ducted inlet - 500 Hz	81 dB
Fan size and type	D12 - 18" AF	Ducted inlet - 1 kHz	73 dB
Extended grease lines	w/ both bearings	Ducted inlet - 2 kHz	67 dB
BHP	6.416 hp	Ducted inlet - 4 kHz	58 dB
TSP	4.30 in H2O	Ducted inlet - 8 kHz	48 dB
Speed	1996 rpm	Casing - 63 Hz	82 dB
Outlet area	2.86 sq ft	Casing - 125 Hz	84 dB
Fan module PD	2.00 in H2O	Casing - 250 Hz	73 dB
Height	39.000 in	Casing - 500 Hz	73 dB
Length	39.000 in	Casing - 1 kHz	62 dB
Width	64.000 in	Casing - 2 kHz	56 dB
Weight	669.0 lb	Casing - 4 kHz	50 dB
Unit controller	No	Casing - 8 kHz	41 dB

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