



SINGLE DUCT VAV BOX MODEL KVAD-100

PRESSUREE INDEPENDENT

STANDARD CONSTRUCTION

FRAME:

22GA (0.85 mm) GALVANIZED STEEL INTERLOCKING SECTION

BLADES:

16GA (1.6mm) GALVANIZED REINFORCED

BEARINGS:

BRONZE BEARINGS

AXLES:

0.47" (12mm) SQUARE/ROUND ZINC PLATED STEEL STUD

FINISH:

MILL GALVANIZED

INSULATION:

1/2"CLEAN LINER GLASS FIBER

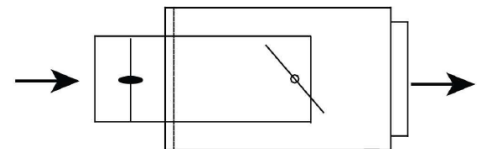
MECHANICALLY FASTENED FOR ADDED SECURITY

FLOW SENSOR:

CENTER AVERAGING AIR FLOW SENSOR

GASKETS:

RUBBER GASKETS MECHANICAL LOCKED ON THE BLADE.



OPTIONS:

CONSTRUCTION:

- 1) 20 GA (1mm) GALVANIZED STEEL CONSTRUCTION
- 2) 1" CLEAN LINER GLASS FIBER
- 3) ALUMINUM FOIL FACING INSULATION
- 4) POLYMER CLOSED CELL FOAM
- 5) FIBER GLASS COVERED WITH PERFORATED SHEET
- 6) METAL NOISING AT OUTLET TO COVER INSULATION EDGES
- 7) DOUBLE WALL CONSTRUCTION
- 8) 36" (900mm) LONG SOUND ATTENUATOR

ADD:

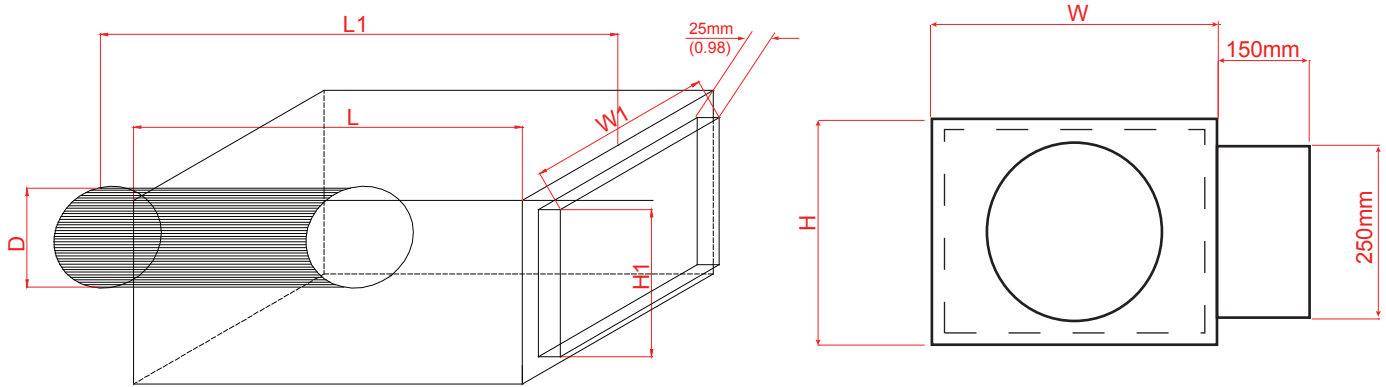
- 1) ELECTRIC DUCT HEATER
- 2) HOT WATER COIL

CONTROL:

- 1) NEMA1 CONTROL ENCLOSURE
- 2) PRIMARY TRANSFORMER
- 3) SINGLE POINT POWER CONNECTION
- 4) FACTORY MOUNTING AND WIRING CONTROL (CONTROL SUPPLIED BY OTHER TO KBE)
- 5) KBE STAND ALONE CONTROL WITH ROOM THERMOSTAT
- 6) BACNET / LON DDC CONTROL WITH ROOM THERMOSTAT

MODEL KVAD-100

DIMENSIONAL DATA STANDARD CONSTRUCTION



UNIT SIZE	D	L	L1	W	W1	H	H1
4	100 (3.94)	250 (9.84)	400 (15.75)	250 (9.84)	200 (7.87)	250 (9.84)	200 (7.87)
5	125 (4.92)	250 (9.84)	425 (16.73)	250 (9.84)	200 (7.87)	250 (9.84)	200 (7.87)
6	150 (5.9)	250 (9.84)	400 (15.75)	250 (9.84)	200 (7.87)	250 (9.84)	200 (7.87)
8	200 (7.87)	250 (9.84)	400 (15.75)	300 (11.81)	250 (9.84)	275 (10.83)	225 (8.86)
10	250 (9.84)	300 (11.81)	450 (17.72)	375 (14.76)	325 (12.8)	325 (12.8)	275 (10.83)
12	300 (11.81)	350 (13.78)	500 (19.69)	400 (15.75)	350 (13.78)	400 (15.75)	350 (13.78)
14	350 (13.78)	400 (15.75)	550 (21.65)	500 (19.69)	450 (17.72)	450 (17.72)	400 (15.75)
16	400 (15.75)	400 (15.75)	550 (21.65)	600 (23.62)	550 (21.65)	475 (18.7)	425 (16.73)
24	800x400 (31.5x15.75)	450 (17.72)	650 (25.59)	845 (33.27)	795 (31.30)	450 (17.72)	395 (15.55)

NOTES:

- 1) All sizes are in "mm" (in inch)
- 2) Size 24 have rectangular inlet

MODEL KVAD-100-SA

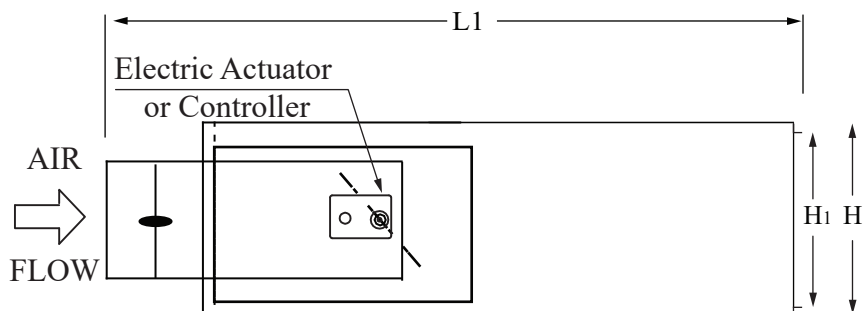
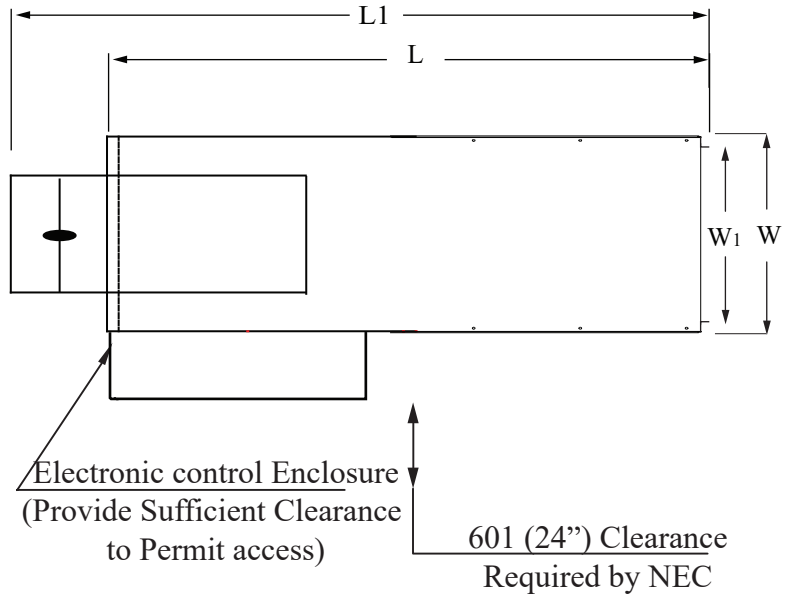
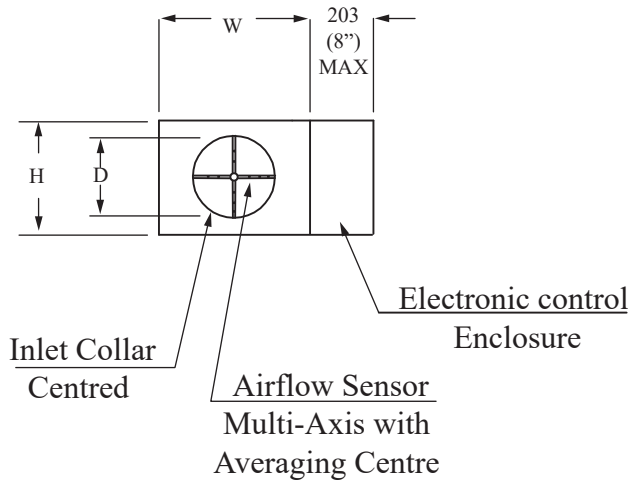
DIMENSIONAL DATA STANDARD CONSTRUCTION WITH SOUND ATTENUATOR

DIMENSIONAL DATA

UNIT SIZE	W	W1	H	H1	D	L1	L
4	250 (9.8)	200 (7.9)	250 (9.8)	200 (7.9)	100 (3.9)	1300 (51.2)	1150 (45.3)
5	250 (9.8)	200 (7.9)	250 (9.8)	200 (7.9)	125 (4.9)	1325 (52.2)	1150 (45.3)
6	250 (9.8)	200 (7.9)	250 (9.8)	200 (7.9)	150 (5.9)	1300 (51.2)	1150 (45.3)
8	300 (11.8)	250 (9.8)	275 (10.8)	225 (8.9)	200 (7.9)	1300 (51.2)	1150 (45.3)
10	375 (14.8)	325 (12.8)	325 (12.8)	275 (10.8)	250 (9.8)	1300 (51.2)	1150 (45.3)
12	400 (15.8)	350 (13.8)	400 (15.8)	350 (13.8)	300 (11.8)	1350 (53.2)	1200 (47.2)
14	500 (19.7)	450 (17.7)	450 (17.7)	400 (15.8)	350 (13.8)	1350 (53.2)	1200 (47.2)
16	600 (23.6)	550 (21.7)	475 (18.7)	425 (16.7)	400 (15.8)	1350 (53.2)	1200 (47.2)
24*	845 (33.3)	795 (31.3)	450 (17.7)	400 (15.8)	800x400 (31.5x15.8)	1400 (53.2)	1220 (48)

Size shown are in mm (in Inch)

* Rectangular inlet



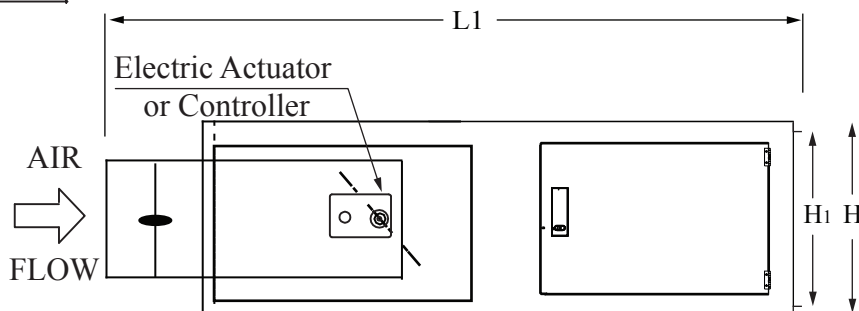
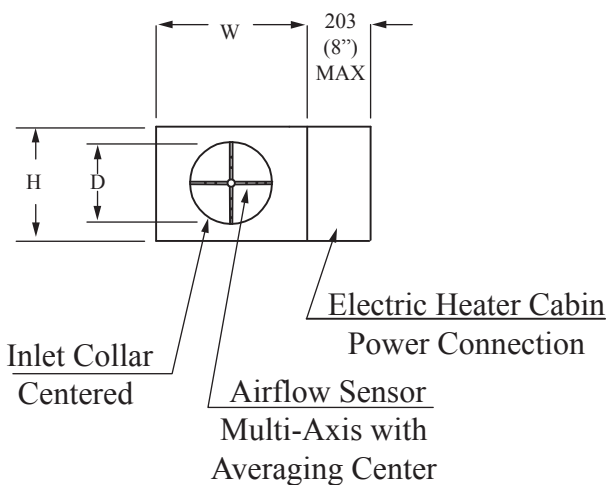
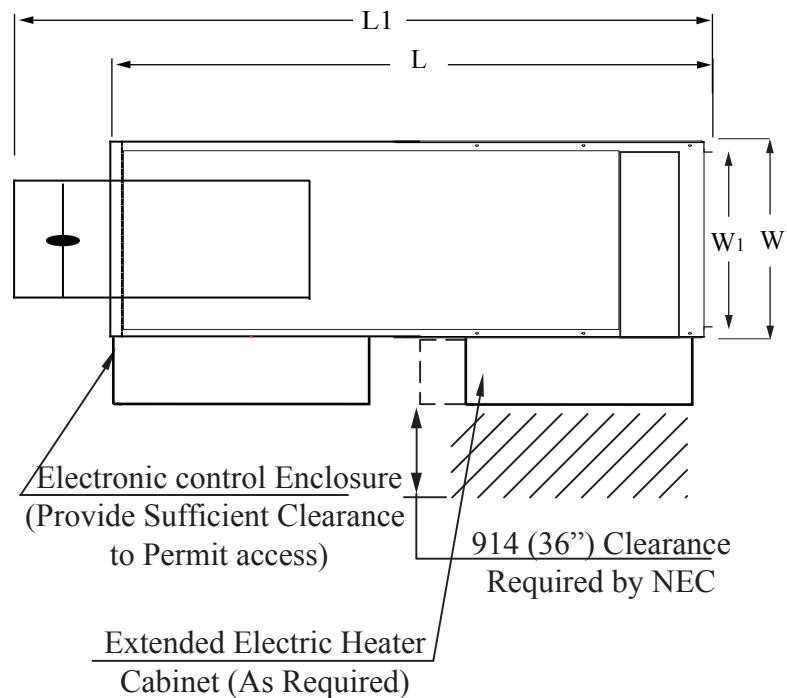
MODEL KVAD-100-EH & SA

DIMENSIONAL DATA STANDARD CONSTRUCTION WITH ELECTRIC HEATER

DIMENSIONAL DATA

UNIT SIZE	W	W1	H	H1	D	L1	L
4	250 (9.8)	200 (7.9)	250 (9.8)	200 (7.9)	100 (3.9)	1300 (51.2)	1150 (45.3)
5	250 (9.8)	200 (7.9)	250 (9.8)	200 (7.9)	125 (4.9)	1325 (52.2)	1150 (45.3)
6	250 (9.8)	200 (7.9)	250 (9.8)	200 (7.9)	150 (5.9)	1300 (51.2)	1150 (45.3)
8	300 (11.8)	250 (9.8)	275 (10.8)	225 (8.9)	200 (7.9)	1300 (51.2)	1150 (45.3)
10	375 (14.8)	325 (12.8)	325 (12.8)	275 (10.8)	250 (9.8)	1300 (51.2)	1150 (45.3)
12	400 (15.8)	350 (13.8)	400 (15.8)	350 (13.8)	300 (11.8)	1350 (53.2)	1200 (47.2)
14	500 (19.7)	450 (17.7)	450 (17.7)	400 (15.8)	350 (13.8)	1350 (53.2)	1200 (47.2)
16	600 (23.6)	550 (21.7)	475 (18.7)	425 (16.7)	400 (15.8)	1350 (53.2)	1200 (47.2)
24	845 (33.3)	795 (31.3)	450 (17.7)	400 (15.8)	800x400 (31.5x15.8)	1400 (53.2)	1220 (48)

Size shown are in mm (in Inch)



Electric Coil Section

Standard Features

- 1- 20Ga galvanized casing for the heater
- 2- Single side access to low voltage, high voltage, and electric heater controls.
- 3- Automatic reset thermal cutouts
- 4- Automatic reset secondary protection.
- 5- Positive pressure flow switch
- 6- Magnetic contactor for each step.
- 7- Slip and drive cleat discharge duct connection.

Options

- Fuse Block
- Disconnect switch, door interlock type
- Dust tight construction
- Mercury contactors
- Optional SCR Controlled

Supply Voltage

- 220V, 1 ph, 50/60 Hz (Std)
- 240V, 1 ph, 50Hz
- 277V, 1 ph, 60Hz
- 380V, 3 ph, 50/60 Hz
- 460V, 3 ph, 60Hz (4 wires standard)

Important Note: Downstream Ps Must be 18Pa (0.07"Wg) or Greater



MODEL KVAD-100 SOUND DATA

DISCHARGE SOUND POWER DATA

Terminal Size	CFM	OCTAVE BAND NUMBERS																	
		1" ΔPs						1.5" ΔPs						2" ΔPs					
		2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7
04	100	64	64	53	45	43	44	66	65	55	48	46	48	67	67	58	50	49	51
	150	69	69	57	47	45	43	70	70	60	51	48	48	72	71	62	53	51	51
	200	71	73	61	49	47	44	73	75	64	53	50	49	74	75	66	56	52	51
05	150	62	64	56	53	49	47	63	65	59	55	52	50	62	66	61	58	54	52
	250	68	68	59	56	52	49	68	70	62	59	56	53	69	71	64	62	59	56
	350	72	74	62	58	53	51	74	76	65	62	58	55	76	77	68	65	62	59
06	300	69	69	59	56	52	49	71	72	63	61	57	54	72	73	66	64	61	58
	400	71	72	62	57	52	49	73	74	65	62	57	55	74	76	68	65	61	58
	500	74	76	65	60	53	51	76	78	68	63	57	55	78	79	71	66	61	59
08	550	68	66	59	57	54	50	70	69	61	60	58	54	71	73	65	63	61	58
	700	71	70	62	59	55	51	73	72	64	63	60	55	74	74	67	65	63	59
	900	75	75	66	63	57	53	76	77	69	66	61	57	78	78	71	68	65	61
10	900	68	66	58	59	57	54	72	70	62	63	61	58	73	73	65	66	64	61
	1100	71	69	60	61	59	56	73	71	64	64	62	60	75	74	67	67	65	63
	1300	73	72	62	62	60	57	75	73	65	65	64	61	77	75	68	68	67	64
12	1200	69	65	60	60	59	56	73	69	64	64	63	60	75	73	66	67	66	64
	1600	72	69	63	62	60	57	74	71	66	66	65	62	76	73	69	69	68	65
	2000	75	72	66	64	61	58	77	74	68	68	65	62	79	76	71	70	69	66
14	2100	74	67	64	61	61	56	76	70	67	66	66	61	78	73	69	68	69	64
	2450	76	69	66	63	62	57	78	72	69	67	66	61	80	74	71	70	70	65
	3000	79	72	69	65	64	59	81	74	71	68	67	62	83	76	73	71	71	66
16	2800	72	66	63	59	56	53	75	69	66	64	61	58	77	72	69	67	65	62
	3500	75	69	66	61	58	55	77	72	68	65	61	59	80	74	71	68	65	62
	4100	77	71	68	63	60	57	80	73	70	66	63	60	81	76	72	69	66	63
24	4000	72	65	62	62	61	58	75	69	66	67	66	63	77	72	69	71	69	67
	5500	74	68	64	63	62	59	78	71	68	67	67	64	81	74	70	70	70	67
	7100	76	71	67	65	64	61	80	74	70	69	68	65	84	76	72	72	71	68
	8200	78	73	69	67	65	63	82	75	72	70	69	66	84	77	73	72	71	68

- Performance data obtained from tests conducted in accordance with ARI Standard 880.
- Sound levels are expressed in decibels, dB re: 1 x 10⁻¹² watts.



MODEL KVAD-100 SOUND DATA

RADIATED SOUND POWER DATA

Terminal Size	CFM	OCTAVE BAND NUMBERS																	
		1" ΔPs						1.5" ΔPs						2" ΔPs					
		2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7
04	100	54	45	40	32	29	23	55	46	42	33	30	27	55	48	45	34	32	31
	150	57	49	44	39	38	33	59	50	47	38	39	36	60	52	49	39	40	39
	200	59	52	47	41	41	38	61	53	51	41	42	41	62	54	54	42	43	43
05	150	52	48	43	37	33	28	53	50	47	40	36	31	53	51	49	42	37	33
	250	58	53	46	41	37	32	59	55	50	44	41	36	60	56	52	47	43	38
	350	62	56	48	40	37	35	64	59	52	45	41	39	64	60	54	49	45	41
06	300	57	52	47	41	36	32	59	55	51	46	42	37	60	57	54	49	46	40
	400	59	56	48	40	36	35	61	58	52	45	41	39	63	59	55	49	45	41
	500	62	58	50	41	38	38	64	60	53	43	40	40	66	61	56	48	43	39
08	550	58	51	45	39	35	27	62	55	49	42	37	31	63	58	52	45	39	33
	700	62	54	49	41	35	28	64	56	51	44	39	32	67	59	54	47	41	35
	900	66	58	54	45	38	33	69	59	55	47	40	35	71	61	57	49	42	37
10	900	54	50	46	40	34	28	57	53	49	44	38	31	60	57	52	46	40	34
	1100	57	52	48	42	36	29	59	55	50	45	39	33	61	58	53	48	42	35
	1300	59	55	50	43	37	31	61	57	52	47	41	34	63	59	55	49	43	37
12	1200	55	52	51	47	44	39	58	55	53	50	48	42	60	59	56	52	50	45
	1600	58	56	54	51	47	41	60	58	57	53	50	44	62	60	58	55	52	47
	2000	61	58	56	52	48	42	63	61	59	56	52	46	65	63	61	58	55	48
14	2100	61	55	49	44	34	29	64	58	52	47	37	33	67	61	54	50	40	36
	2450	63	57	50	45	35	30	66	60	53	49	38	34	68	62	55	51	41	37
	3000	65	59	52	45	37	32	68	61	55	49	40	35	71	64	58	53	44	44
16	2800	61	57	47	42	35	32	64	59	50	45	38	35	67	62	53	48	41	38
	3500	63	59	50	44	38	35	67	62	53	47	40	37	70	65	56	50	43	40
	4100	66	62	54	46	40	36	69	64	56	49	42	39	72	66	58	51	44	41
24	4000	62	55	47	41	35	29	66	58	51	45	40	36	68	61	53	48	42	39
	5500	64	57	49	42	36	29	68	60	52	46	40	36	71	63	55	48	43	39
	7100	66	61	52	44	38	32	70	63	54	47	41	36	74	65	57	50	44	40
	8200	68	63	54	45	39	32	72	65	57	49	43	38	75	67	58	51	45	41

- Performance data obtained from tests conducted in accordance with ARI Standard 880.
- Sound levels are expressed in decibels, dB re: 1 x 10⁻¹² watts.



MODEL KVAD-100 SELECTION DATA

SOUND DATA

Terminal Size	CFM	Minimum Operating Pressure KVAD-100 & KVAD-100-SA	Discharge Noise Criteria (NC)						Radiated Noise Criteria (NC)		
			1" ΔPs	1" ΔPs	1.5" ΔPs	1.5" ΔPs	2" ΔPs	2" ΔPs	1" ΔPs	1.5" ΔPs	2" ΔPs
				W /SA		W /SA		W /SA			
04	100	0.06	27	21	29	23	32	26	15	16	18
	150	0.12	31	25	33	27	35	29	19	21	24
	200	0.21	35	29	37	31	38	32	21	25	28
05	150	0.04	24	18	25	19	26	20	17	21	23
	250	0.11	29	23	31	25	33	27	21	24	27
	350	0.22	35	29	38	32	40	34	25	28	29
06	300	0.03	29	23	32	26	34	28	21	25	28
	400	0.05	32	26	35	29	36	30	24	27	30
	500	0.08	37	31	39	33	40	34	28	30	31
08	550	0.02	25	19	29	23	34	28	20	25	27
	700	0.03	30	24	32	26	35	29	25	28	31
	900	0.05	35	29	37	31	38	32	31	33	37
10	900	0.01	24	18	28	22	32	26	19	23	26
	1100	0.01	28	22	30	24	33	27	22	25	27
	1300	0.01	30	24	33	27	35	29	24	26	29
12	1200	0.01	22	16	27	21	32	26	25	28	30
	1600	0.01	27	21	30	24	32	26	29	31	33
	2000	0.02	31	25	33	27	36	30	31	34	36
14	2100	0.01	26	22	29	25	32	28	24	28	31
	2450	0.02	28	24	31	27	34	30	26	29	33
	3000	0.03	32	28	35	31	37	33	28	32	36
16	2800	0.01	24	20	28	24	31	27	26	29	32
	3500	0.02	27	23	31	27	34	30	29	32	35
	4100	0.02	30	26	33	29	36	32	32	34	37
24	4000	0.04	23	20	28	25	31	28	25	30	32
	5500	0.07	27	24	32	29	35	32	27	33	37
	7100	0.12	29	26	34	31	39	36	31	35	40
	8200	0.17	32	29	36	33	39	36	33	38	41

Note:
 * Min DPs is the static pressure difference between the terminal inlet and discharge with the damper wide open
 * Performance data obtained from test conducted in accordance with ARI Standard 880-2011
 * NC Values calculated based ARI Standard 885-2008 Appendix E1 Typical sound Attenuation Values (shown at right)

AHRI Standard DEDUCTIONS						
Discharge Noise Criteria (NC)						
CFM	2	3	4	5	6	7
<300	24	28	39	53	59	40
300-700	27	29	40	51	53	39
>700	29	30	41	51	52	39
Radiated Noise Criteria (NC)						
Mineral Fiber Ceiling	2	3	4	5	6	7
	18	19	20	26	31	36

MODEL KVAD-100

ACCESSORIES OPTIONAL CONSTRUCTION

- Electric Coil Section** **Optional SCR Controlled Electric Heater**

Standard Features

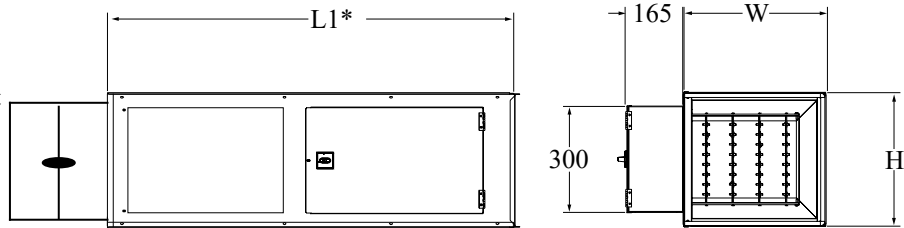
- Single side access to low voltage, high voltage, and electric heater controls.
- Automatic reset thermal cutouts, one per element
- Automatic reset secondary protection.
- Positive pressure flow switch
- Magnetic contactor for each step.
- Slip and drive cleat discharge duct connection.

Options

- Fuse Block
- Disconnect switch, door interlock type
- Dust tight construction
- Mercury contactors

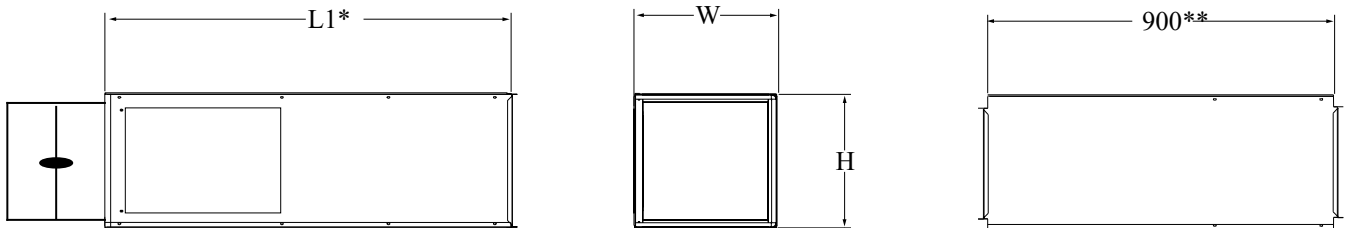
Supply Voltage

- 220V, 1 ph, 50/60 Hz
- 240V, 1 ph, 50Hz
- 277V, 1 ph, 60Hz
- 380V, 3 ph, 50/60 Hz
- 480V, 3 ph, 60Hz (4 wires standard)



* For L1 dimension refer to VAV with heater

- Integral Sound Attenuator**



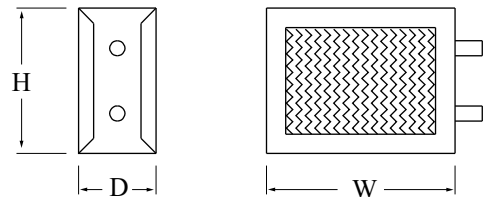
* For L1 dimension refer to VAV with Sound Attenuator

**For VAV with Non Std construction Sound Attenuator

- Hot Water Coil Section**

- 13mm copper tubes
- Aluminum ripple fins, 10 per inch
- Connections: Single circuit, 13mm O.D. male solder. Multi-circuit, 22mm O.D., male solder.
- Coil is installed at discharge of unit.
- On units with attenuators, coil are installed at the discharge of attenuator.

- 1 Row
- 2 Row
- 3 Row
- 4 Row





Series KVAD-100 VAV BOX

YOUR ORDER No.

OUR PL No.

STANDARD CONSTRUCTION -- ORDERING INFORMATION

VAV box with 22 GAUGE (0.8mm) GALVANIZED STEEL, With 13mm (1/2") INTERNAL FIBERGLASS LINING. LINING IS SECURED TO VAV BOX BY ADHESIVE & PIN, With round inlet with airflow sensor, With NEMA-1 Control Enclosure but Without Control.
MODEL Shown as: KVAD-100 -- 8"

NON STANDARD CONSTRUCTION -- ORDERING INFORMATION

