



FLUID COOLER BROCHURE



DIRECTCOIL.COM



UNIT NOMENCLATURE

UNIT TYPE FC : FLUID COOLER AC : AIR COOLED CONDENSER HR : HEAT RECLAIM	FC	07	A	V	6D	162	T3	XXX
MOTOR SIZE 04 : 1.25 KW, 770 RPM, AC MOTOR 05 : 0.68 KW, 550 RPM, AC MOTOR 06 : 1.25 / 0.68 KW, DUAL SPEED, AC MOTOR 07 : 2.5 KW, 990 RPM, AC MOTOR 08 : 1.4 KW, 710 RPM, AC MOTOR 09 : 2.5 / 1.4 KW, DUAL SPEED, AC MOTOR 10 : 3.1 KW, 1100 RPM, EC MOTOR							DESIGN VERSION MAIN SUPPLY VOLTAGE S3 : SINGLE PHASE 230/1/60 T3 : THREE PHASE 208-230/3/60 T4 : THREE PHASE 460/3/60 T5 : THREE PHASE 575/3/60 T6 : THREE PHASE 380/3/50	
MOTOR TYPE A , B or Z							NOMINAL CAPACITY 8 TONS UP TO 500 TONS	
DESIGN OPTION H : HORIZONTAL AIR FLOW SINGLE COIL SLAB V : VERTICAL AIR FLOW SINGLE COIL SLAB L : LARGE V TWIN COIL SLAB S : SMALL V TWIN COIL SLAB W : W SHAPE QUAD COIL SLAB							NUMBER OF FANS 1 THRU 7 : SINGLE ROW OF FANS 4D THRU 9D : DOUBLE ROW OF FANS	

STANDARD FEATURES

- **Cabinets** are heavy-gauge galvanized steel construction with plated hardware for a corrosion free assembly and are designed for outdoor applications.
- **Coils** are fabricated with corrugated aluminum fins with staggered copper tubes for optimum heat transfer. They are pressure tested, and dehydrated prior to shipment.
- **Headers** are made with seamless copper tube type K or L and MPT or Grooved connections.
- **Fan motors** are totally enclosed with reverse rotor design. Motors have class F insulation and are thermally protected. They have a permanently lubricated deep groove ball bearing.
- **Various fluid cooler models** are available in 208-230V single phase, 208-230V three-phase, 460 or 575 Volts three phase motors.
- **Fans** are profiled in a sickle shape design for optimal low noise sound pressure level. Fan hubs are attached to the external motor rotor and are statically and dynamically balanced for vibration free operation.
- **Fan guards and motor mounts** are welded wire construction with baked-on powder epoxy coating for optimum corrosion protection.
- **All fan motor leads** are wired to a weatherproof electrical enclosure for single-point field wiring.

AVAILABLE OPTIONS

- Fan cycling and fan speed control
- Non fused disconnect switch
- Motor fusing
- Pre-coated fin material
- Copper fins
- AA Coil Coating (in-House).
- Stainless steel cabinet
- Wide fin spacing
- Variable speed EC motor for high efficiency and premium noise levels
- Voltage available for 50 HZ and 60 HZ motors
- 550 Ultra Low RPM motors (low sound level)
- Extended leg options
- For special applications, custom sizing, low sound levels, please contact Direct Coil

Our engineers have developed a computer selection software to determine the capacity and make the best selection for the process.

PARAMETERS FOR THE SELECTION

Performance Data

Capacity _____ Btu/hr or Fluid Flow _____ USGPM

Entering Fluid Temp _____ F

Leaving Fluid Temp _____ F

Fluid Type ☐ Water ☐ EG ☐ PG ☐ Other _____

Fluid Concentration _____ %

Maximum Fluid Pressure Drop _____ Feet of WC

Ambient Temp Dry Bulb _____ F

Altitude _____ Feet

Constraints

Dimensional Length: _____ Width _____ Height _____ (Inches)

Sound Pressure _____ (dBa) at Distance _____ Feet

Maximum coil fins per inch _____

Maximum Fan RPM _____

Electrical

Unit Main Voltage ☐ 208/1 ☐ 208-220/3 ☐ 460/3 ☐ 575/3

Control Voltage ☐ 24 Volts ☐ 120 Volts

Installed Non-Fused Disconnect Switch ☐

Individual Motor Fluid Sensing Fan Cycling ☐

Motor Fluid Sensing Fan Cycling in Pair ☐

Individual Motor Short Circuit Protection ☐

Motor Short Circuit Protection in Pair ☐

Individual Motor Overload Protector ☐

Proportional Fluid Sensing Control For EC Motors Only ☐

Other Notes or Comments

UNIT PARAMETERS

MODEL NO.	FAN CONFIG	FPI	550 RPM "05" SOUND LEVEL dBA (1)	770 RPM "04" SOUND LEVEL dBA (1)	710 RPM "08" SOUND LEVEL dBA (1)	990 RPM "07" SOUND LEVEL dBA (1)	1100 RPM "10" SOUND LEVEL dBA (1)	INTERNAL VOLUME US GALLON	APPROX DRY SHIPPING WEIGHT LBS
SINGLE ROW UNITS									
FC**AV1***	1X1	9	43	51	50	57	58	3.4	520
FC**AV1***	1X1	12	43	51	50	57	58	3.4	535
FC**AV1***	1X1	12	43	51	50	57	58	5.1	585
FC**AV1***	1X1	12	43	51	50	57	58	6.8	650
FC**AV2***	1X2	12	46	54	53	60	61	6.8	845
FC0**V2***	1X2	12	46	54	53	60	61	10.2	962
FC**AV2***	1X2	12	46	54	53	60	61	13.6	1085
FC**AV3***	1X3	9	47	55	54	61	62	15.3	1250
FC**AV3***	1X3	12	47	55	54	61	62	15.3	1320
FC**AV3***	1X3	12	47	55	54	61	62	20.4	1480
FC**AV4***	1X4	12	48	56	55	62	63	20.4	1775
FC**AV4***	1X4	12	48	56	55	62	63	27.2	1990
FC**AV5***	1X5	12	49	57	56	63	64	25.3	2430
FC**AV5***	1X5	12	49	57	56	63	64	33.9	2705
FC**AV6***	1X6	12	50	58	57	64	65	30.4	2965
FC**AV6***	1X6	12	50	58	57	64	65	40.7	3290
FC**AV7***	1X7	12	51	59	58	65	66	35.5	3405
FC**AV7***	1X7	12	51	59	58	65	66	47.5	3785
DOUBLE ROW UNITS									
FC**AV2D***	2X2	12	48	56	55	62	63	13.6	1535
FC**AV2D***	2X2	12	48	56	55	62	63	20.4	1750
FC**AV2D***	2X2	12	48	56	55	62	63	27.2	1965
FC**AV3D***	2X3	9	50	58	57	64	65	30.4	2370
FC**AV3D***	2X3	12	50	58	57	64	65	30.4	2490
FC**AV3D***	2X3	12	50	58	57	64	65	40.7	2820
FC**AV4D***	2X4	12	51	59	58	65	66	40.8	3270
FC**AV4D***	2X4	12	51	59	58	65	66	54.4	3700
FC**AV5D***	2X5	12	53	61	60	67	68	50.6	4420
FC**AV5D***	2X5	12	53	61	60	67	68	67.8	4940
FC**AV6D***	2X6	12	54	62	61	68	69	60.8	5200
FC**AV6D***	2X6	12	54	62	61	68	69	81.4	5825
FC**AV7D***	2X7	12	55	63	62	69	70	71.0	6045
FC**AV7D***	2X7	12	55	63	62	69	70	95.0	6800

NOTES:

** Motor designation

*** Nominal Capacity Ton

(1) Sound pressure level at 30 Feet distance

UNIT PARAMETERS

MODEL NO.	FAN CONFIG	FPI	550 RPM "05" SOUND LEVEL dBA (1)	770 RPM "04" SOUND LEVEL dBA (1)	710 RPM "08" SOUND LEVEL dBA (1)	990 RPM "07" SOUND LEVEL dBA (1)	1100 RPM "10" SOUND LEVEL dBA (1)	INTERNAL VOLUME US GALLON	APPROX DRY SHIPPING WEIGHT LBS
SINGLE ROW UNITS									
FC**AS1***	1X1	12	43	51	50	57	58	5.1	535
FC**AS1***	1X1	10	43	51	50	57	58	7.7	600
FC**AS1***	1X1	12	43	51	50	57	58	7.7	610
FC**AS1***	1X1	12	43	51	50	57	58	10.3	700
FC**AS2***	1X2	12	46	54	53	60	61	10.2	900
FC**AS2***	1X2	12	46	54	53	60	61	15.4	1060
FC**AS2***	1X2	12	46	54	53	60	61	20.6	1200
FC**AS3***	1X3	12	47	55	54	61	62	23.1	1500
FC**AS3***	1X3	12	47	55	54	61	62	30.9	1715
FC**AS4***	1X4	12	48	56	55	62	63	30.8	1925
FC**AS4***	1X4	12	48	56	55	62	63	41.2	2215
FC**AS5***	1X5	12	49	57	56	63	64	38.5	2365
FC**AS5***	1X5	12	49	57	56	63	64	51.5	2720
FC**AS6***	1X6	12	50	58	57	64	65	46.2	2800
FC**AS6***	1X6	12	50	58	57	64	65	61.8	3220
FC**AS7***	1X7	12	51	59	58	65	66	53.9	3245
FC**AS7***	1X7	12	51	59	58	65	66	72.1	3640
FC**AS8***	1X8	12	52	60	59	66	67	61.6	3680
FC**AS8***	1X8	12	52	60	59	66	67	82.4	4210
FC**AS9***	1X9	12	53	61	60	67	68	69.3	4200
FC**AS9***	1X9	12	53	61	60	67	68	92.7	4800

NOTES:

** Motor designation

*** Nominal Capacity Ton

(1) Sound pressure level at 30 Feet distance



UNIT PARAMETERS

MODEL NO.	FAN CONFIG	FPI	550 RPM "05" SOUND LEVEL dBA (1)	770 RPM "04" SOUND LEVEL dBA (1)	710 RPM "08" SOUND LEVEL dBA (1)	990 RPM "07" SOUND LEVEL dBA (1)	1100 RPM "10" SOUND LEVEL dBA (1)	INTERNAL VOLUME US GALLON	APPROX DRY SHIPPING WEIGHT LBS
DOUBLE ROW UNITS LARGE V SHAPE UNITS									
FC**AL2D***	2X2	12	48	56	55	62	63	30.8	2120
FC**AL2D***	2X2	12	48	56	55	62	63	41.2	2400
FC**AL3D***	2X3	12	50	58	57	64	65	46.2	3000
FC**AL3D***	2X3	12	50	58	57	64	65	61.8	3430
FC**AL4D***	2X4	12	51	60	58	65	66	61.6	3850
FC**AL4D***	2X4	12	51	60	58	65	66	82.4	4430
FC**AL5D***	2X5	12	53	61	60	67	68	77.0	4730
FC**AL5D***	2X5	12	53	61	60	67	68	103.0	5440
FC**AL6D***	2X6	12	54	62	61	68	69	92.4	5600
FC**AL6D***	2X6	12	54	62	61	68	69	123.6	6440
FC**AL7D***	2X7	12	55	63	62	69	70	107.8	6490
FC**AL7D***	2X7	12	55	63	62	69	70	144.2	7280
FC**AL8D***	2X8	12	56	64	63	70	71	123.2	7360
FC**AL8D***	2X8	12	56	64	63	70	71	164.8	8420
FC**AL9D***	2X9	12	57	65	64	71	72	138.6	8400
FC**AL9D***	2X9	12	57	65	64	71	72	185.4	9600
DOUBLE ROW UNITS W SHAPE UNITS									
FC**AW2D***	2X2	12	48	56	55	62	63	30.8	2060
FC**AW2D***	2X2	12	48	56	55	62	63	41.2	2340
FC**AW3D***	2X3	12	50	58	57	64	65	46.2	2910
FC**AW3D***	2X3	12	50	58	57	64	65	61.8	3340
FC**AW4D***	2X4	12	51	60	58	65	66	61.6	3730
FC**AW4D***	2X4	12	51	60	58	65	66	82.4	4310
FC**AW5D***	2X5	12	53	61	60	67	68	77.0	4580
FC**AW5D***	2X5	12	53	61	60	67	68	103.0	5290
FC**AW6D***	2X6	12	54	62	61	68	69	92.4	5420
FC**AW6D***	2X6	12	54	62	61	68	69	123.6	6260
FC**AW7D***	2X7	12	55	63	62	69	70	107.8	6280
FC**AW7D***	2X7	12	55	63	62	69	70	144.2	7070
FC**AW8D***	2X8	12	56	64	63	70	71	123.2	7120
FC**AW8D***	2X8	12	56	64	63	70	71	164.8	8180
FC**AW9D***	2X9	12	57	65	64	71	72	138.6	8130
FC**AW9D***	2X9	12	57	65	64	71	72	185.4	9330

NOTES:

** Motor designation

*** Nominal Capacity Ton

(1) Sound pressure level at 30 Feet distance

550 RPM "05" MODELS												
NO.OF FAN MOTORS	208-230/3/60				460/3/60				575/3/60			
	TOTAL FLA	MCA	MOP	WATTS	TOTAL FLA	MCA	MOP	WATTS	TOTAL FLA	MCA	MOP	WATTS
1	2.7	3.4	15	680	1.2	1.5	15	680	1.0	1.3	15	680
2	5.4	6.1	15	1360	2.4	2.7	15	1360	2.0	2.3	15	1360
3	8.1	8.8	15	2040	3.6	3.9	15	2040	3.0	3.3	15	2040
4	10.8	11.5	15	2720	4.8	5.1	15	2720	4.0	4.3	15	2720
5	13.5	14.2	15	3400	6.0	6.3	15	3400	5.0	5.3	15	3400
6	16.2	16.9	20	4080	7.2	7.5	15	4080	6.0	6.3	15	4080
7	18.9	19.6	20	4760	8.4	8.7	15	4760	7.0	7.3	15	4760
8	21.6	22.3	25	5440	9.6	9.9	15	5440	8.0	8.3	15	5440
9	24.3	25.0	25	6120	10.8	11.1	15	6120	9.0	9.3	15	6120
10	27.0	27.7	30	6800	12.0	12.3	15	6800	10.0	10.3	15	6800
12	32.4	33.1	35	8160	14.4	14.7	15	8160	12.0	12.3	15	8160
14	37.8	38.5	40	9520	16.8	17.1	20	9520	14.0	14.3	15	9520
16	43.2	43.9	45	10880	19.2	19.5	20	10880	16.0	16.3	20	10880
18	48.6	49.3	50	12240	21.6	21.9	25	12240	18.0	18.3	20	12240

770 RPM "04" MODELS												
NO.OF FAN MOTORS	208-230/3/60				460/3/60				575/3/60			
	TOTAL FLA	MCA	MOP	WATTS	TOTAL FLA	MCA	MOP	WATTS	TOTAL FLA	MCA	MOP	WATTS
1	5.6	7.0	15	1250	2.5	3.1	15	1250	2.0	2.5	15	1250
2	11.2	12.6	15	2500	5.0	5.6	15	2500	4.0	4.5	15	2500
3	16.8	18.2	20	3750	7.5	8.1	15	3750	6.0	6.5	15	3750
4	22.4	23.8	25	5000	10.0	10.6	15	5000	8.0	8.5	15	5000
5	28.0	29.4	35	6250	12.5	13.1	15	6250	10.0	10.5	15	6250
6	33.6	35.0	40	7500	15.0	15.6	20	7500	12.0	12.5	15	7500
7	39.2	40.6	45	8750	17.5	18.1	20	8750	14.0	14.5	15	8750
8	44.8	46.2	50	10000	20.0	20.6	25	10000	16.0	16.5	20	10000
9	50.4	51.8	55	11250	22.5	23.1	25	11250	18.0	18.5	20	11250
10	56.0	57.4	60	12500	25.0	25.6	25	12500	20.0	20.5	25	12500
12	67.2	68.6	70	15000	30.0	30.6	30	15000	24.0	24.5	25	15000
14	78.4	79.8	85	17500	35.0	35.6	35	17500	28.0	28.5	30	17500
16	89.6	91.0	95	20000	40.0	40.6	45	20000	32.0	32.5	35	20000
18	100.8	102.2	105	22500	45.0	45.6	50	22500	36.0	36.5	40	22500

FLA = Full Load Amps

MCA = Minimum Circuit Ampacity

MOP = Maximum Overcurrent Protection

ELECTRICAL DATA

710 RPM "08" MODELS												
NO.OF FAN MOTORS	208-230/3/60				460/3/60				575/3/60			
	TOTAL FLA	MCA	MOP	WATTS	TOTAL FLA	MCA	MOP	WATTS	TOTAL FLA	MCA	MOP	WATTS
1	4.6	5.8	15	1300	2.2	2.8	15	1300	1.8	2.3	15	1300
2	9.2	10.4	15	2600	4.4	5.0	15	2600	3.6	4.1	15	2600
3	13.8	15.0	15	3900	6.6	7.2	15	3900	5.4	5.9	15	3900
4	18.4	19.6	20	5200	8.8	9.4	15	5200	7.2	7.7	15	5200
5	23.0	24.2	25	6500	11.0	11.6	15	6500	9.0	9.5	15	6500
6	27.6	28.8	30	7800	13.2	13.8	15	7800	10.8	11.3	15	7800
7	32.2	33.4	35	9100	15.4	16.0	20	9100	12.6	13.1	15	9100
8	36.8	38.0	40	10400	17.6	18.2	20	10400	14.4	14.9	15	10400
9	41.4	42.6	45	11700	19.8	20.4	25	11700	16.2	16.7	20	11700
10	46.0	47.2	50	13000	22.0	22.6	25	13000	18.0	18.5	20	13000
12	55.2	56.4	60	15600	26.4	27.0	30	15600	21.6	22.1	25	15600
14	64.4	65.6	70	18200	30.8	31.4	35	18200	25.2	25.7	30	18200
16	73.6	74.8	75	20800	35.2	35.8	40	20800	28.8	29.3	30	20800
18	82.8	84.0	85	23400	39.6	40.2	45	23400	32.4	32.9	35	23400

990 RPM "07" MODELS												
NO.OF FAN MOTORS	208-230/3/60				460/3/60				575/3/60			
	TOTAL FLA	MCA	MOP	WATTS	TOTAL FLA	MCA	MOP	WATTS	TOTAL FLA	MCA	MOP	WATTS
1	9.7	12.1	20	2500	4.2	5.3	15	2500	3.4	4.3	15	2500
2	19.4	21.8	30	5000	8.4	9.5	15	5000	6.8	7.7	15	5000
3	29.1	31.5	40	7500	12.6	13.7	15	7500	10.2	11.1	15	7500
4	38.8	41.2	50	10000	16.8	17.9	20	10000	13.6	14.5	15	10000
5	48.5	50.9	60	12500	21.0	22.1	25	12500	17.0	17.9	20	12500
6	58.2	60.6	70	15000	25.2	26.3	30	15000	20.4	21.3	25	15000
7	67.9	70.3	80	17500	29.4	30.5	35	17500	23.8	24.7	25	17500
8	77.6	80.0	85	20000	33.6	34.7	35	20000	27.2	28.1	30	20000
9	87.3	89.7	95	22500	37.8	38.9	40	22500	30.6	31.5	35	22500
10	97.0	99.4	105	25000	42.0	43.1	45	25000	34.0	34.9	35	25000
12	116.4	118.8	125	30000	50.4	51.5	55	30000	40.8	41.7	45	30000
14	135.8	138.2	145	35000	58.8	59.9	60	35000	47.6	48.5	50	35000
16	155.2	157.6	165	40000	67.2	68.3	70	40000	54.4	55.3	60	40000
18	174.6	177.0	185	45000	75.6	76.7	80	45000	61.2	62.1	65	45000

FLA = Full Load Amps

MCA = Minimum Circuit Ampacity

MOP = Maximum Overcurrent Protection



1100 RPM "10" MODELS								
NO.OF FAN MOTORS	208-230/3/60				460/3/60			
	TOTAL FLA	MCA	MOP	WATTS	TOTAL FLA	MCA	MOP	WATTS
1	9.4	11.8	20	3100	3.8	4.8	15	3100
2	18.8	21.2	30	6200	7.6	8.6	15	6200
3	28.2	30.6	35	9300	11.4	12.4	15	9300
4	37.6	40.0	45	12400	15.2	16.2	20	12400
5	47.0	49.4	55	15500	19.0	20.0	20	15500
6	56.4	58.8	65	18600	22.8	23.8	25	18600
7	65.8	68.2	75	21700	26.6	27.6	30	21700
8	75.2	77.6	85	24800	30.4	31.4	35	24800
9	84.6	87.0	95	27900	34.2	35.2	40	27900
10	94.0	96.4	105	31000	38.0	39.0	45	31000
12	112.8	115.2	120	37200	45.6	46.6	50	37200
14	131.6	134.0	140	43400	53.2	54.2	55	43400
16	150.4	152.8	160	49600	60.8	61.8	65	49600
18	169.2	171.6	180	55800	68.4	69.4	70	55800

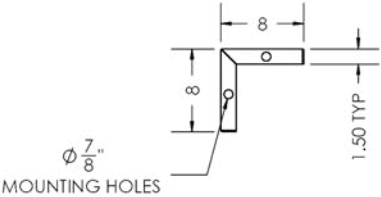
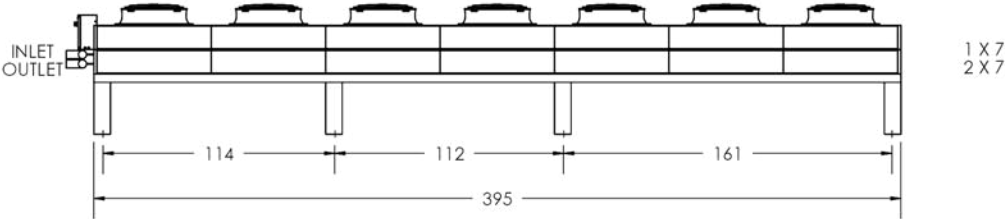
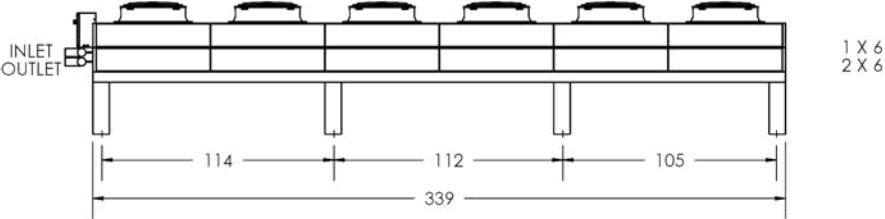
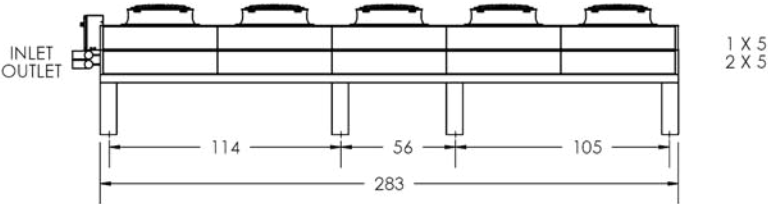
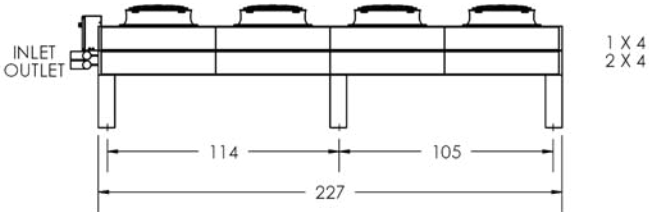
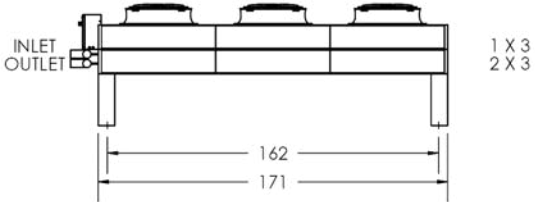
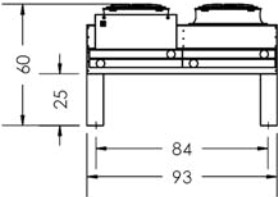
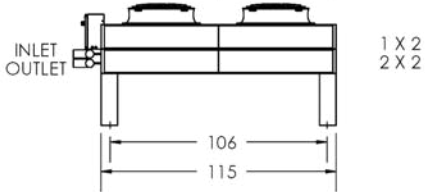
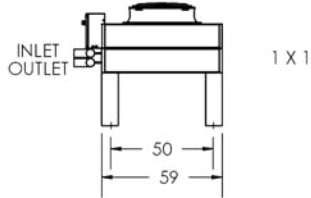
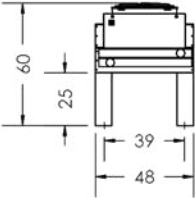
FLA = Full Load Amps

MCA = Minimum Circuit Ampacity

MOP = Maximum Overcurrent Protection

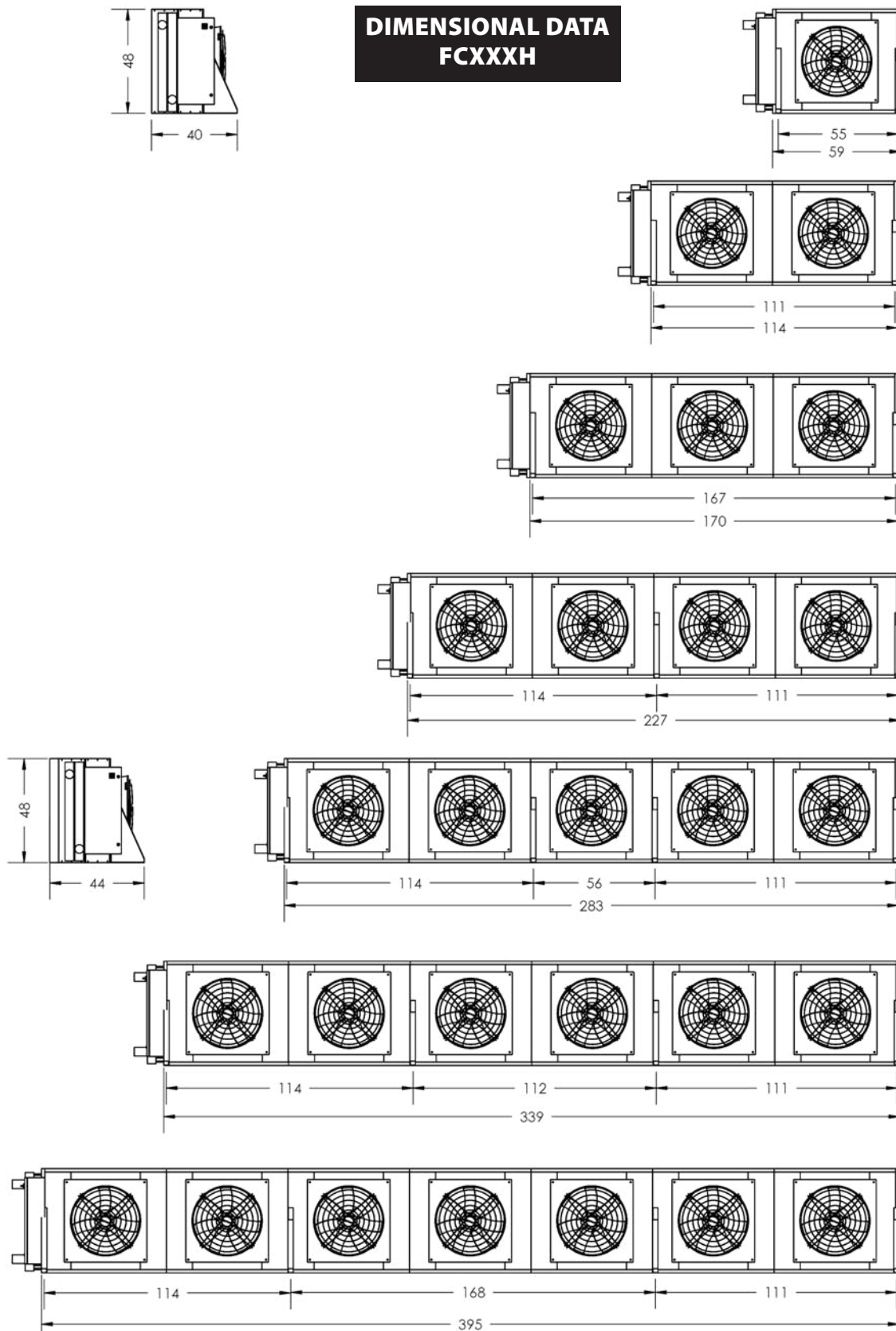


DIMENSIONAL DATA
FCXXXV

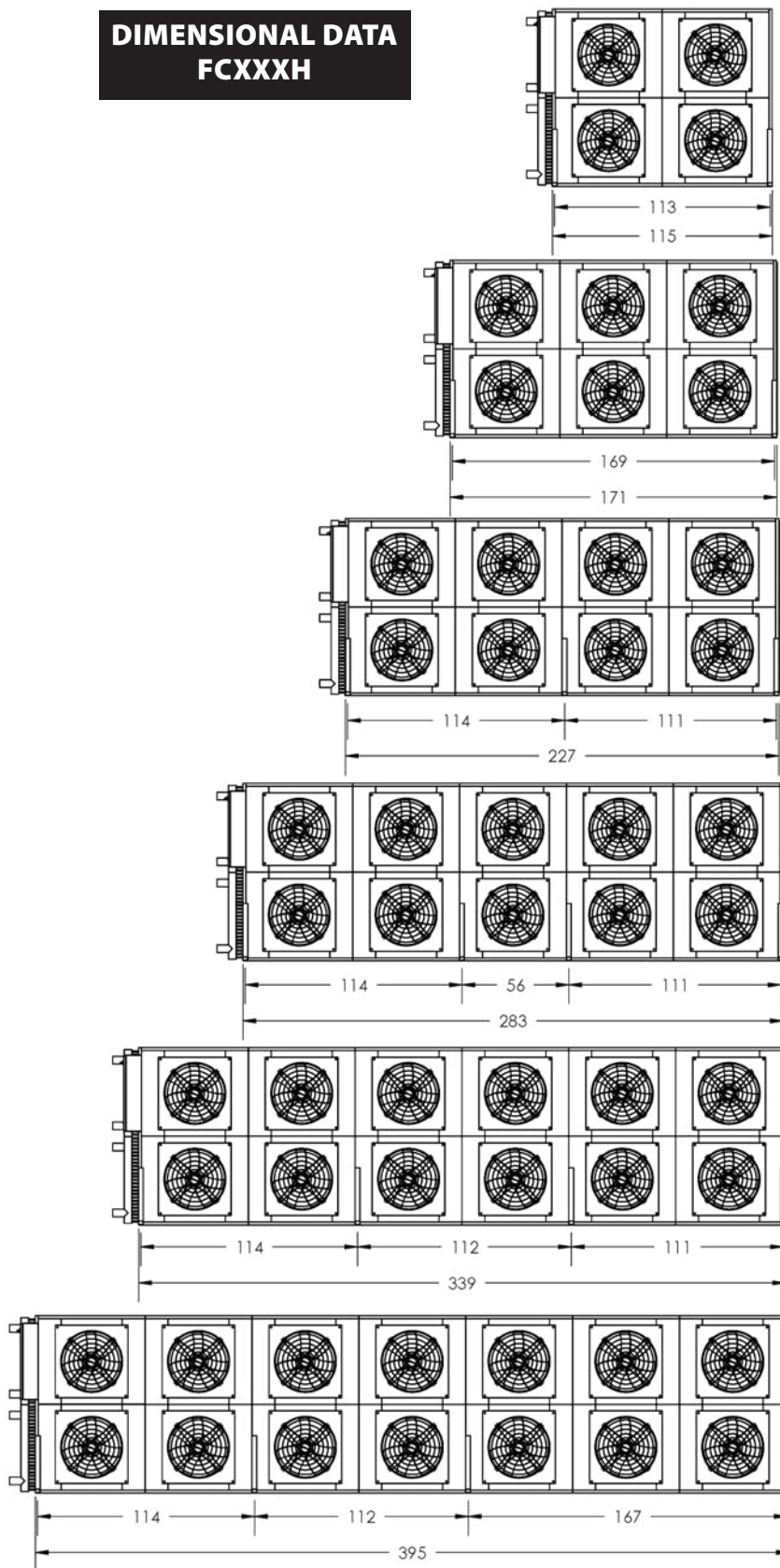
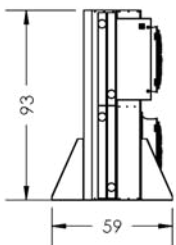
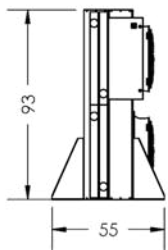


Dimensions are in inches

**DIMENSIONAL DATA
FCXXXH**

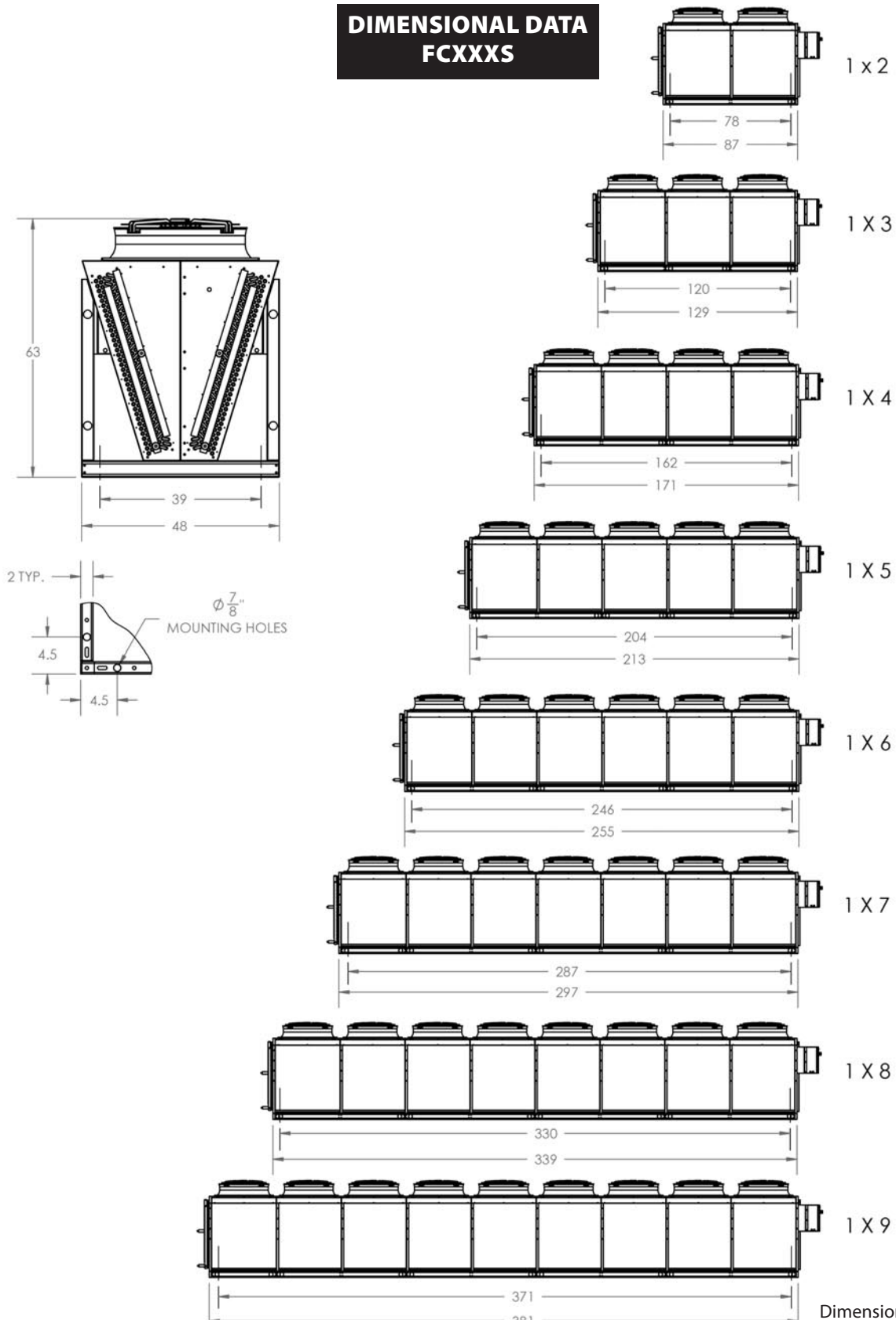


DIMENSIONAL DATA
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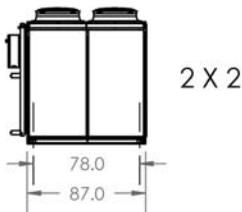
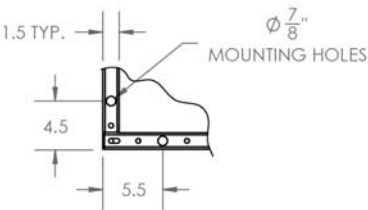
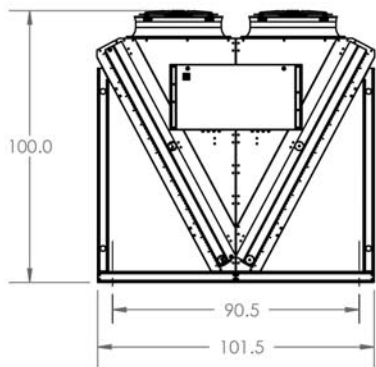


Dimensions are in inches

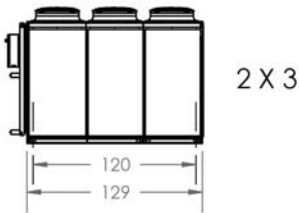
**DIMENSIONAL DATA
FCXXXS**



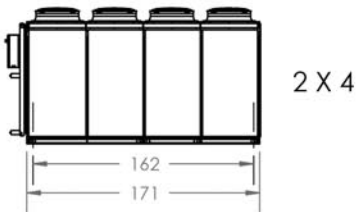
DIMENSIONAL DATA
FCXXXL



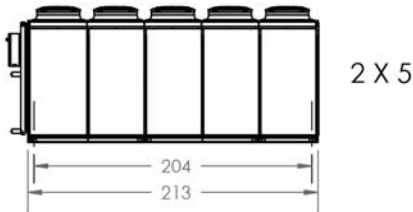
2 X 2



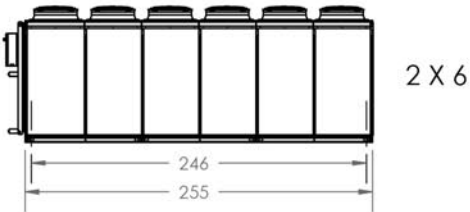
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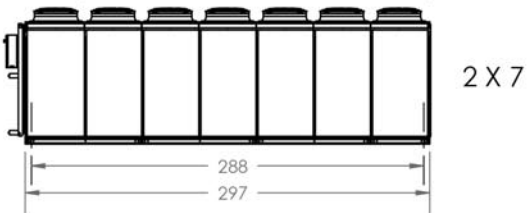
2 X 4



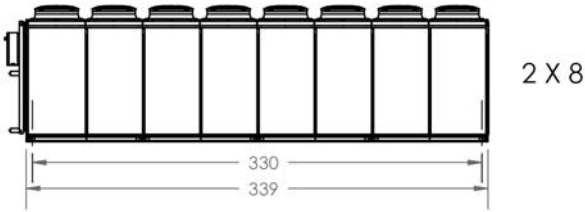
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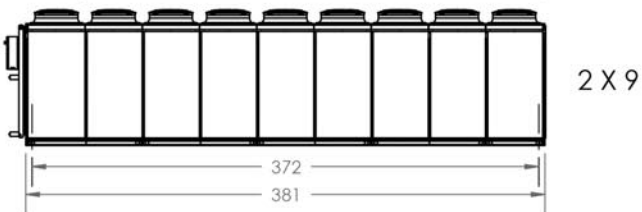
2 X 6



2 X 7



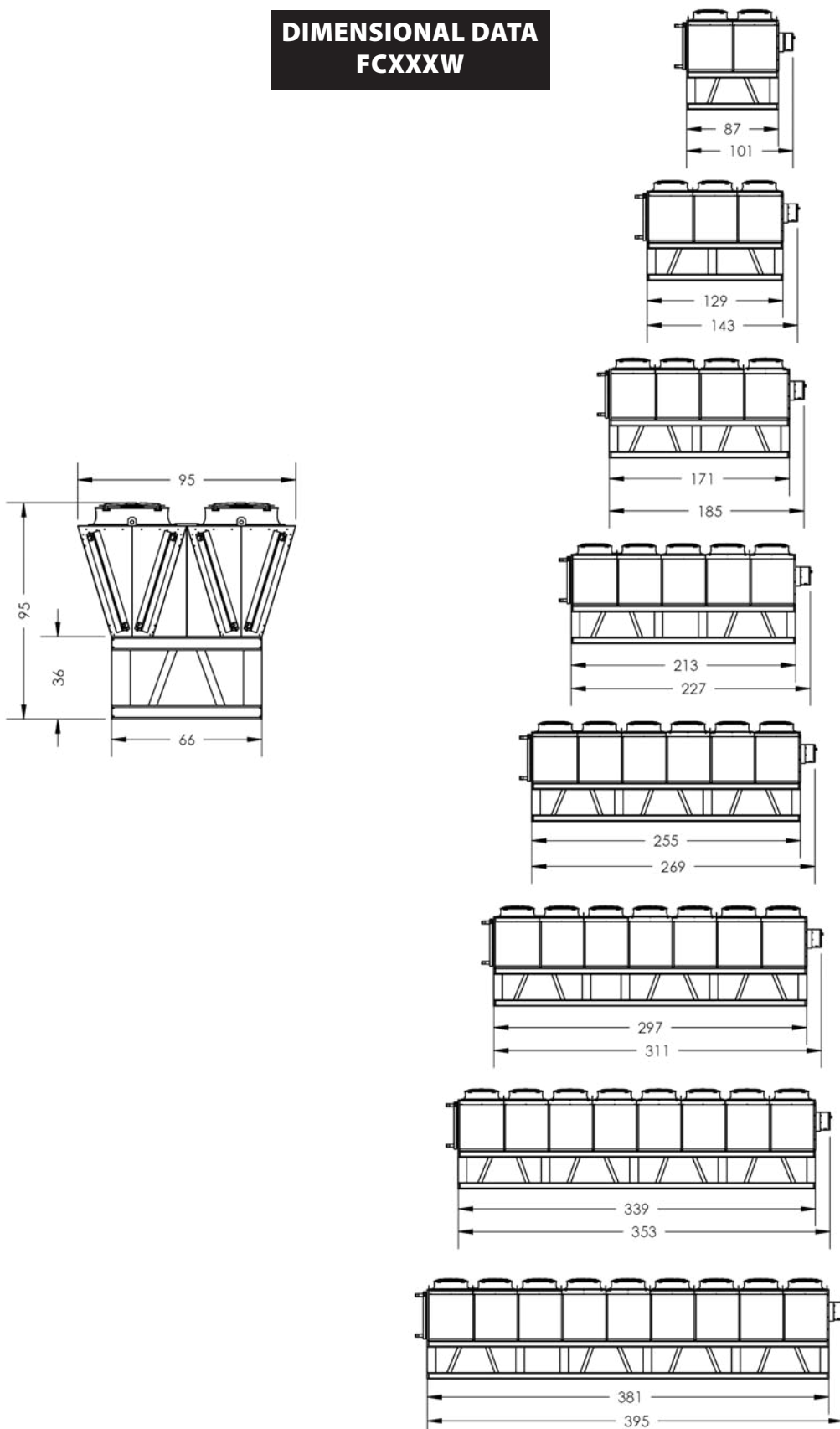
2 X 8



2 X 9

Dimensions are in inches

**DIMENSIONAL DATA
FCXXXW**



Dimensions are in inches



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