



turn to the expertsSM 



38AE Series

Air Cooled Condensing Unit

Nominal: 10-50 Tons



38AE Series



▲ 38AE010-015



▲ 38AE020-040



▲ 38AE050-060

High Quality Condensing Units for Diversified Commercial Use

- High operating efficiency
- Years of trouble-free operation
- High system application flexibility

Features & benefits

These dependable outdoor sections match Carrier's indoor air handlers and direct-expansion coils for a wide selection of commercial cooling solutions.

Constructed for long life

Models 38AE are designed and built to last. The copper tube-aluminum fin outdoor coil construction provides years of trouble-free operation. (Where conditions require them, copper fin coils are also available.) Cabinets are constructed of prepainted galvanized steel, delivering unparalleled protection from surface rust. Inside and outside surfaces are protected to ensure long life, good looks, and corrosion resistance. Solid-state safety controls are used for enhanced system reliability.

Reliable operation

Building owners will appreciate the high unit EERs (Energy Efficiency Ratios) offered by the 38AE units. These units provide greater efficiency than similar units in the marketplace, which translates into year-round operating savings.

Electrical Data

Unit Model	Nominal Voltage	Voltage Range		Compressor		Fan Motor		Power Supply	
		MIN	MAX	RLA	LRA	QTY	RLA(ea)	MCA	MOCP
38AE010	380-3-50	342	415	22.1	114	2	7.6(3.8)	31	50
38AE015	380-3-50	342	415	32.0	120	2	7.6(3.8)	40	70
38AE020	380-3-50	342	415	44.0	173	2	8.0(4.0)	54	90
38AE025	380-3-50	342	415	56.0	223	2	4.8(2.4)	70	110
38AE030	380-3-50	342	415	68.0	253	2	4.8(2.4)	84	125
38AE040	380-3-50	342	415	95.0	345	2	4.8(2.4)	118	175
38AE050	380-3-50	342	415	2...56.0	2.../223	3	7.2(2.4)	140	200
38AE060	380-3-50	342	415	2...68.0	2.../253	3	7.2(2.4)	143	250

RLA : RATED LOAD AMPS.
LRA : LOCKED ROTOR AMPS.
FLA : FULL LOAD AMPS.

OFM : OUTDOOR FAN MOTOR
MCA : MINIMUM CIRCUIT AMPS.
MOCP : MAXIMUM OVER CURRENT PROTECTION

Physical Data

Description		Air Cooled Condensing Unit								
Model		38AE010	38AE015	38AE020	38AE025	38AE030	38AE040	38AE050	38AE060	
Nominal Capacity*	BTU/Hr	121,000	156,000	201,000	281,000	321,000	403,000	548,000	604,000	
Operating Weight	lb(kg.)	809(367)	825(374)	1,155(524)	1,286(583)	1,367(620)	1,435(651)	1,950(885)	2,125(966)	
Compressor		Semi-Hermetic								
Quantity...Model		1...06D328	1...06D537	1...06E250	1...06E265	1...06E275	1...06E299	2...06E265	2...06E275	
Lubricating Oil	gal.	1.0	1.0	1.7	2.4	2.4	3.2	2...2.4	2...2.4	
Capacity Steps (by unload)	%	0/66/100	0/66/100	0/50/100	0/50/100	0/66/100	0/66/100	0/25/50/75/100	0/33/50/83/100	
Refrigerant		R-22								
Operating Charge**	lb(kg.)	22(10.1)	23(10.5)	28(12.7)	30(13.6)	43(19.5)	65(29.5)	2...30(2...13.6)	2...43(2...19.5)	
Condenser Fans		Propeller, Direct Drive								
Quantity...Diameter	in.	2...24	2...24	2...28	2...27	2...30	2...30	3...27	3...30	
Nominal Air Flow	CFM	7,400	7,400	20,000	21,200	23,200	23,200	33,000	33,000	
Fan Motor	V/Ph/Hz(HP)	220/1/50(1/2 HP)		220/1/50(1 HP)	380/3/50(2 HP)			380/3/50(2 HP)		
Power Consumption	Watt	1,100		2,200	2,700			4,030		
Condenser Coil		Aluminium Fin Copper Tube								
Row...Fin/Inch		3...15	3...15	1.5...15	3...15	3...15	3...15	3...15	3...15	
Face Area	sq.ft.	22.72	22.72	42.94	42.94	54.00	54.00	73.23	73.23	
Electrical Controls		Time Guard Control Module								
High-Pressure Switch	Psig	395/275 (Auto Reset)								
Low-Pressure Switch	Psig	60/30 (Auto Reset)								
Oil-Pressure Switch	Psig	6/14 (Auto Reset)								
Starter		D.O.L.			Part Winding					
Piping Connections	Suction	in.	1 3/8	1 3/8	1 5/8	1 5/8	2 1/8	2 1/8	2...1 5/8	2...2 1/8
	Liquid	in.	5/8	5/8	7/8	7/8	7/8	7/8	2...7/8	2...7/8

* RATING CONDITION: OUTDOOR AMBIENT TEMPERATURE 95°F, SATURATED SUCTION TEMPERATURE 45°F

** UNIT SUPPLIED FROM FACTORY ONLY PRE-CHARGE

Performance Data: 38AE010

Model	SST (°F)	Air Temperature Entering Condenser (°F)														
		80			90			95			100			110		
		TC	KW	CDT	TC	KW	CDT	TC	KW	CDT	TC	KW	CDT	TC	KW	CDT
38AE010	30	99.0	7.2	102	92.0	7.9	111	88.0	8.1	116	85.0	8.3	121	78.0	8.9	130
	35	110.0	7.5	104	102.0	8.1	113	98.0	8.5	118	95.0	8.7	122	88.0	9.3	132
	40	121.0	7.8	106	113.0	8.5	115	109.0	8.8	120	106.0	9.1	124	98.0	9.7	133
	45	134.0	8.1	109	126.0	8.8	117	121.0	9.2	122	117.0	9.5	126	109.0	10.2	135
	50	148.0	8.3	111	138.0	9.1	120	134.0	9.5	124	129.0	9.9	128	121.0	10.6	137

Performance Data: 38AE015

Model	SST (°F)	Air Temperature Entering Condenser (°F)														
		80			90			95			100			110		
		TC	KW	CDT	TC	KW	CDT	TC	KW	CDT	TC	KW	CDT	TC	KW	CDT
38AE015	30	128.0	11.1	109	119.0	11.9	118	115.0	12.3	123	111.0	12.7	127	103.0	13.4	136
	35	141.0	11.7	112	132.0	12.5	120	128.0	12.9	125	123.0	13.3	129	115.0	14.2	138
	40	156.0	12.2	114	146.0	13.2	123	141.0	13.6	127	136.0	14.1	132	127.0	15.0	140
	45	172.0	12.7	117	161.0	13.8	125	156.0	14.3	130	150.0	14.8	134	139.0	15.8	142
	50	188.0	13.3	120	177.0	14.5	128	171.0	15.1	133	166.0	15.6	137	157.0	16.5	144

Performance Data: 38AE020

Model	SST (°F)	Air Temperature Entering Condenser (°F)														
		80			90			95			100			110		
		TC	KW	CDT	TC	KW	CDT	TC	KW	CDT	TC	KW	CDT	TC	KW	CDT
38AE020	30	164.0	14.1	109	152.0	14.9	117	145.0	15.2	122	139.0	15.5	126	125.0	16.2	135
	35	182.0	14.8	111	169.0	15.7	120	162.0	16.1	124	156.0	16.4	128	142.0	17.3	137
	40	202.0	15.5	114	188.0	16.5	122	181.0	17.0	126	173.0	17.5	131	159.0	18.6	139
	45	223.0	16.2	116	208.0	17.3	125	201.0	17.9	129	193.0	18.4	133	176.0	19.9	141
	50	245.0	16.9	119	230.0	18.2	127	222.0	18.9	132	214.0	19.5	136	202.0	20.5	143

Performance Data: 38AE025

Model	SST (F)	Air Temperature Entering Condenser (°F)														
		80			90			95			100			110		
		TC	KW	CDT	TC	KW	CDT	TC	KW	CDT	TC	KW	CDT	TC	KW	CDT
38AE025	30	229.0	18.5	105	213.0	19.7	114	204.0	20.2	118	196.0	20.7	123	180.0	21.8	132
	35	255.0	19.4	107	237.0	20.7	116	228.0	21.4	121	219.0	21.9	125	201.0	23.2	134
	40	282.0	20.3	110	263.0	21.8	118	254.0	22.5	123	244.0	23.2	127	224.0	24.6	136
	45	314.0	21.2	112	292.0	22.9	121	281.0	23.6	125	271.0	24.4	129	249.0	26.1	138
	50	344.0	22.1	114	322.0	23.9	123	311.0	24.7	127	300.0	25.5	132	274.0	27.6	140

Performance Data: 38AE030

Model	SST (F)	Air Temperature Entering Condenser (°F)														
		80			90			95			100			110		
		TC	KW	CDT	TC	KW	CDT	TC	KW	CDT	TC	KW	CDT	TC	KW	CDT
38AE030	30	260.0	20.3	101	242.0	21.8	110	234.0	22.4	115	225.0	23.0	119	208.0	23.9	128
	35	288.0	21.2	103	270.0	22.8	112	261.0	23.4	116	251.0	24.1	121	233.0	25.3	130
	40	319.0	22.0	104	300.0	23.7	113	289.0	24.5	118	280.0	25.3	123	260.0	26.7	132
	45	352.0	22.7	106	331.0	24.7	115	321.0	25.6	120	310.0	26.4	124	289.0	28.1	133
	50	387.0	23.5	108	365.0	25.6	117	354.0	26.6	122	343.0	27.5	126	320.0	29.5	135

Performance Data: 38AE040

Model	SST (F)	Air Temperature Entering Condenser (°F)														
		80			90			95			100			110		
		TC	KW	CDT	TC	KW	CDT	TC	KW	CDT	TC	KW	CDT	TC	KW	CDT
38AE040	30	329.0	29.4	106	308.0	30.9	115	298.0	31.7	120	289.0	32.3	124	267.0	33.6	133
	35	364.0	30.9	108	341.0	32.6	117	330.0	33.4	122	319.0	34.2	126	297.0	35.8	135
	40	401.0	32.5	111	377.0	34.4	120	365.0	35.2	124	353.0	36.1	128	326.0	38.3	139
	45	441.0	34.0	113	416.0	36.1	122	403.0	37.1	126	390.0	38.2	131	363.0	40.4	140
	50	484.0	35.6	116	457.0	37.9	124	443.0	39.1	129	429.0	40.3	133	408.0	42.0	143

Performance Data: 38AE050

Model	SST (F)	Air Temperature Entering Condenser (°F)														
		80			90			95			100			110		
		TC	KW	CDT	TC	KW	CDT	TC	KW	CDT	TC	KW	CDT	TC	KW	CDT
38AE050	30	448.6	37.7	108	416.5	39.9	116	399.6	41.0	121	384.0	41.9	125	359.0	43.5	132
	35	498.4	39.8	110	463.5	42.2	119	445.7	43.4	123	428.6	44.5	127	405.9	46.1	133
	40	552.2	41.6	112	514.2	44.5	121	495.3	45.8	125	476.4	47.1	130	437.8	50.0	138
	45	610.9	43.7	115	568.7	46.8	124	548.2	48.3	128	527.6	49.8	132	496.2	52.1	139
	50	670.4	45.7	118	626.9	49.0	126	604.6	50.6	131	582.2	52.4	135	549.5	54.9	142

Performance Data: 38AE060

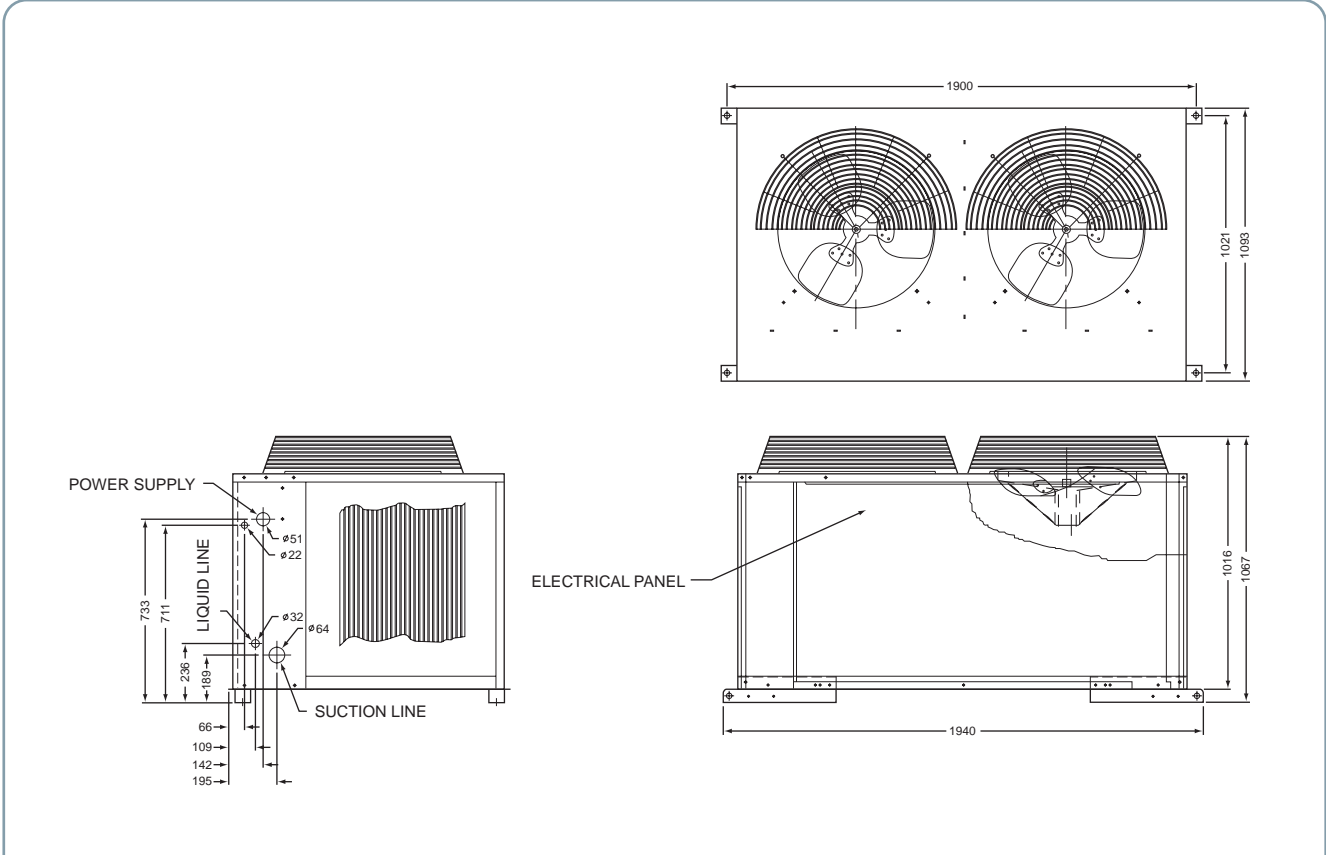
Model	SST (F)	Air Temperature Entering Condenser (°F)														
		80			90			95			100			110		
		TC	KW	CDT	TC	KW	CDT	TC	KW	CDT	TC	KW	CDT	TC	KW	CDT
38AE060	30	494.8	42.8	107	461.6	45.2	116	443.9	46.4	121	427.1	47.2	125	393.1	49.2	134
	35	548.2	44.9	110	512.6	47.5	118	494.1	48.8	123	476.1	49.9	127	439.9	52.5	136
	40	605.1	46.9	112	566.6	50.0	121	547.5	51.4	125	528.4	52.7	130	490.0	55.8	138
	45	666.0	49.0	115	625.6	52.4	123	604.9	53.9	128	584.4	55.6	132	553.8	58.0	139
	50	730.4	51.1	117	687.5	54.8	126	665.6	56.7	130	644.1	58.7	135	611.7	61.5	142

- : OUT OF RANGE
 TC : TOTAL COOLING CAPACITY (1,000 BTU/Hr)
 KW : COMPRESSOR INPUT (KW)
 CDT: SATURATED DISCHARGE TEMPERATURE AT COMPRESSOR (°F)
 SST: SATURATED SUCTION TEMPERATURE (°F)

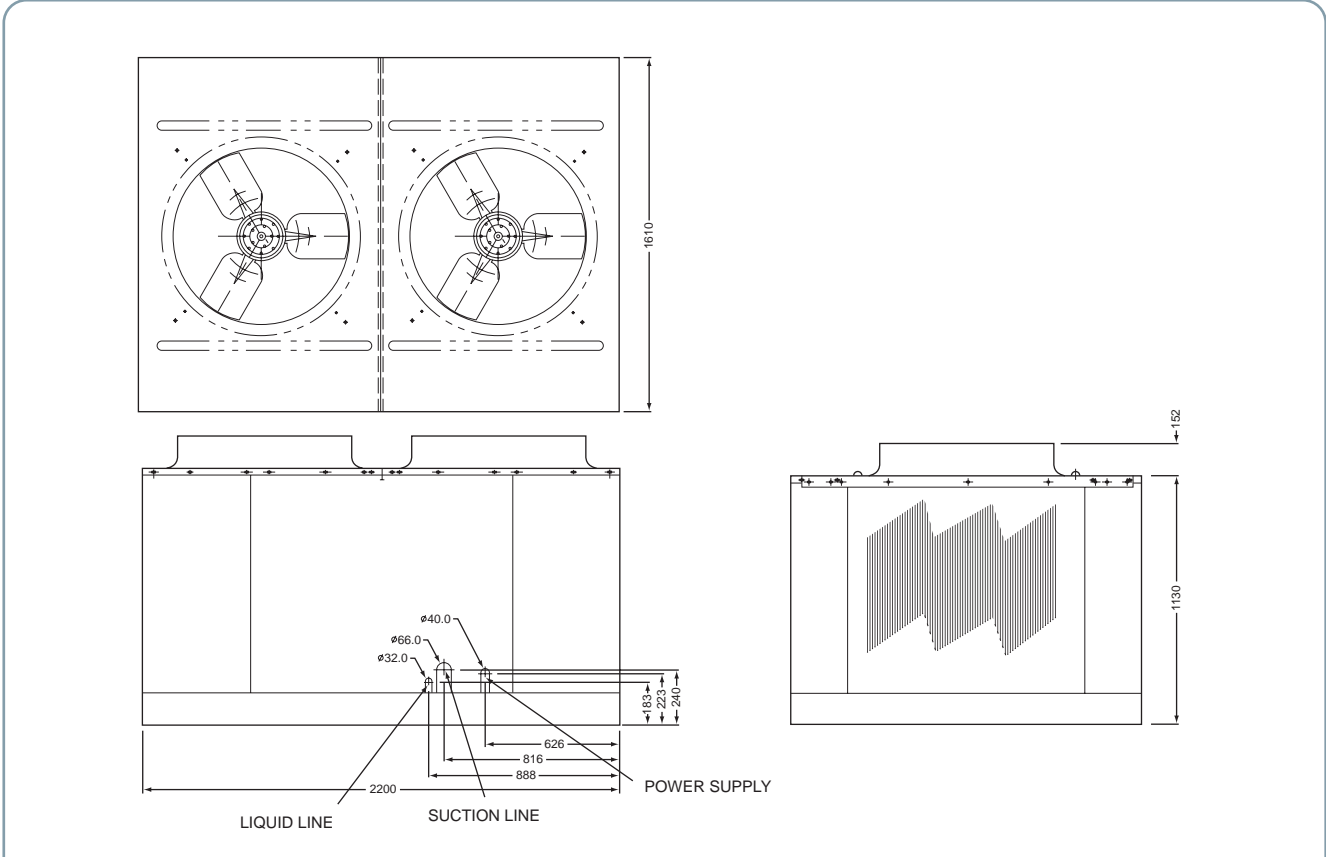
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**** ASSUME 10°F SUPERHEAT AND 15°F SUBCOOLING ****

Unit dimensions



Model : 38AE010-015



Model : 38AE020-040

