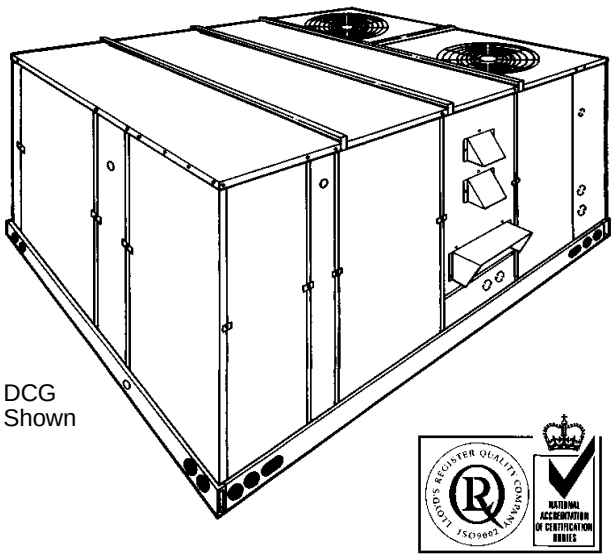

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SINGLE PACKAGE GAS / ELECTRIC UNITS AND SINGLE PACKAGE AIR CONDITIONERS

D3CE / D3CG 180 & 240
(WORLD 50 HZ)

SUNLINE 2000™

DESCRIPTION

Sunline 2000 units are highly efficient, convertible rooftops. All models have dual refrigerant circuits for efficient part load operation. Although the units are primarily designed for curb mounting on a roof, they can also be slab-mounted at ground level or set on steel beams above a finished roof.

These units are designed and manufactured under ISO 9002 Quality System Certification.

Cooling only, cooling with gas heat and cooling with supplemental electric heat units are available with a wide variety of field-installed accessories to make them suitable for almost every application.

All units are self-contained and assembled on full perimeter base rails. The base rails have holes in the four corners for overhead rigging.

Every unit is completely piped, wired, charged and tested at the factory to simplify the field installation and to provide years of dependable operation. Powder paint cabinets provide an exceptionally durable finish with the 750 hour salt spray process per ASTM-B117 test standard.

All models are available with three different outdoor air damper accessosries:

- Single enthalpy economizer
- Differential enthalpy economizer
- Motorized outdoor air intake damper

All models (including those with an economizer) are suitable for either downflow or sideflow duct connections. For downflow duct, remove the sheet metal panels from the supply and return air openings through the base of the unit. For sideflow duct, replace the supply and return air panels on the rear of the unit with a side duct flange accessory.

A fixed outdoor air intake assembly is shipped in the return air compartment of all units. The assembly includes a rain hood with a damper that can be set for 10, 15 or 25% outdoor air. With bottom duct connections, the intake damper assembly should be mounted over the opening in the return air panel. With horizontal ductwork, it should be mounted on the return air duct.

All supply air blowers are equipped with a belt drive that can be adjusted to meet the exact requirements of the job.

All compressors include crankcase heat and internal pressure relief. Every refrigerant circuit includes an expansion valve, a liquid line filter-drier, a discharge line high pressure switch and a suction line with a freezestat and low pressure switch. The unit control circuit includes a 75 VA transformer, a 24-volt circuit breaker and a relay board with two compressor lockout circuits, a terminal strip for thermostat wiring, plus an additional set of pin connectors to simplify the interface of additional field controls.

All gas heat models are built with two heating sections for two equal stages of capacity control. Each section includes a durable heat exchanger with aluminized steel tubes, a redundant gas valve, spark ignition, power venting, an ignition module for 100% shut-off and all of the safety controls required to meet the latest ANSI standards.

The gas supply piping can be routed into the heating compartment through a hole in the base pan of the unit or through a knockout in the piping panel on the front of the unit.

All electric heat models are wired for a single power source and include a bank of nickel chromium elements mounted at the discharge of the supply air blower to provide a high velocity and uniform distribution of air across the heating elements. Every element is fully protected against excessive current and temperature by fuses and two thermal limit switches.

The power supply wiring can be routed into the control box through a threaded pipe connection in the base pan of the unit or through a knockout in the wiring panel on the front of the unit.

FIELD-INSTALLED ACCESSORIES

SINGLE INPUT ELECTRONIC ENTHALPY ECONOMIZERS Includes a slide-in / plug-in damper assembly with fully modulating spring-return motor actuator capable of introducing up to 100% outdoor air with nominal 1% leakage type dampers.

The enthalpy system contains one sensor that monitors the outdoor air and determines when the air is cool enough and dry enough to provide “free” cooling.

The rain hood is painted to match the basic unit and must be field-assembled before installing.

On units built prior to January 1995 an accessory field harness must be installed.

Power exhaust is not available as a field installed option.

DUAL INPUT ELECTRONIC ENTHALPY ECONOMIZERS Includes a slide-in / plug-in damper assembly with fully modulating spring-return motor actuator capable of introducing up to 100% outdoor air with nominal 1% leakage type dampers.

This enthalpy system contains one sensor that monitors the outdoor air and one sensor that monitors the return air. The logic module compares the two values and modulates the dampers, providing the maximum efficiency of the economizer system.

The rain hood is painted to match the basic unit and must be field-assembled before installing.

On units built prior to January 1995 an accessory field harness must be installed.

Power exhaust is not available as a field installed option.

MOTORIZED OUTDOOR AIR INTAKE DAMPER - Includes a slide-in / plug-in damper with a 2-position, spring-return motor actuator which opens to a pre-set position whenever the supply air blower is operating and drives fully closed when the blower shuts down.

On units built prior to January 1995 an accessory field harness must be installled.

Power exhaust is not available as a field installed option.

BAROMETRIC RELIEF DAMPER - This damper accessory can be used to relieve internal air pressure on units with an economizer. This accessory includes a rain hood, a bird screen and a fully assembled damper. With bottom duct connections, the damper should be mounted over the opening in the return air panel. With horizontal ductwork, the accessory should be mounted on the return air duct.

ROOF CURBS - Roof curbs, 356mm (14 in.) high, provide a water-tight seal between the unit and the finished roof. These full perimeter curbs meet the requirements of the National Roofing Contractors Association (NRCA) and are shipped knocked-down for field assembly. They’re designed to fit inside the base rails of the unit and include both a wood nailing strip and duct hanger supports.

SIDE DUCT FLANGES - Twenty-five millimeter (1 in.) flanges replace the supply and return air panels on the rear of the unit to accommodate horizontal duct connections. These flanges can also be used individually for bottom supply/horizontal return or horizontal supply/bottom return.

HIGH SPEED DRIVE - A smaller blower pulley, a larger motor pulley (including a replacement belt) increase the speed of the supply air blower for applications with a higher airflow and/or static pressure requirement.

ANTI-RECYCLE TIMERS - Two solid state timers prevent the compressors from short-cycling. Once a compressor is de-energized, it remains de-energized for approximately five minutes.

LOW AMBIENT CONTROLS TO 18°C (0°F) - An autotransformer and a thermostat maintain stable system operation by reducing the speed of the #1 condenser fan motor at low oudoor temperatures. The kit also includes a 1-phase motor to replace the unit’s standard 3-phase condenser fan motor. Standard units can operate down to 4 °C (25 °F).

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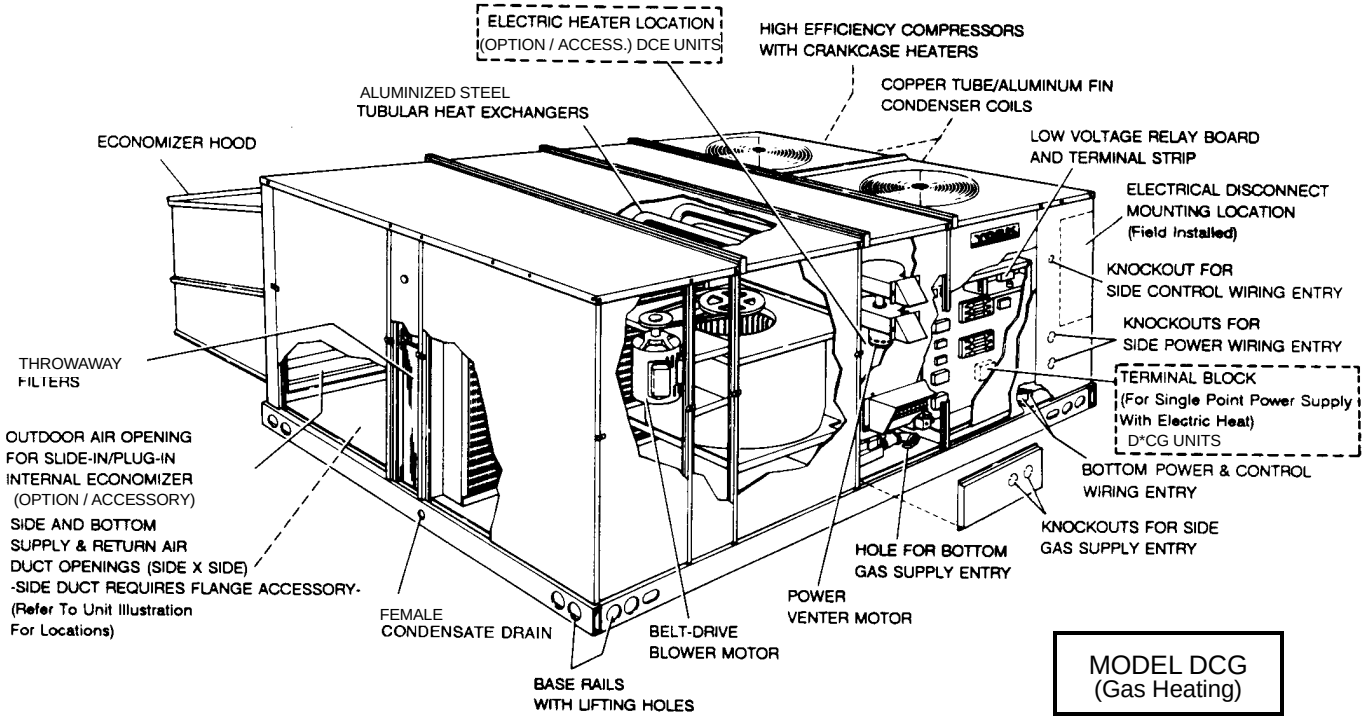
YORK® SUNLINE 2000™



RATINGS

CAPACITY RATINGS - Cooling / Electric Heating

Model	Rating[1] Point	Total Output, Mbh / kW	Total Input, kW	COP[2]	EER[3]	Sensible Output, Mbh / kW	Latent Output, Mbh / kW	Electric Heat4 Nominal Capacity, kW
D3CE180	T1	159 / 46.6	18.2	2.60	8.80	132 / 38.7	26.9 / 7.9	18, 36, 54, 72
	T2	142 / 41.7	20.0	2.10	7.15	141 / 41.2	1.6 / 0.5	
	T3	152 / 44.6	16.4	2.75	9.40	119 / 34.9	33.2 / 9.7	
D3CE240	T1	210 / 61.5	24.8	2.50	8.50	176 / 51.5	34.0 / 10.0	18, 36, 54, 72
	T2	182 / 53.3	27.1	2.00	6.75	182 / 53.3	0.0 / 0.0	
	T3	196 / 57.5	22.2	2.60	8.80	152 / 44.6	42.6 / 12.5	

[1]T1 = Moderate Climates, T2 = Hot Climates, T3 = Cool Climates.

[2]COP = Coefficient of Performance - total output kW divided by the total input kW.

[3]EER = Energy Efficiency Ratio - total output Mbh divided by the total input kW.

[4]Heaters available as factory-installed options or field-installed accessories - all with single point power supply.

CAPACITY RATINGS - Gas Heating

Model	Cooling Capacity, Mbh / kW	Gas Heat Capacity				
		Input (Net) Mbh / kW	Output Mbh / kW	Gas Rate* cfh / m^3/h	Temp. Rise (°F / °C) At Full Input	
					Min.	Max.
D3CG180N320	180 / 52.7	291 / 85.2	258 / 75.6	302 / 8.5	30 / 17	60 / 33
D3CG240N320	240 / 70.3					

NOTE: Gas Heaters are shipped available for natural gas, but can be converted to L.P. / propane gas with a field-installed conversion accessory. All gas units are two-stage heating. First stage is 50% of total.

*Based on net input and 2nd. -H family, G20 (methane) net fuel value (9.97 kWh/m^3).

COOLING CAPACITIES (m^3/s Air Flow) - 180 UNITS

Air On Evaporator Coil		Total Cap.[1] kW	Power Input[2] kW	Sensible Capacity[1], kW Entering Dry Bulb Temp., °C					
m^3/s	WB °C			32	30	28	26	24	22
@27°C Air Temperature on Condenser Coil									
	23	66.4	14.7	51	44	37	30	23	-
	21	62.3	14.4	59	52	44	37	30	23
3.40	19	58.2	14.0	58	58	52	45	38	31
	17	56.7	14.0	57	57	56	49	41	34
	15	55.2	13.9	55	55	55	52	45	37
	23	61.5	14.5	46	40	34	27	21	-
	21	57.7	14.2	53	46	40	34	28	22
2.80	19	53.9	13.9	54	53	47	41	35	28
	17	52.5	13.8	52	52	51	44	38	32
	15	51.1	13.7	51	51	51	48	42	35
	23	57.1	14.3	37	32	28	23	19	-
	21	53.6	14.0	43	38	33	29	24	19
2.10	19	50.1	13.6	48	44	39	34	30	25
	17	48.7	13.6	49	47	42	37	33	28
	15	47.4	13.5	47	47	45	40	36	31
@35°C Air Temperature on Condenser Coil									
	23	60.7	15.9	50	43	36	29	22	-
	21	57.2	15.5	57	50	43	36	29	22
3.40	19	53.7	15.2	54	54	51	43	36	29
	17	52.3	15.1	52	52	52	47	40	32
	15	51.0	15.0	51	51	51	47	40	33
	23	56.3	15.9	44	38	32	25	19	-
	21	53.1	15.6	51	44	38	32	26	20
2.80	19	49.8	15.2	50	50	45	39	32	26
	17	48.6	15.1	49	49	48	41	35	29
	15	47.3	15.0	47	47	47	44	38	32
	23	51.9	15.6	36	31	27	22	17	-
	21	48.9	15.3	41	37	32	27	23	18
2.10	19	45.9	14.9	46	42	38	33	28	24
	17	44.7	14.8	45	45	40	35	31	26
	15	43.6	14.7	44	44	43	38	33	29
@46°C Air Temperature on Condenser Coil									
	23	49.6	18.2	46	39	32	25	18	-
	21	47.3	17.6	47	46	39	32	25	18
3.40	19	45.0	17.1	45	45	45	39	32	25
	17	43.6	17.1	44	44	44	40	33	26
	15	42.1	17.1	42	42	42	39	31	24
	23	49.4	17.8	41	35	29	23	17	-
	21	47.2	17.2	47	42	36	29	23	17
2.80	19	44.9	16.6	45	45	42	36	30	24
	17	43.4	16.6	43	43	43	37	31	25
	15	42.0	16.6	42	42	42	39	33	27
	23	46.5	17.5	33	29	24	19	15	-
	21	44.4	17.0	39	34	30	25	20	16
2.10	19	42.3	16.4	42	40	35	31	26	21
	17	40.9	16.4	41	41	36	32	27	22
	15	39.5	16.4	40	40	38	33	28	24

[1]These capacities are gross ratings. For net capacity, deduct the heat of the supply air blower motor. Refer to the appropriate Blower Performance Table for the kW of the supply air blower motor.

[2]These ratings include the condenser fan motors (Total 2.3 kW) and the compressor motors but not the supply air blower motor.

COOLING CAPACITIES (CFM Air Flow) - 180 UNITS

Air On Evaporator Coil		Total Cap.[1] MBH	Power Input[2] kW	Sensible Capacity[1], MBH Entering Dry Bulb Temp., °F					
CFM	WB °F			90	86	82	79	75	72
@80°F Air Temperature on Condenser Coil1									
	73	227	14.7	175	151	126	102	78	-
	70	213	14.4	200	176	152	127	103	79
7200	66	199	14.0	199	199	177	153	128	104
	63	193	14.0	193	193	190	166	142	117
	59	188	13.9	188	188	188	176	152	128
	73	210	14.5	157	136	115	93	72	-
	70	197	14.2	180	159	138	116	95	74
5930	66	184	13.9	184	182	160	139	118	97
	63	179	13.8	179	179	172	151	130	109
	59	174	13.7	174	174	174	163	142	121
	73	195	14.3	127	111	95	79	63	-
	70	183	14.0	146	130	114	98	82	66
4450	66	171	13.6	165	149	133	117	101	86
	63	166	13.6	166	159	143	127	111	96
	59	162	13.5	162	162	153	137	121	105
@95°F Air Temperature on Condenser Coil									
	73	207	15.9	170	146	122	98	74	-
	70	195	15.5	195	171	147	123	99	75
7200	66	183	15.2	183	183	172	148	124	100
	63	179	15.1	179	179	179	159	135	111
	59	174	15.0	174	174	174	162	138	113
	73	192	15.9	150	129	108	87	66	-
	70	181	15.6	172	151	130	109	88	67
5930	66	170	15.2	170	170	153	132	110	89
	63	166	15.1	166	166	162	141	120	99
	59	161	15.0	161	161	161	151	130	109
	73	177	15.6	123	107	91	75	59	-
	70	167	15.3	142	126	110	94	78	62
4450	66	157	14.9	157	145	129	113	97	81
	63	153	14.8	153	153	137	121	105	89
	59	149	14.7	149	149	145	129	113	97
@115°F Air Temperature on Condenser Coil									
	73	169	18.2	157	133	109	85	61	-
	70	161	17.6	161	158	134	110	85	61
7200	66	154	17.1	154	154	154	135	110	86
	63	149	17.1	149	149	149	137	112	88
	59	144	17.1	144	144	144	132	107	83
	73	169	17.8	141	120	99	78	57	-
	70	161	17.2	161	142	121	100	79	58
5930	66	153	16.6	153	153	144	123	102	81
	63	148	16.6	148	148	148	128	107	86
	59	143	16.6	143	143	143	133	112	90
	73	159	17.5	114	98	82	66	50	-
	70	151	17.0	133	117	101	85	69	53
4450	66	144	16.4	144	136	120	104	88	72
	63	139	16.4	139	139	124	108	92	76
	59	135	16.4	135	135	128	112	96	80

[1]These capacities are gross ratings. For net capacity, deduct the heat of the supply air blower motor. Refer to the appropriate Blower Performance Table for the kW of the supply air blower motor.

[2]These ratings include the condenser fan motors (Total 2.3 kW) and the compressor motors but not the supply air blower motor.

COOLING CAPACITIES (m^3/s Air Flow) - 240 UNITS

Air On Evaporator Coil		Total Cap.[1] kW	Power Input[2] kW	Sensible Capacity[1], kW Entering Dry Bulb Temp., °C					
m^3/s	WB °C			32	30	28	26	24	22
@27°C Air Temperature on Condenser Coil									
	23	80.4	19.0	74	65	55	46	37	-
	21	77.6	18.8	78	70	61	52	43	33
4.40	19	74.8	18.6	75	75	67	57	48	39
	17	72.4	18.4	72	72	71	62	53	44
	15	70.0	18.1	70	70	70	65	56	47
	23	76.9	18.8	68	60	52	44	36	-
	21	74.3	18.6	73	65	57	49	41	33
3.80	19	71.6	18.4	72	70	62	54	46	38
	17	69.3	18.2	69	69	67	59	51	43
	15	67.0	17.9	67	67	67	63	55	47
	23	71.2	18.5	56	50	44	37	31	-
	21	68.7	18.3	60	54	48	42	36	30
2.80	19	66.3	18.1	65	59	52	46	40	34
	17	64.1	17.9	64	62	56	50	44	38
	15	62.0	17.6	62	62	60	54	47	41
@35°C Air Temperature on Condenser Coil									
	23	74.9	21.0	71	61	52	43	34	-
	21	72.3	20.7	72	68	58	49	40	31
4.40	19	69.8	20.4	70	70	65	55	46	37
	17	67.4	20.1	67	67	67	58	49	40
	15	65.0	19.9	65	65	65	60	51	42
	23	71.3	20.7	65	57	49	41	33	-
	21	68.9	20.5	69	62	54	46	38	30
3.80	19	66.4	20.2	66	66	60	52	44	36
	17	64.2	19.9	64	64	63	55	47	39
	15	61.9	19.7	62	62	62	58	50	42
	23	65.4	20.4	52	46	40	34	28	-
	21	63.1	20.1	57	51	45	39	33	27
2.80	19	60.9	19.8	61	56	50	44	38	31
	17	58.8	19.6	59	58	52	46	40	34
	15	56.7	19.3	57	57	54	48	42	36
@46°C Air Temperature on Condenser Coil									
	23	66.4	23.4	65	56	47	38	29	-
	21	63.3	22.9	63	62	53	44	35	26
4.40	19	60.2	22.3	60	60	60	51	41	32
	17	59.0	22.3	59	59	59	53	43	34
	15	57.8	22.2	58	58	58	53	44	35
	23	63.8	23.3	60	52	44	36	28	-
	21	60.8	22.7	61	58	50	42	34	26
3.80	19	57.8	22.2	58	58	56	48	40	32
	17	56.7	22.1	57	57	57	50	42	34
	15	55.5	22.1	56	56	56	52	44	35
	23	59.4	23.1	49	42	36	30	24	-
	21	56.6	22.5	54	47	41	35	29	23
2.80	19	53.8	22.0	54	53	46	40	34	28
	17	52.8	21.9	53	53	48	42	36	30
	15	51.7	21.9	52	52	49	43	37	31

[1]These capacities are gross ratings. For net capacity, deduct the heat of the supply air blower motor. Refer to the appropriate Blower Performance Table for the kW of the supply air blower motor.

[2]These ratings include the condenser fan motors (Total 2.3 kW) and the compressor motors but not the supply air blower motor.

COOLING CAPACITIES (CFM Air Flow) - 240 UNITS

Air On Evaporator Coil		Total Cap.[1] MBH	Power Input[2] kW	Sensible Capacity[1], MBH Entering Dry Bulb Temp., °F					
CFM	WB °F			90	86	82	79	75	72
@80°F Air Temperature on Condenser Coil									
	73	274	19.0	252	221	189	158	127	-
	70	265	18.8	265	240	208	177	146	114
9320	66	255	18.6	255	255	227	196	164	133
	63	247	18.4	247	247	243	211	180	149
	59	239	18.1	239	239	239	223	192	161
	73	263	18.8	232	205	177	150	123	-
	70	253	18.6	250	222	195	168	141	113
8050	66	244	18.4	244	240	213	186	158	131
	63	236	18.2	236	236	228	200	173	146
	59	229	17.9	229	229	229	215	188	160
	73	243	18.5	191	170	149	128	107	-
	70	234	18.3	206	185	164	143	122	101
5930	66	226	18.1	221	200	179	158	137	116
	63	219	17.9	219	212	191	170	149	128
	59	212	17.6	212	212	204	183	162	141
@95°F Air Temperature on Condenser Coil									
	73	256	21.0	241	209	178	147	115	-
	70	247	20.7	247	230	199	168	136	105
9320	66	238	20.4	238	238	220	189	157	126
	63	230	20.1	230	230	230	199	168	136
	59	222	19.9	222	222	222	206	175	143
	73	243	20.7	221	193	166	139	111	-
	70	235	20.5	235	213	186	158	131	104
8050	66	227	20.2	227	227	206	178	151	124
	63	219	19.9	219	219	215	188	161	133
	59	211	19.7	211	211	211	197	170	143
	73	223	20.4	179	158	137	116	95	-
	70	215	20.1	195	174	153	133	112	91
5930	66	208	19.8	208	191	170	149	128	107
	63	201	19.6	201	199	178	157	136	115
	59	193	19.3	193	193	186	165	144	123
@115°F Air Temperature on Condenser Coil									
	73	226	23.4	223	191	160	129	97	-
	70	216	22.9	216	213	182	151	119	88
9320	66	205	22.3	205	205	204	172	141	110
	63	201	22.3	201	201	201	179	148	117
	59	197	22.2	197	197	197	182	150	119
	73	218	23.3	204	177	149	122	95	-
	70	207	22.7	207	197	170	142	115	88
8050	66	197	22.2	197	197	190	163	136	108
	63	193	22.1	193	193	193	169	142	115
	59	189	22.1	189	189	189	176	148	121
	73	203	23.1	166	145	124	103	82	-
	70	193	22.5	183	162	141	120	99	78
5930	66	184	22.0	184	179	158	137	116	95
	63	180	21.9	180	180	164	143	122	101
	59	176	21.9	176	176	169	148	127	106

[1]These capacities are gross ratings. For net capacity, deduct the heat of the supply air blower motor. Refer to the appropriate Blower Performance Table for the kW of the supply air blower motor.

[2]These ratings include the condenser fan motors (Total 2.3 kW) and the compressor motors but not the supply air blower motor.

BLOWER PERFORMANCE (D*CE180 UNIT SUPPLY AIR) - w/DOWNFLOW DUCT APPLICATIONS

STANDARD DRIVE (m^3/s)

BLOWER SPEED, RPM	MOTOR PULLEY (TURNS OPEN)*	AIRFLOW														
		2.10 m^3/s			2.45 m^3/s			2.80 m^3/s			3.10 m^3/s			3.40 m^3/s		
		ESP (Pa)	Output (kW)	Input (kW)	ESP (Pa)	Output (kW)	Input (kW)	ESP (Pa)	Output (kW)	Input (kW)	ESP (Pa)	Output (kW)	Input (kW)	ESP (Pa)	Output (kW)	Input (kW)
845	6.0	173	1.8	2.2	138	2.2	2.6	83	2.6	3.1	18	3.0	3.5	-	-	-
885	5.0	208	1.9	2.3	172	2.3	2.8	115	2.7	3.3	49	3.1	3.7	-	-	-
925	4.0	245	2.0	2.4	208	2.4	2.9	149	2.9	3.4	82	3.3	3.9	-	-	-
960	3.0	281	2.1	2.6	242	2.6	3.1	182	3.0	3.6	114	3.4	4.1	30	3.8	4.6
1000	2.0	323	2.3	2.7	283	2.7	3.2	222	3.2	3.8	152	3.6	4.3	67	4.0	4.8
1040	1.0	369	2.4	2.9	327	2.9	3.4	264	3.3	4.0	193	3.8	4.5	107	4.2	5.1

HIGH SPEED DRIVE (m^3/s)

BLOWER SPEED, RPM	MOTOR PULLEY (TURNS OPEN)*	AIRFLOW														
		2.10 m^3/s			2.45 m^3/s			2.80 m^3/s			3.10 m^3/s			3.40 m^3/s		
		ESP (Pa)	Output (kW)	Input (kW)	ESP (Pa)	Output (kW)	Input (kW)	ESP (Pa)	Output (kW)	Input (kW)	ESP (Pa)	Output (kW)	Input (kW)	ESP (Pa)	Output (kW)	Input (kW)
1030	6.0	357	2.4	2.8	316	2.8	3.4	253	3.3	3.9	183	3.7	4.5	97	4.2	5.0
1070	5.0	405	2.5	3.0	362	3.0	3.6	298	3.5	4.2	226	3.9	4.7	-	-	-
1115	4.0	461	2.7	3.2	416	3.2	3.8	351	3.7	4.4	278	4.2	5.0	-	-	-
1155	3.0	514	2.9	3.4	468	3.4	4.0	401	3.9	4.7	-	-	-	-	-	-
1200	2.0	577	3.1	3.7	529	3.6	4.3	461	4.1	5.0	-	-	-	-	-	-
1240	1.0	636	3.3	3.9	587	3.8	4.5	-	-	-	-	-	-	-	-	-

STANDARD DRIVE (CFM)

BLOWER SPEED, RPM	MOTOR PULLEY (TURNS OPEN)*	AIRFLOW														
		4450 CFM			5190 CFM			5930 CFM			6565 CFM			7200 CFM		
		ESP (iwg)	Output (bhp)	Input (kW)	ESP (iwg)	Output (bhp)	Input (kW)	ESP (iwg)	Output (bhp)	Input (kW)	ESP (iwg)	Output (bhp)	Input (kW)	ESP (iwg)	Output (bhp)	Input (kW)
845	6.0	0.7	2.4	2.2	0.6	2.9	2.6	0.3	3.5	3.1	0.1	4.0	3.5	-	-	-
885	5.0	0.8	2.6	2.3	0.7	3.1	2.8	0.5	3.7	3.3	0.2	4.2	3.7	-	-	-
925	4.0	1.0	2.7	2.4	0.8	3.3	2.9	0.6	3.8	3.4	0.3	4.4	3.9	-	-	-
960	3.0	1.1	2.9	2.6	1.0	3.4	3.1	0.7	4.0	3.6	0.5	4.6	4.1	0.1	5.2	4.6
1000	2.0	1.3	3.0	2.7	1.1	3.6	3.2	0.9	4.2	3.8	0.6	4.8	4.3	0.3	5.4	4.8
1040	1.0	1.5	3.2	2.9	1.3	3.8	3.4	1.1	4.5	4.0	0.8	5.1	4.5	0.4	5.7	5.1

HIGH SPEED DRIVE (CFM)

BLOWER SPEED, RPM	MOTOR PULLEY (TURNS OPEN)*	AIRFLOW														
		4450 CFM			5190 CFM			5930 CFM			6565 CFM			7200 CFM		
		ESP (iwg)	Output (bhp)	Input (kW)	ESP (iwg)	Output (bhp)	Input (kW)	ESP (iwg)	Output (bhp)	Input (kW)	ESP (iwg)	Output (bhp)	Input (kW)	ESP (iwg)	Output (bhp)	Input (kW)
1030	6.0	1.4	3.2	2.8	1.3	3.8	3.4	1.0	4.4	3.9	0.7	5.0	4.5	0.4	5.6	5.0
1070	5.0	1.6	3.4	3.0	1.5	4..0	3.6	1.2	4.7	4.2	0.9	5.3	4.7	-	-	-
1115	4.0	1.9	3.6	3.2	1.7	4.3	3.8	1.4	5.0	4.4	1.1	5.6	5.0	-	-	-
1155	3.0	2.1	3.9	3.4	1.9	4.5	4.0	1.6	5.2	4.7	-	-	-	-	-	-
1200	2.0	2.3	4.1	3.7	2.1	4.8	4.3	1.8	5.5	5.0	-	-	-	-	-	-
1240	1.0	2.6	4.4	3.9	2.4	5.1	4.5	-	-	-	-	-	-	-	-	-

NOTES: 1. Blower performance values include fixed outdoor air, a dry indoor coil, the standard unit filters and no electric heat.
2. Refer to Page 12 for the resistance values for all other unit options or applications.
ESP = External Static Pressure available for the supply and return air duct system. All internal unit resistances have been deducted from the total static pressure of the blower.
*Do NOT close pulley below minimum turns open.

BLOWER PERFORMANCE (D*CE240 UNIT SUPPLY AIR) - w/DOWNFLOW DUCT APPLICATIONS

STANDARD DRIVE (m^3/s)

BLOWER SPEED, RPM	MOTOR PULLEY (TURNS OPEN)*	AIRFLOW														
		2.80 m^3/s			3.30 m^3/s			3.80 m^3/s			4.10 m^3/s			4.40 m^3/s		
		ESP (Pa)	Output (kW)	Input (kW)	ESP (Pa)	Output (kW)	Input (kW)	ESP (Pa)	Output (kW)	Input (kW)	ESP (Pa)	Output (kW)	Input (kW)	ESP (Pa)	Output (kW)	Input (kW)
765	6.0	137	2.9	3.3	93	2.9	3.3	23	3.2	3.7	-	-	-	-	-	-
795	5.0	176	3.0	3.4	132	3.1	3.5	62	3.4	3.9	-	-	-	-	-	-
820	4.0	209	3.1	3.6	165	3.2	3.7	95	3.6	4.1	40	4.0	4.5	-	-	-
850	3.0	250	3.3	3.8	206	3.4	3.9	136	3.8	4.4	81	4.2	4.8	16	4.7	5.3
875	2.0	284	3.4	3.9	240	3.6	4.1	170	4.0	4.6	115	4.4	5.0	51	4.9	5.6
905	1.0	327	3.6	4.1	283	3.8	4.3	212	4.3	4.9	157	4.7	5.3	93	5.2	5.9

HIGH SPEED DRIVE (m^3/s)

BLOWER SPEED, RPM	MOTOR PULLEY (TURNS OPEN)*	AIRFLOW														
		2.80 m^3/s			3.30 m^3/s			3.80 m^3/s			4.10 m^3/s			4.40 m^3/s		
		ESP (Pa)	Output (kW)	Input (kW)	ESP (Pa)	Output (kW)	Input (kW)	ESP (Pa)	Output (kW)	Input (kW)	ESP (Pa)	Output (kW)	Input (kW)	ESP (Pa)	Output (kW)	Input (kW)
895	6.0	312	3.5	4.0	268	3.7	4.3	198	4.2	4.8	143	4.6	5.2	79	5.1	5.8
930	5.0	362	3.7	4.3	318	4.0	4.5	248	4.5	5.1	193	4.9	5.6	129	5.4	6.2
970	4.0	421	4.0	4.5	377	4.2	4.9	306	4.8	5.5	252	5.2	6.0	187	5.8	6.6
1005	3.0	473	4.2	4.8	429	4.5	5.1	359	5.1	5.8	304	5.6	6.4	240	6.1	7.0
1045	2.0	535	4.4	5.0	491	4.8	5.5	420	5.4	6.2	365	5.9	6.8	-	-	-
1080	1.0	590	4.6	5.3	546	5.0	5.8	475	5.7	6.5	420	6.2	7.1	-	-	-

STANDARD DRIVE (CFM)

BLOWER SPEED, RPM	MOTOR PULLEY (TURNS OPEN)*	AIRFLOW														
		5930 CFM			6990 CFM			8050 CFM			8685 CFM			9320 CFM		
		ESP (iwg)	Output (bhp)	Input (kW)	ESP (iwg)	Output (bhp)	Input (kW)	ESP (iwg)	Output (bhp)	Input (kW)	ESP (iwg)	Output (bhp)	Input (kW)	ESP (iwg)	Output (bhp)	Input (kW)
765	6.0	0.6	3.8	3.3	0.4	3.9	3.3	0.1	4.3	3.7	-	-	-	-	-	-
795	5.0	0.7	4.0	3.4	0.5	4.1	3.5	0.2	4.6	3.9	-	-	-	-	-	-
820	4.0	0.8	4.2	3.6	0.7	4.4	3.7	0.4	4.8	4.1	0.2	5.3	4.5	-	-	-
850	3.0	1.0	4.4	3.8	0.8	4.6	3.9	0.5	5.1	4.4	0.3	5.6	4.8	0.1	6.2	5.3
875	2.0	1.1	4.6	3.9	1.0	4.8	4.1	0.7	5.4	4.6	0.5	5.9	5.0	0.2	6.6	5.6
905	1.0	1.3	4.8	4.1	1.1	5.1	4.3	0.9	5.7	4.9	0.6	6.3	5.3	0.4	6.9	5.9

HIGH SPEED DRIVE (CFM)

BLOWER SPEED, RPM	MOTOR PULLEY (TURNS OPEN)*	AIRFLOW														
		5930 CFM			6990 CFM			8050 CFM			8685 CFM			9320 CFM		
		ESP (iwg)	Output (bhp)	Input (kW)	ESP (iwg)	Output (bhp)	Input (kW)	ESP (iwg)	Output (bhp)	Input (kW)	ESP (iwg)	Output (bhp)	Input (kW)	ESP (iwg)	Output (bhp)	Input (kW)
895	6.0	1.3	4.7	4.0	1.1	5.0	4.3	0.8	5.6	4.8	0.6	6.1	5.2	0.3	6.8	5.8
930	5.0	1.5	5.0	4.3	1.3	5.3	4.5	1.0	6.0	5.1	0.8	6.6	5.6	0.5	7.2	6.2
970	4.0	1.7	5.3	4.5	1.5	5.7	4.9	1.2	6.4	5.5	1.0	7.0	6.0	0.8	7.8	6.6
1005	3.0	1.9	5.6	4.8	1.7	6.0	5.1	1.4	6.8	5.8	1.2	7.4	6.4	1.0	8.2	7.0
1045	2.0	2.1	5.9	5.0	2.0	6.4	5.5	1.7	7.3	6.2	1.5	7.9	6.8	-	-	-
1080	1.0	2.4	6.2	5.3	2.2	6.8	5.8	1.9	7.7	6.5	1.7	8.4	7.1	-	-	-

NOTES: 1. Blower performance values include fixed outdoor air, a dry indoor coil, the standard unit filters and no electric heat.
2. Refer to Page 12 for the resistance values for all other unit options or applications.
ESP = External Static Pressure available for the supply and return air duct system. All internal unit resistances have been deducted from the total static pressure of the blower.
*Do NOT close pulley below minimum turns open.

BLOWER PERFORMANCE (D*CG180 UNIT SUPPLY AIR) - w/DOWNFLOW DUCT APPLICATIONS

STANDARD DRIVE (m^3/s)

BLOWER SPEED, RPM	MOTOR PULLEY (TURNS OPEN)*	AIRFLOW														
		2.10 m^3/s			2.45 m^3/s			2.80 m^3/s			3.10 m^3/s			3.40 m^3/s		
		ESP (Pa)	Output (kW)	Input (kW)	ESP (Pa)	Output (kW)	Input (kW)	ESP (Pa)	Output (kW)	Input (kW)	ESP (Pa)	Output (kW)	Input (kW)	ESP (Pa)	Output (kW)	Input (kW)
845	6.0	206	1.8	2.2	146	2.0	2.5	80	2.4	2.8	18	2.7	3.2	-	-	-
885	5.0	242	1.9	2.3	183	2.2	2.6	117	2.5	3.0	56	2.9	3.4	-	-	-
925	4.0	278	2.0	2.4	220	2.3	2.7	155	2.7	3.2	94	3.1	3.7	28	3.5	4.2
960	3.0	311	2.1	2.5	253	2.4	2.9	189	2.8	3.4	128	3.2	3.9	63	3.7	4.5
1000	2.0	349	2.2	2.6	292	2.6	3.1	228	3.0	3.6	168	3.5	4.2	103	4.0	4.8
1040	1.0	387	2.3	2.8	331	2.7	3.3	268	3.2	3.9	209	3.7	4.4	144	4.3	5.1

HIGH SPEED DRIVE (m^3/s)

BLOWER SPEED, RPM	MOTOR PULLEY (TURNS OPEN)*	AIRFLOW														
		2.10 m^3/s			2.45 m^3/s			2.80 m^3/s			3.10 m^3/s			3.40 m^3/s		
		ESP (Pa)	Output (kW)	Input (kW)	ESP (Pa)	Output (kW)	Input (kW)	ESP (Pa)	Output (kW)	Input (kW)	ESP (Pa)	Output (kW)	Input (kW)	ESP (Pa)	Output (kW)	Input (kW)
1030	6.0	378	2.3	2.7	321	2.7	3.2	258	3.2	3.8	199	3.6	4.4	134	4.2	5.0
1070	5.0	417	2.4	2.9	361	2.9	3.4	299	3.4	4.1	240	3.9	4.7	-	-	-
1115	4.0	461	2.6	3.1	407	3.1	3.7	345	3.7	4.4	286	4.2	5.0	-	-	-
1155	3.0	502	2.8	3.3	448	3.3	4.0	387	3.9	4.7	-	-	-	-	-	-
1200	2.0	548	3.0	3.6	495	3.6	4.3	435	4.2	5.0	-	-	-	-	-	-
1240	1.0	590	3.2	3.8	538	3.8	4.6	-	-	-	-	-	-	-	-	-

STANDARD DRIVE (CFM)

BLOWER SPEED, RPM	MOTOR PULLEY (TURNS OPEN)*	AIRFLOW														
		4450 CFM			5190 CFM			5930 CFM			6565 CFM			7200 CFM		
		ESP (iwg)	Output (bhp)	Input (kW)	ESP (iwg)	Output (bhp)	Input (kW)	ESP (iwg)	Output (bhp)	Input (kW)	ESP (iwg)	Output (bhp)	Input (kW)	ESP (iwg)	Output (bhp)	Input (kW)
845	6.0	0.8	2.5	2.2	0.6	2.7	2.5	0.3	3.2	2.8	0.1	3.6	3.2	-	-	-
885	5.0	1.0	2.6	2.3	0.7	2.9	2.6	0.5	3.4	3.0	0.2	3.8	3.4	-	-	-
925	4.0	1.1	2.7	2.4	0.9	3.1	2.7	0.6	3.6	3.2	0.4	4.1	3.7	0.1	4.7	4.2
960	3.0	1.2	2.8	2.5	1.0	3.2	2.9	0.8	3.8	3.4	0.5	4.3	3.9	0.3	5.0	4.5
1000	2.0	1.4	2.9	2.6	1.2	3.4	3.1	0.9	4.0	3.6	0.7	4.7	4.2	0.4	5.3	4.8
1040	1.0	1.6	3.1	2.8	1.3	3.7	3.3	1.1	4.3	3.9	0.8	5.0	4.4	0.6	5.7	5.1

HIGH SPEED DRIVE (CFM)

BLOWER SPEED, RPM	MOTOR PULLEY (TURNS OPEN)*	AIRFLOW														
		4450 CFM			5190 CFM			5930 CFM			6565 CFM			7200 CFM		
		ESP (iwg)	Output (bhp)	Input (kW)	ESP (iwg)	Output (bhp)	Input (kW)	ESP (iwg)	Output (bhp)	Input (kW)	ESP (iwg)	Output (bhp)	Input (kW)	ESP (iwg)	Output (bhp)	Input (kW)
1030	6.0	1.5	3.1	2.7	1.3	3.6	3.2	1.0	4.3	3.8	0.8	4.9	4.4	0.5	5.6	5.0
1070	5.0	1.7	3.3	2.9	1.4	3.8	3.4	1.2	4.5	4.1	1.0	5.2	4.7	-	-	-
1115	4.0	1.9	3.5	3.1	1.6	4.1	3.7	1.4	4.9	4.4	1.2	5.6	5.0	-	-	-
1155	3.0	2.0	3.7	3.3	1.8	4.4	4.0	1.6	5.2	4.7	-	-	-	-	-	-
1200	2.0	2.2	4.0	3.6	2.0	4.8	4.3	1.7	5.6	5.0	-	-	-	-	-	-
1240	1.0	2.4	4.3	3.8	2.2	5.1	4.6	-	-	-	-	-	-	-	-	-

NOTES: 1. Blower performance values include fixed outdoor air, a dry indoor coil, the standard unit filters and no electric heat.
2. Refer to Page 12 for the resistance values for all other unit options or applications.
ESP = External Static Pressure available for the supply and return air duct system. All internal unit resistances have been deducted from the total static pressure of the blower.
*Do NOT close pulley below minimum turns open.

BLOWER PERFORMANCE (D*CG240 UNIT SUPPLY AIR) - w/DOWNFLOW DUCT APPLICATIONS

STANDARD DRIVE (m^3/s)

BLOWER SPEED, RPM	MOTOR PULLEY (TURNS OPEN)*	AIRFLOW														
		2.80 m^3/s			3.30 m^3/s			3.80 m^3/s			4.10 m^3/s			4.40 m^3/s		
		ESP (Pa)	Output (kW)	Input (kW)	ESP (Pa)	Output (kW)	Input (kW)	ESP (Pa)	Output (kW)	Input (kW)	ESP (Pa)	Output (kW)	Input (kW)	ESP (Pa)	Output (kW)	Input (kW)
765	6.0	202	2.1	2.4	80	2.7	3.1	-		-	-	-	-	-	-	-
795	5.0	238	2.3	2.6	117	2.9	3.3	-	-	-	-	-	-	-	-	-
820	4.0	268	2.4	2.7	150	3.0	3.4	-	-	-	-	-	-	-	-	-
850	3.0	305	2.5	2.9	189	3.2	3.7	50	3.9	4.5	-	-	-	-	-	-
875	2.0	336	2.7	3.0	222	3.4	3.8	85	4.1	4.7	-	-	-	-	-	-
905	1.0	347	2.8	3.2	262	3.6	4.1	128	4.3	5.0	37	4.8	5.5	-	-	-

HIGH SPEED DRIVE (m^3/s)

BLOWER SPEED, RPM	MOTOR PULLEY (TURNS OPEN)*	AIRFLOW														
		2.80 m^3/s			3.30 m^3/s			3.80 m^3/s			4.10 m^3/s			4.40 m^3/s		
		ESP (Pa)	Output (kW)	Input (kW)	ESP (Pa)	Output (kW)	Input (kW)	ESP (Pa)	Output (kW)	Input (kW)	ESP (Pa)	Output (kW)	Input (kW)	ESP (Pa)	Output (kW)	Input (kW)
895	6.0	361	2.8	3.2	249	3.5	4.0	114	4.3	4.9	22	4.7	5.4	-	-	-
925	5.0	400	2.9	3.4	290	3.7	4.2	157	4.5	5.1	66	5.0	5.7	-	-	-
955	4.0	439	3.1	3.6	332	3.9	4.4	201	4.7	5.4	112	5.2	6.0	15	5.8	6.6
990	3.0	486	3.3	3.8	381	4.1	4.7	254	5.0	5.7	166	5.5	6.3	70	6.1	7.0
1020	2.0	527	3.5	4.0	425	4.3	5.0	299	5.2	6.0	213	5.8	6.7	119	6.4	7.3
1050	1.0	569	3.7	4.2	469	4.6	5.2	346	5.5	6.3	261	6.1	7.0	-	-	-
1080	0.0	612	3.9	4.4	514	4.8	5.5	393	5.8	6.6	310	6.4	7.3	-	-	-

STANDARD DRIVE (CFM)

BLOWER SPEED, RPM	MOTOR PULLEY (TURNS OPEN)*	AIRFLOW														
		5930 CFM			6990 CFM			8050 CFM			8685 CFM			9320 CFM		
		ESP (iwg)	Output (bhp)	Input (kW)	ESP (iwg)	Output (bhp)	Input (kW)	ESP (iwg)	Output (bhp)	Input (kW)	ESP (iwg)	Output (bhp)	Input (kW)	ESP (iwg)	Output (bhp)	Input (kW)
765	6.0	0.8	2.8	2.4	0.3	3.6	3.1	-	-	-	-	-	-	-	-	-
795	5.0	1.0	3.0	2.6	0.5	3.8	3.3	-	-	-	-	-	-	-	-	-
820	4.0	1.1	3.2	2.7	0.6	4.0	3.4	-	-	-	-	-	-	-	-	-
850	3.0	1.2	3.4	2.9	0.8	4.3	3.7	0.2	5.3	4.5	-	-	-	-	-	-
875	2.0	1.3	3.6	3.0	0.9	4.5	3.8	0.3	5.5	4.7	-	-	-	-	-	-
905	1.0	1.5	3.8	3.2	1.1	4.8	4.1	0.5	5.8	5.0	0.1	6.5	5.5	-	-	-

HIGH SPEED DRIVE (CFM)

BLOWER SPEED, RPM	MOTOR PULLEY (TURNS OPEN)*	AIRFLOW														
		5930 CFM			6990 CFM			8050 CFM			8685 CFM			9320 CFM		
		ESP (iwg)	Output (bhp)	Input (kW)	ESP (iwg)	Output (bhp)	Input (kW)	ESP (iwg)	Output (bhp)	Input (kW)	ESP (iwg)	Output (bhp)	Input (kW)	ESP (iwg)	Output (bhp)	Input (kW)
895	6.0	1.5	3.7	3.2	1.0	4.7	4.0	0.5	5.7	4.9	0.1	6.3	5.4	-	-	-
925	5.0	1.6	3.9	3.4	1.2	4.9	4.2	0.6	6.0	5.1	0.3	6.7	5.7	-	-	-
955	4.0	1.8	4.2	3.6	1.3	5.2	4.4	0.8	6.3	5.4	0.4	7.0	6.0	0.1	7.8	6.6
990	3.0	2.0	4.4	3.8	1.5	5.5	4.7	1.0	6.7	5.7	0.7	7.4	6.3	0.3	8.2	7.0
1020	2.0	2.1	4.7	4.0	1.7	5.8	5.0	1.2	7.0	6.0	0.9	7.8	6.7	0.5	8.6	7.3
1050	1.0	2.3	4.9	4.2	1.9	6.1	5.2	1.4	7.4	6.3	1.0	8.2	7.0	-	-	-
1080	0.0	2.5	5.2	4.4	2.1	6.4	5.5	1.6	7.7	6.6	1.2	8.5	7.3			

NOTES: 1. Blower performance values include fixed outdoor air, a dry indoor coil, the standard unit filters and no electric heat.
2. Refer to Page 12 for the resistance values for all other unit options or applications.
ESP = External Static Pressure available for the supply and return air duct system. All internal unit resistances have been deducted from the total static pressure of the blower.
*Do NOT close pulley below minimum turns open.

BLOWER MOTOR AND DRIVE DATA

UNIT SIZE		BLOWER RANGE (RPM)	MOTOR[1]			ADJUSTABLE MOTOR PULLEY[2]			FIXED BLOWER PULLEY			BELT (NOTCHED)		
			kW/HP	FRAME SIZE	EFF. (%)	PITCH DIA. (mm/in.)	BORE (mm/in.)	DESIG-NATION	PITCH DIA. (mm / in.)	BORE (mm/in.)	DESIG-NATION	PITCH LENGTH (mm/in.)	DESIG-NATION	QTY
STD. DRIVE	180	845-1040	3.0 / 4.0	184T	84	109-135 4.3-5.3	29 / 1 1/8	1VP56	188 / 7.4	25 / 1	BK80	1773 / 69.8	BX68	1
	240	765-905	5.6 / 7.5	213T	87	140-165 5.5-6.5	35 / 1 3/8	1VP68	264 / 10.4	30 / 1 3/16	BK110	2103 / 82.8	BX81	1
HIGH SPEED DRIVE	180	1030-1240	3.0 / 4.0	184T	84	124-150 4.9-5.9	29 / 1 1/8	1VP62	175 / 6.9	25 / 1	BK75	1773 / 69.8	BX68	1
	240	895-1080	5.6 / 7.5	213T	87	147-178 5.8-7.0	35 / 1 3/8	1VP75	239 / 9.4	30 / 1 3/16	BK100	2103 / 82.8	BX81	1

[1]All motors are totally enclosed, fan cooled (TEFC), 1450 RPM with solid bases and a 1.15 service factor.
[2]Do NOT close this pulley below the minimum number of turns open.

STATIC RESISTANCES*

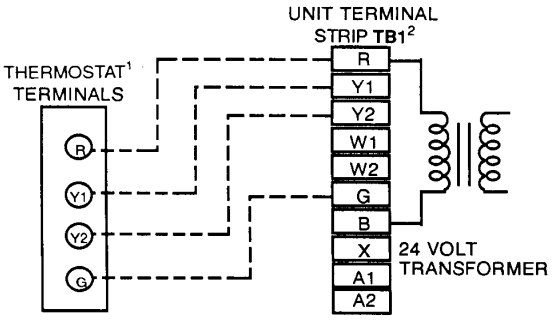
DESCRIPTION		EXTERNAL STATIC [RESSURE DRP RESISTANCE, Pa/IWG					
		M^3/S / CFM					
		MODEL 180			MODEL 240		
		2.1 / 4500	2.8 / 6000	3.4 / 7200	2.8 / 6000	3.8 / 8000	4.4 / 9400
WET COIL		24.8 / 0.1	24.8 / 0.1	24.8 / 0.1	24.8 / 0.1	24.8 / 0.1	24.8 / 0.1
ELECTRIC HEAT OPTIONS	18 kW	24.8 / 0.1	24.8 / 0.1	24.8 / 0.1	24.8 / 0.1	24.8 / 0.1	24.8 / 0.1
	36 kW	24.8 / 0.1	50.0 / 0.2	74.4 / 0.3	24.8 / 0.1	50.0 / 0.2	74.4 / 0.3
	54 kW	50.0 / 0.2	74.4 / 0.3	99.2 / 0.4	50.0 / 0.2	74.4 / 0.3	99.2 / 0.4
	72 kW	50.0 / 0.2	99.2 / 0.4	149.0 / 0.6	50.0 / 0.2	99.2 / 0.4	149.0 / 0.6
ECONOMIZER OPTION		24.8 / 0.1	24.8 / 0.1	24.8 / 0.1	24.8 / 0.1	24.8 / 0.1	24.8 / 0.1
HORIZONTAL DUCT CONNECTIONS		50.0 / 0.2	74.4 / 0.3	124.0 / 0.5	50.0 / 0.2	74.4 / 0.3	124.0 / 0.5

* Deduct these resistance values from the available unit ESP values listed in the respective blower performance table except for Horizontal Duct Connections. Add the Horizontal Duct Connection values due to less airflow resistance.

FIELD WIRING - Electric/Electric and Gas/Electric Units

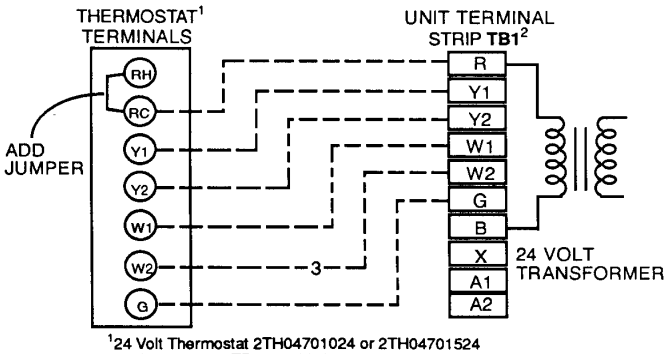
CONTROL WIRING

COOLING ONLY (24 VOLT THERMOSTAT)



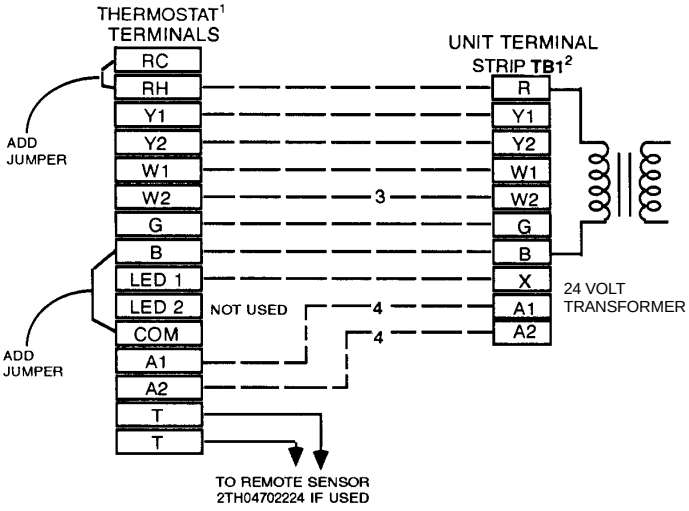
[1]24 Volt Thermostat 2TH04701224 or 2TH04701524 (with Subbase 2TB04700224).
[2]Terminal strip TB1 - located on relay board in 24-volt section of the unit control box.

COOLING / HEATING (24 VOLT THERMOSTAT)

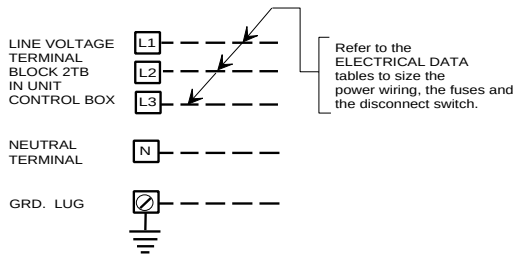


[1]24 Volt Thermostat 2TH04701024 or 2TH04701524 (with Subbase 2TB04700324).
[2]Terminal strip TB1 - located on relay board in 24-volt section of the unit control box.
[3]Second stage heating is not required on units with a single stage electric heater.

COOLING / HEATING (ELECTRONIC THERMOSTAT)



POWER WIRING



[1]Electronic programmable Thermostat 2ET04700224 (includes subbase).
[2]Terminal strip TB1 - located on relay board in 24-volt section of the unit control box.
[3]Second stage heating is not required on units with a single stage electric heater.
[4]Terminals A1 and A2 provide a relay output to close the outdoor economizer dampers when the thermostat switches to the set-back position.
NOTE: Fan switch must be in "ON" position for minimum ventilation during heater operation.

ELECTRICAL DATA - Cooling Only Units and Units With Gas Heat

UNIT SIZE	POWER SUPPLY	COMPRESSOR				OUTDOOR FAN MOTOR, (#1 & #2) FLA, EACH	SUPPLY AIR BLOWER MOTOR, (FLA)		TOTAL UNIT AMPACITY, (AMPS)		MAX. FUSE SIZE[1]	MIN. WIRE SIZE[2], (mm^2/AWG)
		RLA		LRA			3 kW 4 HP	5.6 kW 7.5 HP	3 kW 4 HP	5.6 kW 7.5 HP		
		#1	#2	#1	#2							
180	380/400/415-3+N-50	19.2	9.6	146	73	2.4	8.6	-	47.0	-	60	10 / 8
240	380/400/415-3+N-50	19.2	19.2	146	146	2.4	-	11.7	-	59.7	70	16 / 6

NOTES: 1. Slow blow type fuse.
2. Based on 105°C insulated copper conductors in conduit.

ELECTRICAL DATA - Units With Supplemental Electric Heating

UNIT SIZE	POWER SUPPLY (VOLTS)	HEATER OPTION				MINIMUM CIRCUIT AMPACITY (AMPS)	MAXIMUM FUSE SIZE[1]	MINIMUM WIRE SIZE[2] (mm^2/AWG)
		MODEL	OUTPUT kW	STAGES	AMPS			
180	380-3+N-50	E018	11.3	1	17.1	47.0	60	10 / 8
		E036	22.6	2	34.3	53.6	60	16 / 6
		E054	33.8	2	51.4	75.0	80	25 / 4
		E072	45.1	2	68.6	96.5	100	35 / 2
	415-3+N-50	E018	13.5	1	18.7	47.0	60	10 / 8
		E036	26.9	2	37.4	57.5	60	16 / 6
		E054	40.4	2	56.2	80.9	90	25 / 4
		E072	53.8	2	74.9	104.0	110	35 / 2
240	380-3+N-50	E018	11.3	1	17.1	59.7	70	16 / 6
		E036	22.6	2	34.3	59.7	70	16 / 6
		E054	33.8	2	51.4	78.9	80	25 / 4
		E072	45.1	2	68.6	100.0	110	35 / 2
	415-3+N-50	E018	13.5	1	18.7	59.7	70	16 / 6
		E036	26.9	2	37.4	61.4	70	16 / 6
		E054	40.4	2	56.2	84.8	90	25 / 4
		E072	53.8	2	74.9	108.0	110	50 / 2

NOTES: 1. Slow blow type fuse.
2. Based on 105°C copper conductors.

PHYSICAL DATA

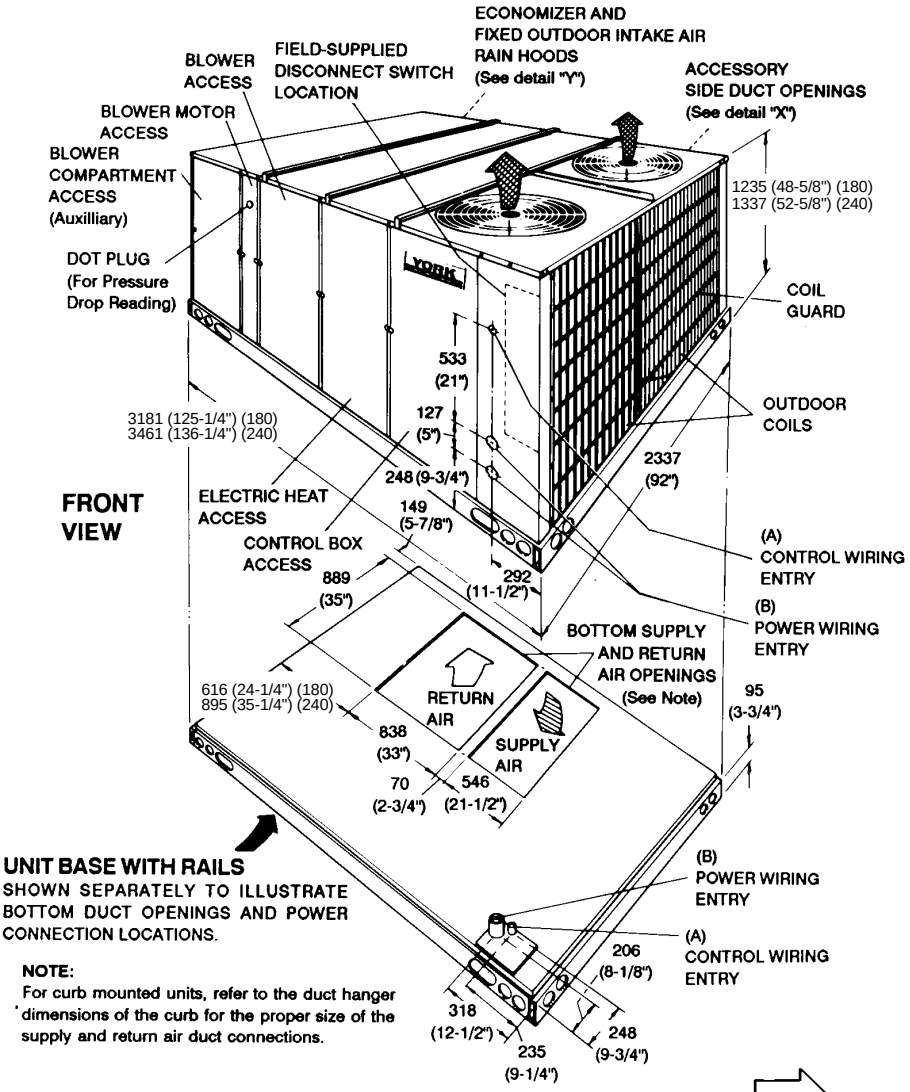
COMPONENT DESCRIPTION			UNIT SIZE (MBH) 180	240
SUPPLY AIR BLOWER	CENTRIFUGAL BLOWER	DIA. x WD. (mm)	381 x 381	457 x 381
		DIA. x WD. (in.)	15 x 15	18 x 15
	FAN MOTOR	kW / HP	3.7 / 5	5.6 / 7.5
INDOOR COIL	ROWS DEEP		3	3
	FINS PER 25mm (1 in.)		13.5	13.5
	FACE AREA	m^2 / $Ft.^2$	1.45 / 15.5	1.92 / 20.5
OUTDOOR FANS (Two Per Unit)	PROPELLER DIA.	mm / in.	762 / 30 (ea.)	762 / 30 (ea.)
	FAN MOTOR	kW / HP	0.7 / 1 (ea.)	0.7 / 1 (ea.)
	NOMINAL AIRFLOW	m^3 / s	2.83 (ea.)	3.78 (ea.)
		CFM	6000 (ea.)	8000 (ea.)
OUTDOOR COIL	ROWS DEEP		2	2
	FINS PER 25mm (1 in.)		13	20
	FACE AREA	m^2 / $Ft.^2$	3.35 / 36.0	4.02 / 43.3
COMPRESSOR (Qty. Per Unit)	TANDEM (10 TON NOMINAL CAPACITY)		1*	2
	HERMETIC (5 TON NOMINAL CAPACITY)		1	-
AIR FILTERS	QUANTITY PER UNIT	406 x 508 x 51 (mm) 16 x 20 x 2 (in.)	-	4
	QUANTITY PER UNIT	406 x 635 x 51 (mm) 16 x 25 x 2 (in.)	-	4
	QUANTITY PER UNIT	457 x 610 x 51 (mm) 18 x 24 x 2 (in.)	5	-
	TOTAL FACE AREA	m^2 / $Ft.^2$	1.40 / 15.0	1.87 / 20.0
CHARGE	REFRIGERANT 22	SYS. #1 (kg. / lbs.)	7.94 / 17.5	8.16 / 18.0
		SYS. #2 (kg. / lbs.)	3.86 / 8.5	8.16 / 18.0

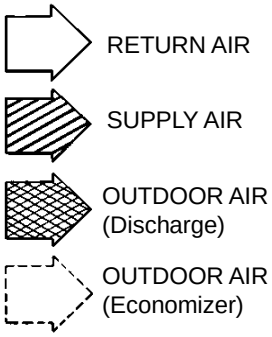
*This compressor will be energized first.

WEIGHTS (kg. / lbs.)		
BASIC UNIT	D*CE UNITS	
	180	866 / 1910
	240	957 / 2110
	D*CG UNITS	
	180	975 / 2150
	240	1066 / 2350
OPTIONS / ACCESSORIES		
Economizer		73 / 160
Motorized Damper		68 / 150
Electric Heaters	18 kW	11 / 25
	36 kW	14 / 30
	54 kW	16 / 35
	72 kW	18 / 40
Roof Curb	180	79 / 175
	240	84 / 185
Barometric Damper		20 / 45
Wood Skid*	180	91 / 200
	240	100 / 220

*Allows handling of unit using 2300mm (90") long forks.

UNIT DIMENSIONS - D*CE180 & 240 UNITS





All dimensions are in millimeters and inches, unless otherwise specified. They are subject to change without notice. Certified dimensions will be provided upon request.

CLEARANCES (mm / in.)

Front	914 / 36
Back	610 / 24 (Less Economizer) 1245 / 49 (With Economizer)
Left Side (Filter Access)	610 / 24 (Less Economizer) 1372 / 54 (With Economizer)
Right Side (Outdoor Coil)	914 / 36
Below Unit	0 / 0
Above Unit*	1829 / 72 With 914 / 36 Maximum Horizontal Overhang (For Outdoor Air Discharge)

NOTE: Unit and ductwork are approved for zero clearance to combustible materials when equipped with electric heat.

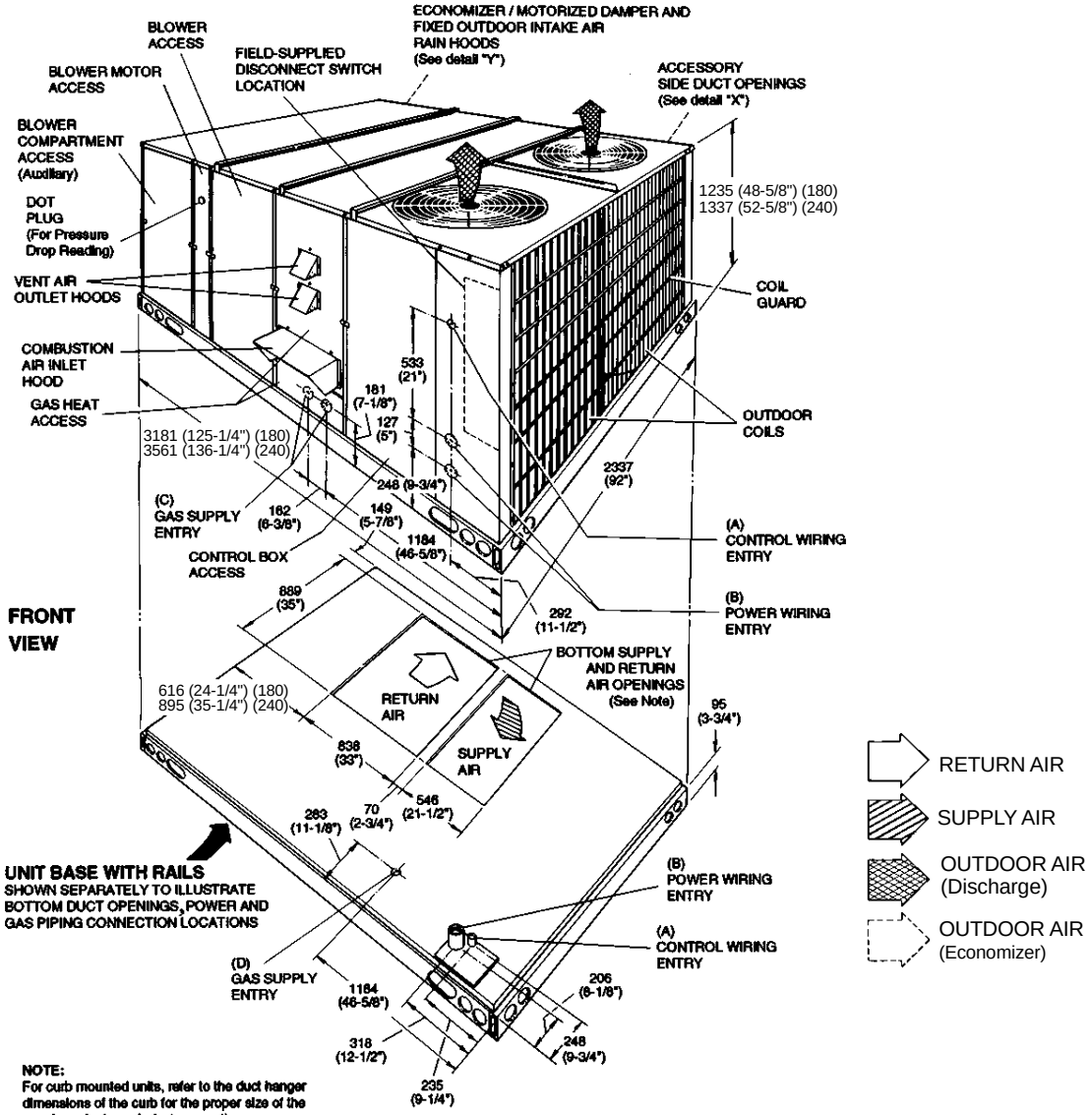
*Units must be installed oudoors. Overhanging structures or shrubs should not obstruct outdoor air discharge outlet.

UTILITIES ENTRY DATA

HOLE	OPENING DIAMETER* (mm / in.)	USED FOR	
A	28.6 / 1⅛ KO	Control Wiring	Front
	19.1 / ¾ NPS (Fem.)		Bottom
B	92.1 / 3⅝ KO	Power Wiring	Front
	76.2 / 3 NPS (Fem.)		Bottom

*KO denotes Knockout facility.

UNIT DIMENSIONS - D*CG180 & 240 UNITS



CLEARANCES (mm / in.)

Front[1]	914 / 36
Back	610 / 24 (Less Economizer) 1245 / 49 (With Economizer)
Left Side (Filter Access)	610 / 24 (Less Economizer) 1372 / 54 (With Economizer)
Right Side (Outdoor Coil)	914 / 36
Below Unit[2]	0 / 0
Above Unit[3]	1829 / 72 with 914 / 36 maximum Horizontal Overhang (For Outdoor Air Discharge)

[1] Locate unit so that the vent air outlet hoods are at least:
- 0.9 meter (3 ft) above any forced air inlet located within 3.0m (10 ft) horizontal (excluding those integral to the unit).
- 1.2 meters (4 ft) below, 1.2m (4 ft.) horizontal from, or 0.31m(1 ft) above any door or gravity air inlet into the building.
- 1.2 meters (4 ft) from electric meters, gas meters, regulators and relief equipment.

[2] Units may be installed on combustible surfaces capable of continuous exposure to temperatures of 92°C (197°F), and intermittent exposure to temperatures of 124°C (255°F).

[3] Units must be installed outdoors. Overhanging structures or shrubs should not obstruct the outdoor air discharge outlet.

NOTE: A 25mm (1 in.) clearance must be provided between any combustible material and the supply air ductwork for a distance of 0.9m (3 ft) from the unit.
The products of combustion must not be allowed to accumulate within a confined space and recirculate.

All dimensions are in millimeters and inches, unless otherwise specified. They are subject to change without notice. Certified dimensions will be provided upon request.

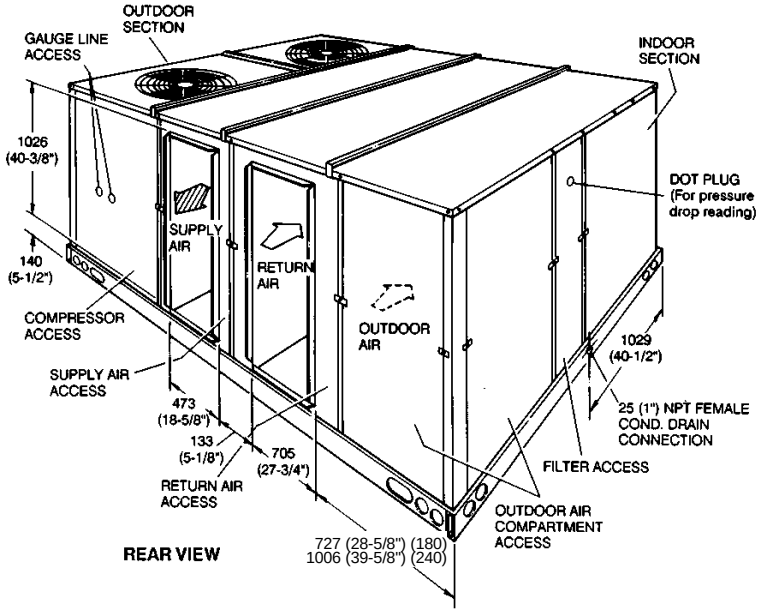
UTILITIES ENTRY DATA

HOLE	OPENING DIAMETER* (in. / mm)	USED FOR	
A	1-1/8 / 29 KO	Control Wiring	Front
	3/4 NPS / 19 (Fem.)		Bottom
B	3-5/8 / 92 KO	Power Wiring	Front
	3 NPS / 76 (Fem.)		Bottom
C	2-3/8 / 60 KO	Gas Piping (Front)	
D	1-11/16 / 43 Hole	Gas Piping (Bottom)**	

*KO denotes Knockout facility.

**Opening in the bottom of the unit can be located by the slice in the insulation.

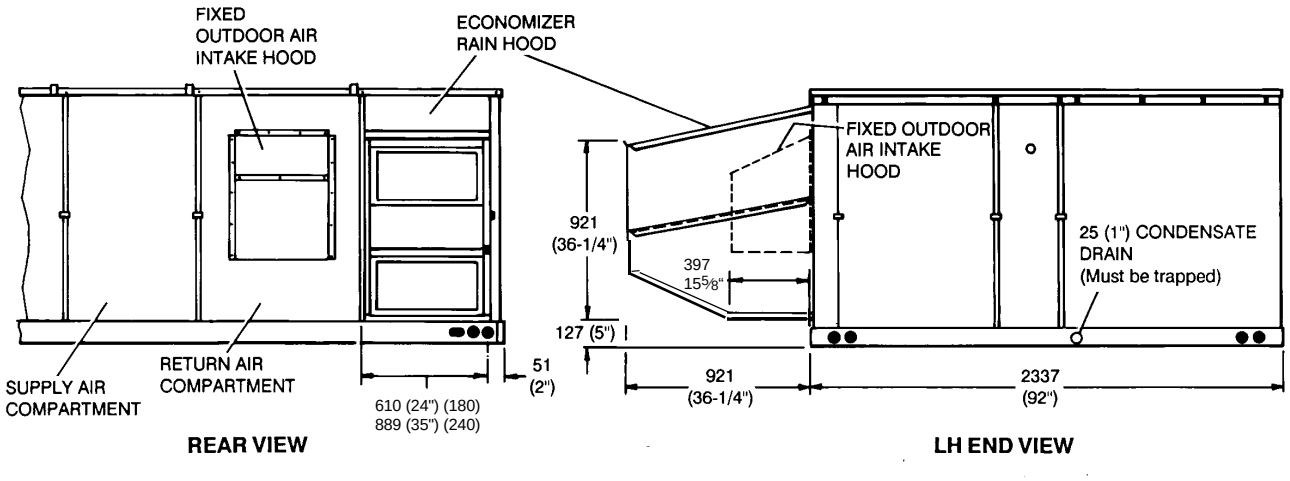
UNIT DIMENSIONS - D*CE / D*CG180 & 240 UNITS (Cont'd.)



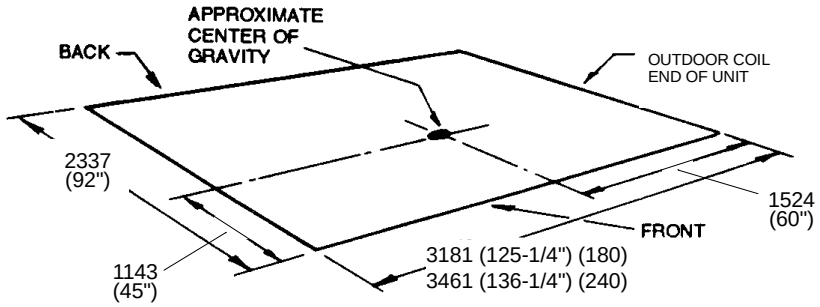
DUCT COVERS - Units are shipped with the bottom duct openings covered. An accessory flange kit is available for connecting side ducts.
For downflow duct applications:
1. Remove the side panels from the supply and return air compartments to gain access to the bottom supply and return air duct covers.
2. Remove and discard the bottom duct covers.
3. Replace the side supply and return air compartment panels.

For sideflow duct applications;
1. Replace the side panels on the supply and return air compartments with the accessory flange kit panels.
2. Connect ductwork to the duct flanges on the rear of the unit.

DETAIL "X"
ACCESSORY SIDE SUPPLY AND RETURN AIR DUCT OPENINGS

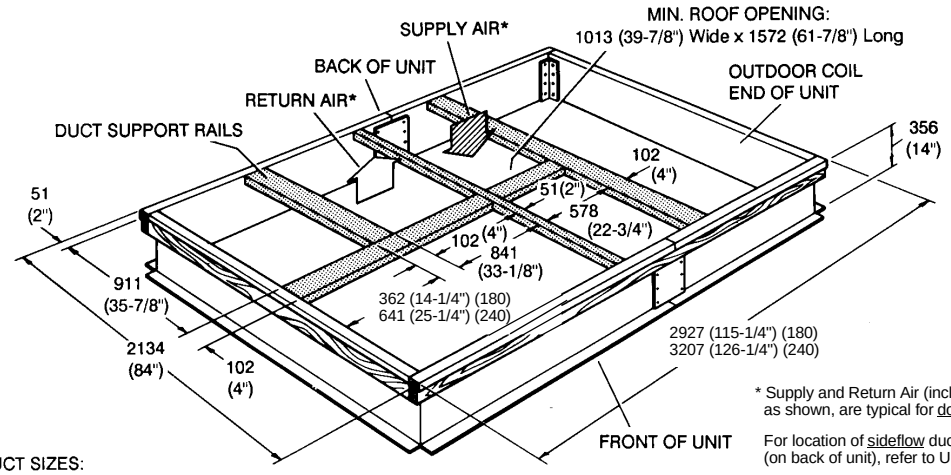


DETAIL "Y"
UNIT WITH ECONOMIZER AND FIXED OUTDOOR AIR HOODS



CENTER OF GRAVITY

ROOF CURB DIMENSIONS - D*CE / D*CG180 & 240 UNITS

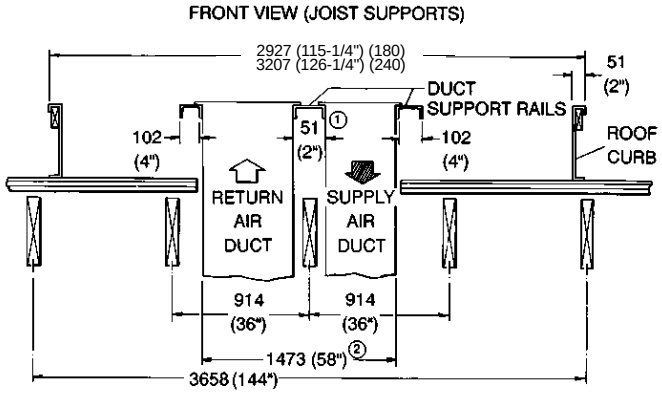


* Supply and Return Air (including duct suppport rails) as shown, are typical for downflow duct applications.

For location of sideflow duct applications (on back of unit), refer to Unit Dimension details.

DUCT SIZES:
Supply Air = 572 (22-1/2") x 905 (35-5/8")
Return Air = 835 (32-7/8") x 905 (35-5/8")

ROOF CURB BENEFITS

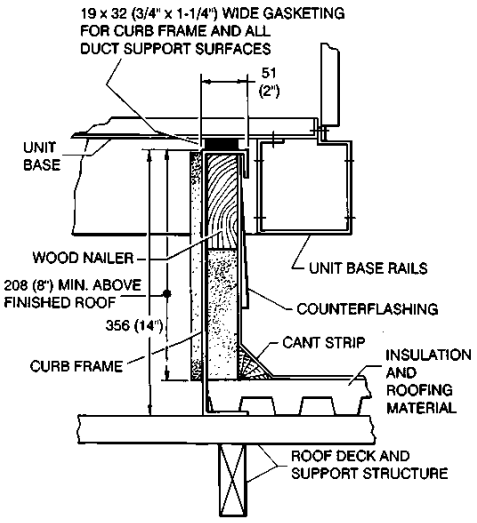


① The 51 (2") space between the duct allows for "jumping" an existing roof joist.

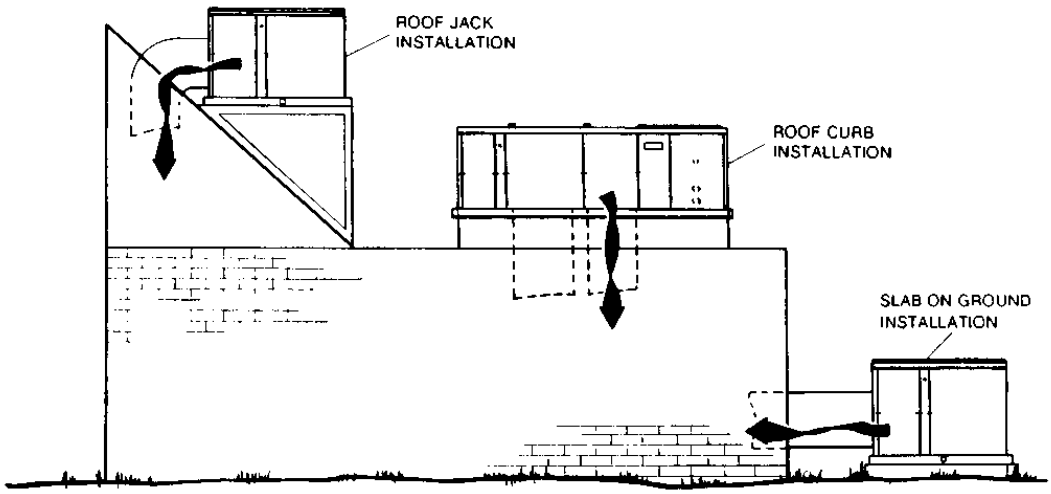
② The 1486 (58-1/2") overall dimension of the ducts allows ductwork penetration between roof joists that are spaced on 1829 (72") centers.

NOTE: Ducts can be installed onto the curb from the roof. All electrical connections can be made inside the curb.

UNIT AND CURB APPLICATION

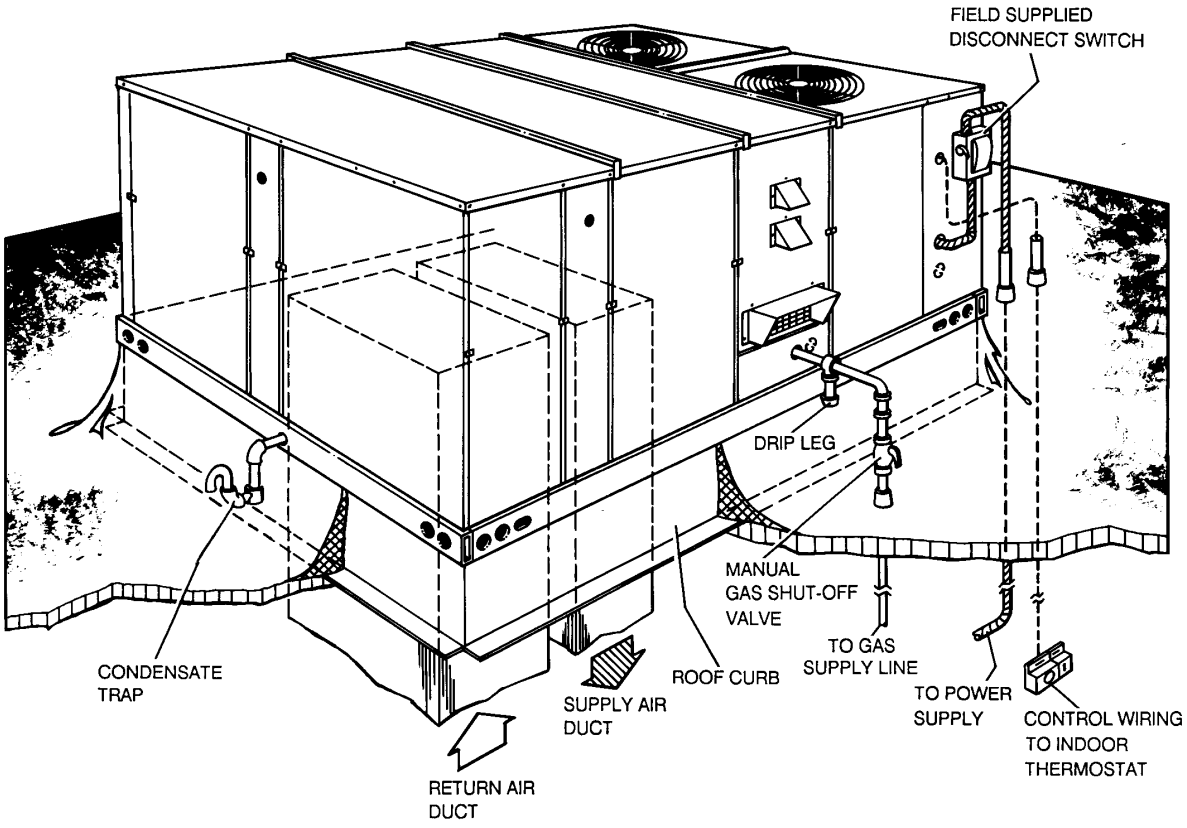


TYPICAL APPLICATIONS



TYPICAL APPLICATIONS - Cont'd.

ROOF-TOP INSTALLATION
(GAS/ELECTRIC UNIT SHOWN)



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