

# Heating and Air Conditioning

**TECHNICAL GUIDE** 

**AFFINITY™ SERIES** 

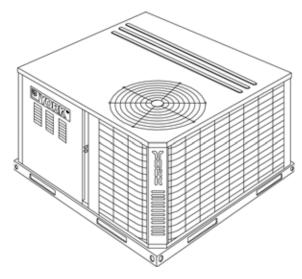
(EXPORT ONLY)

SINGLE PACKAGE GAS/ELECTRIC

**AIR COOLED AIR CONDITIONERS** 

1.5 THROUGH 5 NOMINAL TON

DNA018 THROUGH 060 8.6 - 9.2 EER









ISO 9001 Certified Quality Management System

# FLEXIBLE LIGHT COMMERCIAL UNIT

### **GENERAL**

York<sup>®</sup> Affinity<sup>™</sup> Series packaged units are designed to handle applications ranging from residential to light commercial and any in between. The Affinity<sup>™</sup> is a unit that gives you the flexibility and choices you need in today's market.

#### **FEATURING**

- COOLING/GAS HEATING UNITS (NATURAL GAS OR PROPANE)
- LOW PROFILE
- QUIET OPERATION
- COMMON FOOTPRINT
- OPTIONAL SLIDE IN MOTORIZED DAMPERS
- OPTIONAL SLIDE IN ECONOMIZERS
- OPTIONAL PROPANE CONVERSION KIT
- OPTIONAL HIGH ALTITUDE CONVERSION KIT (NATURAL GAS/PROPANE)
- FULL PERIMETER BASE RAILS
- BOTTOM AND SIDE UTILITY CONNECTIONS

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	PRODUCT CATEGORY		VOLTAGE CODE
	D = Single Package Air Conditioner		06 = 208/230-1-60
	PRODUCT GENERATION		
	2 = 2nd Generation 3 = 3rd Generation		
			NOMINAL GAS HEATING
	PRODUCT IDENTIFIER		OUTPUT CAPACITY
	NA = 10 SEER Gas Heat/Electric NOMINAL COOLING		036 = 36,000 BTUH
	CAPACITY (MBH)		056 = 56,000 BTUH 065 = 65,000 BTUH
		= Natur	ral Gas Heat Installed 072 = 72,000 BTUH
	024 = 24,000 BTUH 030 = 30,000 BTUH		090 = 90,000 BTUH 110 = 110,000 BTUH
	036 = 36,000 BTUH		
	042 = 42,000 BTUH 060 = 60,000 BUTH		

FIGURE 1 - PRODUCT NOMENCLATURE

# **DESCRIPTION**

These packaged cooling/heating air conditioners are designed for outdoor installation. Only utility and duct connections are required at the point of installation.

The gas-fired heaters have aluminized steel tubular heat exchangers and spark to pilot ignition. They are available in natural gas with field conversion to propane.

# STANDARD FEATURES/BENEFITS

**OPERATING EFFICIENCY** - All units provide high operating efficiencies and have a minimum AFUE of 80% and EERs of 8.6 to 9.2. All efficiencies exceed legislated minimum levels.

**ON SITE FLEXIBILITY** - All model sizes share a common, compact design cabinet in a single footprint. The installer has the flexibility of setting one curb and placing the proper tonnage unit on that curb after the internal load has been determined. Field convertible duct connections from side shot to down shot allows the installer to have greater flexibility with less inventory.

**LOWER INSTALLATION COST** - Installation time and costs are reduced by easy power and control wiring connections. The small base dimension means less space is required on the ground or roof, plus, the installer can fit this unit between the wheel wells of full size pick-up truck. All models are well under 500 pounds.

All units are completely wired, charged with R-22 and tested prior to shipment. Unique test stations using a new state of the art computerized process system are used to insure product quality. Refrigerant charge, and component part numbers are verified via computers at assembly. Vital run test statistics such as system pressure, motor currents, air velocity and temperature, unit vibration, and gas system safeties are monitored and recorded by the system to insure unit performance.

Equal size, side supply and return duct connections allows easy hook-up of ducts to match low crawl spaces without transition pieces.

**UTILITY CONNECTIONS MADE EASY** - Gas and electric utility knockouts are provided through the bottom as well as the side of the unit. Utility connections can be made quickly and with a minimum amount of field labor. A field supplied and field installed electrical disconnect switch must be installed.

**CONVERTIBLE AIRFLOW DESIGN** - The bottom duct openings are covered when they leave the factory ready to be used for a side supply / side return application. If a bottom supply / bottom return application is desired, you simply remove the two panels from the bottom of the unit and place them in the side supply / side return duct openings. No panel cutting is required and no accessory panel is necessary. Convertible airflow design allows maximum field flexibility and minimum inventory.

**CONDENSATE PAN** - A non-corrosive, long-lasting, watertight pan is positioned below the evaporator coil to collect and drain all condensate. Less collection of stagnate condensate will build-up. The condensate pan conforms to ASHRAE 62-89 standards (Ventilation for Acceptable Indoor Air Quality).

**CONDENSATE DRAIN** - The heavy duty, 3/4 inch NPTI copper connection is more tolerable during installation and is more durable over time. The connection is rigidly mounted to assure proper fit and leak tight seal.

**DURABLE FINISH** - With a heavy duty cabinet made of powder-painted, galvanized steel the neutral color blends into surrounding areas. The powdered paint, provides a better paint to steel bond, which resists corrosion and rust creep. The special primer formulas and glossy finish insure less fading when exposed to sunlight and offers a more attractive on site appearance. This paint finish meets ASTM-B117 standards for 1000 hours salt spray rating. The highest in the industry.

**FULL PERIMETER BASE RAILS** - The easily removable base rails provide a solid foundation for the entire unit and protects the unit during shipment. The rails provide fork lift access from all sides, and rigging holes are also provided so that an overhead crane can be used to place the units on a roof. On applications where the unit is placed on a pad, the base will keep the unit off the pad to deter corrosion. On applications where height is limited, the inch high base rails may be removed on location.

MORE ATTRACTIVE APPEARANCE - A single piece Water Shed top cover containing a top discharge condenser fan arrangement requires less square footage on installation and provides a wider variety of installations. The one piece design adds greater water integrity. Rounded corners with water drip edges add to the attractive appearance. The cabinet panels have a non-fibrous insulation that will not release insulation fibers into conditioned area.

**TOP DISCHARGE** - The top discharge condenser fan does not disrupt neighboring areas or does this dry-out vegetation surrounding the unit. The warm air from the top mounted fan is blown up away from the structure and any landscaping. This allows compact location on multi-unit applications.

**CONDENSER COIL GRILLE** - A multi-piece totally enclosed, rigidly mounted condenser coil grille provides protection from objects after installation and provides protection during transit.

LOW OPERATING SOUND LEVEL - The upward air flow carries the normal operating noise up and away from the living area. The rigid top panel effectively isolates any motor sound. Isolator mounted compressor and the rippled fins of the condenser coil muffle the normal fan motor and compressor operating sounds. The unique formed base pan also aids in sound alterations with it's Super-Structure design. This design strategically places embossments in the pan for optimum strength and rigidity.

**FAN SYSTEM** - All models operate over a wide range of design conditions with a 3-speed direct-drive fan motor. These units easily match all types of applications and provides greater on site flexibility to match comfort requirement.

SIMPLE CONTROL CIRCUIT - A low voltage printed circuit board contains a diagnostic indicator light and a low voltage terminal strip. An additional set of pin connectors is also provided to simplify the field interface of external controls. Maten-lock plug connectors are used. The electrical control box is not located in the compressor compartment. The controls are mounted on a Control-Tilt control panel to allow the access cover to be removed for trouble shooting and maintenance without affecting the normal system operating pressures. All wiring internal to the unit is color/number coded.

**PROTECTED COMPRESSOR** - The compressor is internally protected against high pressure and temperature. This is accomplished by the simultaneous operation of high pressure relief valve and a temperature sensor which protect the compressor if undesirable operating conditions occur.

**EXCLUSIVE COIL DESIGN** - Grooved copper tubes and enhanced aluminum fin construction improves heat transfer for maximum efficiency and durability.

**HEAT EXCHANGERS** - Are corrosion-resistant, aluminizedsteel tubular construction to provide long-life, trouble-free operation. The unique blow-through design also assures that condensate does not collect in humid areas when in the cooling cycle. This adds to longer heat exchanger life and higher long term efficiencies.

**POST PURGE INDUCED DRAFT COMBUSTION** - Exhausts combustion products from the heat exchanger upon completion of the heating cycle to prolong the heat exchanger life.

**SELF DIAGNOSTIC FAN CONTROL MODULE** - Due to this self diagnostic control, less on site time is required to trouble shoot these units.

**SPARK TO PILOT IGNITION** - Provides faster heat delivery. This ignition is highly reliable, durable and eliminates nuisance lockouts.

**MULTI PORT IN-SHOT BURNERS** - No field adjustment is required to mix the air and gas. These burners are constructed of high-grade corrosion-resistant, aluminized-steel.

**LOW MAINTENANCE** - Long life, permanently lubricated condenser and evaporator fan motor bearings need no annual maintenance adding greater reliability to the unit. Blower assembly can be easily cleaned by the unique Slip-Track slide-out blower assembly.

**SECURED SERVICE ACCESS PORTS** - Protected, externally mounted, re-usable service access ports are provided on both the high and low lines for ease of evacuating and charging the system. No final field mounting required.

**EASY SERVICE ACCESS** - A large, single panel covers the electrical and gas controls makes servicing easy. The blower

compartment has an additional large panel with a built-in handle tab. Removing this panel will allow the blower assembly to slide-out for easy removal for maintenance and ease of trouble shooting.

**REPLACEMENT PARTS** - The installer has no need to carry an inventory of unique parts or needs special training to replace any of the components parts for these units. All are easily obtained from Source 1 or other part houses.

**SYSTEM INTEGRATION** - Each unit has the internal ability to integrate an electronic air cleaner or humidifier to work in conjunction with the base unit.

# FIELD-INSTALLED ACCESSORIES

**PROPANE CONVERSION KIT** - Kit includes burner orifices, gas valve conversion and installation instructions necessary to field convert unit from natural gas to propane.

HIGH ALTITUDE CONVERSION KIT (Natural Gas/Propane) - Kit includes all necessary labels and instructions to field alter units with natural gas/propane for installation above 2000 feet. Burner orifices must be obtained from Source 1 Parts. Propane Conversion Kit must be obtained separately.

ECONOMIZER DOWN DISCHARGE / SUPPLY KIT - Modulating integrated economizer provides simultaneous operation between the mechanical cooling and economizer operation. Independent blade design insures proper control and less than 1% leak rate. Includes hood and mesh bird screen filter integrated into the hood, dry bulb sensor and relief damper. Separate field accessories of single enthalpy and dual enthalpy are also available. A built-in barometric relief of 25% is provided.

**SINGLE ENTHALPY SENSOR** - Sensor replaces dry bulb sensor standard in economizer kit. Provides improved economizer operation by sensing the dry bulb temperature from outdoors plus the enthalpy content of the outdoor air.

**DUAL ENTHALPY SENSOR** - Additional sensor to single enthalpy sensor. Sensor senses both the return air temperature dry bulb and humidity in conjunction with the single enthalpy to determine the most economical mix. Single Enthalpy sensor also required.

PRESSURE SWITCH UPGRADE KIT - Contains screw in type High pressure, Low Pressure/Loss of Charge switch, freeze protection switch and lockout relay. Switches are placed onto existing scharder ports located in the unit by furnished adapters. When abnormal conditions are sensed through the pressure switches, the unit will lock out preventing any further operation until reset or problem is corrected. Package agency approved.

**HAIL GUARD KIT** - Kit contains protective grilles made of expanded aluminum with full perimeter frame. Sloped hoods are also included to assure maximum protection.

**ANTI SHORT CYCLE TIMER** - Automatically prevents the compressor from restarting for 5 minutes after cycled off.Not

required if Thermostat 2ET07700224 and 2ET04700224 are used.

**MOTORIZED FRESH AIR DAMPER** - Designed for duct mounted side supply/return and unit mounted down supply/ return applications. Damper capable of providing 0% through 50% of outdoor air (field supplied). Closes on power loss, includes hood and screen assembly.

FILTER / FRAME KIT (Single Phase only) - Kit contains the necessary hardware to field install return air filters into the base unit. Pre-cut filter racks and appropriate cleanable standard size filters are shipped in one kit. The fiter rack is suitable for either 1" or 2" filters (1" filter is supplied). This kit is available for single phase horizontal or vertical duct application only. Standard in all 3 phase models

**RECTANGLE TO ROUND ADAPTERS** - Kit includes one supply and one return air rectangle to round duct adapter. Adapters are preformed and designed to fit over current duct openings on the base unit. Transition is from side square duct opening to 14" round duct opening.

**ROOF CURBS** - NRCA approved curbs provide proper fit to base unit for rooftop installations. Curbs are designed to be assembled through hinge pins in each corner. Kit also provides seal strip to assure a water tight seal. 8 and 14 inch high roof curbs are available.

**MANUAL OUTDOOR DAMPER** - Provides 0% through 50% outdoor air capability (field adjustable). Designed for duct mounted side supply/return applications. Includes hood and screen assembly.

**WALL THERMOSTAT** - The units are designed to operate with 24-volt electronic and electro-mechanical thermostats. All units can operate with single stage heat / single stage cool thermostats - with or without the economizer.

**LOW AMBIENT KIT** - Kit provides necessary hardware to convert unit to operate in cooling cycle down to 0 F. Standard unit operation 45 F.

**TRANSFORMER KIT** - Kit provides necessary hardware to provide single phase models from factory furnished 40 VA transformer capability to 75 VA transformer capability. (Required on installations with economizer or motorized damper.)

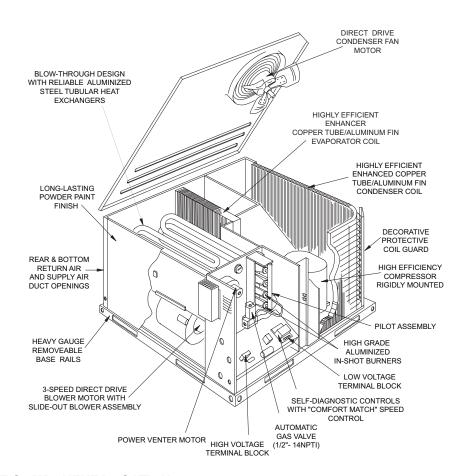


FIGURE 2 - UNIT COMPONENT LOCATION

**TABLE 1: PHYSICAL DATA** 

	MODEL				DNA		·	
	MODEL	018	024	030	036	042	048	060
EVAPORATOR	CENTRIFUGAL BLOWER (Dia. x W. in.)	10 x 8	10 x 8	10 x 8	11 x 10	11 x 10	12 x 11	12 x 11
BLOWER	FAN MOTOR HP (3 Speed)	1/2	1/2	1/2	3/4	3/4	1	1
5) /A DOD ATOD	ROWS DEEP	2	2	2	2	3	3	3
EVAPORATOR COIL	FINS PER INCH	14	13	13	15	13	13	13
0012	FACE AREA (Sq. Ft.)	2.25	3.5	3.5	3.5	3.5	4.5	4.5
	PROPELLER DIA. (in.)	22	22	22	22	22	22	22
CONDENSER FAN	FAN MOTOR HP	1/4	1/4	1/4	1/4	1/4	1/4	1/4
17.03	NOM. CFM TOTAL	1,800	2,200	2,400	2,400	2,400	3,000	3,000
	ROWS DEEP	1	1	1	1	1	1	1
CONDENSER COIL	FINS PER INCH	13	13	16	20	20	20	20
0012	FACE AREA (Sq. Ft.)	8.3	8.3	11.7	11.7	11.7	14.8	14.8
CHARGE	REFRIGERANT 22 (lbs./oz.)	3/2	3 / 16	4 / 12	4/3	4 / 12	6/0	5/4
FILTER1	FACE AREA (Sq. Ft.) Size (Nominal)	2.6/20x20	2.6/20x20	2.6/20x20	2.6/20x20	2.6/20x20	3.3/20x12	3.3/20x12
	NATURAL GAS BURNER ORIFICE NO. (Drill Size)	43	43	43	43	43	40	40
FURNACE SECTION	PROPANE BURNER ORIFICE NO. (Drill Size)	55	55	55	55	55	53	53
SECTION	GAS CONNECTION SIZE	1/2 NPTI						
COMPRESSOR TYPE	HERMETICALLY SEALED (R = RECIPROCATING, S = SCROLL)	R	R	R	R	R	S	S

<sup>1.</sup> See FILTER/FRAME KIT on page 5.

# **TABLE 2: RATINGS COOLING/GAS HEATING**

	NET COOL	ING CAPACITY <sup>1</sup>	SOUND		GAS I	HEAT CAPACI	TY / EFFICIENCIES	
MODEL DNA	МВН	EER <sup>3</sup>	RATING (dbels) <sup>2</sup>	INPUT (MBH)	OUTPUT (MBH)	AFUE <sup>4</sup> (%)	NUMBER OF BURNERS	TEMP. RISE (°F) RANGE
018N03606	17.9	8.9	76	45	36	80.2	2	25 - 55
024N03606	23.0	9.2	78	45	36	80.2	2	25 - 55
024N05606	23.0	9.2	78	70	56	80.2	3	30 - 60
030N03606	29.0	9.0	78	45	36	80.2	2	25 - 55
030N05606	29.0	9.0	78	70	56	80.2	3	30 - 60
036N03606	34.8	8.9	82	45	36	80.4	2	25 - 55
036N05606	34.8	8.9	82	70	56	80.2	3	25 - 55
036N07206	34.8	8.9	82	90	72	80.1	4	30 - 60
042N03606	40.5	9.0	84	45	36	80.4	2	25 - 55
042N05606	40.5	9.0	84	70	56	80.2	3	25 - 55
042N07206	40.5	9.0	84	90	72	80.1	4	30 - 60
048N06506	46.5	8.6	82	80	64	80	3	25 - 55
048N09006	46.5	8.6	82	108	86	80	4	30 - 60
048N11006	46.5	8.6	82	135	108	80	5	35 - 65
060N06506	56.5	8.9	82	80	64	80	3	25 - 55
060N09006	56.5	8.9	82	108	86	80	4	30 - 60
060N11006	56.5	8.9	82	135	108	80	5	35 - 65

- 1. Net Cooling Capacity = ARI 210 standard rating conditions.
- 2. (dbels) = ARI 270-95
- 3. Energy Efficiency Ratio the total cooling output in BTU's during a normal annual usage period for cooling divided by the total electric power input in watt-hours during the same period.
- 4. AFUE = Annual Fuel Utilization Efficiency.

**TABLE 3: DNA018 COOLING CAPACITIES - 1-1/2 TON** 

											Δ	IR ON	EVAP	ORATO	OR CO	L							
	MPERA OF AIR				450	CFM			525	CFM			600	CFM			675	CFM			750	CFM	
	DENSE		IL		WE	³°F			WE	³°F			WI	3°F			WE	³°F			WE	³°F	
				72	67	62	57	72	67	62	57	72	67	62	57	72	67	62	57	72	67	62	57
		Т САР ИВН		17.4	16.6	15.3	15.3	18.3	17.4	16.1	16.0	19.1	18.2	16.8	16.8	19.6	18.7	17.2	17.2	20.1	19.2	17.7	17.6
	TOTAI INP	_ POW PUT kV		1.78	1.77	1.72	1.75	1.81	1.80	1.75	1.78	1.83	1.83	1.77	1.81	1.85	1.84	1.79	1.82	1.86	1.86	1.80	1.84
	^		86	9.3	11.9	14.1	15.0	11.0	13.8	15.5	15.9	12.7	15.7	16.8	16.8	12.3	15.5	17.2	17.2	11.9	15.2	17.7	17.6
85 °F	Sensible Capacity MBH <sup>1</sup>	>	83	8.8	11.4	13.7	14.5	10.0	12.8	15.2	15.6	11.2	14.2	16.8	16.8	11.2	14.4	17.2	17.2	11.3	14.6	17.5	17.6
	Sap 11	y Dry	80	8.3	11.0	13.2	14.1	9.0	11.9	14.3	15.2	9.7	12.8	15.4	16.4	10.2	13.4	16.1	17.0	10.7	14.1	16.9	17.6
	ble Ca <sub>l</sub> MBH <sup>1</sup>	li ji	77	7.9	10.5	12.7	13.6	8.1	10.9	13.3	14.2	8.2	11.3	13.9	14.9	9.2	12.4	15.1	16.0	10.1	13.5	16.4	17.0
	nsik	Entering I Bulb °F	74	7.4	10.0	12.3	13.1	7.1	9.9	12.3	13.3	6.8	9.8	12.4	13.4	8.2	11.4	14.1	14.9	9.6	12.9	15.8	16.5
	Se	ш.	71	-	9.6	11.8	12.7	-	8.9	11.4	12.3	-	8.3	10.9	11.9	-	10.3	13.1	13.9	-	12.3	15.2	15.9
	NIE		68	-	9.1	11.3	12.2	-	8.0	10.4	11.3	-	6.8	9.4	10.4	-	9.3	12.0	12.9	-	11.8	14.6	15.3
	1	T CAP		16.7	15.5	14.5	14.5	17.5	16.3	15.3	15.2	18.4	17.1	16.0	16.0	18.9	17.6	16.4	16.4	19.3	18.1	16.8	16.8
	TOTAI	L POW	٧	1.89	1.89	1.86	1.85	1.93	1.92	1.89	1.88	1.97	1.96	1.93	1.92	1.98	1.97	1.94	1.93	1.99	1.98	1.95	1.94
	₹		86	10.7	13.2	14.5	14.5	11.7	14.5	15.3	15.2	12.7	15.7	16.0	16.0	12.1	15.3	16.4	16.4	11.5	14.9	16.8	16.8
95 °F	Sensible Capacity MBH <sup>1</sup>	≥	83	9.3	11.9	14.2	14.5	10.2	13.0	15.1	15.2	11.1	14.1	16.0	16.0	11.0	14.2	16.4	16.4	11.0	14.3	16.8	16.8
	ble Cap MBH <sup>1</sup>	Entering Dry Bulb °F	80 77	8.0	10.6 9.2	12.9 11.5	13.1 11.8	8.7 7.2	11.5 10.0	14.1 12.6	14.3 12.9	9.4 7.8	12.5	15.2 13.6	15.5 13.9	9.9	13.1 12.0	16.0	16.2 15.1	10.4 9.8	13.7 13.1	16.8 16.2	16.8 16.2
	ble MB	erin 30lb	74	6.6 5.3	7.9	10.2	10.4	5.8	8.6	11.1	11.4	6.2	10.9 9.3	12.0	12.3	7.7	10.9	14.9 13.8	14.0	9.0	12.6	15.6	15.7
	ensi	Ent	71	-	6.5	8.9	9.1	5.0	7.1	9.6	99.9	-	7.7	10.4	10.7	-	9.8	12.7	12.9	9.2	12.0	15.0	15.1
	Š		68		5.2	7.5	7.8	_	5.6	8.2	8.4	_	6.1	8.8	9.1	-	8.7	11.6	11.8	_	11.4	14.5	14.5
		Т САР ИВН		15.6	14.2	13.4	13.3	16.4	14.9	14.1	14.0	17.2	15.6	14.8	14.7	17.7	16.0	15.2	15.1	18.2	16.5	15.6	15.5
	TOTAI			2.03	2.00	1.98	1.98	2.06	2.03	2.01	2.01	2.09	2.06	2.04	2.04	2.11	2.08	2.06	2.06	2.13	2.10	2.07	2.07
	IINF	OT KV	v 86	9.4	11.7	13.3	13.1	10.2	12.8	14.0	13.9	11.1	13.9	14.8	14.7	11.1	14.1	15.2	15.1	11.1	14.3	15.6	15.5
105.05	city		83	8.5	10.9	12.9	12.9	9.3	11.9	13.8	13.8	10.1	12.9	14.8	14.7	10.3	13.3	15.2	15.1	10.6	13.7	15.6	15.5
105 °F	apa 	D.	80	7.6	10.0	12.0	12.0	8.3	10.9	13.2	13.1	9.0	11.9	14.3	14.2	9.5	12.5	14.9	14.9	10.0	13.1	15.6	15.5
	ble Cag MBH <sup>1</sup>	ng P of	77	6.7	9.1	11.2	11.1	7.4	10.0	12.2	12.2	8.0	10.8	13.2	13.2	8.7	11.7	14.1	14.1	9.5	12.6	15.0	15.0
	sible M	Entering Dry Bulb °F	74	5.9	8.2	10.3	10.2	6.4	9.0	11.3	11.2	7.0	9.8	12.2	12.1	7.9	10.9	13.3	13.3	8.9	12.0	14.5	14.4
	Sensible Capacity MBH <sup>1</sup>	ш	71	-	7.4	9.4	9.4	-	8.1	10.3	10.2	-	8.7	11.2	11.1	-	10.1	12.5	12.5	-	11.5	13.9	13.9
	U)		68		6.5	8.6	8.5	-	7.1	9.3	9.3	-	77.7	10.1	10.1	-	9.3	11.7	11.7	-	10.9	13.4	13.3
		Т САР ИВН		14.5	12.8	12.3	12.2	15.2	13.4	12.9	12.8	15.9	14.0	13.5	13.4	16.5	14.5	14.0	13.8	17.0	15.0	14.4	14.3
	TOTAI INP	POW PUT kV		2.16	2.11	2.10	2.10	2.19	2.14	2.13	2.13	2.22	2.17	2.16	2.16	2.24	2.19	2.18	2.18	2.27	2.21	2.20	2.20
	>		86	8.1	10.2	12.0	11.7	8.8	11.2	12.8	12.5	9.6	12.2	13.5	13.4	10.2	12.9	14.0	13.8	10.7	13.6	14.4	14.3
115 °F	acit	>	83	7.7	9.8	11.6	11.3	8.4	10.8	12.6	12.3	9.1	11.7	13.5	13.4	9.7	12.4	14.0	13.8	10.2	13.1	14.4	14.3
	ible Capacity MBH <sup>1</sup>	tering Dry Bulb °F	80	7.3	9.4	11.2	10.9	7.9	10.3	12.3	11.9	8.6	11.2	13.3	12.9	9.1	11.9	13.9	13.9	9.7	12.6	14.4	14.3
	ble Ca	i e	77	6.9	9.0	10.8	10.5	7.5	9.9	11.8	11.5	8.2	10.8	12.9	12.5	8.6	11.4	13.4	13.1	9.1	12.0	13.9	13.7
	disc	Ente Bu	74	6.5	8.6	10.4	10.1	7.1	9.5	11.4	11.0	7.7	10.3	12.4	12.0	8.1	10.9	12.9	12.6	8.6	11.5	13.3	13.2
	Sensi	Ш	71	-	8.2	10.0	9.7	-	9.0	10.9	10.6	-	9.8	11.9	11.5	-	10.4	12.3	12.1	-	10.9	12.8	12.7
	NE	TCAR	68	-	7.8	9.6	9.2	-	8.6	10.5	10.1	-	9.3	11.4	11.0	-	9.9	11.8	11.6	-	10.4	12.3	12.1
	ı	T CAP		13.5	11.4	11.2	11.1	14.1	11.9	11.7	11.6	14.7	12.5	12.3	12.1	15.3	12.9	12.7	12.6	15.9	13.4	13.2	13.0
	TOTAI	_ POW OT kV	٧	2.30	2.23	2.22	2.23	2.32	2.25	2.25	2.26	2.35	2.27	2.27	2.28	2.38	2.30	2.30	2.31	2.41	2.33	2.33	2.34
	₹		86	6.8	8.7	10.8	10.3	7.4	9.6	11.5	11.2	8.1	10.5	12.3	12.1	9.2	11.7	12.7	12.6	10.3	13.0	13.2	13.0
125 °F	oaci	2	83	6.8	8.8	10.3	9.7	7.5	9.7	11.3	10.9	8.2	10.5	12.3	12.1	9.0	11.5	12.7	12.6	9.8	12.5	13.2	13.0
	Cag H	g D °F	80	6.9	8.9	10.4	9.7	4.6	9.8	11.4	10.7	8.2	10.6	12.4	11.6	8.8	11.3	12.8	12.3	9.3	12.0	13.2	13.0
	ble Ca	erin ulb	77	7.0	9.0	10.4	9.8	7.6	9.8	11.4	10.8	8.3	10.7	12.5	11.7	8.5	11.1	12.6	12.1	8.8	11.5	12.7	12.5
	Sensible Capacity MBH <sup>1</sup>	Entering Dry Bulb °F	74 71	7.0	9.0	10.5	9.9	7.7	9.9	11.5	10.8	8.4	10.8	12.5	11.8	8.3	10.9	12.4	11.9	8.2	10.9	12.2	12.0
	Se	_	-		9.1	10.6	9.9	-	10.0	11.6	10.9	H	10.9	12.6	11.9		10.6	12.2	11.7	H	10.4	11.7	11.5
		]	68	-	9.2	10.6	10.0	-	10.1	11.7	11.0	-	11.0	12.7	12.0	-	10.4	11.9	11.4	-	9.9	11.2	10.9

<sup>1.</sup> These capacities are net capacities (the indoor fan heat is deducted). ALL SENSIBLE CAPACITY

**TABLE 4: DNA024 COOLING CAPACITIES - 2 TON** 

											Δ	IR ON	EVAP	ORATO	OR COI	L							
	MPERA OF AIR				600	CFM			700	CFM			800	CFM			900	CFM			1,000	CFM	
	DENSE		IL			3 °F				3 °F				3 °F				3 °F				3 °F	
		T 0 4 B		72	67	62	57	72	67	62	57	72	67	62	57	72	67	62	57	72	67	62	57
	N	T CAP		24.1	22.5	20.9	21.3	24.9	23.3	21.6	22.1	25.8	24.1	22.3	22.8	25.9	24.2	22.5	22.9	26.1	24.4	22.6	23.1
	TOTAL INP	L POW OT kV		2.28	2.25	2.21	2.21	2.31	2.28	2.24	2.24	2.34	2.31	2.27	2.27	2.44	2.41	2.37	2.37	2.53	2.51	2.46	2.46
	_		86	12.9	16.5	19.7	20.4	15.2	19.0	21.0	21.6	17.5	21.6	22.3	22.8	16.8	21.2	22.5	22.9	16.2	20.7	22.6	23.1
85 °F	Sensible Capacity MBH <sup>1</sup>	2	83	12.3	15.9	19.1	19.7	13.9	17.8	20.7	21.3	15.5	19.6	22.3	22.8	15.5	19.8	22.5	22.9	15.5	19.9	22.6	23.1
	Cap T	$\cap$	80	11.7	15.3	18.5	19.1	12.6	16.5	20.0	20.6	13.5	17.7	21.4	22.2	14.1	18.4	22.0	22.6	14.7	19.2	22.6	23.1
	ble Ca MBH <sup>1</sup>	Entering I Bulb °F	77	11.1	14.6	17.9	18.5	11.3	15.2	18.7	19.3	11.5	15.7	19.4	20.2	12.7	17.0	20.6	21.3	13.9	18.4	21.8	22.3
	isus	E E	74 71	10.4	14.0	17.3 16.6	17.9 17.3	10.0	13.9 12.6	17.4 16.1	18.1 16.8	9.6	13.7	17.5 15.5	18.2 16.2	11.3	15.7 14.3	19.3 17.9	19.9 18.5	13.1	17.6 16.8	21.1	21.5
	Š		68		12.8	16.0	16.7		11.3	14.8	15.5	-	9.8	13.5	14.3		12.9	16.5	17.1		16.1	19.5	20.0
		Т САР ИВН		23.5	21.4	20.2	20.4	24.0	21.9	20.7	20.9	24.6	22.4	21.2	21.3	25.0	22.8	21.5	21.7	25.4	23.2	21.9	22.1
	TOTAL			2.41	2.38	2.33	2.33	2.45	2.42	2.37	2.37	2.50	2.46	2.40	2.41	2.59	2.56	2.50	2.50	2.69	2.66	2.60	2.60
	>		86	15.0	18.3	20.2	20.4	16.2	19.8	20.7	20.9	17.4	21.2	21.2	21.3	16.8	20.9	21.5	21.7	16.2	20.5	21.9	22.1
95 °F	Sensible Capacity MBH <sup>1</sup>	>	83	13.2	16.5	19.9	20.0	14.2	17.8	20.5	20.6	15.2	19.1	21.2	21.3	15.3	19.4	21.5	21.7	15.4	19.8	21.9	22.1
	-Jab	Entering Dry Bulb °F	80	11.4	14.7	18.1	18.2	12.2	15.8	19.5	19.5	13.1	16.9	20.9	20.9	13.9	18.0	21.4	21.5	14.6	19.0	21.9	22.1
	ble Ca MBH <sup>1</sup>	tering Bulb	77	9.6	13.0	16.4	16.4	10.3	13.9	17.5	17.5	10.9	14.8	18.7	18.7	12.4	16.5	19.9	20.0	13.9	18.2	21.1	21.3
	nsik	Ente	74	7.8	11.2 9.4	14.6 12.8	14.6 12.8	8.3	11.9 9.9	15.6 13.6	15.6	8.8	12.7	16.6	16.6	10.9	15.0	18.5	18.6	13.1	17.4 16.6	20.3 19.6	20.6 19.7
	Se	_	71 68	-	7.6	11.0	11.0	-	8.0	11.6	13.6 11.6	-	10.5 8.4	14.4	14.4 12.3	-	13.6 12.1	17.0 15.6	17.1 15.6	-	15.9	18.8	19.7
		Т САР ИВН		21.7	19.5	18.5	18.6	22.3	20.1	19.0	19.1	22.9	20.6	19.5	19.6	23.2	20.9	19.8	19.9	23.5	21.2	20.1	20.1
	TOTAL INP	POW PUT kV		2.55	2.51	2.47	2.45	2.60	2.56	2.51	2.50	2.65	2.60	2.56	2.54	2.74	2.69	2.65	2.63	2.83	2.79	2.74	2.72
	λ		86	13.0	16.4	18.1	18.0	14.2	17.8	18.8	18.8	15.3	19.2	19.5	19.6	15.3	19.5	19.8	19.9	15.4	19.8	20.1	20.1
105 °F	Sensible Capacity MBH <sup>1</sup>	>	83	11.9	15.2	17.7	17.5	12.9	16.5	18.6	18.6	13.9	17.8	19.5	19.6	14.3	18.4	19.8	19.9	14.6	19.0	20.1	20.1
	Cap T	g Dry °F	80	10.7	14.1	16.5	16.3	11.6	15.3	17.9	17.7	12.5	16.5	19.3	19.1	13.2	17.4	19.7	19.6	13.9	18.3	20.1	20.1
	ble Ca <sub>l</sub> MBH <sup>1</sup>	tering Bulb	77 74	9.5	12.9	15.4	15.2 14.0	9.0	14.0	16.7	16.5	11.1 9.7	15.1	18.0	17.7	12.1	16.3	18.6	18.6	13.1 12.4	17.5	19.3	19.4
	isus	Entering I Bulb °F	71	8.4	11.7 10.6	14.2 13.0	12.9	9.0	12.7 11.4	15.4 14.1	15.2 13.9	9.7	13.7 12.3	16.6 15.2	16.3 14.9	11.1	16.2 14.1	17.6 16.5	17.5 16.4	-	16.8 16.0	18.6 17.8	18.6 17.9
	Š		68	-	9.4	11.9	11.7	-	10.1	12.8	12.6	-	10.9	13.8	13.5	-	13.1	15.4	15.3	-	15.3	17.0	17.1
		Т САР ИВН		20.0	17.7	16.8	16.8	20.6	18.2	17.3	17.3	21.2	18.7	17.8	17.8	21.4	19.0	18.0	18.0	21.7	19.2	18.2	18.2
	TOTAL			2.69	2.64	2.60	2.58	2.75	2.70	2.66	2.63	2.80	2.75	2.71	2.68	2.89	2.83	2.79	2.76	2.97	2.92	2.87	2.84
	>		86	11.1	14.4	16.0	15.6	12.2	15.8	16.9	16.7	13.2	17.2	17.8	17.8	13.9	18.1	18.0	18.0	14.6	19.0	18.2	18.2
115 °F	ible Capacity MBH <sup>1</sup>	≥	83	10.5	13.9	15.5	15.1	11.6	15.3	16.6	16.4	12.6	16.6	17.8	17.8	13.2	17.5	18.0	18.0	13.9	18.3	18.2	18.2
	- Jab	ntering Dr Bulb °F	80	10.0	13.4	14.9	14.5	11.0	14.7	16.4	15.9	11.9	16.0	17.8	17.4	12.5	16.8	18.0	17.8	13.2	17.6	18.2	18.2
	ble Ca MBH <sup>1</sup>	erin dlb	77	9.5	12.8	14.4	14.0	10.4	14.1	15.8	15.4	11.3	15.3	17.2	16.7	11.9	16.1	17.3	17.1	12.4	16.8	17.5	17.5
	Sensit	Ente	74 71	8.9	12.3 11.8	13.9	13.5 12.9	9.8	13.5 12.9	15.2 14.6	14.8 14.2	10.7	14.7 14.0	16.5 15.9	16.1 15.4	11.2	15.4 14.7	16.7 16.0	16.4 15.7	11.7	16.1 15.4	16.8 16.0	16.7 16.0
	S		68		11.2	12.8	12.4		12.3	14.0	13.6	-	13.4	15.3	14.8		14.7	15.3	15.0		14.6	15.3	15.3
		Т САР ИВН		18.2	15.8	15.1	15.0	18.9	16.3	15.6	15.5	19.5	16.9	16.2	16.0	19.6	17.0	16.3	16.2	19.8	17.1	16.4	16.3
	TOTAL			2.83	2.77	2.74	2.70	2.89	2.83	2.80	2.76	2.95	2.89	2.86	2.82	3.03	2.97	2.94	2.89	3.11	3.05	3.01	2.97
		JI KV	v 86	9.1	12.5	13.9	13.2	10.2	13.9	15.0	14.6	11.2	15.3	16.2	16.0	12.5	16.8	16.3	16.2	13.8	18.3	16.4	16.3
125 °F	Sensible Capacity MBH <sup>1</sup>	>	83	9.2	12.6	13.2	12.6	10.3	14.0	14.7	14.3	11.3	15.4	16.2	16.0	12.2	16.5	16.3	16.2	13.1	17.6	16.4	16.3
	-1	g F°	80	9.3	12.7	13.3	12.7	10.4	14.1	14.8	14.2	11.4	15.5	16.2	15.6	11.9	16.2	16.3	15.9	12.4	16.9	16.4	16.3
	ble Ca <sub>l</sub>	arin,	77	9.4	12.8	13.4	12.8	10.5	14.2	14.9	14.3	11.5	15.6	16.2	15.7	11.6	15.9	16.1	15.6	11.7	16.2	15.7	15.6
	nsik _	Entering Dry Bulb °F	74	9.5	12.9	13.5	12.9	10.6	14.3	15.0	14.4	11.6	15.7	16.2	15.8	11.3	15.6	15.8	15.3	11.0	15.5	15.0	14.9
	Se		71 68	-	13.0	13.6 13.7	13.0 13.1	-	14.4	15.1 15.2	14.5 14.6	-	15.8 15.9	16.2 16.2	15.9 16.0	-	15.3 15.0	15.5 15.2	15.0 14.7	-	14.7 14.0	14.3 13.6	14.1
			υO		13.0	13.1	13.1		14.0	10.2	14.0		10.9	10.2	10.0	•	10.0	10.2	14./		14.∪	13.0	13.4

<sup>1.</sup> These capacities are net capacities (the indoor fan heat is deducted). ALL SENSIBLE CAPACITY

TABLE 5: DNA030 COOLING CAPACITIES - 2-1/2 TON

OF CONDE	Sensible Capacity  Consider Capacity  MBH1  MBH2  MBH3  MBH3	CAP.  AID BIT SENTENCE OF THE	2 36 1 33 1 30 1 77 1 74 1 71 58 2	5.3 4.5 3.7 3.0 2.2	750 WB 67 26.4 2.95 19.8 19.0 18.2 17.4 16.7 15.9 15.1		22.6 2.89 22.6 21.9 21.2 20.4 19.6	72 30.6 3.03 18.6 17.0 15.3 13.7		CFM 3°F 62 26.3 2.94 26.0 25.6	24.5 2.93 24.5	<b>72</b> 32.9 3.06		CFM 8°F 62 28.3	<b>57</b> 26.4	<b>72</b> 33.2	1,125 WB 67 31.2		<b>57</b> 26.7	<b>72</b> 33.5		CFM 8 °F 62 28.8	<b>57</b> 26.9
85 °F Responsible of the state	Sensible Capacity OTALP OTALP OTALP OTALP OTALP OTALP OTALP OTALP OTALP	COIL  CAP.  CAP.  SH  A GIT FINANCE  CAP.  SH  CAP.  CAP.  SH  POWE  T KW	2 36 1 33 1 30 1 77 1 74 1 71 58 2	8.1 99 5.3 4.5 3.7 3.0 2.2	26.4 2.95 19.8 19.0 18.2 17.4 16.7 15.9	24.2 2.90 23.6 22.8 22.1 21.3 20.5 19.7	22.6 2.89 22.6 21.9 21.2 20.4 19.6	30.6 3.03 18.6 17.0 15.3	28.7 2.99 23.6 21.9	26.3 2.94 26.0 25.6	<ul><li>24.5</li><li>2.93</li><li>24.5</li></ul>	32.9 3.06	31.0	<b>62</b> 28.3			67	62			67	62	
85 °F Subscription Capacity	Sensible Capacity TUPINI WBH1 WBH1 TUPINI WITH TUPINI WITH WITH WITH WITH WITH WITH WITH WIT	POWE T kW  CAP.  CAP.  BH  POWE T kW	2 36 1 33 1 30 1 77 1 74 1 71 58 2	8.1 99 5.3 4.5 3.7 3.0 2.2	26.4 2.95 19.8 19.0 18.2 17.4 16.7 15.9	24.2 2.90 23.6 22.8 22.1 21.3 20.5 19.7	22.6 2.89 22.6 21.9 21.2 20.4 19.6	30.6 3.03 18.6 17.0 15.3	28.7 2.99 23.6 21.9	26.3 2.94 26.0 25.6	<ul><li>24.5</li><li>2.93</li><li>24.5</li></ul>	32.9 3.06	31.0	28.3									
85 °F Subscription Capacity	Sensible Capacity TUPINI WBH1 WBH1 TUPINI WITH TUPINI WITH WITH WITH WITH WITH WITH WITH WIT	POWE T kW  CAP.  CAP.  BH  POWE T kW	R 2 86 1 33 1 80 1 77 1 74 1 71 58	5.3 4.5 3.7 3.0 2.2	2.95 19.8 19.0 18.2 17.4 16.7 15.9	2.90 23.6 22.8 22.1 21.3 20.5 19.7	2.89 22.6 21.9 21.2 20.4 19.6	3.03 18.6 17.0 15.3	2.99 23.6 21.9	2.94 26.0 25.6	2.93	3.06			26.4	33.2	31.2	28.6	26.7	33.5	31.5	28.8	26.9
85 °F Subscription Capacity	Sensible Capacity Sensible Capacity MBH1 A TYPLO MIN MART	T kW  E E E E E E E E E E E E E E E E E E E	2 36 1 33 1 30 1 77 1 74 1 71 58	5.3 4.5 3.7 3.0 2.2	19.8 19.0 18.2 17.4 16.7 15.9	23.6 22.8 22.1 21.3 20.5 19.7	22.6 21.9 21.2 20.4 19.6	18.6 17.0 15.3	23.6 21.9	26.0 25.6	24.5		3.02				<b>-</b>						<del>                                     </del>
ТС	NET ( MB OTAL P INPUT	CAP.  CAP.  T kW	33 1 30 1 77 1 74 1 71 58 2	4.5 3.7 3.0 2.2	19.0 18.2 17.4 16.7 15.9 15.1	22.8 22.1 21.3 20.5 19.7	21.9 21.2 20.4 19.6	17.0 15.3	21.9	25.6		04.0		2.97	2.96	3.13	3.09	3.04	3.03	3.20	3.16	3.11	3.10
ТС	NET ( MB OTAL P INPUT	CAP.  CAP.  T kW	30 1 77 1 74 1 71 2 68 2	3.7 3.0 2.2 -	18.2 17.4 16.7 15.9 15.1	22.1 21.3 20.5 19.7	21.2 20.4 19.6	15.3			040	21.9	27.4	28.3	26.4	21.1	26.8	28.6	26.7	20.2	26.2	28.8	26.9
ТС	NET ( MB OTAL P INPUT	CAP. BH POWE T kW	77 1 74 1 71 - 88 - 2	3.0	17.4 16.7 15.9 15.1	21.3 20.5 19.7	20.4 19.6		20.3		24.2	19.4	24.9	28.3	26.4	19.3	25.1	28.6	26.7	19.3	25.2	28.8	26.9
ТС	NET ( MB OTAL P INPUT	CAP. BH POWE T kW	74 1 71 - 88 - 2	2.2	16.7 15.9 15.1	20.5 19.7	19.6	13.7		24.6	23.6	16.9	22.4	27.2	26.1	17.6	23.3	28.0	26.5	18.3	24.2	28.8	26.9
ТС	NET ( MB OTAL P INPUT	CAP. BH POWE T kW	71 58 2	-	15.9 15.1	19.7	_		18.7	23.0	22.0	14.5	20.0	24.7	23.6	15.9	21.6	26.3	24.8	17.3	23.3	27.8	25.9
ТС	NET ( MB OTAL P INPUT	CAP. BH POWE T kW	88 2	-	15.1			12.1	17.1	21.4	20.4	12.0	17.5	22.2	21.1	14.2	19.9	24.6	23.0	16.4	22.3	26.9	24.9
	MB OTAL P INPUT	CAP. BH POWE T kW	2 R			1911	18.8	-	15.5	19.8	18.7	-	15.0	19.8	18.7	-	18.2	22.8	21.3	-	21.3	25.9	24.0
	MB OTAL P INPUT	BH POWE T kW	R	6.8	25.0		18.1	-	13.8	18.1	17.1	-	12.6	17.3	16.2	-	16.5	21.1	19.6	-	20.4	24.9	23.0
	INPUT	T kW	3		20.0	22.3	21.4	29.2	27.3	24.3	23.4	31.7	29.6	26.4	25.4	32.0	29.9	26.6	25.6	32.2	30.1	26.8	25.8
95 °F Papagity	Sible Capacity MBH1	<u> </u>	26 1		3.14 22.3	3.08	3.07	3.22 19.9	3.18 24.9	3.11	3.11	3.26	3.22 27.5	3.15 26.4	3.15 25.4	3.34 21.0	3.30	3.23	3.22 25.6	3.42 19.9	3.38 25.9	3.30 26.8	3.30
Sensible Capac	MBH <sup>1</sup>		_	7.9 5.6	20.1	22.3	21.4	17.5	24.9	24.3	23.4	19.3	24.9	26.4	25.4	19.1	26.7 24.9	26.6	25.6	19.9	25.9	26.8	25.8 25.8
Sensible	MBH <sup>1</sup>	<u> </u>	_	3.4	17.8	21.0	20.0	15.0	20.0	23.6	22.4	16.6	22.2	26.1	24.8	17.3	23.1	16.5	25.3	18.0	24.0	26.8	25.8
Sensible	SIDIE M M	16 u	_	1.1	15.6	18.8	17.7	12.6	17.5	21.1	19.9	14.0	19.5	23.5	22.2	15.5	21.2	24.6	23.5	17.0	23.0	25.8	24.8
Ses		ang 7	74 8	3.9	13.4	16.5	15.5	10.1	15.1	18.7	17.5	11.3	16.8	20.8	19.5	13.7	19.4	22.8	21.7	16.0	22.0	24.9	23.9
	E I	7	<b>7</b> 1	-	11.1	14.3	13.3	-	12.6	16.2	15.0	-	14.1	18.1	16.8	-	17.6	21.0	19.8	-	21.0	23.9	22.9
	"	6	88	-	8.9	12.1	11.0	-	10.2	13.7	12.6	-	11.5	15.4	14.1	-	15.8	19.2	18.0	-	20.1	22.9	21.9
	NET ( MB	BH		5.4	23.0	20.6	20.1	27.7	25.0	22.5	21.9	30.0	27.1	24.4	23.8	30.4	27.4	24.7	24.0	30.7	27.8	25.0	24.3
TO	OTAL P		R 2	.94	3.31	3.23	3.24	2.98	3.36	3.28	3.29	3.03	3.41	3.33	3.34	3.10	3.49	3.41	3.42	3.17	3.57	3.48	3.49
2	≥	8	_	5.9	20.0	20.6	20.1	17.7	22.3	22.5	21.9	19.6	24.7	24.4	23.8	19.5	24.9	24.7	24.0	19.5	25.1	25.0	24.3
105 °F To a consible Capacity	g ≥	8		4.4	18.5	20.5	19.9	16.1	20.7	22.5	21.8	17.8	22.9	24.4	23.8	18.2	23.5	24.7	24.0	18.6	24.1	25.0	24.3
Car	g - 1 5	ລ∘ ⊢		3.0	17.1	19.6	18.8	14.5	19.1	21.9	21.0	16.1	21.2	24.3	23.3	16.9	22.2	24.6	23.8	17.6	23.2	25.0	24.3
<u>P</u>	MBH <sup>1</sup>	Bulb 1	_	1.5 0.1	15.6 14.2	18.1 16.6	17.3 15.9	12.9 11.3	17.5 15.9	20.3	19.5 17.9	14.4 12.6	19.5 17.7	22.5	21.6 19.8	15.5 14.2	20.9 19.5	23.3	22.5	16.7 15.7	22.2	24.0	23.4
isusi	E T	<u> </u>	71	-	12.7	15.2	14.4	-	14.3	17.1	16.3	-	16.0	19.0	18.1	-	18.2	20.6	19.8	-	20.4	22.1	21.5
Š	κ	<u> </u>	88	-	11.3	13.7	13.0	-	12.7	15.5	14.7	-	14.2	17.3	16.3	-	16.8	19.2	18.4	-	19.4	21.2	20.6
	NET C	CAP.		4.1	20.9	19.0	18.8	26.2	22.8	20.7	20.5	28.3	24.6	22.4	22.1	28.8	25.0	22.7	22.5	29.2	25.4	23.1	22.8
TO	OTAL P	POWE	R 2	.70	3.47	3.38	3.40	2.75	3.53	3.44	3.47	2.80	3.60	3.50	3.53	2.86	3.68	3.58	3.61	2.92	3.76	3.66	3.69
			36 1	3.9	17.7	19.0	18.8	15.5	19.7	20.7	20.5	17.2	21.8	22.4	22.1	18.1	23.0	22.7	22.5	19.1	24.2	23.1	22.8
115 °F	y city	> [	33 1	3.2	17.0	18.8	18.3	14.8	19.0	20.6	20.2	16.4	21.0	22.4	22.1	17.3	22.2	22.7	22.5	18.2	23.3	23.1	22.8
Lange Capacity	- L	ع بد و	30 1	2.6	16.3	18.1	17.6	14.1	18.3	20.2	19.7	15.6	20.2	22.4	21.8	16.4	21.3	22.7	22.3	17.3	22.4	23.1	22.8
<u> </u>	MBH <sup>1</sup>	_ = _		1.9	15.7	17.4	16.9	13.3	17.5	19.5	19.0	14.8	19.4	21.6	21.0	15.6	20.5	21.9	21.5	16.3	21.5	22.2	21.9
dist	distr		_	1.2	15.0	16.7	16.3	12.6	16.8	18.8	18.2	13.9	13.6	20.8	20.2	14.7	19.6	21.0	20.6	15.4	20.6	21.3	21.0
Ser	ven T	Ľ	71	-	14.3	16.1	15.6	-	16.1	18.0	17.5	-	17.8	20.0	19.4	-	18.7	20.2	19.7	-	19.7	20.4	20.1
	NET (		88	-	13.6	15.4	14.9	-	15.3	17.3	16.7	-	17.0	19.2	18.6	-	17.9	19.3	18.9	-	18.8	19.5	19.2
7.0	NET (	3H		2.7	18.9	17.4	17.5	24.7	20.5	18.9	19.0	26.6	22.2	20.4	20.5	27.2	22.6	20.8	20.9	27.7	23.1	21.3	21.4
10	OTAL P	T kW			3.63	3.53		2.51	3.71	3.60	3.64	2.56	3.79	3.68	3.72	2.62	3.87	3.76		2.68	3.96	3.84	3.89
. <u>≥</u>	<u> </u>	-	_	1.9	15.3	17.4	17.5	13.3	17.2	18.9	19.0	14.7	19.0	20.4	20.5	16.7	21.2	20.8	20.9	18.9	23.4	21.3	21.4
125 °F	pac L	<u> </u>	_	2.0	15.5	17.0	16.7	13.5	17.3	18.7	18.6	14.9	19.1	20.4	20.5	16.3	20.8	20.8	20.9	17.8	22.5	21.3	21.4
Car	MBH <sup>1</sup>		_	2.2	15.6 15.7	16.6 16.7	16.4 16.5	13.6 13.7	17.4 17.5	18.6 18.7	18.3 18.5	15.0 15.1	19.2 19.4	20.5	20.2	16.0 15.6	20.4	20.9	20.8	16.9 16.0	21.7	21.3	21.4
ple	ME ME		_	2.4	15.7	16.7	16.8	13.7	17.5	18.8	18.6	15.1	19.4	20.7	20.4	15.0	19.7	20.3	20.4	15.1	19.9	19.5	19.6
Sensible Capacity	Ent Frot	5 "   <del>'</del> 7		-	15.9	17.0	16.7	-	17.8	18.9	18.7	-	19.6	20.9	20.7	-	19.3	19.8	19.7	-	19.0	18.6	18.7
Š		<u> </u>	_	-	16.0	17.1	16.9	-	17.9	19.1	18.8		19.8	21.1							18.1	17.7	17.8

<sup>1.</sup> These capacities are net capacities (the indoor fan heat is deducted). ALL SENSIBLE CAPACITY

**TABLE 6: DNA036 COOLING CAPACITIES - 3 TON** 

											Δ	IR ON	EVAP	ORATO	OR CO	L							
	MPERA				900	CFM			1,050	CFM			1,200	CFM			1,350	CFM			1,500	CFM	
	OF AIR DENSE		IL		WI	3 °F			WE	³°F			WE	3 °F			WE	3 °F			WE	3 °F	
				72	67	62	57	72	67	62	57	72	67	62	57	72	67	62	57	72	67	62	57
	N	T CAP MBH		36.7	34.6	31.9	30.3	37.9	35.7	32.9	31.3	39.1	36.9	34.0	32.3	39.4	37.1	34.2	32.5	39.6	37.4	34.4	32.7
	TOTAL INP	POW UT kV		3.57	3.51	3.44	3.41	3.64	3.58	3.51	3.48	3.71	3.65	3.58	3.55	3.80	3.73	3.66	3.63	3.88	3.82	3.74	3.71
	₹		86	19.8	25.2	29.9	30.3	23.0	28.7	32.0	31.3	26.1	32.1	34.0	32.3	24.8	31.0	34.2	32.5	23.5	29.9	34.4	32.7
85 °F	oaci	Dry F	83	18.9	24.3	29.0	29.7	21.0	26.7	31.5	31.0	23.1	29.2	34.0	32.3	22.8	29.0	34.2	32.5	22.4	28.8	34.4	32.7
	Sensible Capacity MBH <sup>1</sup>	ηg Γ γ° ς	80 77	18.0 17.1	23.4	28.1	28.8	19.1 17.1	24.8	29.8 27.8	30.5 28.6	20.1 17.2	26.2	31.5 28.5	32.3 29.3	20.7	27.0 24.9	32.4	32.5 30.5	21.3 20.2	27.7 26.6	33.3 32.2	32.7 31.6
	ble ME	Entering I Bulb °F	74	16.1	21.5	26.2	26.9	15.2	20.9	25.9	26.6	14.2	20.2	25.5	26.3	16.7	22.9	28.3	28.4	19.1	25.5	31.1	30.5
	ens	E	71	-	20.6	25.3	26.0	-	18.9	23.9	24.7	-	17.3	22.6	23.4	-	20.9	26.3	26.4	-	24.4	30.0	29.4
	Ñ		68	-	19.7	24.4	25.1	-	17.0	22.0	22.7	-	14.3	19.6	20.4	-	18.8	24.3	24.4	-	23.3	28.9	28.3
		Т САР ИВН		36.9	34.1	31.4	31.2	37.3	34.5	31.8	31.5	37.7	34.9	32.1	31.9	38.3	35.5	32.6	32.4	39.0	36.1	33.2	32.9
	TOTAL INP	POW		3.77	3.73	3.64	3.61	3.86	3.81	3.72	3.69	3.95	3.90	3.81	3.77	4.03	3.98	3.88	3.85	4.11	4.06	3.96	3.93
	>		86	23.8	29.2	31.4	31.2	25.1	30.8	31.8	31.5	26.5	32.4	32.1	31.9	25.1	31.2	32.6	32.4	23.6	30.0	33.2	32.9
95 °F	Sensible Capacity MBH <sup>1</sup>	>	83	21.1	26.5	31.2	31.2	22.2	27.8	31.7	31.5	23.3	29.2	32.1	31.9	22.9	29.0	32.6	32.4	22.5	28.9	33.2	32.9
	-1	3 Dry °F	80	18.4	23.8	28.5	29.3	19.2	24.9	29.8	30.6	20.0	26.0	31.1	31.9	20.7	26.9	32.1	32.4	21.4	27.8	33.2	32.9
	ble Ca	Entering I Bulb °F	77	15.7	21.1	25.9	26.6	16.3	21.9	26.9	27.6	16.8	22.7	27.9	28.7	18.6	24.7	30.0	30.3	20.3	26.7	32.1	31.8
	nsib	inte B	74	13.0	18.5	23.2	23.9	13.3	19.0	23.9	24.7	13.6	19.5	24.7	25.5	16.4	22.5	27.8	28.1	19.2	25.6	31.0	30.7
	Se		71 68	-	15.8 13.1	20.5 17.8	21.2 18.5	-	16.0 13.1	21.0 18.0	21.7 18.8	-	16.3 13.1	21.4 18.2	22.2 19.0	-	20.4 18.2	25.7 23.5	25.9 23.8	-	24.5	29.9 28.8	29.6 28.5
		Т САР ИВН	_	34.9	32.6	30.7	29.6	35.3	32.9	31.0	29.9	35.6	33.2	31.3	30.2	36.1	33.6	31.7	30.6	36.5	34.0	32.1	30.9
	TOTAL			4.00	3.93	3.84	3.83	4.09	4.01	3.93	3.91	4.18	4.10	4.01	3.99	4.26	4.18	4.09	4.07	4.34	4.26	4.17	4.15
		O I KV	86	21.1	27.2	29.8	28.8	22.4	28.7	30.6	29.5	23.7	30.3	31.3	30.2	23.2	30.1	31.7	30.6	22.8	29.8	32.1	30.9
105 °F	city		83	19.4	25.4	29.3	28.4	20.5	26.8	30.3	29.3	21.6	28.2	31.3	30.2	21.6	28.5	31.7	30.6	21.7	28.7	32.1	30.9
100 1	ара 1	ᅙ	80	17.7	23.7	27.6	27.0	18.6	24.9	29.0	28.4	19.5	26.1	30.4	29.8	20.1	26.9	31.2	30.4	20.6	27.7	32.1	30.9
	Sensible Capacity MBH <sup>1</sup>	Entering Dry Bulb °F	77	15.9	21.9	25.8	25.3	16.6	23.0	27.1	26.5	17.4	24.0	28.3	27.7	18.5	25.3	29.7	28.8	19.6	26.6	31.0	29.8
	ldisi N	nterin Bulb	74	14.2	20.2	24.1	23.5	14.7	21.0	25.1	24.6	15.3	21.9	26.2	25.6	16.9	23.7	28.1	27.2	18.5	25.5	29.9	28.8
	Sen	ш	71	-	18.4	22.3	21.8	-	19.1	23.2	22.7	-	19.8	24.1	23.5	-	22.2	26.5	25.6	-	24.5	28.9	27.7
			68	-	16.7	20.6	20.0	-	17.2	21.3	20.7	-	17.7	22.0	21.4	-	20.6	24.9	24.0	-	23.4	27.8	26.7
	N	T CAP		33.0	31.0	30.0	28.0	33.3	31.3	30.3	28.2	33.5	31.6	30.6	28.5	33.8	31.8	30.8	28.7	34.0	32.0	31.0	28.9
	TOTAL INP	UT kV		4.24	4.13	4.05	4.04	4.32	4.22	4.13	4.12	4.41	4.30	4.22	4.21	4.50	4.38	4.30	4.29	4.58	4.47	4.38	4.37
	^		86	18.5	25.1	28.2	26.4	19.7	26.7	29.4	27.4	20.9	28.2	30.6	28.5	21.4	28.9	30.8	28.7	21.9	29.6	31.0	28.9
115 °F	sible Capacity MBH <sup>1</sup>	>	83	17.7	24.3	27.4	25.6	18.8	25.8	29.0	27.0	19.9	27.3	30.6	28.5	20.4	27.9	30.8	28.7	20.9	28.6	31.0	28.9
	Cap -	g Dry °F	80	16.9	23.5	26.6	24.8	17.9	24.9	28.1	26.2	18.9	26.3	29.7	27.7	19.4	26.9	30.3	28.3	19.9	27.6	31.0	28.9
	ble Ca <sub>l</sub> MBH <sup>1</sup>	ntering Bulb °F	77	16.1	22.7	25.8	24.0	17.0	24.0	27.2	25.4	17.9	25.3	28.7	26.7	18.4	25.9	29.3	27.3	18.8	26.6	30.0	27.9
	nsik	Ente	74	15.3	21.9	24.9	23.2	16.1	23.1	26.4	24.5	17.0	24.3	27.8	25.8 24.8	17.4	24.9	28.3	26.3	17.8	25.5	28.9	26.8
	Sens		71 68	-	21.1	23.3	22.4	-	22.2	25.5 24.6	23.6	-	23.4	26.8 25.8	23.8	-	23.9	27.3 26.3	25.3 24.3	-	24.5	27.9 26.9	25.8 24.8
		T CAP		31.0	29.4	29.3	26.4	31.2	29.7	29.6	26.6	31.4	29.9	29.8	26.8	31.5	29.9	29.8	26.8	31.5	30.0	29.9	26.9
	TOTAL			4.47	4.33	4.26	4.26	4.55	4.42	4.34	4.34	4.64	4.50	4.42	4.42	4.73	4.59	4.51	4.51	4.82	4.68	4.59	4.60
		UT kV	v 86	15.9	23.1	26.6	24.0	17.0	24.6	28.2	25.4	18.1	26.1	29.8	26.8	19.6	27.8	29.8	26.8	21.1	29.5	29.9	26.9
125 °F	Sensible Capacity MBH <sup>1</sup>	>	83	16.0	23.2	25.4	22.8	17.1	24.8	27.6	24.8	18.2	26.3	29.8	26.8	19.1	27.4	29.8	26.8	20.1	28.5	29.9	26.9
	-Jap	٦٥	80	16.2	23.3	25.6	22.5	17.3	24.9	27.3	24.1	18.4	26.5	29.0	25.6	18.7	27.0	29.5	26.2	19.1	27.5	29.9	26.9
	ible Car MBH <sup>1</sup>	ling Jab	77	16.3	23.5	25.7	22.7	17.4	25.0	27.4	24.2	18.5	26.6	29.2	25.8	18.3	26.6	29.0	25.8	18.1	26.5	28.9	25.9
	nsib	Entering Dry Bulb °F	74	16.4	23.6	25.8	22.8	17.6	25.2	27.6	24.4	18.7	26.8	29.3	25.9	17.9	26.1	28.6	25.4	17.1	25.5	27.9	24.9
	Sel	Ш	71	-	23.7	26.0	22.9	-	25.3	27.7	24.5	-	26.9	29.5	26.1	-	25.7	28.2	25.0	-	24.5	26.9	23.9
		l	68	-	23.9	26.1	23.1	-	25.5	27.9	24.7	-	27.1	29.6	26.2	-	25.3	27.8	24.6		23.5	25.9	22.9

<sup>1.</sup> These capacities are net capacities (the indoor fan heat is deducted). ALL SENSIBLE CAPACITY

**TABLE 7: DNA042 COOLING CAPACITIES - 3-1/2 TON** 

												IR ON	EVAP	ORATO	OR CO	IL							
	MPERA OF AIR				1,050	CFM				CFM			1,400	CFM			1,575	CFM			1,750	CFM	
	DENSE		IL			3 °F				3 °F				3 °F				3 °F	1			3 °F	
				72	67	62	57	72	67	62	57	72	67	62	57	72	67	62	57	72	67	62	57
	N	T CAP MBH		44.5	40.8	37.6	36.5	46.0	42.2	38.8	37.7	47.5	43.6	40.1	38.9	48.9	44.9	41.3	40.1	50.3	46.2	42.5	41.2
	TOTAL INP	_ POW PUT kV		4.01	4.00	3.85	3.85	4.16	4.15	4.00	4.00	4.31	4.31	4.15	4.15	4.36	4.35	4.19	4.19	4.40	4.39	4.23	4.23
	>		86	23.6	29.7	35.1	35.9	27.6	34.2	37.6	37.4	31.6	38.6	40.1	38.9	31.0	38.5	41.3	40.1	30.5	38.4	42.5	41.2
85 °F	acit	>	83	22.5	28.6	34.0	34.8	25.3	31.9	37.0	36.8	28.1	35.1	40.1	38.9	28.6	36.1	41.3	40.1	29.1	37.1	42.5	41.2
	Sensible Capacity MBH <sup>1</sup>	οğ	80	21.4	27.5	32.9	33.7	23.0	29.6	35.4	36.2	24.6	31.7	37.9	38.8	26.2	33.7	40.2	40.0	27.8	35.7	42.5	41.2
	ble Ca	Entering I Bulb °F	77	20.3	26.4	31.8	32.6	20.7	27.3	33.1	34.0	21.2	28.2	34.4	35.3	23.8	31.3	37.8	37.6	26.4	34.3	41.1	39.9
	nsi	E E	74	19.2	25.4 24.3	30.7 29.7	31.5	18.5	25.1 22.8	30.8	31.7 29.4	17.7	24.7	30.9 27.5	31.8 28.4	21.4	28.9 26.4	35.3 32.9	35.2 32.8	25.0	33.0 31.6	39.7 38.4	38.5 37.2
	Se		71 68	-	23.2	28.6	29.4	-	20.5	26.3	27.1	-	17.8	24.0	24.9	-	24.0	30.5	30.3	-	30.2	37.0	35.8
		T CAP		41.5	38.0	34.6	35.0	43.2	39.6	36.0	36.4	44.9	41.1	37.3	37.8	46.1	42.2	38.3	38.8	47.2	43.2	39.3	39.8
	TOTAL			4.24	4.22	4.07	4.10	4.40	4.38	4.22	4.25	4.56	4.54	4.38	4.40	4.62	4.60	4.43	4.46	4.68	4.66	4.49	4.52
	_	UT kV	v 86	26.5	32.7	34.6	35.0	29.0	35.7	36.0	36.4	31.4	38.7	37.3	37.8	30.3	38.0	38.3	38.8	29.2	37.3	39.3	39.8
105 °F	Capacity	_	83	23.4	29.6	33.8	34.1	25.5	32.3	35.6	36.0	27.6	34.9	37.3	37.8	27.7	35.4	38.3	38.8	27.8	35.9	39.3	39.8
	1 1	۳ آ	80	20.3	26.5	30.7	31.0	22.1	28.8	33.4	33.8	23.9	31.2	36.1	36.5	25.2	32.9	37.7	38.2	26.5	34.6	39.3	39.8
	ble Ca	Entering I Bulb °F	77	17.1	23.3	27.6	27.9	18.6	25.4	30.0	30.3	20.1	27.4	32.4	32.8	22.6	30.3	35.2	35.6	25.1	33.2	37.9	38.4
	Sensible	ng B	74	14.0	20.2	24.4	24.7	15.2	21.9	26.5	26.9	16.3	23.7	28.6	29.0	20.0	27.7	32.6	33.0	23.7	31.8	36.6	37.1
	Sen	Ш	71	-	17.1	21.3	21.6	-	18.5	23.1	23.4	-	19.9	24.9	25.2	-	25.2	30.0	30.5	-	30.4	35.2	35.7
			68	-	13.9	18.1	18.5	-	15.0	19.6	20.0	-	16.1	21.1	21.5	-	22.6	27.5	27.9	-	29.1	33.8	34.3
	N	T CAP		38.7	34.7	32.2	33.0	40.3	36.1	33.5	34.3	41.8	37.5	34.8	35.6	42.8	38.4	35.6	36.5	43.8	39.2	36.5	37.3
	TOTAI INP	UT kV		4.51	4.44	4.34	4.34	4.67	4.59	4.49	4.49	4.82	4.74	4.63	4.64	4.90	4.82	4.71	4.71	4.98	4.90	4.78	4.79
	<u>≯</u>		86	23.6	29.4	31.7	31.8	25.7	32.0	33.3	33.7	27.8	34.6	34.8	35.6	28.0	35.1	35.6	36.4	28.1	35.7	36.5	37.3
115 °F	Sensible Capacity MBH <sup>1</sup>	≥	83	21.5	27.3	30.9	30.9	23.4	29.7	32.9	32.9	25.3	32.1	34.8	35.0	26.1	33.2	35.6	36.2	26.8	34.4	36.5	37.3
	ble Cap MBH <sup>1</sup>	Entering Dry Bulb °F	80	19.5	25.3	28.9	28.8	21.2	27.5	31.4	31.3	22.9	29.7	33.8	33.8	24.2	31.3	35.2	35.5	25.5	33.0	36.5	37.3
	ble MB	tering Bulb	77 74	17.5 15.4	23.3	26.8 24.8	26.8 24.7	18.9 16.7	25.2 23.0	29.1 26.9	29.1 26.8	20.4 18.0	27.2 24.8	31.4 28.9	31.4 28.9	22.3	29.5 27.6	33.3	33.7 31.8	24.1 22.8	31.7	35.1 33.8	36.0 34.6
	isus	Ent	71	13.4	19.2	22.7	22.7	-	20.7	24.6	24.6	-	22.3	26.5	26.5	-	25.7	29.5	29.9	-	29.0	32.5	33.3
	Š		68	-	17.1	20.7	20.7	-	18.5	22.4	22.3	-	19.9	24.0	24.0	-	23.8	27.6	28.0	-	27.7	31.1	32.0
		Т САР ИВН		35.9	31.3	29.9	30.9	37.3	32.6	31.1	32.2	38.8	33.9	32.3	33.4	39.6	34.5	33.0	34.1	40.3	34.2	33.6	34.8
	TOTAL			4.78	4.66	4.61	4.59	4.93	4.80	4.75	4.73	5.08	4.95	4.89	4.87	5.18	5.04	4.99	4.97	5.27	5.14	5.08	5.06
	_		86	20.6	26.0	28.9	28.5	22.4	28.2	30.6	31.0	24.2	30.4	32.3	33.4	25.6	32.3	33.0	34.1	27.1	34.1	33.6	34.8
125 °F	Sensible Capacity MBH <sup>1</sup>	>	83	19.7	25.1	28.0	27.6	21.4	27.2	30.1	29.9	23.0	29.3	32.3	32.2	24.4	31.0	33.0	33.5	25.8	32.8	33.6	34.8
	taps	ᅙᄯ	80	18.7	24.1	27.0	26.6	20.3	26.1	29.3	28.9	21.9	28.2	31.6	31.1	23.2	29.8	32.6	32.9	24.5	31.5	33.6	34.8
	ble Ca MBH <sup>1</sup>	tering Dr Bulb °F	77	17.8	23.2	26.1	25.7	19.3	25.1	28.2	27.8	20.7	27.0	30.4	30.0	22.0	28.6	31.4	31.7	23.2	30.2	32.3	33.5
	disc		-	16.9	22.2	25.1	24.8	18.2	24.0	27.2	29.8	19.6	25.9	29.3	28.8	20.8	27.4	30.1		21.9	28.9	31.0	32.2
	Ser	ш	71	-	21.3	24.2	23.8	-	23.0	26.2	25.7	-	24.7	28.1	27.7	-	26.2	28.9	29.3	-	27.6	29.7	30.9
	NIC	TCAD	68	-	20.3	23.2	22.9	-	22.0	25.1	24.7	-	23.6	27.0	26.5	-	25.0	27.7	28.1	-	26.4	28.5	29.6
	N	T CAP		33.0	27.9	27.5	28.9	34.4	29.1	28.7	30.1	35.8	30.3	29.8	31.3	36.3	30.7	30.3	31.7	36.9	31.2	30.7	32.2
	TOTAL INP	UT kV		5.05	4.88	4.87	4.83	5.19	5.02	5.01	4.97	5.34	5.16	5.15	5.11	5.45	5.27	5.26	5.22	5.57	5.38	5.37	5.33
	₹		86	17.7	22.6	26.1	25.3	19.1	24.5	27.9	28.2	20.6	26.3	29.8	31.2	23.3	29.4	30.3	31.7	26.0	32.5	30.7	32.2
125 °F	oaci	≥	83	17.8	22.8	25.0	24.3	19.3	24.6	27.4	26.9	20.7	26.5	29.8	29.5	22.7	28.8	30.3	30.8	24.8	31.2	30.7	32.2
	Car ⊢	g D % F	80	18.0	22.9	25.2	24.4	19.4	24.8	27.2	26.4	20.9	26.6	29.3	28.4	22.2	28.3	30.0	30.3	23.5	30.0	30.7	32.2
	ble Ca MBH <sup>1</sup>	arin db	77	18.1	23.1	25.3	24.6	19.6	24.9	27.4	26.6	21.1	26.8	29.4	28.6	21.7	27.8	29.5	29.8	22.3	28.7	29.5	31.0
	Sensible Capacity MBH <sup>1</sup>	Entering Dry Bulb °F	74	18.3	23.2	25.5	24.8	19.8	25.1	27.5	26.7	21.2	27.0	29.6	28.7	21.1	27.2	28.9	29.2	21.0	27.5	28.2	29.7
	Se		71 68	-	23.4	25.6 25.8	24.9 25.1	-	25.3 25.4	27.7 27.9	26.9	-	27.2 27.3	29.8 29.9	28.9	-	26.7 26.2	28.4 27.9	28.7	-	26.2 25.0	27.0 25.8	28.5 27.2
	L		υö		23.5	20.0	∠IJ. I		25.4	21.9	27.1		21.3	29.9	∠y. i		20.2	21.9	28.2		25.0	∠ე.ნ	Z1.Z

<sup>1.</sup> These capacities are net capacities (the indoor fan heat is deducted). ALL SENSIBLE CAPACITY

**TABLE 8: DNA048 COOLING CAPACITIES - 4 TON** 

											A	IR ON	EVAP	ORATO	OR CO	L							
	MPERA				1,200	CFM			1,400	CFM			1,600	CFM			1,800	CFM			2,000	CFM	
	OF AIR DENSE		IL		WE	3 °F			WE	3 °F			WE	3°F			WE	3°F			WE	3 °F	
				72	67	62	57	72	67	62	57	72	67	62	57	72	67	62	57	72	67	62	57
		T CAP //BH		48.5	45.0	41.0	41.6	49.9	46.3	42.2	42.8	51.3	47.6	43.4	44.0	52.4	48.7	44.4	44.9	53.5	49.7	45.3	45.9
	TOTAL INP	POW UT kW		3.99	3.93	3.87	3.86	4.01	3.95	3.88	3.88	4.02	3.96	3.90	3.89	4.04	3.97	3.91	3.91	4.05	3.99	3.92	3.92
	₹		86	28.9	36.8	41.0	41.6	31.9	40.5	42.2	42.8	34.9	44.1	43.4	44.0	38.0	46.9	44.4	44.9	41.0	49.7	45.3	45.9
85 °F	oaci	Dry	83	25.5	33.4	40.3	41.2	27.8	36.4	41.9	42.6	30.2	39.4	43.4	44.0	32.7	42.5	44.4	44.9	35.1	45.6	45.3	45.9
	Sensible Capacity MBH <sup>1</sup>	g P°	80	22.0	30.0	36.9	37.8	23.8	32.4	39.8	40.9	25.6	34.8	42.8	43.9	27.3	37.2	44.1	44.9	29.1	39.6	45.3	45.9
	ble Ca MBH¹	Entering I Bulb °F	77 74	18.6 15.2	26.5 23.1	33.4	34.4	19.8 15.7	28.3	35.8 31.7	36.8 32.8	20.9 16.2	30.1 25.4	38.1	39.2 34.6	22.0 16.7	31.9 26.6	38.7	39.6 34.3	23.1 17.2	33.6 27.7	39.4 33.4	40.0 34.0
	isus	Ent	71	-	19.7	26.6	27.6	-	20.2	27.7	23.7	-	20.8	28.8	29.9	-	21.2	28.1	29.0	-	21.7	27.5	28.0
	Š		68	-	16.3	23.2	24.1	-	16.2	23.7	24.7	-	16.1	24.1	25.2	-	15.9	22.8	23.7	-	15.7	21.5	22.1
		Т САР ИВН		43.5	41.9	36.3	36.9	46.1	44.4	38.6	39.1	48.8	47.0	40.8	41.4	48.6	46.8	40.6	41.2	48.3	46.5	40.4	40.9
	TOTAL			4.44	4.34	4.32	4.32	4.44	4.34	4.32	4.32	4.43	4.33	4.31	4.47	4.37	4.37	4.35	4.35	4.50	4.41	4.38	4.39
	_		86	27.2	35.6	36.3	36.9	30.7	40.1	38.6	39.1	34.3	44.7	40.8	41.4	36.8	45.6	40.6	41.2	39.2	46.5	40.4	40.9
95 °F	Sensible Capacity MBH <sup>1</sup>	_	83	23.7	32.2	36.3	36.9	26.7	36.1	38.6	39.1	29.7	40.0	40.8	41.4	31.5	42.3	40.6	41.2	33.3	44.6	40.4	40.9
	aps 1	Dry	80	20.3	28.8	33.1	33.6	22.7	32.1	36.9	37.4	25.0	35.4	40.7	41.3	26.2	37.0	40.5	41.1	27.3	38.6	40.4	40.9
	ble Ca MBH <sup>1</sup>	Entering I Bulb °F	77	16.9	25.3	29.7	30.2	18.6	28.0	32.9	33.4	20.3	30.7	36.1	36.6	20.8	31.7	35.2	35.8	21.3	32.7	34.4	35.0
	dist	inte Bu	74	13.5	21.9	26.3	26.7	14.6	24.0	28.8	29.3	15.7	26.0	31.4	32.0	15.5	26.4	29.9	30.5	15.4	26.7	28.4	29.0
	Ser	ш	71	-	18.5	22.8	23.3	-	19.9	24.8	25.3	-	21.4	26.7	27.3	-	21.1	24.6	25.2	-	20.8	22.5	23.0
	NIC	T 0 4 D	68	-	15.1	19.4	19.5	-	15.9	20.7	21.3	-	16.7	22.1	22.6	-	15.7	19.3	19.9	-	14.8	16.5	17.1
	٨	T CAP		42.2	39.2	35.7	36.0	44.1	40.9	37.2	37.5	45.9	42.6	38.8	39.1	46.4	43.1	39.2	39.5	47.0	43.6	39.7	40.0
	TOTAL INP	L POW UT kW	V	4.94	4.85	4.81	4.81	4.95	4.85	4.81	4.82	4.95	4.86	4.82	4.83	4.98	4.89	4.84	4.85	5.00	4.91	4.87	4.89
	ity		86	26.7	34.8	35.7	36.0	30.1	38.1	37.2	37.5	33.4	41.5	38.8	39.1	36.1	42.5	39.2	39.5	38.8	43.6	39.7	40.0
105 °F	pac	)ry	83	23.3 19.9	31.3 27.9	35.3 32.0	35.6 32.2	26.0 22.0	34.9	37.0 35.3	37.3 35.6	28.7 24.1	38.4	38.8 38.7	39.1 39.0	30.8 25.5	40.5 35.7	39.2 39.2	39.5 39.5	32.8 26.9	42.6 37.7	39.7 39.7	40.0
	ble Сар МВН <sup>1</sup>	Entering Dry Bulb °F	77	16.5	24.5	28.6	28.8	17.9	26.8	31.3	31.6	19.4	29.1	34.0	34.3	20.2	30.4	33.9	34.2	20.9	31.7	33.7	34.0
	ible	terin Bulb	74	13.0	21.1	25.1	25.4	13.9	22.8	27.2	27.5	14.7	24.4	29.4	29.7	14.8	25.1	28.6	28.9	14.9	25.8	27.8	28.1
	Sensible Capacity MBH <sup>1</sup>	En	71	-	17.7	21.7	22.0	-	18.7	23.2	23.5	-	19.8	24.7	25.0	-	19.8	23.3	23.6	-	19.8	21.8	22.1
	S		68	-	14.2	18.3	18.5	-	14.7	19.2	19.4	-	15.1	20.0	20.3	-	14.5	17.9	18.3	-	13.9	15.9	16.2
		Т САР. ИВН		41.0	36.5	35.0	35.1	42.0	37.3	35.9	35.9	43.0	38.2	36.7	36.8	44.3	39.4	37.9	37.9	45.7	40.6	39.0	39.1
	TOTAL INP	POW		5.44	5.35	5.29	5.30	5.46	5.37	5.31	5.32	5.47	5.39	5.33	5.34	5.49	5.40	5.34	5.35	5.50	5.42	5.35	5.37
	>		86	26.3	33.9	35.0	35.1	29.4	36.1	35.9	35.9	32.5	38.2	36.7	36.8	35.4	39.4	37.9	37.9	38.4	40.6	39.0	39.1
115 °F	acit	>	83	22.9	30.5	34.3	34.3	25.3	33.7	35.5	35.5	27.8	36.9	36.7	36.8	30.1	38.7	37.9	37.9	32.4	40.6	39.0	39.1
	sible Capacit) MBH <sup>1</sup>	g Dry °F	80	19.5	27.1	30.8	30.9	21.3	29.6	33.7	33.6	23.1	32.1	36.7	36.7	24.8	34.9	37.8	37.9	26.4	36.8	39.0	39.1
	ble Ca <sub>l</sub> MBH <sup>1</sup>	ntering Bulb °F	77	16.0	23.7	27.4	27.5	17.2	25.6	29.7	29.8	18.5	27.5	32.0	32.0	19.5	29.2	32.5	32.6	20.5	30.8	33.1	33.1
	nsik	Ente	74	12.6	20.6	24.0	24.0	13.2	21.5	25.7	25.7	13.8	22.9	27.3	27.4	14.2	23.9	27.2	27.3	14.5	24.9	27.1	27.2
	Sens	_	71 68	-	16.8 13.4	20.6 17.2	20.6 17.2	-	17.5 13.5	21.6 17.6	21.7 17.6	-	18.2 13.5	22.7 18.0	22.7 18.1	-	18.5 13.2	21.9 16.6	22.0 16.6	-	18.9 12.9	21.1 15.2	21.2 15.2
	NE	T CAP		39.7																			
	TOTAL	MBH - POW	/ER		33.7	34.3	34.2	39.9	33.6	34.5	34.3	40.1	33.9	34.7	34.5	42.2	35.8	36.5	36.3	44.4	37.7	38.4	38.2
		UT kW		5.90 25.9	5.90 33.1	5.80 34.3	5.80 34.2	6.00 28.7	5.90 34.0	5.80 34.5	5.80 34.3	6.00 31.5	5.90 35.0	5.80 34.7	5.90 34.5	6.00 34.7	5.90 36.4	5.80 36.5	5.90 36.3	6.00 37.9	5.90 37.7	5.80 38.4	5.90 38.2
125 °F	icity		83	22.4	29.7	33.2	33.0	24.7	32.5	34.0	33.8	26.9	35.3	34.7	34.5	29.4	37.0	36.5	36.3	32.0	38.7	38.4	38.2
.20 1	ара 1	Pry	80	19.0	26.2	29.7	29.5	20.6	28.4	32.2	32.0	22.2	30.6	34.6	34.4	24.1	33.2	36.5	36.3	26.0	35.9	38.4	38.2
	ible Car MBH <sup>1</sup>	ing lb°	77	15.6	22.8	26.8	26.1	16.6	24.4	28.1	27.9	17.5	25.9	30.0	29.8	18.8	27.9	31.2	31.0	20.0	29.9	32.4	32.2
	Sensible Capacity MBH <sup>1</sup>	Entering Dry Bulb °F	74	12.2	19.4	22.9	22.7	12.5	20.3	24.1	23.9	12.9	21.3	25.3	25.1	13.5	22.6	25.9	25.7	14.1	23.9	26.4	26.2
	Sen	Ш	71	-	16.0	19.4	19.3	-	16.3	20.0	19.9	-	16.6	20.6	20.4	-	17.3	20.5	20.4	-	18.0	20.5	20.3
		İ.	68	-	12.6	16.6	15.9	-	12.2	16.0	15.8	-	11.9	16.0	15.8	-	12.0	15.2	15.0	-	12.0	14.5	14.3

<sup>1.</sup> These capacities are net capacities (the indoor fan heat is deducted). ALL SENSIBLE CAPACITY

**TABLE 9: DNA060 COOLING CAPACITIES - 5 TON** 

	4DED :	<b>-</b>									Δ	IR ON	EVAP	ORATO	OR CO	L							
	MPERA OF AIR					CFM				CFM			2,000	CFM				CFM				CFM	
	DENSE		IL			3 °F				3°F													
	NIE.	TCAR	,	72	67	62	57	72	67	62	57	72	67	62	57	72	67	62	57	72	67	62	57
	N	T CAP		60.3	56.2	52.0	51.1	62.4	58.1	53.8	52.9	64.4	60.0	55.5	54.6	65.4	60.9	56.4	55.5	66.5	61.8	57.3	56.3
	TOTAL	L POW PUT kV		5.67	5.58	5.48	5.50	5.80	5.71	5.61	5.63	5.93	5.83	5.73	5.75	6.11	6.01	5.91	5.93	6.30	6.20	6.09	6.11
			86	39.5	47.7	52.0	51.1	43.5	52.3	53.8	52.9	47.5	56.9	55.5	54.6	50.9	59.4	56.4	55.5	54.3	61.8	57.3	56.3
85 °F	Sensible Capacity MBH <sup>1</sup>	>	83	35.2	43.4	50.6	50.9	38.4	47.2	53.1	52.7	41.6	51.0	55.5	54.6	44.3	54.1	56.4	55.5	46.9	57.2	57.3	56.3
	,ap,	ڄۜ٣	80	31.0	39.1	46.4	46.6	33.4	42.2	50.0	50.2	35.8	45.2	53.6	53.9	37.6	47.5	55.4	55.1	39.4	49.8	57.3	56.3
	ble Ca	Entering I Bulb °F	77	26.7	34.8	42.1	42.3	28.3	37.1	44.9	45.2	30.0	39.4	47.8	48.1	31.0	40.9	48.8	48.5	32.0	42.3	49.8	48.9
	disc	E in	74	22.4	30.5	37.8	38.0	23.3	32.0	39.9	40.1	24.2	33.6	42.0	42.2	24.3	34.2	42.2	41.8	24.5	34.9	42.4	41.4
	Sel	ш	<u> </u>	-	26.3	33.5	33.8	-	27.0	34.8	35.1	-	27.7	36.1	36.4	-	27.6	35.5	35.2	17.1	27.4	34.9	34.0
	NE	T CAP	68	-	22.0	29.3	29.5	-	21.9	29.8	30.0	-	21.9	30.3	30.6	-	20.9	28.9	28.5	9.6	20.0	27.5	26.5
		МВН		57.6	53.0	49.0	48.5	59.5	54.7	50.7	50.1	61.5	56.5	52.3	51.7	62.4	57.3	53.1	52.4	63.3	58.1	53.9	53.2
		PUT kV	٧	6.14	6.11	5.96	6.01	6.30	6.27	6.11	6.16	6.45	6.42	6.26	6.32 51.7	6.62	6.59	6.43	6.49	6.80	6.76	6.60	6.65
05.05	Ϊţ		86 83	37.6 33.3	46.8 42.5	49.0 48.6	48.5 48.2	41.5 36.4	51.4 46.4	50.7 50.5	50.1 50.0	45.3 39.5	56.0 50.2	52.3 52.3	51.7	48.6 41.9	57.1 53.1	53.1 53.1	52.4 52.4	51.8 44.4	58.1 56.1	53.9 53.9	53.2 53.2
95 °F	Sensible Capacity MBH <sup>1</sup>	Dry	80	29.1	38.3	44.4	43.9	31.4	41.3	47.9	47.4	33.7	44.3	51.4	50.9	35.3	46.5	52.6	52.1	36.9	48.6	53.9	53.2
	ble Ca	l gu	77	24.8	34.0	40.1	39.7	26.3	36.2	42.8	42.4	27.8	38.5	45.5	45.1	28.7	39.8	46.0	45.4	29.5	41.2	46.4	45.7
	ible	Entering I Bulb °F	74	20.5	29.7	35.8	35.4	21.3	31.2	37.8	37.3	22.0	32.7	39.7	39.2	22.0	33.2	39.3	38.8	22.0	33.7	38.9	38.3
	ens	ᇤ	71	-	25.4	31.5	31.1	-	26.1	32.7	32.3	-	26.8	33.9	33.4	-	26.6	32.7	32.1	-	26.3	31.5	30.8
	S		68	-	21.2	27.2	26.8	-	21.1	27.6	27.2	-	21.0	28.0	27.6	-	19.9	26.0	25.5	-	18.8	24.0	23.4
		Т САР ИВН	).	53.0	48.8	45.0	42.7	55.0	50.7	46.8	44.3	57.1	52.5	48.5	45.9	57.6	53.1	49.0	46.4	58.2	53.6	49.5	46.9
	TOTAL INP	L POW		6.85	6.74	6.64	6.64	6.99	6.88	6.78	6.78	7.14	7.03	6.93	6.92	7.34	7.22	7.12	7.12	7.54	7.42	7.31	7.31
	λ		86	36.1	45.1	45.0	42.7	39.9	48.7	46.8	44.3	43.7	52.3	48.5	45.9	46.9	53.0	49.0	46.4	50.1	53.6	49.5	46.9
105 °F	Sensible Capacity MBH <sup>1</sup>	>	83	31.8	40.8	44.8	42.6	34.9	44.6	46.7	44.2	37.9	48.4	48.5	45.9	40.3	50.5	49.0	46.4	42.6	52.6	49.5	46.9
	Ga T-	Entering Dry Bulb °F	80	27.6	36.5	41.5	39.4	29.8	39.5	44.9	42.6	32.1	42.5	48.3	45.8	33.6	44.6	48.9	46.3	35.2	46.6	49.5	46.9
	ble Cap MBH <sup>1</sup>	tering Bulb	77	23.3	32.2	37.2	35.1	24.8	34.5	39.8	37.5	26.3	36.7	42.4	40.0	27.0	37.9	42.2	39.7	27.7	39.2	42.0	39.4
	nsik	Enter B	74 71	19.0	28.0	32.9	30.8	19.7	29.4	34.8	32.5	20.4	30.9	36.6	34.2	20.3	31.3	35.6	33.1	20.3	31.7	34.6	32.0
	Se	-	68	-	23.7 19.4	28.6 24.4	26.5 22.3	-	24.4 19.3	29.7 24.6	27.4	-	25.0 19.2	30.8	28.3	-	24.6 18.0	29.0	26.4 19.8	-	24.2 16.8	27.1 19.7	24.5 17.1
		T CAP MBH		48.4	44.7	41.0	36.9	50.5	46.6	42.8	38.5	52.6	48.6	44.6	40.1	52.9	48.8	44.9	40.3	53.2	49.1	45.1	40.5
	TOTAL			7.56	7.37	7.33	7.27	7.69	7.50	7.46	7.40	7.82	7.63	7.59	7.53	8.05	7.85	7.81	7.75	8.28	8.08	8.03	7.97
		l RV	86	34.6	43.3	41.0	36.9	38.4	45.9	42.8	38.5	42.2	48.6	44.6	40.1	45.2	48.8	44.9	40.3	48.3	49.1	45.1	40.5
115 °F	city		83	30.3	39.1	41.0	36.9	33.3	42.8	42.8	38.5	36.3	46.5	44.6	40.1	38.6	47.8	44.9	40.3	40.8	49.1	45.1	40.5
110 1	Sensible Capacity MBH <sup>1</sup>	P	80	26.1	34.8	38.6	34.8	28.3	37.7	41.9	37.8	30.5	40.7	45.2	40.7	31.9	42.6	45.1	40.6	33.4	44.6	45.1	40.5
	ble Ca MBH <sup>1</sup>	tering Dr Bulb °F	77	21.8	30.5	34.3	30.5	23.2	32.7	36.8	32.7	24.7	34.9	39.3	34.9	25.3	36.0	38.5	34.0	25.9	37.1	37.7	33.1
	ldis N		74	17.5	26.2	30.0	26.3	18.2	27.6	31.8	27.7	18.8	29.0	33.5	29.1	18.7	29.4	31.9	27.4	18.5	29.7	30.2	25.6
	Sen	ū	71	-	22.0	25.8	22.0	-	22.6	26.7	22.6	-	23.2	27.7	23.2	-	22.7	25.2	20.7	-	22.2	22.8	18.2
		<u> </u>	68	-	17.7	21.5	17.7	-	17.5	21.7	17.6	-	17.4	21.8	17.4	-	16.1	18.6	14.1	-	14.8	15.3	10.7
	N	T CAP MBH		43.8	40.5	37.1	31.1	46.0	42.6	38.9	32.7	48.2	44.6	40.7	34.3	48.2	44.6	40.8	34.2	48.2	44.6	40.8	34.2
	TOTAL INP	L POW PUT kV		8.30	8.00	8.00	7.90	8.40	8.10	8.10	8.00	8.50	8.20	8.20	8.10	8.80	8.50	8.50	8.40	9.00	8.70	8.70	8.60
	⋧		86	33.1	41.6	37.1	31.1	36.8	43.2	38.9	32.7	40.6	44.8	40.7	34.3	43.5	44.7	40.8	34.2	46.5	44.6	40.8	34.2
125 °F	aci	2	83	28.8	37.3	37.3	31.2	31.8	41.0	39.0	32.7	34.7	44.7	40.7	34.3	36.9	45.2	40.8	34.2	39.1	45.6	40.8	34.2
	Ga	g D	80	24.5	33.0	35.7	30.2	26.7	36.0	38.9	32.9	28.9	38.9	42.0	35.6	30.3	40.7	41.4	34.9	31.6	42.5	40.8	34.2
	Sensible Capacity MBH <sup>1</sup>	Entering Dry Bulb °F	77	20.3	28.8	31.4	26.0	21.7	30.9	33.8	27.9	23.1	33.1	36.2	29.8	23.6	34.1	34.8	28.3	24.2	35.1	33.3	26.8
	ınsik	Ente	74	16.0	24.5	27.1	21.7	16.6	25.9	28.8	22.8	17.2	27.2	30.4	24.0	17.0	27.4	28.1	21.6	16.7	27.6	25.9	19.3
	Se		71 68	-	20.2 15.9	22.9	17.4	-	20.8	23.7	17.8	-	21.4 15.6	24.6	18.2	-	20.8	21.5	15.0	-	20.2 12.7	18.4	11.9 4.4
			δQ	•	15.9	18.6	13.1	-	15.8	18.7	12.7	-	15.6	18.7	12.3	•	14.2	14.8	8.2	-	12./	10.9	4.4

<sup>1.</sup> These capacities are net capacities (the indoor fan heat is deducted). ALL SENSIBLE CAPACITY

TABLE 10: SIDE SUPPLY AIR BLOWER PERFORMANCE<sup>1</sup>

										EXTER	NAL:	STAIC	PRES	SURE	- IWG								
MODEL#	MTR	.10	0	.2	0	.30	0	.40	0	.50	)	.6	0	.70	0	.8	0	.9	0	1.0	0	1.1	0
DNA	SPD	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS
	HI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	608	358	465	326	-	-
018	MED	-	-	-	-	-	-	-	-	-	-	695	263	615	246	509	226	-	-	-	-	-	-
	LOW	743	243	700	235	657	226	614	218	549	207	483	195	-	-	-	-	-	-	-	-	-	-
	HI	-	-	-	-	-	-	-	-	-	-	984	443	894	422	751	390	608	358	-	-	-	-
024	MED	994	333	947	321	901	309	854	297	774	280	695	362	615	246	-	-	-	-	-	-	-	-
	LOW	743	243	700	235	657	226	614	218	-	-	-	-	-	-	-	-	-	-	-	-	-	<u> </u>
	HI	-	-	-	-	1238	504	1165	484	1075	463	984	443	894	422	751	390	-	-	-	-	-	-
030	MED	994	333	947	321	901	309	854	297	774	280	-	-	-	-	-	-	-	-	-	-	-	-
	LOW	•	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<u> </u>
	HI	-	-	-	-	-	-	-	-	1465	712	1390	685	1315	657	1204	623	1093	588	982	554	-	-
036	MED	1432	650	1381	628	1330	605	1279	583	1210	556	1140	529	1071	502	977	477	-	-	-	-	-	-
	LOW	1191	527	1149	510	1107	494	1065	477	1009	459	952	441	-	-	-	-	-	-	-	-	-	<u> </u>
	HI	-	-	1681	797	1610	768	1540	740	1465	712	1390	685	1315	657	1204	623	1093	588	-	-	-	-
042	MED	1432	650	1381	628	1330	605	1279	583	1210	556	1140	529	-	-	-	-	-	-	-	-	-	-
	LOW	1191	527	1149	510	1107	494	1065	477	-	-	-	-	-	-	-	-	-	-	-	-	-	<u> </u>
	HI	-	-	-	-	-	-	1908	1023	1832	982	1737	938	1656	889	1348	789	1252	754	-	-	-	-
048,060	MED	-	-	-	-	- 	Ī	1773	894	1726	869	1674	852	1613	832	1339	731	-	-	-	-	-	-
	LOW	-	-	-	-	1672	841	1610	804	1542	773	-	-	-	-	-	-	-	-	-	-	-	

<sup>1.</sup> Above data includes allowances for a dry evaporator coil, gas heat exchanger and no filters. For additional pressure drops, refer to Table 12 and 13.

TABLE 11: BOTTOM SUPPLY AIR BLOWER PERFORMANCE<sup>1</sup>

									EX	ΓERNA	L STA	TIC PR	ESSU	RE - IW	G								
MODEL#	мтр	.10	)	.20	0	.30	)	.4	0	.50	)	.6	0	.70	)	.80	)	.9	0	1.0	00	1.1	0
DNA	MTR SPD	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS
	HI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	547	322	419	293	-	-
018	MED	-	-	-	-	-	-	-	-	-	-	625	237	554	221	458	203	-	-	-	-	-	-
	LOW	669	219	630	211	591	204	553	196	494	186	435	176	-	-	-	-	-	-	-	-	-	<u> </u>
	HI	-	-	-	-	-	-	-	-	-	l -	886	398	805	380	676	351	547	322	-	-	-	-
024	MED	895	300	853	289	811	278	769	267	697	252	625	237	554	221	-	-	-	-	-	-	-	-
	LOW	669	219	630	211	591	204	553	196	- 007	-	-	-	-	-	- 070	-	-	-	-	-	-	<del>-</del>
020	HI MED	895	300	853	-	1115 811	454	1049 769	436	967 697	417	886	398	805	380	676	351	-	-	-	-	-	-
030	LOW	895	300	603	289	011	278	769	267	697	252	-	-	-	-	-	-	-	-	-	-	-	-
	HI	H	Ε.		<del>-</del>		H		_	1458	688	1377	663	1295	639	1147	600	999	561	-	-	-	H-
036	MED	1482	628	1428	613	1374	599	1320	584	1242	556	1163	528	1085	500	961	474	-	-			_	-
000	LOW	1239	510	1184	496	1130	481	1075	467	998	448	922	428	-	-	-	-	_	_	-	_	_	-
	HI	-	-	1687	763	1614	737	1540	712	1458	688	1377	663	1295	639	1147	600	-	-	-	-	-	-
042	MED	1482	628	1428	613	1374	599	1320	584	1242	556	1163	528	1085	500	_	-	-	-	-	-	-	-
	LOW	1239	510	1184	496	1130	481	1075	467	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	НІ	-	-	-	-	-	-	1928	1032	1844	994	1636	923	1515	888	1441	849	-	-	-	-	-	-
048,060	MED	-	-	-	-	-	-	1805	837	1693	859	1580	819	1473	788	-	-	-	-	-	-	-	-
	LOW	-	-	-	<u> </u>	1725	850	1660	807	1557	776	1428	728	-	-	-	-	-	-	-	-	-	-

<sup>1.</sup> Above data includes allowances for a dry evaporator coil, gas heat exchanger and no filters. For additional pressure drops, refer to Tables 12 and 13.

TABLE 12: ADDITIONAL STATIC PRESSURE RESISTANCE 1-1/2 - 3-1/2 TON (DNA018 - 042)<sup>1</sup>

								RES	SISTANC	E, IWG						
DESCRIPTION	CFM															
	500	600	700	800	900	1,000	1,100	1,200	1,300	1,400	1,500	1,600	1,700	1,800	1,900	2,000
WET EVAPORATOR COIL	.01	.01	.01	.02	.03	.04	.05	.06	.07	.08	.09	.09	-	-	-	-
ECONOMIZER <sup>2</sup>	.00	.00	.00	.01	.01	.01	.01	.02	.03	.04	.05	.06	-	-	-	-
FILTER FRAME KIT	.01	.02	.04	.06	.08	.10	.13	.16	.17	.18	.19	.20	-	-	-	-

- 1. Deduct these resistance values from the available external static pressure shown in Tables 10 and 11.
- 2. The pressure through the economizer is greater for 100% outdoor air then for 100% return air. If the resistance of the return air duct system is less then 0.25 IWG, the unit will deliver less CFM during full economizer operation.

TABLE 13: ADDITIONAL STATIC PRESSURE RESISTANCE 4 - 5 TON (DNA048 - 060)<sup>1</sup>

								RES	SISTANC	E, IWG						
DESCRIPTION	CFM															
	500	600	700	800	900	1,000	1,100	1,200	1,300	1,400	1,500	1,600	1,700	1,800	1,900	2,000
WET EVAPORATOR COIL	-	-	-	-	-	-	-	.03	.04	.05	.06	.07	.07	.08	.09	.09
ECONOMIZER <sup>2</sup>	-	-	-	-	-	-	-	.02	.02	.03	.03	.04	.04	.04	.05	.05
FILTER FRAME KIT	-	-	-	-	-	-	-	.04	.05	.05	.06	.07	.08	.09	.10	.11

- 1. Deduct these resistance values from the available external static pressure shown in Table 10 and 11.
- 2. The pressure through the economizer is greater for 100% outdoor air then for 100% return air. If the resistance of the return air duct system is less then 0.25 IWG, the unit will deliver less CFM during full economizer operation.

NOTE: HEAT ANTICIPATOR SHOULD BE SET AT 0.35 AMPS FOR ALL MODELS.

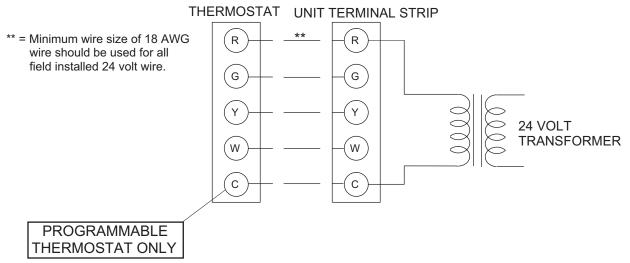
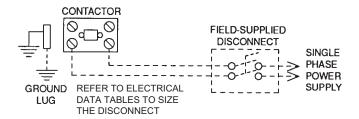


FIGURE 3 - TYPICAL FIELD CONTROL WIRING DIAGRAM



# FIGURE 4 - TYPICAL FIELD POWER WIRING DIAGRAM

**TABLE 14: ELECTRICAL DATA** 

MODEL	MODEL POWER		TAGE TIONS <sup>1</sup>	COMPR	ESSOR	COND. FAN	SUPPLY AIR BLOWER	MINIMUM	MAX. FUSE	MAX. HACR BREAKER	UNIT POWER	TRANSFORMER	
DNA	SUPPLY	MIN.	MAX.	RLA	LRA	MOTOR, FLA	MOTOR FLA	AMPACITY	SIZE, AMPS <sup>2</sup>	SIZE, AMPS	FACTOR	SIZE (VA)	
018	208/230-1-60	187	253	9.0	48.0	1.1	2.2	14.5	20	20	.96	40	
024	208/230-1-60	187	253	11.5	60.0	1.1	2.2	17.7	25	25	.96	40	
030	208/230-1-60	187	253	14.7	73.0	1.1	2.2	21.7	30	30	.96	40	
036	208/230-1-60	187	253	17.3	94.0	1.1	3.5	26.2	35	35	.96	40	
042	208/230-1-60	187	253	20.5	120.0	1.1	3.5	30.2	40	40	.96	40	
048	208/230-1-60	187	253	24.4	140.0	1.3	7.0	38.8	50	50	.96	40	
060	208/230-1-60	187	253	28.9	175.0	1.3	7.0	44.4	60	60	.96	40	

<sup>1.</sup> Utilization range "A" in accordance with ARI Standard 110.

<sup>2.</sup> Dual element, time delay type.

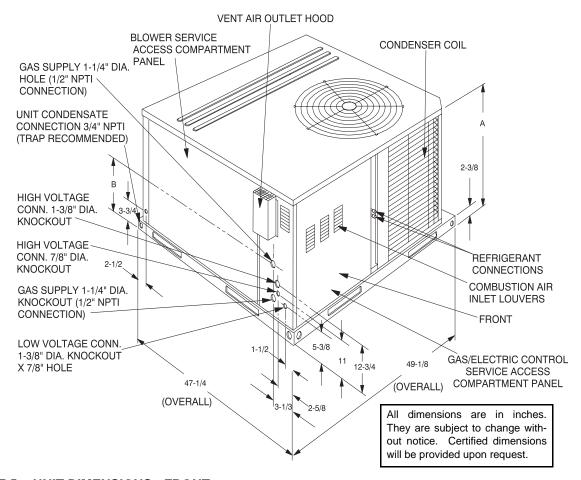


FIGURE 5 - UNIT DIMENSIONS - FRONT

**TABLE 15: UNIT DIMENSIONS FRONT** 

LINIT CIZE	DIMENSION						
UNIT SIZE	"A"	"B"					
018 thru 042	33-1/2	18-1/4					
048 and 060	41-1/2	23-1/8					

TABLE 16: UNIT MINIMUM CLEARANCES<sup>1 2</sup>

CLEARANCES							
FRONT	36"						
REAR	0"						
LEFT SIDE (Filter-Access)	24"						
RIGHT SIDE	12"						
BELOW UNIT <sup>3</sup>	0"						
ABOVE UNIT <sup>4</sup>	36" (For Condenser Air Discharge						

- 1. A 1" clearance must be provided between any combustible material and the supply air ductwork.
- 2. The products of combustion must not be allowed to accumulate within a confined space and recirculate.
- 3. Units may be installed on combustible floors made from wood or class A, B, or C roof covering material.
- Units must be installed outdoors. Overhanging structures or shrubs should not obstruct condenser air discharge outlet.

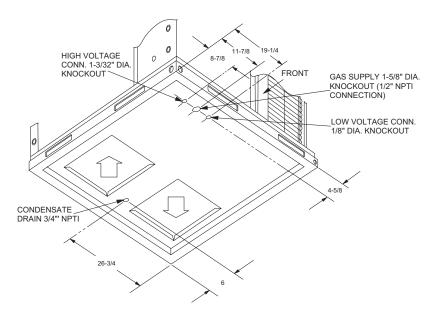


FIGURE 6 - UNIT DIMENSIONS - FRONT & BOTTOM

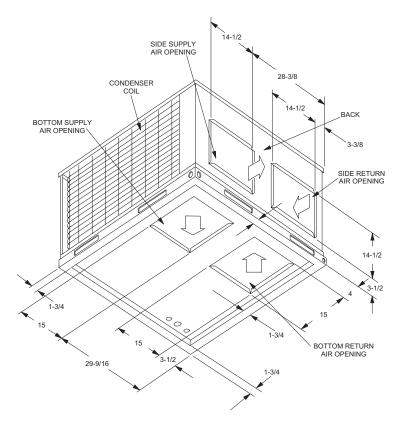


FIGURE 7 - UNIT DIMENSIONS - BACK & BOTTOM

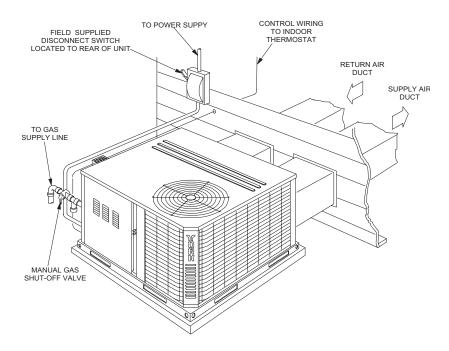


FIGURE 8 - TYPICAL SLAB ON GROUND INSTALLATION

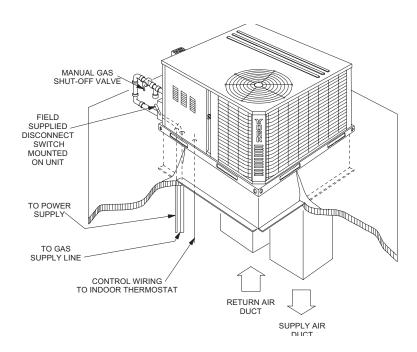


FIGURE 9 - TYPICAL ROOF CURB INSTALLATION

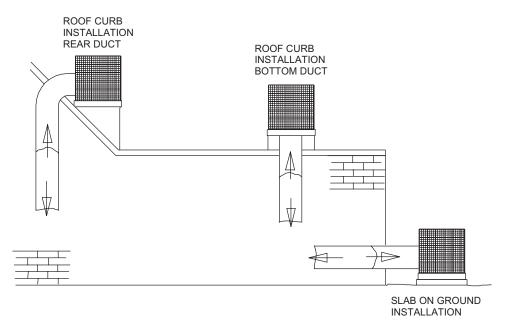


FIGURE 10 - TYPICAL DUCT APPLICATIONS

**TABLE 17: UNIT WEIGHTS AND CENTER OF GRAVITY** 

UNIT SIZE	SHIPPING WEIGHT	OPERATING WEIGHT			WEIGHTS on, lbs.)		ECONOMIZER	ROOF CURB
SIZE	(lbs.)	(lbs.)	"A"	"B"	"C"	"D"	(lbs.)	(lbs.)
018	365	360	91	88	89	92		8" - 70 14" - 75
024	365	360	91	88	89	92		
030	395	390	98	95	96	99		
036	400	395	100	96	98	101	40	
042	415	410	104	100	101	105		
048	475	470	119	115	116	120	1	
060	480	475	120	116	117	122		

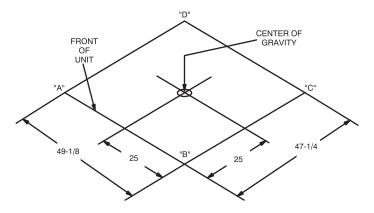


FIGURE 11 - UNIT CENTER OF GRAVITY

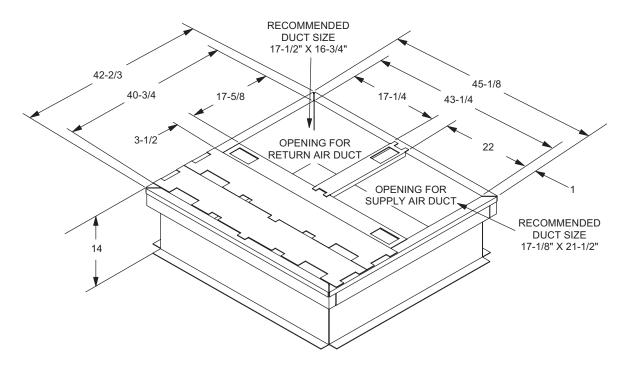


FIGURE 12 - ROOF CURB DIMENSIONS<sup>1</sup>

1. 8" Roof curb also available

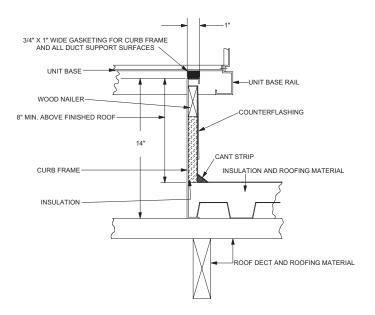


FIGURE 13 - ROOF CURB CROSS SECTION

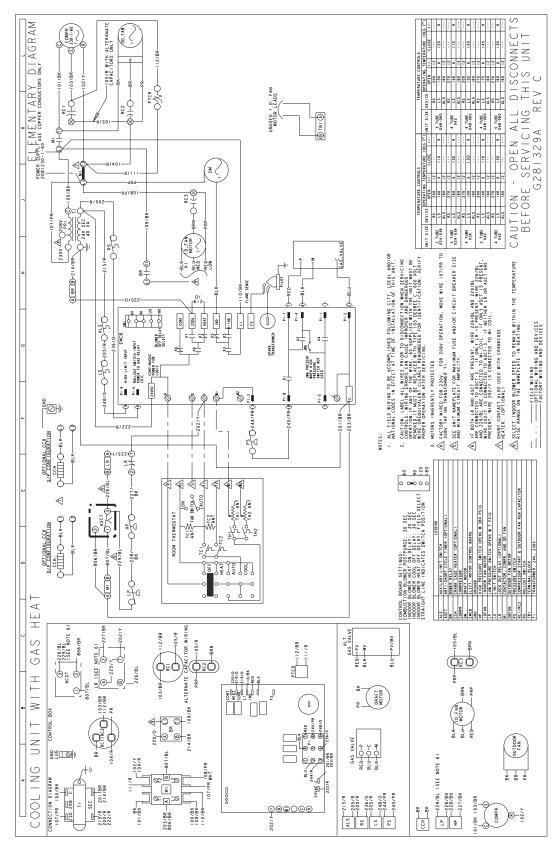


FIGURE 14 - TYPICAL WIRING DIAGRAM DNA 018 THRU 060 (208/230-1-60 POWER SUPPLY)

# TYPICAL WIRING DIAGRAM NOTES (SEE FIGURE 14)

- All field wiring to be accomplished following city, local and/or national codes in effect at time of installation of this unit.
- Caution: Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation. If any of the wire as supplied with this unit must be removed it must be replaced with type 105°C, 600V wire or equivalent clearly renumbered for identification. Verify proper operation after servicing.
- 3. Motors inherently protected.
- Factory wired for 230V. For 208V operation, move wire 107/PR to 208V. Tap on transformer T1.
- See unit nameplate for maximum fuse size and/or circuit breaker size and minimum circuit ampacity.

- If both LR and ASCT are present, wire 801/BL and 805/BL are connected to ASCT-3. If only LR is present wire 801/BL and 805/BL are connected to M1 coil. If only ASCT is present wire 202/Y is connected to ASCT-3. If neither LR or ASCT are present, wire 202/Y is connected to M1 coil as shown.
- Shunt contact also used with crankcase heater. (optional)
- Select indoor blower speed to remain within the temperature rise range on the nameplate in heating.



Open all disconnects before servicing this unit.

	LEGEND
ALS	AUXILARY LIMIT SWITCH
ASCT	ANTI-SHORT CYCLE TIMER (OPTIONAL)
BR	BLOWER RELAY
СВ	CIRCUIT BREAKER
ССН	CRANK CASE HEATER (OPTIONAL)
COMPR	COMPRESSOR
DM	DRAFT MOTOR
FCB	FAN CONTROL BOARD
GND	GROUND
FS	FREEZE STAT SWITCH (OPTIONAL)
HP	HIGH PRESSURE SWITCH OPENS @ 380 PSIG
IDFAN	INDOOR FAN MOTOR
LP	LOW PRESSURE SWITCH OPENS @ 7 PSIG
LS	LIMIT SWITCH
LR	LOCK OUT RELAY (OPTIONAL)
M1	CONTACTOR, COMPR. AND OD FAN
ODFAN	OUTDOOR FAN MOTOR
PS	PRESSURE SWITCH
RC1 / RC2	COMPRESSOR START & OUTDOOR FAN RUN CAPACITOR
RS	ROLLOUT SWITCH
TB4	TERMINAL BLOCK
T1	TRANSFORMER, 24V, 230V

# FIGURE 15 - TYPICAL WIRING DIAGRAM LEGEND

# **MECHANICAL SPECIFICATIONS**

## **GENERAL**

Units shall be manufactured by York International Unitary Products Group in an ISO 9001 certified facility. YORK's Affinity™ package units are designed to handle applications ranging from residential to light commercial and any in between. The Affinity™ is a unit that gives you the flexibility and choices you need in today's market. These packaged cooling/heating air conditioners are designed for outdoor installation. Only utility and duct connections are required at the point of installation. The gas fired heaters have alumi-

nized steel tubular heat exchangers and spark to pilot ignition. They are available in natural gas with field conversion to propane.

# **DESCRIPTION**

Units shall be factory-assembled, single packaged, Electric Cooling/Gas Heating units, designed for outdoor mounted installation. For EER ratings, refer to technical literature. They shall have built in, equal size, field convertible duct connections for down discharge supply/return or horizontal discharge supply/return. The units shall be factory wired, piped, charged with R-22 refrigerant and factory tested prior

to shipment. All unit wiring shall be both numbered and color coded. All units shall be manufactured in a facility certified to ISO 9001 standards, and the cooling performance shall be rated in accordance with DOE and ARI test procedures. The heating performance shall be rated to DOE and GAMA test procedures. Units shall be CSA listed and classified to ANSI Z21.47/CAN/CSA 2.3 standards and UL 1995/CAN/CSA No. 236-M90 conditions.

#### **UNIT CABINET**

Unit cabinet shall be constructed of G90 galvanized steel, with exterior surfaces coated with a non-chalking, powdered paint finish, certified at 1000 hours salt spray test per ASTM-B117 standards. The unit top shall be a single piece "Water Shed" design, with drip edges and no-seam corners to provide optimum water integrity. Unit shall have a rigidly mounted condenser coil guard to provide protection from objects and personnel after installation. Indoor blower section shall be insulated with up to 3/4" thick, aluminum, foil faced insulation, fastened to prevent insulation from entering the air stream. Cabinet panels shall be "large" size, easily removable for servicing and maintenance, with built-in lift handles. Unit shall be built on a formed, "Super-Structure" design base pan, with embossments at critical points to add strength, rigidity and aid in minimizing sound. Full perimeter base rails shall be provided to assure reliable transit of equipment, overhead rigging, for truck access and proper sealing on roof curb applications. Base rails shall be removable, when required, to lower unit height. Filters shall be furnished and be accessible through a removable access door, sealed airtight. Units vertical discharge and return duct configuration shall be designed to fit between standard 24" O.C. beams without modification to building structure, duct work and base unit. Condensate pan shall be internally sloped and conform to ASHRAE 62-89 self-draining standards, with 3/4" NPTI copper, ridged mount connection.

#### INDOOR (EVAPORATOR) FAN ASSEMBLY

Fan shall be direct drive, multi-speed design. Job site selected (BHP) brake horsepower shall not exceed the motors nameplate horsepower rating. Fan wheel shall be double-inlet type with forward-curved blades, dynamically balanced to operate smoothly throughout the entire range of operation. Airflow design shall be constant air volume. Bearings shall be sealed and permanently lubricated for longer life and no maintenance. Fan assembly shall be "Slip Track" (slide-out) design for easy removal and cleaning.

### **OUTDOOR (CONDENSER) FAN ASSEMBLY**

The outdoor fan shall be of the direct-driven propeller type, discharge air vertically, have aluminum blades riveted to cor-

rosion resistant steel spider bracket and shall be statically balanced for smooth operation. The outdoor fan motor shall be totally enclosed with permanently lubricated bearings and internally protected against overload conditions.

#### **REFRIGERANT COMPONENTS**

#### Compressors:

- a. Shall be fully hermetic type, direct drive, internally protected with internal high-pressure relief and over temperature protection. The hermetic motor shall be suction gas cooled and have a voltage range of + or 10% of the unit nameplate voltage.
- Shall have internal isolation and sound muffling to minimize vibration and noise, and be externally isolated on a dedicated, independent mounting.

#### Coils:

- Evaporator and condenser coils shall have aluminum plate fins mechanically bonded to seamless internally enhanced copper tubes with all joints brazed.
- Evaporator coil shall be of the direct expansion, blow through design, while condenser coil shall be draw through design.

Refrigerant Circuit and Refrigerant Safety Components:

- Shall include independent fixed-orifice expansion devices.
- Shall include filter/strainer to eliminate any foreign matter.

#### **UNIT OPERATING CHARACTERISTICS**

Unit shall be capable of starting and running at  $125^{\circ}$  F outdoor temperature, exceeding maximum load criteria ARI Standard 210/240. The compressor, with standard controls, shall be capable of operation down to  $45^{\circ}$  F outdoor temperature. Accessory low ambient kit shall be available for operation to  $0^{\circ}$  F.

#### **ELECTRICAL REQUIREMENTS**

All unit power wiring shall enter unit cabinet at a single factory provided location and be capable of side or bottom entry, to minimize roof penetrations and avoid unit field modifications. Separate side and bottom openings shall be provided for the control wiring.

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Supersedes: 292443-XTG-A-0207

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