YORK®
Heating and Air Conditioning

TECHNICAL GUIDE

STEALTH

SPLIT-SYSTEM HEAT PUMP
15 SEER
MODELS: E4TS030 THRU 060
(2.5 THRU 5 NOMINAL TONS)

CERTIFICATION APPLIES ONLY WHEN THE COMPLETE SYSTEM IS LISTED WITH ARI.

ENERGY STAR

Good Housekeeping Promises

c UL us LISTED

ISO 9001 Certified Quality Management System

Due to continuous product improvement, specifications are subject to change without notice.

Visit us on the web at www.york.com for the most up-to-date technical information.

Additional rating information can be found at www.ariprimenet.org.

DESCRIPTION

The ETS Stealth series heat pump units use Twin Single™ compressor technology to provide cooling efficiencies up to 15.7 SEER and heating efficiencies up to 9.3 HSPF. They are to be installed with the matching variable speed Enhancer air handler or Diamond furnace, a corresponding coil and sweat connect lines. A factory specified balanced port hard shut-off TXV kit must be used for proper installation and optimum performance.

WARRANTY

5-year limited parts warranty.
10-year limited compressor warranty.

FEATURES

QUALITY CONDENSER COILS - The coil is constructed of copper tube and hardened aluminum fins for durability and long lasting efficient operation. The fins on the unit are protected with a decorative grille.

DURABLE FINISH - Cabinet is made of powder painted steel over pre-painted primer. The pre-treated flat galvanized steel provides a better paint to steel bond, which resists corrosion and rust creep. Special primer formulas and glossy earth tone finish insure less fading when exposed to sunlight. This finish has been tested to provide 1/3 greater protection than conventional units.

PROTECTED COMPRESSORS - The Twin Single™ compressor is protected against high pressure. Hard start components are included to ensure start-up under adverse conditions. All models have standard crankcase heat for added protection.

OPTIMUM PERFORMANCE - The solid-state electronic controlboard optimizes the compressor staging based on load requirements, provides a 5-minute anti-short cycle timer, and simplifies troubleshooting with built in self diagnostics.

LOWER INSTALLED COST - Installation time and costs are reduced by easy power and control wiring connections. All units contain enough refrigerant for the smallest matching indoor coil and 15 feet of interconnecting piping. The small base dimension means less space is required on the ground or roof.

EFFECTIVE HUMIDITY CONTROL - The inherent design of the Stealth system and the staging operation of the Twin Single™ compressor provide effective humidity control at the lowest possible operating cost. An optional dehumidification control accessory is available to maintain the humidity at a set desired level.

TOP DISCHARGE - 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.

LOW OPERATING SOUND LEVEL - The upward air flow carries the normal operating noise up 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.

LOW MAINTENANCE - Long life permanently lubricated motor- bearings need no annual servicing.

EASY SERVICE ACCESS - Fully exposed refrigerant connections and a single panel covering the electrical controls make servicing easy. Easy access for coil clearing is also provided.

RE-USABLE SERVICE VALVES - Provided on both the liquid and vapor sweat connections for ease of evacuating and charging.

SYSTEM OPERATION

This heat pump model is equipped with both YorkGuard V heat pump control and TS compressor control. The interface control 6CF board is used to bypass the first stage of heat when the outdoor temperature falls below certain temperatures. The TS control board is used only to switch between 1 and 2 cylinder operation. The fault codes and pressure switch on the TS control board are bypassed using the jumpers between the test and "PS" pins.

1. **Anti-short Cycle Timer**
   The five-minute time delay on YorkGuard V will be used to prevent the system from short cycling after the thermostat off or power interrupt. This time delay can be bypassed by temporarily shorting the test terminals on YorkGuard V for 3 seconds. Since a jumper was factory installed across the test pins on the TS control board, the anti-short cycle timer on the TS control board is bypassed.
2. **First Stage Cooling**
   This heat pump model is equipped with a Twin-Single compressor. With a call for first stage cooling, the compressor operates one cylinder. The run winding (R) is connected through the upper left contactor (A) and to the capacitor and the start winding (S) is connected to line voltage. The system operates at low discharge pressure and high suction pressure.
3. **Second Stage of Cooling**
   With a call for second stage cooling, the TS control will shut the compressor off for two seconds then energize relays R1 and R2 on the TS control board. This will de-energize (open) the upper left contactor (A) and energize (close) the lower right contactor (B), connecting the compressor run winding (R) to the line voltage and start winding (S) to the capacitor. The compressor runs in the reverse direction with two cylinders compared to the first stage. The system will operate with two cylinders until both first and second stage are satisfied. The Y2OUT signal from the relay board causes the indoor blower to function at high speed.

   If the room thermostat calls for second stage cooling (Y2) on two consecutive cooling cycles, the next call for cooling for either first or second stage will energize the unit in second stage mode. The above mode will be reset to permit start up on the first stage with only a Y1 call when the second stage operation cycle runs less than 15 minutes or when 24V to the TS control board is disconnected.
4. **6K Relay on the 6CF Control Board**
   The 6K relay on the 6CF interface board operates as follows. See Figure 1:
   a. If the YorkGuard V defrost control balance point setting is 45°F, the 6K relay will be:
      - Energized if liquid temperature goes below 35°F.
      - De-energized if the liquid temperature goes above 35°F AND the ambient is greater than 42°F for five minutes AND the unit is not in defrost.

   b. If the YorkGuard V defrost control balance point setting is at anything but 45°F, the 6K relay will be:
      - Energized if liquid temperature goes below 45°F.
      - De-energized if the liquid temperature goes above 45°F AND the ambient is greater than 55°F AND the unit is not in defrost.
5. **Heating mode with the de-energized 6K relay**
   The TS compressor operates similar to the first and second stage of cooling modes except there is no O input from the thermostat, the reversing valve is not energized, and the system operates in heating heat pump mode. The YorkGuard V control and the liquid temperature will not allow the system to go into the defrost mode.
6. **Heating mode with the energized 6K Relay**
   The energized 6K relay on the interface board (6CF) will connect Y1 and Y2 and disconnect Y2OUT from the TS control to the indoor blower if the J1 pin is not in the ON position. The compressor will operate only in second stage regardless of the first or second stage call from the thermostat. The indoor blower will operate in low air mode. The indoor discharge air temperature should be about 10°F hotter than a normal heat pump. If high-speed air is preferred, move J1 pin to the ON position at the interface board (6CF). This will send the Y2OUT signal back to the indoor blower for the high speed air.

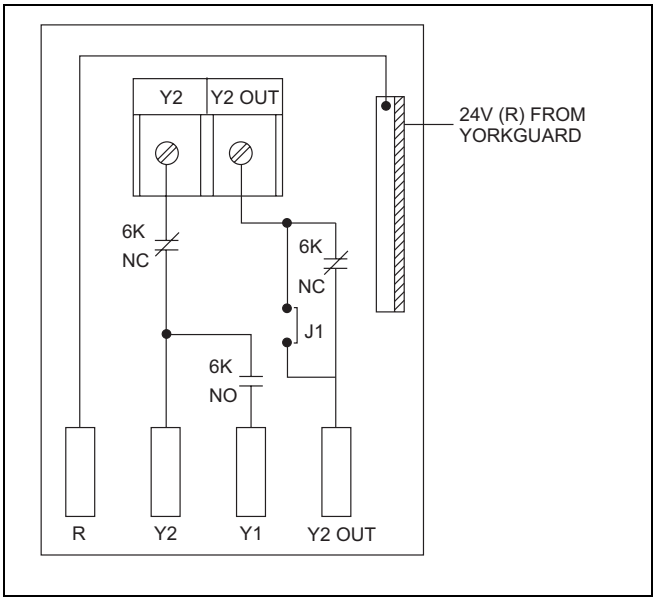
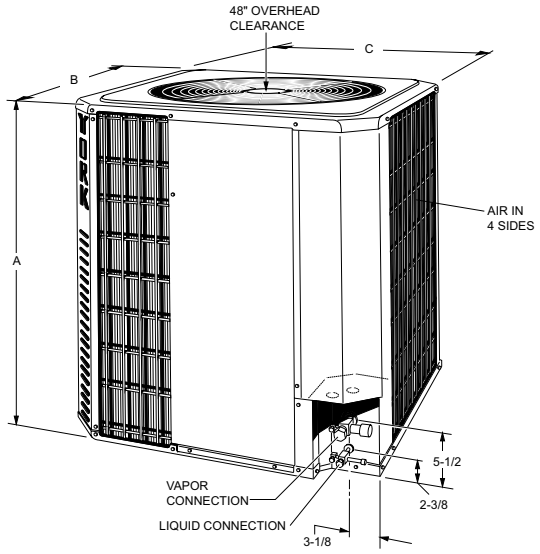


FIGURE 1 : 6CF Interface Board

Physical and Electrical Data

MODEL		E4TS030	E4TS036	E4TS048	E4TS060
UNIT SUPPLY VOLTAGE		208/230-1-60			
NORMAL VOLTAGE RANGE [1]		187 to 252			
MIN. CIRCUIT AMPACITY		14.8	18.3	28.0	34.4
MAX. OVERCURRENT DEVICE AMPS [2]		25	30	50	60
COMPRESSOR TYPE		T27B264CBCA	T27B355CBCA	T29A464BBCA	T29A544BBCA
COMPRESSOR AMPS	RATED LOAD	11.3	14.1	21.2	26.3
	LOCKED ROTOR	65	84	130	142
CRANKCASE HEATER		YES	YES	YES	YES
FAN MOTOR AMPS	RATED LOAD	.7	.7	1.5	1.5
FAN DIAMETER INCHES		24	24	24	24
FAN MOTOR	RATED HP	1/10	1/10	1/4	1/4
	NOMINAL RPM	825	825	825	850
	NOMINAL CFM	2650	2650	3200	3200
COIL	FACE AREA SQ. FT.	20.0	20.0	20.0	20.0
	ROWS DEEP	1	1	2	2
	FIN / INCH	16	16	13	13
LIQUID LINE OD		3/8	3/8	3/8	3/8
VAPOR LINE OD		7/8	7/8	7/8	7/8
UNIT CHARGE, (LBS - OZ)[3]		9 - 9	10 - 1	12 - 1	13 - 1
CHARGE PER FOOT, OZ		.70	.70	.70	.70
OPERATING WEIGHT LBS.		242	242	310	310

1. Rated in accordance with ARI Standard 110, utilizaton range “A”.
2. Dual element fuses or HACR circuit breaker.
3. The Unit Charge is correct for the outdoor unit, matched indoor coil and 15 feet of refrigerant tubing. For tubing lengths other than 15 feet, add or subtract the amount of refrigerant calculated, using the difference in length multiplied by the per foot value.



All dimensions are in inches. They are subject to change without notice. Certified dimensions will be provided upon request.

UNIT MODEL E4TS	DIMENSIONS			REFRIGERANT CONNECTION	
				LINE SIZE	
	A	B	C	LIQUID	VAPOR
030	31-7/8	35	35	3/8	7/8
036	31-7/8	35	35		
048	31-7/8	35	35		
060	37-7/8	35	35		

Additional R-22 Charge / Orifice Size for Various Matched Systems

OUTDOOR UNIT		E4TS030	E4TS036	E4TS048	E4TS060
UNIT ORIFICE(S)**		—	—	—	—
FACTORY CHARGE, LBS. - OZ.		9 - 9	10 - 1	12 - 1	13 - 1
INDOOR COIL	COIL ORIFICE[1]	REQUIRED SYSTEM EXPANSION DEVICE + ADDITIONAL CHARGE, OZ.			
G1FA/G1UA048S17,21	78	701 + 0	702 + 0	—	—
G1FA/G1UA060S21,24	84	—	702 + 10	703 + 0	703 + 0
G1FA060S21,24T	84	—	—	703 + 0	703 + 0
G2FD046(S,H)17	78	701 + 0	702 + 0	—	—
G2FD042(S,H)21	78	701 + 0	—	—	—
G2FD048(S,H)21, 24	84	701 + 6	702 + 0	—	—
G2FD060(S,H)24	90	—	702 + 10	703 + 0	703 + 0
G2FD060H24T	90	—	—	703 + 0	703 + 0
G2FD061H24	90	—	—	703 + 8	703 + 4
REFRIGERANT LINE ADDER OZ. / FT.		.70	.70	.70	.70
Airflow					
VARIABLE SPEED INDOOR					
N1VSB12	Hi/Low CFM	1050/630	—	—	—
N1VSC16	Hi/Low CFM	1065/650	1185/770	—	—
N1VSD20	Hi/Low CFM	—	1200/780	1605/1040	1860/1200
P1XDB12V075	Hi/Low CFM	1040/580	1220/690	—	—
P1XUB12V055	Hi/Low CFM	1020/570	1200/660	—	—
P1DUB16V080	Hi/Low CFM	1050/540	1200/650	—	—
P1XUC16V075	Hi/Low CFM	1000/550	1200/650	1605/880	—
P1DUC20V080	Hi/Low CFM	—	1220/660	1620/900	1870/1030
P1DUC20V096	Hi/Low CFM	—	1200/650	1610/900	1850/1080
P1XUC20V095	Hi/Low CFM	—	1200/630	1590/850	1880/1000
P1XUD20V112	Hi/Low CFM	—	1260/720	1620/920	1800/990
P1XDD20V112	Hi/Low CFM	—	1200/690	1610/850	1870/1010
F(2,3)FV060	Hi/Low CFM	—	—	1600/1040	1875/1200
Hi CFM	—	1000	1200	1600	1900
Max Low CFM	—	850	1000	1350	1600
Recommended Low CFM	—	600	750	900	1050

1. Unit factory charge listed on the unit nameplate includes refrigerant for the condensor, the smallest evaporator and for 15 feet of interconnecting line tubing.
2. Verify the TXV kit and the additional charge required for the specific evaporator coil in the system using the table above.
3. Add additional charge for the amount of interconnecting line tubing greater than 15 feet at the rate specified in the table above.
4. Permanently mark the unit nameplate with the total system charge.
5. Total System Charge = Base charge (as shipped) + adder for evaporator + adder for line set.

COOLING CAPACITY - Variable Speed Air Handler

UNIT MODEL	N1VS AIR HANDLER			COIL MODEL[1]	COOLING					
	MODEL	ELECTRIC HEAT KW [2]	W		STAGE (# CYL)	RATED CFM	NET MBH		SEER	EER
							TOTAL	SENS.		
E4TS030	N1VSB12	5,7.5,10,15,18	17	G2FD046S17	1	630	15200	12200	15.5	13.7
					2	1050	29000	21400		12.0
	N1VSC16	5,7.5,10,15,20	21	G2FD042S21	1	650	15000	12000	15.4	13.6
					2	1065	28600	21000		11.9
				G2FD048S21	1	650	15800	12600	15.7	13.9
					2	1065	30000	22000		12.1
E4TS036	N1VSC16	5,7.5,10,15,20	21	G2FD048S21	1	770	21400	15400	15.0	13.3
					2	1185	36000	25600		11.6
	N1VSD20	7.5,10,15,20,25,30	24	G2FD048S24	1	780	21600	15600	15.2	13.6
					2	1200	36400	26000		11.8
E4TS048	F(2,3)FV060	10,15,20,25	24	–	1	1040	26800	21800	15.0	13.6
					2	1600	48000	35600		11.4
	N1VSD20	7.5,10,15,20,25,30		G2FD060S24	1	1040	26800	21800	15.0	13.6
					2	1605	48000	35600		11.4
				G2FD061H24	1	1040	27400	22200	15.2	13.8
					2	1605	49000	36400		11.6
E4TS060	F(2,3)FV060	10,15,20,25	24	–	1	1220	27800	23400	14.5	13.2
					2	1875	55500	40500		10.4
	N1VSD20	7.5,10,15,20,25,30		G2FD060S24	1	1200	27800	23400	14.5	13.2
					2	1860	55500	40500		10.4
				G2FD061H24	1	1200	29000	24000	14.7	13.4
					2	1860	57000	41500		10.6

1. G2FD coils available with a factory installed horizontal drain pan. See price pages for specific model number.
2. Single phase units require single phase 2HK heaters.

COOLING CAPACITY - Variable Speed Furnace

UNIT MODEL	VARIABLE SPEED FURNACE MODEL	W	COIL MODEL	COOLING					
				STAGE (# CYL)	RATED CFM	NET MBH[1]		SEER[2]	EER[3]
						TOTAL	SENS.		
E4TS030	P1XDB12V	17	G2FD046S17	1	580	13800	10400	15.0	13.3
				2	1040	28200	20800		11.6
	P1XUB12V	17	G2FD046S17	1	570	13800	10400	15.0	13.3
				2	1020	28000	20600		11.6
			G1UA048S17	1	570	13800	10400	15.0	13.3
				2	1020	28000	20600		11.6
			G1FA048S17	1	570	13800	10400	15.0	13.3
				2	1020	28000	20600		11.6
	P1DUB16V	17	G2FD046S17	1	540	13600	10200	15.0	13.4
				2	1050	28200	20800		11.7
			G1UA048S17	1	540	13600	10200	15.0	13.4
				2	1050	28200	20800		11.7
			G1FA048S17	1	540	13600	10200	15.0	13.4
				2	1050	28200	20800		11.7
	P1XUC16V	21	G2FD042S21	1	600	13600	10400	14.8	13.2
				2	1100	28000	20600		11.4
			G1UA048S21	1	600	13800	10600	15.2	13.6
				2	1100	28800	21400		11.6
			G1FA048S21	1	600	13800	10600	15.2	13.6
				2	1100	28800	21400		11.6
			G2FD048S21	1	600	14200	10800	15.3	13.7
				2	1100	29000	21400		11.8

For notes see Page 7.

COOLING CAPACITY - Variable Speed Furnace (Continued)

UNIT MODEL	VARIABLE SPEED FURNACE MODEL	W	COIL MODEL	COOLING					
				STAGE (# CYL)	RATED CFM	NET MBH[1]		SEER[2]	EER[3]
						TOTAL	SENS.		
E4TS036	P1XDB12V	17	G2FD046S17	1	690	20000	15200	14.0	12.4
				2	1220	35600	25800		10.8
	P1XUB12V	17	G2FD046S17	1	660	19800	15000	14.0	12.5
				2	1200	35400	25600		11.0
			G1UA048S17	1	660	19800	15000	14.0	12.5
				2	1200	35400	25600		11.0
			G1FA048S17	1	660	19800	15000	14.0	12.5
				2	1200	35400	25600		11.0
	P1DUB16V	17	G2FD046S17	1	650	20000	15000	14.0	12.6
				2	1200	35600	25600		11.0
			G1UA048S17	1	650	20000	15000	14.0	12.6
				2	1200	35600	25600		11.0
			G1FA048S17	1	650	20000	15000	14.0	12.6
				2	1200	35600	25600		11.0
	P1XUC16V	21	G1UA048S21	1	640	20200	15200	14.0	12.5
				2	1200	35800	25800		11.1
			G1FA048S21	1	640	20200	15200	14.0	12.5
				2	1200	35800	25800		11.1
			G2FD048S21	1	640	20400	15400	14.0	12.6
				2	1200	36000	26000		11.1
			G1UA060S21	1	640	21000	15800	14.4	13.0
				2	1200	37000	26600		11.3
			G1FA060S21	1	640	21000	15800	14.4	13.0
				2	1200	37000	26600		11.3
E4TS036	P1DUC20V	21	G1UA048S21	1	640	20200	15200	14.1	12.5
				2	1200	35800	25800		11.2
			G1FA048S21	1	640	20200	15200	14.1	12.5
				2	1200	35800	25800		11.2
			G2FD048S21	1	640	20400	15400	14.3	12.8
				2	1200	36000	26000		11.3
			G1UA060S21	1	640	21000	15800	14.6	13.1
				2	1200	37000	26600		11.4
			G1FA060S21	1	640	21000	15800	14.6	13.1
				2	1200	37000	26600		11.4
	P1XUC20V	21	G1UA048S21	1	625	20000	15000	14.0	12.6
				2	1200	35600	25600		11.0
			G1FA048S21	1	625	20000	15000	14.0	12.6
				2	1200	35600	25600		11.0
			G2FD048S21	1	625	20200	15200	14.2	12.7
				2	1200	35800	25800		11.2
			G1UA060S21	1	625	20800	15600	14.5	13.0
				2	1200	36800	26400		11.3
			G1FA060S21	1	625	20800	15600	14.5	13.0
				2	1200	36800	26400		11.3
	P1XDD20V	24	G2FD048S24	1	690	20400	16200	14.5	12.9
				2	1200	36000	27400		11.3
	P1XUD20V	24	G1UA048S24	1	715	20600	16000	14.2	12.8
				2	1260	36200	27200		11.2
			G1FA048S24	1	715	20600	16000	14.2	12.8
				2	1260	36200	27200		11.2
			G2FD048S24	1	715	20800	16200	14.5	13.0
				2	1260	36400	27400		11.4
			G1UA060S24	1	715	21400	16600	14.8	13.3
				2	1260	37400	28000		11.6
			G1FA060S24	1	715	21400	16600	14.8	13.3
				2	1260	37400	28000		11.6

For notes see Page 7.

COOLING CAPACITY - Variable Speed Furnace (Continued)

UNIT MODEL	VARIABLE SPEED FURNACE MODEL	W	COIL MODEL	COOLING					
				STAGE (# CYL)	RATED CFM	NET MBH[1]		SEER[2]	EER[3]
						TOTAL	SENS.		
E4TS048	P1XUC16V	21	G1UA060S21	1	880	23800	17600	14.0	12.6
				2	1600	47000	33800		10.8
			G1UA060S21	1	880	23800	17600	14.0	12.6
				2	1600	47000	33800		10.8
	P1DUC20V	21	G1UA060S21	1	900	24200	18000	14.0	12.6
				2	1610	47500	34200		10.9
			G1FA060S21	1	900	24200	18000	14.0	12.6
				2	1610	47500	34200		10.9
	P1XUC20V	21	G1UA060S21	1	850	23600	17400	14.0	12.6
				2	1590	47000	33800		10.8
			G1FA060S21	1	850	23600	17400	14.0	12.6
				2	1590	47000	33800		10.8
	P1XDD20V	24	G2FD060S24	1	880	24400	18400	14.0	12.5
				2	1580	47500	34200		11.0
			G2FD061H24	1	880	24800	18800	14.4	12.7
				2	1580	48500	34800		11.2
E4TS048	P1XUD20V	24	G1UA060S24	1	915	24800	18800	14.2	12.7
				2	1620	48000	34600		11.0
			G1FA060S24	1	915	24800	18800	14.2	12.7
				2	1620	48000	34600		11.0
			G2FD060S24	1	915	24800	18800	14.2	12.7
				2	1620	48000	34600		11.0
			G2FD061H24	1	915	25200	19200	14.5	12.9
				2	1620	49000	35200		11.3
E4TS060	P1XDD20V	24	G2FD060S24	1	1000	27000	20400	13.7	12.6
				2	1800	55000	39600		10.0
			G2FD061H24	1	1000	28000	20800	14.0	12.8
				2	1800	56000	40000		10.2
	P1XUD20V	24	G1UA060S24	1	990	27000	20400	13.8	12.5
				2	1800	55500	40000		10.2
			G1FA060S24	1	990	27000	20400	13.8	12.5
				2	1800	55500	40000		10.2
			G2FD060S24	1	990	27000	20400	13.8	12.5
				2	1800	55500	40000		10.2
			G2FD061H24	1	990	28000	20800	14.0	12.8
				2	1800	56500	40500		10.4

1. Cooling MBH based on 80° F entering air temperature, 50% RH and rated airflow.
2. SEER (Seasonal Energy Efficiency Ratio) equals 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. Normal annual usage is a combination of both one and two cylinder operating periods.
3. EER (Energy Efficiency Ratio) equals the total cooling output in BTU's at 95° F outdoor ambient divided by the total electric power in watt-hours at those conditions.

HEATING CAPACITY - Variable Speed Air Handler

UNIT MODEL	N1VS AIR HANDLER			COIL MODEL[1]	HEATING					
	MODEL	ELECTRIC HEAT KW [2]	W		STAGE (# CYL)	RATED CFM	NET MBH		HSPF	COP@ 47
							47 OD	17 OD		
E4TS030	N1VSB12	5,7.5,10,15,18	17	G2FD046S17	1	630	13400	–	–	3.80
					2	630	24600	14400	8.7	3.48
					2	1050	26400	15400	9.0	3.60
	N1VSC16	5,7.5,10,15,20	21	G2FD042S21	1	650	13200	–	–	3.80
					2	650	24200	14200	8.7	3.46
					2	1065	26000	15200	9.0	3.58
				G2FD048S21	1	650	13800	–	–	3.88
					2	650	24800	14800	8.9	3.52
					2	1065	27000	16000	9.2	3.64
E4TS036	N1VSC16	5,7.5,10,15,20	21	G2FD048S21	1	770	19600	–	–	3.78
					2	770	31600	19000	8.7	3.52
					2	1185	35000	20800	9.2	3.54
	N1VSD20	7.5,10,15,20,25,30	24	G2FD048S24	1	780	20000	–	–	3.86
					2	780	32000	19200	8.8	3.62
					2	1200	35600	21200	9.3	3.74
E4TS048	F(2,3)FV060	10,15,20,25	24	–	1	1040	23800	–	–	3.66
					2	1040	43500	24800	8.2	3.50
					2	1600	47000	26400	8.5	3.58
	N1VSD20	7.5,10,15,20,25,30		G2FD060S24	1	1040	23800	–	–	3.66
					2	1040	43500	24800	8.2	3.50
					2	1605	47000	26400	8.5	3.58
				G2FD061H24	1	1040	24200	–		3.72
					2	1040	44500	25600	8.4	3.58
					2	1605	48000	27000	8.7	3.66
E4TS060	F(2,3)FV060	10,15,20,25	24	–	1	1220	25800	–	–	3.58
					2	1220	51000	26400	8.1	3.32
					2	1875	54000	28600	8.5	3.44
	N1VSD20	7.5,10,15,20,25,30		G2FD060S24	1	1200	25800	–	–	3.58
					2	1200	51000	26400	8.1	3.32
					2	1860	54000	28600	8.5	3.44
				G2FD061H24	1	1200	26600	–	–	3.64
					2	1200	50500	26800	8.3	3.38
					2	1860	55000	29200	8.7	3.50

1. G2FD coils available with a factory installed horizontal drain pan. See price pages for specific model number.
2. Single phase units require single phase 2HK heaters.

HEATING CAPACITY - Variable Speed Furnace

UNIT MODEL	VARIABLE SPEED FURNACE MODEL	W	COIL MODEL	HEATING					
				STAGE (# CYL)	RATED CFM	NET MBH [1,2]		HSPF[3]	COP[4] @ 47 F
						47 OD	17 OD		
E4TS030	P1XDB12V075	17	G2FD046S17	1	580	12800	-	-	3.58
				2	580	24000	14000	8.3	3.38
				2	1040	26200	15200	8.6	3.56
	P1XUB12V055	17	G2FD046S17	1	570	12800	-	-	3.58
				2	570	23800	13800	8.3	3.34
				2	1020	26000	15000	8.6	3.52
			G1UA048S17	1	570	12800	-	-	3.58
				2	570	23800	13800	8.3	3.34
				2	1020	26000	15000	8.6	3.52
			G1FA048S17	1	570	12800	-	-	3.58
				2	570	23800	13800	8.3	3.34
				2	1020	26000	15000	8.6	3.52
	P1DUB16V080	17	G2FD046S17	1	540	12400	-	-	3.54
				2	540	24200	14200	8.3	3.39
				2	1050	26400	15400	8.6	3.58
			G1UA048S17	1	540	12400	-	-	3.54
				2	540	24200	14200	8.3	3.39
				2	1050	26400	15400	8.6	3.58
			G1FA048S17	1	540	12400	-	-	3.54
				2	540	24200	14200	8.3	3.39
				2	1050	26400	15400	8.6	3.58
	P1XUC16V075	21	G2FD042S21	1	600	13000	-	-	3.70
				2	600	24800	14600	8.4	3.46
				2	1100	27000	15800	8.7	3.64
			G1UA048S21	1	600	13200	-	-	3.72
				2	600	25200	15000	8.5	3.50
				2	1100	27400	16400	8.8	3.68
			G1FA048S21	1	600	13200	-	-	3.72
				2	600	25200	15000	8.5	3.50
				2	1100	27400	16400	8.8	3.68
			G2FD048S21	1	600	13400	-	-	3.76
				2	600	25400	15200	8.6	3.50
				2	1100	27600	16600	8.9	3.68
E4TS036	P1XDB12V075	17	G2FD046S17	1	690	17400	-	-	3.56
				2	690	31000	18400	7.9	3.26
				2	1220	34600	20600	8.3	3.52
	P1XUB12V055	17	G2FD046S17	1	660	17200	-	-	3.54
				2	660	31000	18400	8.0	3.30
				2	1200	34600	20600	8.4	3.56
			G1UA048S17	1	660	17400	-	-	3.58
				2	660	31400	18400	8.0	3.32
				2	1200	35000	20800	8.4	3.58
			G1FA048S17	1	660	17400	-	-	3.58
				2	660	31400	18600	8.0	3.32
				2	1200	35000	20800	8.4	3.58

For notes see Page 12.

HEATING CAPACITY - Variable Speed Furnace (Continued)

UNIT MODEL	VARIABLE SPEED FURNACE MODEL	W	COIL MODEL	HEATING					
				STAGE (# CYL)	RATED CFM	NET MBH [1,2]		HSPF[3]	COP[4] @ 47 F
						47 OD	17 OD		
E4TS036	P1DUB16V080	17	G2FD046S17	1	650	17000	-	-	3.54
				2	650	31000	18400	8.0	3.30
				2	1200	34600	20600	8.4	3.56
			G1UA048S17	1	650	17200	-	-	3.58
				2	650	31400	18600	8.0	3.32
				2	1200	35000	20800	8.4	3.58
			G1FA048S17	1	650	17200	-	-	3.58
				2	650	31400	18600	8.0	3.32
				2	1200	35000	20800	8.4	3.58
	P1XUC16V075	21	G1UA048S21	1	640	17000	-	-	3.54
				2	640	31600	18800	8.0	3.36
				2	1200	35200	21000	8.4	3.62
			G1FA048S21	1	640	17000	-	-	3.54
				2	640	31600	18800	8.0	3.36
				2	1200	35200	21000	8.4	3.62
			G2FD048S21	1	640	17200	-	-	3.56
				2	640	32000	19000	8.1	3.40
				2	1200	35600	21200	8.5	3.66
			G1UA060S21	1	640	17600	-	-	3.60
				2	640	32400	19400	8.4	3.48
				2	1200	36000	21600	8.7	3.74
			G1FA060S21	1	640	17600	-	-	3.60
				2	640	32400	19400	8.4	3.48
				2	1200	36000	21600	8.7	3.74
	P1DUC20V080	21	G1UA048S21	1	650	17200	-	-	3.52
				2	650	32400	19000	8.1	3.44
				2	1220	36000	21200	8.5	3.70
			G1FA048S21	1	650	17200	-	-	3.52
				2	650	32400	19000	8.1	3.44
				2	1220	36000	21200	8.5	3.70
			G2FD048S21	1	650	17400	-	-	3.54
				2	650	32600	19400	8.2	3.48
				2	1220	36200	21600	8.6	3.74
			G1UA060S21	1	650	18000	-	-	3.60
				2	650	33000	19800	8.5	3.52
				2	1220	36600	22000	8.8	3.78
			G1FA060S21	1	650	18000	-	-	3.60
				2	650	33000	19800	8.5	3.52
				2	1220	36600	22000	8.8	3.78
	P1DUC20V096	21	G1UA048S21	1	640	17000	-	-	3.54
				2	640	31800	18800	8.0	3.36
				2	1200	35400	21000	8.4	3.62
			G1FA048S21	1	640	17000	-	-	3.54
				2	640	31800	18800	8.0	3.36
				2	1200	35400	21000	8.4	3.62
			G2FD048S21	1	640	17200	-	-	3.56
				2	640	32000	19000	8.1	3.40
				2	1200	35600	21200	8.5	3.66
			G1UA060S21	1	640	17600	-	-	3.60
				2	640	32600	19400	8.4	3.48
				2	1200	36200	21600	8.7	3.74
			G1FA060S21	1	640	17600	-	-	3.60
				2	640	32600	19400	8.4	3.48
				2	1200	36200	21600	8.7	3.74

For notes see Page 12.

HEATING CAPACITY - Variable Speed Furnace (Continued)

UNIT MODEL	VARIABLE SPEED FURNACE MODEL	W	COIL MODEL	HEATING					
				STAGE (# CYL)	RATED CFM	NET MBH [1,2]		HSPF[3]	COP[4] @ 47 F
						47 OD	17 OD		
E4TS036	P1XUC20V095	21	G1UA048S21	1	625	16600	-	-	3.48
				2	625	31800	18800	7.9	3.34
				2	1200	35400	21000	8.3	3.60
			G1FA048S21	1	625	16600	-	-	3.48
				2	625	31800	18800	7.9	3.34
				2	1200	35400	21000	8.3	3.60
			G2FD048S21	1	625	16800	-	-	3.52
				2	625	32000	19000	8.0	3.38
				2	1200	35600	21200	8.4	3.64
			G1UA060S21	1	625	17200	-	-	3.58
				2	625	32600	19400	8.3	3.44
				2	1200	36200	21600	8.6	3.70
			G1FA060S21	1	625	17200	-	-	3.58
				2	625	32600	19400	8.3	3.44
				2	1200	36200	21600	8.6	3.70
	P1XDD20V112		G2FD048S24	1	690	18000	-	-	3.56
				2	690	32000	19000	8.4	3.54
				2	1200	35600	21200	8.7	3.80
	P1XUD20V112	24	G1UA048S24	1	715	18000	-	-	3.52
				2	715	32600	19600	8.3	3.54
				2	1260	36200	21800	8.7	3.80
			G1FA048S24	1	715	18000	-	-	3.52
				2	715	32600	19600	8.3	3.54
				2	1260	36200	21800	8.7	3.80
			G2FD048S24	1	715	18200	-	-	3.56
				2	715	32800	19800	8.4	3.56
				2	1260	36400	22000	8.8	3.82
			G1UA060S24	1	715	18800	-	-	3.64
				2	715	33400	20200	8.7	3.64
				2	1260	37000	22400	9.0	3.90
			G1FA060S24	1	715	18800	-	-	3.64
				2	715	33400	20200	8.7	3.64
				2	1260	37000	22400	9.0	3.90
E4TS048	P1XUC16V075	21	G1UA060S21	1	880	20800	-	-	3.24
				2	880	43500	24200	7.7	3.36
				2	1600	47000	26200	8.0	3.54
			G1FA060S21	1	880	20800	-	-	3.24
				2	880	43500	24200	7.7	3.36
				2	1600	47000	26200	8.0	3.54
	P1DUC20V080	21	G1UA060S21	1	890	21000	-	-	3.28
				2	890	43500	24400	7.8	3.44
				2	1620	47000	26400	8.1	3.62
			G1FA060S21	1	890	21000	-	-	3.28
				2	890	43500	24400	7.8	3.44
				2	1620	47000	26400	8.1	3.62
	P1DUC20V096	21	G1UA060S21	1	900	21400	-	-	3.32
				2	900	43500	24200	7.8	3.42
				2	1610	47000	26200	8.1	3.60
			G1FA060S21	1	900	21400	-	-	3.32
				2	900	43500	24200	7.8	3.42
				2	1610	47000	26200	8.1	3.60
	P1XUC20V095	21	G1UA060S21	1	850	20200	-	-	3.20
				2	850	43000	23800	7.6	3.36
				2	1590	46500	25800	7.9	3.54
			G1FA060S21	1	850	20200	-	-	3.20
				2	850	43000	23800	7.6	3.36
				2	1590	46500	25800	7.9	3.54

For notes see Page 12.

HEATING CAPACITY - Variable Speed Furnace (Continued)

UNIT MODEL	VARIABLE SPEED FURNACE MODEL	W	COIL MODEL	HEATING					
				STAGE (# CYL)	RATED CFM	NET MBH [1,2]		HSPF[3]	COP[4] @ 47 F
						47 OD	17 OD		
E4TS048	P1XDD20V112		G2FD060S24	1	880	21400	-	-	3.30
				2	880	43000	23800	7.7	3.34
				2	1580	46500	25800	8.0	3.52
			G2FD061H24	1	880	22000	-	-	3.38
				2	880	44000	24400	7.9	3.42
				2	1580	47500	26400	8.2	3.60
	P1XUD20V112	24	G1UA060S24	1	915	22200	-	-	3.34
				2	915	44000	25000	7.8	3.36
				2	1620	47500	27000	8.1	3.54
			G1FA060S24	1	915	22200	-	-	3.34
				2	915	44000	25000	7.8	3.36
				2	1620	47500	27000	8.1	3.54
			G2FD060S24	1	915	22200	-	-	3.34
				2	915	44000	25000	7.8	3.36
				2	1620	47500	27000	8.1	3.54
			G2FD061H24	1	915	22600	-	-	3.40
				2	915	45000	25600	8.0	3.44
				2	1620	48500	27600	8.3	3.62
E4TS060	P1XDD20V112		G2FD060S24	1	1000	23400	-	-	3.38
				2	1000	49500	26000	7.5	3.28
				2	1800	54000	28400	7.9	3.46
			G2FD061H24	1	1000	23400	-	-	3.48
				2	1000	50500	26600	7.9	3.35
				2	1800	55000	29000	8.2	3.52
	P1XUD20V112	24	G1UA060S24	1	990	23200	-	-	3.34
				2	990	49500	26000	7.6	3.34
				2	1800	54000	28400	8.0	3.52
			G1FA060S24	1	990	23200	-	-	3.34
				2	990	49500	26000	7.6	3.34
				2	1800	54000	28400	8.0	3.52
			G2FD060S24	1	990	23200	-	-	3.34
				2	990	49500	26000	7.6	3.34
				2	1800	54000	28400	8.0	3.52
			G2FD061H24	1	990	23200	-	-	3.42
				2	990	50500	26600	8.0	3.40
				2	1800	55000	29000	8.3	3.58

1. Heating MBH based on ARI standards of 70° DB entering indoor air, 72% RH outdoor air with 25 feet of interconnecting piping and no supplemental electric heat operation.
2. Integrated heating capacities include the effect of defrost cycles in the temperature range where they occur.
3. HSPF (Heating Seasonal Performance Factor) is the total heating output during a normal annual usage period for heating divided by the total electric power input during the same period.
4. COP equals MBH output divided by (total KW input x 3.412).

ACCESSORIES

Refer to Price Manual for specific model numbers.

TXV Kit - Factory specified and required for proper unit performance.

E4TS030 = 1TV0701
E4TS036 = 1TV0702
E4TS048 = 1TV0703
E4TS060 = 1TV0703

Room Thermostat - Matching 2-Stage cooling thermostats are available to provide features required for any installation. See list below:

2ET03700624 - Honeywell Programmable
2ET03700524 - Honeywell Non-Programmable
2EP32U70124 - White Rodgers Programmable

Dehumidification Control - Model 2HU06700124 available for use in areas where a higher level of humidity control is required.

Fossil Fuel Relay (Model 2FF02700101) - Required for use with all furnace applications.

SOUND RATINGS*

UNIT MODEL	SOUND RATINGS (dba)	
	1 CYLINDER	2 CYLINDER
030	72	73
036	75	78
048	77	79
060	79	81

* Rated in accordance with ARI 270-95 Standards.

COOLING PERFORMANCE DATA

E4TS030S06A WITH N1VSC1606 / G2FD048S21 - HIGH CFM 2-CYLINDER OPERATION

CONDENSER ENTERING AIR TEMPERATURE	ID CFM	980					1065					1210				
	ID DB (°F)	80	80	80	75	80	80	80	80	75	80	80	80	80	75	80
	ID WB (°F)	72	67	62	62	57	72	67	62	62	57	72	67	62	62	57
75	T.C.	35.72	32.39	29.01	29.01	27.74	36.45	33.78	30.89	30.89	28.07	37.18	35.17	32.78	32.78	28.39
	S.C.	16.87	21.50	26.90	21.61	26.84	17.73	23.46	29.75	24.46	27.62	18.59	25.42	32.61	27.31	28.39
	K.W.	2.13	2.11	2.07	2.07	2.00	2.19	2.19	2.12	2.12	2.01	2.26	2.26	2.17	2.17	2.01
85	T.C.	33.76	30.76	27.81	27.81	27.15	34.33	31.89	29.38	29.38	28.08	34.89	33.02	30.96	30.96	29.01
	S.C.	16.34	21.18	26.05	20.76	25.72	17.09	22.72	28.08	22.84	27.37	17.84	24.26	30.10	24.91	29.01
	K.W.	2.32	2.27	2.21	2.21	2.17	2.38	2.34	2.27	2.27	2.21	2.44	2.40	2.33	2.33	2.24
95	T.C.	31.81	29.13	26.61	26.61	25.99	32.20	30.00	27.87	27.87	27.06	32.60	30.87	29.14	29.14	28.13
	S.C.	15.81	20.86	25.21	19.91	24.61	16.46	22.22	27.01	21.72	26.37	17.10	23.59	28.82	23.53	28.13
	K.W.	2.51	2.43	2.36	2.36	2.32	2.56	2.49	2.42	2.42	2.38	2.61	2.55	2.48	2.48	2.43
105	T.C.	29.85	27.50	25.40	25.40	24.27	30.08	28.11	26.37	26.37	25.00	30.31	28.71	27.33	27.33	25.73
	S.C.	15.28	20.53	24.36	19.06	23.49	15.82	21.61	25.64	20.35	24.61	16.36	22.68	26.93	21.64	25.73
	K.W.	2.70	2.59	2.51	2.51	2.45	2.74	2.64	2.57	2.57	2.51	2.78	2.69	2.63	2.63	2.57
115	T.C.	27.96	25.92	24.24	24.24	23.58	28.02	26.27	24.90	24.90	24.03	28.09	26.62	25.56	25.56	24.47
	S.C.	14.77	20.22	23.53	18.24	22.41	15.20	21.00	24.31	19.02	23.44	15.63	21.79	25.09	19.80	24.47
	K.W.	2.88	2.75	2.65	2.65	2.60	2.92	2.79	2.72	2.72	2.68	2.95	2.83	2.78	2.78	2.76
125	T.C.	26.06	24.33	23.07	23.07	22.40	25.96	24.43	23.43	23.43	22.90	25.86	24.53	23.80	23.80	23.41
	S.C.	14.25	19.90	22.71	17.41	21.32	14.58	20.40	22.98	17.69	22.37	14.91	20.90	23.26	17.97	23.41
	K.W.	3.06	2.90	2.79	2.79	2.77	3.09	2.94	2.86	2.86	2.85	3.12	2.97	2.93	2.93	2.92

E4TS030S06A WITH N1VSC1606 / G2FD048S21 - LOW CFM 1-CYLINDER OPERATION

CONDENSER ENTERING AIR TEMPERATURE	ID CFM	650					720					770				
	ID DB (°F)	80	80	80	75	80	80	80	80	75	80	80	80	80	75	80
	ID WB (°F)	72	67	62	62	57	72	67	62	62	57	72	67	62	62	57
75	T.C.	19.20	18.62	17.94	17.94	17.75	19.55	18.71	18.06	18.06	17.86	19.90	18.81	18.17	18.17	17.98
	S.C.	9.57	13.15	15.71	10.79	17.10	9.85	13.55	15.58	10.66	17.54	10.13	13.95	15.46	10.54	17.98
	K.W.	0.99	0.98	0.97	0.97	0.95	1.01	0.99	0.98	0.98	0.96	1.02	1.01	0.99	0.99	0.98
85	T.C.	18.20	17.39	16.87	16.87	16.60	18.52	17.52	16.99	16.99	16.72	18.83	17.65	17.12	17.12	16.84
	S.C.	9.28	12.73	14.29	9.38	16.13	9.59	12.98	14.46	9.54	16.49	9.90	13.22	14.62	9.71	16.84
	K.W.	1.07	1.06	1.05	1.05	1.03	1.09	1.07	1.06	1.06	1.05	1.10	1.08	1.07	1.07	1.06
95	T.C.	17.20	16.16	15.80	15.80	15.45	17.48	16.32	15.93	15.93	15.71	17.75	16.48	16.06	16.06	15.97
	S.C.	9.00	12.32	12.88	7.96	15.16	9.34	12.41	13.33	8.42	15.57	9.68	12.49	13.79	8.87	15.97
	K.W.	1.16	1.15	1.14	1.14	1.12	1.18	1.17	1.15	1.15	1.14	1.20	1.19	1.17	1.17	1.15

Multipliers for determining the performance with other indoor sections.

HIGH CFM

Air Handler	Coil	T.C.	S.C.	KW
N1VSB12	G2FD046S17	0.97	0.96	0.97
N1VSC16	G2FD042S21	0.95	0.94	0.97

Variable Speed Furnace	Coil	T.C.	S.C.	KW
P1XDB12V	G2FD046S17	0.94	0.94	0.98
P1XUB12V	G2FD046S17	0.93	0.93	0.97
P1XUB12V	G1UA048S17	0.93	0.93	0.97
P1XUB12V	G1FA048S17	0.93	0.93	0.97
P1DUB16V	G2FD046S17	0.94	0.94	0.97
P1DUB16V	G1UA048S17	0.94	0.94	0.97
P1DUB16V	G1FA048S17	0.94	0.94	0.97
P1DUC16V	G2FD042S21	0.93	0.93	0.99
P1DUC16V	G1UA048S21	0.96	0.96	1.00
P1DUC16V	G1FA048S21	0.96	0.96	1.00
P1DUC16V	G2FD048S21	0.97	0.96	0.99

LOW CFM

Air Handler	Coil	T.C.	S.C.	KW
N1VSB12	G2FD046S17	0.94	0.99	0.96
N1VSC16	G2FD042S21	0.93	0.97	0.96

Variable Speed Furnace	Coil	T.C.	S.C.	KW
P1XDB12V	G2FD046S17	0.85	0.84	0.90
P1XUB12V	G2FD046S17	0.85	0.84	0.90
P1XUB12V	G1UA048S17	0.85	0.84	0.90
P1XUB12V	G1FA048S17	0.85	0.84	0.90
P1DUB16V	G2FD046S17	0.84	0.83	0.88
P1DUB16V	G1UA048S17	0.84	0.83	0.88
P1DUB16V	G1FA048S17	0.84	0.83	0.88
P1DUC16V	G2FD042S21	0.84	0.84	0.90
P1DUC16V	G1UA048S21	0.85	0.84	0.88
P1DUC16V	G1FA048S21	0.85	0.86	0.88
P1DUC16V	G2FD048S21	0.88	0.88	0.90

NOTE: KW RATING IS FOR OUTDOOR AND INDOOR UNITS.

COOLING PERFORMANCE DATA																	
E4TS036S06A WITH N1VSC1606 / G2FD048S21 - HIGH CFM 2-CYLINDER OPERATION																	
CONDENSER ENTERING AIR TEMPERATURE	ID CFM	1000					1185					1350					
	ID DB (°F)	80	80	80	75	80	80	80	80	75	80	80	80	80	75	80	
	ID WB (°F)	72	67	62	62	57	72	67	62	62	57	72	67	62	62	57	
75	T.C.	42.71	39.07	35.00	35.00	33.88	43.34	40.24	36.13	36.13	36.54	43.97	41.41	37.26	37.26	39.19	
	S.C.	21.26	25.43	31.63	26.34	32.81	21.75	27.35	33.71	28.25	36.00	22.25	29.27	35.79	30.17	39.19	
	K.W.	2.61	2.58	2.47	2.47	2.46	2.73	2.68	2.58	2.58	2.55	2.85	2.79	2.69	2.69	2.64	
85	T.C.	40.45	37.03	33.34	33.34	32.20	40.99	38.12	34.47	34.47	34.69	41.53	39.21	35.60	35.60	37.17	
	S.C.	20.15	24.74	30.32	25.03	31.29	20.83	26.61	32.25	26.76	34.23	21.51	28.48	34.18	28.48	37.17	
	K.W.	2.84	2.79	2.67	2.67	2.65	2.96	2.89	2.79	2.79	2.73	3.08	3.00	2.90	2.90	2.82	
95	T.C.	38.19	34.99	31.68	31.68	30.51	38.64	36.00	32.81	32.81	32.83	39.09	37.01	33.93	33.93	35.15	
	S.C.	19.04	24.05	29.02	23.72	29.77	19.90	25.61	30.79	25.26	32.46	20.76	27.68	32.56	26.80	35.15	
	K.W.	3.08	2.99	2.87	2.87	2.85	3.20	3.10	2.99	2.99	2.93	3.31	3.21	3.12	3.12	3.01	
105	T.C.	35.93	32.95	30.02	30.02	28.83	36.29	33.88	31.15	31.15	30.98	36.65	34.81	32.27	32.27	33.13	
	S.C.	17.93	23.36	27.71	22.42	28.26	18.97	25.12	29.33	23.77	30.70	20.02	26.89	30.94	25.11	33.13	
	K.W.	3.32	3.20	3.07	3.07	3.05	3.43	3.31	3.20	3.20	3.15	3.54	3.42	3.33	3.33	3.24	
115	T.C.	33.74	30.98	28.42	28.42	27.19	34.01	31.83	29.53	29.53	29.18	34.29	32.67	30.65	30.65	31.18	
	S.C.	16.85	22.69	26.44	21.15	26.79	18.07	24.40	27.91	22.31	28.98	19.30	26.12	29.38	23.48	31.18	
	K.W.	3.55	3.40	3.26	3.26	3.24	3.66	3.51	3.40	3.40	3.36	3.77	3.62	3.54	3.54	3.47	
125	T.C.	31.54	29.00	26.81	26.81	25.56	31.73	29.77	27.92	27.92	27.39	31.92	30.54	29.04	29.04	29.22	
	S.C.	15.77	22.02	25.17	19.88	25.31	17.18	23.68	26.49	20.86	27.26	18.58	25.34	27.81	21.84	29.22	
	K.W.	3.78	3.60	3.45	3.45	3.42	3.88	3.71	3.60	3.60	3.55	3.99	3.82	3.75	3.75	3.68	

Multipliers for determining the performance with other indoor sections.

HIGH CFM

Air Handler	Coil	T.C.	S.C.	KW
N1VSD20	G2FD048S24	1.01	1.02	1.00

Variable Speed Furnace	Coil	T.C.	S.C.	KW
P1XDB12V	G2FD046S17	0.99	1.01	1.06
P1XUB12V	G2FD046S17	0.98	1.00	1.04
P1XUB12V	G1UA048S17	0.98	1.00	1.04
P1XUB12V	G1FA048S17	0.98	1.00	1.04
P1DUB16V	G2FD046S17	0.99	1.00	1.04
P1DUB16V	G1UA048S17	0.99	1.00	1.04
P1DUB16V	G1FA048S17	0.99	1.00	1.04
P1DUC16V	G1UA048S21	0.99	1.01	1.04
P1DUC16V	G1FA048S21	0.99	1.01	1.04
P1DUC16V	G2FD048S21	1.00	1.02	1.05
P1DUC16V	G1UA060S21	1.03	1.04	1.06
P1DUC16V	G1FA060S21	1.03	1.04	1.06

Variable Speed Furnace	Coil	T.C.	S.C.	KW
P1DUC20V	G1UA048S21	0.99	1.01	1.03
P1DUC20V	G1FA048S21	0.99	1.01	1.03
P1DUC20V	G2FD048S21	1.00	1.02	1.03
P1DUC20V	G1UA060S21	1.03	1.04	1.05
P1DUC20V	G1FA060S21	1.03	1.04	1.05
P1XUC20V	G1UA048S21	0.99	1.00	1.04
P1XUC20V	G1FA048S21	0.99	1.00	1.04
P1XUC20V	G2FD048S21	0.99	1.01	1.03
P1XUC20V	G1UA060S21	1.02	1.03	1.05
P1XUC20V	G1FA060S21	1.02	1.03	1.05
P1XDD20V	G2FD048S24	1.00	1.07	1.03
P1XUD20V	G1UA048S24	1.01	1.06	1.04
P1XUD20V	G1FA048S24	1.01	1.06	1.04
P1XUD20V	G2FD048S24	1.01	1.07	1.03
P1XUD20V	G1UA060S24	1.04	1.09	1.04
P1XUD20V	G1FA060S24	1.04	1.09	1.04

NOTE: KW RATING IS FOR OUTDOOR AND INDOOR UNITS.

COOLING PERFORMANCE DATA																
E4TS036S06A WITH N1VSC1606 / G2FD048S21 - LOW CFM 1-CYLINDER OPERATION																
CONDENSER ENTERING AIR TEMPERATURE	ID CFM	680					770					860				
	ID DB (°F)	80	80	80	75	80	80	80	80	75	80	80	80	80	75	80
	ID WB (°F)	72	67	62	62	57	72	67	62	62	57	72	67	62	62	57
75	T.C.	25.53	22.96	21.67	21.67	19.33	25.89	23.72	22.21	22.21	20.25	26.24	24.48	22.74	22.74	21.17
	S.C.	12.14	15.13	18.09	14.65	19.09	12.67	16.04	19.20	15.76	20.13	13.20	16.95	20.32	16.87	21.17
	K.W.	1.35	1.35	1.33	1.33	1.33	1.37	1.37	1.36	1.36	1.34	1.39	1.38	1.38	1.38	1.35
85	T.C.	24.11	21.94	20.57	20.57	18.91	24.68	22.56	21.14	21.14	19.62	25.25	23.19	21.72	21.72	20.34
	S.C.	11.53	14.70	17.83	14.38	18.63	12.20	15.80	18.30	14.82	19.48	12.87	16.91	18.78	15.26	20.34
	K.W.	1.48	1.47	1.45	1.45	1.44	1.50	1.49	1.47	1.47	1.46	1.53	1.51	1.50	1.50	1.47
95	T.C.	22.70	20.91	19.46	19.46	18.49	23.47	21.40	20.08	20.08	19.00	24.25	21.89	20.70	20.70	19.51
	S.C.	10.93	14.27	17.56	14.12	18.17	11.73	15.40	17.40	13.89	18.84	12.54	16.87	17.24	13.66	19.51
	K.W.	1.62	1.58	1.56	1.56	1.56	1.64	1.61	1.59	1.59	1.58	1.66	1.63	1.61	1.61	1.60

Multipliers for determining the performance with other indoor sections.

LOW CFM

Air Handler	Coil	T.C.	S.C.	KW
N1VSD20	G2FD048S24	1.01	1.01	0.99

Variable Speed Furnace	Coil	T.C.	S.C.	KW
P1XDB12V	G2FD046S17	0.93	0.99	1.00
P1XUB12V	G2FD046S17	0.93	0.97	0.98
P1XUB12V	G1UA048S17	0.93	0.97	0.98
P1XUB12V	G1FA048S17	0.93	0.97	0.98
P1DUB16V	G2FD046S17	0.93	0.97	0.99
P1DUB16V	G1UA048S17	0.93	0.97	0.99
P1DUB16V	G1FA048S17	0.93	0.97	0.99
P1DUC16V	G1UA048S21	0.94	0.99	1.00
P1DUC16V	G1FA048S21	0.94	0.99	1.00
P1DUC16V	G2FD048S21	0.95	1.00	1.01
P1DUC16V	G1UA060S21	0.98	1.03	1.00
P1DUC16V	G1FA060S21	0.98	1.03	1.00

Variable Speed Furnace	Coil	T.C.	S.C.	KW
P1DUC20V	G1UA048S21	0.94	0.99	1.00
P1DUC20V	G1FA048S21	0.94	0.99	1.00
P1DUC20V	G2FD048S21	0.95	1.00	0.99
P1DUC20V	G1UA060S21	0.98	1.03	1.00
P1DUC20V	G1FA060S21	0.98	1.03	1.00
P1XUC20V	G1UA048S21	0.93	0.97	0.99
P1XUC20V	G1FA048S21	0.93	0.97	0.99
P1XUC20V	G2FD048S21	0.94	0.99	0.99
P1XUC20V	G1UA060S21	0.97	1.01	0.99
P1XUC20V	G1FA060S21	0.97	1.01	0.99
P1XDD20V	G2FD048S24	0.95	1.05	0.98
P1XUD20V	G1UA048S24	0.96	1.04	1.00
P1XUD20V	G1FA048S24	0.96	1.04	1.00
P1XUD20V	G2FD048S24	0.97	1.05	0.99
P1XUD20V	G1UA060S24	1.00	1.08	1.00
P1XUD20V	G1FA060S24	1.00	1.08	1.00

NOTE: KW RATING IS FOR OUTDOOR AND INDOOR UNITS.

COOLING PERFORMANCE DATA

E4TS048S06A WITH N1VSD2006 / G2FD060S24 - HIGH CFM 2-CYLINDER OPERATION

CONDENSER ENTERING AIR TEMPERATURE	ID CFM	1420					1600					1750				
	ID DB (°F)	80	80	80	75	80	80	80	80	75	80	80	80	80	75	80
	ID WB (°F)	72	67	62	62	57	72	67	62	62	57	72	67	62	62	57
75	T.C.	56.47	53.15	46.83	46.83	39.34	56.73	53.18	47.38	47.38	40.76	56.99	53.21	47.93	47.93	42.18
	S.C.	28.32	36.17	42.10	34.23	38.85	29.16	37.77	43.94	36.08	40.51	30.01	39.37	45.77	37.93	42.18
	K.W.	3.61	3.49	3.34	3.34	3.30	3.79	3.66	3.48	3.48	3.36	3.97	3.82	3.62	3.62	3.41
85	T.C.	53.54	50.52	44.60	44.60	38.36	53.57	50.59	45.30	45.30	39.65	53.61	50.66	46.00	46.00	40.94
	S.C.	27.19	35.23	41.03	33.16	37.86	27.99	36.86	42.50	34.61	39.40	28.79	38.50	43.97	36.06	40.94
	K.W.	3.91	3.77	3.59	3.59	3.54	4.09	3.94	3.74	3.74	3.60	4.28	4.10	3.89	3.89	3.66
95	T.C.	50.60	47.89	42.38	42.38	37.29	50.42	48.00	43.22	43.22	38.48	50.24	48.11	44.07	44.07	39.66
	S.C.	26.05	34.28	39.96	32.09	36.87	26.81	35.60	41.06	33.14	38.27	27.56	37.63	42.17	34.18	39.66
	K.W.	4.21	4.04	3.84	3.84	3.81	4.39	4.21	3.99	3.99	3.87	4.58	4.38	4.15	4.15	3.94
105	T.C.	47.67	45.26	40.15	40.15	35.74	47.26	45.41	41.14	41.14	37.04	46.86	45.56	42.13	42.13	38.34
	S.C.	24.92	33.33	38.89	31.02	35.52	25.63	35.04	39.63	31.66	36.93	26.34	36.76	40.36	32.30	38.34
	K.W.	4.50	4.32	4.08	4.08	4.04	4.69	4.49	4.25	4.25	4.16	4.88	4.66	4.42	4.42	4.29
115	T.C.	44.83	42.71	37.99	37.99	34.19	44.20	42.90	39.13	39.13	35.62	43.58	43.09	40.26	40.26	37.04
	S.C.	23.83	32.41	37.85	29.98	34.03	24.49	34.16	38.23	30.23	35.53	25.15	35.91	38.61	30.48	37.04
	K.W.	4.79	4.59	4.33	4.33	4.26	4.98	4.76	4.50	4.50	4.38	5.18	4.93	4.68	4.68	4.49
125	T.C.	41.98	40.16	35.83	35.83	32.61	41.14	40.39	37.11	37.11	34.54	40.30	40.62	38.38	38.38	36.46
	S.C.	22.73	31.50	36.81	28.94	32.58	23.34	33.28	36.84	28.80	34.52	23.96	35.06	36.86	28.66	36.46
	K.W.	5.08	4.86	4.57	4.57	4.48	5.27	5.03	4.75	4.75	4.64	5.47	5.20	4.93	4.93	4.80

E4TS048S06A WITH N1VSD2006 / G2FD060S24 - LOW CFM 1-CYLINDER OPERATION

CONDENSER ENTERING AIR TEMPERATURE	ID CFM	850					1040					1140				
	ID DB (°F)	80	80	80	75	80	80	80	80	75	80	80	80	80	75	80
	ID WB (°F)	72	67	62	62	57	72	67	62	62	57	72	67	62	62	57
75	T.C.	28.53	27.17	25.56	25.56	24.29	30.53	28.62	26.71	26.71	24.96	32.53	30.07	27.86	27.86	25.63
	S.C.	13.88	20.03	22.49	18.01	23.48	15.36	21.33	23.53	18.80	24.56	16.84	22.62	24.57	19.60	25.63
	K.W.	1.67	1.62	1.57	1.57	1.51	1.67	1.63	1.60	1.60	1.56	1.66	1.64	1.62	1.62	1.60
85	T.C.	28.30	26.99	25.39	25.39	24.12	29.30	27.71	25.97	25.97	25.28	30.30	28.44	26.54	26.54	26.43
	S.C.	14.72	21.03	23.45	18.97	23.45	15.46	21.68	23.72	18.98	24.94	16.20	22.33	23.99	19.00	26.43
	K.W.	1.84	1.79	1.74	1.74	1.69	1.84	1.80	1.76	1.76	1.71	1.84	1.81	1.77	1.77	1.74
95	T.C.	28.06	26.80	25.22	25.22	25.01	28.06	26.80	25.22	25.22	24.11	28.06	26.80	25.22	25.22	23.20
	S.C.	15.56	22.03	24.42	19.93	24.67	15.56	21.80	23.92	19.17	23.94	15.56	22.03	23.42	18.40	23.20
	K.W.	2.01	1.97	1.91	1.91	1.85	2.01	1.97	1.91	1.91	1.86	2.01	1.97	1.91	1.91	1.87

Multipliers for determining the performance with other indoor sections.

HIGH CFM

Air Handler	Coil	T.C.	S.C.	KW
N1VSD20	G1FD061S24	1.02	1.02	1.00
F(2,3)FV060		1.00	1.00	1.00

Variable Speed Furnace	Coil	T.C.	S.C.	KW
P1DUC16V	G1UA060S21	0.98	0.95	1.03
P1DUC16V	G1FA060S21	0.98	0.95	1.03
P1DUC20V	G1UA060S21	0.99	0.96	1.04
P1DUC20V	G1FA060S21	0.99	0.96	1.04
P1XUC20V	G1UA060S21	0.98	0.95	1.03
P1XUC20V	G1FA060S21	0.98	0.95	1.03
P1XDD20V	G2FD060S24	0.99	0.96	1.03
P1XDD20V	G2FD061H24	1.01	0.98	1.03
P1XUD20V	G1UA060S24	1.00	0.97	1.04
P1XUD20V	G1FA060S24	1.00	0.97	1.04
P1XUD20V	G2FD060S24	1.00	0.97	1.04
P1XUD20V	G2FD061H24	1.02	0.99	1.03

LOW CFM

Air Handler	Coil	T.C.	S.C.	KW
N1VSD20	G1FD061S24	1.02	1.02	1.01
F(2,3)FV060		1.00	1.00	1.00

Variable Speed Furnace	Coil	T.C.	S.C.	KW
P1DUC16V	G1UA060S21	0.89	0.81	0.96
P1DUC16V	G1FA060S21	0.89	0.81	0.96
P1DUC20V	G1UA060S21	0.90	0.83	0.97
P1DUC20V	G1FA060S21	0.90	0.83	0.97
P1XUC20V	G1UA060S21	0.88	0.80	0.95
P1XUC20V	G1FA060S21	0.88	0.80	0.95
P1XDD20V	G2FD060S24	0.91	0.84	0.99
P1XDD20V	G2FD061H24	0.93	0.86	0.99
P1XUD20V	G1UA060S24	0.93	0.86	0.99
P1XUD20V	G1FA060S24	0.93	0.86	0.99
P1XUD20V	G2FD060S24	0.93	0.86	0.99
P1XUD20V	G2FD061H24	0.94	0.86	0.99

NOTE: KW RATING IS FOR OUTDOOR AND INDOOR UNITS.

COOLING PERFORMANCE DATA

E4TS060S06A WITH N1VSD2006 / G2FD061S24 - HIGH CFM 2-CYLINDER OPERATION

CONDENSER ENTERING AIR TEMPERATURE	ID CFM	1540					1860					2075				
	ID DB (°F)	80	80	80	75	80	80	80	80	75	80	80	80	80	75	80
	ID WB (°F)	72	67	62	62	57	72	67	62	62	57	72	67	62	62	57
75	T.C.	65.80	61.90	55.01	55.01	53.57	65.60	63.40	57.21	57.21	56.10	65.40	64.90	59.41	59.41	58.62
	S.C.	32.90	42.32	49.80	40.94	51.43	33.42	44.11	51.70	42.35	55.02	33.94	45.90	53.60	43.76	58.62
	K.W.	4.53	4.43	4.30	4.30	4.20	4.76	4.66	4.50	4.50	4.43	4.99	4.89	4.69	4.69	4.65
85	T.C.	62.52	58.95	52.76	52.76	51.36	62.48	60.20	54.76	54.76	53.68	62.44	61.45	56.75	56.75	56.00
	S.C.	31.56	41.12	48.61	39.75	49.31	32.21	43.00	50.40	41.02	52.66	32.86	44.88	52.18	42.28	56.00
	K.W.	4.95	4.77	4.58	4.58	4.49	5.15	4.99	4.78	4.78	4.72	5.35	5.21	4.99	4.99	4.94
95	T.C.	59.25	56.00	50.51	50.51	49.15	59.36	57.00	52.31	52.31	51.27	59.48	58.00	54.10	54.10	53.39
	S.C.	30.22	39.93	47.42	38.57	47.19	31.01	41.50	49.09	39.69	50.29	31.79	43.87	50.76	40.81	53.39
	K.W.	5.30	5.10	4.85	4.85	4.78	5.51	5.38	5.07	5.07	5.00	5.72	5.52	5.28	5.28	5.22
105	T.C.	55.97	53.05	48.27	48.27	46.94	56.25	53.80	49.85	49.85	48.86	56.52	54.55	51.44	51.44	50.77
	S.C.	28.89	38.73	46.23	37.38	44.68	29.80	40.79	47.79	38.35	47.73	30.71	42.85	49.34	39.33	50.77
	K.W.	5.66	5.44	5.13	5.13	5.07	5.87	5.64	5.35	5.35	5.30	6.09	5.84	5.58	5.58	5.53
115	T.C.	52.79	50.19	46.09	46.09	44.80	53.22	50.70	47.47	47.47	46.52	53.64	51.21	48.86	48.86	48.23
	S.C.	27.59	37.57	45.08	36.22	42.43	28.63	39.72	46.52	37.06	45.33	29.67	41.86	47.96	37.90	48.23
	K.W.	6.06	5.76	5.40	5.40	5.35	6.25	5.96	5.63	5.63	5.58	6.44	6.15	5.86	5.86	5.81
125	T.C.	49.61	47.33	43.91	43.91	42.66	50.19	47.59	45.10	45.10	44.17	50.77	47.86	46.28	46.28	45.69
	S.C.	26.29	36.41	43.93	35.07	40.19	27.46	38.64	45.25	35.77	42.94	28.63	40.87	46.58	36.46	45.69
	K.W.	6.43	6.09	5.66	5.66	5.64	6.62	6.27	5.91	5.91	5.86	6.80	6.46	6.15	6.15	6.08

E4TS060S06A WITH N1VSD2006 / G2FD061S24 - LOW CFM 1-CYLINDER OPERATION

CONDENSER ENTERING AIR TEMPERATURE	ID CFM	1000					1200					1350				
	ID DB (°F)	80	80	80	75	80	80	80	80	75	80	80	80	80	75	80
	ID WB (°F)	72	67	62	62	57	72	67	62	62	57	72	67	62	62	57
75	T.C.	32.55	29.26	27.63	27.63	24.63	34.33	31.48	29.47	29.47	26.89	36.12	33.70	31.31	31.31	29.15
	S.C.	17.01	21.12	25.18	18.13	23.65	18.49	23.34	28.06	20.26	26.40	19.97	25.56	30.93	22.39	29.15
	K.W.	1.63	1.64	1.61	1.61	1.61	1.73	1.72	1.71	1.71	1.69	1.82	1.81	1.81	1.81	1.77
85	T.C.	30.74	27.96	26.21	26.21	24.10	32.75	29.94	28.06	28.06	26.05	34.76	31.92	29.90	29.90	28.00
	S.C.	16.16	20.52	24.82	17.77	23.14	17.81	23.01	26.70	18.87	25.57	19.47	25.50	28.59	19.98	28.00
	K.W.	1.85	1.83	1.81	1.81	1.79	1.95	1.93	1.91	1.91	1.89	2.05	2.03	2.02	2.02	1.98
95	T.C.	28.93	26.66	24.80	24.80	23.57	31.16	29.00	26.65	26.65	25.21	33.39	30.13	28.49	28.49	26.85
	S.C.	15.31	19.92	24.45	17.40	22.63	17.14	24.00	25.35	17.48	24.74	18.96	25.44	26.25	17.56	26.85
	K.W.	2.07	2.03	2.00	2.00	1.98	2.18	2.16	2.12	2.12	2.09	2.28	2.25	2.23	2.23	2.19

Multipliers for determining the performance with other indoor sections.

HIGH CFM

Air Handler	Coil	T.C.	S.C.	KW
N1VSD20	G1FD060S24	0.97	0.98	0.99
F(2,3)FV060		0.97	0.98	0.99

Variable Speed Furnace	Coil	T.C.	S.C.	KW
P1XDD20V	G2FD060S24	0.96	0.95	1.02
P1XDD20V	G2FD061H24	0.98	0.96	1.02
P1XUD20V	G1UA060S24	0.97	0.96	1.01
P1XUD20V	G1FA060S24	0.97	0.96	1.01
P1XUD20V	G2FD060S24	0.97	0.96	1.01
P1XUD20V	G2FD061H24	0.99	0.98	1.01

LOW CFM

Air Handler	Coil	T.C.	S.C.	KW
N1VSD20	G1FD060S24	0.96	0.98	0.98
F(2,3)FV060		0.96	0.98	0.98

Variable Speed Furnace	Coil	T.C.	S.C.	KW
P1XDD20V	G2FD060S24	0.93	0.85	0.99
P1XDD20V	G2FD061H24	0.97	0.87	1.01
P1XUD20V	G1UA060S24	0.93	0.85	1.00
P1XUD20V	G1FA060S24	0.93	0.85	1.00
P1XUD20V	G2FD060S24	0.93	0.85	1.00
P1XUD20V	G2FD061H24	0.97	0.87	1.01

NOTE: KW RATING IS FOR OUTDOOR AND INDOOR UNITS.

HEATING PERFORMANCE DATA

E4TS030S06A WITH N1VSC1606 / G2FD048S21 - HIGH CFM 2-CYLINDER OPERATION

ID CFM		980		1065		1210	
OD DB	ID DB (°F)	MBTUH[1,2]	KW	MBTUH[1,2]	KW	MBTUH[1,2]	KW
60	60	35.86	2.17	36.10	2.19	36.34	2.20
	70	33.48	2.30	33.93	2.31	34.39	2.32
	80	31.09	2.43	31.77	2.44	32.44	2.45
47	60	28.88	2.04	29.01	2.07	29.14	2.09
	70	26.78	2.14	27.00	2.17	27.22	2.19
	80	24.68	2.24	24.99	2.26	25.29	2.29
35	60	22.40	1.90	22.79	1.92	23.17	1.94
	70	20.57	1.98	20.94	2.00	21.31	2.02
	80	18.73	2.05	19.10	2.08	19.46	2.10
17	60	16.95	1.71	17.09	1.74	17.22	1.78
	70	15.20	1.77	15.40	1.84	15.60	1.83
	80	13.46	1.83	13.71	1.94	13.97	1.88
7	60	12.23	1.50	12.34	1.52	12.45	1.54
	70	11.24	1.57	11.39	1.60	11.53	1.61
	80	10.24	1.64	10.43	1.68	10.62	1.68
-3	60	7.92	1.37	7.99	1.39	8.06	1.41
	70	7.28	1.43	7.37	1.46	7.47	1.47
	80	6.63	1.49	6.75	1.53	6.87	1.53

E4TS030S06A WITH N1VSC1606 / G2FD048S21 - LOW CFM 1-CYLINDER OPERATION

ID CFM		650		720		770	
OD DB	ID DB (°F)	MBTUH[1,2]	KW	MBTUH[1,2]	KW	MBTUH[1,2]	KW
60	60	20.36	1.08	20.52	1.09	20.67	1.09
	70	18.50	1.16	18.66	1.17	18.81	1.17
	80	16.64	1.24	16.79	1.25	16.95	1.25
47	60	16.02	1.05	16.15	1.06	16.28	1.08
	70	14.90	1.12	15.00	1.13	15.10	1.14
	80	13.77	1.19	13.85	1.20	13.93	1.20
35	60	12.60	1.02	12.71	1.04	12.82	1.07
	70	12.00	1.08	12.07	1.10	12.13	1.12
	80	11.40	1.13	11.42	1.15	11.45	1.16

For notes see Page 11.

Multipliers for determining the performance with other indoor sections.

2-CYLINDER OPERATION

Air Handler	Coil	HIGH CFM		LOW CFM	
		MBTUH	KW	MBTUH	KW
N1VSB12	G2FD046S17	0.98	0.99	0.91	0.96
N1VSC16	G2FD042S21	0.96	0.98	0.90	0.95

Variable Speed Furnace	Coil	MBTUH	KW	MBTUH	KW
P1XDB12V	G2FD046S17	0.97	1.00	0.89	0.94
P1XUB12V	G2FD046S17	0.96	1.00	0.88	0.95
P1XUB12V	G1UA048S17	0.96	1.00	0.88	0.95
P1XUB12V	G1FA048S17	0.96	1.00	0.88	0.95
P1DUB16V	G2FD046S17	0.98	1.00	0.90	0.95
P1DUB16V	G1UA048S17	0.98	1.00	0.90	0.95
P1DUB16V	G1FA048S17	0.98	1.00	0.90	0.95
P1DUC16V	G2FD042S21	1.00	1.00	0.92	0.95
P1DUC16V	G1UA048S21	1.01	1.01	0.93	0.96
P1DUC16V	GFA048S21	1.01	1.01	0.93	0.96
P1DUC16V	G2FD048S21	1.02	1.02	0.94	0.97

1-CYLINDER OPERATION

Air Handler	Coil	LOW CFM	
		MBTUH	KW
N1VSB12	G2FD046S17	0.89	0.91
N1VSC16	G2FD042S21	0.88	0.90

Variable Speed Furnace	Coil	MBTUH	KW
P1XDB12V	G2FD046S17	0.85	0.93
P1XUB12V	G2FD046S17	0.85	0.93
P1XUB12V	G1UA048S17	0.85	0.93
P1XUB12V	G1FA048S17	0.85	0.93
P1DUB16V	G2FD046S17	0.83	0.91
P1DUB16V	G1UA048S17	0.83	0.91
P1DUB16V	G1FA048S17	0.83	0.91
P1DUC16V	G2FD042S21	0.87	0.91
P1DUC16V	G1UA048S21	0.88	0.92
P1DUC16V	GFA048S21	0.88	0.92
P1DUC16V	G2FD048S21	0.89	0.92

NOTE: KW RATING IS FOR OUTDOOR AND INDOOR UNITS.

HEATING PERFORMANCE DATA							
E4TS036S06A WITH N1VSC1606 / G2FD048S21 - HIGH CFM 2-CYLINDER OPERATION							
ID CFM		1000		1185		1350	
OD DB	ID DB (°F)	MBTUH[1,2]	KW	MBTUH[1,2]	KW	MBTUH[1,2]	KW
60	60	42.57	2.80	43.13	2.81	43.69	2.82
	70	40.33	2.98	40.99	2.99	41.65	3.00
	80	38.08	3.17	38.85	3.17	39.61	3.18
47	60	38.00	2.63	38.09	2.64	38.18	2.66
	70	35.19	2.77	35.60	2.79	36.01	2.81
	80	32.38	2.91	33.11	2.94	33.83	2.96
35	60	30.23	2.37	30.03	2.40	29.82	2.44
	70	27.59	2.48	27.79	2.52	27.99	2.57
	80	24.96	2.59	25.56	2.64	26.16	2.69
17	60	22.29	2.14	22.47	2.20	22.64	2.25
	70	20.61	2.22	21.20	2.27	21.79	2.32
	80	18.93	2.29	19.93	2.34	20.94	2.39
7	60	17.34	1.92	17.41	1.95	17.48	1.97
	70	16.08	2.02	16.34	2.05	16.60	2.07
	80	14.83	2.12	15.27	2.14	15.71	2.17
-3	60	12.18	1.76	12.23	1.79	12.28	1.81
	70	11.30	1.85	11.48	1.88	11.66	1.90
	80	10.42	1.94	10.73	1.97	11.04	1.99

For notes see Page 11.

Multipliers for determining the performance with other indoor sections.

2-CYLINDER OPERATION

Air Handler	Coil	HIGH CFM		LOW CFM	
		MBTUH	KW	MBTUH	KW
N1VSB12	G2FD046S17	0.98	1.04	0.89	0.94

Variable Speed Furnace	Coil	MBTUH	KW	MBTUH	KW
P1XDB12V	G2FD046S17	0.97	1.03	0.87	0.96
P1XUB12V	G2FD046S17	0.97	1.02	0.87	0.95
P1XUB12V	G1UA048S17	0.98	1.03	0.88	0.95
P1XUB12V	G1FA048S17	0.98	1.03	0.88	0.95
P1DUB16V	G2FD046S17	0.97	1.02	0.87	0.95
P1DUB16V	G1UA048S17	0.98	1.03	0.88	0.95
P1DUB16V	G1FA048S17	0.98	1.03	0.88	0.95
P1DUC16V	G1UA048S21	0.99	1.02	0.89	0.95
P1DUC16V	G1FA048S21	0.99	1.02	0.89	0.95
P1DUC16V	G2FD048S21	1.00	1.02	0.90	0.95
P1DUC16V	G1UA060S21	1.01	1.01	0.91	0.94
P1DUC16V	G1FA060S21	1.01	1.01	0.91	0.94

Variable Speed Furnace	Coil	HIGH CFM		LOW CFM	
		MBTUH	KW	MBTUH	KW
P1DUC20V	G1UA048S21	0.99	1.03	0.89	0.95
P1DUC20V	G1FA048S21	0.99	1.03	0.89	0.95
P1DUC20V	G2FD048S21	1.00	1.02	0.90	0.95
P1DUC20V	G1UA060S21	1.02	1.02	0.92	0.95
P1DUC20V	G1FA060S21	1.02	1.02	0.92	0.95
P1XUC20V	G1UA048S21	0.99	1.03	0.89	0.96
P1XUC20V	G1FA048S21	0.99	1.03	0.89	0.96
P1XUC20V	G2FD048S21	1.00	1.03	0.90	0.95
P1XUC20V	G1UA060S21	1.02	1.03	0.92	0.96
P1XUC20V	G1FA060S21	1.02	1.03	0.92	0.96
P1XDD20V	G2FD048S24	1.00	0.98	0.90	0.91
P1XUD20V	G1UA048S24	1.02	1.00	0.92	0.93
P1XUD20V	G1FA048S24	1.02	1.00	0.92	0.93
P1XUD20V	G2FD048S24	1.02	1.00	0.92	0.93
P1XUD20V	G1UA060S24	1.04	1.00	0.94	0.93
P1XUD20V	G1FA060S24	1.04	1.00	0.94	0.93

NOTE: KW RATING IS FOR OUTDOOR AND INDOOR UNITS.

HEATING PERFORMANCE DATA							
E4TS036S06A WITH N1VSC1606 / G2FD048S21 - LOW CFM 1-CYLINDER OPERATION							
ID CFM		670		770		860	
OD DB	ID DB (°F)	MBTUH[1,2]	KW	MBTUH[1,2]	KW	MBTUH[1,2]	KW
60	60	24.27	1.49	24.88	1.50	25.48	1.51
	70	22.72	1.59	23.42	1.61	24.13	1.62
	80	21.16	1.70	21.96	1.71	22.77	1.73
47	60	21.43	1.42	21.73	1.43	22.04	1.44
	70	19.73	1.51	20.00	1.52	20.42	1.53
	80	18.03	1.59	18.42	1.61	18.81	1.62
35	60	18.92	1.36	18.99	1.36	19.06	1.37
	70	17.14	1.42	17.22	1.44	17.30	1.45
	80	15.35	1.49	15.45	1.51	15.54	1.52

For notes see Page 11.

Multipliers for determining the performance with other indoor sections.

1-CYLINDER OPERATION

Air Handler	Coil	LOW CFM	
		MBTUH	KW
N1VSB12	G2FD046S17	0.98	1.00

Variable Speed Furnace	Coil	MBTUH	KW
P1XDB12V	G2FD046S17	0.87	0.94
P1XUB12V	G2FD046S17	0.86	0.94
P1XUB12V	G1UA048S17	0.87	0.94
P1XUB12V	G1FA048S17	0.87	0.94
P1DUB16V	G2FD046S17	0.85	0.93
P1DUB16V	G1UA048S17	0.86	0.93
P1DUB16V	G1FA048S17	0.86	0.93
P1DUC16V	G1UA048S21	0.85	0.93
P1DUC16V	G1FA048S21	0.85	0.93
P1DUC16V	G2FD048S21	0.86	0.93
P1DUC16V	G1UA060S21	0.88	0.94
P1DUC16V	G1FA060S21	0.88	0.94

Variable Speed Furnace	Coil	LOW CFM	
		MBTUH	KW
P1DUC20V	G1UA048S21	0.85	0.93
P1DUC20V	G1FA048S21	0.85	0.93
P1DUC20V	G2FD048S21	0.86	0.93
P1DUC20V	G1UA060S21	0.88	0.94
P1DUC20V	G1FA060S21	0.88	0.94
P1XUC20V	G1UA048S21	0.83	0.92
P1XUC20V	G1FA048S21	0.83	0.92
P1XUC20V	G2FD048S21	0.84	0.92
P1XUC20V	G1UA060S21	0.86	0.93
P1XUC20V	G1FA060S21	0.86	0.93
P1XDD20V	G2FD048S24	0.90	0.98
P1XUD20V	G1UA048S24	0.90	0.99
P1XUD20V	G1FA048S24	0.90	0.99
P1XUD20V	G2FD048S24	0.91	0.99
P1XUD20V	G1UA060S24	0.94	1.00
P1XUD20V	G1FA060S24	0.94	1.00

NOTE: KW RATING IS FOR OUTDOOR AND INDOOR UNITS.

HEATING PERFORMANCE DATA

E4TS048S06A WITH N1VSD2006 / G2FD060S24 - HIGH CFM 2-CYLINDER OPERATION

ID CFM		1420		1600		1750	
OD DB	ID DB (°F)	MBTUH[1,2]	KW	MBTUH[1,2]	KW	MBTUH[1,2]	KW
60	60	58.57	4.00	59.37	4.01	60.17	4.02
	70	55.72	4.22	56.47	4.24	57.21	4.26
	80	52.87	4.44	53.56	4.47	54.26	4.50
47	60	48.43	3.61	49.54	3.66	50.65	3.72
	70	46.01	3.79	47.00	3.85	47.99	3.91
	80	43.60	3.96	44.46	4.03	45.32	4.10
35	60	39.06	3.24	39.49	3.31	39.92	3.37
	70	36.62	3.38	37.06	3.46	37.51	3.55
	80	34.17	3.52	34.63	3.62	35.09	3.72
17	60	28.62	2.97	28.81	3.06	29.00	3.15
	70	26.00	3.05	26.40	3.16	26.80	3.27
	80	23.38	3.13	23.99	3.26	24.60	3.39
7	60	21.24	2.68	21.53	2.72	21.82	2.77
	70	19.89	2.79	20.21	2.85	20.52	2.91
	80	18.55	2.91	18.88	2.98	19.22	3.05
-3	60	14.73	2.48	14.93	2.53	15.13	2.57
	70	13.79	2.58	14.01	2.64	14.22	2.70
	80	12.86	2.69	13.09	2.76	13.32	2.82

E4TS048S06A WITH N1VSD2006 / G2FD060S24 - LOW CFM 1-CYLINDER OPERATION

ID CFM		850		1040		1140	
OD DB	ID DB (°F)	MBTUH[1,2]	KW	MBTUH[1,2]	KW	MBTUH[1,2]	KW
60	60	29.44	1.89	30.37	1.88	31.31	1.87
	70	27.16	2.00	28.00	2.00	28.83	2.00
	80	24.88	2.12	25.62	2.12	26.36	2.13
47	60	25.88	1.80	26.28	1.81	26.68	1.81
	70	23.31	1.90	23.80	1.91	24.29	1.91
	80	20.73	1.99	21.32	2.00	21.90	2.01
35	60	22.75	1.72	22.75	1.74	22.75	1.76
	70	20.01	1.80	20.24	1.82	20.47	1.83
	80	17.27	1.87	17.73	1.89	18.20	1.90

For notes see Page 11.

Multipliers for determining the performance with other indoor sections.

2-CYLINDER OPERATION

Air Handler	Coil	HIGH CFM		LOW CFM	
		MBTUH	KW	MBTUH	KW
N1VSD20	G1FD061S24	1.02	1.00	0.95	0.95
F(2,3)FV060		1.00	1.00	0.93	0.95

Variable Speed Furnace	Coil	MBTUH	KW	MBTUH	KW
P1DUC16V	G1UA060S21	1.00	1.01	0.93	0.96
P1DUC16V	G1FA060S21	1.00	1.01	0.93	0.96
P1DUC20V	G1UA060S21	1.00	0.99	0.93	0.94
P1DUC20V	G1FA060S21	1.00	0.99	0.93	0.94
P1XUC20V	G1UA060S21	0.99	1.00	0.91	0.95
P1XUC20V	G1FA060S21	0.99	1.00	0.91	0.95
P1XDD20V	G2FD060S24	0.99	1.01	0.91	0.95
P1XDD20V	G2FD061H24	1.01	1.01	0.94	0.95
P1XUD20V	G1UA060S24	1.01	1.02	0.94	0.97
P1XUD20V	G1FA060S24	1.01	1.02	0.94	0.97
P1XUD20V	G2FD060S24	1.01	1.02	0.94	0.97
P1XUD20V	G2FD061H24	1.03	1.02	0.96	0.97

1-CYLINDER OPERATION

Air Handler	Coil	LOW CFM	
		MBTUH	KW
N1VSD20	G1FD061S24	1.02	1.00
F(2,3)FV060		1.00	1.00

Variable Speed Furnace	Coil	MBTUH	KW
P1DUC16V	G1UA060S21	0.87	0.99
P1DUC16V	G1FA060S21	0.87	0.99
P1DUC20V	G1UA060S21	0.90	0.99
P1DUC20V	G1FA060S21	0.90	0.99
P1XUC20V	G1UA060S21	0.85	0.97
P1XUC20V	G1FA060S21	0.85	0.97
P1XDD20V	G2FD060S24	0.90	1.00
P1XDD20V	G2FD061H24	0.92	1.00
P1XUD20V	G1UA060S24	0.93	1.02
P1XUD20V	G1FA060S24	0.93	1.02
P1XUD20V	G2FD060S24	0.93	1.02
P1XUD20V	G2FD061H24	0.95	1.02

NOTE: KW RATING IS FOR OUTDOOR AND INDOOR UNITS.

HEATING PERFORMANCE DATA

E4TS060S06A WITH N1VSD2006 / G2FD061S21 - HIGH CFM 2-CYLINDER OPERATION

ID CFM		1540		1860		2075	
OD DB	ID DB (°F)	MBTUH[1,2]	KW	MBTUH[1,2]	KW	MBTUH[1,2]	KW
60	60	65.76	4.68	66.22	4.71	66.68	4.74
	70	63.45	4.98	64.33	5.02	65.20	5.07
	80	61.15	5.27	62.43	5.33	63.72	5.40
47	60	56.89	4.31	57.80	4.39	58.70	4.47
	70	54.00	4.51	55.00	4.61	56.00	4.70
	80	51.10	4.71	52.20	4.82	53.30	4.93
35	60	46.70	3.92	47.54	4.04	48.37	4.16
	70	43.54	4.04	44.43	4.17	45.31	4.30
	80	40.38	4.17	41.32	4.30	42.25	4.44
17	60	29.71	3.45	30.61	3.58	31.51	3.70
	70	28.44	3.50	29.20	3.68	29.96	3.86
	80	27.16	3.55	27.79	3.79	28.41	4.02
7	60	21.86	2.75	22.24	2.81	22.63	2.87
	70	20.78	2.86	21.19	2.94	21.60	3.02
	80	19.70	2.96	20.14	3.06	20.57	3.16
-3	60	13.59	2.44	13.84	2.50	14.08	2.56
	70	12.92	2.53	13.18	2.61	13.44	2.68
	80	12.25	2.62	12.53	2.72	12.80	2.81

E4TS060S06A WITH N1VSD2006 / G2FD061S21 - LOW CFM 1-CYLINDER OPERATION

ID CFM		1000		1200		1350	
OD DB	ID DB (°F)	MBTUH[1,2]	KW	MBTUH[1,2]	KW	MBTUH[1,2]	KW
60	60	36.04	2.14	36.57	2.14	37.10	2.13
	70	33.56	2.28	34.11	2.28	34.65	2.28
	80	31.08	2.42	31.64	2.42	32.20	2.42
47	60	26.89	2.03	28.43	2.03	29.97	2.04
	70	25.57	2.13	26.60	2.14	27.63	2.15
	80	24.26	2.24	24.77	2.25	25.28	2.26
35	60	17.25	1.86	19.73	1.88	22.20	1.89
	70	17.10	1.93	18.56	1.95	20.02	1.97
	80	16.94	2.00	17.39	2.02	17.84	2.04

For notes see Page 11.

Multipliers for determining the performance with other indoor sections.

2-CYLINDER OPERATION

Air Handler	Coil	HIGH CFM		LOW CFM	
		MBTUH	KW	MBTUH	KW
N1VSD20	G1FD060S24	0.98	1.00	0.93	0.98
F(2,3)FV060		0.98	1.00	0.93	0.98

Variable Speed Furnace	Coil	MBTUH	KW	MBTUH	KW
P1XDD20V112	G2FD060S24	0.98	0.99	0.90	0.94
P1XDD20V112	G2FD061H24	1.00	0.99	0.92	0.95
P1XUD20V112	G1UA060S24	0.98	0.98	0.90	0.93
P1XUD20V112	G1FA060S24	0.98	0.98	0.90	0.93
P1XUD20V112	G2FD060S24	0.98	0.98	0.90	0.93
P1XUD20V112	G2FD061H24	1.00	0.98	0.92	0.93

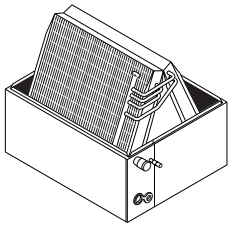
1-CYLINDER OPERATION

Air Handler	Coil	LOW CFM	
		MBTUH	KW
N1VSD20	G1FD060S24	0.89	0.91
F(2,3)FV060		0.88	0.90

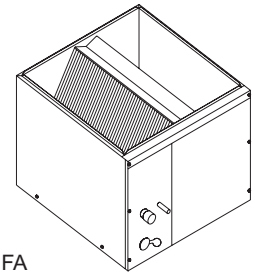
Variable Speed Furnace	Coil	MBTUH	KW
P1XDD20V112	G2FD060S24	0.88	0.95
P1XDD20V112	G2FD061H24	0.88	0.92
P1XUD20V112	G1UA060S24	0.87	0.95
P1XUD20V112	G1FA060S24	0.87	0.95
P1XUD20V112	G2FD060S24	0.87	0.95
P1XUD20V112	G2FD061H24	0.87	0.93

NOTE: KW RATING IS FOR OUTDOOR AND INDOOR UNITS.

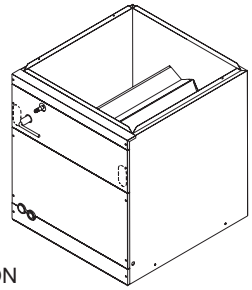
MATCHING INDOOR COMPONENTS



G1UA
UPFLOW



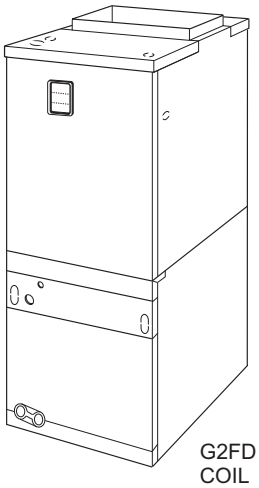
G1FA
FULL CASED



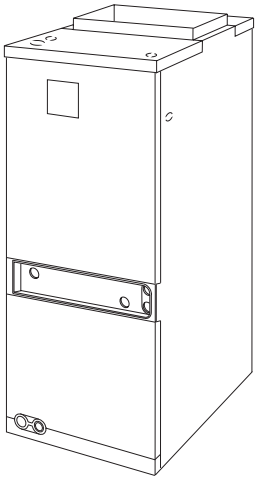
G2FD*
MULTI-POSITION
(UPFLOW, HORIZONTAL
AND DOWNFLOW)

AIR HANDLERS - FOR NON-FURNACE APPLICATIONS

N1VS
MODULAR BLOWER
(UPFLOW, HORIZONTAL
AND DOWNFLOW)



G2FD
COIL



F2FV
FAN COIL UNITS
(UPFLOW, HORIZONTAL)

NOTES

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Supersedes: 036-21342-002 Rev. D (1104)