CITY OF LODI

COUNCIL COMMUNICATION

AGENDA TITLE: Public Benefits Program Grant – Zion Reformed Church and Middle School Demand-side Management Project ($16,190.25)

MEETING DATE: May 3, 2000

PREPARED BY: Electric Utility Director

RECOMMENDED ACTION: That the City Council approve a Public Benefits Program Grant in the amount of $16,190.25 for a demand-side management project at Zion Reformed Church and Middle School, located at 105 S. Ham Lane.

BACKGROUND INFORMATION: Zion Reformed Church will be installing new, high efficiency air conditioning units for the sanctuary, as well as classroom facilities. With the assistance of their chosen air conditioning contractor, and the City of Lodi Electric Utility, representatives of Zion Reformed Church and Middle School have elected to install those units deemed as energy efficient, thus qualifying the organization for the standard 25% Public Benefits Program contribution. Specifically, Zion Reformed Church will install:

- one (1) 25-ton high efficiency Bryant Commercial Air-Cooled Condensing Unit, Model 576H;
- related air supply system, programmable thermostat and other related materials;
- for the classrooms - four (4) 5-ton high efficiency Bryant Single-Package Electric Cooling Units (with gas-fired heat component), and one (1) 3-ton high efficiency Bryant Single-Package Electric Cooling Unit (with gas-fired heating), Model 583A; all five units are rated at a 12.0 Seasonal Energy Efficiency Rating; and
- in the classrooms - installing appropriate air delivery system and programmable thermostats for each classroom for individual control.

Attached please find supporting documentation pertaining to the energy efficient equipment, as well as the letter of request from Zion Reformed Church and Middle School.

The high efficiency air conditioning units, based upon industry rated standards, utilize approximately 10 percent less electricity than lower rated units. By installing higher efficiency or more energy efficient equipment, assists this customer in reducing monthly utility costs, as well as operations and maintenance costs (the latter based assumption is based on the fact that new, highly efficient equipment is being installed, which requires less maintenance by the owner).

Following numerous discussions with representatives of Zion Reformed Church, and their selected equipment installer, the City of Lodi Electric Utility respectfully recommends approval of this funding request as a qualifying component of the Public Benefits Program.

APPROVED: _____
H. Dixon Flynn - City Manager

CITY OF LODI

COUNCIL COMMUNICATION

FUNDING: 164605 – Public Benefits Program Demand-side Management (category)

Funding Available: Ruby R. Paiste for

Vicky McAthie, Finance Director

Alan N. Vallow
Electric Utility Director

PREPARED BY: Rob Lechner, Manager of Customer Programs

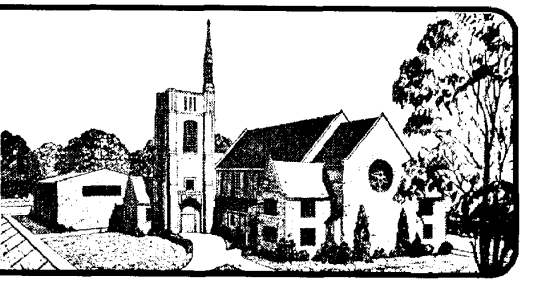
ANV/RL/lst

C: City Attorney

APPROVED: _____

H. Dixon Flynn - City Manager

Zion Reformed Church
and Middle School
105 South Ham Lane
Lodi, California 95242
(209) 369-1919



April 12, 2000

Mr. Alan Vallow
Electric Utilities Director
1331 South Ham Lane
Lodi, CA 95242

Dear Alan,
Zion Reformed Church and Middle School is requesting $16,190.25 from the City of Lodi's Public Public Benefits Program grant fund. This will be utilized for the purchase and installation of five high efficiency air conditioning units for our expanding middle school and one unit for our sanctuary.

Zion Reformed Church has been a fixture in the community for the last 57 years, fifty years of which have spent at our present location on Ham Lane. In 1996, the congregation of over 400 hundred members felt there was a need for an additional choice in Middle School Education and opened Zion Middle School. What began as a hope and dream for twenty students has grown to a reality of 83 students and an enormous waiting list. Our hopes are that we will continue to grow and expand. This is consistent with the vision statement of the church which incorporates the concept of reaching out into our community and being servants to those who reside in it. However, with facilities that either rely on window mounted air conditioning units or have no air conditioning system at all, we feel that we can not move forward until we bring our facilities up to a higher standard of comfort and provide an environment that is conducive to learning.

This past Sunday, April 9, 2000, I was ordained and installed as the senior pastor here at Zion. It is certainly my hope that we will continue to reach out to the Lodi community and be of service to them. Our church looks forward to working with the city on this project and appreciates your efforts and consideration of our request. If there is anything more that I can do or questions that I may answer, please feel free to contact me.

Sincerely,

Matthew W. Duerr
Pastor/ Principal Zion Reformed Church and Middle School

HENDERSON BROS. CO. , INC.

SINCE 1896
P.O. BOX 259 / 21 S. SACRAMENTO STREET
LODI, CA 95241
PH: (209) 369-3671 FAX: (209) 368-9026
STATE CONTR. LIC. 7319

QUOTATION

(UPDATED)

April 11, 2000

ZION REFORMED CHURCH
105 S. HAM LANE
LODI, CALIFORNIA 95242

SCOPE OF WORK - SANCTUARY

FURNISH AND INSTALL A NEW 25 TON HIGH EFFICIENCY AIR CONDITIONING SYSTEM. SYSTEM SHALL INCLUDE A NEW REMOTE CONDENSING UNIT, INDOOR FAN SECTION WITH ECONOMIZER, CONTROLS, DUCTS LOCATED IN THE BASEMENT AND NEW SUPPLY AIR OUTLETS.

$32,456.00

SCOPE OF WORK - CLASSROOMS

FURNISH AND INSTALL FIVE NEW HIGH EFFICIENCY ROOF MOUNTED AIR CONDITIONING UNITS (1 - 3.0 TON AND 4- 5.0 TON) FOR THE SCHOOL SECTION OF THE EXISTING FACILITY. SYSTEMS INCLUDE THE AIR CONDITIONING UNITS, CONTROLS AND AIR DISTRIBUTION SYSTEMS. ROOMS INCLUDE SEVEN REGULAR CLASSROOMS, ONE COMPUTER CLASSROOM, ONE TEACHERS LOUNGE AND TWO OFFICE AREAS.

$32,305.00

THE ABOVE PRICES INCLUDE ALL MATERIAL, SALES TAX, CRANE SERVICE AND LABOR NECESSARY TO COMPLETE THE WORK AS DESCRIBED.

ALL LINE VOLTAGE WIRING AND ACCESSORIES BY OWNER.

SINCERELY:

KENNETH W. McCONNELL

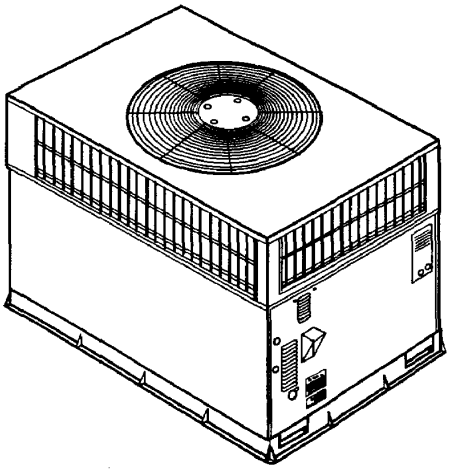
bryant

SINGLE-PACKAGE GAS HEATING/ELECTRIC COOLING UNITS

Model 583A
Sizes 024-060
2 to 5 Nominal Tons

AC-1, 3, 4 & 5

AC-2



UNIT 583A

Single-Package Rooftop Products with Energy-Saving Features

- Direct Spark Ignition
- Low Sound Levels
- Up to 81% AFUE
- 12 SEER

FEATURE/BENEFITS

One-piece heating and cooling units with low sound levels, easy installation, low maintenance, and dependable performance.

EASY INSTALLATION — Factory-assembled package is a compact, fully self-contained, combination gas heating/electric cooling unit that is pre-wired, pre-piped, and pre-charged for minimum installation expense.

These units are available in a variety of standard and optional heating/cooling size combinations with voltage options to meet residential and light commercial requirements. Units are lightweight and install easily on a rooftop or at ground level. The high tech composite basepan eliminates rust problems associated with ground level applications.

CONVERTIBLE DUCT CONFIGURATION — Unit is designed for easy use in either downflow or horizontal applications. Each unit is easily converted from horizontal to downflow with addition of two accessory duct covers.

EFFICIENT OPERATION

High-Efficiency Design with SEER (Seasonal Energy Efficiency Ratios) of 12.0 and AFUE (Annual Fuel Utilization Efficiency) rating as high as 81%.

Energy-Saving, Direct Spark Ignition saves gas by operating only when the room thermostat calls for heating. Standard units are furnished with natural gas controls. A low cost field-installed kit for propane conversion is available for all units.

All Units meet the California maximum oxides of nitrogen (NOx) emission requirements when accessory kit is used.

DURABLE, DEPENDABLE COMPONENTS

Compressors are designed for high efficiency. Each compressor is hermetically sealed against contamination to help promote longer life and dependable operation. Each compressor also has vibration isolation to provide quieter operation. All compressors have internal high pressure and overcurrent protection.

Monoport Inshot Burners produce precise air-to-gas mixture, which provides for clean and efficient combustion. The large monoport on the inshot (or injection type) burners seldom, if ever, requires cleaning. All gas furnace components are accessible in one compartment.

Turbo-tubular™ Heat Exchangers are constructed of aluminized steel for corrosion resistance and optimum heat transfer for improved efficiency. The tubular design permits hot gases to make multiple passes across the path of the supply air.

In addition, dimples located on the heat exchanger walls force the hot gases to stay in close contact with the walls, improving heat transfer.

Direct-Drive Multi-Speed, PSC (Permanent Split Capacitor) Blower Motor is standard on all 583A models.

Direct-Drive, PSC Condenser-Fan Motors are designed to help reduce energy consumption and provide for cooling operation down to 40 F outdoor temperature. Motormaster® II low ambient kit is available as a field-installed accessory.

Corporate Thermostats include the Time Guard® II anti-short cycle protection circuitry. If an Original Equipment Manufacture (OEM) thermostat is used the Time Guard II field-installed anti-short cycle kit must be used.

Refrigerant System is designed to provide dependability. Liquid refrigerant strainers are used to promote clean, unrestricted operation. Each unit leaves the factory with a full refrigerant charge. Refrigerant service connections make checking operating pressures easier.

Evaporator and Condenser Coils are computer-designed for optimum heat transfer and cooling efficiency. The evaporator coil is fabricated from copper tube and aluminum fins and is located inside the unit for protection against damage. The condenser coil is internally mounted on the top tier of the unit. A FIOP (Factory-Installed Option) metal louvered grille is available on all models. Copper fin coils and pre-coated fin coils are available from the factory by special order. These coils are recommended in applications where aluminum fins are likely to be damaged due to corrosion. They are ideal for seacoast applications.

Low Sound Ratings ensure a quiet indoor and outdoor environment with sound ratings as low as 7.2 bels. (See page 3.)

Easy to Service Cabinets provide easy single-panel accessibility to serviceable components during maintenance and installation. The basepan with integrated drain pan provides easy ground level installation with or without a mounting pad. Convenient handholds are provided to manipulate the unit on the

jobsite. A nesting feature ensures a positive basepan to roof curb seal when the unit is roof mounted. A convenient ¾-in. wide perimeter flange makes frame mounting on a rooftop easy.

Downflow Operation is easily provided in the field to allow vertical ductwork connections. The basepan utilizes knockout style seals on the bottom openings to ensure a positive seal in the horizontal airflow mode.

Integrated Gas Control (IGC) Board provides safe and efficient control of heating and simplifies troubleshooting through its built-in diagnostic function.

Cabinets are constructed of heavy-duty, phosphated, zinc-coated prepainted steel capable of withstanding 500 hours in salt spray. Interior surfaces of the evaporator/heat exchanger compartment are insulated with cleanable semi-rigid insulation board, which keeps the conditioned air from being affected by the outdoor ambient temperature and provides improved indoor air quality. (Conforms to American Society of Heating, Refrigeration and Air Conditioning Engineers No. 62P.) The sloped drain pan minimizes standing water in the pan.

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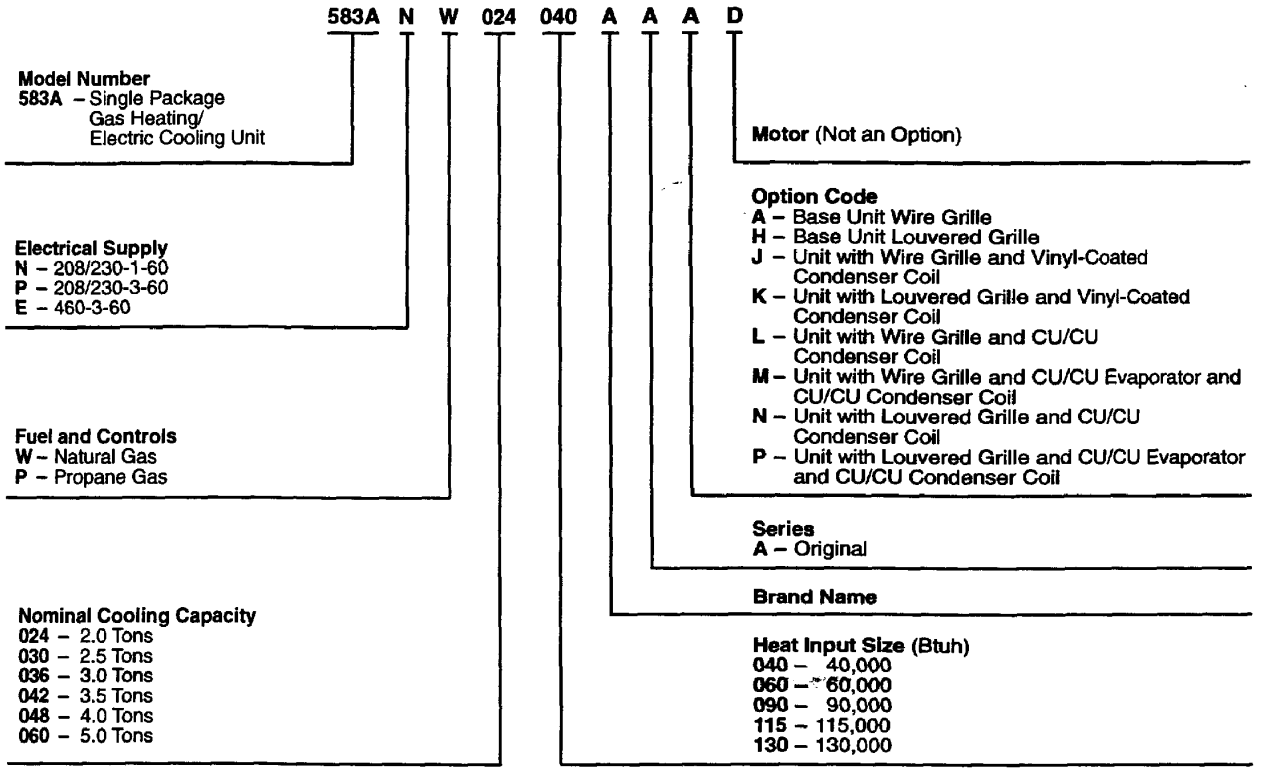
MODEL NUMBER NOMENCLATURE



CU — Copper

ARI* CAPACITIES

COOLING CAPACITIES AND EFFICIENCIES

	UNIT 583A	NOMINAL TONS	STANDARD CFM	NET COOLING CAPACITIES (Btuh)	SEER†	SOUND RATINGS** (Bels)
	024040 024060	2	800	24,000	12.0	7.2
	030040 030060	2½	1000	30,000	12.0	7.2
*	036060 036090	3	1200	35,000	12.0	7.4
	042060 042090	3½	1400	42,000	12.0	7.4
	048090 048115 048130	4	1600	48,000	12.0	8.0
*	060090 060115 060130	5	1750	58,000	12.0	7.8

LEGEND

Bels — Sound Levels (1 bel = 10 decibels)
db — Dry Bulb
SEER — Seasonal Energy Efficiency Ratio
wb — Wet Bulb

*Air Conditioning & Refrigeration Institute.
†Rated in accordance with U.S. Government DOE (Department of Energy) test procedures and/or ARI Standard 210/240-94.
**Tested in accordance with ARI Standard 270-95 (not listed in ARI).

NOTES:

1. Ratings are net values, reflecting the effects of circulating fan heat. Ratings are based on:
   Cooling Standard: 80 F db, 67 F wb indoor entering-air temperature and 95 F db outdoor entering-air temperature.
2. Before purchasing this appliance, read important energy cost and efficiency information available from your retailer.

PACKAGED GAS HEATING/ELECTRIC COOLING UNITS CONSTANT VOLUME APPLICATION

HVAC GUIDE SPECIFICATIONS

SIZE RANGE: 2 to 5 TONS, NOMINAL COOLING
40,000 TO 130,000 BTUH
NOMINAL HEATING INPUT

BRYANT MODEL NUMBER: 583A

PART 1 — GENERAL

1.01 SYSTEM DESCRIPTION

Outdoor rooftop mounted, gas heating/electric cooling unit utilizing a hermetic compressor for cooling duty. Unit shall discharge supply air vertically or horizontally as shown on contract drawings. Condenser fan/coil section shall have a draw-thru design with vertical discharge for minimum sound levels.

1.02 QUALITY ASSURANCE

A. Unit shall be rated in accordance with ARI Standards 210/240-94 and 270-95.

B. Unit shall be designed in accordance with UL Standard 1995.

C. Unit shall be manufactured in a facility registered to ISO 9001 manufacturing quality standard.

D. Unit shall be UL listed and CSA certified as a total package for safety requirements.

E. Roof curb shall be designed to conform to NRCA Standards.

F. Insulation and adhesives shall meet NFPA 90A requirements for flame spread and smoke generation.

G. Cabinet insulation shall meet ASHRAE Standard 62P.

1.03 DELIVERY, STORAGE AND HANDLING

Unit shall be stored and handled per manufacturer's recommendations.

PART 2 — PRODUCTS

2.01 EQUIPMENT

A. General:

Factory-assembled, single-piece, heating and cooling unit. Contained within the enclosure shall be all factory wiring, piping, controls, refrigerant charge (R-22), and special features required prior to field start-up.

B. Unit Cabinet:

1. Unit cabinet shall be constructed of phosphated, zinc-coated, pre-painted steel capable of withstanding 500 hours in salt spray.
2. Normal service shall be through a single removable cabinet panel.
3. The unit shall be constructed on a rust proof basepan that has an externally trapped, integrated sloped drain pan.
4. Evaporator fan compartment top surface shall be insulated with a minimum ½-in. thick, flexible fiberglass insulation, coated on the air side and retained by adhesive and mechanical means. The evaporator wall sections will be insulated with a minimum semi-rigid foil-faced board capable of being wiped clean. Aluminum foil-faced fiberglass insulation shall be used in the entire indoor air cavity section.
5. Unit shall have a field-supplied condensate trap.

C. Fans:

1. The evaporator fan shall be 3-speed, direct-drive, as shown on equipment drawings.
2. Fan wheel shall be made from steel, and shall be double-inlet type with forward curved blades with corrosion resistant finish. Fan wheel shall be dynamically balanced.
3. Condenser fan shall be direct drive propeller type with aluminum blades riveted to corrosion resistant steel spiders, be dynamically balanced, and discharge air vertically.

D. Compressor:

1. Fully hermetic compressors with factory-installed vibration isolation.
2. Scroll compressors shall be standard on all units.

E. Coils:

Evaporator and condenser coils shall have aluminum plate fins mechanically bonded to seamless copper tubes with all joints brazed (copper/copper and vinyl-coated construction available as option). Tube sheet openings shall be belled to prevent tube wear.

F. Heating Section:

1. Induced-draft combustion type with energy saving direct spark ignition system and redundant main gas valve.
2. Induced-draft motors shall be provided with solid-state hall-effect sensor to ensure adequate airflow for combustion.
3. The heat exchangers shall be constructed of aluminized steel for corrosion resistance.
4. Burners shall be of the in-shot type constructed of aluminum coated steel.
5. All gas piping and electric power shall enter the unit cabinet at a single location.

G. Refrigerant Components:

Refrigerant components shall be of the fixed orifice feed type.

H. Filters:

Filter section shall consist of field-installed, throwaway, 1-in. thick fiberglass filters of commercially available sizes.

I. Controls and Safeties:

1. Unit controls shall be complete with a self-contained low voltage control circuit.
2. Compressors shall incorporate a solid-state compressor protector that provides reset capability.

J. Operating Characteristics:

1. Unit shall be capable of starting and running at 125 F ambient outdoor temperature per maximum load criteria of ARI Standard 210.
2. Compressor with standard controls shall be capable of operation down to 40 F ambient outdoor temperature.
3. Units shall be provided with fan time delay to prevent cold air delivery before the heat exchanger warms up.
4. Unit shall be provided with 30-second fan time delay after the thermostat is satisfied.

K. Electrical Requirements:

All unit power wiring shall enter the unit cabinet at a single location.

OPERATING SEQUENCE

Heating — When the thermostat calls for heating, terminal "W" is energized, starting the induced-draft motor. When the hall-effect sensor on the induced-draft motor senses that it has reached the required speed, the burner ignition sequence begins. The indoor (evaporator) fan motor (IFM) is energized 45 seconds after flame is established. When the thermostat is satisfied and "W" is deenergized, the IFM stops after a 45-second time-off delay.

Cooling — When the system thermostat calls for cooling, 24 V is supplied to the "Y" and "G" terminals of the thermostat. This completes the circuit to the contactor coil (C) and indoor (evaporator) fan relay (IFR). The normally open contacts of C close and complete the circuit through compressor motor (COMP) to outdoor (condenser) fan motor (OFM). Both motors start instantly. The set of normally open contacts of IFR close and complete the circuit through IFM. The IFM starts instantly.

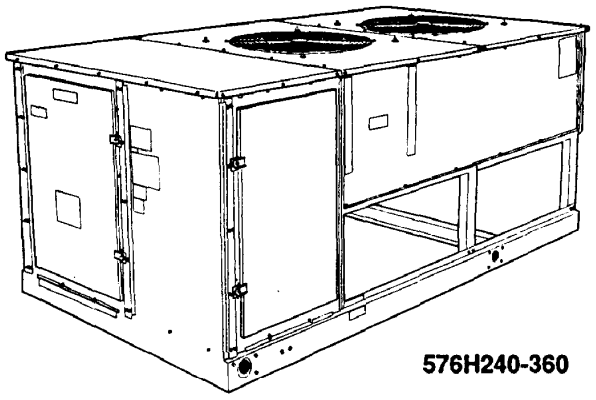
On the loss of the thermostat call for cooling, 24 v is removed from both the "Y" and "G" terminals (provided the fan switch is in the "AUTO" position) deenergizing the compressor contactor and opening the contacts supplying power to compressor/OFM. After a 30-second delay, the IFM shuts off. If the thermostat fan selector switch in is the "ON" position, the IFM will run continuously.

NOTE: On units with a Time Guard® II device: once the compressor has started and then stopped, it cannot be restarted again until 5 minutes have elapsed.

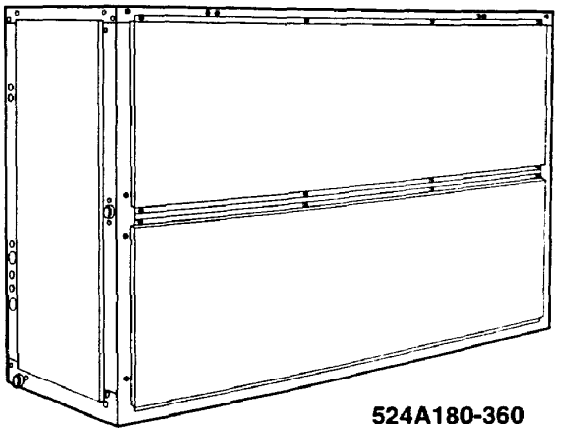
bryant

COMMERCIAL AIR-COOLED CONDENSING UNITS WITH 524A AIR-HANDLING UNITS

576H
Sizes 240-360
With 524A
Sizes 180-360
20 to 30 Tons



576H240-360



524A180-360

FEATURES/BENEFITS

- Up to 4 compressors and 2 independent refrigerant circuits provide design flexibility; condensing unit can supply one or 2 air handlers
- Efficient 576H Series units save energy, providing condensing unit EERs up to 11.6
- Constant volume units operate at as low as 28% of nominal capacity (standard) or 14% of nominal capacity (with accessory unloader)
- Weatherized steel cabinet ensures corrosion protection
- Protection against high discharge and low suction refrigerant pressure, and low oil pressure ensure compressor reliability
- Crankcase heaters prevent oil dilution and ensure compressor lubrication

The 576H condensing unit offers the utmost in system configuration and control adaptability. Its premium-quality standard components ensure durable, efficient and reliable operation.

VERSATILITY — The 576H condensing units feature up to 4 compressors and 2 refrigerant circuits, and can be matched with a wide variety of air-handling units. All condensing unit circuits can supply a single air handler or 2 separate air handlers.

DURABLE CONSTRUCTION — All 576H units have weatherized cabinets constructed of heavy-duty galvanized steel prepainted with corrosion-resistant baked enamel. Inside and outside surfaces are protected to ensure long life and good looks. The durable, galvanized steel, prepainted components exceed the requirements of the 500-hour salt spray test per ASTM (American Society for Testing and Materials) B117.

The unit's coils have aluminum fins mechanically bonded to copper tubes for long-term reliability and improved heat transfer. A range of *Enviro-Shield*™ condenser options is available to provide improved durability in harsh industrial or coastal conditions.

RELIABILITY — The 576H condensing units feature time-proven, highly reliable 06D semi-hermetic compressors. Unloading capability is a standard feature on the lead compressor of each circuit. Each compressor has vibration isolators to provide quiet operation and reduced component stress.

Because 576H units have 2 independent circuits, they provide inherent backup capability. Each circuit is also protected by the following safety features:

- Time Guard® anti-short-cycling device
- low oil pressure safety switch
- low refrigerant pressure switch (suction)
- high refrigerant pressure switch (discharge)
- calibrated circuit breakers for compressors and outdoor fans

EASIER INSTALLATION AND SERVICE — The 576H units are equipped with hinged control-box access doors, liquid line shutoff valves, and service valves on the compressors.

INNOVATIVE 524A AIR-HANDLING UNITS IN SIZES 180-360: IDEAL MATCHES FOR 576H240-360 CONDENSING UNITS — The 524A Series has excellent fan performance, efficient direct-expansion (DX) coils, a unique combination of indoor air quality features, and easy installation. Its versatility and state-of-the-art features help to ensure that your split system provides economical performance now and in the future.

INDOOR-AIR QUALITY (IAQ) FEATURES — The unique combination of IAQ features in the 524A Series air handlers helps to make sure that only clean, fresh, conditioned air is delivered to the occupied space.

Direct-expansion (DX) cooling coils prevent the build-up of humidity in the room, even during part-load conditions. The 180-360 sizes feature dual-circuit coils.

Standard 2-in. disposable filters remove dust and airborne particles from the occupied space.

Thermal insulation contains an immobilized anti-microbial agent to inhibit the growth of bacteria and fungi. The anti-microbial agent is registered with the U.S. Environmental Protection Agency (EPA).

The pitched PVC drain pan can be adjusted for a right- or left-hand connection to provide positive drainage and to prevent standing condensate.

The 524A accessory economizer can provide ventilation air to improve indoor-air quality.

ECONOMY — The 524A Series packaged air handlers have low initial costs, and they continue to save money by providing reduced installation expense and energy-efficient performance.

Quick installation is ensured by the multipoise design. Units can be installed in either the horizontal or vertical configuration without modifications. All units have drain-pan connections on both sides, and pans can be pitched for right- or left-hand operation with a simple adjustment. Fan motors and contactors are prewired and thermostatic expansion valves (TXVs) are factory-installed on all 524A models.

High efficiency, precision-balanced fans minimize air turbulence, surging, and unbalanced operation, cutting operating expenses.

The economizer accessory precisely controls the blend of outdoor air and room air to achieve comfort levels. When the outside air enthalpy is suitable, outside air dampers can fully open to provide "free" cooling.

RUGGED DEPENDABILITY — The 524A units are made to last. The die-formed galvanized steel panels ensure structural integrity under all operating conditions. Galvanized steel fan housings are securely mounted to a die-formed galvanized steel deck. Mechanically bonded coil fins provide improved heat transfer. Rugged pillow-block bearings are securely fastened to the solid steel fan shaft with split collets and clamp locking devices.

COIL FLEXIBILITY — Model 524A direct-expansion coils have galvanized steel casings; inlet and outlet connections are on the same end. The coils are designed for use with Refrigerant 22 and have $^3/_8$-in. diameter copper tubes mechanically bonded to aluminum sine-wave fins. The coils include matched, factory-installed TXVs with matching distributor nozzles. Accessory hot water and steam coils and electric heaters are also available.

EASIER INSTALLATION AND SERVICE — The multipoise design and component layout help you to get the unit installed and running quickly. The DX coils have factory-installed TXVs with matching distributor nozzles. Units can be converted from horizontal to vertical operation by simply repositioning the unit. Drain pan connections are duplicated on both sides of the unit. The filters, motor drive, TXVs, and coil connections are all easily accessed by removing a single side panel.

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MODEL NUMBER NOMENCLATURE — 576H

576H E - 240 — AA

576H — Commercial Air-Cooled Condensing Unit (Dual-Circuit)

Voltage Designation
E — 460-3-60
P — 208/230-3-60

Not Used

Nominal Tons
240 - 20
300 - 25
360 - 30

Condenser Coil Fin Protection
AA — Aluminum (Standard)
KA — Pre-Coated Aluminum (Optional)
RA — Copper (Optional)
EA — E-coated Al fin/Cu tube (Optional)
FA — E-coated Cu fin/Cu tube (Optional)

Not Used

LEGEND

Al — Aluminum
Cu — Copper

MODEL NUMBER NOMENCLATURE — 524A

524A P B 120 000 GC

524A — Fan

Voltage
T — 575-3-60
P — 208/230-3-60
E — 460-3-60*

Coil Option
B — DX Cooling Coil with TXV's

Nominal Cooling (Tons)
180 — 15
240 — 20
300 — 25
360 — 30

Nominal Heating (Btuh)
(Not applicable to 524A-B)
000 — 524A-B units

GC — Unpainted, Standard Motor and Standard Drive

HC — Unpainted, Standard Motor and Medium-Static Drive (not available for 300 size)

TC — Unpainted, Alternate Motor and Medium-Static Drive (300 size only)

YC — Unpainted, Alternate Motor and High-Static Drive†

ED — Painted, Standard Motor and Standard Drive

FD — Painted, Standard Motor and Medium-Static Drive (not available for 300 size)

RD — Painted, Alternate Motor and Medium-Static Drive (300 size only)

WD — Painted, Alternate Motor and High-Static Drive†

LEGEND

DX — Direct Expansion
TXV — Thermostatic Expansion Valve

*Size 524A180 units with an "E" voltage designation are triple voltage (i.e., 208-230/460-3-60), unless the alternate motor (YC or WD) option is used.

†The YC and WD option codes for 360 size unit designate standard motor and high-static drive.

Quality Assurance

Carrier Corporation
UL REGISTERED FIRM ISO 9002 #A2260

Approvals:
ISO 9002
EN 29002
BS5750 PART 2
ANSI/ASQC Q92

ARI* CAPACITIES

UNIT 576H	INDOOR AIR HANDLER 524A	AIR HANDLER AIRFLOW (Cfm)	SYSTEM			CONDENSING UNIT ONLY†		
			Net Capacity (Btuh)	EER	IPLV	Net Capacity (Btuh)	EER	IPLV
240	180	6,000	208,000**	9.3**	9.5**	251,000	11.6	13.0
	240	8,000	222,000**	9.2**	9.2**			
	300	8,750	236,000**	9.8**	9.9			
300	240	8,000	250,000	9.0	9.2	290,000	11.2	12.9
	300	10,000	267,000	9.3	9.2			
	360	12,000	278,000	9.0	9.2			
360	300	10,000	301,000	9.0	9.1	344,000	11.1	12.9
	360	12,000	317,000	8.9	9.1			

LEGEND

EER — Energy Efficiency Ratio
PLV — Integrated Part Load Value
SST — Saturated Suction Temperature

*Air Conditioning and Refrigeration Institute.
†ARI directory listed (ARI Standard 365-87). Condensing unit only ratings are at 45 F SST and 95 F entering-air temperature.
**ARI directory listed (ARI Standard 360-93).

NOTE: All systems with 576H300 and 360 units are above the ARI 360-93 maximum certification capacity for 240,000 Btuh systems. These systems are tested and rated in accordance with the rating procedures for ARI 360.

OPTIONS AND ACCESSORIES

576H240-360 FACTORY-INSTALLED OPTIONS

Condenser Coil Options are available to match coil construction to site conditions for the best corrosion durability. Precoated coils provide protection in mild coastal environments.

***Enviro-Shield*™ Condenser Options** are available to match coil protection to site conditions for optimum durability. See table below and refer to the Application Data for selection guidance. Consult your Bryant representative for further information.

576H240-360 FIELD-INSTALLED ACCESSORIES

Pressure-operated unloading allows compressors to be unloaded in response to compressor suction pressure.

Electric unloader package includes hardware and solenoid valve to convert a pressure-operated unloader to electric unloading.

–20 F low-ambient temperature kit (Motormaster® III) controls outdoor-fan motor operation to maintain the correct head pressure at low outdoor ambient temperatures. Only one low ambient temperature kit is required per unit.

Gage panel package provides a suction and a discharge pressure gage for one refrigerant circuit.

Winter start package provides a timed bypass of low-pressure switch on start-up.

Non-programmable thermostats provide one- or 2-stage cooling for control of unit. Matching subbases are available with or without tamperproof switches and automatic changeover.

Bryant commercial programmable thermostats provide efficient temperature control by allowing you to program heating and cooling setbacks and setups with provisions for weekends and holidays.

CONDENSER COIL OPTION

COPPER-TUBE COILS WITH *ENVIRO-SHIELD* OPTION	ENVIRONMENT					
	Standard	Mild Coastal	Moderate Coastal	Severe Coastal	Industrial	Combined Coastal/Industrial
Al Fins (Standard Coils)	X					
Cu Fins			X			
Al Fins, E-Coated					X	
Cu Fins, E-Coated				X		X
Al Fins, Pre-Coated		X				

LEGEND

Al — Aluminum
Cu — Copper
E-Coated — Epoxy Coating Applied to Entire Coil Assembly
Pre-Coated — Epoxy Coating Applied to Fin Stock Material

RESOLUTION NO. 2000-73

A RESOLUTION OF THE LODI CITY COUNCIL AUTHORIZING THE CITY MANAGER TO PROVIDE A PUBLIC BENEFITS CHARGE (PBC) GRANT TO ZION REFORMED CHURCH AND MIDDLE SCHOOL

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WHEREAS, the State has mandated that beginning January 1, 1998, the City of Lodi is obligated to fund various programs through a Public Benefits Charge (PBC) based on a historical electric revenue requirement; and

WHEREAS, the requirement amounts to approximately $1M per year that must be dedicated to qualifying programs such as energy efficiency. A further stipulation is that these efforts must be done on the customer's side of the meter in order to qualify; and

WHEREAS, following the Electric Utility Department's review of Zion Reformed Church and Middle School, 105 S. Ham Lane, four specific energy conservation measures emerged:

1.) One (1) 25-ton high efficiency Bryant Commercial Air-Cooled Condensing Unit, Model 576H;
2.) Related air supply system, programmable thermostat and other related materials;
3.) For the Classrooms – four (4) 5-ton high efficiency Bryant Single-Package Electric Cooling Units (with gas-fired heat component), and one (1) 3-ton high efficiency Bryant Single-Package Electric Cooling Unit (with gas-fired heating), Model 583A; all five units are rated at a 12.0 Seasonal Energy Efficiency Rating; and
4.) In the Classrooms – installing appropriate air delivery system and programmable thermostats for each classroom for individual control.

WHEREAS, the Electric Utility Department recommends that the City provide a PBC grant of $16,190.25 toward the above upgrades and include the cost of the grant as part of the City's required PBC outlay.

BE IT RESOLVED, that the Lodi City Council hereby authorizes the City Manager to provide a Public Benefits Charge (PBC) Grant in the amount of $16,190.25 to Zion Reformed Church and Middle School.

Dated: May 3, 2000

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I hereby certify that Resolution No. 2000-73 was passed and adopted by the Lodi City Council in a regular meeting held May 3, 2000 by the following vote:

AYES: COUNCIL MEMBERS – Hitchcock, Land, Nakanishi, Pennino and Mann (Mayor)

NOES: COUNCIL MEMBERS – None

ABSENT: COUNCIL MEMBERS – None

ABSTAIN: COUNCIL MEMBERS – None

JACQUELINE L. TAYLOR
Interim City Clerk