Dynaline™ 3

Efficient Gas Heating, Electric Cooling, PTAC Zone Control.

Ideal for

Hotels/Motels,

Apartments and

Senior Housing

The Dynaline™ 3 combines the warm air comfort of gas heating with high-efficiency electric cooling for an economical-to-operate PTAC.

Dynaline Is Designed And Built To Perform With Efficient Reliability.

Intertek

Warm, Economical Dynaline Gas Heat

The Dynaline™3 PTAC:
A Proven Payback In Utility Savings

Standard Color Options
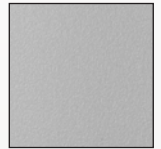
Pebble Gray   Marvair Beige[1]

White[1]   Gray[1]

Stainless Steel and custom powder coating are also available[1].

[1]Minimum order quantities required.

High-Efficiency Rotary Compressor:
Reliable and quiet-running design. The Dynaline gas heat PTAC design does not use the compressor during heating cycles.

Copper and Aluminum Evaporator and Condenser Coils:
For longer life and ease of repair. Coils use seamless copper tubing mechanically expanded into aluminum plate fins.

**Attractive Stamped Aluminum or Architectural-style Louvered Grilles:**
Custom-colored architectural grilles are available to match your building's decor.

Gas Heat Exchanger:
Provides economical gas heating backed by a 5-year limited warranty.

Standard Carbon Monoxide Detector:
An integrated carbon monoxide (CO) detector is standard on all Dynaline 3 models. It has been verified to perform in the detection of carbon monoxide up to 12,000 ft above sea level and will alarm within the time specified by ANSI/UL 2034 for carbon monoxide concentrations of 70, 150 and 400 parts per million (ppm).
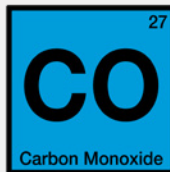
Condensate Removal:
Condenser fan draws condensate from bottom. Warm condenser air, combined with coil temperature, accelerates the evaporation process. Positive drain kits are also available.

Weather Seals:
Sealing the chassis to the wall case, they prevent the infiltration of air, water and contaminants into the conditioned area.

Air Vent:
The manually-operated lever allows entry of 70 CFM of outside air into the comfort area.

Return Air Filter:
No tools are needed to install or remove the permanent electrostatic filter constructed of washable media.

Gas Connection (Front or Rear):
208/230V models available for Natural or LP gas (277V models are natural gas only), thus saving the cost of field conversion. Optional 2-lb. Natural gas regulator is available.

Room Air Discharge:
An attractive, durable grille constructed of extruded aluminum directs air laterally.

Tangential Blower Wheel:
Spans the length of the heating chamber and evaporator coil. Air flow is uniform over the system components, enhancing air distribution performance and system efficiency.

Digital Display:
Room ambient and set point temperatures are easy to read.

Unit Controls:
Each unit can be controlled by a built-in thermostat or reprogrammed to operate from an optional wall thermostat.

Electrical Components:
Located on the indoor side of the wall, they're protected from the weather.

Ignition:
The standard in gas heating, an electronically controlled, ceramic hot surface ignites the burner without standing pilot lights. Gas is conserved and safety is ensured.

Freeze Protection:
Forces heating operation in standby, cooling and fan-only modes when the interior temperature drops below 45°F to help protect pipes, plumbing fixtures and sprinkler systems from freeze damage. Enabled by default, but can be disabled. If a remote wall-mount thermostat is used, be sure to select one that is compatible with this feature.

Economical Gas Heat Provides Comfort to Those Who Need it the Most

For Senior Housing, Hotels/Motels, Apartments And Other Applications

Elderly senior housing and assisted living facility residents require controlled cool summers and warm winters. Because typical systems don't readily adapt to extremes in temperature, warmer, dry gas heat is preferred for its therapeutic effect on residents' respiratory systems. Electric cooling, in turn, is preferred for its rapid response to adjustments. Housing for seniors and the elderly remains expensive because of the necessity for near-hospital-quality security and facility extras not required in normal residential housing. Dynaline 3 adds the option of lowering utility expenses by using economical gas heating with electric cooling units.

Low Heating Amp Draw — The Dynaline 3 consumes about 1 amp during the heating cycle; while all-electric PTACs consume much more. In the event of a power failure, less power is used by the Dynaline 3 so the standby generator can be downsized, thus reducing construction costs.

Compressor Lock-Out — The standard design provides means of locking out the A/C compressor when the standby power generator is operating. The electronic control board has 24V input terminals to receive the lock-out signal.

Better Comfort for Residents — Faster increase in temperature than an all-electric unit.

The Dynaline 3 Difference

The Dynaline™ 3 is a Packaged Terminal Air Conditioner (PTAC) that combines economical gas heating and high-efficiency electric cooling in one compact unit for zone temperature room-by-room control. By comparing the operating costs of Dynaline 3 to heat pumps or electric resistance heat, a savings of hundreds of dollars per room every year can be achieved.

Dynaline 3 provides warm gas heat	In cooler climates, particularly, warm gas heat is preferred. The 11.2* EER provides high-efficiency air conditioning to cool areas economically.
Dynaline 3 is a versatile PTAC	Three BTU/h capacities are available, operating efficiently and economically in zone systems. All have individual controls, and operating costs can be controlled by setting the control at a maintained, desired comfort level, or interfacing into an energy management system.

Dynaline 3 is easy to install	Because of its compact size and standard 42" x 16" wall case, the Dynaline 3 can be specified in new construction or as replacement for obsolete electric resistance or heat pump units.
Dynaline 3 fits any decor	The Dynaline 3 PTAC features a modern, compact, and sleek design. Four standard colors, stainless steel and custom options to match any decor. Small and snug against the wall, it complements any room without commanding attention.

*0912 Model

State-Of-The-Art Design, Efficiency Levels And Self-Diagnostic Controls
Dynaline 3 is easy to install in almost any application

The standard 42" x 16" wall case makes Dynaline 3 the right choice for new construction or replacement. Gas (Natural or LP) connections can be inside or outside the room.

Note: When replacing existing DynaLine units with new DynaLine 3 units, it is recommended to replace the wall sleeve as well. During the replacement process the sleeve may become damaged or incorrectly aligned.

Service is fast and easy
The entire chassis slides out of the wall cabinet for easy access. Stocking a spare chassis allows quick replacement of inoperative units for minimum downtime. Permanent air filter is removable and washable.

Components are built to last
Fully hermetic rotary compressor, rugged chassis, weather protection seals and copper coils provide long life and infrequent repairs.

Operation is quiet
Dynaline 3 does not use a noisy compressor during its heating cycle.

Controls are simple and versatile
Each unit is individually controlled so comfort levels can be set for each room or zone. The top-mounted controls provide for High and Low speeds in both heating and cooling modes, plus a fan-only mode. Provided with built-in thermostat control or wall-mounted. The Dynaline 3 can be controlled by a thermostat that is built in the unit, wall-mounted, or the Dynaline 3 can be controlled by an energy management system.

Warranty
Dynaline 3 is backed by a 2-year limited warranty on parts, 5-year limited warranty on the compressor and a 10-year warranty on the heat exchanger.

Dynaline™3 Model Identification and Specifications

Example	D	Y	N	A	0	9	A	C	A	0	1	2	L	F	2	0	1	0	0
Position	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

Position	Description	Value
1, 2, 3, 4	Unit Designation	Dynaline 3™
5, 6	Nominal Cooling Capacity	09 = 9,500 12 = 11,500 16 = 15,000
7, 8	System Type	AC = Air Conditioner
9	Power Supply (Volts-Phase-Hz)	A = 208/230-1-60 V = 277-1-60
10, 11, 12	Nominal Heat Input	012 = 12,000 020 = 18,000 022 = 20,000
13	Fuel Type	N = Natural Gas L = LP Gas
14	Gas Connection	F = Front
15, 16	Revision Code	20
17, 18, 19	Cabinet Color	100 = Pebble Gray 416 = White 200 = Gray

General Data

Model	DYNA09AC	DYNA12AC	DYNA16AC
Rated Heating Input (BTU/h)	12,000	18,000	20,000
Rated Heating Output (BTU/h)	9,840	14,580	16,000
Thermal Efficiency (TE)	82%	82%	82%
Rated Cooling Capacity (BTU/h)	9,500	11,500	15,000
Sensible/Latent Cooling	69/31	65/35	65/35
EER	11.20	10.40	9.50

Minimum Installation Clearances

Model	DYNA09AC	DYNA12AC	DYNA16AC
Outside:			
Rear to nearest obstruction	3 feet	3 feet	3 feet
Top, sides to nearest obstruction	0	0	0
Centerline vent to window	9"	9"	9"
Inside:			
Cabinet front to nearest obstruction	12"*	12"*	12"
Cabinet sides to nearest obstruction	1"	1"	1"
Cabinet bottom to floor (for return air)	0	0	0
Cabinet top to ceiling	12"	12"	12"

*Obstruction must be removed for service of unit.

Electrical Data

Model	Compressor				Outdoor Fan Motor	Indoor Blower Motor	Exhaust Blower
	Type	Volts-Hz-Ph	RLA[1]	LRA[2]	FLA[3]	FLA[3]	FLA[3]
DYNH09ACA	ROTARY	208/230-60-1	4.0	22	0.2	0.4	0.6
DYNH12ACA		208/230-60-1	4.6	25	0.5	0.4	0.6
DYNH12ACV		277-1-60	3.9	21	0.4	0.4	0.6
DYNH16ACA		208/230-60-1	6.7	34	0.7	0.4	0.6

[1]RLA = Rated Load Amps [2]LRA = Locked Rotor Amps [3]FLA = Full Load Amps 4HP = Horsepower

Summary Electrical Ratings

No Electric Heat		0 kW	0 kW
Model	Volts-Hz-Ph	CKT#1	
		MCA[1]	MFS[2]
DYNH09ACA	208/230-60-1	5.6	10
DYNH12ACA	208/230-60-1	6.7	10
DYNH12ACV	277-1-60	5.7	10
DYNH16ACA	208/230-60-1	9.4	15

[1]MCA = Minimum Circuit Ampacity (Wiring Size Amps) [2]MFS = Maximum Fuse or HACR Breaker Size

Gas Controls and Additional Data

Model	DYNA09AC	DYNA12AC	DYNA16AC
Gas (specify)	Natural or LP		
Ignition System: Solid-State	Hot Surface		
Gas Connection Size	3/8"IPS	3/8"IPS	3/8"IPS
Gas Connection	(LH) Front or Rear		

Blower/Evaporator

Model	DYNA09AC	DYNA12AC	DYNA16AC
Air Vent-Manual	70 CFM	70 CFM	70 CFM
Filter Type	Electrostatic/Washable Media		

Dynaline™3

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Manufactured by: **Marvair®** An ACS Brand **Dynaline** An ACS Brand

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