

# VARIABLE SPEED EC FAN ASSEMBLIES

## PENTA 172 & 200

WITH A FLEXIBLE RANGE OF PROGRAMMING OPTIONS



**With three programmable speeds up to 2400 RPM, Penta variable speed EC fan assemblies offer industry-leading efficiency by precisely programming the operation of multiple fans to the specific cooling needs of each application.**

With 70 to 75% efficiency, the fan packs are independently proven to offer better energy conservation and quieter performance than similar competitor fans. A superior blade design reduces noise by up to 3dBA, especially at low frequencies where it matters most in display cases.

Fans can be set at the factory or in the field to run at three different speeds, between 400 RPM and 2400 RPM. Motors can run in any combination of clockwise, counterclockwise or timed reverse rotation.

Most fans and motors are available with an IP66-rating and ATEX approval, making them suitable for use with hydrocarbon refrigerants.

Approvals : UL/TUV/CE

**About Unada** : Unada is an innovative manufacturer trusted by refrigeration OEMs worldwide. It employs a collaborative development process that gives customers a stake in product development. Its range was developed using advanced electronic engineering techniques and is supported by Unada's engineering tools and experience.

### FEATURES

- Global voltage : 100-250V; 50/60Hz
- IP66 and ATEX-approval
- Suitable for use with R290
- Rated speed : 400 to 2400 RPM
- CCW, CW and reversible direction
- Factory & field programmable
- Safeguards against sustained under and over-voltage
- Soft-start and timed reverse options
- 2-wire, 3-wire, PWM and U-BUS connectivity
- High efficiency impeller for greater air-flow, low noise and lower energy consumption
- Lifetime : 45,000 hours

### TECHNICAL SPECIFICATION

- 172mm or 200mm diameter
- Efficiency (motor) :  $\geq 70\%$
- Peak system efficiency (fan) : 31.85%
- Output power : 0-30w
- Rated voltage : 120/230V; 50/60 Hz
- Sound (at 1800 RPM) : 56.7 dB(A)

PENTA 200



PENTA 172

Third wire allows single motor to be programmed for any direction, speed or operation

TO TALK TO OUR EXPERT TEAM,  
CALL +44 (0)1483 869 070 OR  
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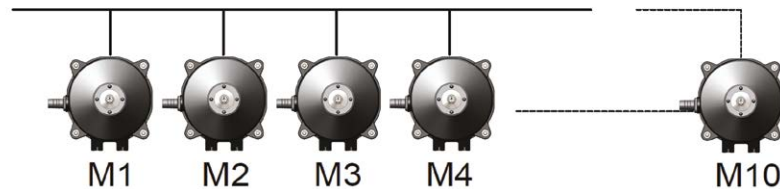
### FLEXIBLE RANGE OF FUNCTIONS

Choice of wiring configurations & customisable features

	Programmable	Direction CW/CCW	Reverse on Start	Set Speed on Start	Single Speed	3 - Speed	Reverse on Demand	Constant Volume	Fully Variable Speed	U - Bus Serial Comms
2-Wire	✓	✓	✓	✓	✓					
3-Wire	✓	✓	✓	✓	✓	✓	✓			
PWM	✓	✓	✓	✓	✓	✓	✓	✓		
U-BUS	✓	✓	✓	✓	✓	✓	✓	✓	✓	

### U-BUS CONTROL OF MULTIPLE MOTORS

Full serial data comms built directly into each motor

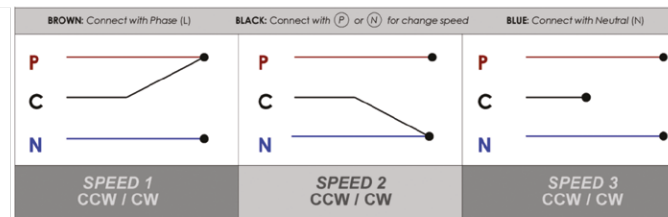


### GIVING SYSTEM ENGINEERS MORE OPTIONS

The motor of each Penta fanpack comes with a choice of wiring configurations to match the features required by each new application - with 3-wire versions offering additional design capabilities not found in any other motor.

### ADDITIONAL DESIGN CAPABILITY

3-wire configuration for greater control over speeds & direction



For example, this can be used to program a reverse or slow start alongside two operational speeds. Alternatively, three fully variable speeds can be set for different conditions, like normal operation, defrost and nighttime.

Six motors can be programmed at the same time in minutes\* - using a single connector without the need to gain direct access to the cabinet or fans motors while U-BUS connectivity offers full control over each individually addressable motor.

\*subject to system operating conditions and configuration