

# Electronic Ballast

## PES120HPT8-4

Instant Start

**For use with:  
Three (3) or Four (4) F17T8, F25T8, F32T8**

- *Energy Savings*
- *Longer Lamp Life*
- *Noise Free Operation*
- *Microelectronics Chip Design*
- *Smaller than Standard Ballast*



### Model PES 120HPT8-4

Uses an electronic technology with the state of the art semiconductors resulting in an ENERGY SAVING electronic ballast for FOUR F32T8 lamps. When compared to conventional magnetic ballast, this ballast can accomplish up to 25% in energy savings.

### High Power Factor & Low THD Performance

The PES120HPT8-4 designed to provide HIGH power factor [ $> 0.98$ ] and LOW THD [ $< 20\%$ ] for 120 VAC utility lines. This feature helps the utility companies to distribute noise free and reliable power to equipments. The reliability and superior performance and lamp long life is achieved by allowing low operating stresses and high temperature rating.

### Noise Free Operation

The microelectronics system design provides a NOISE FREE and quiet ballast performance. Higher frequency operation enhances the light output for the same power level, compare with standard magnetic ballasts 60Hz noisy and power inefficiency operation.

### Electromagnetic Interference (EMI)

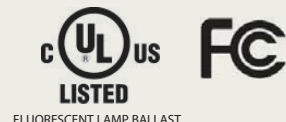
The PES120HPT8-4 ballast consists of AC line filters to suppress high frequency noise feeding into AC power lines. The ballast filtering has been designed to comply with the latest FCC Consumer B requirements for residential and commercial applications.

### Testing and Reliability

The PES120HPT8-4 design is tested rigorously for long life and reliability. PES120HPT8-4 has been tested through continuous cycling. It has successfully completed 50,000 cycles of operation with FOUR F32T8 lamps. The ballast design has been further tested at 50°C ambient in a chamber for long periods. The ballast has also been tested in simulated ceiling fixtures at worst case conditions for extended periods while monitoring component temperature limits for all components.

### Case Size & Installation

Mechanical dimensions and case size are smaller than standard ballast in the market. Suitable for retrofitting and new installations.



FLUORESCENT LAMP BALLAST

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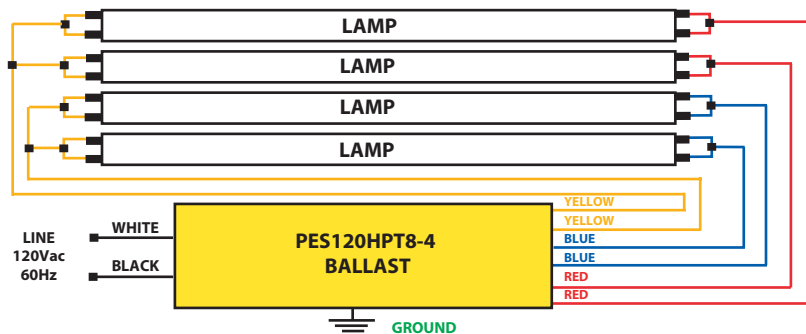
### PERFORMANCE COMPARISON

PERFORMANCE PARAMETER	MAGNETIC BALLAST*	PES120HPT8-4 BALLAST**
Input Power (Watts)	150 Watts	120 Watts
Lamp Voltage Waveform	Distorted Waveform	Sinewave
Power Factor	0.5 (typical)	> 0.98
Harmonic Distortion (@ 60Hz)		
3rd Harmonic	< 15%	< 3%
Total Harmonic (THD)	< 30%	< 20%
Mode of Operation	Series	Parallel
Crest Factor	< 2.0	< 1.7
Flicker	< 30%	< 1%
Sound Quality	Noisy	Quiet (Sound Rating A)
Energy Saving	None	Up to 25%

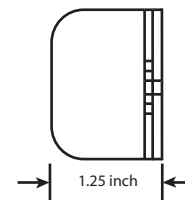
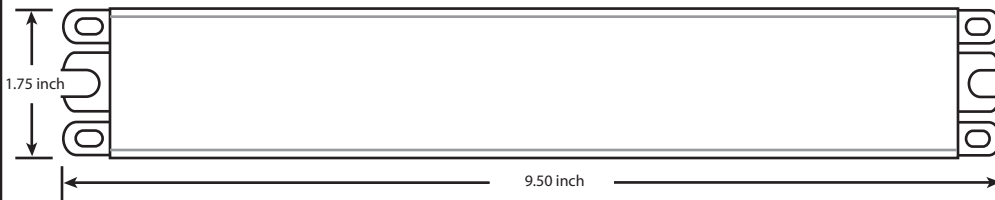
\* Standard Magnetic Ballast Using Four F40T12 Lamps

\*\* PES120HPT8-4 Electronic ballast Using Four F32T8 Lamps

### CONNECTION DIAGRAM



### MECHANICAL DIMENSIONS



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