



for 34W & 60W T12
Energy-Saving Fluorescent Lamps

New, Improved Energy-Efficient Magnetic Ballasts

Overview

Energy-efficiency steps can be made today by replacing inoperable standard electro-magnetic ballasts with low-cost energy saver E-PAK magnetic ballasts. E-PAK is the ideal choice for T12 replacements providing significant reductions in energy cost immediately and over time, while delivering environmental benefits by meeting the energy conservation intent of EPACT.

Until now the only ballast choice for the energy-saving lamp was the ballast designed for full-wattage lamps. However, a full wattage ballast is not designed to maximize the efficiency of an energy-saving lamp. E-PAK energy-efficient magnetic ballasts are specifically designed for optimal performance with the 34W or 60W T12 lamps, the industry standard. Thus maximizing savings versus inefficient 40W and 75W fluorescent ballasts, currently in use today.

Design Highlights

- Delivers optimal performance of 34W T12 linear and U-bend fluorescent lamps and 60W T12 Slimline fluorescent lamps
- Equal light output to 34W lamps operated with 40W ballasts or 60W lamps operated with 75W ballast
- 2-lamp ballasts also operate full-wattage lamps (40W T12 & 75W T12)
- Same size and wiring as full wattage ballast



| Features | Benefits |
|---|---|
| Lower power consumption 2-lamp 34W ballast 3-lamp 34W ballast 2-lamp 60W ballast | • Delivers maximum energy savings versus full-wattage magnetic ballast operation 4-watt savings (6%) 12-watt savings (10%) 14-watt savings (11%) |
| Same light output as full-wattage magnetic ballast with energy-saving lamps | • No sacrifice in light output |
| 60Hz lamp operation | • Eliminates possible EMI-RFI interference |
| 1.7 Crest Factor on Rapid-Start lamps 1.85 Crest Factor on Instant-Start lamps | • Extends lamp life up to 20% |
| ISO-9000 Certified construction backed by a full 3-year warranty | • Assures long-lasting, reliable operation |

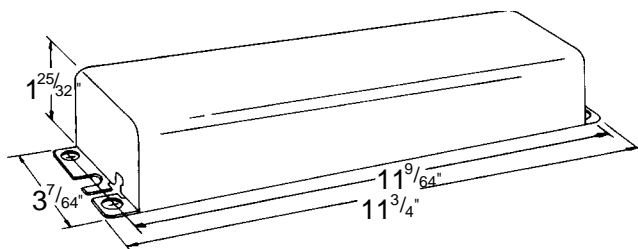
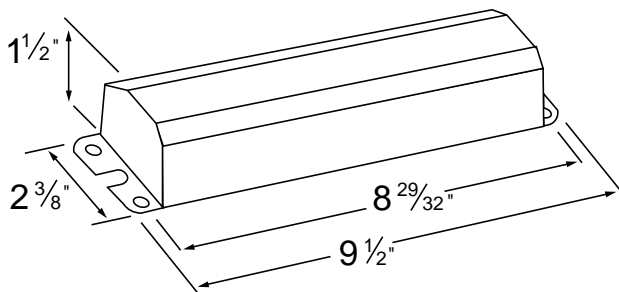
Applications

- All 34W and 60W magnetic ballast replacement applications
- Magnetically ballasted lighting systems, where four foot T12 or eight foot T12 lamps are used
- Facilities with low hours of operation or geographic areas with low utility power rates
- Where EMI interference is an issue
- Free standing health care offices and specialty facilities

Ballast Specifications

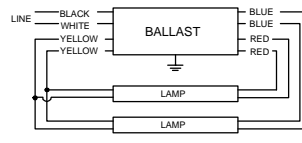
- Ballast shall be physically interchangeable with standard core and coil electromagnetic ballast.
- Ballast shall be provided with integral lead wires, color-coded to ANSI Standard 82.1 (latest version).
- Ballast shall operate energy-saving lamps with .87 nominal ballast factor or better.
- Total power consumption of lamps plus ballast shall average 68W (ANSI) for (2) 34W T12 lamps or 112W (ANSI) for (2) 60W T12 lamps.
- Ballast shall operate lamps at a frequency of 60Hz.
- Ballast shall have a power factor of greater than 90%.
- Ballast shall have a Lamp Current Crest Factor of 1.7 or less with Rapid-Start lamps or 1.85 with Instant Start lamps.
- Ballast shall have an audible noise rating of Class A or better with Rapid Start lamps or Class C with Instant Start lamps.
- Ballast coil temperature shall not exceed 65°C temperature rise over 40°C ambient. Maximum case temperature shall not exceed 90°C.
- Ballast shall meet the requirements of the Federal Communication Commission Rules and Regulations, Part 18, for non-consumer equipment.
- Ballast shall meet ANSI/IEEE C62.41, Cat. A, for transient voltage protection.
- Ballast shall comply with all applicable state and federal efficiency standards.
- Ballast shall be UL Listed (Class P) and CSA approved.
- Ballast shall be specified Advance E-PAK or equal.
- Ballast shall not contain Polychlorinated Biphenyls (PCB's)
- Ballast shall carry a three-year warranty.
- Manufacturer shall be a full-line ballast manufacturer with 50 years or more of ballast manufacturing experience.

Ballast Dimensions



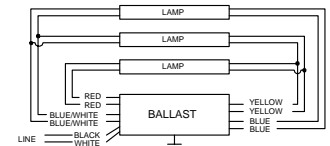
Case "R"

Wiring Diagram



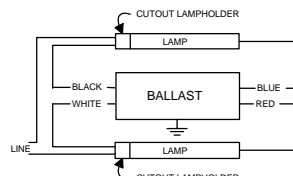
Diag. 21

R-2S34-TP, V-2S34-TP



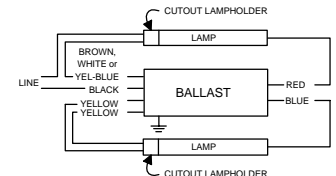
Diag. 30

R-3S34-TP, V-3S34-TP



Diag. 12

R-2E60-S-TP



Diag. 36

V-2E60-S-TP

| Lamp Type | Lamp Watts | Minimum Starting Temp. (°F) | Input Volts | Catalog Number | Line Current (AMPS) | Input Power ANSI (WATTS) | Ballast Factor | THD % | Power Factor | Note |
|---------------|------------|-----------------------------|-------------|----------------------------|---------------------|--------------------------|----------------|-------|--------------|------|
| (2) F40T12/ES | 34 | 60 | 120 277 | R-2S34-TP V-2S34-TP | .57 .25 | 68 | .87 | <15 | .98 | 1 |
| (2) F40T12 | 40 | 50 | 120 277 | R-2S34-TP V-2S34-TP | .67 .30 | 79 | .86 | <15 | .95 | 1 |
| (3) F40T12/ES | 34 | 60 | 120 277 | R-3S34-TP V-3S34-TP | .88 .37 | 103 | .88 | <20 | .97 | 1 |
| (2) F72T12 | 57 | 50 | 120 277 | R-2E60-S-TP V-2E60-S-TP | 1.08 .47 | 122 | .91 | <32 | .94 | 2 |
| (2) F96T12/ES | 60 | 60 | 120 277 | R-2E60-S-TP V-2E60-S-TP | 1.03 .44 | 112 | .88 | <32 | .91 | 2 |
| (2) F96T12 | 75 | 50 | 120 277 | R-2E60-S-TP V-2E60-S-TP | 1.24 .54 | 144 | .86 | <32 | .96 | 2 |

Note 1 - Also operates F40T12/U/ES/ lamps

Note 2 - Also operates F60T12, F64T12 & F84T12 lamps



Specifications subject to change without notice.
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Form No. HI-4070-R01

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