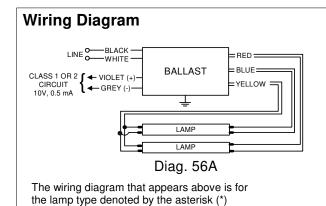
PHILIPS ADVANCE

Electrical Specifications

| IZT-2S32-SC@120 | | | | |
|-----------------|--------------------|--|--|--|
| Brand Name | MARK 7 0-10V | | | |
| Ballast Type | Electronic Dimming | | | |
| Starting Method | Programmed Start | | | |
| Lamp Connection | Series | | | |
| Input Voltage | 120-277 | | | |
| Input Frequency | 50/60 HZ | | | |
| Status | Active | | | |

| Lamp Type | Num. of Lamps | Rated Lamp Watts | Min. Start Temp (°F/C) | Input Current (Amps) | Input Power (Watts) (min/max) | Ballast Factor (min/max) | MAX THD % | Power Factor | Lamp Current Crest Factor | B.E.F. |
|-----------|---------------------|------------------------|------------------------------|----------------------------|-------------------------------------|--------------------------|-----------------|-----------------|------------------------------|--------|
| F17T8 | 2 | 17 | 50/10 | 0.30 | 11/36 | 0.05/0.93 | 10 | 0.99 | 1.6 | 2.58 |
| F25T8 | 2 | 25 | 50/10 | 0.43 | 12/52 | 0.05/0.98 | 10 | 0.99 | 1.6 | 1.88 |
| * F32T8 | 2 | 32 | 50/10 | 0.56 | 13/67 | 0.05/1.00 | 10 | 0.99 | 1.6 | 1.49 |

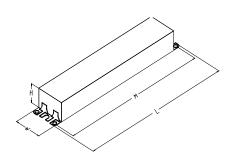


Standard Lead Length (inches)

| | in. | cm. |
|--------|-----|-------|
| Black | 22 | 55.9 |
| White | 22 | 55.9 |
| Blue | 26 | 66 |
| Red | 26 | 66 |
| Yellow | 46 | 116.8 |
| Gray | 36 | 91.4 |
| Violet | 36 | 91.4 |

| in. | cm. |
|-----|-----|
| | 0 |
| | 0 |
| | 0 |
| | 0 |
| | 0 |
| | 0 |
| | 0 |
| | in. |

Enclosure



Enclosure Dimensions

| OverAll (L) | Width (W) | Height (H) | Mounting (M) |
|-------------|-----------|------------|--------------|
| 9.50 " | 1.7 " | 1.18 " | 8.90 " |
| 9 1/2 | 1 7/10 | 1 9/50 | 8 9/10 |
| 24.1 cm | 4.3 cm | 3 cm | 22.6 cm |



Revised 06/13/03

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Electrical Specifications

Brand Name MARK 7 0-10V Ballast Type Electronic Dimming Starting Method Programmed Start Lamp Connection Series Input Voltage 120-277 Input Frequency 50/60 HZ Status Active

Notes:

Section I - Physical Characteristics

- 1.1 Ballast shall be physically interchangeable with standard electromagnetic or standard electronic ballasts, where applicable.
- 1.2 Ballast shall be available in a plastic/metal can or all metal can construction to meet all plenum requirements.
- 1.3 Ballast shall be provided with poke-in wire trap connectors or integral leads color coded per ANSI C82.11.

Section II - Performance Requirements

- 2.1 Ballast shall be Programmed Start.
- 2.2 VZT-4PSP32-G ballast shall provide Independent Lamp Operation (ILO) allowing remaining lamp(s) to maintain full light output when one or more lamps fail.
- 2.3 Ballast shall be provided with integral protection circuitry to withstand connection of low voltage control leads to mains power supply. In this event, ballast shall default to maximum light output.
- 2.4 Ballast shall contain auto restart circuitry in order to restart lamps without resetting power.
- 2.5 Ballast shall operate from 50/60 Hz input source of 120V or 277V or 347V with sustained variations of +/- 10% (voltage and frequency). IntelliVolt models shall operate from 50/60 Hz input source of 120V through 277V with sustained variations of +/- 10% (voltage and frequency).
- 2.6 Ballast shall be high frequency electronic type and operate lamps at a frequency above 42 kHz to avoid interference with infrared devices and eliminate visible flicker.
- 2.7 Ballast shall have a Power Factor greater than 0.98 at full light output and greater than 0.90 throughout the dimming range for primary lamp.
- 2.8 Ballast shall have a minimum ballast factor of 1.00 (120V and 277V 1-3 lamp models) or 0.88 (120V and 277V 4 lamp models and 347V 2-3 lamp models) or 1.18 (277V 4 lamp HL models) at maximum light output and 0.03 at minimum light output for primary lamp.
- 2.9 Ballast shall provide for a Lamp Current Crest Factor of 1.7 or less.
- 2.10 Ballast input current shall have Total Harmonic Distortion (THD) of less than 10% when operated at nominal line voltage and 100% power.
- 2.11 Ballast shall have a Class A sound rating.
- 2.12 Ballast shall have a minimum starting temperature of 10C (50F) for primary lamp.
- 2.13 Ballast shall provide Lamp EOL Protection Circuit for all T5, T5/HO and CFL lamps.
- 2.14 Ballast shall control lamp light output from 100% 3% relative light output for series operation T8 and CFL lamps, 100% 10% relative light output for parallel operation T8 and 100% 1% relative light output for T5/HO lamps.
- 2.15 Ballast shall ignite the lamps at any light output setting without first going to another output setting.
- 2.16 Ballast shall tolerate sustained open circuit and short circuit output conditions.

Section III - Regulatory Requirements

- 3.1 Ballast shall not contain any Polychlorinated Biphenyl (PCB).
- 3.2 Ballast shall be Underwriters Laboratories (UL) listed, Class P and Type 1 Outdoor; and Canadian Standards Association (CSA) certified where applicable.
- 3.3 Ballast shall comply with ANSI C62.41 Category A for Transient protection.
- 3.4 Ballast shall comply with ANSI C82.11 where applicable.
- 3.5 Ballast shall comply with the requirements of the Federal Communications Commission (FCC) rules and regulations, Title 47 CFR part 18, Non-Consumer (Class A) for EMI/RFI (conducted and radiated).
- 3.6 Ballast shall comply with NEMA 410 for in-rush current limits.

Section IV - Other

- 4.1 Ballast shall be manufactured in a factory certified to ISO 9001 Quality System Standards.
- 4.2 Ballast shall carry a five-year warranty from date of manufacture against defects in material or workmanship, including replacement, for operation at a maximum case temperature of 70C.
- 4.3 Manufacturer shall have a twenty-year history of producing electronic ballasts for the North American market.
- 4.4 Ballast shall be controlled by a Class 1 or Class 2 low voltage 0-10VDC controller.

| 4.5 Ballast shall be Philips Advance part # | or approved equal |
|-------------------------------------------------|--------------------|
| The Ballact Shall be 1 hillips Novallee part if | or approved equal. |
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Revised 06/13/03

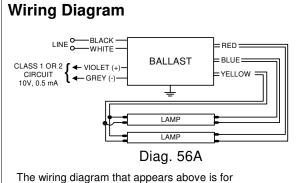
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PHILIPS ADVANCE

Electrical Specifications

| IZT-2S32-SC@277 | | | | |
|-----------------|--------------------|--|--|--|
| Brand Name | MARK 7 0-10V | | | |
| Ballast Type | Electronic Dimming | | | |
| Starting Method | Programmed Start | | | |
| Lamp Connection | Series | | | |
| Input Voltage | 120-277 | | | |
| Input Frequency | 50/60 HZ | | | |
| Status | Active | | | |

| Lamp Type | Num. of Lamps | Rated Lamp Watts | Min. Start Temp (F/C) | Input Current (Amps) | Input Power (Watts) (min/max) | Ballast Factor (min/max) | MAX THD % | Power Factor | Lamp Current Crest Factor | B.E.F. |
|-----------|---------------------|------------------------|-----------------------------|----------------------------|-------------------------------------|--------------------------|-----------------|-----------------|------------------------------|--------|
| F17T8 | 2 | 17 | 50/10 | 0.13 | 11/36 | 0.05/0.93 | 10 | 0.99 | 1.6 | 2.58 |
| F25T8 | 2 | 25 | 50/10 | 0.19 | 13/52 | 0.05/0.98 | 10 | 0.99 | 1.6 | 1.88 |
| * F32T8 | 2 | 32 | 50/10 | 0.24 | 13/67 | 0.05/1.00 | 10 | 0.99 | 1.6 | 1.49 |



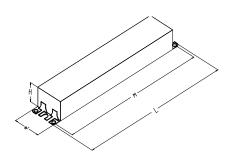
the lamp type denoted by the asterisk (*)

Standard Lead Length (inches)

| | in. | cm. |
|--------|-----|-------|
| Black | 22 | 55.9 |
| White | 22 | 55.9 |
| Blue | 26 | 66 |
| Red | 26 | 66 |
| Yellow | 46 | 116.8 |
| Gray | 36 | 91.4 |
| Violet | 36 | 91.4 |
| | | |

| | in. | cm. |
|--------------|-----|-----|
| Yellow/Blue | | 0 |
| Blue/White | | 0 |
| Brown | | 0 |
| Orange | | 0 |
| Orange/Black | | 0 |
| Black/White | | 0 |
| Red/White | | 0 |

Enclosure



Enclosure Dimensions

| OverAll (L) | Width (W) | Height (H) | Mounting (M) |
|-------------|-----------|------------|--------------|
| 9.50 " | 1.7 " | 1.18 " | 8.90 " |
| 9 1/2 | 1 7/10 | 1 9/50 | 8 9/10 |
| 24.1 cm | 4.3 cm | 3 cm | 22.6 cm |



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Electrical Specifications

Brand Name MARK 7 0-10V Ballast Type Electronic Dimming Starting Method Programmed Start Lamp Connection Series Input Voltage 120-277 Input Frequency 50/60 HZ Status Active

Notes:

Section I - Physical Characteristics

- 1.1 Ballast shall be physically interchangeable with standard electromagnetic or standard electronic ballasts, where applicable.
- 1.2 Ballast shall be available in a plastic/metal can or all metal can construction to meet all plenum requirements.
- 1.3 Ballast shall be provided with poke-in wire trap connectors or integral leads color coded per ANSI C82.11.

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Section III - Regulatory Requirements

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- 3.3 Ballast shall comply with ANSI C62.41 Category A for Transient protection.
- 3.4 Ballast shall comply with ANSI C82.11 where applicable.
- 3.5 Ballast shall comply with the requirements of the Federal Communications Commission (FCC) rules and regulations, Title 47 CFR part 18, Non-Consumer (Class A) for EMI/RFI (conducted and radiated).
- 3.6 Ballast shall comply with NEMA 410 for in-rush current limits.

Section IV - Other

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| The Ballact Shall be 1 hillips Novallee part if | or approved equal. |
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