

## Electronic Ballast For Use With UV & Tanning Applications

- Input Voltage/Frequency: 100-277VAC, 50/60Hz
- Load Rating: 17W – 95W per lamp, 100W/85W Max. Load
- 95W Max. lamp load @ 100VAC Input
- 112W Max. lamp load @ 120VAC – 277VAC Input
- Programmable Output Current Range: 340mA - 840mA ( $\pm 10\%$  Tolerance)
- Customizable Pre-heat Times
- I2C Communication Port
- Lamps ON/OFF LED Indicator Port
- Ballast ON/OFF LED Indicator Port

## General Specifications

|                                                     |                                                                                                                                                                                                                      |
|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Input Voltage / Frequency                           | 100-277VAC, 50/60Hz                                                                                                                                                                                                  |
| Max. Line Current                                   | 1.12A @ 100V                                                                                                                                                                                                         |
| Input Power at Full load                            | 112W                                                                                                                                                                                                                 |
| Power Factor                                        | >0.9 @ $\geq 60W$ load                                                                                                                                                                                               |
| THD                                                 | $\leq 20\%$ @ $\geq 60W$ load                                                                                                                                                                                        |
| Ballast Efficiency                                  | 92% @ Full Load (See Figure 1)                                                                                                                                                                                       |
| Ballast Type                                        | Programmed Rapid Start, Type R.S, Type 1 Outdoor, Type CC, Type HL                                                                                                                                                   |
| Max. Output Voltage / Output Voltage To Ground      | 300VAC                                                                                                                                                                                                               |
| Load Rating                                         | 17 - 95W per lamp, 100W / 85 Max. Load                                                                                                                                                                               |
| Number of Lamps                                     | 1 or 2                                                                                                                                                                                                               |
| Standard Output Current                             | 800mA ( $\pm 10\%$ tolerance)                                                                                                                                                                                        |
| Programmable Output Current Range                   | 340mA - 840mA (+/- 10% tolerance of set current)                                                                                                                                                                     |
| Lamp Type                                           | T5/PL-L/T8                                                                                                                                                                                                           |
| Lamp Wiring Method                                  | Series Connection (when one lamp fails both lamps will turn off)                                                                                                                                                     |
| Lamp Operating Frequency                            | $\geq 40KHz$                                                                                                                                                                                                         |
| Lamp Current Crest Factor                           | <1.7                                                                                                                                                                                                                 |
| Number of Lamps Starts                              | 10,000-15,000                                                                                                                                                                                                        |
| Lamp Preheat Time                                   | 2 Seconds *** (customization through communication port using SHS-DISP and Fulham software.)                                                                                                                         |
| Remote Operation                                    | 30ft (9.144m)                                                                                                                                                                                                        |
| Ambient Temperature                                 | -20°C (-4°F) to 60°C (140°F)                                                                                                                                                                                         |
| Max. Case Temperature                               | 85°C                                                                                                                                                                                                                 |
| Lamp ON/OFF Indicator Connection / Recommended Type | Yes / LED Type: 3V / 5mA min.                                                                                                                                                                                        |
| Case Dimensions                                     | L 6.77" x W 3.02" x H 1.27" (172mm x 76.7mm x 32.2mm)                                                                                                                                                                |
| Connectors or Wires                                 | Push in Connectors (Use 14-20AWG solid copper wire stripped to 3/8")                                                                                                                                                 |
| Weight                                              | 0.73KG                                                                                                                                                                                                               |
| Approvals / Standards                               | UL/cUL Listed, CE/CB, PSE, FCC, RoHS<br>UL 935, USA (ANSI/IEEE C62.41)<br>J61347-2-3(H25), J61347-1(H29),<br>EN/IEC 61347-2-7, EN/IEC 61347-1, EN/IEC 55015, EN 61547, EN 61000-3-3<br>EN 61000-3-2, CSA C22.2 No.74 |
| IP Rating                                           | IP20                                                                                                                                                                                                                 |
| RFI / EMI                                           | FCC Part 18B / FCC Part 15B / EN55015/J55015(H29)                                                                                                                                                                    |
| Protections                                         | Open Circuit Protection , Output Shortage Protection<br>Fuse Protection<br>End of Life Protection                                                                                                                    |
| Max Lamp Load Power                                 | 85W Max. @ 340mA – 840mA @ 100VAC Input<br>100W Max. @ 340mA – 840mA @ 120VAC – 277VAC Input                                                                                                                         |
| Communication Port / Type                           | RJ12 / I <sup>2</sup> C                                                                                                                                                                                              |
| **Soft Start Capable                                | Yes (through ON/OFF ports using a dry contact switch or using SHS-DISP display)                                                                                                                                      |
| Lamps ON / OFF LED Indicator Port                   | Yes                                                                                                                                                                                                                  |
| Ballast ON / OFF LED Indicator Port                 | Yes                                                                                                                                                                                                                  |
| Programmable Lamp Hour Counter                      | Yes (through SHS-DISP display)                                                                                                                                                                                       |
| Programming Device                                  | TPSB-100 or using SHS-DISP display                                                                                                                                                                                   |
| Sound Rating                                        | A                                                                                                                                                                                                                    |
| Service Life                                        | 50,000 hours lifetime @ Tc 70°C (158°F)                                                                                                                                                                              |
| Warranty                                            | 5 Years @ Tc 70°C (158°F) from the date of manufacture when properly installed.                                                                                                                                      |

\*\*ON/OFF to ballast output without removing AC input.

\*\*\*Lamp pre-heat time changes should be reviewed with and approved by the lamp manufacturer for optimal lamp life and performance.

Failure to do so may result in damage to the lamp.

## WARNING

This product may utilize Germicidal Ultraviolet (UV-C) Lamps. Germicidal ultraviolet rays are harmful to the eyes and skin. Avoid exposure to direct or reflected germicidal ultraviolet rays. Follow all the other safety instructions according to installation sheet.

### Lamp List Electrical Data - UV Lamps - 800mA

#### Electrical Data @100VAC 50/60Hz

| Lamp Wattage / Type               | Lamps Operated | Input Wattage | Input Current | Power Factor | Ballast Factor | Efficacy Factor | THD   |
|-----------------------------------|----------------|---------------|---------------|--------------|----------------|-----------------|-------|
| GHO287T5L                         | 1              | 27.85         | 0.28          | 0.987        | 0.952          | 3.59            | 12.39 |
|                                   | 2              | 56.96         | 0.57          | 0.996        | 0.956          | 1.76            | 8.05  |
| GHO357T5L/RPT                     | 1              | 38.01         | 0.38          | 0.992        | 0.956          | 2.63            | 10.29 |
|                                   | 2              | 69.42         | 0.70          | 0.997        | 0.963          | 1.44            | 7.06  |
| GHO457T5                          | 1              |               |               |              |                |                 |       |
|                                   | 2              |               |               |              |                |                 |       |
| TUV PL-L 60W/4P HO                | 1              | 78.54         | 0.79          | 0.997        | 0.986          | 1.27            | 6.71  |
|                                   | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |
| GHO610T5                          | 1              | 61.80         | 0.62          | 0.997        | 0.971          | 1.62            | 6.81  |
|                                   | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |
| GPH843T5L/HO<br>(GHO36T5L)        | 1              | 80.85         | 0.81          | 0.997        | 0.977          | 1.24            | 6.60  |
|                                   | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |
| GPH846T5L/HO/4P                   | 1              | 89.17         | 0.90          | 0.998        | 0.989          | 1.12            | 6.30  |
|                                   | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |
| TUV PL-L95W/4P HO                 | 1              | 100.15        | 1.00          | 0.998        | 0.987          | 1.00            | 5.95  |
|                                   | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |
| GHO893T5L/4P<br>(GPH893T5L/HO/4P) | 1              | 89.71         | 0.90          | 0.998        | 0.997          | 1.11            | 5.57  |
|                                   | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |

#### Electrical Data @120VAC 50/60Hz

| Lamp Wattage / Type               | Lamps Operated | Input Wattage | Input Current | Power Factor | Ballast Factor | Efficacy Factor | THD   |
|-----------------------------------|----------------|---------------|---------------|--------------|----------------|-----------------|-------|
| GHO287T5L                         | 1              | 27.74         | 0.24          | 0.980        | 0.952          | 3.61            | 13.45 |
|                                   | 2              | 56.45         | 0.47          | 0.994        | 0.957          | 1.77            | 8.83  |
| GHO357T5L/RPT                     | 1              | 37.82         | 0.32          | 0.988        | 0.956          | 2.64            | 11.24 |
|                                   | 2              | 68.87         | 0.58          | 0.995        | 0.963          | 1.45            | 7.70  |
| GHO457T5                          | 1              |               |               |              |                |                 |       |
|                                   | 2              |               |               |              |                |                 |       |
| TUV PL-L 60W/4P HO                | 1              | 77.72         | 0.65          | 0.996        | 0.987          | 1.29            | 7.30  |
|                                   | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |
| GHO610T5                          | 1              | 92.72         | 0.78          | 0.997        | 1.012          | 1.08            | 6.67  |
|                                   | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |
| GPH843T5L/HO<br>(GHO36T5L)        | 1              | 80.13         | 0.67          | 0.996        | 0.976          | 1.25            | 7.18  |
|                                   | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |
| GPH846T5L/HO/4P                   | 1              | 88.13         | 0.74          | 0.997        | 0.988          | 1.13            | 6.79  |
|                                   | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |
| TUV PL-L95W/4P HO                 | 1              | 98.96         | 0.83          | 0.997        | 0.988          | 1.01            | 6.36  |
|                                   | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |
| GHO893T5L/4P<br>(GPH893T5L/HO/4P) | 1              | 88.60         | 0.74          | 0.997        | 0.996          | 1.13            | 5.96  |
|                                   | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |

## Lamp List Electrical Data - UV Lamps - 800mA

### Electrical Data @230VAC 50/60Hz

| Lamp Wattage / Type            | Lamps Operated | Input Wattage | Input Current | Power Factor | Ballast Factor | Efficacy Factor | THD   |
|--------------------------------|----------------|---------------|---------------|--------------|----------------|-----------------|-------|
| GHO287T5L                      | 1              | 28.22         | 0.14          | 0.901        | 0.953          | 3.54            | 16.21 |
|                                | 2              | 56.23         | 0.25          | 0.956        | 0.958          | 1.78            | 12.90 |
| GHO357T5L/RPT                  | 1              | 38.01         | 0.18          | 0.936        | 0.957          | 2.63            | 15.03 |
|                                | 2              | 68.16         | 0.30          | 0.974        | 0.964          | 1.47            | 11.76 |
| GHO457T5                       | 1              |               |               |              |                |                 |       |
|                                | 2              |               |               |              |                |                 |       |
| TUV PL-L 60W/4P HO             | 1              | 76.67         | 0.34          | 0.978        | 0.987          | 1.30            | 11.27 |
|                                | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |
| GHO610T5                       | 1              | 91.06         | 0.40          | 0.983        | 1.012          | 1.10            | 10.46 |
|                                | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |
| GPH843T5L/HO (GHO36T5L)        | 1              | 78.86         | 0.35          | 0.979        | 0.977          | 1.27            | 11.12 |
|                                | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |
| GPH846T5L/HO/4P                | 1              | 86.74         | 0.38          | 0.982        | 0.990          | 1.15            | 10.64 |
|                                | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |
| TUV PL-L95W/4P HO              | 1              | 97.13         | 0.43          | 0.985        | 0.997          | 1.03            | 10.08 |
|                                | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |
| GHO893T5L/4P (GPH893T5L/HO/4P) | 1              | 87.32         | 0.39          | 0.979        | 0.996          | 1.15            | 9.45  |
|                                | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |

### Electrical Data @277VAC 50/60Hz

| Lamp Wattage / Type            | Lamps Operated | Input Wattage | Input Current | Power Factor | Ballast Factor | Efficacy Factor | THD   |
|--------------------------------|----------------|---------------|---------------|--------------|----------------|-----------------|-------|
| GHO287T5L                      | 1              | 28.81         | 0.13          | 0.783        | 0.952          | 3.47            | 17.18 |
|                                | 2              | 56.57         | 0.22          | 0.919        | 0.957          | 1.77            | 14.12 |
| GHO357T5L/RPT                  | 1              | 38.60         | 0.17          | 0.836        | 0.957          | 2.59            | 19.32 |
|                                | 2              | 68.38         | 0.26          | 0.940        | 0.964          | 1.46            | 13.19 |
| GHO457T5                       | 1              |               |               |              |                |                 |       |
|                                | 2              |               |               |              |                |                 |       |
| TUV PL-L 60W/4P HO             | 1              | 76.85         | 0.29          | 0.950        | 0.987          | 1.30            | 12.70 |
|                                | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |
| GHO610T5                       | 1              | 91.07         | 0.34          | 0.962        | 1.013          | 1.10            | 11.87 |
|                                | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |
| GPH843T5L/HO (GHO36T5L)        | 1              | 78.97         | 0.30          | 0.952        | 0.977          | 1.27            | 12.55 |
|                                | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |
| GPH846T5L/HO/4P                | 1              | 86.83         | 0.33          | 0.959        | 0.987          | 1.15            | 12.07 |
|                                | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |
| TUV PL-L95W/4P HO              | 1              | 97.14         | 0.36          | 0.966        | 0.997          | 1.03            | 11.49 |
|                                | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |
| GHO893T5L/4P (GPH893T5L/HO/4P) | 1              | 87.19         | 0.33          | 0.959        | 0.998          | 1.15            | 11.4  |
|                                | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |

Online Lamp List and Wiring Diagram:

<https://www.fulham.com/contact-us/wiring-diagrams/>

Scan QR code to be directed to lamp chart and wiring diagram.



## Lamp List Electrical Data - UV Lamps - 340mA

### Electrical Data @100VAC 50/60Hz

| <u>Lamp Wattage / Type</u> | <u>Lamps Operated</u> | <u>Input Wattage</u> | <u>Input Current</u> | <u>Power Factor</u> | <u>Ballast Factor</u> | <u>Efficacy Factor</u> | <u>THD</u> |
|----------------------------|-----------------------|----------------------|----------------------|---------------------|-----------------------|------------------------|------------|
| UVC 15W G13                | 1                     | 20.14                | 0.21                 | 0.981               | 0.999                 | 4.96                   | 13.41      |
|                            | 2                     | 39.55                | 0.40                 | 0.994               | 1.003                 | 2.53                   | 8.87       |

### Electrical Data @120VAC 50/60Hz

| <u>Lamp Wattage / Type</u> | <u>Lamps Operated</u> | <u>Input Wattage</u> | <u>Input Current</u> | <u>Power Factor</u> | <u>Ballast Factor</u> | <u>Efficacy Factor</u> | <u>THD</u> |
|----------------------------|-----------------------|----------------------|----------------------|---------------------|-----------------------|------------------------|------------|
| UVC 15W G13                | 1                     | 20.13                | 0.17                 | 0.968               | 1.002                 | 4.97                   | 14.55      |
|                            | 2                     | 39.37                | 0.33                 | 0.989               | 1.003                 | 2.54                   | 9.81       |

### Electrical Data @230VAC 50/60Hz

| <u>Lamp Wattage / Type</u> | <u>Lamps Operated</u> | <u>Input Wattage</u> | <u>Input Current</u> | <u>Power Factor</u> | <u>Ballast Factor</u> | <u>Efficacy Factor</u> | <u>THD</u> |
|----------------------------|-----------------------|----------------------|----------------------|---------------------|-----------------------|------------------------|------------|
| UVC 15W G13                | 1                     | 20.84                | 0.11                 | 0.797               | 0.996                 | 4.80                   | 19.10      |
|                            | 2                     | 39.48                | 0.18                 | 0.940               | 1.004                 | 2.53                   | 13.95      |

### Electrical Data @277VAC 50/60Hz

| <u>Lamp Wattage / Type</u> | <u>Lamps Operated</u> | <u>Input Wattage</u> | <u>Input Current</u> | <u>Power Factor</u> | <u>Ballast Factor</u> | <u>Efficacy Factor</u> | <u>THD</u> |
|----------------------------|-----------------------|----------------------|----------------------|---------------------|-----------------------|------------------------|------------|
| UVC 15W G13                | 1                     | 21.11                | 0.11                 | 0.673               | 0.997                 | 4.74                   | 29.46      |
|                            | 2                     | 40.11                | 0.18                 | 0.818               | 1.003                 | 2.49                   | 17.74      |

Online Lamp List and Wiring Diagram:

<https://www.fulham.com/contact-us/wiring-diagrams/>

Scan QR code to be directed to  
lamp chart and wiring-diagram.



## Lamp List Electrical Data - UV Lamps - 370mA

### Electrical Data @100VAC 50/60Hz

| <u>Lamp Wattage / Type</u> | <u>Lamps Operated</u> | <u>Input Wattage</u> | <u>Input Current</u> | <u>Power Factor</u> | <u>Ballast Factor</u> | <u>Efficacy Factor</u> | <u>THD</u> |
|----------------------------|-----------------------|----------------------|----------------------|---------------------|-----------------------|------------------------|------------|
| UVC 30W G13                | 1                     | 37.07                | 0.37                 | 0.992               | 1.010                 | 2.7                    | 10.16      |
|                            | 2                     | 74.2                 | 0.75                 | 0.997               | 1.008                 | 1.35                   | 6.62       |

### Electrical Data @120VAC 50/60Hz

| <u>Lamp Wattage / Type</u> | <u>Lamps Operated</u> | <u>Input Wattage</u> | <u>Input Current</u> | <u>Power Factor</u> | <u>Ballast Factor</u> | <u>Efficacy Factor</u> | <u>THD</u> |
|----------------------------|-----------------------|----------------------|----------------------|---------------------|-----------------------|------------------------|------------|
| UVC 30W G13                | 1                     | 36.91                | 0.31                 | 0.987               | 1.009                 | 2.71                   | 11.17      |
|                            | 2                     | 73.62                | 0.62                 | 0.996               | 1.010                 | 1.36                   | 7.32       |

### Electrical Data @230VAC 50/60Hz

| <u>Lamp Wattage / Type</u> | <u>Lamps Operated</u> | <u>Input Wattage</u> | <u>Input Current</u> | <u>Power Factor</u> | <u>Ballast Factor</u> | <u>Efficacy Factor</u> | <u>THD</u> |
|----------------------------|-----------------------|----------------------|----------------------|---------------------|-----------------------|------------------------|------------|
| UVC 30W G13                | 1                     | 37.10                | 0.17                 | 0.934               | 1.010                 | 2.70                   | 14.83      |
|                            | 2                     | 72.84                | 0.32                 | 0.977               | 1.008                 | 1.37                   | 11.46      |

### Electrical Data @277VAC 50/60Hz

| <u>Lamp Wattage / Type</u> | <u>Lamps Operated</u> | <u>Input Wattage</u> | <u>Input Current</u> | <u>Power Factor</u> | <u>Ballast Factor</u> | <u>Efficacy Factor</u> | <u>THD</u> |
|----------------------------|-----------------------|----------------------|----------------------|---------------------|-----------------------|------------------------|------------|
| UVC 30W G13                | 1                     | 37.69                | 0.16                 | 0.841               | 1.008                 | 2.65                   | 18.85      |
|                            | 2                     | 72.98                | 0.28                 | 0.946               | 1.009                 | 1.37                   | 12.87      |

Online Lamp List and Wiring Diagram:

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Scan QR code to be directed to  
lamp chart and wiring-diagram.



## Lamp List Electrical Data - UV Lamps - 425mA

### Electrical Data @100VAC 50/60Hz

| Lamp Wattage / Type      | Lamps Operated | Input Wattage | Input Current | Power Factor | Ballast Factor | Efficacy Factor | THD   |
|--------------------------|----------------|---------------|---------------|--------------|----------------|-----------------|-------|
| GPH357T5L                | 1              | 22.01         | 0.22          | 0.982        | 0.997          | 4.54            | 13.88 |
|                          | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |
| GPH430T5L                | 1              | 26.42         | 0.27          | 0.986        | 1.004          | 3.78            | 12.46 |
|                          | 2              | 53.08         | 0.53          | 0.996        | 1.012          | 1.88            | 8.07  |
| GPH436T5L                | 1              | 26.38         | 0.27          | 0.985        | 0.976          | 3.79            | 13.63 |
|                          | 2              | 54.14         | 0.54          | 0.996        | 1.010          | 1.85            | 7.97  |
| GPH540T5L<br>(G24T5L)    | 1              | 32.18         | 0.33          | 0.990        | 1.008          | 3.11            | 11.07 |
|                          | 2              | 65.68         | 0.66          | 0.997        | 1.013          | 1.52            | 7.02  |
| TUV PL-L 36W             | 1              | 46.45         | 0.47          | 0.995        | 1.018          | 2.15            | 8.05  |
|                          | 2              | 94.65         | 0.95          | 0.998        | 1.014          | 1.06            | 5.47  |
| UVC 36W G13              | 1              | 46.41         | 0.47          | 0.994        | 1.159          | 2.15            | 8.80  |
|                          | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |
| GPH793T5L                | 1              | 47.12         | 0.47          | 0.995        | 1.010          | 2.12            | 8.69  |
|                          | 2              | 95.97         | 0.96          | 0.998        | 1.013          | 1.04            | 5.72  |
| GPH843T5L                | 1              | 80.85         | 0.81          | 0.997        | 1.237          | 1.24            | 6.60  |
|                          | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |
| GPH1148T5L<br>(G48T5L)   | 1              | 66.71         | 0.67          | 0.997        | 1.013          | 1.50            | 6.99  |
|                          | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |
| GPH1554T5L<br>(G64T5/4P) | 1              | 86.77         | 0.87          | 0.998        | 1.013          | 1.15            | 5.68  |
|                          | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |
| GPH1630T5L<br>(G67T5L)   | 1              | 93.84         | 0.94          | 0.998        | 1.013          | 1.07            | 6.19  |
|                          | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |

### Electrical Data @120VAC 50/60Hz

| Lamp Wattage / Type      | Lamps Operated | Input Wattage | Input Current | Power Factor | Ballast Factor | Efficacy Factor | THD   |
|--------------------------|----------------|---------------|---------------|--------------|----------------|-----------------|-------|
| GPH357T5L                | 1              | 22.00         | 0.19          | 0.971        | 0.997          | 4.54            | 14.99 |
|                          | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |
| GPH430T5L                | 1              | 26.32         | 0.22          | 0.978        | 1.003          | 3.80            | 13.57 |
|                          | 2              | 52.72         | 0.44          | 0.993        | 1.012          | 1.90            | 8.92  |
| GPH436T5L                | 1              | 26.54         | 0.23          | 0.977        | 0.976          | 3.77            | 14.34 |
|                          | 2              | 53.83         | 0.45          | 0.993        | 1.010          | 1.86            | 8.81  |
| GPH540T5L<br>(G24T5L)    | 1              | 32.05         | 0.27          | 0.984        | 1.008          | 3.12            | 12.11 |
|                          | 2              | 65.15         | 0.55          | 0.995        | 1.013          | 1.53            | 7.74  |
| TUV PL-L 36W             | 1              | 46.07         | 0.39          | 0.992        | 1.015          | 2.17            | 8.80  |
|                          | 2              | 93.31         | 0.78          | 0.998        | 1.014          | 1.07            | 5.81  |
| UVC 36W G13              | 1              | 46.14         | 0.39          | 0.991        | 1.016          | 2.17            | 9.71  |
|                          | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |
| GPH793T5L                | 1              | 46.47         | 0.39          | 0.990        | 1.011          | 2.15            | 10.76 |
|                          | 2              | 94.87         | 0.79          | 0.997        | 1.012          | 1.05            | 6.26  |
| GPH843T5L                | 1              | 80.13         | 0.67          | 0.996        | 1.248          | 1.25            | 7.18  |
|                          | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |
| GPH1148T5L<br>(G48T5L)   | 1              | 66.13         | 0.55          | 0.995        | 1.013          | 1.51            | 7.74  |
|                          | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |
| GPH1554T5L<br>(G64T5/4P) | 1              | 85.94         | 0.72          | 0.997        | 1.015          | 1.16            | 6.10  |
|                          | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |
| GPH1630T5L<br>(G67T5L)   | 1              | 92.72         | 0.78          | 0.997        | 1.012          | 1.08            | 6.67  |
|                          | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |

## Lamp List Electrical Data - UV Lamps - 425mA

### Electrical Data @230VAC 50/60Hz

| Lamp Wattage / Type      | Lamps Operated | Input Wattage | Input Current | Power Factor | Ballast Factor | Efficacy Factor | THD   |
|--------------------------|----------------|---------------|---------------|--------------|----------------|-----------------|-------|
| GPH357T5L                | 1              | 22.54         | 0.12          | 0.848        | 0.997          | 4.44            | 16.48 |
|                          | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |
| GPH430T5L                | 1              | 26.73         | 0.13          | 0.894        | 1.004          | 3.74            | 15.75 |
|                          | 2              | 52.45         | 0.24          | 0.962        | 1.013          | 1.91            | 13.02 |
| GPH436T5L                | 1              | 26.96         | 0.13          | 0.893        | 0.976          | 3.71            | 15.57 |
|                          | 2              | 53.55         | 0.24          | 0.963        | 1.011          | 1.87            | 12.94 |
| GPH540T5L<br>(G24T5L)    | 1              | 32.36         | 0.15          | 0.919        | 1.008          | 3.09            | 15.36 |
|                          | 2              | 64.54         | 0.29          | 0.972        | 1.012          | 1.55            | 11.94 |
| TUV PL-L 36W             | 1              | 45.86         | 0.21          | 0.953        | 1.014          | 2.18            | 13.04 |
|                          | 2              | 92.02         | 0.41          | 0.985        | 1.016          | 1.09            | 9.48  |
| UVC 36W G13              | 1              | 46.09         | 0.21          | 0.953        | 1.017          | 2.17            | 13.73 |
|                          | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |
| GPH793T5L                | 1              | 46.42         | 0.21          | 0.953        | 1.011          | 2.15            | 13.67 |
|                          | 2              | 93.21         | 0.41          | 0.984        | 1.012          | 1.07            | 10.20 |
| GPH843T5L                | 1              | 78.86         | 0.35          | 0.980        | 0.997          | 1.27            | 11.12 |
|                          | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |
| GPH1148T5L<br>(G48T5L)   | 1              | 65.44         | 0.29          | 0.973        | 1.013          | 1.53            | 11.90 |
|                          | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |
| GPH1554T5L<br>(G64T5/4P) | 1              | 84.60         | 0.37          | 0.982        | 1.014          | 1.18            | 9.92  |
|                          | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |
| GPH1630T5L<br>(G67T5L)   | 1              | 91.06         | 0.40          | 0.983        | 1.012          | 1.10            | 10.46 |
|                          | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |

### Electrical Data @277VAC 50/60Hz

| Lamp Wattage / Type      | Lamps Operated | Input Wattage | Input Current | Power Factor | Ballast Factor | Efficacy Factor | THD   |
|--------------------------|----------------|---------------|---------------|--------------|----------------|-----------------|-------|
| GPH357T5L                | 1              | 22.94         | 0.12          | 0.706        | 0.997          | 4.36            | 23.79 |
|                          | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |
| GPH430T5L                | 1              | 27.39         | 0.13          | 0.771        | 1.004          | 3.65            | 16.03 |
|                          | 2              | 52.78         | 0.21          | 0.911        | 1.012          | 1.89            | 14    |
| GPH436T5L                | 1              | 27.47         | 0.13          | 0.767        | 0.976          | 3.64            | 16.31 |
|                          | 2              | 53.84         | 0.21          | 0.913        | 1.010          | 1.86            | 13.99 |
| GPH540T5L<br>(G24T5L)    | 1              | 32.92         | 0.15          | 0.815        | 1.008          | 3.04            | 18.29 |
|                          | 2              | 64.79         | 0.25          | 0.935        | 1.013          | 1.54            | 13.34 |
| TUV PL-L 36W             | 1              | 46.29         | 0.19          | 0.881        | 1.016          | 2.16            | 14.04 |
|                          | 2              | 92.08         | 0.35          | 0.963        | 1.014          | 1.09            | 11.05 |
| UVC 36W G13              | 1              | 46.53         | 0.19          | 0.880        | 1.017          | 2.15            | 14.09 |
|                          | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |
| GPH793T5L                | 1              | 46.79         | 0.19          | 0.892        | 1.011          | 2.14            | 13.88 |
|                          | 2              | 93.19         | 0.35          | 0.964        | 1.012          | 1.07            | 11.56 |
| GPH843T5L                | 1              | 78.97         | 0.30          | 0.952        | 1.266          | 1.27            | 12.55 |
|                          | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |
| GPH1148T5L<br>(G48T5L)   | 1              | 65.69         | 0.25          | 0.936        | 1.013          | 1.52            | 13.24 |
|                          | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |
| GPH1554T5L<br>(G64T5/4P) | 1              | 84.69         | 0.32          | 0.957        | 1.015          | 1.18            | 11.54 |
|                          | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |
| GPH1630T5L<br>(G67T5L)   | 1              | 91.07         | 0.34          | 0.962        | 1.013          | 1.10            | 11.87 |
|                          | 2              | N/A           | N/A           | N/A          | N/A            | N/A             | N/A   |

Online Lamp List and Wiring Diagram:

<https://www.fulham.com/contact-us/wiring-diagrams/>

Scan QR code to be directed to  
lamp chart and wiring-diagram.



## Lamp List Electrical Data - UV Lamps - 600mA

### Electrical Data @100VAC 50/60Hz

| <u>Lamp Wattage / Type</u> | <u>Lamps Operated</u> | <u>Input Wattage</u> | <u>Input Current</u> | <u>Power Factor</u> | <u>Ballast Factor</u> | <u>Efficacy Factor</u> | <u>THD</u> |
|----------------------------|-----------------------|----------------------|----------------------|---------------------|-----------------------|------------------------|------------|
| UVC 25W G13                | 1                     | 29.69                | 0.30                 | 0.990               | 0.984                 | 3.37                   | 10.61      |
|                            | 2                     | 55.37                | 0.56                 | 0.996               | 0.965                 | 1.81                   | 7.21       |

### Electrical Data @120VAC 50/60Hz

| <u>Lamp Wattage / Type</u> | <u>Lamps Operated</u> | <u>Input Wattage</u> | <u>Input Current</u> | <u>Power Factor</u> | <u>Ballast Factor</u> | <u>Efficacy Factor</u> | <u>THD</u> |
|----------------------------|-----------------------|----------------------|----------------------|---------------------|-----------------------|------------------------|------------|
| UVC 25W G13                | 1                     | 29.58                | 0.25                 | 0.983               | 0.982                 | 3.38                   | 11.67      |
|                            | 2                     | 54.89                | 0.46                 | 0.994               | 0.964                 | 1.82                   | 7.92       |

### Electrical Data @230VAC 50/60Hz

| <u>Lamp Wattage / Type</u> | <u>Lamps Operated</u> | <u>Input Wattage</u> | <u>Input Current</u> | <u>Power Factor</u> | <u>Ballast Factor</u> | <u>Efficacy Factor</u> | <u>THD</u> |
|----------------------------|-----------------------|----------------------|----------------------|---------------------|-----------------------|------------------------|------------|
| UVC 25W G13                | 1                     | 29.45                | 0.15                 | 0.878               | 0.981                 | 3.40                   | 15.53      |
|                            | 2                     | 54.10                | 0.24                 | 0.963               | 0.961                 | 1.85                   | 12.19      |

### Electrical Data @277VAC 50/60Hz

| <u>Lamp Wattage / Type</u> | <u>Lamps Operated</u> | <u>Input Wattage</u> | <u>Input Current</u> | <u>Power Factor</u> | <u>Ballast Factor</u> | <u>Efficacy Factor</u> | <u>THD</u> |
|----------------------------|-----------------------|----------------------|----------------------|---------------------|-----------------------|------------------------|------------|
| UVC 25W G13                | 1                     | 30.57                | 0.14                 | 0.794               | 0.983                 | 3.27                   | 18.45      |
|                            | 2                     | 55.12                | 0.22                 | 0.915               | 0.964                 | 1.81                   | 13.56      |

Online Lamp List and Wiring Diagram:

<https://www.fulham.com/contact-us/wiring-diagrams/>

Scan QR code to be directed to  
lamp chart and wiring-diagram.



## Lamp List Electrical Data - UV Lamps - 600mA

### Electrical Data @100VAC 50/60Hz

| <u>Lamp Wattage / Type</u> | <u>Lamps Operated</u> | <u>Input Wattage</u> | <u>Input Current</u> | <u>Power Factor</u> | <u>Ballast Factor</u> | <u>Efficacy Factor</u> | <u>THD</u> |
|----------------------------|-----------------------|----------------------|----------------------|---------------------|-----------------------|------------------------|------------|
| UVC 75W G13                | 1                     | 78.64                | 0.79                 | 0.998               | 0.980                 | 1.27                   | 6.38       |
|                            | 2                     |                      |                      |                     |                       |                        |            |

### Electrical Data @120VAC 50/60Hz

| <u>Lamp Wattage / Type</u> | <u>Lamps Operated</u> | <u>Input Wattage</u> | <u>Input Current</u> | <u>Power Factor</u> | <u>Ballast Factor</u> | <u>Efficacy Factor</u> | <u>THD</u> |
|----------------------------|-----------------------|----------------------|----------------------|---------------------|-----------------------|------------------------|------------|
| UVC 75W G13                | 1                     | 77.86                | 0.65                 | 0.996               | 0.979                 | 1.28                   | 7.05       |
|                            | 2                     | N/A                  | N/A                  | N/A                 | N/A                   | N/A                    | N/A        |

### Electrical Data @230VAC 50/60Hz

| <u>Lamp Wattage / Type</u> | <u>Lamps Operated</u> | <u>Input Wattage</u> | <u>Input Current</u> | <u>Power Factor</u> | <u>Ballast Factor</u> | <u>Efficacy Factor</u> | <u>THD</u> |
|----------------------------|-----------------------|----------------------|----------------------|---------------------|-----------------------|------------------------|------------|
| UVC 75W G13                | 1                     | 76.89                | 0.34                 | 0.979               | 0.980                 | 1.30                   | 11.17      |
|                            | 2                     | N/A                  | N/A                  | N/A                 | N/A                   | N/A                    | N/A        |

### Electrical Data @277VAC 50/60Hz

| <u>Lamp Wattage / Type</u> | <u>Lamps Operated</u> | <u>Input Wattage</u> | <u>Input Current</u> | <u>Power Factor</u> | <u>Ballast Factor</u> | <u>Efficacy Factor</u> | <u>THD</u> |
|----------------------------|-----------------------|----------------------|----------------------|---------------------|-----------------------|------------------------|------------|
| UVC 75W G13                | 1                     | 77.26                | 0.29                 | 0.951               | 0.981                 | 1.29                   | 12.55      |
|                            | 2                     | N/A                  | N/A                  | N/A                 | N/A                   | N/A                    | N/A        |

Online Lamp List and Wiring Diagram:

<https://www.fulham.com/contact-us/wiring-diagrams/>

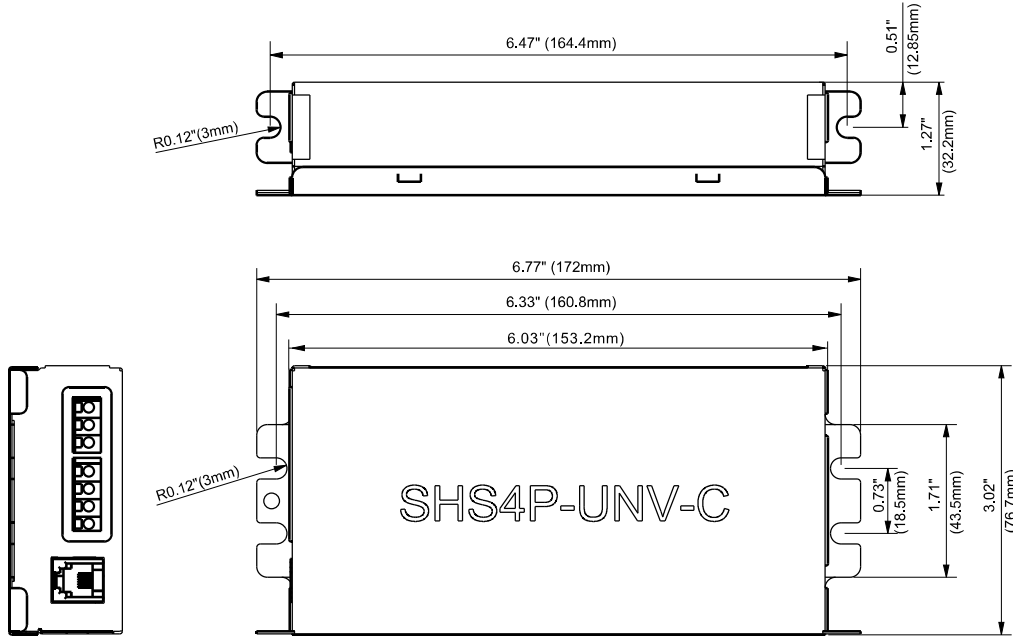
Scan QR code to be directed to  
lamp chart and wiring-diagram.



## Mechanical Data

### Overall Dimensions

|          |                    |
|----------|--------------------|
| Length   | 6.77"<br>[172mm]   |
| Width    | 3.02"<br>[76.7mm]  |
| Height   | 1.27"<br>[32.2mm]  |
| Mounting | 6.33"<br>[160.8mm] |



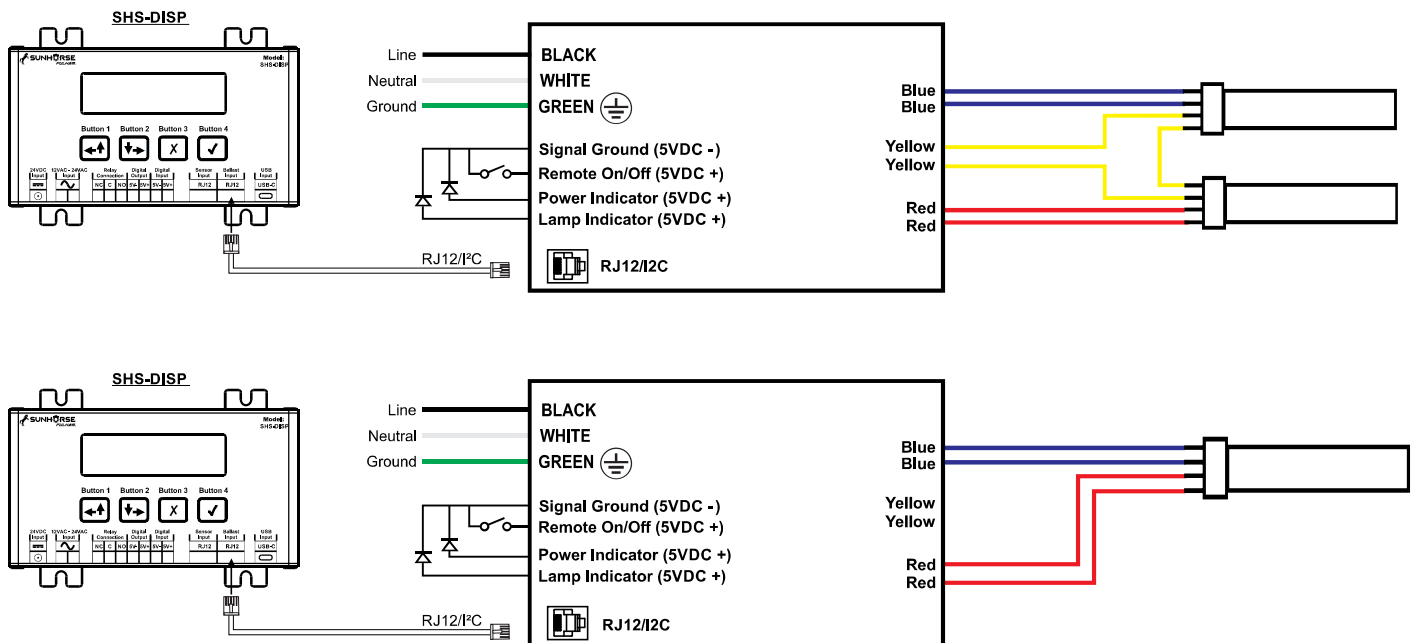
Side View: Input

Side View: Output

Where : L = Length, W = Width, H = Height

±0.01" Tolerance

## Wiring Diagram



### Note:

- 1.) This ballast must be grounded.
- 2.) Use 18AWG solid copper wire stripped to 3/8" with ballast push in connectors.
- 3.) Recommend LED Type: 5mm or 3mm (3V/ 5mA)

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## Guidelines

### Factory Programing

- For currents other than the default 800mA, factory programming is available upon request and minimum order quantities (MOQ's) may apply.
  - Factory Output Current Range: 340mA - 840mA ( $\pm 10\%$  tolerance of set current)
  - Fulham must approve any lamp/ballast combination not currently listed for operation in this spec sheet. Failure to do so may result in voidance of warranty.
  - This ballast is UL Listed and approved only for the lamps listed in the "UL Lamp List Electrical Data" sections. Additional UL verification testing will be needed to UL List lamps not already listed. Please contact Fulham for further information.

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### Grounding

- Ballast must be grounded by means of the driver case or driver ground terminal.

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### Short Circuit Protection

- Output latches off.

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### No-load Operation and Protection

- Output latches off.

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### Remote Mounting

- Up to 30ft with 18AWG.

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### Service life / Lifetime

- 50,000 hours at  $T_c = 70^\circ\text{C}$  ( $158^\circ\text{F}$ )

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### Warranty

- Reference Fulham's limited Warranty: <https://cdn.fulham.com/PDFs/Limited-Warranty.pdf>

## TPSB-100 and SHS-DISP Information

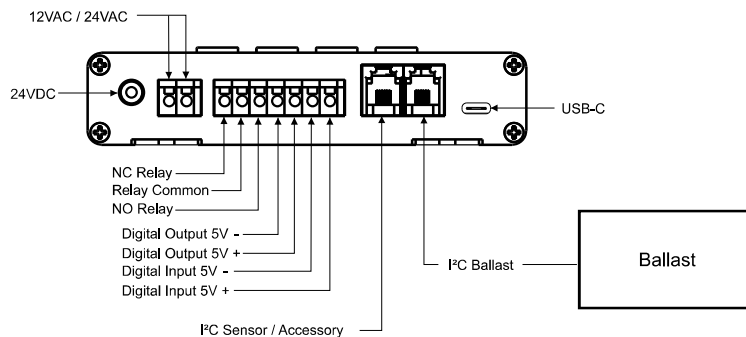
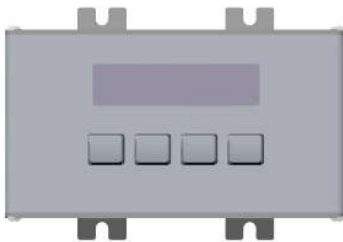
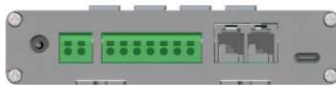
### TPSB-100 Programming Controller

Please consult the user manual for instructions on using the TPSB-100 SmartSet programming controller.



- <https://www.fulham.com/PDFs/SpecSheets/TPSB-100-2017-765.pdf>

### SHS-DISP display and communication device





SHS4P-UNV-C



RoHS  
COMPLIANT



## Part Number Matrix

SH

Product Line

SH = SunHorse

S

Ballast Type

S = Standard

4

Ballast Order  
Number

P

Programmable

P = Programmable

UNV

Input Voltage

UNV = 100V~277V

C

Case Type

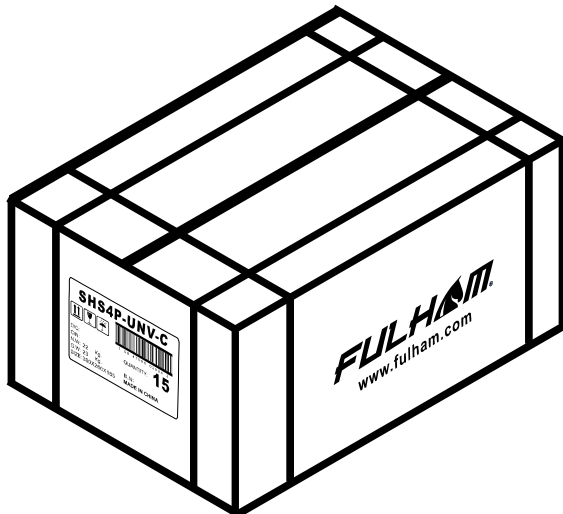
C = Compact

## Product Image



## Packaging

### Master Carton



| OUTER DIMENSION     |                       |                 |
|---------------------|-----------------------|-----------------|
| L                   | W                     | H               |
| 16"(406.4mm)        | 10.5"(266.7mm)        | 7.75"(196.85mm) |
| Net Weight          | Gross Weight          | QUANTITY        |
| 31bs.<br>(14.06kg.) | 29.15bs.<br>(13.22kg) | 18pcs.          |