

QUICKTRONIC® PROStart® T5HO Universal Voltage Systems

High Efficiency Series



Type CC
Programmed Rapid Start
Normal Ballast Factor

QHE T5HO PSN

Lamp / Ballast Guide

1 or 2 lamp T5HO - PENTRON® lamps
QHE2x39-24T5HO/UNV PSN
QHE2x54T5HO/UNV PSN

Also operates:

FP39/SS, FP24/SS, FPC22, FT24DL,
FT36DL, FP54/SS, FT55DL, FT50DL,
FPC55 and L58T8

Two lamp model can be wired for one
lamp operation.

Key System Features

- **High Efficiency Systems** over 90% efficient
- Universal voltage (120-277V)
- Low-profile (1.00" High)
- 100% Ballast factor (see table)
- QUICKSENSE® ballast technology (end-of-lamp-life sensing)
- PROStart programmed rapid start
- UL type CC rated
- Min. Starting Temp:
 - -20°F/-29°C
- Operates at >42 KHz to reduce potential interference with infrared control systems
- High power factor
- Low harmonic distortion
- Lightweight
- UL, CSA, FCC
- RoHS compliant
- Lead-free solder and manufacturing process



Application Information

SYLVANIA QUICKTRONIC High Efficiency T5HO ballasts are ideally suited for:

- Commercial & retail
- Hospitality & institutional
- New construction
- Industrial high bay lighting
- Indirect lighting
- Surface mount
- Cove lighting

SYLVANIA QUICKTRONIC High Efficiency (QHE) PROStart T5HO electronic ballasts operate PENTRON HO, PENTRON HO Circline, and DULUX® L T5 lamps with full lumen output and optimal system performance. These ballasts provides nearly twice the light output (188%) of T8 systems, with the same number of lamps, allowing many new design options. One lamp fixtures can now be used in place of two lamp models.

QUICKTRONIC High Efficiency T5HO

ballasts offer a minimum starting temperature of -20°F/-29°C for PENTRON T5HO lamps.

QUICKTRONIC PROStart T5HO ballasts are RoHS compliant and feature lead-free solder and manufacturing process.

The two lamp unit can be wired for one lamp operation, allowing for an



additional 50% reduction in inventory model numbers. The ballast has a 1.18"W x 1.00"H (30mm x 25.4mm) cross section which allows for smaller and unique fixture profiles.

Setting the standard for quality, QUICKTRONIC ballasts are covered by the QUICK 60+® warranty, the first and most comprehensive system warranty in the industry.

System Information

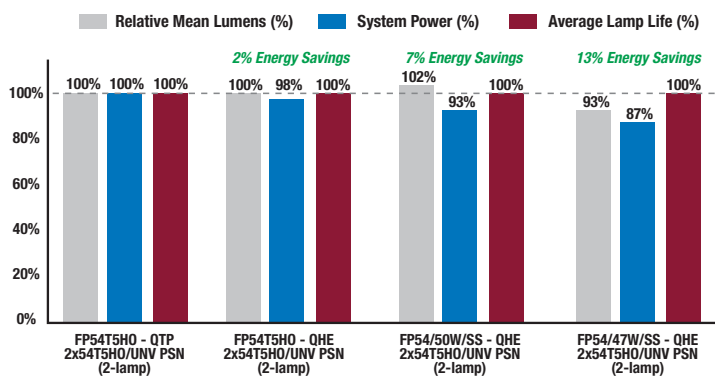
SYLVANIA QUICKTRONIC T5HO High Efficiency (QHE) System advantages:

- Operate from 120V through 277V
 - Eliminates "wrong voltage" errors
 - Reduces inventory by 50%
- Utilizes Programmed Rapid Start operation for
 - Highest System Efficacy
 - Longer Life
- Over 100,000 switching cycles for occupancy sensor and building control systems applications

QUICKSENSE ballast technology helps to protect against overheated bases and sockets, as well as cracking of the glass wall, and uses dynamic end-of-lamp-life sensing to avoid false shutdowns caused by some static sensing methods. QUICKSENSE ballast technology will auto reset when the end-of-life lamps are replaced with new ones.

| System Type | Input System Power (W) | Initial System Lumens | Mean System Lumens | Initial System Efficacy (lm/W) | Relative Mean Lumens (%) | Energy Savings (%) |
|---|------------------------|-----------------------|--------------------|--------------------------------|--------------------------|--------------------|
| FP54T5HO - QTP 2x54T5HO/UNV PSN (2-lamp) | 121 | 10,000 | 9300 | 83 | Baseline | Baseline |
| FP54T5HO - QHE 2x54T5HO/UNV PSN (2-lamp) | 119 | 10,000 | 9300 | 84 | 100% | 2% |
| FP54/50W/SS - QHE 2x54T5HO/UNV PSN (2-lamp) | 112 | 10,200 | 9485 | 91 | 102% | 7% |
| FP54/47W/SS - QHE 2x54T5HO/UNV PSN (2-lamp) | 105 | 9335 | 8680 | 89 | 93% | 13% |

*Fixture efficiency not considered *Lumen Output for T5HO @ 35°C/95°F *120V input voltage



SPECIFICATION DATA

| | | |
|-----------|-------------|------|
| Catalog # | Date | Type |
| Project | Prepared by | |
| Comments | | |

High Efficiency, Type CC & Universal Voltage (120-277V)



| Item Number | OSRAM SYLVANIA Description | Input Current (AMPS) | Lamp ¹ Type | Rated ¹ Lumens (lm) | No. of Lamps | Ballast ¹ Factor (BF) | System ¹ Lumens | Mean ¹ Lumens | Input ¹ Power (Watts) | System ³ Efficacy (lm/W) | BEF ² |
|-------------|---|----------------------|------------------------|--------------------------------|--------------|----------------------------------|----------------------------|--------------------------|----------------------------------|-------------------------------------|------------------|
| 51471 | QHE2x54T5HO/UNV PSN 20-pack (without leads) | 1.00/0.43 | FP54T5HO | 5000 | 2 | 1.00 | 10,000 | 9300 | 119 116 | 86 | 0.86 |
| | | 0.94/0.40 | FP54/50W/SS | 5000 | 2 | 1.02 | 10,200 | 9485 | 112 109 | 94 | 0.94 |
| | | 0.89/0.38 | FP54/47W/SS | 4575 | 2 | 1.02 | 9335 | 8680 | 105 103 | 91 | 0.99 |
| | | 0.88/0.37 | FT55DL | 4800 | 2 | 0.86 | 8255 | 7680 | 106 105 | 79 | 0.82 |
| 51470 | QHE2x54T5HO/UNV PSN-MCL 10-pack (with leads) | 0.90/0.42 | FT50DL | 4300 | 2 | 1.04 | 8945 | 8320 | 110 108 | 83 | 0.96 |
| | | 0.92/0.39 | L58 | 5200 | 2 | 0.85 | 8840 | 8220 | 111 108 | 82 | 0.79 |
| | | 0.82/0.35 | FPC55 | 4000 | 2 | 0.80 | 6400 | 5950 | 96 94 | 68 | 0.85 |
| | | 0.53/0.23 | FP54T5HO | 5000 | 1 | 1.05 | 5250 | 4885 | 62 61 | 86 | 1.72 |
| | | 0.49/0.21 | FP54/50W/SS | 5000 | 1 | 1.05 | 5250 | 4885 | 58 58 | 91 | 1.81 |
| | | 0.45/0.20 | FP54/47W/SS | 4575 | 1 | 1.03 | 4710 | 4380 | 53 53 | 89 | 1.94 |
| | | 0.49/0.21 | FT55DL | 4800 | 1 | 0.92 | 4415 | 4105 | 56 55 | 80 | 1.67 |
| | | 0.51/0.22 | FT50DL | 4300 | 1 | 1.09 | 4685 | 4360 | 57 57 | 82 | 1.91 |
| | | 0.48/0.21 | L58 | 5200 | 1 | 0.87 | 4525 | 4205 | 57 57 | 79 | 1.53 |
| | | 0.45/0.20 | FPC55 | 4000 | 1 | 0.81 | 3240 | 3015 | 49 49 | 66 | 1.65 |
| 51479 | QHE2x39/24T5HO/UNV PSN 20-pack (without leads) | 0.70/0.30 | FP39T5HO | 3500 | 2 | 1.00 | 7000 | 6510 | 83 81 | 86 | 1.23 |
| | | 0.65/0.28 | FP39/35W/HO/SS | 3500 | 2 | 1.01 | 7070 | 6575 | 77 76 | 93 | 1.33 |
| | Connectors ONLY | 0.47/0.21 | FP24T5HO | 2000 | 2 | 1.00 | 4000 | 3720 | 54 53 | 75 | 1.89 |
| | | 0.43/0.19 | FP24/21W/HO/SS | 2000 | 2 | 1.01 | 4040 | 3757 | 51 50 | 81 | 2.02 |
| 51478 | QHE2x39/24T5HO/UNV PSN 10-pack (with leads) | 0.37/0.16 | FP39T5HO | 3500 | 1 | 1.01 | 3535 | 3288 | 42 42 | 84 | 2.40 |
| | | 0.35/0.16 | FP39/35W/HO/SS | 3500 | 1 | 1.02 | 3570 | 3320 | 41 40 | 89 | 2.55 |
| | Connectors WITH leads inserted | 0.25/0.12 | FP24T5HO | 2000 | 1 | 1.01 | 2020 | 1879 | 29 29 | 70 | 3.48 |
| | | 0.23/0.11 | FP24/21W/HO/SS | 2000 | 1 | 1.02 | 2040 | 1897 | 27 27 | 76 | 3.78 |

1: At 35°C lamp ambient temperature.

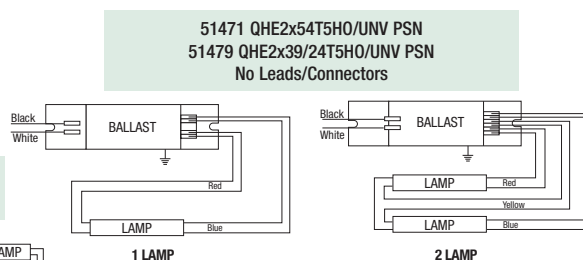
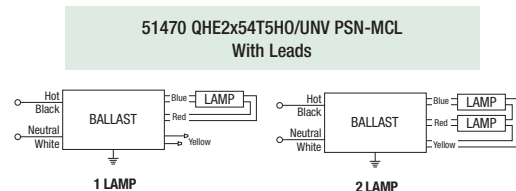
2: Ballast Efficiency Factor (BEF) shown = (Ballast Factor x 100) divided by Input Power (Note: calculation based on lowest wattage value).

3: System Efficacy calculation based on lowest input power value.

© New Product. Please note item number 51471 connector/white case model QHE2x54T5HO/UNV PSN with leads inserted (for customer satisfaction) will be shipped as item number 51470 until the new black MCL (Micro-Can Long) case with leads QHE2x54T5HO/UNV PSN-MCL is in production. Check with your SYLVANIA Sales Professional for new product availability

Installation Notes

- Ground ballast case
- Install in accordance with the National Electric Code
- Insulate unused leads for 600V



51478 QHE2x39/24T5HO/UNV PSN With Leads

Dimensions:

Model QHE2x54T5HO/UNV PSN and QHE2x54T5HO/UNV PSN-MCL enclosure size:

Overall: 16.73"L x 1.18"W x 1.00"H (425mm L x 30mm W x 25.4mm H)

Mounting: 16.34" (415mm)

Model QHE2x39/24T5HO/UNV PSN enclosure size:

Overall: 14.73"L x 1.18"W x 0.87"H (360mm L x 30mm W x 22mm H)

Mounting: 13.74" (349mm)

Wiring:

51471: Push-in connectors

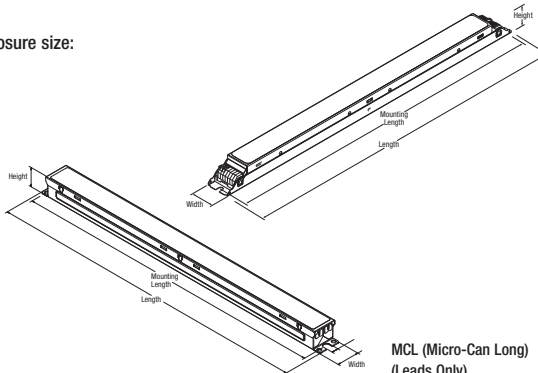
Use 18AWG solid copper wire only

51470: Leads only (no connectors provided)

Product Weight:

51471: 0.88 lbs (0.40kg) each (approx)

51470: 1.0 lb (0.45kg) each (approx)



Item Number **51471 QHE 2 x 54T5HO UNV PSN** Starting/Ballast Factor
 QUICKTRONIC High Efficiency Line Voltage (120-277V)
 Number of Lamps (2) Primary Lamp Wattage

Normal Ballast Factor

T5HO PROStart® UNV

High Efficiency

Performance Guide

Data based upon SYLVANIA PENTRON® HO lamps shown. QUICKTRONIC® T5HO ballasts are also compatible with other lamp manufacturers equivalent lamp types that meet ANSI specifications.

Specifications⁴

Starting Method: Programmed

Rapid Start

Ballast Factor: 1.00 (see table)

Circuit Type: Series

Lamp Frequency: >42 kHz

Lamp CCF: Less than 1.6

Starting Temp: -20°F (-29°C)⁵

Input Frequency: 50/60 Hz

Low THD: <10%

Power Factor: >98%

Voltage Range: ±10% of 120-277V
rated line (108-305V)

UL Listed Class P, Type 1, Outdoor,

UL Type CC Rated

CSA Certified

70°C Max Case Temperature

FCC 47CFR Part 18 Non-Consumer

Class A Sound Rating

ANSI C62.41 Cat. A Transient Protection

QUICKSENSE®: End-of-Lamp-

Life Sensing

Remote Mounting (Max. wire length

from ballast case to lampholder):

up to 18 feet. Remote red leads up to

18 feet. Keep blue leads <10 feet.⁵

RoHS Compliant⁶

4 Data based on PENTRON HO lamp types for primary ballast application.

5 Operation below 50°F (10°C) may affect light output or lamp operation – see “Low Temp. Starting” definition.

6 Complies with European Union Restriction of Hazardous Substances Directive. (Directive 2002/95/EC)

System Life / Warranty

QUICKTRONIC products are covered by the QUICK 60+® warranty, a comprehensive lamp and ballast system warranty. For additional details, refer to the QUICK 60+ warranty bulletin.

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www.sylvania.com

Specifications subject to change without notice.