QUICKTRONIC® PROStart® T5HO

Universal Voltage Systems
High Efficiency Systems

Type CC
Programmed Rapid Start
Normal Ballast Factor

QHE T5HO PSN

Lamp / Ballast Guide

39W or 24W T5 – PENTRON® HO lamps
QHE2x39-24T5HO/UNV PSN
Also operates:
FP39/SS, FP24/SS, FPC22, FT24DL, FT36DL
54W T5 – PENTRON® HO lamps
QHE2x54T5HO/UNV PSN
Also operates:
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)
- 1.0 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

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

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

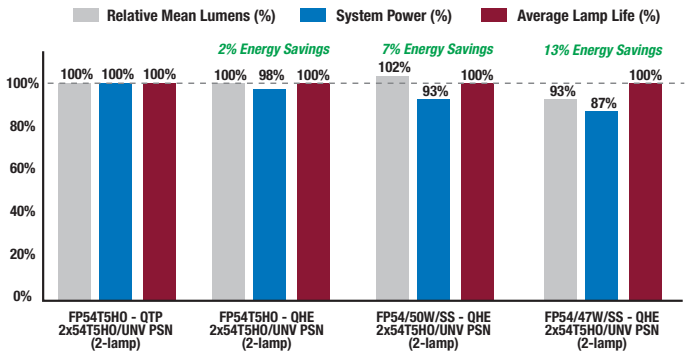
QUICKTRONIC T5HO High Efficiency (QHE) System advantages:

- 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 - QTP2x54T5HO/UNV PSN (2-lamp)	121	10,000	9300	83	Baseline	Baseline
FP54T5HO - QHE2x54T5HO/UNV PSN (2-lamp)	119	10,000	9300	84	100%	2%
FP54/50W/SS - QHE2x54T5HO/UNV PSN (2-lamp)	112	10,200	9485	91	102%	7%
FP54/47W/SS - QHE2x54T5HO/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*



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SPECIFICATION DATA

Catalog #	Date	Type
Project	Prepared by	
Comments		

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

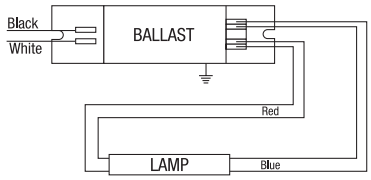
RoHS compliant

Item Number	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) 120V	277V	System[3] Efficacy (lm/W)	BEF[2]
	QHE2x54T5HO/UNV PSN	1.00/0.43	FP54T5HO	5000	2	1.00	10,000	9300	119	116	86	0.86
51471 ✪	*20-pack (without leads)*	0.94/0.40	FP54/50W/SS	5000	2	1.02	10,200	9485	112	109	94	0.94
51470 ✪	*10-pack (with leads)*	**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
		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
	QHE2x39/24T5HO/UNV PSN	0.70/0.30	FP39T5HO	3500	2	1.00	7000	6510	83	81	86	1.23
51479 ✪	*20-pack (without leads)*	0.65/0.28	FP39/35W/HO/SS	3500	2	1.01	7070	6575	77	76	93	1.33
51478 ✪	*10-pack (with leads)*	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
		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
		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

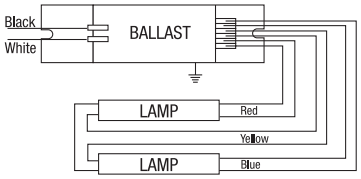
1 At 35°C lamp ambient temperature.
2 Ballast Efficiency Factor (BEF) shown = (Ballast Factor x 100) divided by Input Power (Note: calculation based on lowest wattage value).
3 System Efficacy calculation based on lowest input power value.
✪ Preliminary specifications. Please contact OSRAM SYLVANIA for additional information.

Installation Notes

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



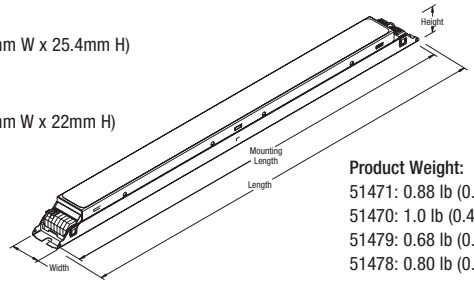
1 LAMP



2 LAMP

Dimensions:
Model QHE2x54T5HO/UNV PSN 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: 14.17"L x 1.18"W x 0.87"H (360mm L x 30mm W x 22mm H)
Mounting: 13.74" (349mm)

Wiring:
51471 & 51479: Push-in connectors
51470 & 51478: Push-in connectors with leads
Use 18AWG solid copper wire only



Product Weight:
51471: 0.88 lb (0.40kg) each (approx.)
51470: 1.0 lb (0.45kg) each (approx.)
51479: 0.68 lb (0.30kg) each (approx.)
51478: 0.80 lb (0.36kg) 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®

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.

Specifications[4]

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.
RoHS Compliant[6]

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.

Products distributed by LEDVANCE LLC

For Customer Service contact 1-800 LIGHTBULB

Specifications subject to change without notice.

QHE T5HO PSN

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