UV PROCESS SUPPLY, INC.

3 kW Electronic ballast for HID Lamps

Features

- Very small size, low weight
- Very wide input & load range
- Remote on /off
- PWM control of output power
- Optimised for minimum acoustic resonance's
- Power Factor Correction included.
- High efficiency
- Low input current distortion
- Opto-isolated alarms:
  open, short, temperature, fan speed

Applications

⇒ Industrial
⇒ Environmental
⇒ Lighting

Technical Data

Specifications subject to change without notice

Input	:	**1 phase 187 - 305 Vac**
Input line freq.	:	**47 - 63 Hz**
Input current	:	**18A max.**
PF	:	**> 0.98 at 100% power**
Current THD	:	**< 5% typ.**
Output		
Power	:	**controlled within 5%** **840 – 3190 W**
Voltage range	:	**300 - 550 Vrms**
Current limit	:	**10 A typ.**
Crest factor	:	**< 1.6**
Dimming	:	**down to 30%**
Efficiency	:	**>94% typ.**
Ignition voltage	:	**1600 Vp (< 250 msec.)** **(no hot restrike)**
Protections	:	**output opens / short** **output overvoltage** **input under/over voltage** **temperature**
Cooling	:	**Air or liquid cooling** **(min. 1.25 l/min.)** **optional with additional heatsink and fan**
Operating temp	:	**0º - 50º C**
Storage	:	**-40º to + 85º C**
Approvals	:	**CE / UL**
Weight	:	**3.6 kg**
Dimensions	:	**330 x 140 x 65 mm** **excl. optional heatsink**

Rev. 050815/TTOK

UV Process Supply • 1229 W. Cortland Street • Chicago, IL 60614 • 1-800-621-1296 • 1-773-248-0099 • Fax: 1-773-880-6647

3.2 Electrical requirements

3.2.1.Input

Input voltage range:	187 – 305V
Frequency:	48 – 63 Hz
Power Factor:	> 0.98
Inrush current:	22 A max. (cold start)
Input fusing:	line and neutral
Total harmonic current distortion:	< 5% @ Vin = 208-277V
Hold-up:	The lamp shall not extinguish at power interrupts of max. 20 milliseconds at maximum lamp power and 230V input voltage. Hold-up time is depending on lamp characteristic, should be tested with final lamp.
Discrete input signals:	Remote on/off (24V discrete). High: >=12V, Low: <1 The ballast is level sensitive. After an error, the error can be cleared by holding this signal low for at least 1 second. If the cause of error still exists the ballast will directly go into the error mode again. Dimming input (24V Pulse With Modulation) Dimming input using PWM signal, to regulate the input power of the ballast and therefore the output power to the lamp. Levels: High: >=12V, Low: <1 f ≤ 1kHz

PWM Duty cycle (%)	Input Power to Ballast (±5%)
5	840
10	970
15	1100
20	1230
25	1360
30	1490
35	1620
40	1750
45	1890
50	2020
55	2150
60	2280
65	2410
70	2540
75	2670
80	2800
85	2930
90	3060
95	3190
No input (0)	3190