



DATA SHEET

HBX 300

Power Supply for Xenon Lamps

Features

- Power supply for metal halide short arc, low voltage DC-lamps
- Xenon and mercury, in the power range of 100 W to 300 W
- Output power customer selectable by 16 step-switch
- Certified by UL 60601, OSRAM and USHIO
- Input voltage range from 90 V AC to 264 V AC, power factor corrected line input, built-in EMI-filter: meets CE and FCC part "A"
- Special newly designed anti aging and anti abnormal arc control circuit for high optical reliability over extended life time
- μ P controlled, digital power management with high output stability over lamp lifetime
- Output short circuit protected and "Arc to Ground" protected
- Output galvanically separated to line input, thermal shut off at 90°C
- Shut off function for end of life and lamp fail parameter
- Less than 1% rms light flicker at all frequencies
- Auxiliary regulated 24 V / 0.2 A output for fan drive, (only available when lamp lit.)
- Flexible design: new lamps and functions adaptable only by software

Please read this information carefully,
before installing and operating the power supply!

HBX 300

ELECTRICAL DATA · All values are valid at $25 \pm 5^\circ\text{C}$, unless otherwise noted

INPUT DATA					
Nominal Operation	Symbol	Unit	Nominal	Tolerances	Remarks
Input voltage AC-Line	U	V AC	100 - 240	90 - 264	
System wattage	P_{Li}	W		150 - 350	Depends on select
Input current	I_{Li}	A		0.6 - 1.4	Depends on select
Line frequency	f_{in}	Hz	50/60	47 - 63	
Line power factor	PFC	1	1.0	0.93 - 1.0	

OUTPUT DATA					
Ignition	Symbol	Unit	Nominal	Tolerances	Remarks
Ignition voltage	U_{Ign}	kV _{peak}	± 14	$\pm 12 - \pm 16$	Load capacity < 20 pF
Ignition time	$t_{Ign on}$	sec.	1	0.9 - 1.1	
Nominal Operation					
Lamp voltage	U_{La}	V	10 - 29	$\pm 5\%$	Depends on lamp select
Lamp wattage	P_{La}	W	150, 180, 200, 250, 300	$\pm 2\%$	Selectable by mode sw.
Lamp current	I_{La}	A			Depend on select
End-Of Life-Cut off voltage	$U_{La, max}$	V	30	$\pm 2 V$	
End-Of-Life-Cut off time	$t_{EOL-Off}$	s	< 0.2		

LIFETIME DATA · All values for $U_u = 230_{V_{rms}}$, Temperature at test point = 70°C					
	Symbol	Unit	Nominal	Tolerances	Remarks
Ballast lifetime	t_{Life}	h	25.000	> 25.000	Acc. to MIL HDBK for nominal operation

MISCELLANEOUS DATA					
	Symbol	Unit	Nominal	Tolerances	Remarks
Power losses at 115 V	P_V	W	20 - 65	\pm	Depends on power select
Power losses at 230 V			15 - 55		
Efficiency	η	1	0.83	0.8 - 0.9	Depend on lamp current
Ambient temperature	T_A	$^\circ\text{C}$	+ 25	- 10 - + 50	Non condensing
Maximum temperature at test point	T_c	$^\circ\text{C}$	+ 80		Case surface near output at U-profile
Internal temp. switch off temperature	T_{c-off}	$^\circ\text{C}$	+ 90	+ 85 - + 95	At heatsink no derating till switch off

GEOMETRY AND WEIGHT					
	Symbol	Unit	Nominal	Tolerances	Remarks
Length x width x height	L x W x H	mm	180 x 102 x 43	± 1	
Housing					Open case Al-profile
Weight	W_B	kg	0.7	± 0.05	

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