ROTEC

DATA SHEET

HBX 76

Electronic Control System for Xenon and Mercury Lamps with onboard Igniter

Features

- Power supply for metal halide or xenon filled short arc lamps
- Designed for xenon and mercury short arc lamps rated up to 100 W
- Output power customer selectable by DIL / 16 step-switch
- Capable to drive lamp voltages ranging from 8 to 45 V
- Certified by 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"
- µP controlled, digital power management with high output stability over lamp lifetime
- Output short circuit protected
- Galvanic separation of lamp output and line input, thermal shut off at 90°C
- Indication function for end of lamp life selectable and shut off for lamp fail parameter
- Customer adjustable to less than 0.3% rms light flicker at all frequencies uninterr.
- Default light stability with modulation of less than ± 3% during full wave supply interruption
- Auxiliary regulated 12 V / 0.2 A output for fan drive (available only when lamp lit)
- Flexible design: new lamps and functions adaptable by software

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

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ELECTRICAL DATA · All values are valid at 25 ± 5°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	140	60 - 145	Depends on select
Input current	I_{LI}	A		0.22 - 1.65	Depends on select
Line frequency	Fin	Hz	50/60	47 - 63	
Line power factor	PFC	1	1.0	0.92 - 1.0	

OUTPUT DATA					
Ignition	**Symbol**	**Unit**	**Nominal**	**Tolerances**	**Remarks**
Ignition voltage	U_{ign}	kV_{peak}	±14	± 12 - ± 17	Load capacity < 20 pF
Ignition time	$t_{ign\ on}$	sec.	1	0.9 - 1.1	
Maximum cable length between ballast and lamp	l_{max}	mm	240	max. 300	Open ends
Nominal Operation					
Lamp voltage	U_{La}	V	7.4 - 45	± 5%	Depends on lamp select
Lamp wattage	P_{La}	W	50, 75, 100	± 2%	Selectable 50, 75, 100
Lamp current	I_{La}	A			Depend on select
End-Of Life-Cut off voltage	$U_{La,\ max}$	V	45	± 2 V	
End-Of-Life-Cut off time	$t_{EOL\text{-}Off}$	s	< 0.2		
HF-Ripple of output power	$\Delta_{PLa,rip}$ / P_{La}	%	< 3 p-p		7.4 V - 45 V

LIFETIME DATA · All values for Uu = 230 V_{mrs}, 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

GEOMETRY AND WEIGHT					
	Symbol	**Unit**	**Nominal**	**Tolerances**	**Remarks**
Length x width x height	L x W x H	mm	128 x 86 x 53		
Housing					Closed case Al- U-profile
Weight	W_B	kg	0.41	± 0.02	ECS 100 DC-y (incl. Igniter)

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