ROTEC

DATA SHEET

HBX3000

Electronic Modular Power Supply for Xe and Hg Lamps

Suiting Ignitors:

- ZG 120Xe with asymmetric ignition (Ri=1000µ) or ZG 180 Xe for parallel mode of PSU
- Anode or Cathode Ground operating
- Designed for Xenon short arc lamps rated **up to 3300W/ 160A**
- Output power selectable by control Voltage **0-5V** and/or presetting by Hex switch and adjustment Pot
- Capable to drive lamp voltage range up **to 40V** (switch off @ 41V)
- **Ballast boards inside are IEC(UL) 60601 certified and HALT tested**
- Input voltage range from **110V AC to 240V AC, 180V-262V for DNVGL**, PF corrected
- µP controlled, digital power management with high output stability over lamp Lifetime
- Output short circuit protected and "Arc to Ground" protected
- Operation with Cathode or Anode to Ground/PE possible
- Galvanic separation of lamp output to line input, thermal shut off at 90°C
- Shut off function for end of life and lamp fail parameter
- PSUs cascadable for use for higher wattage Xenon lamps
- Auxiliary regulated 24V/ 0.15A output for Subsystems, **permanent available**
- line input, built-in EMI-filter: meets CE and FCC

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

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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	110-240	90-264	
Input voltage DC Line	U	V DC	150-320	DC-input is possible but not certified	
System wattage	P_{Li}	W		1800-3300	Depends on P select
Input current	I_{LI}	A		40	Depends on P select
Line frequency	Fin	Hz	50/60	47-63	
Line power factor	PFC	1	1.0	0.93 to 1.0	
Line inrush current limiting	A peak		50	Limiting Element will be shorted by Relais	
Leakage Current to PE	I_{Leak_SA}	µA	<1000@230 V		Standalone

OTHER OPERATION DATA	SYMBOL	UNIT	NOMINAL	TOLERANCES	REMARKS
System wattage during ignition	P_{lign}	W	100	<150	
System wattage standby-operation	P_{LIStby}	W	5	<6	

LAMP OUTPUT DATA

IGNITION	SYMBOL	UNIT	NOMINAL	TOLERANCES	REMARKS
Ignition voltage with ZG120Xe	U_{ign}	kV_{peak}	36-46		Depends on Ignitor
Ignition time	$t_{ign\ out}$	sec.	1	0.9-1.1--	
Automatic restart counter			20		Attempts (Ballast)

RUN-UP OPERATION	SYMBOL	UNIT	NOMINAL	TOLERANCES	REMARKS
Run-up Current = nominal Current	I_{max}	A	102		Inside specified lamp-parameter (select by preset switch)

NOMINAL OPERATION	SYMBOL	UNIT	NOMINAL	TOLERANCES	REMARKS
Lamp voltage	U_{La}	V	22-40		PSU output NOT Ignitor input
Lamp wattage	P_{La}	W	1800 to 3300		Factory set-up 2000W
Lamp current	I_{La}	A	up to 160		Depend on set-up
End-Of Life-Cut off voltage	$U_{La,\ max}$	V	41	+/- 1V	After run-up completed
End-Of-Life-Cut off time	$t_{EOL-Off}$	S	<0.2		
RF-Ripple of output power	ΔP_{La},rip/ P_{La}	%	< 1		
50Hz - 60Hz Ripple		%	< 1	< 4 p-p	
Shift in output power with shift in input voltage	ΔP_{La} / ΔU_{LI}	1		< 0.005	With nominal values
Open circuit voltage for ignition	U_{OCV}	V	110	105-160	