



## DATA SHEET

# HBX 1000

## Electronic Power Supply for Xenon Lamps up to 1 kW

**Certified to DNVGL-CG-0339**

### Order code

- HBX 1000 Standard version
- ZG 60Xe 60 Amps Ignitor with asymmetric ignition, for anode or cathode ground operating
- ZG 120Xe 120 Amps ignitor with asymmetric ignition anode or cathode ground operating

### Features

- Power supply for xenon filled short arc lamps
- Designed for xenon short arc lamps rated up to 1000 W / 66 A
- Output power customer selectable by control voltage 0 - 5 V
- Capable to drive lamp voltage ranges from 15 - 29 V
- length x width x height (mm) 220 x 132 x 141, 2.660 kg
- PSU boards inside IEC(UL) 60601 approved and HALT tested
- Input voltage range from 90V AC to 264V AC, power factor corrected line input
- $\mu$ P 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 and line input, thermal shut off at 90°C
- Shut off function for end of life and lamp fail parameter
- Ballast cascadable for use for higher wattage Xenon lamps
- Auxiliary regulated 24 V / 0.2 A output for subsystems, permanent available
- Flexible design: new lamps and functions adaptable by software
- Other lamps on request

### Adapted for the following manufacturer

- Osram lamps · Ushio lamps · Luxtel lamps · Perkin Elmer lamps

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

# HBX 1000

**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	DC-Voltage
Input voltage DC-Line	U	V DC			DC-input is possible but not certified
System wattage	$P_{Li}$	W		600 - 1150	Depends on select
Input current	$I_{Li}$	A		5 - 14	Depends on select
Line frequency	$f_{in}$	Hz	50/60	47 - 63	
Line power factor	PFC	1	1.0	0.93 - 1.0	
Line inrush current limiting	$A_{peak}$		13	Limiting	Element will be shorted by relais
Leakage current to PE	$I_{Leak\_SA}$	$\mu\text{A}$	< 500 @ 230 V		Standalone

Other Operation Data					
System wattage during ignition	$P_{ign}$	W	25	< 30	
System wattage standbyoperation	$P_{LiStby}$	W	1,5	0.5 - 2.0	

OUTPUT DATA					
Ignition	Symbol	Unit	Nominal	Tolerances	Remarks
Ignition voltage	$U_{ign}$	kV <sub>peak</sub>	$\pm 8$	$\pm 3$	Load capacity 15-20 pF
Ignition time	$t_{ign\ on}$	sec.	0.4	0.2 - 2	

Run-up Operation					
Run-up current @ 15 V	$I_{max}$	A	66	+ 10%	Inside specified lamp-parameter (select by internal mode-switch)
Lamp-voltage	$I_{max}$	A		max.	
In rush current	$I_{max}$	A	80		0 - 1 ms

Nominal Operation					
Lamp voltage	$U_{La}$	V	10 - 29	$\pm 5\%$	Depends on lamp select
Lamp wattage	$P_{La}$	W	1000	$\pm 2\%$	Fixed factory set-up mode # 4 1000 W
Lamp current	$I_{La}$	A	Up to 66		Depend on set-up
End-Of Life-Cut off voltage	$U_{La, max}$	V	30	$\pm 1\text{ V}$	After run-up completed
End-Of-Life-Cut off time	$t_{EOL-Off}$	S	< 0.2		
RF-Ripple of output power	$\Delta P_{La,rip} / P_{La}$	%	< 1 p-p		15,5 V - 30 V
50 Hz - 60 Hz ripple		%	< 1 p-p	< 4 p-p	13V 30V
Shift in output power withshift in input voltage	$\Delta P_{La} / \Delta U_{Li}$	1		< 0.005	Within nominal values
Open circuit voltage for ignition	$U_{ocv}$	V	110	105 - 120	

ACCREDITATION					
GL in certification					

GEOMETRY AND WEIGHT					
Ignition	Symbol	Unit	Nominal	Tolerances	Remarks
Length x width x height	L x W x H	mm	220 x 132 x 141	$\pm 1$	
Housing					Closed AL
Weight	$W_B$	kg	2.660		

For detailed information please contact [ralf@rotec-gmbh.com](mailto:ralf@rotec-gmbh.com) or [info@rotec-gmbh.com](mailto:info@rotec-gmbh.com)