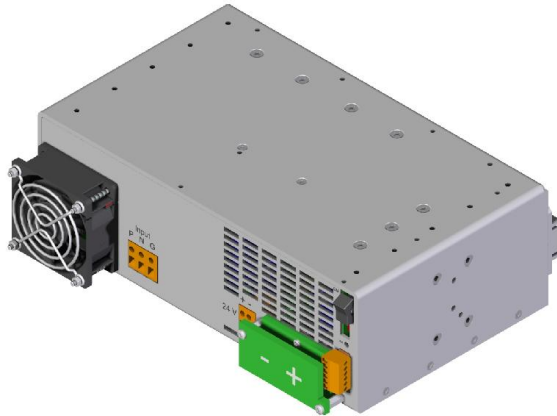




DATASHEET
NP-0725
 1kW Xenon lamp PSU

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Página	Page	1 / 6
Realizado	Author	M. Camacho
Aprobado	Approved	A. Solé



DESCRIPTION

This single-phase rectifier has been designed to ensure correct operation and long life to short arc Xenon lamps up to 1000W. It is characterized by galvanic insulation, a soft inrush current, a low residual ripple value and a stable output current.

The unit includes:

- A boost circuit, which provides the necessary no-load voltage in order to guarantee the right lamp ignition.
- An auxiliary 24V 150W output.
- Local and remote output current control.

The design allows connecting up 3 units in parallel (3kW lamps).

INPUT

AC input voltage	Universal
AC input voltage range	90...264Vac
AC input frequency range	47...63Hz
Maximum input current	15A at 90Vac, 7A at 184Vac
Power factor	> 0.95
Inrush current	< 30A
Efficiency	> 87%

MAIN OUTPUT

Output current	30...55A	according to the power selector
Maximum output voltage	22.7...32V	according to the power selector
Boost voltage	90...130V	according to the power selector
Line regulation	1%	
Ripple	<1A _{pk}	

AUXILIARY OUTPUT

Output voltage	24V
Maximum continuous current	6.3A
Total regulation	1%
Ripple	<100mV _{pp}

ENVIRONMENTAL

Storage temperature	-50...70°C
Operating temperature range	-30...50°C
Cooling	Internal forced air and heat conduction to cabinet
Environmental regulations	RoHS according to directive 2002/95/EC

EMC

Emission according to norm/s

TEST	NORM	PORT	FREQUENCY	LIMITS
Radiated emissions	CISPR16-2-3	Case	30MHz-230MHz	Class-B 30dB(μV/m) Qpk at 10m
			230MHz-1GHz	Class-B 37dB(μV/m) Qpk at 10m
Conducted emissions	CISPR16-2-1	AC Input	150kHz-500kHz	Class-B 66-56dB(μV) Qpk
				Class-B 56-46dB(μV) Av
			500kHz-5MHz	Class-B 56dB(μV) Qpk
				Class-B 46dB(μV) Av
			5MHz-30MHz	Class-B 56dB(μV) Qpk
Harmonics	IEC61000-3-2	AC Input		Class-B 46dB(μV) Av
			5-2kHz	Class-D

Immunity according to norm/s EN61000-6-1

TEST	NORM	PORT	SEVERITY	CONDITIONS	CRIT.
Magnetic field	IEC61000-4-8	X/Y/Z Axis	3A/m	50/60Hz	A
Radiated high-frequency	IEC61000-4-3	X/Y/Z Axis	3V/m	80M - 1GHz M. 80% 1kHz	A
Conducted RF	IEC61000-4-6	Input	3V	0.15-80MHz M. 80% 1kHz	A
		Output	3V	0.15-80MHz M. 80% 1kHz	A
		Signal	3V	0.15-80MHz M. 80% 1kHz	A
Electrostatic discharge	IEC61000-4-2	Case	±8kV	Air (isolated parts)	A
		Case	±4kV	Contact (conductive parts)	A
Fast transients	IEC61000-4-4	AC Input	±1kV	Tr/Th: 5/50 ns	A
		Output	±500V	Tr/Th: 5/50 ns	A
		Signal	±500V	Tr/Th: 5/50 ns	A
Surges	IEC61000-4-5	AC L to L	±1kV	Tr/Th: 1.2/50µs	A
		AC L to PE	±2kV	Tr/Th: 1.2/50µs	A
Voltage DIPS/SAGS	IEC61000-4-11	AC Input	70%	10ms (zero crossing)	A
		AC Input	40%	0.1s (zero crossing)	A
		AC Input	5%	5s (zero crossing)	C
		AC Input	0%	4s (zero crossing)	C

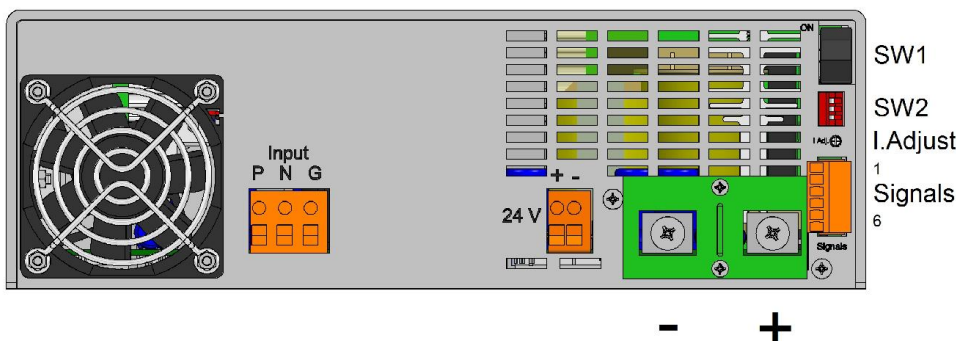
SAFETY

Safety according to	EN60950-1
Dielectric strength Input / Output	4200Vdc
Dielectric strength Input / Earth	1500Vac
Dielectric strength Output / Earth	500Vac
Protection Degree	IP20

PROTECTIONS

- Lamp output protected against open circuit, overload or short-circuit. In any load condition, from open circuit to short circuit, the maximum output current and voltage is limited. The limits are set by the lamp selector.
- Input protected against over-currents by internal fuse (T 16A 250V). This fuse protects the installation against an internal short circuit.
- Over-temperature. An internal sensor measures the temperature of the output diodes. At >115°C the unit presents ALARM. At >125°C the unit shutdown. For restarting the unit it is necessary to eliminate the cause of the over-temperature, keep the unit with the fan running for a few minutes and disconnect the mains input for > 5 seconds.
- Input under-voltage lockout. The unit startup at Vin > 85Vac and shutdown at Vin < 80Vac.
- Auxiliary 24V output protected against over-currents by current limiting.

CONTROLS



SW1	ON	OFF ⁽¹⁾
	Lamp ON	Lamp OFF

SW2	ON ⁽²⁾	OFF
	0.5 kW	-
	1 kW	-
	3 kW	-

	Signals	Type	Voltage
1	FAILURE ⁽³⁾	Output	0 / 24V
2	ALARM ⁽³⁾	Output	0 / 24V
3	GND	(-) 24V	0V
4	ON/OFF ⁽⁴⁾	Input	0 / 24V
5	DIMMER ⁽⁵⁾	Input	0...5V
6	GND	(-) 24V	0V

Note (1) The switch SW1 must remain in OFF position when the remote ON/OFF signal is used.

Note (2) Put the switch in the ON position to select the lamp power. The rest of switches must remain in the OFF position.

Note (3) The voltage of FAILURE and ALARM outputs turn on (24V) when an operating failure (overtemperature or lamp output error) or alarm (overtemperature alarm or lamp output short-circuit) are detected.

Note (4) To turn ON the lamp apply 24V in the remote signal using number 3 pin as GND. SW1 must be turned OFF to operate in remote mode.

Note-(5) To dimmer the lamp light apply an external voltage from 0V to 5V in the input dimmer signal using number 6 pin as GND.

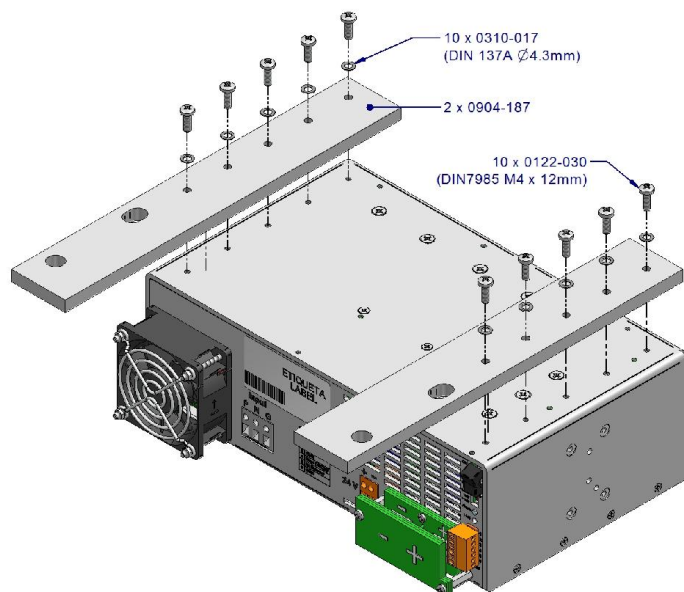
Weight: 3.35 Kg

ACCESSORIES

MOUNTING PLATES

Code: **NP-9298**

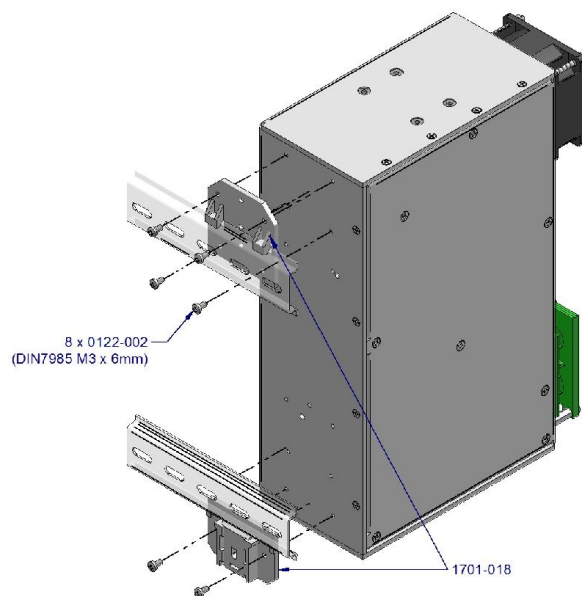
(content: 2 plates, 10 screws, 10 washers)



DIN RAIL CLIPS SET

Code: **NP-9299**

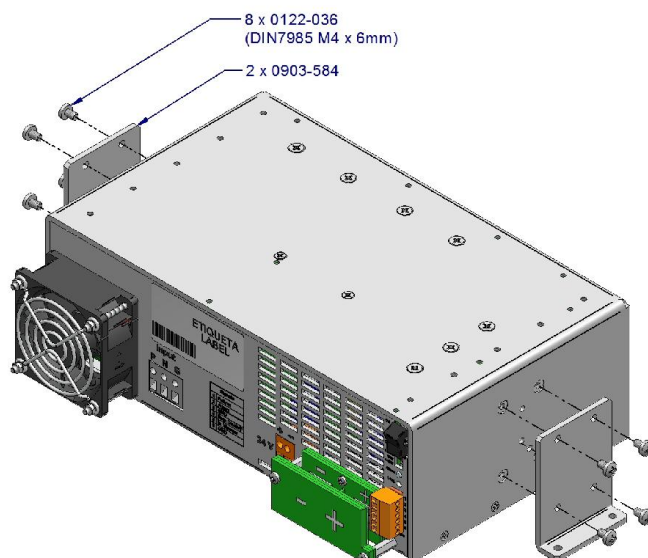
(content: 2 clips, 8 screws)



MOUNTING BRACKETS

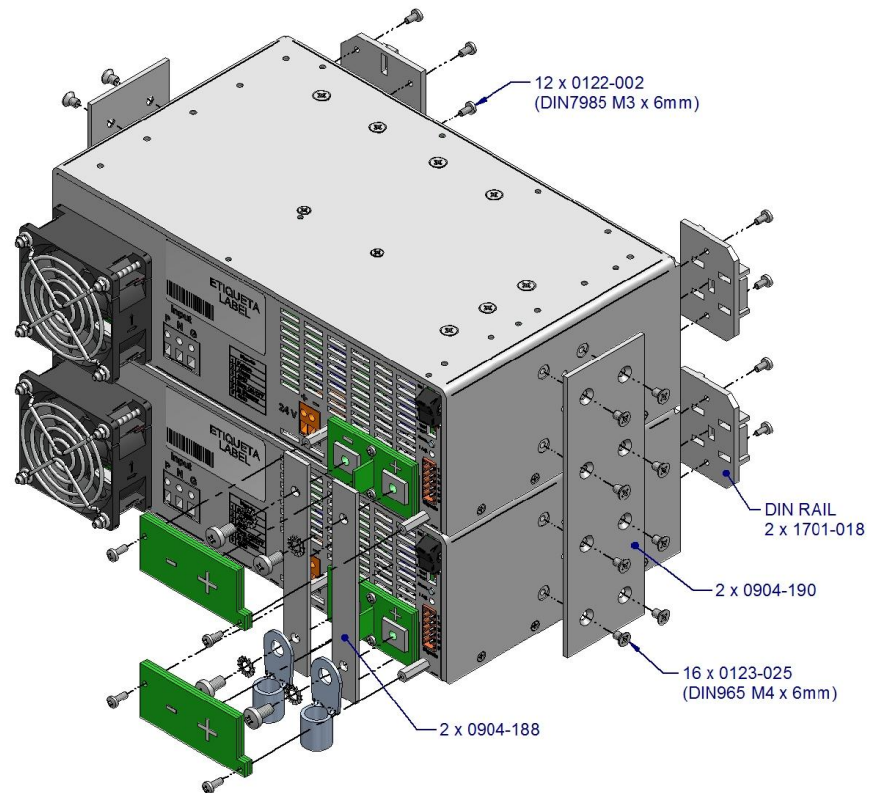
Code: **NP-9303**

(Content: 2 brackets, 8 screws)

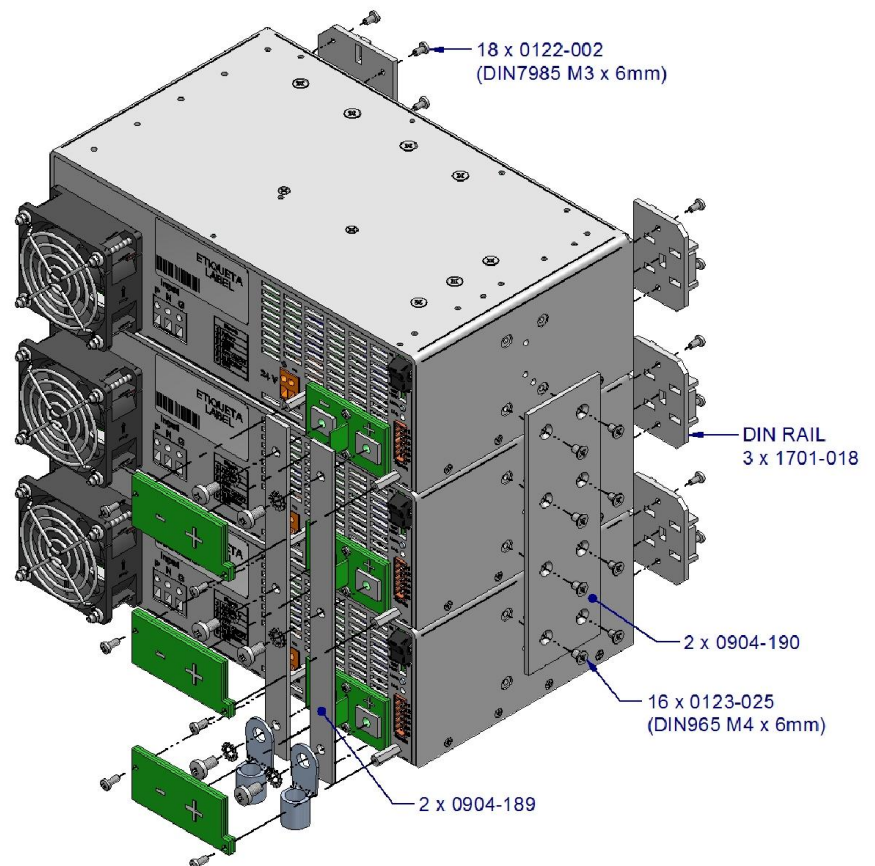


JOINING PLATES (suitable for join 2 or 3 PSUs). Code: **NP-9300** (content: 2 plates, 8 screws)

CONNECTION BARS for 2 PSUs.
Code **NP-9301**
(content: 2 bars 0904-188)



CONNECTION BARS for 3 PSUs.
Code **NP-9302**
(content: 2 bars 0904-189)



PARALLEL CONNECTION

For the parallel use, only is necessary to interconnect the output power terminals by means of the connection bars. Remote ON/OFF and Dimmer signals can work independently and also interconnected. The alarm signals work independently

The full interconnection is as follows:

