

# CAM Series

Tight regulated and compact high voltage power supply for imaging equipment



Made to order product  
CAM24N153101 MK III  
Vin : 24Vdc  
Out: 0 to -15kV/100 $\mu$ A/1.5W3300Vrms  
Voltage control and current control modes  
Enhanced protection against arc and short circuits



## General Description

◇ This custom high voltage and high stability power supplies dedicated to power streak cameras, are protected against micro-arcs and equipped with auto shut down (one has a crowbar switch).

Parameters	Specifications
Input voltage Vin	24Vdc +/-5%
Input current	At no load : <200mA At full load : <350mA
HV output voltage	Adjustable from 0V to -15kV
Polarity	Fixed negative
HV output current, max	Limited to 100 $\mu$ A in overload condition, less when the Current Limitation is activated.
HV output voltage setting	Via a remote 0/+5V voltage. (0V->0V; 5V -> -15kV), Accuracy: +/-0.1% at -15kV
HV output current setting	Via a remote 0/+5V voltage. (0V->0 $\mu$ A; 5V -> 100 $\mu$ A) (this control is enable when the Current Mode is activated) Accuracy: +/-1% at 100 $\mu$ A
HV output stability (recovering and long term)	+/-0.01% over the range -10kV to -15kV
HV o/p temperature stability	12.5ppm/ $^{\circ}$ C typical, over the operating temperature range
HV o/p load voltage regulation	+/-0.01% (no load to full load)
HV o/p line voltage regulation	+/-0.01% (over the specified input voltage range)
HV output ripple	0.01% V/V pk-pk
HV output voltage monitor	analog 0/+5V buffered output signal, accuracy $\pm$ 0.1%, output impedance = 1k $\Omega$ $\pm$ 1% temperature coefficient: 50ppm/ $^{\circ}$ C



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Parameters	Specifications
HV output current monitor	Analog 0/+5V buffered output signal, accuracy $\pm 1\%$ , output impedance = $1k\Omega \pm 1\%$ temperature coefficient: 100ppm/ $^{\circ}C$
Voltage reference output	5V $\pm 0.1\%$ , TC: 3ppm/ $^{\circ}C$
HV output enable	A TTL high or V >3V on the HV Enable input sets the HV output ON
Current Limitation enable	A TTL high or V >3V on the Current Limitation Enable input activates the function, then the max output current is controlled by the current setting input.
Interlock output	This open collector output is activated when the unit is supplied
Operating case temperature	0 to +40 $^{\circ}C$
Storage ambient temperature	-20 $^{\circ}C$ to +70 $^{\circ}C$

Parameters	Mechanical specification
Case material	Painted diecast aluminium alloy
Case dimensions	L146xW122xH40 (mm)
Input connexions	15 cores, screened 7x0.1 cable, diam: 5.4mm. Length: 1m
HV output	HV Coaxial cable, 30kV, 82pF/ m, diam: .5.5mm Length: 40cm
Fastening	Five threaded holes M3

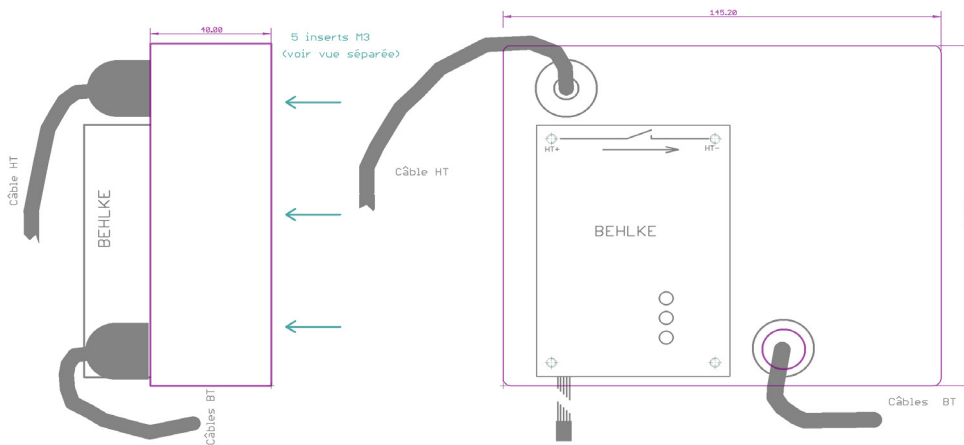
**Mechanical drawing**



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Input cable configuration					
Core color	function	Core color	function	Core color	function
RED	0V	BLACK	0V	TURQUOISE	Current monitor o/p
BLUE	Current ctrl i/p	BROWN	0V	GREY	Reserved
GREEN	Voltage monitor o/p	PURPLE	+24V supply (Vin)	RED/BLUE	Current Limit enable i/p
YELLOW	HV Enable i/p	ORANGE	HV ctrl i/p	GREEN/RED	Current alarm o/p
WHITE	Interlock o/p	PINK	REF 5V o/p	YELLOW/RED	+24V supply (Vin)



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