

**SMV20 Series**  
**High Voltage Power Supply for SMVI medical systems**

1 standard model  
**Reference: 803457**  
**Vin : 24Vdc**  
**Vout : from -10V to -2000V**  
**Pout<sub>max</sub> : 20W**



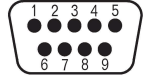
This high voltage power supply is the product which was initially integrated in SMVI (Sopha Medical Vision International) medical systems.

- output voltages to -2000V
- output power to 20W
- block configuration
- low profile and lightweight
- low ripple
- tight line/load regulation
- negative polarity
- protection against overload, short circuit and arc

Specifications		
Input voltage Vin	(pins 1 & 2)	24Vdc ±2V
Input current		at no load : 20mA at full load : 1.27A
Output voltage Vout	(coaxial BNC)	from -10V to -2000V
Output current Iout		10mA at full voltage
Output power		20W maximum
Output voltage setting from 0 to -1400V	(pins 6 & 7)	- solution 1 : through an embedded multi-turn trimmer (1MΩ) - solution 2 : through an external voltage command. An external potentiometer of 10kΩ minimum can be used to generate this voltage and a reference voltage is available to polarize the potentiometer. In this second solution, it is necessary to set the internal trimmer in a middle position in order to avoid any conflict between the trimmer and the external potentiometer.
Line voltage regulation		±0.01% of full output voltage for no load to full load
Load voltage regulation		±0.01% of full output voltage for input voltage range change
Polarity		fixed negative
Residual ripple		0.01% peak-to-peak at full load
HV monitoring	(pin 5)	-1V/kV, output impedance : 100kΩ ±1%
HV current monitoring	(pin 4)	+0.1V/mA
Thermal coefficient		100ppm/°C for the maximum output voltage after starting and over temperature range 0 to 50°C (higher stability on request)
Operating temperature		0°C to +50°C
Storage temperature		-20°C to +70°C
Short-circuit and flash-over		typical : high voltage current is limited to 110% max
Safeguards		arc and short circuit protection, restart after arc and short circuit


Mechanical Configuration	
Insulation	fully potted in an epoxy resin
Case material	AU4G black anodised aluminium case
Dimensions	L151 x W81 x H36 mm
Line input, setting and monitoring	through male Sub-D 9 pins
High voltage output connector	HV coax. connector BNC RADIALL 316 553
Fixation	M3 fixing holes (4 positions)

Connector's Pin-Out	
Line input :	1. Vin 2. supply 0V 3. reserved
HV monitoring :	4. current monitoring Is 5. voltage monitoring Vs
HV setting :	6. signal 0V 7. control input
Reference :	8. fixed reference output 9. reserved
HV output :	coaxial BNC Vout



SUB-D MALE 9P

**Marking**



**High Voltage Power supply**  
**Type 2000 N 24 20 watts - Code 803457**  
**for SMVI Sopha Medical Gamma Camera**

**Setting**

1 : + 24V	5 : Vs
2 : Sup. 0V	6 : Signal 0V
3,9 : reserv.	7 : Control inp.
4 : Is	8 : Fix Ref Out

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