



X-Ray Source HSM 051

General Description

The COMET X-Ray Source HSM was developed for industrial applications where high stability of the X-Ray dose rate is paramount, e.g. thickness measuring. It is a self-contained, easy to install integrated source generating X-Ray directly from 230 VAC mains power.

Its main characteristics are:

- Emitted X-Ray dose rate of the overall system is stable within 0.05% over at least 8 hours
- Rugged mechanical design intended for self contained "plug & play" use in harsh industrial environment
- Designed for 24 hours / 365 days use
- Microprocessor allowing recording of usage and fault condition history for easier diagnostics and maintenance
- Standard control interface RS 422 or RS 232 allowing easy control, status and fault history information retrieval from any PC computer
- Fully screened: with shutter closed, leakage radiation is low enough to allow to be approached by any personnel without specific radiation protection equipment

The high stability is achieved by careful match of a COMET Industrial tube using COMET's renowned ceramic technology and our own ultra-stable high voltage generator.

COMET's Electronic Department is specialized in cost-effective, customized solutions tailored to optimally match the customers' needs. We have long standing design experience for special requirement sources and profit from our in-house tube design expertise for the worldwide renowned COMET Metal Ceramic tubes. Our production facilities focussed on small and medium quantities will do the rest to provide you with products at optimum cost.

Conforms to directive 73/23/EEC concerning low voltage equipment in accordance to EN 60204-1 and to the directive 89/336/EEC concerning EMC in accordance to EN 50081-2 and EN 50082-2

Ordering No.	838051.H06S120
Technical Data	
Mains voltage	AC single phase 230 VAC, 50/60 Hz, $\pm 10\%$
Power consumption	550 VA
Cooling	Temperature-controlled water-cooling circuit to be provided by user
Tube	COMET Ceramic Tube
Tube voltage	30 kV – 80 kV
Current	1 mA – 5 mA
Target angle	15°
Duty cycle	100% (continuous rating)
Inherent filtration X-Ray tube	1 mm Be
X-Ray window	0.5 mm Al
Beam angle	5° – 9° (conical beam, other shapes on request)
Leakage radiation (with shutter closed at maximum power output)	= < 1 mSv/h at 0.1 m from the surface of the housing
Equipment class / type	I / IP 64
Operating / storage temperature	+15° C – +45° C / 0° C – +60° C
Humidity	30% – 90%
Temperature switch	off at 70° C
Atmospheric pressure	700 hPa – 1060 hPa
Mounting orientation	any
Total weight	42 kg
Dimensions (L x W x H)	765 x 150 x 222 mm

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