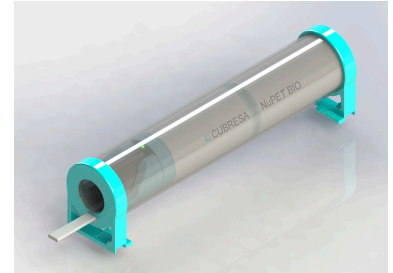


NuPET Bio 100 Data Sheet

Cubresa’s Large Animal PET scanner and animal handling system specifically designed for high containment labs

The NuPET Bio 100 stand-alone system consists of a scanner, a docking station, a workstation with software packages installed, quality control and calibration phantoms, and animal handling accessories designed for BSL labs. Building on the NuPET core unit, the NuPET Bio 100 has the *BSL-3 compatibility kit*:

Envelope of robust, non-porous plastic covering the outer and inner exposed parts of the PET unit. This allows the system to be decontaminated effectively per institutional cleaning protocols and protects sensitive PET electronics.



The large animal NuPET Bio, built for rodents, rabbits, and small non-human primates, has the following animal handling:

Reusable, fully enclosed animal handling tube made of a robust, non-porous material that fully encases the animal and prevents the release of airborne pathogens. The tube will have customized ports to allow the user to connect the animal to their unique ventilation/anaesthesia equipment. The tube will ensure that each animal is oriented in the same way during the scan, to allow for image registration.

Performance Features and Specifications

Parameter	Value
Axial Field of View	100 mm
Trans-axial Field of View	150 mm
NEMA NU-4 2008 Spatial Resolution – Filtered Backprojection	1.3mm
Spatial Resolution – PSF (2it8ss)	1.3mm
NEMA NU-4 2008 Sensitivity	> 5.5 %
Reconstruction Speed	Filtered Back Projection – 3 minutes OSMAPOSL (8 iterations, 8ss) – 5 minutes PSF (3 iterations, 8 subsets) – 5 minutes

Scanner

Voltage	30 VDC supplied from Docking Station
Outer Diameter	260 mm
Inner Diameter	180 mm
Weight	50 pounds
Connection to Docking Station	Copper Cable

Docking Station

Voltage	120 VAC and 240 VAC cable



Breaker or Fuse	Fuse
Dimensions	56cm (22.1") W x 87cm (34.1") H x 67cm (26.4") D
Fiber Type (Connection to NuPET Workstation)	Multi-mode

Standard Operating Conditions

Operating Temperature	20—35 °C are normal temperatures for the PET Scanner. Temperatures of 35—50 °C will be reached in those cases when the animal being imaged is being heated with 35—50 °C hot air.
Docking Station Voltage	120 VAC to 240 VAC
RoHS	Yes
Humidity	For an operational system, the ambient relative humidity ranges from 10% to 80% with 29°C (84.2°F) maximum dew point.

Phantoms

Calibration Phantom	Fillable annulus
Quality Control Phantom	Fillable cylinder

Available Options

Image Analysis	Invicro VivoQuant packages are available
Respiratory Gating	Respiratory gating is connected to the SAI 3050 system or equivalent