



Technical Specifications

Solo™ & SoloMobile™

Detectors

Detector Specifications		Solo™	SoloMobile™
Weight		59 kg	59 kg
Useful Field of View (UFOV)		ø 210 mm	ø 210 mm
Energy Range		55 – 400 keV	55 – 400 keV
Crystal		Solo™	SoloMobile™
Size		ø 280 mm	ø 280 mm
Thickness		9,5 mm	9,5 mm
Photomultiplier Tubes		Solo™	SoloMobile™
Total Number		14	14
Size		78 mm / 3"	78 mm / 3"
Type		Square PMT with built-in Light Emitting Diode	Square PMT with built-in Light Emitting Diode
Array		Square	Square
Motion		Solo™	SoloMobile™
Detector vertical		Motorized with fast and slow speed. Range from ~ 820 – 1360 mm above floor.	Motorized with fast and slow speed. Range from ~ 820 – 1360 mm above floor.
Detector tilt		– 15 to + 90 degrees manual movement with magnetic lock.	– 15 to + 90 degrees manual movement with magnetic lock.
Detector rotate		– 90 to + 180 degrees manual movement with magnetic lock.	– 90 to + 180 degrees manual movement with magnetic lock.
Detector reach		64 cm from gantry edge to middle of detector.	64 cm from gantry edge to middle of detector.

NEMA 2007 Specifications

NEMA Specification for Solo/SoloMobile	Value
Intrinsic Energy Resolution	
FWHM in UFOV	9.4 %
Intrinsic Spatial Linearity	
Differential in CFOV	≤ 0.2 mm
Differential in UFOV	≤ 0.2 mm
Absolute in CFOV	≤ 0.5 mm
Absolute in UFOV	≤ 0.5 mm
Intrinsic Spatial Resolution	
FWHM in CFOV	≤ 3.8 mm
FWHM in UFOV	≤ 3.8 mm
FTM in CFOV	≤ 7.6 mm
FTM in UFOV	≤ 7.6 mm
Intrinsic Flood Field Uniformity	
Differential in CFOV	≤ 1,5 %
Differential in UFOV	≤ 1,5 %
Integral in CFOV	≤ 2,5 %
Integral in UFOV	≤ 2,5 %
Intrinsic Count Rate Performance	
Maximum Count Rate (in air, without scatter)	250 kcps
Maximum Count Rate (with scatter)	180 kcps
Maximum Count Rate (20% loss in air without scatter)	180 kcps
Maximum Count Rate (20% loss with scatter)	120 kcps
System Spatial Resolution Without Scatter (LEHR at 10 cm)	
FWHM in CFOV	≤ 7.8 mm
Multiple Window Spatial Registration	< 2.0 mm
Intrinsic Spatial Resolution @ 75 kcps	
FWHM in UFOV	≤ 3.8 mm
FTM in UFOV	≤ 7.7 mm
Intrinsic Flood Field Uniformity @ 75 kcps	
Differential in CFOV	≤ 1.7 %
Differential in UFOV	≤ 1.7 %
Integral in CFOV	≤ 2.7 %
Integral in UFOV	< 3.7 %
System Spatial Resolution with Scatter (LEHR at 10 cm)	
FWHM in CFOV	≤ 8.7 mm
FTM in CFOV	≤ 19.3 mm

Collimators

Type / Specification	LEGP	LEHR	LEDV	LEPH	HEGP
	Low Energy General Purpose	Low Energy High Resolution	Low Energy Diverging	Low Energy Pinhole	High Energy General Purpose
Weight	< 7kg (15 lb)	< 7kg (15 lb)	< 7kg (15 lb)	< 11kg (24 lb)	< 37kg (86 lb)
Hole Shape	Hexagonal	Hexagonal	Hexagonal	Hexagonal	Hexagonal
Hole Size	1.7 mm	1.4 mm	1.5 mm	3.0, 4.0, 4.5 mm	3.0 mm
Septa	0.2 mm	0.15 mm	0.23 mm	N/A	1.75 mm
Hole Length	30	30	N/A	N/A	43
Construction	Foil	Foil	Foil	N/A	Cast
Septal Penetration	1.3% @140 keV	1.6% @140 keV	0.4% @140 keV	N/A	N/A
Sensitivity	270 Cpm / μ Ci	190 Cpm / μ Ci	190 Cpm / μ Ci	N/A	183 Cpm / μ Ci
Spatial Resolution @ 0 cm (mm)	4.3 mm	4.1 mm	N/A	N/A	N/A
Spatial Resolution @ 10 cm (mm)	9.4 mm	7.8 mm	9.0 mm	N/A	16.5 mm

Collimator Exchanger Cart (for HE only)

Collimator Exchanger Cart (HEGP)	Solo™	SoloMobile™
Weight	< 29 kg (64lb)	< 47 kg (104lb)
Height	1030 mm	1127 mm
Width	480 mm	520 mm
Depth	510 mm	550 mm

Gantry

Gantry Dimensions	Solo™	SoloMobile™
Weight	270 kg	252 kg
Length	1160 mm	1380 mm
Width	620 mm	700 mm
Height	1080/1640 mm	1380/1730 mm
Detector travel up/down	550 mm	550 mm
Detector speed, max. (up/down)	35 mm/sec	35 mm/sec

Bar Phantom Specifications

Specification	Value
Phantom weight	5.0 kg (12lb)
Field 1	4 x 2.5 mm 30 slots
Field 2	4 x 3.0 mm 22 slots
Field 3	4 x 3.5 mm 16 slots
Field 4	4 x 4.0 mm 14 slots

Cardiac Gating Option

Cardiac Gating Option	Value
Integration	Internal
Framing	8, 16, 20, 24, 28, 32, 36, 48, 64
% R-R Framed	100 %
R-R Tracking	Initial Automatic, Then Fixed Throughout Acquisition
R-R Window	10, 15, 20, 25 % or OPEN
Bad Beat Rejection	0

Room Layout (Footprint)

System Environmental Requirements	SoloTM	SoloMobileTM
Footprint	62 cm x 108/164 cm x 120 cm (Excluding the system PC)	70 cm x 118/173 cm x 138 cm
Installed System Weight *Without collimators	270 kg / 595 lbs.	252 kg (595 lb) / 300 kg (662 lb) with HEGP & Side Shield
Electrical Supply	Nominal AC Volts: 90 – 265 V	Nominal AC Volts: 100, 120, 200, 220, 240 V ± 10%
Heat Dissipation	Maximum 900 BTU/hour	Maximum 900 BTU/hour
Temperature Range	15 °C – 30 °C	15 °C – 30 °C
Maximum Temperature Change	3° C / 5° F per hour	3° C / 5° F per hour

Acquisition Computer

PC Hardware Specifications * Minimum Configuration	Value
Processor	Intel® Core™ i3-2310M (2.1 GHz)
Hard Drive Capacity	320 GB
Memory	2 GB
Optical Drive	CD /DVD
Monitor	15.6" HD+ (1600 x 900)