

mar-345

Image Plate Detector

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mar345 Image Plate Detector

At the forefront of modern X-ray structure work, the **mar345** Image Plate Detector offers you the best choice for recording diffraction patterns of small molecules as well as protein crystals. Furthermore, it is a powerful tool for use in the fields of powder diffraction, texture analysis, small angle scattering, fiber and neutron diffraction.

With its innovations in hardware design and software support the **mar345** Image Plate Detector is the perfect combination of size, speed and efficiency featuring a huge diameter of 345 mm and read-out times as low as 26 seconds. It can be operated stand-alone or in combination with the **mar-dtb** "desktop beamline" goniometer system.

The **mar345** Image Plate Detector offers an unbeatable price to performance ratio and has gained international reputation for its ease of use, data quality, reliability and maintainability.

SPECIFICATIONS

Plate diameter	345 mm
Usable detector area	93.480 mm ²
Diameter of scanned area	180, 240, 300 or 345 mm (software selectable)
Pixel size	100 or 150 μm ² (software selectable)
Sensitivity	1 X-ray photon per ADC-unit at 8 keV
Energy range:	4 keV to 100 keV X-ray photons
Intrinsic noise:	< 1 photon equivalent
Dynamic range:	0 : 131.000 (17 bits)
Communication interface	Ethernet (RJ45), 10 MBit/sec
Outside dimensions	515 mm x 398 mm x 350 mm (W x H x L)
Weight	53 kg
Ambiental temperature	4 - 24° C
Maximum humidity	70 %
Electricity	120 / 240 V (7.5 A)
Energy consumption	< 1500 W (peak)
Erase lamps	1 halogen lamp R7S 1x118 mm, 500 W 2 halogen lamps R7S 11x80 mm, 250 W Lifetime: 2000 hrs (approx. 100.000 scans)

READ-OUT and CYCLE TIMES

Scanned diameter	180 mm		240 mm		300 mm		345 mm	
	150 μm	100 μm	150 μm	100 μm	150 μm	100 μm	150 μm	100 μm
Read-out time [sec]	26	34	39	53	56	77	68	96
Total cycle time [sec]	34	42	48	62	66	87	80	108

