mar345 S

Fast Image Plate Detector

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The mar345 S Fast Image Plate Detector is the perfect choice for a wide variety of X-ray diffraction applications be it single crystal crystallography (proteins, small molecules), powder diffraction, texture analysis, or small angle scattering.

With its huge diameter of 345 mm and read-out times as short as 9 (!) seconds, the mar345 S Fast Image Plate Detector is the ideal combination of size, speed and efficiency. It can be operated stand-alone or in combination with the mardtb "desktop beamline" goniostat.

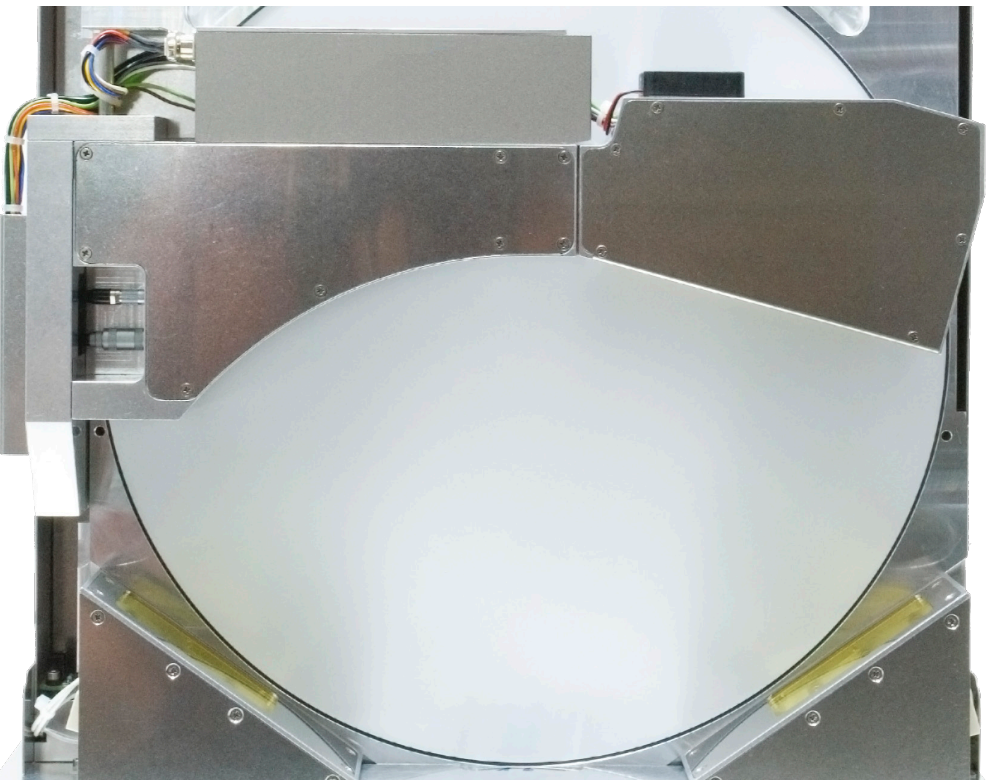
The mar345 S Fast Image Plate Detector offers an unbeatable price to performance ratio and has gained international reputation for its data quality, ease of use, reliability and maintainability. The read-out times of the new fast scan modes come close to those of CCD detectors and are ideally suited for screening samples but can be used as well for fast data collection.

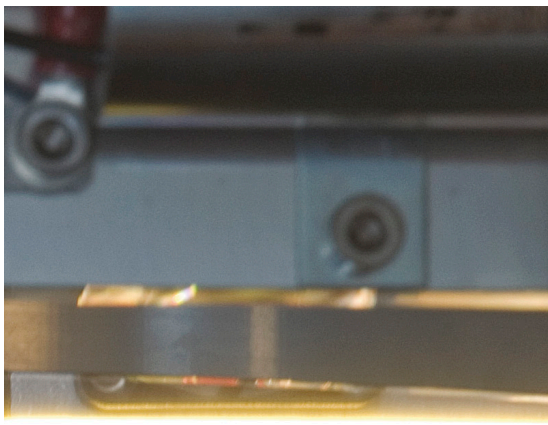
Specifications

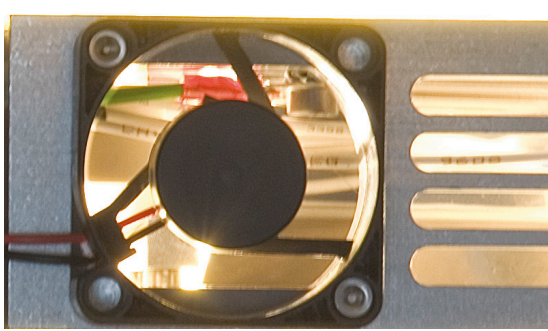
Plate diameter	345 mm
Usable detector area	93.480 mm^2
Diameter of scanned area	180, 240, 300 or 345 mm
Pixel size	150 µm fine & 150 µm fast (on request: 100 µm & 150 µm fast)
Sensitivity	1 X-ray photon per ADC-unit at 8 keV
Energy range:	4 keV to 100 keV X-ray photons
Intrinsic noise:	< 1 photon equivalent
Dynamic range:	1 : 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 - 24^0 C
Maximum humidity	70 %
Electricicty	120 / 240 V (7.5 A)
Energy consumption	< 200 W (peak)
Erase lamps	2 LED lamps built-in in reading head

Read-Out and Cycle Times (150 µm pixel size)

Scanned diameter	180 mm		240 mm		300 mm		345 mm	
Scan mode	Fine	Fast	Fine	Fast	Fine	Fast	Fine	Fast
Read-out time [sec]	26	**9**	39	**15**	56	**23**	68	**30**
Total cycle time [sec]	34	27	48	34	66	43	80	53







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