mar345 S

Fast image plate detector

mar345s - Fast image plate detector

The *mar345s* 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 *mar345s* 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 *mar345s* 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 fast scan modes come close to those of CCD detectors and are ideally suited for screening samples.

SPECIFICATIONS

Plate diameter	345 mm
Diameter of scanned area	180, 240, 300 or 345 mm (software selectable)
Pixel size	150 µm fine + 150 µm fast, alternative: 100 µm fine + 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
Physical specifications	515 mm x 398 mm x 350 mm (W x H x L), 53 kg

READ-OUT AND CYCLE TIMES (150 µm pixelsize)

Scanned diameter	180 mm		240 mm		300 mm		345 mm	
Scan mode	Fine	**Fast**	Fine	**Fast**	Fine	**Fast**	Fine	**Fast**
Read-out time [sec]	18	**9**	30	**15**	47	**23**	58	**30**
Total cycle time [sec]	34	27	48	34	66	43	80	53
Fine ⇨ Fast	**-21 %**		**-21 %**		**-35%**		**-35%**	

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