

Dell Hard Drive (HDD) Characteristics and Metrics – May 2016

Form Factor	HDD	Interface	Category	RPM (K RPM)	Format	May-16	Enclosure "U"	Drives per enclosure	Interface Speed	Max Capacity (GB)	MTBF (M hrs)	Max Power Consumption (Watts)**	Random IOPS * 70% Read/ 30% Write (8k transfer per command) Q = 4 Volatile WC = off	Random IOPS * 100% Read (8k transfer per command) Q = 4	MB/s * Sequential 100% Read (64k transfer per command) Q = 4
2.5"	HDD	SAS	Mission Critical	15	4Kn	600	2	24	12Gbps	300	2M	12	295	270	240
					512n	300/600	2	24	12Gbps	600	2M	12	255	260	220
			Nearline	7.2	4Kn / 512e	1.8TB	2	24	12Gbps	1800	2M	12	190	180	225
					512n	300/600/1.2TB	2	24	12Gbps	1200	2M	12	175	185	195
		SATA	Nearline	7.2	512e	2TB	2	24	6Gbps	2000	2M	12	115	120	130
					512n	500/1TB	2	24	6Gbps	1000	1.2M	12	110	115	110
			Nearline	7.2	512e	2TB	2	24	3Gbps	2000	1.2M	12	115	120	130
					512n	500/1TB	2	24	3Gbps	1000	1.2M	12	125	115	110
3.5"	HDD	SAS	Nearline	7.2	4Kn/51e	6TB/8TB	2	12	12Gbps	8000	1.2M	18.64	120	115	205
					512n	1TB/2TB/4TB	2	12	12Gbps	4000	1.2M	18.64	110	115	190
					512e	6TB/8TB	2	12	6Gbps	8000	1.2M	18.64	115	115	190
		SATA	Nearline	7.2	512n	1TB/2TB/4TB	2	12	6Gbps	4000	1.2M	18.64	108	115	190

Form Factor	HDD	Interface	Category	RPM (K RPM)	Format	May-16	MB/s * Sequential 100% Write (64k transfer per command) Q = 4 Volatile WC = off	GB per Watt * (@ Max cap)	Sequential Streaming MB/s * per Watt (@ Max cap)	Random IOPS per Watt * (@ Max cap)	GB per Random IOPS * (@ Max cap)	TB per U * (@ Max cap)	IOP per U * (@ Max cap)
2.5"	HDD	SAS	Mission Critical	15	4Kn	600	240	25.00	20	25	1.0169	3.60	3540
					512n	300/600	220	50.00	18	2.3529	7.20	3060	
			Nearline	7.2	4Kn / 512e	1.8TB	225	150.00	19	9.4737	21.60	2280	
					512n	300/600/1.2TB	185	100.00	16	6.8571	14.40	2100	
		SATA	Nearline	7.2	512e	2TB	130	166.67	11	17.3913	24.00	1380	
					512n	500/1TB	110	83.33	9	9.0909	12.00	1320	
			Nearline	7.2	512e	2TB	110	166.67	11	17.3913	24.00	1380	
					512n	500/1TB	110	83.33	9	8.0000	12.00	1500	
3.5"	HDD	SAS	Nearline	7.2	4Kn/51e	6TB/8TB	200	429.18	11	6	66.6667	48.00	720
					512n	1TB/2TB/4TB	190	214.59	10	36.3636	24.00	660	
		SATA	Nearline	7.2	512e	6TB/8TB	190	429.18	10	6	69.5652	48.00	690
					512n	1TB/2TB/4TB	190	214.59	10	37.0370	24.00	648	

