

Hard Drive Failure Rates for 2022 (AFR = drive_failures/(drive_days/365))*100

From 1/1/2022 – 12/31/2022 inclusive

MFG	Model	Drive Size	Drive Count	Avg Age (months)	Drive Days	Drive Failures
HGST	HMS5C4040ALE640	4TB	3,723	77.1	1,322,966	23
HGST	HMS5C4040BLE640	4TB	12,730	74.1	4,641,631	52
HGST	HUH728080ALE600	8TB	1,117	56.6	408,895	16
HGST	HUH728080ALE604	8TB	94	65.5	27,684	4
HGST	HUH721212ALE600	12TB	2,606	38.9	948,201	7
HGST	HUH721212ALE604	12TB	13,165	21.3	4,789,187	73
HGST	HUH721212ALN604	12TB	10,769	44.8	3,930,437	80
Seagate	ST4000DM000	4TB	18,246	85.9	6,699,353	633
Seagate	ST6000DX000	6TB	886	92.5	323,387	6
Seagate	ST8000DM002	8TB	9,523	74.6	3,505,962	189
Seagate	ST8000NM000A	8TB	79	14.2	22,839	0
Seagate	ST8000NM0055	8TB	14,417	63.2	5,230,097	347
Seagate	ST10000NM0086	10TB	1,174	60.7	430,092	44
Seagate	ST12000NM0007	12TB	1,262	37.7	469,211	61
Seagate	ST12000NM0008	12TB	19,821	33.1	7,291,905	404
Seagate	ST12000NM001G	12TB	12,623	24.9	4,515,095	116
Seagate	ST14000NM001G	14TB	10,751	22.8	3,912,395	126
Seagate	ST14000NM0138	14TB	1,519	24.8	570,042	89
Seagate	ST16000NM001G	16TB	20,393	13.6	6,057,376	142
Seagate	ST16000NM002J	16TB	310	6.6	50,625	2
Toshiba	MDO4ABA400V	4TB	94	91.3	35,031	3
Toshiba	MGO7ACA14TA	14TB	38,182	26	13,921,635	385
Toshiba	MGO7ACA14TEY	14TB	552	20.7	184,247	8
Toshiba	MGO8ACA16TA	16TB	3,751	6.9	625,329	10
Toshiba	MGO8ACA16TE	16TB	5,936	14.7	2,167,676	93
Toshiba	MGO8ACA16TEY	16TB	5,286	12.9	1,362,038	24

WDC	WUH721414ALE6L4	14TB	8,410	24.8	3,065,102	10
WDC	WUH721816ALE6LO	16TB	2,701	14.9	938,328	3
WDC	WUH721816ALE6L4	16TB	10,801	4.6	1,313,668	13
Drive Model Count: 29			230,921		78,760,434	2,963

AFR
0.63%
0.41%
1.43%
5.27%
0.27%
0.56%
0.74%
3.45%
0.68%
1.97%
0.00%
2.42%
3.73%
4.75%
2.02%
0.94%
1.18%
5.70%
0.86%
1.44%
3.13%
1.01%
1.58%
0.58%
1.57%
0.64%

0.12%
0.12%
0.36%

1.37%

Three Year Comparison of Annual Hard Drive Failu

1/1/2020 - 12/31/2020, 1/1/2021 - 12/31/2021, 1/1/2022 - 12/31/

MFG	Model	Size	2020		2021	
			Drive Count	AFR	Drive Count	AFR
HGST	HMS5C4040ALE640	4TB	3,100	0.27%	3,429	0.58%
HGST	HMS5C4040BLE640	4TB	12,744	0.27%	12,703	0.31%
HGST	HUH728080ALE600	8TB	1,075	0.29%	1,124	0.64%
HGST	HUH728080ALE604	8TB				
HGST	HUH721212ALE600	12TB	2,600	0.31%	2,600	0.27%
HGST	HUH721212ALE604	12TB	2,506	1.19%	13,138	0.29%
HGST	HUH721212ALN604	12TB	10,830	0.46%	10,818	0.48%
Seagate	ST4000DM000	4TB	18,939	1.41%	18,611	1.80%
Seagate	ST6000DX000	6TB	886	0.23%	886	0.11%
Seagate	ST8000DM002	8TB	9,772	0.93%	9,718	1.46%
Seagate	ST8000NM000A	8TB				
Seagate	ST8000NM0055	8TB	14,406	1.22%	14,334	1.49%
Seagate	ST10000NM0086	10TB	1,201	1.33%	1,192	2.26%
Seagate	ST12000NM0007	12TB	23,036	1.04%	1,324	2.01%
Seagate	ST12000NM0008	12TB	19,287	1.01%	20,201	1.08%
Seagate	ST12000NM001G	12TB	7,130	0.84%	12,171	0.52%
Seagate	ST14000NM001G	14TB	5,987	1.04%	10,738	1.03%
Seagate	ST14000NM0138	14TB	360	0.00%	1,611	4.79%
Seagate	ST16000NM001G	16TB	59	1.71%	10,861	1.11%
Seagate	ST16000NM002J	16TB				
Toshiba	MD04ABA400V	4TB	99	2.01%	97	2.04%
Toshiba	MG07ACA14TA	14TB	21,046	0.91%	38,214	0.77%
Toshiba	MG07ACA14TEY	14TB	160	0.00%	462	1.66%
Toshiba	MG08ACA16TA	16TB				
Toshiba	MG08ACA16TE	16TB			5,985	0.91%

Toshiba	MG08ACA16TEY	16TB	1,014	0.00%	2,367	0.70%
WDC	WUH721414ALE6L4	14TB	6,002	0.16%	8,408	0.43%
WDC	WUH721816ALE6LO	16TB			1,767	0.14%
WDC	WUH721816ALE6L4	16TB				
Totals:			162,239	0.93%	202,759	1.01%

22 models

24 models

ire Rates

'2022

2022

Drive Count	AFR
3,723	0.63%
12,730	0.41%
1,117	1.43%
94	5.27%
2,606	0.27%
13,165	0.56%
10,769	0.74%
18,246	3.45%
886	0.68%
9,523	1.97%
79	0.00%
14,417	2.42%
1,174	3.73%
1,262	4.75%
19,821	2.02%
12,623	0.94%
10,751	1.18%
1,519	5.70%
20,393	0.86%
310	1.44%
94	3.13%
38,182	1.01%
552	1.58%
3,751	0.58%
5,936	1.57%

5,286	0.64%
8,410	0.12%
2,701	0.12%
10,801	0.36%
230,921	1.37%

29 models