Specifications	SATA 6 Gb/s				
CMR Capacity	4TB	6TB	8TB	10TB	12TB
Standard Model (512E)[1]	ST4000NM000C	ST6000NM000C	ST8000NM000C	ST10000NM000C	ST12000NM002C
Standard Model (512E)[1]	ST4000NM001C	ST6000NM001C	ST8000NM001C	ST10000NM001C	ST12000NM003C
Standard Model (512E)[1]	ST4000NM002C	ST6000NM002C	ST8000NM002C	ST10000NM002C	ST12000NM004C
Features					
CMR	Yes	Yes	Yes	Yes	Yes
Helium Sealed-Drive Design	Yes	Yes	Yes	Yes	Yes
Super Parity	Yes	Yes	Yes	Yes	Yes
Low Halogen	Yes	Yes	Yes	Yes	Yes
PowerChoice™ Idle Power Technology	Yes	Yes	Yes	Yes	Yes
PowerBalance™ Power/Performance Technology	Yes	Yes	Yes	Yes	Yes
Hot-Plug Support[2]	Yes	Yes	Yes	Yes	Yes
Cache, Multisegmented (MB)	512	512	512	512	512
Organic Solderability Preservative	Yes	Yes	Yes	Yes	Yes
RSA 3072 Firmware Verification (SD&D)	Yes	Yes	Yes	Yes	Yes
Reliability and Data Integrity					
Nonrecoverable Read Errors per Bits Read	1 sector per 10E14	1 sector per 10E14	1 sector per 10E14	1 sector per 10E14	1 sector per 10E14
Power-On Hours per Year (24×7)	2400	2400	2400	2400	2400
512e Sector Size (Bytes per Sector)	512e	512e	512e	512e	512e
Limited Warranty (months)	6 months	6 months	6 months	6 months	6 months
Performance					
Spindle Speed (RPM)	7200	7200	7200	7200	7200
Interface Access Speed (Gb/s)	6.0, 3.0	6.0, 3.0	6.0, 3.0	6.0, 3.0	6.0, 3.0
Max. Sustained Transfer Rate OD (MB/s,MiB/s)	190MB/s / 181MiB/s	190MB/s / 181MiB/s	190MB/s / 181MiB/s	190MB/s / 181MiB/s	190MB/s / 181MiB/s
Random Read/Write 4K QD16 WCD (IOPS)	170 / 320	170 / 320	170 / 320	170 / 320	170 / 320
Average Latency (ms)	4.16	4.16	4.16	4.16	4.16
Interface Ports	Single	Single	Single	Single	Single
Rotation Vibration @ 20-1500 Hz (rad/sec²)	12.5	12.5	12.5	12.5	12.5
Power Consumption					
Idle A (W) Average	7.2W	7.2W	7.2W	7.2W	7.2W
Max Operating, Random Read 4K/16Q (W)	10.5W	10.5W	10.5W	10.5W	10.5W
Power Supply Requirements	+12V and +5V	+12V and +5V	+12V and +5V	+12V and +5V	+12V and +5V
Environmental					
Temperature, Operating (°C) - drive reported	10C - 60C	10C - 60C	10C - 60C	10C - 60C	10C - 60C
Vibration, Nonoperating: 2 to 500Hz (Grms)	2.27	2.27	2.27	2.27	2.27
Shock, Operating 2ms (Read/Write) (Gs)	30Gs	30Gs	30Gs	30Gs	30Gs
Shock, Nonoperating 2ms (Gs)	200	200	200	200	200
Physical					
Height (mm/in, max)[3]	26.1mm/1.028in	26.1mm/1.028in	26.1mm/1.028in	26.1mm/1.028in	26.1mm/1.028in
Width (mm/in, max)[3]	101.85mm/4.010in	101.85mm/4.010in	101.85mm/4.010in	101.85mm/4.010in	101.85mm/4.010in
Depth (mm/in, max)[3]	147.0mm/5.787in	147.0mm/5.787in	147.0mm/5.787in	147.0mm/5.787in	147.0mm/5.787in
Weight (gm/lb)	695g/1.532lb	695g/1.532lb	695g/1.532lb	695g/1.532lb	695g/1.532lb
Carton Unit Quantity	20	20	20	20	20
Cartons per Pallet/Cartons per Layer	40 / 8	40 / 8	40 / 8	40 / 8	40 / 8

1 FastFormat models ship in 512e format state. When switching from 512e to 4Kn by executing the FastFormat routine, all data on the drive will be deleted. Note that data must be aligned to 4K sectors to see improved performance in 4Kn fomat
2 Supports Hotplug operation per Serial ATA Revision 3.3 specification
3 These base deck dimensions conform to the Small Form Factor Standard (SFF-8301) found at https://www.snia.org/sff. For connector-related dimensions, see SFF-8323.

Specifications	SATA 6 Gb/s				
CMR Capacity	14TB	16TB	18TB	20TB	22TB
Standard Model (512E)[1]	ST14000NM002C	ST16000NM002C	—	ST20000NM002C	ST22000NM000C
Standard Model (512E)[1]	ST14000NM003C	ST16000NM003C	ST18000NM002C	ST20000NM004C	ST22000NM001C
Standard Model (512E)[1]	ST14000NM004C	ST16000NM004C	ST18000NM003C	ST20000NM003C	ST22000NM002C
Features					
CMR	Yes	Yes	Yes	Yes	Yes
Helium Sealed-Drive Design	Yes	Yes	Yes	Yes	Yes
Super Parity	Yes	Yes	Yes	Yes	Yes
Low Halogen	Yes	Yes	Yes	Yes	Yes
PowerChoice™ Idle Power Technology	Yes	Yes	Yes	Yes	Yes
PowerBalance™ Power/Performance Technology	Yes	Yes	Yes	Yes	Yes
Hot-Plug Support[2]	Yes	Yes	Yes	Yes	Yes
Cache, Multisegmented (MB)	512	512	512	512	512
Organic Solderability Preservative	Yes	Yes	Yes	Yes	Yes
RSA 3072 Firmware Verification (SD&D)	Yes	Yes	Yes	Yes	Yes
Reliability and Data Integrity					
Nonrecoverable Read Errors per Bits Read	1 sector per 10E14	1 sector per 10E14	1 sector per 10E14	1 sector per 10E14	1 sector per 10E14
Power-On Hours per Year (24×7)	2400	2400	2400	2400	2400
512e Sector Size (Bytes per Sector)	512e	512e	512e	512e	512e
Limited Warranty (months)	6 months	6 months	6 months	6 months	6 months
Performance					
Spindle Speed (RPM)	7200	7200	7200	7200	7200
Interface Access Speed (Gb/s)	6.0, 3.0	6.0, 3.0	6.0, 3.0	6.0, 3.0	6.0, 3.0
Max. Sustained Transfer Rate OD (MB/s,MiB/s)	190MB/s / 181MiB/s	190MB/s / 181MiB/s	190MB/s / 181MiB/s	190MB/s / 181MiB/s	190MB/s / 181MiB/s
Random Read/Write 4K QD16 WCD (IOPS)	170 / 320	170 / 320	170 / 320	170 / 320	170 / 320
Average Latency (ms)	4.16	4.16	4.16	4.16	4.16
Interface Ports	Single	Single	Single	Single	Single
Rotation Vibration @ 20-1500 Hz (rad/sec²)	12.5	12.5	12.5	12.5	12.5
Power Consumption					
Idle A (W) Average	7.2W	7.2W	7.2W	7.2W	7.2W
Max Operating, Random Read 4K/16Q (W)	10.5W	10.5W	10.5W	10.5W	10.5W
Power Supply Requirements	+12V and +5V	+12V and +5V	+12V and +5V	+12V and +5V	+12V and +5V
Environmental					
Temperature, Operating (°C) - drive reported	10C - 60C	10C - 60C	10C - 60C	10C - 60C	10C - 60C
Vibration, Nonoperating: 2 to 500Hz (Grms)	2.27	2.27	2.27	2.27	2.27
Shock, Operating 2ms (Read/Write) (Gs)	30Gs	30Gs	30Gs	30Gs	30Gs
Shock, Nonoperating 2ms (Gs)	200	200	200	200	200
Physical					
Height (mm/in, max)[3]	26.1mm/1.028in	26.1mm/1.028in	26.1mm/1.028in	26.1mm/1.028in	26.1mm/1.028in
Width (mm/in, max)[3]	101.85mm/4.010in	101.85mm/4.010in	101.85mm/4.010in	101.85mm/4.010in	101.85mm/4.010in
Depth (mm/in, max)[3]	147.0mm/5.787in	147.0mm/5.787in	147.0mm/5.787in	147.0mm/5.787in	147.0mm/5.787in
Weight (gm/lb)	695g/1.532lb	695g/1.532lb	695g/1.532lb	695g/1.532lb	695g/1.532lb
Carton Unit Quantity	20	20	20	20	20
Cartons per Pallet/Cartons per Layer	40 / 8	40 / 8	40 / 8	40 / 8	40 / 8

1 FastFormat models ship in 512e format state. When switching from 512e to 4Kn by executing the FastFormat routine, all data on the drive will be deleted. Note that data must be aligned to 4K sectors to see improved performance in 4Kn fomat
2 Supports Hotplug operation per Serial ATA Revision 3.3 specification
3 These base deck dimensions conform to the Small Form Factor Standard (SFF-8301) found at https://www.snia.org/sff. For connector-related dimensions, see SFF-8323.

Specifications	SATA 6 Gb/s				
CMR Capacity	24TB	26TB	28TB	30TB	32TB
Standard Model (512E)[1]	ST24000NM000C	ST26000NM000C	ST28000NM000C	—	—
Standard Model (512E)[1]	ST24000NM001C	ST26000NM001C	ST28000NM001C	ST30000NM000C	ST32000NM000C
Standard Model (512E)[1]	ST24000NM002C	ST26000NM002C	ST28000NM002C	ST30000NM001C	ST32000NM001C
Features					
CMR	Yes	Yes	Yes	Yes	Yes
Helium Sealed-Drive Design	Yes	Yes	Yes	Yes	Yes
Super Parity	Yes	Yes	Yes	Yes	Yes
Low Halogen	Yes	Yes	Yes	Yes	Yes
PowerChoice™ Idle Power Technology	Yes	Yes	Yes	Yes	Yes
PowerBalance™ Power/Performance Technology	Yes	Yes	Yes	Yes	Yes
Hot-Plug Support[2]	Yes	Yes	Yes	Yes	Yes
Cache, Multisegmented (MB)	512	512	512	512	512
Organic Solderability Preservative	Yes	Yes	Yes	Yes	Yes
RSA 3072 Firmware Verification (SD&D)	Yes	Yes	Yes	Yes	Yes
Reliability and Data Integrity					
Nonrecoverable Read Errors per Bits Read	1 sector per 10E14	1 sector per 10E14	1 sector per 10E14	1 sector per 10E14	1 sector per 10E14
Power-On Hours per Year (24×7)	2400	2400	2400	2400	2400
512e Sector Size (Bytes per Sector)	512e	512e	512e	512e	512e
Limited Warranty (months)	6 months	6 months	6 months	6 months	6 months
Performance					
Spindle Speed (RPM)	7200	7200	7200	7200	7200
Interface Access Speed (Gb/s)	6.0, 3.0	6.0, 3.0	6.0, 3.0	6.0, 3.0	6.0, 3.0
Max. Sustained Transfer Rate OD (MB/s,MiB/s)	190MB/s / 181MiB/s	190MB/s / 181MiB/s	190MB/s / 181MiB/s	190MB/s / 181MiB/s	190MB/s / 181MiB/s
Random Read/Write 4K QD16 WCD (IOPS)	170 / 320	170 / 320	170 / 320	170 / 320	170 / 320
Average Latency (ms)	4.16	4.16	4.16	4.16	4.16
Interface Ports	Single	Single	Single	Single	Single
Rotation Vibration @ 20-1500 Hz (rad/sec²)	12.5	12.5	12.5	12.5	12.5
Power Consumption					
Idle A (W) Average	7.2W	7.2W	7.2W	7.2W	7.2W
Max Operating, Random Read 4K/16Q (W)	10.5W	10.5W	10.5W	10.5W	10.5W
Power Supply Requirements	+12V and +5V	+12V and +5V	+12V and +5V	+12V and +5V	+12V and +5V
Environmental					
Temperature, Operating (°C) - drive reported	10C - 60C	10C - 60C	10C - 60C	10C - 60C	10C - 60C
Vibration, Nonoperating: 2 to 500Hz (Grms)	2.27	2.27	2.27	2.27	2.27
Shock, Operating 2ms (Read/Write) (Gs)	30Gs	30Gs	30Gs	30Gs	30Gs
Shock, Nonoperating 2ms (Gs)	200	200	200	200	200
Physical					
Height (mm/in, max)[3]	26.1mm/1.028in	26.1mm/1.028in	26.1mm/1.028in	26.1mm/1.028in	26.1mm/1.028in
Width (mm/in, max)[3]	101.85mm/4.010in	101.85mm/4.010in	101.85mm/4.010in	101.85mm/4.010in	101.85mm/4.010in
Depth (mm/in, max)[3]	147.0mm/5.787in	147.0mm/5.787in	147.0mm/5.787in	147.0mm/5.787in	147.0mm/5.787in
Weight (gm/lb)	695g/1.532lb	695g/1.532lb	695g/1.532lb	695g/1.532lb	695g/1.532lb
Carton Unit Quantity	20	20	20	20	20
Cartons per Pallet/Cartons per Layer	40 / 8	40 / 8	40 / 8	40 / 8	40 / 8

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2 Supports Hotplug operation per Serial ATA Revision 3.3 specification

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