



Product Highlights:

- Available in capacities ranging from 2TB to 6TB
- For RAID-optimized NAS systems with up to 8 bays
- Rated for 180TB/year workload and 1M hours MTBF

Ideal For:

- Personal and home office NAS systems
- Light daily workloads

Desktop Drives vs. WD Red

It is important to choose a drive purpose-built for RAID-optimized NAS systems to ensure optimum performance and preserve your valuable data. Take the following into consideration when choosing a hard drive for your NAS:

- **Compatibility:** Unlike desktop drives, WD Red hard drives are specifically designed and tested for NAS and include NASware™ technology which fine tunes drive parameters to match NAS system workloads for optimum performance.
- **Reliability:** Desktop drives aren't typically designed for the demands of an always-on NAS environment. WD Red hard drives are designed to perform under tough conditions encountered in high-intensity 24x7 multi-user NAS environments.
- **RAID Ready:** WD Red hard drives are engineered with RAID error recovery control to help reduce failures within multi-bay NAS systems, unlike most desktop drives that are configured for generic use.
- **Noise and Vibration Protection:** Designed to operate solo, desktop drives typically offer little or no protection from the noise and vibration.

Reliably Store and Stream your Digital Content with WD Red® NAS Hard Drives

With capacities ranging from 2TB to 6TB, WD Red® HDDs offer customers cost effective storage for personal and home NAS systems with up to 8 bays.

WD Red for Personal or Home Office

Stream, backup and share your digital content with a NAS powered by WD Red drives in your personal or home office NAS environment.

Optimized for NAS with NASware™

Western Digital's exclusive NASware™ technology fine tunes drive parameters to match NAS system workloads, which helps increase performance and reliability.

Tested for Dependable Compatibility

Western Digital partners with a wide range of NAS system vendors for extensive testing to ensure compatibility with most NAS enclosures.

Backed by World-Class Support and Warranty

As an industry-leading hard drive manufacturer, Western Digital stands behind their NAS storage solutions with the assurance of a 3-year limited warranty and world-class support services for hassle free data storage.

Specifications

	6TB	4TB	3TB	2TB
Model Number ¹	WD60EFAX	WD40EFAX	WD30EFAX	WD20EFAX
Recording Technology ⁹	SMR	SMR	SMR	SMR
Interface ²	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s
Formatted capacity ²	6TB	4TB	3TB	2TB
Form factor	3.5-inch	3.5-inch	3.5-inch	3.5-inch
Native command queuing	Yes	Yes	Yes	Yes
Advanced Format (AF)	Yes	Yes	Yes	Yes
RoHS compliant ³	Yes	Yes	Yes	Yes

Performance

Interface Transfer Rate ² up to	180 MB/s	180 MB/s	180 MB/s	180 MB/s
Cache (MB) ²	256	256	256	256
Performance Class	5400 RPM Class	5400 RPM Class	5400 RPM Class	5400 RPM Class

Reliability/Data Integrity

Load/unload cycles ⁴	600,000	600,000	600,000	600,000
Non-recoverable read errors per bits read	<1 in 1014	<1 in 1014	<1 in 1014	<1 in 1014
MTBF (hours) ⁵	1,000,000	1,000,000	1,000,000	1,000,000
Workload Rate (TB/year) ⁶	180	180	180	180
Limited warranty (years) ⁷	3	3	3	3

Power Management

12VDC ±5% (A, peak)	1.75	1.75	1.75	1.31
5VDC ±5% (A, peak)				
Average power requirements (W)				
Read/Write	4.8	4.8	4.8	4.1
Idle	3.1	3.1	3.1	2.3
Standby and Sleep	0.6	0.4	0.4	0.6

Environmental Specifications⁹

Temperature (°C)				
Operating	0 to 60	0 to 60	0 to 65	0 to 65
Non-operating	-40 to 70	-40 to 70	-40 to 70	-40 to 70
Shock (Gs)				
Operating, (2 ms, read/write)	30	30	30	30
Operating, (2 ms, read)	65	65	65	65
Non-operating (2 ms)	250	250	250	250
Acoustics (dBA)				
Idle	23	23	23	21
Seek (average)	27	27	27	26

Physical Dimensions

Height (in./mm, max)	1.028/26.1	1.028/26.1	1.028/26.1	1.028/26.1
Length (in./mm, max)	5.787/147	5.787/147	5.787/147	5.787/147
Width (in./mm, ± .01 in.)	4/101.6	4/101.6	4/101.6	4/101.6
Weight (lb/kg, ± 10%)	1.40 / 0.64	1.26/0.57	1.40/0.64	1.32/0.60

Specifications subject to change without notice.

¹ Not all products may be available in all regions of the world

² As used for storage capacity, one megabyte (MB) = one million bytes, one gigabyte (GB) = one billion bytes, and one terabyte (TB) = one trillion bytes. Total accessible capacity varies depending on operating environment. As used for buffer or cache, one megabyte (MB) = 1,048,576 bytes. As used for transfer rate or interface, megabyte per second (MB/s) = one million bytes per second, and gigabit per second (Gb/s) = one billion bits per second. Effective maximum SATA 6 Gb/s transfer rate calculated according to the Serial ATA specification published by the SATA-IO organization as of the date of this specification sheet. Visit www.sata-io.org for details. Performance will vary depending on your hardware and software components and configurations.

³ WD hard drive products manufactured and sold worldwide after June 8, 2011, meet or exceed Restriction of Hazardous Substances (RoHS) compliance requirements as mandated by the RoHS Directive 2011/65/EU.

⁴ Controlled unload at ambient condition.

⁵ MTBF specifications are based upon internal testing using a 40°C base casting temperature. MTBF is based on a sample population and is estimated by statistical measurements and acceleration algorithms. MTBF does not predict an individual drive's reliability and does not constitute a warranty.

⁶ Workload Rate is defined as the amount of user data transferred to or from the hard drive. Workload Rate is annualized (TB transferred X (8760 / recorded power-on hours)). Workload Rate will vary depending on your hardware and software components and configurations.

⁷ See support.wdc.com/warranty for regionally specific warranty details.

⁸ Power measurements at room-ambient temperature.

⁹ Implementation of SMR for these products is device-managed SMR.

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