Tackle Intensity with WD Red™ Plus
Packed with power to handle the small- to medium-sized business NAS environments and increased workloads for SOHO customers, WD Red™ Plus is ideal for archiving and sharing, as well as RAID array rebuilding on systems using ZFS and other file systems. Built and tested for up to 8-bay NAS systems, these drives give you the flexibility, versatility, and confidence in storing and sharing your precious home and work files.

For Small or Medium Businesses
Stream, backup, share, and organize your digital content with a NAS and WD Red Plus drives designed to effortlessly share content with the devices at your home or business. NASware™ 3.0 technology increases your drives' compatibility with your existing network and devices. For larger businesses with up to 24 bays, count on WD Red Pro drives to deliver exceptional performance.

Exclusive NASware 3.0
Not just any drive will do. Get up to 112TB of capacity in your 8-bay NAS system and with Western Digital’s exclusive NASware 3.0 technology, you can optimize each and every drive. Built into every WD Red™ Plus hard drive, NASware™ 3.0’s advanced technology improves storage performance by increasing compatibility, integration, upgradeability, and reliability.

Built for Optimum NAS Compatibility
WD Red Plus drives with NASware technology takes the guesswork out of selecting a drive. Optimized for NAS systems, our unique algorithm balances performance and reliability in NAS and RAID environments. Simply put, a WD Red Plus drive is one of the most compatible drives available for NAS enclosures. But don’t take our word for it. WD Red PLUS drives are a reflection of extensive NAS partner technology engagement and compatibility-testing.

WD Red Pro for Big Business
If you’re looking for heavy duty performance for NAS, WD Red Pro drives deliver exceptional performance for the medium to large business customer with extreme demands. For NAS environments with 9 to 24 bays, WD Red Pro drives deliver uncompromising performance and unwavering assurance backed by a 5-year limited warranty.

3D Active Balance Plus
Our enhanced dual-plane balance control technology significantly improves the overall drive performance and reliability. Hard drives that are not properly balanced may cause excessive vibration and noise in a multi-drive system, reduce the hard drive life span, and degrade the performance over time.

24/7 Environment
Since your NAS system is always on, a reliable drive is essential. With an MTBF of up to 1 million hours, the WD Red Plus drive is engineered to tackle 24x7 environments.

Premium Support and a 3-year Limited Warranty
Confidently upgrade your NAS performance with the assurance of a 3-year limited warranty, coupled with world-class support services included with every WD Red Plus drive.

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Product Highlights
- Available in capacities ranging from 1-14TB with support for up to 8 bays
- 5400RPM performance class
- Supports up to 180 TB/yr workload rate
- NASware™ firmware for compatibility
- Small or medium business NAS systems in a 24x7 environment
- 3-year limited warranty

Desktop Drives vs. WD Red™ Plus
Do right by your NAS and choose the drive purpose-built for NAS with an array of features to help preserve your data and maintain optimum performance. Take the following into consideration when choosing a hard drive for your NAS:

- **Compatibility:** Unlike desktop drives, these drives are specifically tested for compatibility with NAS systems for optimum performance.
- **Reliability:** The always-on environment of a NAS or RAID is a hot one, and desktop drives aren’t typically designed and tested under those conditions like WD Red™ Plus drives are.
- **Error Recovery Controls:** WD Red Plus NAS hard drives are specifically designed with RAID error recovery control to help reduce failures within the NAS system.
- **Noise and Vibration Protection:** Designed to operate solo, desktop drives typically offer little or no protection from the noise and vibration present in a multi-drive system. WD Red Plus drives are designed to thrive in multi-bay NAS system environments.
## WD Red™ Plus

### Specifications

<table>
<thead>
<tr>
<th></th>
<th>14TB</th>
<th>12TB</th>
<th>10TB</th>
<th>8TB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model Number¹</td>
<td>WD140EFX</td>
<td>WD120EFA</td>
<td>WD100EFA</td>
<td>WD80EFA</td>
</tr>
<tr>
<td>Recording Technology</td>
<td>CMR</td>
<td>CMR</td>
<td>CMR</td>
<td>CMR</td>
</tr>
<tr>
<td>Formatted capacity²</td>
<td>14TB</td>
<td>12TB</td>
<td>10TB</td>
<td>8TB</td>
</tr>
<tr>
<td>Form factor</td>
<td>3.5-inch</td>
<td>3.5-inch</td>
<td>3.5-inch</td>
<td>3.5-inch</td>
</tr>
<tr>
<td>Native command queuing</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Advanced Format (AF)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>RoHS compliant³</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td><strong>Performance</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interface Transfer Rate</td>
<td>up to 210 MB/s</td>
<td>196 MB/s</td>
<td>215 MB/s</td>
<td>198 MB/s</td>
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<tr>
<td>Cache (MB)</td>
<td>512</td>
<td>256</td>
<td>256</td>
<td>256</td>
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<tr>
<td>Performance Class</td>
<td>5400 RPM Class</td>
<td>5400 RPM Class</td>
<td>5400 RPM Class</td>
<td>5400 RPM Class</td>
</tr>
<tr>
<td><strong>Reliability/Data Integrity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Load/unload cycles³</td>
<td>600,000</td>
<td>600,000</td>
<td>600,000</td>
<td>600,000</td>
</tr>
<tr>
<td>Non-recoverable errors per bits read</td>
<td>&lt;1 in 10⁷</td>
<td>&lt;1 in 10⁷</td>
<td>&lt;1 in 10⁷</td>
<td>&lt;1 in 10⁷</td>
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<tr>
<td>MTBF (hours)³</td>
<td>1,000,000</td>
<td>1,000,000</td>
<td>1,000,000</td>
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<tr>
<td><strong>Power Management</strong>⁸</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12VDC ±5% (A, peak)</td>
<td>1.85</td>
<td>1.84</td>
<td>1.75</td>
<td>1.85</td>
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<tr>
<td>5VDC ±5% (A, peak)</td>
<td>6.5</td>
<td>6.3</td>
<td>8.4</td>
<td>8.8</td>
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<tr>
<td>Average power requirements (W)</td>
<td>3.0</td>
<td>2.9</td>
<td>4.6</td>
<td>5.3</td>
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<tr>
<td>Standby and Sleep</td>
<td>0.8</td>
<td>0.6</td>
<td>0.5</td>
<td>0.8</td>
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<tr>
<td><strong>Environmental Specifications</strong>²</td>
<td></td>
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</tr>
<tr>
<td>Temperature (°C)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating</td>
<td>0 to 65</td>
<td>0 to 65</td>
<td>0 to 65</td>
<td>0 to 65</td>
</tr>
<tr>
<td>Non-operating</td>
<td>-40 to 70</td>
<td>-40 to 70</td>
<td>-40 to 70</td>
<td>-40 to 70</td>
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<tr>
<td>Shock (Gs)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Operating, (2 ms, read/write)</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
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<tr>
<td>Operating, (2 ms, read)</td>
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<td>65</td>
<td>65</td>
<td>65</td>
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<tr>
<td>Non-operating (2 ms)</td>
<td>800</td>
<td>800</td>
<td>250</td>
<td>300</td>
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<tr>
<td>Acoustics (dBA)</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Idle</td>
<td>20</td>
<td>20</td>
<td>34</td>
<td>27</td>
</tr>
<tr>
<td>Seek (average)</td>
<td>29</td>
<td>29</td>
<td>38</td>
<td>29</td>
</tr>
<tr>
<td><strong>Physical Dimensions</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Height (in./mm, max)</td>
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<td>1.028/26.1</td>
<td>1.028/26.1</td>
<td>1.028/26.1</td>
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<tr>
<td>Length (in./mm, max)</td>
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<td>5.787/147</td>
<td>5.787/147</td>
<td>5.787/147</td>
</tr>
<tr>
<td>Width (in./mm, ± .01 in.)</td>
<td>4/101.6</td>
<td>4/101.6</td>
<td>4/101.6</td>
<td>4/101.6</td>
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<tr>
<td>Weight (lb/kg, ± 10%)</td>
<td>1.52/0.69</td>
<td>1.46/0.66</td>
<td>1.65/0.75</td>
<td>1.58/0.715</td>
</tr>
</tbody>
</table>

Western Digital.
## Specifications

### 6TB
- **Model Number**: WD60EFRX
- **Recording Technology**: CMR
- **Interface**: SATA 6 Gb/s
- **Formatted capacity**: 6TB
- **Form factor**: 3.5-inch
- **Native command queuing**: Yes
- **Advanced Format (AF)**: Yes
- **Performance Interface Transfer Rate** up to 175 MB/s
- **Cache (MB)**: 64
- **Performance Class**: 5400 RPM Class
- **Reliability/Data Integrity**: Load/unload cycles: 600,000
- **Non-recoverable read errors per bits read**: <1 in 10^10
- **MTBF (hour)**: 1,000,000
- **Workload Rate (TB/year)**: 180
- **Limited warranty (years)**: 3
- **Power Management**: 12VDC ±5% (A, peak)

### 4TB
- **Model Number**: WD40EFRX
- **Recording Technology**: CMR
- **Interface**: SATA 6 Gb/s
- **Formatted capacity**: 4TB
- **Form factor**: 3.5-inch
- **Native command queuing**: Yes
- **Advanced Format (AF)**: Yes
- **Performance Interface Transfer Rate** up to 155 MB/s
- **Cache (MB)**: 64
- **Performance Class**: 5400 RPM Class
- **Reliability/Data Integrity**: Load/unload cycles: 600,000
- **Non-recoverable read errors per bits read**: <1 in 10^10
- **MTBF (hour)**: 1,000,000
- **Workload Rate (TB/year)**: 180
- **Limited warranty (years)**: 3
- **Power Management**: 12VDC ±5% (A, peak)

### 3TB
- **Model Number**: WD30EFRX
- **Recording Technology**: CMR
- **Interface**: SATA 6 Gb/s
- **Formatted capacity**: 3TB
- **Form factor**: 3.5-inch
- **Native command queuing**: Yes
- **Advanced Format (AF)**: Yes
- **Performance Interface Transfer Rate** up to 147 MB/s
- **Cache (MB)**: 64
- **Performance Class**: 5400 RPM Class
- **Reliability/Data Integrity**: Load/unload cycles: 600,000
- **Non-recoverable read errors per bits read**: <1 in 10^10
- **MTBF (hour)**: 1,000,000
- **Workload Rate (TB/year)**: 180
- **Limited warranty (years)**: 3
- **Power Management**: 12VDC ±5% (A, peak)

### 2TB
- **Model Number**: WD20EFRX
- **Recording Technology**: CMR
- **Interface**: SATA 6 Gb/s
- **Formatted capacity**: 2TB
- **Form factor**: 3.5-inch
- **Native command queuing**: Yes
- **Advanced Format (AF)**: Yes
- **Performance Interface Transfer Rate** up to 147 MB/s
- **Cache (MB)**: 64
- **Performance Class**: 5400 RPM Class
- **Reliability/Data Integrity**: Load/unload cycles: 600,000
- **Non-recoverable read errors per bits read**: <1 in 10^10
- **MTBF (hour)**: 1,000,000
- **Workload Rate (TB/year)**: 180
- **Limited warranty (years)**: 3
- **Power Management**: 12VDC ±5% (A, peak)

### 1TB
- **Model Number**: WD10EFRX
- **Recording Technology**: CMR
- **Interface**: SATA 6 Gb/s
- **Formatted capacity**: 1TB
- **Form factor**: 3.5-inch
- **Native command queuing**: Yes
- **Advanced Format (AF)**: Yes
- **Performance Interface Transfer Rate** up to 147 MB/s
- **Cache (MB)**: 64
- **Performance Class**: 5400 RPM Class
- **Reliability/Data Integrity**: Load/unload cycles: 600,000
- **Non-recoverable read errors per bits read**: <1 in 10^10
- **MTBF (hour)**: 1,000,000
- **Workload Rate (TB/year)**: 180
- **Limited warranty (years)**: 3
- **Power Management**: 12VDC ±5% (A, peak)

### NAS HARD DRIVES

**Western Digital.**

5601 Great Oaks Parkway
San Jose, CA 95119, USA

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