



FlashBlade™ Safety and Compliance

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Safety and Handling

The following symbols appear in Pure Storage documentation and might also be on the equipment.


Symbol	Meaning
	Best practice
	Supplementary instruction
	Potential for injury, physical damage, loss of data, or array configuration information
	Important information
	Indicates either a need for login access to an array or for Pure Storage Technical Support involvement in a procedure step.

Safety and Handling Guidelines

-  If this equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment might be impaired.
-  Avoid contact with backplane components and connectors.
-  Disconnect all power cords before moving the chassis or shelves or performing any powered-off service operation.
-  Install replacement components within two minutes of removing faulty components. This ensures that maximum temperatures are not exceeded.
-  Verify that rack electrical distribution systems meet all safety requirements of UL 60950-1 and IEC 60950-1 when fully populated, and that they provide adequate 100-240V 50-60Hz AC power, over-current protection, and electrical ground for all installed equipment.
-  Verify that all electrical connections are grounded before powering on.
-  Do not open chassis, shelf enclosures, or any component unless you are a qualified service representative performing a service procedure in accordance with instructions published by Pure Storage.
-  Do not use component handles to lift a chassis. Use chassis lift handles to lift a chassis.
-  When servicing rack-mounted equipment, extend only one chassis at a time.
-  Do not replace batteries due to risk of explosion if handled incorrectly. Dispose of batteries according to battery manufacturers' instructions.
-  Do not insert anything into any FlashBlade or EFM-3200e connector except as specified in installation or repair instructions.
-  Ensure all components and blank panels are in place before powering on or operating a FlashBlade or EFM-3200e.
-  Leave faulty components in place until replacements are available.

FCC Compliance Statement (USA)

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

 Changes or modifications not expressly approved by Pure Storage may void the user's authority to operate the equipment.

If special accessories are needed to ensure compliance of the product add instructions on the first page of the text concerned with the installation of the device that these special accessories must be used with the device.

Safety Compliance

FlashBlade is compliant with the following agencies:

CE, TUV (USA and Canada), BSMI, NOM

EFM-3200e is compliant with the following agencies:

CE, UL (USA and Canada), BSMI, NOM

Electromagnetic Compliance (EMC)

FlashBlade is Class-A compliant with the following agencies:

CE, FCC, BSMI, KCC, VCCI, TCVN, RCM C-Tick, NOM

EFM-3200e is Class-A compliant with the following agencies:

CE, FCC, BSMI, KCC, VCCI

Regulatory Compliance Notices

Australia/New Zealand

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Canada

ICES-003 Class A Notice - Avis NMB-003, Classe A

This Class A digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

Regulatory Compliance Notices (Cont'd)

European Union

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Japan

"この装置は、クラスA 情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。VCCI-A"

Translation: "This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures."

本製品に同梱いたしております電源コードセットは、本製品専用です。本電源コードセットは、本製品以外の製品ならびに他の用途でご使用いただくことはできません。製品本体に同梱された電源コードセットを使用し、他製品の電源コードを使用しないでください。

Translation: "The power cord included in this product can only be used with specific equipment. This power cord can't be used except for this product and the other purpose. Don't use the power cord included in the other product and please use the power cord included in this product."

Korea

"이 기기는 업무용(A급) 전자파 적합기기로서 판매자 또는 사용자는 이 점을 주의하시기 바라며, 가정외의 지역에서 사용하는 것을 목적으로 합니다."

Translation: "Class A device (Broadcasting Communication Device for Office Use): This device obtained EMC registration for office use (Class A), and may be used in places other than home. Sellers and/or users need to take note of this."



Model No.	KCC Certification No.
FlashBlade	MSIP-REM-pr2-FBm

Regulatory Compliance Notices (Cont'd)

Taiwan

警告使用者：這是甲類的資訊產品，在居住的環境中使用時，可能會造成射頻干擾，在這種情況下，使用者會被要求採取某些適當的對策

English for reference: This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Israel

אזהרה

מוצר זה הוא מוצר Class A. בסביבה ביתית, מוצר זה עלול לגרום הפרעות בתדר רדיו, ובמקרה זה, המשתמש עשוי להידרש לנקוט אמצעים מתאימים.

Restriction of Hazardous Substances

European Union

Pure Storage FlashBlade and EFM-3200e products are in compliance with EU Directive 2011/65 and as amended by EU Directive 2015/863 on the restriction of the use of certain hazardous substances in electrical and electronics equipment (RoHS Directives).

Component	Toxic or Hazardous Substances and Elements									
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr+6)	Poly-brominated Biphenyls (PBB)	Poly-brominated Diphenyl Ethers (PBDE)	Bis (2-ethylhexyl) phthalate (DEHP)	Dibutyl phthalate (DBP)	Benzyl butyl phthalate (BBP)	Diisobutyl phthalate (DIBP)
Enclosure	O	O	O	O	O	O	O	O	O	O
Plastic and polymeric parts	O	O	O	O	O	O	O	O	O	O
Printed circuit board assemblies and components	X	O	O	O	O	O	O	O	O	O
Cables	O	O	O	O	O	O	O	O	O	O
Power supply unit (PSU)	X	O	O	O	O	O	O	O	O	O

- **O**: Indicates that this hazardous substance contained in all homogeneous materials of this part is below the limit requirement in SJ/T 11364-2014 and EU Directive 2015/863.
- **X**: Indicates that this hazardous substance contained in at least one of the homogeneous materials of this part is above the limit requirement but is RoHS-compliant with allowable exemptions in SJ/T 11364-2014 and EU Directive 2015/863.

United States of America

California Proposition 65 Warning: This product may contain chemicals known to the state of California to cause cancer, birth defects, and other reproductive harm.

Taiwan

Pure Storage FlashBlade and EFM-3200e products are in compliance with the testing standards for controlled substances (lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls, and polybrominated diphenyl ethers) established by The Bureau of Standard, Metrology and Inspection (BSMI).

設備名稱：網路服務器 Equipment name						
型號 (型式) : Type designation (Type)						
單元 Unit	Restricted substances and its chemical symbols 限用物質及其化學符號					
	鉛Lead (Pb)	汞Mercury (Hg)	鎘Cadmium (Cd)	六價鉻 Hexavalent chromium (Cr ⁶⁺)	多溴聯苯 Polybrominated biphenyls (PBB)	多溴二苯醚 Polybrominated diphenyl ethers (PBDE)
機殼/Chassis	○	○	○	○	○	○
硬碟/Hard Disk	○	○	○	○	○	○
記憶體/RAM	○	○	○	○	○	○
電路板/Printed circuit board	-	○	○	○	○	○
內部配線 /Internal cable	○	○	○	○	○	○
電源供應器/ Power Supply	○	○	○	○	○	○
電源線/AC Power Cord	○	○	○	○	○	○
<p>備考1. “超出0.1 wt %” 及 “超出0.01 wt %” 係指限用物質之百分比含量超出百分比含量基準值。 Note 1 : “Exceeding 0.1 wt %” and “exceeding 0.01 wt %” indicate that the percentage content of the restricted substance exceeds the reference percentage value of presence condition.</p> <p>備考2. “○” 係指該項限用物質之百分比含量未超出百分比含量基準值。 Note 2 : “○” indicates that the percentage content of the restricted substance does not exceed the percentage of reference value of presence.</p> <p>備考3. “-” 係指該項限用物質為排除項目。 Note 3 : The “-” indicates that the restricted substance corresponds to the exemption.</p>						

FlashBlade AC Power Supply Safety Warnings

- ⚠ **WARNING:** High touch current. Earth connection essential before connecting supply.
- ⚠ **AVERTISSEMENT:** Courant élevé tactile. Eonnexion essentielle avant de connecter l'alimentation de la Terre.
- ⚠ **WARNUNG:** Hohe Berührungsstrom. Erdung wichtig, bevor Versorgung.

- ⚠ **CAUTION:** This unit has redundant power sources. Please disconnect all the power cords before servicing.
- ⚠ **ATTENTION:** Unité est alimentée par des cordons d'alimentation multiples. Pour déconnecter totes les sources d'alimentation de l'unité, débranchez tous les cordons d'alimentation.
- ⚠ **ACHTUNG:** Das Gerät is mit mehreren Netzteilen ausgerüstet. Zur sicheren Trennung vom Stromkreis müssen alle Stromkabel gezogen werden.

Norge: Apparatet må tilkoples jordet stikkontakt.

Suomi: Laite on liitettävä suojamaadoituskoskettimilla varustettuun pistorasiaan.

Sverige: Apparatens skall anslutas till jordat uttag.

EU ErP (EcoDesign in Europe) for FlashBlade

EU Directive 2009/125 EcoDesign requirements for servers and data storage products.

EU EcoDesign Compliance Form

Compliance Model:	FlashBlade	
Product Type:	Data storage product	
Manufacture:	Pure Storage, Inc.	
Registered Trade Name	Pure Storage, Inc.	
Registered Trade Address	Pure Storage, Inc., 650 Castro Street Suite 400 Mountain View, CA 94041	
First Year of Manufacture:	17TB	2017
	52TB	2017

PSU Efficiency Compliance

Power Supply Compliance Model: Artesyn DS1600SPE-3

80-Plus Certification Level: Platinum

% of Rated Load	10 %	20 %	50 %	100 %
Rated Efficiency	88.7 %	92.9 %	94.2 %	92.7 %

Minimum Power Factor: 0.98 at 50% load

Weight of Raw Critical Materials

Material	Weight
Cobalt in batteries	None
Neodymium in hard disk drive (HDD)	None

Material Disassembly Compliance

Device Type	Device Name	Device Location	Disassembly and Removal
Data storage	R1 and R2 Storage Blade 17TB and 52TB	Storage blade slot	Remove blade: Toolless latch
Memory (DIMM)	R1 Blade CPU DDR3 RDIMM	Storage blade internal	Remove blade: Toolless latch Remove blade cover: Phillips screwdriver, 6 screws Remove DIMM: Toolless latch
	R2 Blade CPU DDR3 RDIMM	Storage blade internal	Remove blade: Toolless latch Remove blade cover: Toolless latch Remove DIMM: Toolless latch
	EFM CPU DDR3 RDIMM	EFM internal	Release EFM latch screw: Screwdriver, 2 screws Remove EFM: Latch Remove DIMM: Toolless latch
CPU	Blade X86 SOC	Blade CPU Board	Not applicable: CPU is an embedded soldered BGA type
	EFM X86 SOC	EFM CPU Board	Not applicable: CPU is an embedded soldered BGA type
Motherboard	R1 Blade CPU Board	Blade CPU Board	Remove blade: Toolless latch Remove blade cover: Phillips screwdriver, 6 screws Remove CPU module side screws: Phillips screwdriver, 6 screws Remove CPU PCBA: Phillips screwdriver, 5 screws
	R2 17TB Blade CPU Board	Blade CPU Board	Remove blade: Toolless latch Remove blade cover: Toolless latch Remove storage PCBA: Phillips screwdriver, 4 screws each module. Remove super cap PCBA: Phillips screwdriver, 2 screws each module. Remove CPU PCBA: Phillips screwdriver, 15 screws ¼" Hex driver: 5 Standoffs
	R2 52TB Blade CPU Board	Blade CPU Board	Remove blade: Toolless latch Remove blade cover: Toolless latch Remove storage PCBA: Phillips screwdriver, 4 screws each module. Remove super cap PCBA: Phillips screwdriver, 2 screws each module. Remove CPU PCBA: Phillips screwdriver, 7 screws ¼" Hex driver: 13 Standoffs
	EFM CPU Board	EFM CPU Board	Release EFM latch screw: Screwdriver, 2 screws Remove EFM: Latch Remove CPU PCBA: Phillips screwdriver, 7 screws
Expansion card	None		
(AC) Power Supply Unit (PSU)	AC PSU	Chassis rear	Toolless latch

Device Type	Device Name	Device Location	Disassembly and Removal
Chassis	Rear card cage	Rear side of chassis	Release PSU latch (4x) and remove. Release EFM latch screw: Phillips screwdriver, 2 screws Remove EFM: Latch Remove chassis top cover: Phillips screwdriver, 45 screws side of chassis. Remove rear card cage: Phillips screwdriver, 10 screws on side and bottom of chassis.
	Midplane PCBA	Middle of chassis (access from the rear side)	(Remove rear card cage first) Remove midplane PCBA: Phillips screwdriver, 16 screws.
Batteries	RTC Blade CPU RTC CoinCell Battery	Blade CPU board	Remove blade: Toolless latch Remove blade cover: Phillips screwdriver, 6 screws Remove battery: Toolless
	R2 Blade CPU RTC CoinCell Battery	Blade CPU board	Remove blade: Toolless latch Remove blade cover: Toolless latch Remove battery: Toolless
	EFM CPU RTC CoinCell Battery	EFM CPU Board	Release EFM Latch screw: Screwdriver, 2 screws Remove EFM: Latch Remove CPU PCBA: Phillips screwdriver, 7 screws Remove battery: Toolless

Secure Data Deletion

Pure Storage FlashBlade has functionality for secure data deletion. Contact Pure Storage Support for assistance with using the data deletion feature.

Address:	Pure Storage, Inc. 650 Castro Street, Suite 400 Mountain View, CA 94041
e-mail:	support@purestorage.com
Website URL:	https://support.purestorage.com

Firmware Update

Pure Storage Support Contact:

Address:	Pure Storage, Inc. 650 Castro Street, Suite 400 Mountain View, CA 94041
e-mail:	support@purestorage.com
Website URL:	https://support.purestorage.com

Temperature and Environmental Operation

ASHRAE Class: A2 (5° C - 35° C operation), (41° F - 95° F)

Manual Information

This manual can be found online at	40-0137-00 CDOC, FlashBlade Safety and Compliance https://support.purestorage.com/FlashBlade/Purity_FB/FlashBlade_Technical_Reports
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