

EMC²

PARTS COMPATIBILITY DATABASE

Drive and FLARE®/OE Matrix.

Use for all VNX2, VNX1, Unity, VNXe2, VNXe1, CLARiiON and Celerra drives including all models of VNX2, VNX1, Unity, VNXe2, VNXe1, CX4, CX3, CX, AX4-5, AX, and FC

Last Edited:
January 8, 2018

This is a comprehensive Field Guide for the Replacement and Substitutions of VNX2, VNX1, Unity, VNXe2, VNXe1, all CLARiiON and Celerra Drives.

This document contains the Drive and FLARE®/OE Matrices in the following order: VNX2, VNX1, Unity, VNXe2, VNXe, VNXe1600, CX4, CX3, CX, AX4-5, AX and FC

Note: VNX series has 3 docs:

- 1) One for VNX5200, 5400, 5600, 5800, 7600 and 8000.
- 2) One for VNX5500, 5700 and 7500 (Requires B-class drives)
- 3) The other is for VNX5100 and 5300 (Uses both J-class and B-class drives)

For proper drive replacement or substitution, use the appropriate Drive and FLARE® OE Matrix to match your drive and Model type.

Use the search function (<CTRL> F) to “find” your drive. Drives may be in multiple places within this document. Ensure that your Drive , Model Type, Array and FLARE combination all match.

NOTE: If logistics is out of the drive you require, drives can be substituted by other drives that match its Model type.

The following information is provided when there are known issues or caveats within this document.

VNX1 and VNX2 Drives

Note: At this time we do not support swapping of any VNX drives into a new VNX with MCx arrays. See KB article 168789 for more information.

All VNX and VNXe Drives:

Note: In EMEA we can replace a NEBS drive with a non-NEBS drive.

VNX

Note: VNX series has 2 docs:

- 1) One for the VNX5500, 5700 and 7500 (B-class drives) *
- 2) The other is for VNX5100 and 5300 (J-class drives) *

*All drives in logistics which are used for replacements will be able to be used in any VNX array. They are global spares and the firmware will be compatible for both B-class and J-class arrays.

VNXe

VNXe3100 (NEO B Jr) drives can only be used in a VNXe3100 as it has a unique assembly.

All CLARiiON and Celerra drives:

1) **005048750** This is a NEBS Drive. You will not find this drive in the Matrices. In most instances this drive will only be ordered by Comverse or FSC. If you have to replace this drive that is NOT in a NEBS array – replace it with a model CX-4G15-300 drive for your array type.

2) **005048748** This is a NEBS Drive. You will not find this drive in the Matrices. In most instances this drive will only be ordered by Comverse or FSC. If you have to replace this drive that is NOT in a NEBS array – replace it with a model CX-4G15-73 drive for your array type.

3) Note the changes regarding substitutions for 320GB ATA drives, model CX-AT05-320. If they are unavailable they may be replaced by 500GB ATA drives, model CX-AT07-500. Minimum FLARE requirements still apply.

4) **005048968** This is a short stroked drive and was not generally released into manufacturing however they may have been used as a temporary substitute or substituted by logistics as a viable replacement. If you have one in an array and require a replacement use a 146GB drive, Model CX-4G15-146. Use any drive found under this Model/Array type and meets the minimum FLARE requirement. However if this is the only available drive then it may be used.

5) **005048969** This is a short stroked drive and was not generally released into manufacturing however they may have been used as a temporary substitute or substituted by logistics as a viable replacement. If you have one in an array and require a replacement use a 300GB drive, Model CX-4G15-300. Use any drive found under this Model/Array type and meets the minimum FLARE requirement. However if this is the only available drive then it may be used.

6) **005048970** This is a short stroked drive and should not have ever made it into manufacturing however if some have escaped and is found in an Array, the replacement for it would be a 450GB drive, Model CX-4G15-450. Use any drive found under this Model/Array type and meets the minimum FLARE requirement. However if this is the only available drive then it may be used.

7) **005048842** This is a short stroked drive and was not generally released into manufacturing however they may have been used as a temporary substitute or substituted by logistics as a viable replacement. If you have one in an array and require a replacement use a 300GB drive, Model CX-4G10-300. Use any drive found under this Model/Array type and meets the minimum FLARE requirement. However if this is the only available drive then it may be used.

8) **005048854** This is a short stroked drive and was not generally released into manufacturing however they may have been used as a temporary substitute or substituted by logistics as a viable replacement. If you have one in an array and require a replacement use a 73GB drive, Model CX-4G15-73. Use any drive found under this Model/Array type and meets the minimum FLARE requirement. However if this is the only available drive then it may be used.

9) **005048889** This is a short stroked drive and was not generally released into manufacturing however they may have been used as a temporary substitute or substituted by logistics as a viable replacement. If you have one in an array and require a replacement use a 750GB drive Model CX-SA07-750 under this Model/Array type that meets the minimum FLARE requirement. However if this is the only available drive then it may be used.

10) **005049098** This is a short stroked drive and was not generally released into manufacturing however they may have been used as a temporary substitute or substituted by logistics as a viable replacement. If you have one in an array and require a replacement use a 36GB drive model CX-2G15-36 under this Model/ Array type that meets the minimum FLARE requirement. However if this is the only available drive then it may be used.

11) **005048704** This is a short stroked drive and was not generally released into manufacturing however they may have been used as a temporary substitute or substituted by logistics as a viable replacement. If you have one in an array and require a replacement use a 73GB drive model CX-2G15-73 under this Model/ Array type that meets the minimum FLARE requirement. However if this is the only available drive then it may be used.

12) **005048973** This is a short stroked and was not generally released into manufacturing however they may have been used as a temporary substitute or substituted by logistics as a viable replacement. If you have one in an array and require a replacement use a 400GB drive model CX-4G10-400 under the Model/ Array type that meets the minimum FLARE requirement. However if this is the only available drive then it may be used.

13) **005048913** This is a NEBS Drive. You will not find this drive in the Disk and FLARE OE Matrices. In most instances this drive can only be ordered by Comverse or FSC. If you have to replace this drive that is NOT in a NEBS array – replace it with a model CX-4G15-300 drive for your array type.

14) **005048749** This is a NEBS Drive. You will not find this drive in the Disk and FLARE OE Matrices. In most instances this drive can only be ordered by Comverse or FSC. If you have to replace this drive that is NOT in a NEBS array – replace it with a model CX-4G15-146 drive for your array type.

15) **005049520** This is a short stroked drive and was not generally released into manufacturing however they may have been used as a temporary substitute or substituted by logistics as a viable replacement. If you have one in an array and require a replacement use a 1000GB drive model CX-SA07-010 under this Model/ Array type that meets the minimum FLARE requirement. However if this is the only available drive then it may be used.

16) **005048843** This is a short stroked drive and was not generally released into manufacturing however they may have been used as a temporary substitute or substituted by logistics as a viable replacement. If you have one in an array and require a replacement use a 73GB drive model CX-2G15-73 under this Model/ Array type that meets the minimum FLARE requirement. However if this is the only available drive then it may be used.

17) **005048707** This is a short stroked drive and was not generally released into manufacturing however they may have been used as a temporary substitute or substituted by logistics as a viable replacement. If you have one in an array and require a replacement use a 73GB drive model CX-2G10-73 under this Model/ Array type that meets the minimum FLARE requirement. However if this is the only available drive then it may be used.

18) **005048705** This is a short stroked drive and was not generally released into manufacturing however they may have been used as a temporary substitute or substituted by logistics as a viable replacement. If you have one in an array and require a replacement use a 73GB drive model CX-2G10-73 under this Model/ Array type that meets the minimum FLARE requirement. However if this is the only available drive then it may be used.

19) **005048965** This is a short stroked drive and was not generally released into manufacturing however they may have been used as a temporary substitute or substituted by logistics as a viable replacement. If you have one in an array and require a replacement use a 450GB drive model AX-SS15-450 under this Model/ Array type that meets the minimum FLARE requirement. However if this is the only available drive then it may be used.



EMC Unity™ Storage Systems

Drive and OE Compatibility Matrix

To function properly drives installed in an EMC Unity™ storage system require that the array be running the minimum required revision of the Operating Environment (OE). This document lists the drive part numbers supported for Unity storage systems and the minimum software revisions required for each drive model.

Notes:

1: The drive part number (PN) appears on a label on the front of the drive carrier. Note that although the OE GUI may display an alpha suffix at the end of the PN (like EFD) these characters are not part of the actual orderable PN.

2: All drives listed in this document are RoHS compliant.

3: Unity drive models use the following prefixes

- D3 = AC storage
- D3FC = AC FAST cache
- D3AF = AC storage when used in All-Flash-Array (AFA)
- D3N = DC NEBS storage
- D3NFC = DC NEBS FAST Cache

4: The following tables provide only AC model numbers for reference purposes. If there is a 'YES' designation found in the DC NEBS column for any specific drive PN then a DC NEBS ordering model exists and only those drives with a 'YES' in this column should be used as replacements.

5: The 'platform' column identifies the arrays that support that unique drive type or model, even if no longer offered for configuring in new arrays in MyQuotes.

6: All drives from "original" array are supported post DIP upgrade even if not shown as available for new "target" array.

Table 1 Unity 'SAS Flash 2' Drives - For use in FAST Cache, FAST VP or all-Flash-pools

Drive Capacity	Model Numbers	Part Number	DC NEBS?	Drive Type	Platform (HFA Only)	Minimum OE Revision
200GB	25-slot: D3-2S12FX-200 D3FC-2S12FX-200	005051589 005051585	YES YES	12Gb SAS SSD	Unity 300 Unity 400 Unity 500 Unity 600	4.0.0.7329527
	80-slot: D3-D2S12FX-200 D3FC-D2S12FX-200	005051589 005051585	NO NO	12Gb SAS SSD	Unity 300 Unity 400 Unity 500 Unity 600	4.2.0.9392909
	12-slot: D3-PS12FX-200 D3FC-PS12FX-200	005051547 005051543	YES YES	12Gb SAS SSD	Unity 300 Unity 400 Unity 500 Unity 600	4.0.0.7329527
	15-slot: D3-VS12FX-200 D3FC-VS12FX-200	005051581 005051577	YES YES	12Gb SAS SSD	Unity 300 Unity 400 Unity 500 Unity 600	4.0.0.7329527 (4.1.0.8959731 required for NEBS)
400GB	25-slot: D3-2S12FX-400 D3FC-2S12FX-400	005051590 005051586	YES YES	12Gb SAS SSD	Unity 300 Unity 400 Unity 500 Unity 600	4.0.0.7329527
	80-slot: D3-D2S12FX-400 D3FC-D2S12FX-400	005051590 005051586	NO NO	12Gb SAS SSD	Unity 300 Unity 400 Unity 500 Unity 600	4.2.0.9392909
	12-slot: D3-PS12FX-400 D3FC-PS12FX-400	005051548 005051544	YES YES	12Gb SAS SSD	Unity 300 Unity 400 Unity 500 Unity 600	4.0.0.7329527
	15-slot: D3-VS12FX-400 D3FC-VS12FX-400	005051582 005051578	YES YES	12Gb SAS SSD	Unity 300 Unity 400 Unity 500 Unity 600	4.0.0.7329527 (4.1.0.8959731 required for NEBS)
800GB	25-slot: D3-2S12FX-800 D3FC-2S12FX-800	005051591 005051587 005052257 005052256	YES YES NO NO	12Gb SAS SSD	Unity 300 Unity 400 Unity 500 Unity 600	4.0.0.7329527

Drive Capacity	Model Numbers	Part Number	DC NEBS?	Drive Type	Platform (HFA Only)	Minimum OE Revision
	80-slot: D3-D2S12FX-800 D3FC-D2S12FX-800	005051591 005051587 005052257 005052256	NO NO NO NO	12Gb SAS SSD	Unity 300 Unity 400 Unity 500 Unity 600	4.2.0.9392909
	12-slot: D3-PS12FX-800 D3FC-PS12FX-800	005051549 005051545	YES YES	12Gb SAS SSD	Unity 300 Unity 400 Unity 500 Unity 600	4.0.0.7329527
	15-slot: D3-VS12FX-800 D3FC-VS12FX-800	005051583 005051579	YES YES	12Gb SAS SSD	Unity 300 Unity 400 Unity 500 Unity 600	4.0.0.7329527 (4.1.0.8959731 required for NEBS)
1.6TB	25-slot: D3-2S12FX-1600 <i>Not used in FAST Cache</i>	005051592 005051588 005052259 005052258	YES YES NO NO	12Gb SAS SSD	Unity 300 Unity 400 Unity 500 Unity 600	4.0.0.7329527
	80-slot: D3-D2S12FX-1600 <i>Not used in FAST Cache</i>	005051592 005051588 005052259 005052258	NO NO NO NO	12Gb SAS SSD	Unity 300 Unity 400 Unity 500 Unity 600	4.2.0.9392909
	12-slot: D3-PS12FX-1600 <i>Not used in FAST Cache</i>	005051550 005051546	YES YES	12Gb SAS SSD	Unity 300 Unity 400 Unity 500 Unity 600	4.0.0.7329527
	15-slot: D3-VS12FX-1600 <i>Not used in FAST Cache</i>	005051584 005051580	YES YES	12Gb SAS SSD	Unity 300 Unity 400 Unity 500 Unity 600	4.0.0.7329527 (4.1.0.8959731 required for NEBS)

Table 2 Unity 'SAS Flash 3' Drives - For use in all-Flash-pools only

Drive Capacity	Model Numbers	Part number	DC NEBS?	Drive type	Platform	Minimum OE Revision
400 GB	25-slot: D3-2S12FXL-400 D3F-2S12FXL-400	005052152 005052151 005052394 005052393	YES YES NO NO	12Gb SAS SSD	Unity 300, 300F, 350F Unity 400, 400F, 450F Unity 500, 500F, 550F Unity 600, 600F, 650F	4.0.0.7329527

Drive Capacity	Model Numbers	Part number	DC NEBS?	Drive type	Platform	Minimum OE Revision
	80-slot: D3-D2S12FXL-400 D3F-D2S12FXL-400	005052152 005052151 005052394 005052393	NO NO NO NO	12Gb SAS SSD	Unity 300, 300F, 350F Unity 400, 400F, 450F Unity 500, 500F, 550F Unity 600, 600F, 650F	4.2.0.9392909
800GB	25-slot: D3-2S12FXL-800 D3F-2S12FXL-800	005052157	YES	12Gb SAS SSD	Unity 300, 300F, 350F Unity 400, 400F, 450F Unity 500, 500F, 550F Unity 600, 600F, 650F	4.0.0.7329527
		005052156	YES			
		005052396	NO			
		005052395	NO			
	80-slot: D3-D2S12FXL-800 D3F-D2S12FXL-800	005052157	NO	12Gb SAS SSD	Unity 300, 300F, 350F Unity 400, 400F, 450F Unity 500, 500F, 550F Unity 600, 600F, 650F	4.2.0.9392909
		005052156	NO			
		005052396	NO			
		005052395	NO			
1.6TB	25-slot: D3-2S12FXL-1600 D3F-2S12FXL-1600	005052159	YES	12Gb SAS SSD	Unity 300, 300F, 350F Unity 400, 400F, 450F Unity 500, 500F, 550F Unity 600, 600F, 650F	4.0.0.7329527
		005052158	YES			
		005052398	NO			
		005052397	NO			
	80-slot: D3-D2S12FXL-1600 D3F-D2S12FXL-1600	005052159	NO	12Gb SAS SSD	Unity 300, 300F, 350F Unity 400, 400F, 450F Unity 500, 500F, 550F Unity 600, 600F, 650F	4.2.0.9392909
		005052158	NO			
		005052398	NO			
		005052397	NO			
3.2TB [1]	25-slot: D3-2S12FXL-3200 D3F-2S12FXL-3200	005051740	YES	12Gb SAS SSD	Unity 300, 300F Unity 400, 400F Unity 500, 500F Unity 600, 600F	4.0.0.7329527 4.1.0.8959731 [1]
		005051739	YES			
		005052377	NO			
		005052378	NO			
	80-slot: D3-D2S12FXL-3200 D3F-D2S12FXL-3200	005051740	NO	12Gb SAS SSD	Unity 300, 300F Unity 400, 400F Unity 500, 500F Unity 600, 600F	4.2.0.9392909
		005051739	NO			
		005052377	NO			
		005052378	NO			

[1] Note: The 3.2TB SAS FLASH 3 SSD is supported in FAST VP mixed pools only if running OE version 4.1.0.8959731 or greater.

Table 3 Unity 'SAS Flash 4' Drives - For use in all-Flash-pools only.

Drive Capacity	Model Numbers	Part number	DC NEBS?	Drive type	Platform	Minimum OE Revision
----------------	---------------	-------------	----------	------------	----------	---------------------

Drive Capacity	Model Numbers	Part number	DC NEBS?	Drive type	Platform	Minimum OE Revision
1920GB	25-slot: D3F-2SFXL2-1920	005052522 005052521	NO NO	12Gb SAS SSD	Unity 300F, 350F Unity 400F, 450F Unity 500F, 550F Unity 600F, 650F	4.2.0.9392909
	80-slot: D3F-D2SFXL2-1920	005052522 005052521	NO NO	12Gb SAS SSD	Unity 300F, 350F Unity 400F, 450F Unity 500F, 550F Unity 600F, 650F	4.2.0.9392909
3840GB	25-slot: D3F-2SFXL2-3840	005052155 005052154 005052379 005052380	NO NO YES YES	12Gb SAS SSD	Unity 300F, 350F Unity 400F, 450F Unity 500F, 550F Unity 600F, 650F	4.0.1.8404134
	80-slot: D3F-D2SFXL2-3840	005052155 005052154 005052379 005052380	NO NO NO NO	12Gb SAS SSD	Unity 300F, 350F Unity 400F, 450F Unity 500F, 550F Unity 600F, 650F	4.2.0.9392909
7680GB	25-slot: D3F-2SFXL2-7680	005052113 005052112	YES YES	12Gb SAS SSD	Unity 300, 300F, 350F Unity 400, 400F, 450F Unity 500, 500F, 550F Unity 600, 600F, 650F	4.0.1.8320161
	80-slot: D3F-D2SFXL2-7680	005052113 005052112	NO NO	12Gb SAS SSD	Unity 300, 300F, 350F Unity 400, 400F, 450F Unity 500, 500F, 550F Unity 600, 600F, 650F	4.2.0.9392909
15360GB	25-slot: D3F-2SFXL2-15360	005052129 005052128	YES YES	12Gb SAS SSD	Unity 300, 300F, 350F Unity 400, 400F, 450F Unity 500, 500F, 550F Unity 600, 600F, 650F	4.1.0.8959731
	80-slot: D3F-D2SFXL2-15360	005052129 005052128	NO NO	12Gb SAS SSD	Unity 300, 300F, 350F Unity 400, 400F, 450F Unity 500, 500F, 550F Unity 600, 600F, 650F	4.2.0.9392909

Table 4 Unity Spinning Drives

Drive Capacity	Model Number(s)	Part Number	DC NEBS?	Drive Type	Platform (HFA Only)	Minimum OE Revision
----------------	-----------------	-------------	----------	------------	---------------------	---------------------

Drive Capacity	Model Number(s)	Part Number	DC NEBS?	Drive Type	Platform (HFA Only)	Minimum OE Revision
600GB 10K	25-slot: D3-2S10-600 Not for use in 80-disk DAE!	005051634 005051631	YES YES	12Gb SAS 10K	Unity 300 Unity 400 Unity 500 Unity 600	4.0.0.7329527
	80-slot: D3-D2S10-600	005033720 005033717	NO NO	12Gb SAS 10K	Unity 300 Unity 400 Unity 500 Unity 600	4.2.0.9392909
	12-slot: D3-PS10-600	005051564 005051561	YES YES	12Gb SAS 10K	Unity 300 Unity 400 Unity 500 Unity 600	4.0.0.7329527
	15-slot: D3-VS10-600	005051628 005051625	YES YES	12Gb SAS 10K	Unity 300 Unity 400 Unity 500 Unity 600	4.0.0.7329527 (4.1.0.8959731 required for NEBS)
600GB 15K	25-slot: D3-2S15-600	005051608 005051606	YES YES	12Gb SAS 15K	Unity 300 Unity 400 Unity 500 Unity 600	4.0.0.7329527
	80-slot: D3-D2S15-600	005051608 005051606	NO NO	12Gb SAS 15K	Unity 300 Unity 400 Unity 500 Unity 600	4.2.0.9392909
	12-slot: D3-PS15-600	005051554 005051552	YES YES	12Gb SAS 15K	Unity 300 Unity 400 Unity 500 Unity 600	4.0.0.7329527
	15-slot: D3-VS15-600	005051604 005051602	YES YES	12Gb SAS 15K	Unity 300 Unity 400 Unity 500 Unity 600	4.0.0.7329527 (4.1.0.8959731 required for NEBS)
1.2TB 10K	25-slot: D3-2S10-1200 Not for use in 80-disk DAE!	005051635 005051632	YES YES	12Gb SAS 10K	Unity 300 Unity 400 Unity 500 Unity 600	4.0.0.7329527

Drive Capacity	Model Number(s)	Part Number	DC NEBS?	Drive Type	Platform (HFA Only)	Minimum OE Revision
	80-slot: D3-D2S10-1200	005033721 005033718	NO NO	12Gb SAS 10K	Unity 300 Unity 400 Unity 500 Unity 600	4.2.0.9392909
	12-slot: D3-PS10-1200	005051565 005051562	YES YES	12Gb SAS 10K	Unity 300 Unity 400 Unity 500 Unity 600	4.0.0.7329527
	15-slot: D3-VS10-1200	005051629 005051626	YES YES	12Gb SAS 10K	Unity 300 Unity 400 Unity 500 Unity 600	4.0.0.7329527 (4.1.0.8959731 required for NEBS)
1.8TB 10K	25-slot: D3-2S10-1800 Not for use in 80-disk DAE!	005051636 005051633	YES YES	12Gb SAS 10K	Unity 300 Unity 400 Unity 500 Unity 600	4.0.0.7329527
	80-slot: D3-D2S10-1800	005033722 005033719	NO NO	12Gb SAS 10K	Unity 300 Unity 400 Unity 500 Unity 600	4.2.0.9392909
	12-slot: D3-PS10-1800	005051566 005051563	YES YES	12Gb SAS 10K	Unity 300 Unity 400 Unity 500 Unity 600	4.0.0.7329527
	15-slot: D3-VS10-1800	005051630 005051627	YES YES	12Gb SAS 10K	Unity 300 Unity 400 Unity 500 Unity 600	4.0.0.7329527 (4.1.0.8959731 required for NEBS)
2TB NLSAS	12-slot: D3-PS07-2000	005051558 005051555 005052428 005052427	YES YES NO NO	12Gb NLSAS	Unity 300 Unity 400 Unity 500 Unity 600	4.0.0.7329527
	15-slot: D3-VS07-2000	005051616 005051613 005052434 005052433	YES YES NO NO	12Gb NLSAS	Unity 300 Unity 400 Unity 500 Unity 600	4.0.0.7329527 (4.1.0.8959731 required for NEBS)
4TB NLSAS	12-slot: D3-PS07-4000	005051559 005051556 005052430 005052429	YES YES NO NO	12Gb NLSAS	Unity 300 Unity 400 Unity 500 Unity 600	4.0.0.7329527

Drive Capacity	Model Number(s)	Part Number	DC NEBS?	Drive Type	Platform (HFA Only)	Minimum OE Revision
	15-slot: D3-VS07-4000	005051617 005051614 005052436 005052435	YES YES NO NO	12Gb NLSAS	Unity 300 Unity 400 Unity 500 Unity 600	4.0.0.7329527 (4.1.0.8959731 required for NEBS)
6TB NLSAS	12-slot: D3-PS07-6000	005051560	YES	12Gb NLSAS	Unity 300 Unity 400 Unity 500 Unity 600	4.0.0.7329527
		005051557	YES			
		005052432	NO			
		005052431	NO			
	15-slot: D3-VS07-6000	005051618	YES	12Gb NLSAS	Unity 300 Unity 400 Unity 500 Unity 600	4.0.0.7329527 (4.1.0.8959731 required for NEBS)
		005051615	YES			
		005052438	NO			
		005052437	NO			

Table 4 Unity Drive Capacities

Pre-RAID Usable GB *		
RAW **	DATA	SYSTEM
200GB	183.4132	N/A
400GB	366.7665	260.3465
600GB	550.2822	443.8622
800GB	733.5643	627.1443
1.2TB	1100.5857	994.1657
1.6TB	1467.4546	1361.0346
1.8TB	1650.8891	1544.4691
1.92TB	1751.9000	1645.4800
2TB	1834.3236	1727.9036
3.2TB	2919.9688	2813.5488
3.84TB	3503.9688	3387.5488
4TB	3668.6686	3562.2486
6TB	5503.0135	5396.5935

7.68TB	7006.9688	6900.5488
15.36TB	14014.9688	13908.5488

* GB = Base-2 GiB (1024 x 1024 x 1024)

** GB/TB = Base-10

*** If used in DPE slots 0-3 or a RAID group with these drives in it

Copyright © 2014 EMC Corporation. All Rights Reserved.

EMC believes the information in this publication is accurate as of its publication date. However, the information is subject to change without notice.

THE INFORMATION IN THIS PUBLICATION IS PROVIDED "AS IS." EMC CORPORATION MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND WITH RESPECT TO THE INFORMATION IN THIS PUBLICATION, AND SPECIFICALLY DISCLAIMS IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Use, copying, and distribution of any EMC software described in this publication requires an applicable software license.

For the most up-to-date regulatory document for your product line, go to the Technical Documentation and Advisories section on EMC Powerlink.

For the most up-to-date listing of EMC product names, see EMC Corporation Trademarks on EMC.com.

All other trademarks used herein are the property of their respective owners.



EMC® VNX 5200, VNX5400, VNX5600, VNX5800, VNX7600 and VNX8000

Series Storage Systems

Disk and OE Matrix

P/N 302-000-318

To function properly, disks in an EMC® VNX® system require that each storage processor run minimum revisions of the EMC VNX Operating Environment (VNX OE). This document lists the disk part numbers supported for EMC VNX series storage systems and the minimum software revisions required for each disk model.



CAUTION

Verify that the proper version of VNX OE is running on the storage system before installing any disk drives. Results ranging from non-recognition of the drives to data loss may occur if an improper VNX OE version is installed.

Before installing a new disk in a storage system, use the EMC Unisphere™ Manager to determine the VNX OE revision running on the storage system. In Unisphere Manager, the VNX OE revision appears on the **Software** tab of the **Storage System Properties** dialog box for the storage system. If this revision is lower than the minimum VNX OE revision required for the disk as listed in [Table 1](#) or [Table 2](#) you must upgrade the VNX OE on the storage system before installing the disk. EMC recommends that you upgrade VNX OE using the wizards in the System Software section of the Unisphere Service Manager (USM).

Note 1: Changes and additions in the tables since the last revision of this document are noted in **red** type.

Note 2: The disk part number (PN) appears on a label on the front of the disk carrier. Note that although the OE GUI may display an alpha suffix at the end of the PN (like PWR or SSD) these characters are not part of the actual orderable PN.

Note 3: PNs in tables with a 'YES' entry in the Spin-Down Support column may report a suffix of PWR through the OE GUI (EX: 005049278PWR). This PWR suffix is used by the OE and is not part of the actual orderable PN.

VNX series storage systems

Note 4: All PN's within this document are RoHS compliant

Table 1 Standard 6Gb SAS HDD disk modules - Minimum VNX OE revisions required

Disk Capacity	Model Number	Part Number	NEBS?	Spin-Down Support	Drive Type	Spindle Speed	Platform	Minimum OE Software Revision
4 TB	V4-VS07-040 N4-VS07-040 15-disk	005050748 005050148 005050749 005050149 005050552 005050953 005052065 005052064 005052468 005052469	YES YES YES YES NO NO NO NO NO NO	YES YES YES YES YES YES YES YES YES YES	6Gb SAS 3.5"	7.2K rpm	VNX5200 VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.000.5.015 File: 8.1.0.15
	V4-DS07-040 N4-DS07-040 60-disk	005050750 005050150 005050555 005050955 005052081 005052080 005052476 005052477	YES YES NO NO NO NO NO NO	YES YES YES YES YES YES YES YES	6Gb SAS 3.5"	7.2K rpm	VNX5200 VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.000.5.015 File: 8.1.0.15
3 TB	V4-VS07-030 N4-VS07-030 15-disk	005049278 005049280 005049453 005049454 005049943 005050331 005050332 005050744 005050144 005050745 005050145 005050553 005050949 005052063 005052062 005052466 005052467	NO NO YES YES NO NO NO YES YES YES NO NO NO NO NO NO NO	YES YES YES YES YES YES YES YES YES YES YES YES YES YES YES YES YES	6Gb SAS 3.5"	7.2K rpm	VNX5200 VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.000.5.015 File: 8.1.0.15
	V4-DS07-030 N4-DS07-030 60-disk	005049210 005049930 005050746 005050146 005050556 005050951 005052079 005052078 005052474 005052475	NO NO YES YES NO NO NO NO NO NO NO	YES YES YES YES YES YES YES YES YES YES YES	6Gb SAS 3.5"	7.2K rpm	VNX5200 VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.000.5.015 File: 8.1.0.15

VNX series storage systems

Disk Capacity	Model Number	Part Number	NEBS?	Spin-Down Support	Drive Type	Spindle Speed	Platform	Minimum OE Software Revision
2 TB	V4-VS07-020 N4-VS07-020 15-disk	005049449 005049450 005049496 005049497 005050037 005050290 005050329 005050330 005050740 005050140 005049829 005050554 005050945 005052061 005052060 005052464 005052465	YES YES YES YES NO NO NO NO YES YES YES NO NO NO NO NO NO NO	YES YES YES YES YES YES YES YES YES YES YES YES YES YES YES YES YES YES	6Gb SAS 3.5"	7.2K rpm	VNX5200 VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.000.5.015 File: 8.1.0.15
	V4-DS07-020 N4-DS07-020 60-disk	005049750 005049499 005050289 005050742 005050142 005050557 005050947 005052067 005052066 005052472 005052473	NO NO NO YES YES NO NO NO NO NO NO NO	YES YES YES YES YES YES YES YES YES YES YES YES	6Gb SAS 3.5"	7.2K rpm	VNX5200 VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.000.5.015 File: 8.1.0.15
1.2 TB	V4-VS10-012 N4-VS10-012 15-disk	005050826 005050082 005051456 005051455 005051946 005051949 005052296 005052295	YES YES YES YES NO NO NO NO	YES YES YES YES YES YES YES YES	6Gb SAS 3.5"	10K rpm	VNX5200 VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.000.5.015 File: 8.1.0.15
	V4-2S10-012 N4-2S10-012 25-disk	005050828 005050084 005051470 005051469 005051959 005051960 005052304 005052303	YES YES YES YES NO NO NO NO	YES YES YES YES YES YES YES YES	6Gb SAS 2.5"	10K rpm	VNX5200 VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.000.5.015 File: 8.1.0.15

VNX series storage systems

Disk Capacity	Model Number	Part Number	NEBS?	Spin-Down Support	Drive Type	Spindle Speed	Platform	Minimum OE Software Revision
	V4-DS10-012 N4-DS10-012 60-disk	005050830 005050086 005051482 005051481 005051971 005051972 005052316 005052315	YES YES NO NO NO NO NO NO	YES YES YES YES YES YES YES YES	6Gb SAS 3.5"	10K rpm	VNX5200 VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.000.5.015 File: 8.1.0.15
	V4-D2S10-012 120-disk	005050828 005050084 005051470 005051469 005051959 005051960 005052304 005052303	NO NO NO NO NO NO NO NO	YES YES YES YES YES YES YES YES	6Gb SAS 2.5"	10K rpm	VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.006.5.096 File: 8.1.6.96
1 TB	V4-2S07-010 N4-2S07-010 25-disk	005050606 005050550 005051643 005051644	YES YES NO NO	YES YES YES YES	6Gb SAS 2.5"	7.2K rpm	VNX5200 VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.000.5.015 File: 8.1.0.15
900 GB	V4-VS10-900 N4-VS10-900 15-disk	005049205 005049302 005049956 005049924 005049806 005049807 005050346 005050347 005050206 005050209 005050695 005051454 005051453 005051944 005051943 005052294 005052293	YES YES YES YES YES YES YES NO YES NO YES NO NO NO NO NO NO	YES NO NO YES YES YES YES YES YES YES YES YES YES YES YES YES YES	6Gb SAS 3.5"	10K rpm	VNX5200 VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.000.5.015 File: 8.1.0.15
	V4-2S10-900 N4-2S10-900 25-disk	005049206 005049295 005049951 005049925 005049809 005050349 005050701 005050704 005050212	YES YES YES YES YES YES YES NO YES	YES NO YES YES YES YES YES YES YES	6Gb SAS 2.5"	10K rpm	VNX5200 VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.000.5.015 File: 8.1.0.15

VNX series storage systems

Disk Capacity	Model Number	Part Number	NEBS?	Spin-Down Support	Drive Type	Spindle Speed	Platform	Minimum OE Software Revision
		005050215	NO	YES				
		005051468	NO	YES				
		005051467	NO	YES				
		005051958	NO	YES				
		005051957	NO	YES				
		005052302	NO	YES				
		005052301	NO	YES				
	V4-DS10-900 N4-DS10-900 60-disk	005049813	YES	YES	6Gb SAS 3.5"	10K rpm	VNX5200 VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.000.5.015 File: 8.1.0.15
		005050352	YES	YES				
		005049207	YES	YES				
		005049926	YES	YES				
		005050706	YES	YES				
		005050217	YES	YES				
		005051480	NO	YES				
		005051479	NO	YES				
		005051970	NO	YES				
		005051969	NO	YES				
		005052314	NO	YES				
		005052313	NO	YES				
	V4-D2S10-900 120-disk	005051468	NO	YES	6Gb SAS 3.5"	10K rpm	VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.006.5.096 File: 8.1.6.96
		005051467	NO	YES				
		005049809	NO	YES				
		005050349	NO	YES				
		005050701	NO	YES				
		005050212	NO	YES				
		005051958	NO	YES				
		005051957	NO	YES				
		005052302	NO	YES				
		005052301	NO	YES				
	600 GB IMPORTANT NOTE: Preferred break-fix replacement parts are 005050854 & 005050855	005049274	YES	NO	6Gb SAS 3.5"	15K rpm	VNX5200 VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.000.5.015 File: 8.1.0.15
		005049272	YES	NO				
		005049675	YES	YES				
		005049677	YES	YES				
		005050928	NO	YES				
		005050927	NO	YES				
		005050855	NO	YES				
		005050854	NO	YES				

VNX series storage systems

Disk Capacity	Model Number	Part Number	NEBS?	Spin-Down Support	Drive Type	Spindle Speed	Platform	Minimum OE Software Revision
	V4-VS10-600 N4-VS10-600 15-disk	005049202 005049818 005050284 005050281 005049801 005049802 005050342 005050343 005050694 005050697 005050205 005050208 005051452 005051451 005051446 005051445 005051942 005051941 005052292 005052291	YES YES NO NO YES YES YES NO YES NO YES NO NO NO NO NO NO NO NO NO NO NO	NO NO YES YES YES YES YES YES YES YES YES YES YES YES YES YES YES YES YES YES YES	6Gb SAS 3.5"	10K rpm	VNX5200 VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.000.5.015 File: 8.1.0.15
	V4-2S15-600 N4-2S15-600 25-disk	005050936 005050935 005050847 005050846	NO NO NO NO	YES YES YES YES	6Gb SAS 2.5"	15K rpm	VNX5200 VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.000.5.081 File: 8.1.3.79
	V4-DS15-600 60-disk	005050943 005050944 005050870 005050869	NO NO NO NO	YES YES YES YES	6Gb SAS 2.5"	15K rpm	VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.000.5.081 File: 8.1.3.79
	V4-D2S15-600 120-disk	005050936 005050935 005050847 005050846	NO NO NO NO	YES YES YES YES	6Gb SAS 2.5"	15K rpm	VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.006.5.096 File: 8.1.6.96
	V4-2S10-600 N4-2S10-600 25-disk	005049203 005049820 005050285 005050282 005049804 005050344 005050700 005050703 005050211 005050214 005051466	YES YES NO NO YES YES YES NO YES NO NO NO	NO NO YES YES YES YES YES YES YES YES YES YES	6Gb SAS 2.5"	10K rpm	VNX5200 VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.000.5.015 File: 8.1.0.15

VNX series storage systems

Disk Capacity	Model Number	Part Number	NEBS?	Spin-Down Support	Drive Type	Spindle Speed	Platform	Minimum OE Software Revision
		005051465	NO	YES				
		005051460	NO	YES				
		005051459	NO	YES				
		005051956	NO	YES				
		005051955	NO	YES				
		005052300	NO	YES				
		005052299	NO	YES				
	V4-DS10-600 N4-DS10-600 60-disk	005049812	YES	YES	6Gb SAS 3.5"	10K rpm	VNX5200 VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.000.5.015 File: 8.1.0.15
		005050351	YES	YES				
		005049204	YES	YES				
		005050283	YES	NO				
		005050705	YES	NO				
		005050216	YES	YES				
		005051478	NO	YES				
		005051477	NO	YES				
		005051968	NO	YES				
		005051967	NO	YES				
		005052312	NO	YES				
		005052311	NO	YES				
	V4-D2S10-600 120-disk	005051466	NO	YES	6Gb SAS 2.5"	10K rpm	VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.006.5.096 File: 8.1.6.96
		005051465	NO	YES				
		005049804	NO	YES				
		005050344	NO	YES				
		005051956	NO	YES				
		005051955	NO	YES				
		005052300	NO	YES				
		005052299	NO	YES				
300 GB	V4-VS15-300 N4-VS15-300 15-disk IMPORTANT NOTE: Preferred break-fix replacement parts are 005050852 & 005050853	005049273	YES	NO	6Gb SAS 3.5"	15K rpm	VNX5200 VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.000.5.015 File: 8.1.0.15
		005049271	YES	NO				
		005049673	YES	YES				
		005049671	YES	YES				
		005050926	NO	YES				
		005050925	NO	YES				
		005050853	NO	YES				
		005050852	NO	YES				
		005049996	NO	YES				
		005050686	NO	YES				
	V4-2S15-300 N4-2S15-300 25-disk	005050604	YES	YES	6Gb SAS 2.5"	15K rpm	VNX5200 VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.000.5.015 File: 8.1.0.15
		005050548	YES	YES				
		005050934	NO	YES				
		005050933	NO	YES				
		005050845	NO	YES				
		005050844	NO	YES				
	V4-DS15-300 N4-DS15-300 60-disk	005050002	YES	YES	6Gb SAS 3.5"	15K rpm	VNX5200 VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.000.5.015 File: 8.1.0.15
		005050547	YES	YES				
		005050941	NO	YES				
		005050942	NO	YES				
		005050868	NO	YES				
		005050871	NO	YES				

VNX series storage systems

Disk Capacity	Model Number	Part Number	NEBS?	Spin-Down Support	Drive Type	Spindle Speed	Platform	Minimum OE Software Revision
	V4-D2S15-300 120-disk	005050604 005050548 005050934 005050933 005050845 005050844	NO NO NO NO NO NO	YES YES YES YES YES YES	6Gb SAS 2.5"	15K rpm	VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.006.5.096 File: 8.1.6.96

Table 2a - VNX 'SAS Flash' SSD

For use in FAST Cache, FAST VP or all-Flash-pools

Disk Capacity	Model Number	Part Number	NEBS?	Drive Type	Spindle Speed	Platform	Minimum OE Software Revision
200 GB	V4-VS6F-200 N4-VS6F-200 FLV4VS6F-200 FLN4VS6F-200 15-disk	005050184 005050186 005050362 005050364 005050498 005050499 005051193 005051191	YES NO YES NO YES YES NO NO	6Gb SAS 3.5" SSD	N/A	VNX5200 VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.000.5.015 File: 8.1.0.15
	V4-2S6F-200 N4-2S6F-200 FLV42S6F-200 FLN42S6F-200 25-disk	005049622 005050188 005050368 005050366 005050502 005050503 005051197 005051195	YES NO YES YES YES YES NO NO	6Gb SAS 2.5" SSD	N/A	VNX5200 VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.000.5.015 File: 8.1.0.15
	V4-DS6F-200 N4-DS6F-200 FLV4DS6F-200 FLN4DS6F-200 60-disk	005050190 005050370 005050505 005051201 005051199	YES YES YES NO NO	6Gb SAS 3.5" SSD	N/A	VNX5200 VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.000.5.015 File: 8.1.0.15
	V4-D2S6F-200 FLV4D2S6F-200 120-disk	005050502 005051197 005051195	NO NO NO	6Gb SAS 2.5" SSD	N/A	VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.006.5.096 File: 8.1.6.96

Disk Capacity	Model Number	Part Number	NEBS?	Drive Type	Spindle Speed	Platform	Minimum OE Software Revision
100GB	V4-VS6F-100 V4-VS6F-100 FLV4VS6F-100 FLV4VS6F-100 15-disk	005050183	YES	6Gb SAS 3.5" SSD	N/A	VNX5200	Block: 05.33.000.5.015 File: 8.1.0.15
		005050185	NO			VNX5400	
		005050361	YES			VNX5600	
		005050363	NO			VNX5800	
		005050496	YES			VNX7600	
		005050497	YES			VNX8000	
		005051380	NO				
		005051379	NO				
	V4-2S6F-100 V4-2S6F-100 FLV42S6F-100 FLN42S6F-100 25-disk	005049621	YES	6Gb SAS 2.5" SSD	NA	VNX5200	Block: 05.33.000.5.015 File: 8.1.0.15
		005050187	NO			VNX5400	
		005050367	YES			VNX5600	
		005050365	NO			VNX5800	
		005050500	YES			VNX7600	
		005050501	YES			VNX8000	
		005051388	NO				
		005051387	NO				
	V4-DS6F-100 N4-DS6F-100 FLV4DS6F-100 FLN4DS6F-100 60-disk	005050369	YES	6Gb SAS 3.5" SSD	NA	VNX5200	Block: 05.33.000.5.015 File: 8.1.0.15
		005050504	YES			VNX5400	
		005051396	NO			VNX5600	
		005051395	NO			VNX5800	
						VNX7600	
	V4-D2S6F-100 FLV4D2S6F-100 120-disk	005050500	NO	6Gb SAS 2.5" SSD	N/A	VNX5400	Block: 05.33.006.5.096 File: 8.1.6.96
		005051388	NO			VNX5600	
		005051387	NO			VNX5800	
						VNX7600	
						VNX8000	

Table 2b - VNX 'SAS FLASH 2' SSD (formerly known as SAS FLASH VP)

For use in FAST Cache, FAST VP or all-Flash-pools

Note Min-OE required for use of 200GB or 400GB as FAST Cache

Disk Capacity	Model Number	Part Number	NEBS?	Drive Type	Spindle Speed	Platform	Minimum OE Software Revision
---------------	--------------	-------------	-------	------------	---------------	----------	------------------------------

VNX series storage systems

Disk Capacity	Model Number	Part Number	NEBS?	Drive Type	Spindle Speed	Platform	Minimum OE Software Revision
1600GB	V4-VS6FX-1600 N4-VS6FX-1600 15-disk	005051158 005051159	YES YES	6Gb SAS 3.5" SSD	NA	VNX5200 VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.000.5.081 File: 8.1.3.79
	V4-2S6FX-1600 N4-2S6FX-1600 25-disk	005051141 005051126 005052229 005052228	YES YES NO NO	6Gb SAS 2.5" SSD	NA	VNX5200 VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.000.5.081 File: 8.1.3.79
	F5000 & F7000 Bundles	005051141 005051126	NO NO	6Gb SAS 2.5" SSD	NA	VNX-F5000 VNX-F7000	Block: 05.33.005.5.081
	V4-DS6FX-1600 60-disk	005051127 005051128	NO NO	6Gb SAS 3.5" SSD	NA	VNX5200 VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.000.5.081 File: 8.1.3.79
	V4-D2S6FX-1600 120-disk	005051141 005051126 005052229 005052228	NO NO NO NO	6Gb SAS 2.5" SSD	NA	VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.006.5.096 File: 8.1.6.96
800 GB	V4-VS6FX-800 N4-VS6FX-800 15-disk	005050784 005050783 005051160 005051161	NO NO YES YES	6Gb SAS 2.5" SSD	NA	VNX5200 VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.000.5.072 File: 8.1.3.72
	V4-2S6FX-800 N4-2S6FX-800 25-disk	005050800 005050785 005051129 005051130 005052221 005052220	NO NO YES YES NO NO	6Gb SAS 2.5" SSD	NA	VNX5200 VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.000.5.072 File: 8.1.3.72

VNX series storage systems

Disk Capacity	Model Number	Part Number	NEBS?	Drive Type	Spindle Speed	Platform	Minimum OE Software Revision
	F5000 & F7000 Bundles	005050800	NO	6Gb SAS 2.5" SSD	NA	VNX-F5000 VNX-F7000	Block: 05.33.005.5.081
		005050785	NO				
		005051129	NO				
		005051130	NO				
	V4-DS6FX-800 60-disk	005050812	NO	6Gb SAS 2.5" SSD	NA	VNX5200 VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.000.5.072 File: 8.1.3.72
		005050811	NO				
		005051131	NO				
		005051132	NO				
	V4-D2S6SFX-800 120-disk	005050800	NO	6Gb SAS 2.5" SSD	NA	VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.006.5.096 File: 8.1.6.96
		005050785	NO				
		005051129	NO				
		005051130	NO				
		005052221	NO				
		005052220	NO				
400GB	V4-VS6FX-400 N4-VS6FX-400 FLV4VS6FX-400 FLN4VS6FX-400 15-disk	005050114	YES	6Gb SAS 3.5" SSD	N/A	VNX5200 VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.000.5.015 File: 8.1.0.15 Minimum OE version for use as FAST Cache : Block 05.33.009.5.155 File 8.1.9.155
		005050527	YES				
		005051162	NO				
		005051163	NO				
	V4-2S6FX-400 N4-2S6FX-400 FLV42S6FX-400 FLN42S6FX-400 25-disk	005050600	YES	6Gb SAS 2.5" SSD	N/A	VNX5200 VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.000.5.015 File: 8.1.0.15 Minimum OE version for use as FAST Cache : Block 05.33.009.5.155 File 8.1.9.155
		005050524	YES				
		005051133	NO				
		005051134	NO				
	V4-DS6FX-400 N4-DS6FX-400 FLV4DS6FX-400 FLN4DS6FX-400 60-disk	005050117	YES	6Gb SAS 3.5" SSD	N/A	VNX5200 VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.000.5.015 File: 8.1.0.15 Minimum OE version for use as FAST Cache : Block 05.33.009.5.155 File 8.1.9.155
		005050530	YES				
		005051135	NO				
		005051136	NO				

VNX series storage systems

Disk Capacity	Model Number	Part Number	NEBS?	Drive Type	Spindle Speed	Platform	Minimum OE Software Revision
	V4-D2S6FX-400 FLV4D2S6FX-400 120-disk	005050524 005051133 005051134 005050600	NO NO NO NO	6Gb SAS 2.5" SSD	N/A	VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.006.5.096 File: 8.1.6.96 Minimum OE version for use as FAST Cache : Block 05.33.009.5.155 File 8.1.9.155
200GB	V4-VS6FX-200 N4-VS6FX-200 FLV4VS6FX-200 FLN4VS6FX-200 15-disk	005050113 005050526 005051164 005051165	YES YES NO NO	6Gb SAS 3.5" SSD	N/A	VNX5200 VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.000.5.015 File: 8.1.0.15 Minimum OE version for use as FAST Cache : Block 05.33.009.5.155 File 8.1.9.155
	V4-2S6FX-200 N4-2S6FX-200 FLV42S6FX-200 FLN42S6FX-200 25-disk	005050599 005050523 005051137 005051138	YES YES NO NO	6Gb SAS 2.5" SSD	N/A	VNX5200 VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.000.5.015 File: 8.1.0.15 Minimum OE version for use as FAST Cache : Block 05.33.009.5.155 File 8.1.9.155
	V4-DS6FX-200 N4-DS6FX-200 FLV4DS6FX-200 FLN4DS6FX-200 60-disk	005050116 005050529 005051139 005051140	YES YES NO NO	6Gb SAS 3.5" SSD	N/A	VNX5200 VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.000.5.015 File: 8.1.0.15 Minimum OE version for use as FAST Cache : Block 05.33.009.5.155 File 8.1.9.155
	V4-D2S6FX-200 FLV4D2S6FX-200 120-disk	005050523 005051137 005051138 005050599	NO NO NO NO	6Gb SAS 2.5" SSD	N/A	VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.006.5.096 File: 8.1.6.96 Minimum OE version for use as FAST Cache : Block 05.33.009.5.155 File 8.1.9.155
100GB	V4-VS6FX-100 N4-VS6FX-100 15-disk	005050112 005050525 005051804 005051803	YES YES NO NO	6Gb SAS 3.5" SSD	N/A	VNX5200 VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block: 05.33.000.5.015 File: 8.1.0.15

Disk Capacity	Model Number	Part Number	NEBS?	Drive Type	Spindle Speed	Platform	Minimum OE Software Revision
	V4-2S6FX-100 N4-2S6FX-100 25-disk	005050598	YES	6Gb SAS 2.5" SSD	NA	VNX5200	Block: 05.33.000.5.015 File: 8.1.0.15
		005050540	YES			VNX5400	
		005051806	NO			VNX5600	
		005051805	NO			VNX5800	
		005051805	NO			VNX7600	
		005051805	NO			VNX8000	
	V4-DS6FX-100 N4-DS6FX-100 60-disk	005050115	YES	6Gb SAS 3.5" SSD	NA	VNX5200	Block: 05.33.000.5.015 File: 8.1.0.15
		005050528	YES			VNX5400	
		005051808	NO			VNX5600	
		005051807	NO			VNX5800	
		005051807	NO			VNX7600	
		005051807	NO			VNX8000	
	V4-D2S6FX-100 120-disk	005050540	NO	6Gb SAS 2.5" SSD	N/A	VNX5400	Block: 05.33.006.5.096 File: 8.1.6.96
		005050598	NO			VNX5600	
		005051806	NO			VNX5800	
		005051805	NO			VNX7600	
		005051805	NO			VNX8000	

Table 2c - VNX 'SAS FLASH 3' SSD

For use in all-Flash-pools only

Disk Capacity	Model Number	Part Number	NEBS?	Drive Type	Spindle Speed	Platform	Minimum OE Software Revision
---------------	--------------	-------------	-------	------------	---------------	----------	------------------------------

VNX series storage systems

Disk Capacity	Model Number	Part Number	NEBS?	Drive Type	Spindle Speed	Platform	Minimum OE Software Revision
3200GB	V4-2S6FXL-3200 25-Disk All Flash Pool	005051740 005051739 005052377 005052378	NO NO NO NO	6Gb SAS 2.5" SSD	NA	VNX5200 VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block 05.33.009.5.155 File 8.1.9.155
	V4-D26FXL-3200 120-Disk All Flash Pool	005051740 005051739 005052377 005052378	NO NO NO NO	6Gb SAS 2.5" SSD	NA	VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block 05.33.009.5.155 File 8.1.9.155
1600GB	V4-2S6FXL-1600 25-disk All Flash Pool	005051721 005051723 005052159 005052158 005052398 005052397	NO NO NO NO NO NO	6Gb SAS 2.5" SSD	NA	VNX5200 VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block 05.33.009.5.155 File 8.1.9.155
	V4-D2S6FXL-1600 120-disk All Flash Pool	005051721 005051723 005052159 005052158 005052398 005052397	NO NO NO NO NO NO	6Gb SAS 2.5" SSD	NA	VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block 05.33.009.5.155 File 8.1.9.155
800GB	V4-2S6FXL-800 25-disk All Flash Pool	005051719 005051720 005052157 005052156 005052396 005052395	NO NO NO NO NO NO	6Gb SAS 2.5" SSD	NA	VNX5200 VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block 05.33.009.5.155 File 8.1.9.155
	V4-D2S6SFXL-800 120-disk All Flash Pool	005051719 005051720 005052157 005052156 005052396 005052395	NO NO NO NO NO NO	6Gb SAS 2.5" SSD	NA	VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block 05.33.009.5.155 File 8.1.9.155
400 GB	V4-2S6FXL-400 25-disk All Flash Pool	005052151 005052152 005052394	NO NO NO	6Gb SAS 2.5" SSD	N/A	VNX5200 VNX5400 VNX5600	Block 05.33.009.5.155 File 8.1.9.155

Disk Capacity	Model Number	Part Number	NEBS?	Drive Type	Spindle Speed	Platform	Minimum OE Software Revision
		005052393	NO			VNX5800 VNX7600 VNX8000	
	V4-D2S6FXL-400 120-disk All Flash Pool	005052151 005052152 005052394 005052393	NO NO NO NO	6Gb SAS 2.5" SSD	N/A	VNX5400 VNX5600 VNX5800 VNX7600 VNX8000	Block 05.33.009.5.155 File 8.1.9.155

Available disk space

Table 3 lists the usable space for the disks listed in Tables 1 & 2

Usable disk space

Listed Capacity	Disk	Usable Capacity
4TB NLSAS	Disk 0-3 (vault disk)	Not supported as vault disk
	Other Disk	3668.66
3TB NLSAS	Disk 0-3 (vault disk)	Not supported as vault disk
	Other Disk	2751.49
2 TB NLSAS	Disk 0-3 (vault disk)	Not supported as vault disk
	Other Disk	1834.32GB
1.6TB ME SSD	Disk 0-3 (vault disk)	1199.0845GB
	Other Disk	1467.4546GB
1 TB NLSAS	Disk 0-3 (vault disk)	648.78GB
	Other disk	917.1648GB
1.2 TB 10K	Disk 0-3 (vault disk)	832.2155GB
	Other Disk	1100.58GB
900 GB 10K	Disk 0-3 (vault disk)	552.21GB

Listed Capacity	Disk	Usable Capacity
	Other disk	820.6008GB
600 GB 10K or 15K	Disk 0-3 (vault disk)	268.40GB
	Other disk	536.7907GB
300 GB 15K	Disk 0-3 (vault disk)	000.0028GB
	Other disk	268.3865GB
800 GB SSD	Disk 0-3 (vault disk)	465.1942
	Other disk	733.5643
400 GB SSD	Disk 0-3 (vault disk)	98.3964GB
	Other disk	366.7665GB
200 GB SSD	Disk 0-3 (vault disk)	Not supported as vault disk
	Other disk	183.4268GB
100 GB SSD	Disk 0-3 (vault disk)	Not supported as vault disk
	Other disk	91.7096GB

Supported disk-array enclosures

Table 4 lists the disk-array enclosures (DAEs) supported for these VNX storage systems.

Supported disk-array enclosures (DAEs)

DAE type	Model Number
3U 3.5" x 15	VNXB6GSDAE15
2U 2.5" x 25	VNXB6GSDAE25
4U 3.5" x 60	VNXB6GSDAE60

Table 5 lists the disk models supported for the DAEs.

Disk models supported by enclosure (DAE or DPE)

DAE Type	7200RPM	10K RPM	15K RPM	FAST Cache FLASH	FAST -VP FLASH
3U 3.5" x 15 DAE	V4-VS07-xxx	V4-VS10-xxx	V4-VS15-xxx	V4-VS6F-xxx	V4-VS6FX-xxx
2U 2.5" x 25 DAE 3U 2.5" x 25 DPE	V4-2S07-xxx	V4-2S10-xxx	V4-2S15-xxx	V4-2S6F-xxx	V4-2S6FX-xxx
4U 3.5" x 60 DAE	V4-DS07-xxx	V4-DS10-xxx	V4-DS15-xxx	V4-DS6F-xxx	V4-DS6FX-xxx

Copyright © 2009-2013 EMC Corporation. All Rights Reserved.

EMC believes the information in this publication is accurate as of its publication date. However, the information is subject to change without notice.

THE INFORMATION IN THIS PUBLICATION IS PROVIDED "AS IS." EMC CORPORATION MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND WITH RESPECT TO THE INFORMATION IN THIS PUBLICATION, AND SPECIFICALLY DISCLAIMS IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Use, copying, and distribution of any EMC software described in this publication requires an applicable software license.

For the most up-to-date regulatory document for your product line, go to the Technical Documentation and Advisories section on EMC Powerlink.

For the most up-to-date listing of EMC product names, see EMC Corporation Trademarks on EMC.com.

All other trademarks used herein are the property of their respective owners.



EMC® VNX5500, VNX5700 and VNX7500 Series Storage Systems

Disk and OE Matrix

P/N 300-012-419

To function properly, disks in an EMC® VNX® system require that each storage processor run minimum revisions of the EMC VNX Operating Environment (VNX OE). This document lists the disk part numbers supported for EMC VNX series storage systems and the minimum software revisions required for each disk model.

The disk part number (PN) appears on a label on the front of the disk carrier. Note that although the OE GUI may display an alpha suffix at the end of the PN (like PWR or SSD) these characters are not part of the actual orderable PN.



CAUTION

Verify that the proper version of VNX OE is running on the storage system before installing any disk drives. Results ranging from non-recognition of the drives to data loss may occur if an improper VNX OE version is installed.

VNX series storage systems

Before installing a new disk in a storage system, use the EMC Unisphere™ Manager to determine the VNX OE revision running on the storage system. In Unisphere Manager, the VNX OE revision appears on the **Software** tab of the **Storage System Properties** dialog box for the storage system. If this revision is lower than the minimum VNX OE revision required for the disk as listed in

[Table 1](#), [Table 2](#), [Table 3](#), or [Table 4](#), you must upgrade the VNX OE on the storage system before installing the disk. EMC recommends that you upgrade VNX OE using the wizards in the System Software section of the Unisphere Service Manager (USM).

Note: Changes and additions in the tables since the last revision of this document are noted in **red** type.

Note: PNs in table 1 with a 'YES' entry in the Spin-Down Support column may report a suffix of PWR through the OE GUI (EX: 005049278PWR). This PWR suffix is used by the OE and is not part of the actual orderable PN.

Note: NEBS model numbers are shown in (parenthesis). Only those part numbers with a 'YES' entry in the NEBS column may be used for NEBS models.

Note: All PNs within this document are RoHS compliant.

Table 1 lists the standard SAS interface disk modules that you can order with VNX series storage systems, and the minimum VNX OE required for each system.

Table 1 Standard 6Gb SAS interface disk modules - Minimum VNX OE revisions required

Disk capacity	Model number (NEBS Model)	Part number	NEBS	Spin-Down Support	Drive type	Spindle speed	Platform	Minimum OE software revision
4TB	VX-VS07-040 (NB-VS07-040) 15-disk	005050748	YES	YES	6Gb SAS 3.5"	7.2K rpm	VNX5500 VNX5700 VNX7500	Block: 05.31.000.5.502 File: 7.0.35.3
		005050749	NO	YES				
		005050148	YES	YES				
		005050149	NO	YES				
		005050552	NO	YES				
		005050953	NO	YES				
		005052065	NO	YES				
		005052064	NO	YES				
		005052468	NO	YES				
		005052469	NO	YES				
	VX-DS07-040 60-disk	005050750	YES	YES				
		005050150	YES	YES				
		005050555	NO	YES				
		005050955	NO	YES				
		005052081	NO	YES				
		005052080	NO	YES				
		005052476	NO	YES				
		005052477	NO	YES				
3 TB	VX-VS07-030 (NB-VS07-030) 15-disk	005049278	NO	YES	6Gb SAS 3.5"	7.2K rpm	VNX5500 VNX5700 VNX7500	Block: 05.31.000.5.502 File: 7.0.35.3
		005049453	YES	YES				
		005049943	NO	YES				
		005050331	NO	YES				
		005050744	YES	YES				
		005050144	YES	YES				
		005050553	NO	YES				
		005050949	NO	YES				
		005052063	NO	YES				
		005052062	NO	YES				
		005052466	NO	YES				
		005052467	NO	YES				

VNX series storage systems

Disk capacity	Model number (NEBS Model)	Part number	NEBS	Spin-Down Support	Drive type	Spindle speed	Platform	Minimum OE software revision
	VX-DS07-030 60-disk	005049210 005049930 005050746 005050556 005050951 005052079 005052078 005052474 005052475	NO NO YES NO NO NO NO NO NO	YES YES YES YES YES YES YES YES YES	6Gb SAS 3.5"	7.2K rpm	VNX5500 VNX5700 VNX7500	Block: 05.31.000.5.502 File: 7.0.35.3
2 TB	VX-VS07-020 (NB-VS07-020) 15-disk	005049277 005049748 005049449 005049496 005050037 005050329 005050740 005050741 005050140 005050554 005050945 005052061 005052060 005052464 005052465	NO NO YES YES YES YES NO YES NO NO NO NO NO NO NO NO	YES YES YES YES YES YES YES YES YES YES YES YES YES YES YES YES	6Gb SAS 3.5"	7.2K rpm	VNX5500 VNX5700 VNX7500	Block: 05.31.000.5.006 File: 7.0.12.
	VX-DS07-020 60-disk	005049188 005049750 005049499 005050289 005050742 005050142 005050557 005050947 005052067 005052066 005052472 005052473	YES NO NO NO YES YES NO NO NO NO NO NO NO	YES YES YES YES YES YES YES YES YES YES YES YES YES	6Gb SAS 3.5"	7.2K rpm	VNX5500 VNX5700 VNX7500	Block: 05.31.000.5.502 File: 7.0.35.3
1 TB	VX-VS07-010 15-disk	005049407 005049493 005050036	NO YES YES	YES YES YES	6Gb SAS 3.5"	7.2K rpm	VNX5500 VNX5700 VNX7500	Block: 05.31.000.5.006 File: 7.0.12.0

VNX series storage systems

Disk capacity	Model number (NEBS Model)	Part number	NEBS	Spin-Down Support	Drive type	Spindle speed	Platform	Minimum OE software revision
900 GB		005050736	YES	YES	6Gb SAS 3.5"	7.2K rpm	VNX5500 VNX5700 VNX7500	Block: 05.31.000.5.502 File: 7.0.35.3
		005050136	YES	YES				
		005052388	NO	YES				
		005052387	NO	YES				
		005052463	NO	YES				
		005052462	NO	YES				
	VX-DS07-010 60-disk	005049408	NO	YES	6Gb SAS 3.5"	7.2K rpm	VNX5500 VNX5700 VNX7500	Block: 05.31.000.5.502 File: 7.0.35.3
		005049495	NO	YES				
		005050286	NO	YES				
		005050738	YES	YES				
		005050138	YES	YES				
		005052390	NO	YES				
		005052389	NO	YES				
		005052471	NO	YES				
		005052470	NO	YES				
	VX-VS10-900 (NB-VS10-900) 15-disk	005049205	YES	YES	6Gb SAS 3.5	10K rpm	VNX5500 VNX5700 VNX7500	Block: 05.31.000.5.006 File: 7.0.12.0
		005049924	YES	YES				
		005049806	YES	YES				
		005050346	YES	YES				
		005050695	YES	YES				
		005050206	YES	YES				
		005051454	NO	YES				
		005051453	NO	YES				
		005051944	NO	YES				
		005051943	NO	YES				
		005052294	NO	YES				
		005052293	NO	YES				
	VX-2S10-900 (NB-2S10-900) 25-disk	005049206	YES	YES	6Gb SAS 2.5"	10K rpm	VNX5500 VNX5700 VNX7500	Block: 05.31.000.5.006 File: 7.0.12.0
		005049925	YES	YES				
		005049809	YES	YES				
		005050349	YES	YES				
		005050701	YES	YES				
		005050212	YES	YES				
		005051468	NO	YES				
		005051467	NO	YES				
		005051958	NO	YES				
		005051957	NO	YES				
		005052302	NO	YES				
		005052301	NO	YES				

VNX series storage systems

Disk capacity	Model number (NEBS Model)	Part number	NEBS	Spin-Down Support	Drive type	Spindle speed	Platform	Minimum OE software revision
	VX-DS10-900 (NB-DS10-900) 60-disk	005049207 005049926 005049813 005050352 005050706 005050217 005051480 005051479 005051970 005051969 005052314 005052313	YES YES YES YES YES YES NO NO NO NO NO NO NO	YES YES YES YES YES YES YES YES YES YES YES YES YES	6Gb SAS 3.5"	10K rpm	VNX5500 VNX5700 VNX7500	Block: 05.31.000.5.502 File: 7.0.35.3
600 GB	VX-VS15-600 (NB-VS15-600) 15-disk IMPORTANT NOTE: Preferred break-fix replacement parts are 005050854 & 005050855	005049274 005049675 005050927 005050928 005050855 005050854	YES YES NO NO NO NO	NO YES YES YES YES YES	6Gb SAS 3.5"	15K rpm	VNX5500 VNX5700 VNX7500	Block: 05.31.000.5.006 File: 7.0.12.0
	VX-VS10-600 (NB-VS10-600) 15-disk	005049249 005049202 005050281 005049801 005050342 005050694 005050205 005050335 005051452 005051451 005051942 005051941 005052292 005052291	YES YES NO YES YES YES YES NO NO NO NO NO NO NO	YES NO YES YES YES YES YES YES YES YES YES YES YES YES	6Gb SAS 3.5"	10K rpm	VNX5500 VNX5700 VNX7500	Block: 05.31.000.5.006 File: 7.0.12.0
	VX-2S10-600 (NB-2S10-600) 25-disk	005049250 005049203 005050282	YES YES NO	YES NO YES	6Gb SAS 2.5"	10K rpm	VNX5500 VNX5700 VNX7500	

VNX series storage systems

Disk capacity	Model number (NEBS Model)	Part number	NEBS	Spin-Down Support	Drive type	Spindle speed	Platform	Minimum OE software revision
		005049804 005050344 005050333 005050700 005050211 005051466 005051465 005051956 005051955 005052300 005052299	YES YES YES YES YES NO NO NO NO NO NO	YES YES YES YES YES YES YES YES YES YES YES				
	VX-DS10-600 (NB-DS10-600) 60-disk	005049284 005049204 005050283 005049812 005050351 005050705 005050216 005050337 005051478 005051477 005051968 005051967 005052312 005052311	YES YES NO YES YES YES YES NO NO NO NO NO NO NO NO	YES YES YES YES YES YES YES YES YES YES YES YES YES YES YES	6Gb SAS 3.5"	10K rpm	VNX5500 VNX5700 VNX7500	Block: 05.31.000.5.502 File: 7.0.35.3
300 GB	VX-VS15-300 (NB-VS15-300) 15-disk IMPORTANT NOTE: Preferred break-fix replacement parts are 005050852 & 005050853	005049273 005049671 005050925 005050926 005050853 005050852	YES YES NO NO NO NO	NO YES YES YES YES YES	6Gb SAS 3.5"	15K rpm	VNX5500 VNX5700 VNX7500	Block: 05.31.000.5.006 File: 7.0.12.0

Disk capacity	Model number (NEBS Model)	Part number	NEBS	Spin-Down Support	Drive type	Spindle speed	Platform	Minimum OE software revision
	VX-VS10-300 (NB-VS10-300) 15-disk	005049175 005049196 005050280 005049796 005050338 005050693 005050204 005051449 005051450 005051940 005051939 005052290 005052289	YES YES NO YES YES NO NO NO NO NO NO NO NO	NO NO NO NO NO NO NO NO YES YES YES YES YES	6Gb SAS 3.5"	10K rpm	VNX5500 VNX5700 VNX7500	
	VX-2S10-300 (NB-2S10-300) 25-disk	005048946 005049197 005049799 005050340 005050277 005050699 005050210 005051464 005051463 005051954 005051953 005052298 005052297	YES YES YES YES NO NO NO NO NO NO NO NO NO	NO NO NO NO NO NO NO NO NO YES YES YES YES	6Gb SAS 2.5"	10K rpm	VNX5500 VNX5700 VNX7500	Block: 05.31.000.5.006 File: 7.0.12.0

Table 2 lists the standard Enterprise Flash Drive (SSD) interface disk modules that you can order with VNX series storage systems and the minimum VNX OE required for each system.

Important Note: PNs in table 2 may report a suffix of SSD through the OE GUI (EX: 005049185SSD). This SSD suffix is used by the OE and is not part of the actual orderable PN.

Table 2 Standard SSD SAS interface disk modules - Minimum OE revisions required

VNX series storage systems

Disk capacity	Model number (NEBS Model)	Part number	NEBS	Spin-Down Support	Drive type	Spindle speed	Platform	Minimum OE software revision
200 GB	VX-VS6F-200 (NB-VS6F-200) FLVXVS6F-200 15-disk	005049185 005049884	YES YES	NA	6Gb SAS 3.5" SSD	N/A	VNX5500 VNX5700 VNX7500	Block: 05.31.000.5.006 File: 7.0.12.0
		005050184 005050362 005051193 005051191	YES YES NO NO	NA	6Gb SAS 3.5" SSD	N/A	VNX5500 VNX5700 VNX7500	Block: 05.31.000.5.502 File: 7.0.35.3
		005050498 005050499	YES YES	NA	6Gb SAS 3.5" SSD	N/A	VNX5500 VNX5700 VNX7500	Block: 05.32.000.5.217 File: 7.1.79.6
	VX-DS6F-200 (NB-DS6F-200) FLVXDS6F-200 60-disk	005049190 005049887 005050190 005050370 005051201 005051199	YES NO YES YES NO NO	NA	6Gb SAS 3.5" SSD	N/A	VNX5500 VNX5700 VNX7500	Block: 05.31.000.5.502 File: 7.0.35.3
		005050505	YES	NA	6Gb SAS 3.5" SSD	N/A	VNX5500 VNX5700 VNX7500	Block: 05.32.000.5.217 File: 7.1.79.6
	VX-2S6F-200 (NB-2S6F-200) FLVX2S6F-200 25-disk	005049264 005049622 005050366 005050368 005051197 005051195	YES YES YES YES NO NO	NA	6Gb SAS 2.5" SSD	N/A	VNX5500 VNX5700 VNX7500	Block: 05.31.000.5.502 File: 7.0.35.3
		005050502 005050503	YES YES	NA	6Gb SAS 2.5" SSD	N/A	VNX5500 VNX5700 VNX7500	Block: 05.32.000.5.217 File: 7.1.79.6
100GB	VX-VS6F-100 (NB-VS6F-100) FLVXVS6F-100 15-disk	005049184 005049882	YES YES	NA	6Gb SAS 3.5" SSD	NA	VNX5500 VNX5700 VNX7500	Block: 05.31.000.5.006 File: 7.0.12.0
		005050183 005050361 005051380 005051379	YES YES NO NO	NA	6Gb SAS 2.5" SSD	N/A	VNX5500 VNX5700 VNX7500	Block: 05.31.000.5.502 File: 7.0.35.3

Disk capacity	Model number (NEBS Model)	Part number	NEBS	Spin-Down Support	Drive type	Spindle speed	Platform	Minimum OE software revision
	VX-DS6F-100 (NB-DS6F-100) FLVXDS6F-100 60-disk	005050496 005050497	YES YES	NA	6Gb SAS 3.5" SSD	N/A	VNX5500 VNX5700 VNX7500	Block: 05.32.000.5.217 File: 7.1.79.6
		005049189 005049886 005050189 005050369 005051396 005051395	YES NO YES YES NO NO	NA	6Gb SAS 3.5" SSD	NA	VNX5500 VNX5700 VNX7500	Block: 05.31.000.5.502 File: 7.0.35.3
		005050504	YES	NA	6Gb SAS 3.5" SSD	N/A	VNX5500 VNX5700 VNX7500	Block: 05.32.000.5.217 File: 7.1.79.6
	VX-2S6F-100 (NB-2S6F-100) FLVX2S6F-100 25-disk	005049263 005049621 005050367 005050365 005051388 005051387	YES YES YES NO NO NO	NA	6Gb SAS 2.5" SSD	NA	VNX5500 VNX5700 VNX7500	Block: 05.31.000.5.502 File: 7.0.35.3
		005050500 005050501	YES YES	NA	6Gb SAS 2.5" SSD	N/A	VNX5500 VNX5700 VNX7500	Block: 05.32.000.5.217 File: 7.1.79.6

Available disk space

Table 3 lists the usable space for the disks listed in Table 1 and Table 2.

Table 3 Usable disk space

Listed capacity ¹	USABLE CAPACITY PER DISK		
	Disk	VNX5500	VNX5700, VNX7500
4TB	Disk 0-3 (vault disk)	3613.7965GB	Not Supported as vault disk
	Other disk	3668.6685GB	
3TB	Disk 0-3 (vault disk)	2568.0829GB	Not supported as vault disk
	Other disk	2751.5097GB	
2 TB	Disk 0-3 (vault disk)	1640.1520GB	Not supported as vault disk
	Other disk	1834.3236GB	
1 TB	Disk 0-3 (vault disk)	733.7379GB	Not supported as vault disk
	Other disk	917.1648GB	
900 GB	Disk 0-3 (vault disk)	637.1739GB	
	Other disk	820.6008GB	
600 GB	Disk 0-3 (vault disk)	353.3638GB	
	Other disk	536.7907GB	
300 GB	Disk 0-3 (vault disk)	84.9597GB	
	Other disk	268.3865GB	
200 GB	Disk 0-3 (vault disk)	Not supported as vault disk	
	Other disk	183.4268GB	
100 GB	Disk 0-3 (vault disk)	Not supported as vault disk	
	Other disk	91.7096GB	

Supported disk-array enclosures

¹ The listed capacity is the disk capacity listed for the disks in [Table 1](#) and [Table 2](#).

Table 4 lists the disk-array enclosures (DAEs) supported for VNX storage systems.

Table 4 Supported disk-array enclosures (DAEs)

DAE type	VNX		
	VNX5500	VNX5700	VNX7500
4U 3.5" x 60	VNX6GSDAE60	VNX6GSDAE60 VNX6GSDAE60P	VNX6GSDAE60 VNX6GSDAE60P
3U 3.5" x 15	VNX6GSDAE15 VNX6GSDAE15F	VNX6GSDAE15 VNX6GSDAE15F VNX6GSDAE15P VNX6GSDAE15PF	VNX6GSDAE15 VNX6GSDAE15F VNX6GSDAE15P VNX6GSDAE15PF
2U 2.5" x 25	VNX6GSDAE25 VNX6GSDAE25F	VNX6GSDAE25 VNX6GSDAE25F VNX6GSDAE25P VNX6GSDAE25PF	VNX6GSDAE25 VNX6GSDAE25F VNX6GSDAE25P VNX6GSDAE25PF

Table 5 lists the disk models supported for the DAEs.

Table 5 Disk models supported for disk-array enclosures (DAEs)

DAE type	Storage systems: VNX5500, VNX5700, VNX7500			
	7200RPM	10K RPM	15K RPM	FLASH
4U 3.5" x 60	VX-DS07-xxx	VX-DS10-xxx	N/A	VX-DS6F-xxx
3U 3.5" x 15	VX-VS07-xxx	VX-VS10-xxx	VX-VS15-xxx	VX-VS6F-xxx
2U 2.5" x 25	N/A	VX-2S10-xxx	N/A	VX-2S6F-xxx

Copyright © 2009-2013 EMC Corporation. All Rights Reserved.

EMC believes the information in this publication is accurate as of its publication date. However, the information is subject to change without notice.

THE INFORMATION IN THIS PUBLICATION IS PROVIDED "AS IS." EMC CORPORATION MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND WITH RESPECT TO THE INFORMATION IN THIS PUBLICATION, AND SPECIFICALLY DISCLAIMS IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Use, copying, and distribution of any EMC software described in this publication requires an applicable software license.

For the most up-to-date regulatory document for your product line, go to the Technical Documentation and Advisories section on EMC Powerlink.

For the most up-to-date listing of EMC product names, see EMC Corporation Trademarks on EMC.com.

All other trademarks used herein are the property of their respective owners.



EMC® VNX5100 and VNX5300 Series Storage Systems

Disk and OE Matrix

P/N 300-012-417

To function properly, disks in an EMC® VNX® system require that each storage processor run minimum revisions of the EMC VNX Operating Environment (VNX OE). This document lists the disk part numbers supported for EMC VNX series storage systems and the minimum software revisions required for each disk model.

The disk part number (PN) appears on a label on the front of the disk carrier. Note that although the OE GUI may display an alpha suffix at the end of the PN (like PWR or EFD) these characters are not part of the actual orderable PN.



CAUTION

Verify that the proper version of VNX OE is running on the storage system before installing any disk drives. Results ranging from non-recognition of the drives to data loss may occur if an improper VNX OE version is installed.

VNX series storage systems

Before installing a new disk in a storage system, use the EMC Unisphere™ Manager to determine the VNX OE revision running on the storage system. In Unisphere Manager, the VNX OE revision appears on the **Software** tab of the **Storage System Properties** dialog box for the storage system. If this revision is lower than the minimum VNX OE revision required for the disk as listed in

[Table 1](#) or [Table 2](#), you must upgrade the VNX OE on the storage system before installing the disk. EMC recommends that you upgrade VNX OE using the wizards in the System Software section of the Unisphere Service Manager (USM).

Note: Changes and additions in the tables since the last revision of this document are noted in **red** type.

Note: PNs in tables with a 'YES' entry in the Spin-Down Support column may report a suffix of PWR through the OE GUI (EX: 005049278PWR). This PWR suffix is used by the OE and is not part of the actual orderable PN.

Note: NEBS model numbers are shown in (parenthesis). Only those part numbers with a 'YES' entry in the NEBS column may be used for NEBS models.

Note: All PNs within this document are RoHS compliant.

[Table 1](#) lists the standard SAS interface disk modules that you can order with VNX series storage systems and the minimum VNX OE required for each system.

Table 1 Standard 6Gb SAS interface disk modules - Minimum VNX OE revisions required

Disk capacity	Model number (NEBS Model)	Part number	NEBS	Spin-Down Support	Drive type	Spindle speed	Platform	Minimum OE software revision
4 TB	V3-VS07-040 (N3-VS07-040)	005050749	NO	YES	6Gb SAS 3.5"	7.2K rpm	VNX5300 VNX5100	Block: 05.31.000.5.502 File: 7.0.35.3
		005050748	YES	YES				
		005050149	NO	YES				
		005050148	YES	YES				
		005050552	NO	YES				
		005050953	NO	YES				
		005050587	NO	YES				
		005050954	NO	YES				
		005052065	NO	YES				
		005052064	NO	YES				
		005052469	NO	YES				
		005052468	NO	YES				
3 TB	V3-VS07-030 (N3-VS07-030) 15-disk	005049278	NO	YES	6Gb SAS 3.5"	7.2K rpm	VNX5300 VNX5100	Block: 05.31.000.5.502 File: 7.0.35.3
		005049280	NO	YES				
		005049453	YES	YES				
		005049454	YES	YES				
		005049943	NO	YES				
		005049945	NO	YES				
		005050331	YES	YES				
		005050332	NO	YES				
		005050744	YES	YES				
		005050745	NO	YES				
		005050144	YES	YES				
		005050145	NO	YES				
		005050553	NO	YES				
		005050949	NO	YES				
		005050585	NO	YES				
		005050950	NO	YES				
		005052063	NO	YES				
		005052062	NO	YES				
		005052467	NO	YES				
		005052466	NO	YES				

VNX series storage systems

Disk capacity	Model number (NEBS Model)	Part number	NEBS	Spin-Down Support	Drive type	Spindle speed	Platform	Minimum OE software revision
2 TB	V3-VS07-020 (N3-VS07-020) 15-disk	005049277	NO	YES	6Gb SAS 3.5"	7.2K rpm	VNX5300 VNX5100	Block: 05.31.000.5.006 File: 7.0.12.0
		005049279	YES	YES				
		005049449	YES	YES				
		005049450	NO	YES				
		005049748	YES	YES				
		005049496	YES	YES				
		005049497	YES	YES				
		005050037	YES	YES				
		005050290	YES	YES				
		005050329	NO	YES				
		005050330	NO	YES				
		005050740	YES	YES				
		005050741	NO	YES				
		005050140	YES	YES				
		005050141	NO	YES				
		005050554	NO	YES				
		005050945	NO	YES				
		005050583	NO	YES				
		005050946	NO	YES				
		005052061	NO	YES				
		005052060	NO	YES				
		005052465	NO	YES				
		005052464	NO	YES				
1 TB	V3-VS07-010 15-disk	005049305	NO	YES	6Gb SAS 3.5"	7.2K rpm	VNX5300 VNX5100	Block: 05.31.000.5.006 File: 7.0.12.0
		005049494	YES	YES				
		005049407	NO	YES				
		005049493	YES	YES				
		005050036	YES	YES				
		005050287	YES	YES				
		005050736	YES	YES				
		005050737	YES	YES				
		005050136	YES	YES				
		005050137	YES	YES				
		005052388	NO	YES				
		005052387	NO	YES				
		005052463	NO	YES				
		005052462	NO	YES				
		900 GB	V3-2S10-900 (N3-2S10-900)	005049206				
005049295	YES			NO				

Disk capacity	Model number (NEBS Model)	Part number	NEBS	Spin-Down Support	Drive type	Spindle speed	Platform	Minimum OE software revision
	25-disk	005049951	NO	YES				
		005049925	YES	YES				
		005049810	NO	YES				
		005049809	YES	YES				
		005050350	NO	YES				
		005050349	YES	YES				
		005050701	YES	YES				
		005050212	YES	YES				
		005050704	NO	YES				
		005050215	NO	YES				
		005051468	NO	YES				
		005051467	NO	YES				
		005051462	NO	YES				
		005051461	NO	YES				
		005051958	NO	YES				
		005051957	NO	YES				
		005052302	NO	YES				
		005052301	NO	YES				
	V3-VS10-900 (N3-VS10-900) 15-disk	005049205	YES	YES	6Gb SAS 3.5"	10K rpm	VNX5300 VNX5100	Block: 05.31.000.5.006 File: 7.0.12.0
		005049302	YES	NO				
		005049956	YES	NO				
		005049924	YES	YES				
		005049806	YES	YES				
		005049807	YES	YES				
		005050346	YES	YES				
		005050347	NO	YES				
		005050695	YES	YES				
		005050206	YES	YES				
		005050698	YES	YES				
		005050209	YES	YES				
		005051454	NO	YES				
		005051453	NO	YES				
		005051448	NO	YES				
		005051447	NO	YES				
		005051944	NO	YES				
		005051943	NO	YES				
		005052294	NO	YES				
		005052293	NO	YES				

VNX series storage systems

Disk capacity	Model number (NEBS Model)	Part number	NEBS	Spin-Down Support	Drive type	Spindle speed	Platform	Minimum OE software revision
600 GB	V3-VS15-600 (N3-VS15-600) 15-disk IMPORTANT NOTE: Preferred break-fix replacement parts are 005050854 & 005050855	005049274	YES	NO	6Gb SAS 3.5"	15K rpm	VNX5300 VNX5100	Block: 05.31.000.5.006 File: 7.0.12.0
		005049272	YES	NO				
		005049675	YES	YES				
		005049677	YES	YES				
		005050928	NO	YES				
		005050927	NO	YES				
		005050924	NO	YES				
		005050957	NO	YES				
		005050855	NO	YES				
		005050854	NO	YES				
		005050851	NO	YES				
		005050850	NO	YES				
	V3-VS10-600 (N3-VS10-600) 15-disk	005049249	YES	YES	6Gb SAS 3.5"	10K rpm	VNX5300 VNX5100	Block: 05.31.000.5.006 File: 7.0.12.0
		005050335	NO	YES				
		005049301	YES	YES				
		005049202	YES	YES				
		005049818	YES	YES				
		005050281	NO	YES				
		005050284	NO	YES				
		005049801	NO	YES				
		005049802	NO	YES				
		005050342	NO	YES				
		005050343	NO	YES				
		005050694	YES	YES				
		005050205	YES	YES				
		005050697	YES	YES				
		005050208	YES	YES				
		005051452	NO	YES				
		005051451	NO	YES				
		005051446	NO	YES				
		005051445	NO	YES				
		005051942	NO	YES				
		005051941	NO	YES				
		005050336	YES	YES				
		005052292	NO	YES				
		005052291	NO	YES				
	V3-2S10-600 (N3-2S10-600) 25-disk	005049250	YES	YES	6Gb SAS 2.5"	10K rpm	VNX5300 VNX5100	Block: 05.31.000.5.006 File: 7.0.12.0
		005049294	YES	YES				
		005049203	NO	NO				
		005049820	NO	NO				

Disk capacity	Model number (NEBS Model)	Part number	NEBS	Spin-Down Support	Drive type	Spindle speed	Platform	Minimum OE software revision
		005050282	YES	YES				
		005050285	NO	YES				
		005049804	NO	YES				
		005049805	NO	YES				
		005050344	NO	YES				
		005050345	NO	YES				
		005050334	YES	YES				
		005050333	YES	YES				
		005050700	YES	YES				
		005050211	YES	YES				
		005050703	NO	YES				
		005050214	NO	YES				
		005051466	NO	YES				
		005051465	NO	YES				
		005051460	NO	YES				
		005051459	NO	YES				
		005051956	NO	YES				
		005051955	NO	YES				
		005052300	NO	YES				
		005052299	NO	YES				
300 GB	V3-VS15-300 (N3-VS15-300) 15-disk IMPORTANT NOTE: Preferred break-fix replacement parts are 005050852 & 005050853	005049273	YES	NO	6Gb SAS 3.5"	15K rpm	VNX5300 VNX5100	Block: 05.31.000.5.006 File: 7.0.12.0
		005049271	YES	NO				
		005049671	YES	YES				
		005049673	YES	YES				
		005050926	NO	YES				
		005050925	NO	YES				
		005050922	NO	YES				
		005050921	NO	YES				
		005050853	NO	YES				
		005050852	NO	YES				
		005050849	NO	YES				
		005050848	NO	YES				

VNX series storage systems

Disk capacity	Model number (NEBS Model)	Part number	NEBS	Spin-Down Support	Drive type	Spindle speed	Platform	Minimum OE software revision
	V3-VS10-300 (N3-VS10-300) 15-disk	005049175	YES	NO	6Gb SAS 3.5"	10K rpm	VNX5300 VNX5100	Block: 05.31.000.5.006 File: 7.0.12.0
		005049299	YES	NO				
		005049196	NO	NO				
		005049819	NO	NO				
		005050280	NO	NO				
		005050278	NO	NO				
		005049796	NO	NO				
		005049797	NO	NO				
		005050338	NO	NO				
		005050339	NO	NO				
		005050693	NO	NO				
		005050696	NO	NO				
		005050204	NO	NO				
		005050207	NO	NO				
		005051450	NO	NO				
		005051449	NO	NO				
		005051444	NO	NO				
		005051443	NO	NO				
		005051940	NO	NO				
		005051939	NO	NO				
		005052290	NO	NO				
		005052289	NO	NO				
	V3-2S10-300 (N3-2S10-300) 25-disk	005048946	YES	NO	6Gb SAS 2.5"	10K rpm	VNX5300 VNX5100	Block: 05.31.000.5.006 File: 7.0.12.0
		005049292	YES	NO				
		005049197	NO	NO				
		005049821	NO	NO				
		005050277	NO	NO				
		005050279	NO	NO				
		005049799	NO	NO				
		005049800	NO	NO				
		005050340	NO	NO				
		005050341	NO	NO				
		005050702	NO	NO				
		005050213	NO	NO				
		005051464	NO	NO				
		005051463	NO	NO				
		005051458	NO	NO				
		005051457	NO	NO				
		005051954	NO	NO				
		005051953	NO	NO				

Disk capacity	Model number (NEBS Model)	Part number	NEBS	Spin-Down Support	Drive type	Spindle speed	Platform	Minimum OE software revision
		005052298	NO	NO				
		005052297	NO	NO				
		005050699	NO	NO				
		005050210	NO	NO				

Table 2 lists the standard Enterprise Flash Drive (EFD) interface disk modules that you can order with VNX series storage systems and the minimum VNX OE required for each system.

Table 2 Standard EFD (enterprise flash drive) SAS interface disk modules - Minimum OE revisions required

Disk capacity	Model number (NEBS Model)	Part number	NEBS	Spin-Down Support	Drive type	Spindle speed	Platform	Minimum OE software revision
200 GB	V3-2S6F-200 (N3-2S6F-200) FLV32S6F-200 25-disk	005049264	YES	NA	6Gb SAS 2.5" EFD	NA	VNX5300 VNX5100	Block: 05.31.000.5.502 File: 7.0.35.3
		005049297	YES					
		005049622	NO					
		005050188	NO					
		005050368	NO					
		005050366	NO					
		005051197	NO					
		005051195	NO					
		005050502	YES	NA	6Gb SAS 2.5" EFD	NA	VNX5300 VNX5100	Block: 05.32.000.5.217 File: 7.1.79.6
		005050503	YES					
200 GB	V3-VS6F-200 (N3-VS6F-200) FLV3VS6F-200 15-disk	005049185	YES	NA	6Gb SAS 3.5" EFD	N/A	VNX5300 VNX5100	Block: 05.31.000.5.006 File: 7.0.12.0
		005049298	NO					
		005049884	YES					
		005049885	YES					
		005050184	NO	NA	6Gb SAS 3.5" EFD	N/A	VNX5300 VNX5100	Block: 05.31.000.5.502 File: 7.0.35.3
		005050186	NO					
		005050364	NO					
		005050362	NO					
		005051193	NO					
		005051191	NO					
		005050498	YES	NA	6Gb SAS 3.5" EFD	NA	VNX5300 VNX5100	Block: 05.32.000.5.217 File: 7.1.79.6
		005050499	YES					

VNX series storage systems

Disk capacity	Model number (NEBS Model)	Part number	NEBS	Spin-Down Support	Drive type	Spindle speed	Platform	Minimum OE software revision
100 GB	V3-2S6F-100 (N3-2S6F-100) FLV32S6F-100 25-disk	005049263	YES	NA	6Gb SAS 2.5" EFD	NA	VNX5300 VNX5100	Block: 05.31.000.5.502 File: 7.0.35.3
		005049296	YES					
		005049621	NO					
		005050187	NO					
		005050367	NO					
		005050365	NO					
		005051388	NO					
		005051387	NO					
		005050500	YES	NA	6Gb SAS 2.5" EFD	NA	VNX5300 VNX5100	Block: 05.32.000.5.217 File: 7.1.79.6
		005050501	YES					
100 GB	V3-VS6F-100 (N3-VS6F-100) FLV3VS6F-100 15-disk	005049184	YES	NA	6Gb SAS 3.5" EFD	NA	VNX5300 VNX5100	Block: 05.31.000.5.006 File: 7.0.12.0
		005049229	NO					
		005049882	YES					
		005049883	YES					
		005050183	YES	NA	6Gb SAS 3.5" EFD	NA	VNX5300 VNX5100	Block: 05.31.000.5.502 File: 7.0.35.3
		005050185	YES					
		005050363	YES					
		005050361	YES					
		005051380	NO					
		005051379	NO					
		005050496	YES	NA	6Gb SAS 3.5" EFD	NA	VNX5300 VNX5100	Block: 05.32.000.5.217 File: 7.1.79.6
		005050497	YES					

Available disk space

[Table 3](#) lists the usable space for the disks listed in

[Table 1](#) and [Table 2](#).

Table 3 Usable disk space

Listed capacity ¹	USABLE CAPACITY PER DISK	
	Disk	VNX5100, VNX5300
4 TB	Disk 0-3 (vault disk)	3613.7965GB
	Other disk	3668.6685GB
3 TB	Disk 0-3 (vault disk)	2568.0829GB
	Other disk	2751.5097GB
2 TB	Disk 0-3 (vault disk)	1650.9104GB
	Other disk	1834.3373GB
1 TB	Disk 0-3 (vault disk)	733.7379GB
	Other disk	917.1648GB
900 GB	Disk 0-3 (vault disk)	637.1739GB
	Other disk	820.6008GB
600 GB	Disk 0-3 (vault disk)	353.3638GB
	Other disk	536.7907GB
300 GB	Disk 0-3 (vault disk)	84.9597GB
	Other disk	268.3865GB
200 GB	Disk 0-3 (vault disk)	Not supported as vault disk
	Other disk	183.4268GB
100 GB	Disk 0-3 (vault disk)	Not supported as vault disk
	Other disk	91.7096GB

¹ The listed capacity is the disk capacity listed for the disks in

[Table 1](#) and [Table 2](#).

Supported disk-array enclosures

[Table 4](#) lists the disk-array enclosures (DAEs) supported for VNX storage systems.

Table 4 Supported disk-array enclosures (DAEs)

DAE type	VNX	
	VNX5100	VNX5300
3U 3.5" x 15	V31-DAE-R-15 V31-DAE-N-15	V31-DAE-R-15 V31-DAE-N-15
2U 2.5" x 25	V2-DAE-R-25-A V2-DAE-N-25-A	V2-DAE-R-25-A V2-DAE-N-25-A

[Table 5](#) lists the disk models supported for the DAEs.

Table 5 Disk models supported for disk-array enclosures (DAEs)

DAE type	Storage systems: VNX5100, VNX5300			
	7200RPM	10K RPM	15K RPM	FLASH
3U 3.5" x 15	V3-VS07-xxx	V3-VS10-xxx	V3-VS15-xxx	V3-VS6F-xxx
2U 2.5" x 25	N/A	V3-2S10-xxx	N/A	V3-2S6F-xxx

Copyright © 2009-2013 EMC Corporation. All Rights Reserved.

EMC believes the information in this publication is accurate as of its publication date. However, the information is subject to change without notice.

THE INFORMATION IN THIS PUBLICATION IS PROVIDED "AS IS." EMC CORPORATION MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND WITH RESPECT TO THE INFORMATION IN THIS PUBLICATION, AND SPECIFICALLY DISCLAIMS IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Use, copying, and distribution of any EMC software described in this publication requires an applicable software license.

For the most up-to-date regulatory document for your product line, go to the Technical Documentation and Advisories section on EMC Powerlink.

For the most up-to-date listing of EMC product names, see EMC Corporation Trademarks on EMC.com.

All other trademarks used herein are the property of their respective owners.



EMC® VNXe® 3200 Series Storage Systems

Disk and OE Matrix

To function properly, disks in an EMC® VNXe® 3200 system require that each storage processor run minimum revisions of the Operating Environment (OE). This document lists the disk part numbers supported for VNXe series storage systems and the minimum software revisions required for each disk model.

The disk part number (PN) appears on a label on the front of the disk carrier. Note that although the OE GUI may display an alpha suffix at the end of the PN (like EFD) these characters are not part of the actual orderable PN.



CAUTION

Verify that the proper version of the OE is running on the storage system before installing any disk drives. Results ranging from non-recognition of the drives to data loss may occur if an improper OE version is installed.

VNXe 3200 series storage systems

Before installing a new disk in a storage system, use EMC Unisphere® to determine the OE revision running on the storage system. In Unisphere, the OE revision can be found by navigating to **Settings --> More Configuration --> Update Software**. The OE revision appears on the **Software** tab in the **Software Version** dialog box. If this revision is lower than the minimum revision required for the disk, as listed in Table 1 or Table 2, you must upgrade the OE on the storage system before installing the disk. EMC recommends that you upgrade the OE from the **Update Software** page in EMC Unisphere, though you can use the Unisphere CLI.

Note 1: VNXe3200 drives do not support Spin Down.

Note 2: All drives listed in this document are RoHS compliant.

Table 1 VNXe3200 3.5" 12-Slot Enclosures:

Disk Capacity	Model Number (NEBS Model)	Part Number	NEBS?	Drive Type	Spindle Speed	Platform	Minimum OE Software Revision
100 GB	V6-PS6F-100 (N6-PS6F-200)	005050427	YES	6Gb SAS SSD	N/A	VNXe3200	3.0.0.2960754
		005050873	YES				
		005050506	YES				
		005051392	NO				
		005051391	NO				
100 GB	V6-PS6FX-100 (N6-PS6FX-100)	005050424	YES	6Gb SAS SSD	N/A	VNXe3200	3.0.0.2960754
		005050537	YES				
		005051802	NO				
		005051801	NO				
200 GB	V6-PS6F-200 (N6-PS6F-200)	005050428	YES	6Gb SAS EFD	N/A	VNXe3200	3.0.0.2960754
		005050874	YES				
		005050507	YES				
		005051189	NO				
		005051187	NO				
200 GB	V6-PS6FX-200 (N6-PS6FX-200)	005050425	YES	6Gb SAS SSD	N/A	VNXe3200	3.0.0.2960754
		005050538	YES				
		005051175	NO				
		005051176	NO				

Disk Capacity	Model Number (NEBS Model)	Part Number	NEBS?	Drive Type	Spindle Speed	Platform	Minimum OE Software Revision
300 GB	V6-PS15-300 (N6-PS15-300)	005049037 005049905 005049674 005050938 005050937 005050860 005050861	YES YES YES NO NO NO NO	6Gb SAS	15K rpm	VNXe3200	3.0.0.2960754
600 GB	V6-PS10-600 (N6-PS10-600)	005050624 005050627 005050399 005051097 005051472 005051471 005051962 005051961 005052306 005052305	YES YES NO NO NO NO NO NO NO NO	6Gb SAS	10K rpm	VNXe3200	3.0.0.2960754
600 GB	V6-PS15-600 (N6-PS15-600)	005049039 005049906 005049678 005050940 005050939 005050863 005050862	YES YES YES NO NO NO NO	6Gb SAS	15K rpm	VNXe3200	3.0.0.2960754
800 GB	V6-PS6FX-800 (No NEBS Yet)	005050810 005050809 005051171 005051172	NO NO NO NO	6Gb SAS SSD	N/A	VNXe3200	3.1.1.4823793
900 GB	V6-PS10-900 (N6-PS10-900)	005049808 005050348 005050707 005050398 005051474 005051473 005051964 005051963 005052308 005052307	YES YES NO NO NO NO NO NO NO NO	6Gb SAS	10K rpm	VNXe3200	3.0.0.2960754

Disk Capacity	Model Number (NEBS Model)	Part Number	NEBS?	Drive Type	Spindle Speed	Platform	Minimum OE Software Revision
1200 GB	V6-PS10-012 (N6-PS10-012)	005050825	YES	6Gb SAS	10K rpm	VNXe3200	3.1.1.4823793
		005050081	YES				
		005051476	NO				
		005051475	NO				
		005051965	NO				
		005051966	NO				
		005052310	NO				
		005052309	NO				
2 TB	V6-PS07-020 (N6-PS07-020)	005050743	YES	6Gb SAS	7.2K rpm	VNXe3200	3.0.0.2960754
		005050143	YES				
		005050584	NO				
		005050948	NO				
		005052073	NO				
		005052072	NO				
		005052480	NO				
		005052481	NO				
		005052480	NO				
4 TB	V6-PS07-040 (N6-PS07-040)	005050751	YES	6Gb SAS	7.2K rpm	VNXe3200	3.0.0.2960754
		005050151	YES				
		005050588	NO				
		005050956	NO				
		005052077	NO				
		005052076	NO				
		005052484	NO				
		005052485	NO				
		005052484	NO				
		005052485	NO				

Table 2 VNXe3200 2.5" 25-Slot Enclosures:

Disk capacity	Model number (NEBS Model)	Part number	NEBS?	Drive type	Spindle speed	Platform	Minimum OE software revision
---------------	---------------------------	-------------	-------	------------	---------------	----------	------------------------------

Disk capacity	Model number (NEBS Model)	Part number	NEBS?	Drive type	Spindle speed	Platform	Minimum OE software revision
100 GB	V6-2S6F-100 (N6-2S6F-100)	005049621	YES	6Gb SAS SSD	N/A	VNXe3200	3.0.0.2960754
		005050367	YES				
		005050500	YES				
		005051388	NO				
		005051387	NO				
100 GB	V6-2S6FX-100 (N6-2S6FX-100)	005050598	YES	6Gb SAS SSD	N/A	VNXe3200	3.0.0.2960754
		005050540	YES				
		005051806	NO				
		005051807	NO				
200 GB	V6-2S6F-200 (N6-2S6F-200)	005049622	YES	6Gb SAS SSD	N/A	VNXe3200	3.0.0.2960754
		005050368	YES				
		005050502	YES				
		005051197	NO				
		005051195	NO				
	V6-2S6FX-200 (N6-2S6FX-200)	005050599	YES	6Gb SAS SSD	N/A	VNXe3200	3.0.0.2960754
		005050523	YES				
		005051137	NO				
		005051138	NO				
300 GB	V6-2S15-300 (N6-2S15-300)	005050604	YES	6Gb SAS	15K rpm	VNXe3200	3.0.0.2960754
		005050548	YES				
		005050933	NO				
		005050934	NO				
		005050845	NO				
		005050844	NO				
600 GB	V6-2S10-600 (N6-2S10-600)	005050700	YES	6Gb SAS	10K rpm	VNXe3200	3.0.0.2960754
		005050211	YES				
		005049804	YES				
		005050344	YES				
		005051466	NO				
		005051465	NO				
		005051956	NO				
		005051955	NO				
		005052300	NO				
		005052299	NO				
	V6-2S15-600	005050936	NO	6Gb SAS	15K rpm	VNXe3200	3.0.0.2960754
		005050935	NO				
		005050847	NO				
		005050846	NO				

Disk capacity	Model number (NEBS Model)	Part number	NEBS?	Drive type	Spindle speed	Platform	Minimum OE software revision
800 GB	V6-2S6FX-800	005050800 005050785 005051129 005051130 005052221 005052220	NO NO NO NO NO NO	6Gb SAS SSD	N/A	VNXe3200	3.1.1.4823793
900 GB	V6-2S10-900 (N6-2S10-900)	005050701 005050212 005049809 005050349 005051468 005051467 005051958 005051957 005052302 005052301	YES YES YES YES NO NO NO NO NO NO	6Gb SAS	10K rpm	VNXe3200	3.0.0.2960754
1200 GB	V6-2S10-012 (N6-2S10-012)	005050828 005050084 005051470 005051469 005051959 005051960 005052304 005052303	YES YES NO NO NO NO NO NO	6Gb SAS	10K rpm	VNXe3200	3.1.1.4823793
1600GB	V6-2S6FX-1600	005051141 005051142 005052229 005052228	NO NO NO NO	6Gb SAS SSD	N/A	VNXe3200	3.1.5.6801782

Supported disk-array enclosures

Table 4 lists the disk-array enclosures (DAEs) supported for VNXe3200 storage systems.

Table 4 Supported disk-array enclosures (DAEs)

DAE type	VNXe3200
2U 3.5" x 12 DAE	V32-DAE-12
2U 2.5" X25 DAE	V32-DAE-25

Table 5 lists the 3.5" disk models supported for these DAEs.

Table 5 Disk models supported for VNXe 3.5" & 2.5" disk-array enclosures (DAEs)

DAE TYPE	7200RPM	10K RPM	15K RPM	FAST Cache FLASH	FAST -VP FLASH
2U 3.5" x 12 DAE	V6-PS07-xxx	V6-PS10-xxx	V6-PS15-xxx	V6-PS6F-xxx	V6-PS6FX-xxx
2U 2.5" X25 DAE	V6-2S07-xxx	V6-2S10-xxx	V6-2S15-xxx	V6-2S6F-xxx	V6-2S6FX-xxx

Copyright © 2014 EMC Corporation. All Rights Reserved.

EMC believes the information in this publication is accurate as of its publication date. However, the information is subject to change without notice.

THE INFORMATION IN THIS PUBLICATION IS PROVIDED "AS IS." EMC CORPORATION MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND WITH RESPECT TO THE INFORMATION IN THIS PUBLICATION, AND SPECIFICALLY DISCLAIMS IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Use, copying, and distribution of any EMC software described in this publication requires an applicable software license.

For the most up-to-date regulatory document for your product line, go to the Technical Documentation and Advisories section on EMC Powerlink.

For the most up-to-date listing of EMC product names, see EMC Corporation Trademarks on EMC.com.

All other trademarks used herein are the property of their respective owners.



EMC® VNXe® Series Storage Systems

Disk and OE Matrix

P/N 300-012-418

To function properly, disks in an EMC® VNXe® system require that each storage processor run minimum revisions of the Operating Environment (OE). This document lists the disk part numbers supported for VNXe series storage systems and the minimum software revisions required for each disk model.

The disk part number (PN) appears on a label on the front of the disk carrier. Note that although the OE GUI may display an alpha suffix at the end of the PN (like EFD) these characters are not part of the actual orderable PN.



CAUTION

Verify that the proper version of the OE is running on the storage system before installing any disk drives. Results ranging from non-recognition of the drives to data loss may occur if an improper OE version is installed.

VNXe series storage systems

Before installing a new disk in a storage system, use EMC Unisphere® to determine the OE revision running on the storage system. In Unisphere, the OE revision can be found by navigating to **Settings --> More Configuration --> Update Software**. The OE revision appears on the **Software** tab in the **Software Version** dialog box. If this revision is lower than the minimum revision required for the disk, as listed in Table 1 or Table 2, you must upgrade the OE on the storage system before installing the disk. EMC recommends that you upgrade the OE from the **Update Software** page in EMC Unisphere, though you can use the Unisphere CLI.

NOTE: All disk drives listed within are RoHS compliant.

Table 1 VNXe3100 & VNXe3150 3.5" 12-Slot Enclosures:

Disk capacity	Model number	Part number	Spin-Down Support	Drive type	Spindle speed	Platform	Minimum OE software revision
4 TB	V2-PS07-040	005050751	NO	6Gb SAS	7.2K rpm	VNXe3100 VNXe3150	2.4.0.20932
		005050151	NO				
		005050588	NO				
		005050956	NO				
		005052077	NO				
		005052076	NO				
		005052485	NO				
		005052484	NO				
3 TB	V2-PS07-030	005049291	NO	6Gb SAS	7.2K rpm	VNXe3100 VNXe3150	2.3.1.19462
		005049948	NO				
		005050747	NO				
		005050147	NO				
		005050586	NO				
		005050952	NO				
		005052075	NO				
		005052074	NO				
		005052483	NO				
		005052482	NO				
3 TB SED	V2-PS07E-030	005049584	NO	6Gb SAS	7.2K rpm	VNXe3150	2.4.0.20932

Disk capacity	Model number	Part number	Spin-Down Support	Drive type	Spindle speed	Platform	Minimum OE software revision
		005050458	NO				
2 TB	V2-PS07-020	005049225 005049498 005050291 005050743 005050143 005050584 005050948 005052073 005052072 005052481 005052480	NO NO NO NO NO NO NO NO NO NO NO NO	6Gb SAS	7.2K rpm	VNXe3100 VNXe3150	2.0.0.12628
1 TB	V2-PS07-010	005049306 005049503 005050288 005050739 005050139 005052392 005052391 005052479 005052478	NO NO NO NO NO NO NO NO NO	6Gb SAS	7.2K rpm	VNXe3100 VNXe3150	2.0.0.12628
900 GB	V2-PS10-900	005049577 005050276 005049808 005050348 005050707 005050398 005051964 005051963	NO NO NO NO NO NO NO NO	6Gb SAS	10K rpm	VNXe3100 VNXe3150	2.3.1.19462
900 GB SED	V2-PS10E-900	005050243 005050457	NO NO	6Gb SAS	10K rpm	VNXe3150	2.4.0.20932

Disk capacity	Model number	Part number	Spin-Down Support	Drive type	Spindle speed	Platform	Minimum OE software revision
600 GB	V2-PS15-600	005049039 005049678 005049906 005050940 005050939	NO NO NO NO NO	6Gb SAS	15K rpm	VNXe3100 VNXe3150	2.0.0.12628
300 GB	V2-PS15-300	005049037 005049674 005049905 005050938 005050937	NO NO NO NO NO	6Gb SAS	15K rpm	VNXe3100 VNXe3150	2.0.0.12628

Table 2 VNXe3100 & VNXe3150 2.5" 25-Slot Enclosures:

Disk capacity	Model number	Part number	Spin-Down Support	Drive type	Spindle speed	Platform	Minimum OE software revision
300 GB	V2-2S10-300	005049821 005049197 005050279 005049799 005049800 005050340 005050341 005050699 005050210 005050702 005050213 005051954 005051953	NO	6Gb SAS	10K rpm	VNXe3100 VNXe3150	2.3.1.19462
600 GB	V2-2S10-600	005049820 005049203 005050285	NO	6Gb SAS	10K rpm	VNXe3100 VNXe3150	2.3.1.19462

Disk capacity	Model number	Part number	Spin-Down Support	Drive type	Spindle speed	Platform	Minimum OE software revision
		005049804 005049805 005050344 005050345 005050700 005050211 005050703 005050214 005051956 005051955					
900 GB	V2-2S10-900	005049295 005049206 005049951 005049809 005049810 005050349 005050350 005050701 005050212 005050704 005050215 005051958 005051957	NO	6Gb SAS	10K rpm	VNXe3100 VNXe3150	2.3.1.19462
900 GB SED	V2-2S10E-900	005049574 005050454	NO	6Gb SAS	10K rpm	VNXe3150	2.4.0.20932
100 GB	V2-2S6F-100	005049296 005049263 005051388 005051387	NA	6Gb SAS 2.5" EFD	NA	VNXe3150	2.3.1.19462
		005050187 005049621 005050367	NA	6Gb SAS 2.5" EFD	NA	VNXe3150	2.4.0.20932
200 GB	V2-2S6F-200	005049297 005049264 005051197 005051195	NA	6Gb SAS 2.5" EFD	NA	VNXe3150	2.3.1.19462

Disk capacity	Model number	Part number	Spin-Down Support	Drive type	Spindle speed	Platform	Minimum OE software revision
		005050188 005049622 005050368	NA	6Gb SAS 2.5" EFD	NA	VNXe3150	2.4.0.20932

Note: NEBS models are shown in (parenthesis). Only those part numbers with a 'YES' entry in the NEBS column may be used for NEBS models.

Table 3 VNXe3300 3.5" 15-Slot Enclosures:

Disk capacity	Model number (NEBS Model)	Part number	NEBS	Spin-Down Support	Drive type	Spindle speed	Platform	Minimum OE software revision
4 TB	V3-VS07-040E	005050748 005050749 005050149 005052065 005052064 005052469 005052468		NO	6Gb SAS	7.2K rpm	VNXe3300	2.4.0.20932
3 TB	V3-VS07-030E	005049278 005049280 005049945 005050744 005050745 005050145 005050144 005050553 005050949 005050585 005050950 005052063 005052062 005052467		NO	6Gb SAS	7.2K rpm	VNXe3300	2.3.1.19462

Disk capacity	Model number (NEBS Model)	Part number	NEBS	Spin-Down Support	Drive type	Spindle speed	Platform	Minimum OE software revision
		005052466						
3 TB SED	V3-VS07E-030E	005049582 005050456		NO	6Gb SAS	7.2K rpm	VNXe3300	2.4.0.20932
2 TB	V3-VS07-020E	005049277 005049279 005049497 005049450 005049496 005050290 005050740 005050741 005050141 005050554 005050945 005050583 005050946 005050140 005049496 005052061 005052060 005052465 005052464		NO	6Gb SAS	7.2K rpm	VNXe3300	2.0.0.12628
1 TB	V3-VS07-010E	005049407 005049305 005049494 005049493 005050287 005050736 005050737 005050137 005052388 005052387 005052463 005052462		NO	6Gb SAS	7.2K rpm	VNXe3300	2.1.0.14097

Disk capacity	Model number (NEBS Model)	Part number	NEBS	Spin-Down Support	Drive type	Spindle speed	Platform	Minimum OE software revision
900 GB	V3-VS10-900E (N3-VS10-900E)	005049302 005049205 005049956 005049806 005049807 005050346 005050347 005050695 005050206 005050698 005050209 005051944 005051943	YES YES YES NO NO NO NO NO NO NO NO NO NO NO	NO	6Gb SAS	10K rpm	VNXe3300	2.3.1.19462
900 GB SED	V3-VS10E-900E	005050242 005050455	NO NO	NO	6Gb SAS	10K rpm	VNXe3300	2.4.0.20932
600 GB	V3-VS15-600E & (N3-VS15-600E)	005049274 005049272 005049675 005049677 005050928 005050927 005050924 005050957	YES YES NO NO NO NO NO NO	NO	6Gb SAS	15K rpm	VNXe3300	2.0.0.12628
300 GB	V3-VS15-300E & (N3-VS15-300E)	005049273 005049271 005049671 005049673 005050926 005050925 005050922 005050921	YES YES YES YES NO NO NO NO	NO	6Gb SAS	15K rpm	VNXe3300	2.0.0.12628
100 GB	V3-VS6F-100E &	005049184	YES	NO	6Gb	NA	VNXe3300	2.1.0.14097

Disk capacity	Model number (NEBS Model)	Part number	NEBS	Spin-Down Support	Drive type	Spindle speed	Platform	Minimum OE software revision
	(N3-VS6F-100E)	005049229	NO		SAS 3.5" EFD			
		005049882	YES					
		005051380	NO					
		005051379	NO					
		005050185	NO	NO	6Gb SAS 3.5" EFD	NA	VNXe3300	2.4.0.20932
		005050183	NO					
		005050363	NO					
		005050361	NO					

Table 4 VNXe3300 2.5" 25-Slot Enclosures:

Disk capacity	Model number (NEBS Model)	Part number	NEBS	Spin-Down Support	Drive type	Spindle speed	Platform	Minimum OE software revision
300 GB	V3-2S10-300E & (N3-2S10-300E)	005049821	YES	NO	6Gb SAS	10K rpm	VNXe3300	2.3.1.19462
		005049197	YES					
		005050279	YES					
		005049799	YES					
		005050340	YES					
		005049800	YES					
		005050341	YES					
		005050699	YES					
		005050210	YES					
		005050702	YES					
		005050213	YES					
		005051954	NO					
		005051953	NO					

Disk capacity	Model number (NEBS Model)	Part number	NEBS	Spin-Down Support	Drive type	Spindle speed	Platform	Minimum OE software revision
600 GB	V3-2S10-600E & (N3-2S10-600E)	005049820	YES	NO	6Gb SAS	10K rpm	VNXe3300	2.3.1.19462
		005049203	YES					
		005050285	YES					
		005049804	YES					
		005050344	YES					
		005049805	YES					
		005050345	YES					
		005050700	YES					
		005050211	YES					
		005050703	YES					
		005050214	YES					
		005051956	NO					
		005051955	NO					
900 GB	V3-2S10-900E & (N3-2S10-900E)	005049295	YES	NO	6Gb SAS	10K rpm	VNXe3300	2.3.1.19462
		005049206	YES					
		005049951	YES					
		005049809	YES					
		005050349	YES					
		005049810	YES					
		005050350	YES					
		005050701	YES					
		005050212	YES					
		005050704	YES					
		005050215	YES					
		005051958	NO					
		005051957	NO					
900 GB SED	V3-2S10E-900E	005049574 005050454	NO NO	NO	6Gb SAS	10K rpm	VNXe3300	2.4.0.20932
100 GB	V3-2S6F-100E & (N3-2S6F-100E)	005049296	YES	NA	6Gb SAS 2.5" EFD	NA	VNXe3300	2.3.1.19462
		005049263	YES					
		005051388	NO					
		005051387	NO					

Disk capacity	Model number (NEBS Model)	Part number	NEBS	Spin-Down Support	Drive type	Spindle speed	Platform	Minimum OE software revision
		005050187 005049621 005050367	NO NO YES	NA	6Gb SAS 2.5" EFD	NA	VNXe3300	2.4.0.20932
200 GB	V3-2S6F-200E & (N3-2S6F-200E)	005049297	YES	NA	6Gb SAS 2.5" EFD	NA	VNXe3300	2.3.1.19462
		005049264	YES					
		005051197	NO					
		005051195	NO					
		005050188 005049622 005050368	NO NO NO	NA	6Gb SAS 2.5" EFD	NA	VNXe3300	2.4.0.20932

Supported disk-array enclosures

Table 5 lists the disk-array enclosures (DAEs) supported for VNXe3100, VNXe3150 and VNXe3300 storage systems.

Table 5 Supported disk-array enclosures (DAEs)

DAE type	Storage systems supported		
	VNXe3100	VNXe3150	VNXe3300
V31-DAE-R-15E	N/A	N/A	YES
V31-DAE-N-15E	N/A	N/A	YES
V31-DAE-R-25E	N/A	N/A	YES
V31-DAE-N-25E	N/A	N/A	YES
V2-DAE-12	YES	YES	N/A
V2-DAE-25	YES	YES	N/A

Table 6 lists the 3.5" disk models supported for these DAEs.

Table 6 Disk models supported for VNXe 3.5" disk-array enclosures (DAEs)

DAE type	Disk Models Supported						
	V2-PS07	V2-PS10	V2-PS15	V3-VS07	V3-VS10	V3-VS15	V3-VS6F
V31-DAE-R-15E	N/A	N/A	N/A	YES	YES	YES	YES
V31-DAE-N-15E	N/A	N/A	N/A	YES	YES	YES	YES
V2-DAE-12	YES	YES	YES	N/A	N/A	N/A	N/A

Table 7 lists the 2.5" disk models supported for these DAEs.

Table 7 Disk models supported for VNXe 2.5" disk-array enclosures (DAEs)

DAE type	Disk Models Supported			
	V2-2S10	V2-2S6F	V3-2S10	V3-2S6F

V31-DAE-R-25	N/A	N/A	YES	YES
V31-DAE-N-25	N/A	N/A	YES	YES
V2-DAE-25	YES	YES	N/A	N/A

Copyright © 2013 EMC Corporation. All Rights Reserved.

EMC believes the information in this publication is accurate as of its publication date. However, the information is subject to change without notice.

THE INFORMATION IN THIS PUBLICATION IS PROVIDED "AS IS." EMC CORPORATION MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND WITH RESPECT TO THE INFORMATION IN THIS PUBLICATION, AND SPECIFICALLY DISCLAIMS IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Use, copying, and distribution of any EMC software described in this publication requires an applicable software license.

For the most up-to-date regulatory document for your product line, go to the Technical Documentation and Advisories section on EMC Powerlink.

For the most up-to-date listing of EMC product names, see EMC Corporation Trademarks on EMC.com.

All other trademarks used herein are the property of their respective owners.



EMC® VNXe® 1600 Series Storage Systems

Drive and OE Matrix

To function properly, drives in an EMC® VNXe® 1600 system require that each storage processor run minimum revisions of the Operating Environment (OE). This document lists the drive part numbers supported for VNXe1600 series storage systems and the minimum software revisions required for each drive model. Drive refers to both Flash (SSD) and Disk drive storage devices in this document.

The drive part number (PN) appears on a label on the front of the drive carrier. Note that although the OE GUI may display an alpha suffix at the end of the PN (like EFD) these characters are not part of the actual orderable PN.



CAUTION

Verify that the proper version of the OE is running on the storage system before installing any drives. Results ranging from non-recognition of the drives to data loss may occur if an improper OE version is installed.

VNXe 1600 series storage systems

Before installing a new drive in a storage system, use EMC Unisphere® to determine the OE revision running on the storage system. In Unisphere, the OE revision can be found by navigating to **Settings --> More Configuration --> Update Software**. The OE revision appears on the **Software** tab in the **Software Version** dialog box. If this revision is lower than the minimum revision required for the drive, as listed in Table 1 or Table 2, you must upgrade the OE on the storage system before installing the drive. EMC recommends that you upgrade the OE from the **Update Software** page in EMC Unisphere, though you can use the Unisphere CLI.

Note 1: VNXe1600 drives do not support Spin Down.

Note 2: All drives listed in this document are RoHS compliant.

Table 1 VNXe1600 3.5" 12-Slot Enclosures:

Drive Capacity	Model Number	Part Number	Interface	Spindle Speed or Type	Platform	Minimum OE Software Revision
100 GB	FLV5PS6F-100	005050427 005050873 005050506 005051392 005051391	6Gb SAS	SSD	VNXe1600	3.1.3.5754151
200 GB	FLV5PS6F-200	005050428 005050874 005050507 005051189 005051187	6Gb SAS	EFD	VNXe1600	3.1.3.5754151
200 GB	V5-PS6FX-200	005050425 005050538 005051175 005051176	6Gb SAS	SSD	VNXe1600	3.1.3.5754151

Drive Capacity	Model Number	Part Number	Interface	Spindle Speed or Type	Platform	Minimum OE Software Revision
300 GB	V5-PS15-300	005049037 005049905 005049674 005050938 005050937 005050860 005050861	6Gb SAS	15K rpm	VNXe1600	3.1.3.5754151
600 GB	V5-PS10-600	005050624 005050627 005050399 005051097 005051472 005051471 005052306 005052305 005052306 005052305	6Gb SAS	10K rpm	VNXe1600	3.1.3.5754151
600 GB	V5-PS15-600	005049039 005049906 005049678 005050940 005050939 005050863 005050862	6Gb SAS	15K rpm	VNXe1600	3.1.3.5754151
800 GB	V5-PS6FX-800	005050810 005050809 005051171 005051172	6Gb SAS	SSD	VNXe1600	3.1.3.5754151
900 GB	V5-PS10-900	005049808 005050348 005050707 005050398 005051474 005051473 005051964 005051963 005052308 005052307	6Gb SAS	10K rpm	VNXe1600	3.1.3.5754151

Drive Capacity	Model Number	Part Number	Interface	Spindle Speed or Type	Platform	Minimum OE Software Revision
1200GB	V-PS10-012	005050825 005050081 005051476 005051475 005051965 005051966 005052310 005052309	6Gb SAS	10K rpm	VNXe1600	3.1.3.5754151
2 TB	V5-PS07-020	005050743 005050143 005050584 005050948 005052073 005052072 005052480 005052481	6Gb SAS	7.2K rpm	VNXe1600	3.1.3.5754151
4 TB	V5-PS07-040	005050751 005050151 005050588 005050956 005052077 005052076 005052484 005052485	6Gb SAS	7.2K rpm	VNXe1600	3.1.3.5754151

Table 2 VNXe1600 2.5" 25-Slot Enclosures:

Drive Capacity	Model Number	Part Number	interface	Spindle Speed or Type	Platform	Minimum OE Software Revision
100 GB	FLV52S6F-100	005049621 005050367 005050500 005051388 005051387	6Gb SAS	SSD	VNXe1600	3.1.3.5754151

Drive Capacity	Model Number	Part Number	interface	Spindle Speed or Type	Platform	Minimum OE Software Revision
200 GB	FLV52S6F-200	005049622 005050368 005050502 005051197 005051195	6Gb SAS	SSD	VNXe1600	3.1.3.5754151
200 GB	V5-2S6FX-200	005050599 005050523 005051137 005051138	6Gb SAS	SSD	VNXe1600	3.1.3.5754151
300 GB	V5-2S15-300	005050604 005050548 005050933 005050934 005050845 005050844	6Gb SAS	15K rpm	VNXe1600	3.1.3.5754151
600 GB	V5-2S10-600	005050700 005050211 005049804 005050344 005051466 005051465 005051956 005051955 005052300 005052299	6Gb SAS	10K rpm	VNXe1600	3.1.3.5754151
600 GB	V5-2S15-600	005050936 005050935 005050847 005050846	6Gb SAS	15K rpm	VNXe1600	3.1.3.5754151
800 GB	V5-2S6FX-800	005050800 005050785 005051129 005051130 005052221 005052220	6Gb SAS	SSD	VNXe1600	3.1.3.5754151

Drive Capacity	Model Number	Part Number	interface	Spindle Speed or Type	Platform	Minimum OE Software Revision
900 GB	V5-2S10-900	005050701 005050212 005049809 005050349 005051468 005051467 005051958 005051957 005052302 005052301	6Gb SAS	10K rpm	VNXe1600	3.1.3.5754151
1200GB	V5-2S10-012	005050828 005050084 005051470 005051469 005051959 005051960 005052304 005052303	6Gb SAS	10K rpm	VNXe1600	3.1.3.5754151

Copyright © 2014 EMC Corporation. All Rights Reserved.

EMC believes the information in this publication is accurate as of its publication date. However, the information is subject to change without notice.

THE INFORMATION IN THIS PUBLICATION IS PROVIDED "AS IS." EMC CORPORATION MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND WITH RESPECT TO THE INFORMATION IN THIS PUBLICATION, AND SPECIFICALLY DISCLAIMS IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Use, copying, and distribution of any EMC software described in this publication requires an applicable software license.

For the most up-to-date regulatory document for your product line, go to the Technical Documentation and Advisories section on EMC Powerlink.

For the most up-to-date listing of EMC product names, see EMC Corporation Trademarks on EMC.com.

All other trademarks used herein are the property of their respective owners.



EMC® CX4 Series Storage Systems

Drive and FLARE OE Matrix

P/N 300-007-437

To function properly, drives in an EMC® CLARiiON® system require that each storage processor run minimum revisions of the FLARE® Operating Environment (FLARE OE). This document lists the drive part numbers supported for CX4 series storage systems and the minimum software revisions required for each drive model.

The drive part number (PN) appears on a label on the front of the drive carrier.



CAUTION

Verify that the proper version of FLARE OE is running on the storage system before installing any drives. Results ranging from non-recognition of the drives to data loss may occur if an improper FLARE OE version is installed.

CX4 series storage systems

Before installing a new drive in a storage system, use the EMC Navisphere® Manager to determine the FLARE OE revision running on the storage system. In Navisphere Manager, the FLARE OE revision appears on the **Software** tab of the **Storage System Properties** dialog box for the storage system. If this revision is lower than the minimum FLARE OE revision required for the drive as listed in [Table 1](#), [Table 2](#), [Table 3](#), or [Table 4](#), you must upgrade FLARE OE on the storage system before installing the drive. EMC recommends that you upgrade FLARE OE with the CLARiiON Software Assistant in the Navisphere Service Taskbar (NST) or use the Navisphere Secure Command Line Interface (CLI).

[Table 1](#) lists the standard Fibre Channel interface drive modules that you can order with CX4 series storage systems and the minimum FLARE OE required for each system.

[Table 2](#) lists the standard Enterprise Flash Drive (EFD) interface drive modules that you can order with CX4 series storage systems and the minimum FLARE OE required for each system.

[Table 3](#) lists the legacy Fibre Channel interface drive modules that you can re-purpose in CX4 series storage systems (move from CX series or CX3 series storage systems to CX4 series storage systems) and the minimum FLARE OE required for each system.

[Table 4](#) lists the legacy ATA interface drive modules that you can re-purpose in CX4 series storage systems (move from CX series or CX3 series storage systems to CX4 series storage systems) and the minimum FLARE OE required for each system.



CAUTION

If you install a 2 Gb legacy drive in a drive-array enclosure (DAE) on a 4 Gb bus, you cannot use the drive in a RAID group or thin pool until you change the bus speed to 2 Gb. You can change the bus speed with the Backend Bus Speed Reset Wizard, which is available

from the Service option on the Navisphere Manager Tools menu. The speed reset operation reboots the storage processors.

CX3 to CX4 conversions

All CX3 to CX4 conversions require FLARE OE version 04.28.000.5.501 or later.

Power savings drives

[Table 5](#) lists the drives that support the drive power savings feature in Navisphere Manager version 6.29 and later.

Available drive space

[Table 6](#) gives the usable space for the drives listed in [Table 1](#) and [Table 2](#).

Supported drive-array enclosures

[Table 7](#) lists the DAEs supported for CLARiiON storage systems. [Table 8](#) lists the drive models supported for these DAEs.

Note: Changes and additions in the tables since the last revision of this document are noted in red type.
--

Table 1 Standard Fibre Channel interface drive modules - Minimum FLARE OE revisions required

Note: NEBS models are shown in (parenthesis). Only those part numbers with a ‘Yes’ entry in the NEBS column may be used for NEBS models. NEBs parts may be used for non-NEBS models however non-NEBS parts cannot be used for NEBS.

Drive capacity	Model number (NEBS Model)	Part number	NEBS	RoHS ¹	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision
3 TB	CX-SA07-030	005049697 005050135 005051051	N/A	CO	4 Gb FC	7.2K rpm	All CX4 models	04.30.000.5.524
2 TB	CX-SA07-020	005049058 005049061 005049071 005049259 005049552 005050480 005051021 005050041 005049457	N/A	CO CO CO CO CO CO CO CO CO	4 Gb FC	7.2K rpm	All CX4 models	04.28.000.5.003
	CX-LP05-020	005049085 005049457 005050480 005051021	N/A	CO CO CO CO	4 Gb FC	5.4K rpm	All CX4 models	04.28.000.5.003

¹ In the RoHS column, CO = RoHS compliant; NC = not RoHS compliant.

Drive capacity	Model number (NEBS Model)	Part number	NEBS	RoHS ¹	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision
1 TB	CX-SA07-010	005048797 005048829 005049238 005049070 005049520 005049412 005049700 005049541 005049687 005049258 005049542 005049976 005049520 005051104 005051105	N/A	CO CO CO CO CO CO CO CO CO CO CO CO CO CO CO	4 Gb FC	7.2K rpm	All CX4 models	04.28.000.5.003
	Spare ONLY for CX4-LP010-15 or CX4-LP010-15U ²	005048853	N/A	CO	4 Gb FC	5.4K rpm	All CX4 models	04.28.000.5.003
600 GB	CX-4G15-600	005048952 005049033 005049118 005049160 005049694	N/A	CO CO CO CO CO	4 Gb FC	15K rpm	All CX4 models	04.28.000.5.003
		005050919 005050920 ³	N/A	CO CO	4 Gb FC	15K rpm	All CX4 models	04.30.000.5.525 (Zeus SP11)

² The 1 TB 5.4K rpm drive modules are available only as spares for DAE models CX4-LP010-15 and CX4-LP010-15U, which ship from the factory fully loaded with fifteen 1TB 5.4K rpm drives. These DAE models cannot be the DAE-OS, which is DAE enclosure 0 on bus 0.

³ If shipped from an EMC factory on or after 9/1/17, the minimum Flare OE revision is 04.28.000.5.003

CX4 series storage systems

Drive capacity	Model number (NEBS Model)	Part number	NEBS	RoHS ¹	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision
	CX-4G10-600	005048955 005049116 005049166 005049690 005049683 005050419 005049743	N/A	CO CO CO CO CO CO CO	4 Gb FC	10K rpm	All CX4 models	04.28.000.5.003
		005049894 005050221	NA NA	CO CO	4 Gb FC	10K rpm	All CX4 models	04.30.000.5.525 (Zeus SP11)
450 GB	CX-4G15-450 (NB-4G15-450)	005048849 005048970 005048951 005049032 005049120 005049158 005049693	Yes Yes Yes No No Yes No	CO CO CO CO CO CO CO	4 Gb FC	15K rpm	All CX4 models	04.28.000.5.003
		005050918 ³ 005050917	NO NO	CO CO	4 Gb FC	15K rpm	All CX4 models	04.30.000.5.525 (Zeus SP11)
	CX-4G10-450	005048954 005049115 005048974 005049164 005049689 005049682 005050417	N/A	CO CO CO CO CO CO CO	4 Gb FC	10K rpm	All CX4 models	04.28.000.5.003
		005049893 005050220	N/A	CO CO	4 Gb FC	10K rpm	All CX4 models	04.30.000.5.525 (Zeus SP11)

CX4 series storage systems

Drive capacity	Model number (NEBS Model)	Part number	NEBS	RoHS ¹	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision
400 GB	CX-4G10-400	005048775 005048837 005049681 005050324	N/A	CO CO CO CO	4 Gb FC	10K rpm	All CX4 models	04.28.000.5.003
		005050104 005050219	N/A	CO CO	4 Gb FC	10K rpm	All CX4 models	04.30.000.5.525 (Zeus SP11)
300 GB	CX-4G15-300 (NB-4G15-300)	005048731 005048741 005048848 005048926 005048950 005049031 005049119 005048840 005048835 005048969 005049156 005048856 005049692 005048750 005048913	Yes No Yes No No No No No No Yes No No No Yes Yes	CO CO CO CO CO CO CO CO CO CO CO CO CO CO CO	4 Gb FC	15K rpm	All CX4 models	04.28.000.5.003
		005050916 ³ 005050915	N/A	CO CO	4 Gb FC	15K rpm	All CX4 models	04.30.000.5.525 (Zeus SP11)

CX4 series storage systems

Drive capacity	Model number (NEBS Model)	Part number	NEBS	RoHS ¹	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision
300 GB	CX-4G10-300 (NB-4G10-300)	005048751	Yes	CO	4 Gb FC	10K rpm	All CX4 Models	04.28.000.5.003
		005048836	No	CO				
		005048953	No	CO				
		005048841	No	CO				
		005048972	No	CO				
		005049162	No	CO				
		005048842	Yes	CO				
		005049117	No	CO				
		005049691	No	CO				
		005049680	No	CO				
		005049679	No	CO				
		005050415	No	CO				
		005049741	No	CO				
		005049892	N/A	CO	4 Gb FC	10K rpm	All CX4 models	04.30.000.5.525 (Zeus SP11)
		005050218	N/A	CO				
146 GB	CX-4G15-146 (NB-4G15-146)	005048619	No	NC	4 Gb FC	15K rpm		04.28.000.5.003
		005048660	No	CO				
		005048701	No	CO				
		005048730	Yes	CO				
		005048740	No	CO				
		005048839	No	CO				
		005048834	No	CO				
		005048846	No	CO				
		005048968	No	CO				
		005048844	Yes	CO				
		005048855	No	CO				
		005049431	No	CO				
		005048749	Yes	CO				

Table 2 Standard enterprise flash drive (EFD) Fibre Channel interface drive modules - Minimum FLARE OE revisions required

Drive capacity	Model number (NEBS Model)	Part number	NEBS	RoHS ⁴	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision
400 GB	CX-FC04-400	005048999	N/A	CO	4 Gb SSD FC	NA	All CX4 Models	04.28.000.5.501
200 GB	CX-FC04-200	005048998 005049695	N/A	CO	4 Gb SSD FC	NA		04.28.000.5.501
	CX-AF04-200	005049076 005049696 005049703 005049261 005049889	N/A	CO	4Gb SSD FC	NA		04.30.000.5.003
		005050578	N/A	CO	4Gb SSD FC	NA		04.30.000.5.526 (Zeus SP12)
100GB	CX-AF04-100	005049074 005049702 005049260 005049888	N/A	CO	4Gb SSD FC	NA		04.30.000.5.003
		005050577	N/A	CO	4Gb SSD FC	NA		04.30.000.5.526 (Zeus SP12)
73 GB	CX-FC04-073	005048920 005048941	N/A	CO	4 Gb SSD FC	NA		04.28.000.5.501

⁴ In the RoHS column, CO = RoHS compliant; NC = not RoHS compliant.

Table 3 Supported legacy Fibre Channel interface drive modules - Minimum FLARE OE revisions required

Drive capacity	Model number (NEBS Model)	Part number	NEBS	RoHS ⁵	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision
750 GB	CX-SA07-750	005048726 005048796 005048828 005048889	N/A	CO CO CO CO	4 Gb FC	7.2K rpm	All CX4 Models	04.28.000.5.003
500 GB	CX-SA07-500	005048608 005048720 005048795 005048886	N/A	CO CO CO CO	4 Gb FC	7.2K rpm	All CX4 Models	04.28.000.5.003
	CX-2G72-500	005048596 005048696 005048809	N/A	CO CO CO	2 Gb FC	7.2K rpm	All CX4 Models	04.28.000.5.003

⁵ In the RoHS column, CO = RoHS compliant; NC = not RoHS compliant.

Drive capacity	Model number (NEBS Model)	Part number	NEBS	RoHS ⁵	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision
	CX-2G10-300 (NB-2G10-300)	005048532	No	NC	2 Gb FC	10K rpm	All CX4 Models	04.28.000.5.003
		005048597	No	NC				
		005048633	No	NC				
		005048564	No	NC				
		005048582	Yes	CO				
		005048616	No	NC				
		005048625	Yes	NC				
		005048699	No	CO				
		005048703	No	NC				
		005048751	No	NC				
		005048808	No	CO				
		005048836	No	CO				
		005048953	No	CO				
		005049117	No	CO				
		005048841	No	CO				
		005048972	No	CO				
		005049162	No	CO				
		005048842	Yes	CO				
		005049691	No	CO				
		005049680	No	CO				
		005049679	No	CO				
146 GB	CX-4G15-146 (NB-4G15-146)	005048619	No	NC	4 Gb FC	15K rpm	All CX4 Models	04.28.000.5.003
		005048660	No	CO				
		005048701	No	CO				
		005048730	Yes	CO				
		005048740	No	CO				
		005048847	Yes	CO				
		005048839	No	CO				
		005048834	No	CO				
		005048846	No	CO				
		005048844	Yes	CO				
		005048855	No	CO				
		005048968	No	CO				
		005048749	Yes	CO				

Drive capacity	Model number (NEBS Model)	Part number	NEBS	RoHS ⁵	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision
	CX-4G15-146 (NB-4G15-146)	005048730	Yes	CO	4/2 Gb FC	15K rpm	All CX4 Models	04.28.000.5.003
		005048847	Yes	CO				
		005048740	No	CO				
		005048839	No	CO				
		005048834	No	CO				
		005048846	No	CO				
		005048968	No	CO				
		005048844	Yes	CO				
		005048855	No	CO				
		005048749	Yes	CO				
	CX-2G15-146 (NB-2G15-146)	005048534	No	NC	2 Gb FC	15K rpm	All CX4 Models	04.28.000.5.003
		005048584	Yes	CO				
		005048588	No	NC				
		005048602	No	NC				
		005048618	No	NC				
		005048627	Yes	CO				
		005048730	No	CO				

Table 3 Supported legacy Fibre Channel interface drive modules - Minimum FLARE OE revisions required (continued)

Drive capacity	Model number (NEBS Model)	Part number	NEBS	RoHS ⁵	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision
146 GB	CX-2G10-146 (NB-2G10-146)	005048031	No	NC	2 Gb FC	10K rpm	All CX4 Models	04.28.000.5.003
		005048128	No	CO				
		005048255	No	NC				
		005048442	No	NC				
		005048491	No	NC				
		005048495	No	CO				
		005048531	No	NC				
		005048563	No	NC				
		005048581	Yes	CO				
		005048598	No	CO				
		005048604	No	NC				
		005048615	No	NC				
		005048624	Yes	CO				
		005048632	No	NC				
		005048698	No	CO				
		005048702	No	CO				
		005048807	No	CO				
		005048971	No	CO				
73 GB	CX-4G15-73 (NB-4G15-73)	005048646	No	NC	4 Gb FC	15K rpm	All CX4 Models	04.28.000.5.003
		005048659	No	CO				
		005048700	No	CO				
		005048729	Yes	CO				
		005048739	No	CO				
		005048833	No	CO				
		005048845	No	CO				
		005049015	No	CO				
		005048843	Yes	CO				
		005048854	No	CO				
		005048748	Yes	CO				

Drive capacity	Model number (NEBS Model)	Part number	NEBS	RoHS ⁵	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision
73 GB	CX-2G15-73 (NB-2G15-73)	005048290	No	NC	2 Gb FC	15K rpm	All CX4 Models	04.28.000.5.003
		005048533	No	NC				
		005048583	Yes	CO				
		005048589	No	NC				
		005048600	No	NC				
		005048617	No	NC				
		005048626	Yes	CO				
		005048843	Yes	CO				
		005048700	No	CO				
		005048704	Yes	CO				
	CX-2G10-73 (NB-2G10-73)	005047873	No	NC	2 Gb FC	10K rpm	All CX4 Models	04.28.000.5.003
		005048129	No	NC				
		005048257	No	NC				
		005048443	No	NC				
		005048492	No	NC				
		005048496	No	CO				
		005048516	No	NC				
		005048519	No	NC				
		005048530	No	NC				
		005048538	No	CO				
		005048580	Yes	CO				
		005048562	No	NC				
		005048614	No	NC				
		005048623	Yes	CO				
		005048631	No	NC				
		005048806	No	CO				
		005048812	No	CO				
		005048707	No	CO				
		005048705	No	CO				

Drive capacity	Model number (NEBS Model)	Part number	NEBS	RoHS ⁵	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision
	CX-4G15-73 (NB-4G15-73) CX-2G15-73 (NB-2G15-73)	005048729 005048843 005049015 005048845 005048833 005048748 005048854 005048704	Yes Yes No No No Yes No No	CO CO CO CO CO CO CO CO	4/2 Gb FC	15K rpm	All CX4 Models	04.28.000.5.003
36 GB ⁶	CX-2G15-36	005047879 005048293 005048539 005048610 005048611 005049098	N/A	NC NC NC NC CO CO	2 Gb FC	15K rpm	All CX4 Models	04.28.000.5.003
36 GB ⁷	CX-2G10-36	005047874 005048357 005048360 005048498 005048556 005048566 005048636	N/A	NC CO NC NC NC NC NC	2 Gb FC	10K rpm	All CX4 Models	04.28.000.5.003

Table 4 Supported legacy ATA interface drive modules - Minimum FLARE OE revisions required

Drive capacity	Model number (NEBS Model)	Part number	NEBS	RoHS ⁸	Drive type	Spindle speed	Platforms	Minimum FLARE OE software revision
----------------	---------------------------	-------------	------	-------------------	------------	---------------	-----------	------------------------------------

⁶ Cannot be used as a vault drive.

⁷ Cannot be used as a vault drive.

⁸ In the RoHS column, CO = RoHS compliant; NC = not RoHS compliant.

CX4 series storage systems

Drive capacity	Model number (NEBS Model)	Part number	NEBS	RoHS ⁸	Drive type	Spindle speed	Platforms	Minimum FLARE OE software revision
1 TB	CX-AT07-010	005048800 005048823	N/A	CO CO	SATA	7.2K rpm	All CX4 Models	04.28.000.5.003
750 GB	CX-AT07-750	005048723 005048799 005048822 005048828	N/A	CO CO CO CO	SATA	7.2K rpm	All CX4 Models	04.28.000.5.003
500 GB	CX-AT07-500 (All part numbers spares for CX-AT05-320)	005048574 005048697 005048716 005048798	N/A	NC CO CO CO	S A T A	7.2K rpm	All CX4 Models	04.28.000.5.003

CX4 series storage systems

Drive capacity	Model number (NEBS Model)	Part number	NEBS	RoHS [®]	Drive type	Spindle speed	Platforms	Minimum FLARE OE software revision
320 GB	CX-AT05-320	005048012	N/A	NC	ATA	5.4K rpm	All CX4 Models	04.28.000.5.003
	Spare for CX-AT05-320	005048715	N/A	CO	SATA	7.2K rpm	All CX4 Models	04.28.000.5.003
250 GB	CX-AT05-250	005047939	N/A	NC	ATA	5.4K rpm	All CX4 Models	04.28.000.5.003
	CX-AT07-250	005048427 005048821	N/A	NC CO	SATA	7.2K rpm	All CX4 Models	04.28.000.5.003
	Spare for CX-AT05-250 or CX-AT07-250	005048711	N/A	CO	SATA	7.2K rpm	All CX4 Models	04.28.000.5.003

Table 5 Power saving drives

Drive capacity	Model number	Part number
3 TB	CX-SA07-030	005049697
2 TB	CX-LP05-020	005049085
2TB	CX-SA07-020	005049058 005049061 005049071 005049259 005049552 005049457
1 TB	CX-SA07-010 ⁹	005048797 005048829 005049070 005049412 005049700 005049541 005049687 005049520
	Spare only for CX4-LP010-15 and CX4-LP010-15U ¹⁰	005048853

⁹ The 1 TB 7.2K rpm drive modules can be vault drives (drives 0-4 in the DAE-OS) only in a CX4-120 storage system.

¹⁰ The 1 TB 5.4K rpm drive modules are available only as spares for DAE models CX4-LP010-15 and CX4-LP010-15U, which ship from the factory fully loaded with fifteen 1TB 5.4K rpm drives. These DAE models cannot be the DAE-OS, which is DAE enclosure 0 on bus 0.

Table 6 Usable drive space

Listed capacity ¹¹	Usable space per drive ¹²		
	Drive	CX4-120	CX4-120, CX4-240, CX4-960
2 TB	Drive 0-4 (vault drive)	Not supported as vault drive	Not supported as vault drive
	Other drive	2751.4941 GB	2751.4941 GB
2 TB	Drive 0-4 (vault drive)	1761.5965 GB	Not supported as vault drive
	Other drive	1823.5632 GB	1823.5632 GB
1 TB	Drive 0-4 (vault drive)	855.1824 GB	Not supported as vault drive
	Other drive	917.1492 GB	917.1492 GB
600 GB	Drive 0-4 (vault drive)	474.8083 GB	474.8083 GB
	Other drive	536.7751 GB	536.7751 GB
450 GB	Drive 0-4 (vault drive)	340.6062 GB	340.6062 GB
	Other drive	402.5730 GB	402.5730 GB
400 GB	Drive 0-4 (vault drive)	304.7978 GB	304.7978 GB
	Other drive	366.7646 GB	366.7646 GB
300 GB	Drive 0-4 (vault drive)	206.4041 GB	206.4041 GB
	Other drive	268.3709 GB	268.3709 GB

¹¹ The listed capacity is the drive capacity listed for the drives in [Table 1](#) and [Table 2](#).

¹² 1 GB = 1,073,741,824 bytes (1024³).

	Usable space per drive ¹²		
	Other drive	1832.4112 GB	1832.4112 GB
146 GB	Drive 0-4 (vault drive)	71.6806 GB	71.6806 GB
	Other drive	133.6473 GB	133.6473 GB
73 GB	Drive 0-4 (vault drive)	Not supported as vault drive	Not supported as vault drive
	Other drive	66.6055 GB	66.6055 GB
Listed capacity ¹¹	Drive	CX4-120	CX4-120, CX4-240, CX4-960
200 GB	Drive 0-4 (vault drive)	121.4444 GB	121.4444 GB

Table 6 Usable drive space (continued)

Table 7 Supported drive-array enclosures (DAEs)

DAE type	Storage systems supported			
	CX200, CX400, CX600	CX300, CX500, CX700	CX3 series ¹³	CX4 series ¹⁴
DAE2	Yes	Yes	Yes	Yes ¹⁵
DAE2-ATA	Yes	Yes	Yes	Yes ¹⁴
DAE2P	No	Yes	Yes	Yes ¹⁴
DAE3P (DAE4P)	No	No	Yes	Yes

Table 8 Drive models supported for drive-array enclosures (DAEs)

DAE type	Storage systems supported				
	CX-SA	CX-2G ¹⁶	CX-4G ¹⁵	CX-AT ¹⁷	CX-FC (EFDs)
DAE2	No	Yes	Yes	No	No
DAE2-ATA	No	No	No	Yes	No
DAE2P	No	Yes	Some ¹⁸	No	No
DAE3P (DAE4P)	Yes ¹⁹	Yes	Yes ²⁰	No	Yes ²¹

¹³ The CX3 series models are CX3-10c, CX3-20, CX3-20c, CX3-20f, CX3-40, CX3-40c, CX3-40f, and CX3-80.

¹⁴ The CX4 series models are CX4-120, CX4-240, CX4-480, and CX4-960.

¹⁵ The DAE2, DAE2-ATA, and DAE2P are supported in CX4 series storage systems. If you repurpose any of these DAEs (that is, reuse them from an older storage system) in a CX4 series storage system, you may have to run "Refresh Management Server State" from the Navisphere Manager Setup page for the drives to come online, and, if that does not work, you will need to reboot the SPs. Knowledgebase solution emc200651 provides more information.

¹⁶ You can mix CX-2G and CX-4G model drives in the same DAE, but the maximum speed will be 2 Gb/s for the buses connected to the DAE with both these model drives.

¹⁷ CX-AT model drives cannot co-exist with other drive models in the same DAE.

¹⁸ The specific CX-4G model drives supported for a DAE2P depend on the storage system with the DAE2P. This document lists the supported CX-4G model drives for CX4 series storage systems. The *EMC CX Series Storage Systems Drive and FLARE OE Matrix* and the *EMC CX3 UltraScale Series Storage Systems Drive and FLARE OE Matrix* list the supported CX-4G model drives for the CX series storage systems and the CX3 series storage systems, respectively.

¹⁹ CX-SA model drives cannot co-exist with other drive models in the same DAE.

²⁰ This document lists the specific CX-4G model drives supported for the DAE3P in a CX4 series storage system.

²¹ This document lists the specific CX-FC (EFDs) model drives supported for the DAE3P in a CX4 series storage system.

Copyright © 2009-2012 EMC Corporation. All Rights Reserved.

EMC believes the information in this publication is accurate as of its publication date. However, the information is subject to change without notice.

THE INFORMATION IN THIS PUBLICATION IS PROVIDED "AS IS." EMC CORPORATION MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND WITH RESPECT TO THE INFORMATION IN THIS PUBLICATION, AND SPECIFICALLY DISCLAIMS IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Use, copying, and distribution of any EMC software described in this publication requires an applicable software license.

For the most up-to-date regulatory document for your product line, go to the Technical Documentation and Advisories section on EMC Powerlink.

For the most up-to-date listing of EMC product names, see EMC Corporation Trademarks on EMC.com.

All other trademarks used herein are the property of their respective owners.



EMC® CX3 UltraScale Series Storage Systems

Disk and FLARE OE Matrix

P/N 300-009-312

REV A18

March, 2014

To function properly, disks in an EMC® CLARiiON® system require that each storage processor run minimum revisions of the FLARE® Operating Environment (FLARE OE). This document lists the disk part numbers supported for EMC CX3 UltraScale™ series storage systems and the minimum software revisions required for each disk model.

The disk part number (PN) appears on a label on the front of the disk carrier.



CAUTION

Verify that the proper version of FLARE OE is running on the storage system before installing any disk drives. Results ranging from non-recognition of the drives to data loss may occur if an improper FLARE OE version is installed.

CX3 series storage systems

Before installing a new disk in a storage system, use the EMC Navisphere® Manager to determine the FLARE OE revision running on the storage system. In Navisphere Manager, the FLARE OE revision appears on the **Software** tab of the **Storage System Properties** dialog box for the storage system. If this revision is lower than the minimum FLARE OE revision required for the disk as listed in [Table 1](#) or [Table 2](#), you must upgrade FLARE OE on the storage system before installing the disk. EMC recommends that you upgrade FLARE OE with the Software Assistant in the Navisphere Service Taskbar (NST) or use the Navisphere Secure Command Line Interface (CLI).

[Table 1](#) lists the Fibre Channel interface disk modules that you can order with CX3 series storage systems and the minimum FLARE OE required for each system.

[Table 2](#) lists the ATA interface disk modules supported when upgrading from a CX series system to a CX3 series system, which includes support for the DAE2-ATA enclosure. [Table 2](#) also indicates CX3 series support for 2 Gb/15K drive upgrades. These upgrades require the minimum FLARE OE revision indicated in [Table 2](#) and include support for the DAE2 and DAE2P enclosures.

Available disk space

[Table 3](#) gives the usable space for the disks listed in [Table 1](#).

Supported disk-array enclosures

[Table 4](#) lists the disk array enclosures (DAEs) supported for CLARiiON storage systems. [Table 5](#) lists the disk models supported for these DAEs.

Note: Changes and additions in the tables since the last revision of this document are noted in **red** type.

Table 1 Fibre Channel interface disk modules - Minimum FLARE OE revisions required

Disk capacity	Model number	Part number	RoHS ¹	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision
2 TB	CX-SA07-020	005049058 005049061 005049071 005049457 005049552 005049259	CO CO CO CO CO CO	4 Gb FC	7.2K rpm	CX3-80	03.26.080.5.005 03.24.080.5.006 03.22.080.5.504
						CX3-40	03.26.040.5.005
						CX3-40c	03.24.040.5.006
						CX3-40f	03.22.040.5.504
						CX3-20	03.26.020.5.005
						CX3-20c	03.24.020.5.006
						CX3-20f	03.22.020.5.504
						CX3-10c	03.26.010.5.005 03.24.010.5.011

¹ In the RoHS column, CO = RoHS compliant; NC = not RoHS compliant.

Disk capacity	Model number	Part number	RoHS ¹	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision
2 TB	CX-LP05-020	005049085 005049457	CO CO	4 Gb FC	5.4K rpm	CX3-80	03.26.080.5.005 03.24.080.5.006 03.22.080.5.504
						CX3-40 CX3-40c CX3-40f	03.26.040.5.005 03.24.040.5.006 03.22.040.5.504
						CX3-20 CX3-20c CX3-20f	03.26.040.5.005 03.24.040.5.006 03.22.040.5.504
						CX3-10c	03.24.010.5.011
						CX3-80	03.26.080.5.005 03.24.080.5.014
						CX3-40 CX3-40c CX3-40f	03.26.040.5.005 03.24.040.5.014
						CX3-20 CX3-20c CX3-20f	03.26.020.5.005 03.24.020.5.014
						CX3-10c	03.26.010.5.005 03.24.010.5.014
1 TB	CX-SA07-010	005048797	CO	4 Gb FC	7.2K rpm	CX3-80	03.26.080.5.005 03.24.080.5.014
		005048829	CO				
		005049238	CO				
		005049070	CO				
		005049028	CO				
		005049520	CO				
		005049412	CO				
		005049700	CO				
	Spare ONLY for CX3-LP010-15 or CX3-LP010-15U ²	005049541	CO			CX3-20 CX3-20c CX3-20f	03.26.020.5.005 03.24.020.5.014
		005049687	CO				
		005049258	CO				
		005049542	CO				
		005048853	CO	4 Gb FC	5.4K rpm	CX3-80	03.26.080.5.005 03.24.080.5.014
		005048853	CO	4 Gb FC	5.4K rpm	CX3-40 CX3-40c CX3-40f	03.26.040.5.005 03.24.040.5.014

² The 1 TB 5.4K rpm disk modules are available only as spares for DAE models CX3-LP010-15 and CX3-LP010-15U, which ship from the factory fully loaded with fifteen 1TB 5.4K rpm disks. These DAE models cannot be the DAE-OS (DAE enclosure 0 on bus 0).

Disk capacity	Model number	Part number	RoHS ¹	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision
1 TB	Spare ONLY for CX3-LP010-15 or CX3-LP010-15U ³	005048853	CO	4 Gb FC	5.4K rpm	CX3-20 CX3-20c CX3-20f	03.26.040.5.005 03.24.040.5.014
						CX3-10c	03.26.040.5.005 03.24.040.5.014
750GB	CX-SA07-750	005048828 005049028 005048726 005048889	CO CO CO CO	4 Gb FC	7.2K rpm	CX3-80	03.26.080.5.005 03.24.080.5.008 03.22.080.5.510
						CX3-40 CX3-40c	03.26.040.5.005 03.24.040.5.008 03.22.040.5.510
						CX3-40f	03.26.040.5.005 03.24.040.5.006
						CX3-20 CX3-20c	03.26.020.5.005 03.24.020.5.008 03.22.020.5.510
						CX3-20f	03.26.020.5.005 03.24.020.5.006
						CX3-10c	03.26.010.5.005 03.24.010.5.008
750GB	CX-SA07-750	005048796	CO	4 Gb FC	7.2K rpm	CX3-80	03.26.080.5.005 03.24.080.5.006 03.22.080.5.510
						CX3-40 CX3-40c	03.26.040.5.005 03.24.040.5.006 03.22.040.5.510
						CX3-40f	03.26.040.5.005 03.24.040.5.006

³ The 1 TB 5.4K rpm disk modules are available only as spares for DAE models CX3-LP010-15 and CX3-LP010-15U, which ship from the factory fully loaded with fifteen 1TB 5.4K rpm disks. These DAE models cannot be the DAE-OS (DAE enclosure 0 on bus 0).

Disk capacity	Model number	Part number	RoHS ¹	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision
750GB	CX-SA07-750	005048796	CO	4 Gb FC	7.2K rpm	CX3-20 CX3-20c	03.26.020.5.005 03.24.020.5.006 03.22.020.5.510
						CX3-20f	03.26.020.5.005 03.24.020.5.006
						CX3-10c	03.26.010.5.005 03.24.010.5.008
750GB	CX-SA07-750	005048828	CO	4 Gb FC	72.K rpm	CX3-80	03.26.080.5.005 03.24.080.5.006 03.22.080.5.504
						CX3-40 CX3-40c CX3-40f	03.26.040.5.005 03.24.040.5.006 03.22.040.5.504
						CX3-20 CX3-20c CX3-20f	03.26.020.5.005 03.24.020.5.006 03.22.020.5.504
600 GB	CX-4G15-600	005048952 005049033 005049118 005049160 005049694	CO CO CO CO CO	4 Gb FC	15K rpm	CX3-80	03.26.080.5.025
						CX3-40 CX3-40c CX3-40f	03.26.040.5.025
						CX3-20 CX3-20c CX3-20f	03.26.020.5.025
						CX3-10c	03.26.010.5.025
600 GB	CX-4G10-600	005048955 005049116 005049166 005049690 005049683	CO CO CO CO CO	4 Gb FC	10K rpm	CX3-80	03.26.080.5.025
						CX3-40 CX3-40c CX3-40f	03.26.040.5.025

Disk capacity	Model number	Part number	RoHS ¹	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision
600 GB	CX-4G10-600	005048955	CO	4 Gb FC	10K rpm	CX3-20	03.26.020.5.025
		005049116	CO			CX3-20c	
		005049166	CO			CX3-20f	
		005049690	CO			CX3-10c	03.26.010.5.025
		005049683	CO				
500GB	CX-SA07-500	005048608	CO	4 Gb FC	72.K rpm	CX3-80	03.22.080.5.505
						CX3-40 CX3-40c	03.22.040.5.505
						CX3-40f	03.24.040.5.006
						CX3-20 CX3-20c	03.22.020.5.505
						CX3-20f	03.24.020.5.006
						CX3-10c	03.24.010.5.008
		005048720	CO	4 Gb FC	72.K rpm	CX3-80	03.22.080.5.510
						CX3-40 CX3-40c	03.22.040.5.510
						CX3-40f	03.24.040.5.006
						CX3-20 CX3-20c	03.22.020.5.510
						CX3-20f	03.24.020.5.006
						CX3-10c	03.24.010.5.008
		005048795 005048886	CO CO	4 Gb FC	72.K rpm	CX3-80	03.26.080.5.005 03.24.080.5.006 03.22.080.5.510
						CX3-40 CX3-40c	03.26.040.5.005 03.24.040.5.006 03.22.040.5.510
						CX3-40f	03.26.040.5.005 03.24.040.5.006

Disk capacity	Model number	Part number	RoHS ¹	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision
500GB	CX-SA07-500	005048795 005048886	CO CO	4 Gb FC	72.K rpm	CX3-20 CX3-20c	03.26.020.5.005 03.24.020.5.006 03.22.020.5.510
						CX3-20f	03.26.020.5.005 03.24.020.5.006
						CX3-10c	03.26.010.5.005 03.24.010.5.008
500GB	CX-2G72-500	005048596	CO	2 Gb FC	7.2K rpm	CX3-80	03.26.010.5.005 03.24.010.5.008
						CX3-40 CX3-40c	03.22.080.5.005
						CX3-40f	03.22.040.5.005
						CX3-20 CX3-20c	03.24.040.5.006
						CX3-20f	03.22.020.5.005
		005048696 005048809	CO CO	2 Gb FC	7.2K rpm	CX3-80	03.22.080.5.005
						CX3-40 CX3-40c	03.22.040.5.005
						CX3-40f	03.24.040.5.006
						CX3-20 CX3-20c	03.22.020.5.005
						CX3-20f	03.24.020.5.006
450 GB	CX-4G15-450	005048849 005048927 005048951 005049032 005049120	CO CO CO CO CO	4 Gb FC	15K rpm	CX3-80	03.26.080.5.014
						CX3-40 CX3-40c CX3-40f	03.26.040.5.014

Disk capacity	Model number	Part number	RoHS ¹	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision
450 GB	CX-4G15-450	005048970 005049158 005049693	CO CO CO	4 Gb FC	15K rpm	CX3-20 CX3-20c CX3-20f	03.26.020.5.014
						CX3-10c	03.26.010.5.014
450 GB	CX-4G10-450	005048954 005049115 005048974 005049164 005049689 005049682	CO CO CO CO CO CO	4 Gb FC	10K rpm	CX3-80	03.26.080.5.014
						CX3-40 CX3-40c CX3-40f	03.26.040.5.014
						CX3-20 CX3-20c CX3-20f	03.26.020.5.014
						CX3-10c	03.26.010.5.014
400 GB	CX-4G10-400	005048775 005048837 005048973 005049681	CO CO CO CO	4 Gb FC	10K rpm	CX3-80	03.26.080.5.005 03.24.080.5.014
						CX3-40 CX3-40c CX3-40f	03.26.040.5.005 03.24.040.5.014
						CX3-20 CX3-20c CX3-20f	03.26.020.5.005 03.24.020.5.014
						CX3-10c	03.26.010.5.005 03.24.010.5.014
300 GB	CX-4G15-300	005048731 005048741 005048848	CO CO CO	4 Gb FC	15K rpm	CX3-80	03.26.080.5.005 03.24.080.5.006 03.22.080.5.005

Disk capacity	Model number	Part number	RoHS ¹	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision
300 GB	CX-4G15-300	005048926	CO	4 Gb FC	15K rpm	CX3-40 CX3-40c	03.26.040.5.005
		005048950	CO				03.24.040.5.006
		005049031	CO				03.22.040.5.005
		005049119	CO				
		005048856	CO				
		005048840	CO				03.26.040.5.005
		005048835	CO				03.24.040.5.006
		005049156	CO				03.22.040.5.005
300 GB	CX-4G15-300	005048926	CO	4 Gb FC	15K rpm	CX3-40f CX3-20 CX3-20c	03.26.040.5.005
		005048741	CO				03.24.040.5.006
		005048848	CO				
		005048926	CO				03.26.020.5.005
		005048950	CO			CX3-20f CX3-10c	03.24.020.5.006
		005049031	CO				03.22.020.5.005
		005049119	CO				03.26.020.5.005
		005048856	CO				03.24.020.5.006
		005048840	CO			CX3-10c	
		005048835	CO				03.26.010.5.005
		005049156	CO				03.24.010.5.011
		005049692	CO				
300 GB	CX-4G10-300	005048751	CO	4 Gb FC	10K rpm	CX3-80 CX3-40 CX3-40c	03.26.080.5.005
		005048836	CO				03.22.080.5.005
		005048841	CO			CX3-40f CX3-20 CX3-20c	03.26.040.5.005
		005048972	CO				03.22.040.5.005
		005049162	CO			CX3-40f CX3-20 CX3-20c	03.26.040.5.005
		005048842	CO				03.24.040.5.006
		005048953	CO			CX3-20f	03.26.020.5.005
		005049117	CO				03.22.020.5.005
		005049691	CO			CX3-20f	03.26.020.5.005
		005049680	CO				03.24.020.5.006
		005049679	CO				

Disk capacity	Model number	Part number	RoHS ¹	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision
300 GB	CX-2G10-300	005048532	NC	2 Gb FC	10K rpm	CX3-80	03.22.080.5.005
		005048582	CO			CX3-40 CX3-40c	03.22.040.5.005
		005048597	NC				
		005048633	NC			CX3-40f	03.24.040.5.006
		005048564	NC				
		005048616	NC			CX3-20 CX3-20c	03.22.020.5.005
		005048625	NC				
		005048699	CO			CX3-20f	03.24.020.5.006
		005048703	NC				
		005048751	NC			CX3-10c	03.24.010.5.008
		005048808	CO				
		005048836	CO				
		005048953	CO				
		005048841	CO				
		005048972	CO				
		005049162	CO				
		005048842	CO				
146 GB	CX-4G15-146	005048619	NC	4 Gb FC	15K rpm	CX3-80	03.22.080.5.005
		005048660	CO			CX3-40 CX3-40c	03.22.040.5.005
		005048701	CO				
		005048730	CO			CX3-40f	03.24.040.5.006
		005048740	CO				
		005048847	CO			CX3-20 CX3-20c	03.22.020.5.005
		005048844	CO				
		005048855	CO			CX3-20f	03.24.020.5.006
		005048839	CO				
		005048834	CO			CX3-10c	03.24.010.5.008
		005048846	CO				
		005049431	CO				
		005049440	CO				
		005048749	CO				
			CO				

Disk capacity	Model number	Part number	RoHS ¹	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision
146 GB	CX-4G15-146 CX-2G15-146	005048730	CO	2/4 Gb FC	15K rpm	CX3-80	03.22.080.5.005
		005048844	CO			CX3-40 CX3-40c	03.22.040.5.005
		005048855	CO			CX3-40f	03.24.040.5.006
		005048839	CO				
		005048834	CO			CX3-20 CX3-20c	03.22.020.5.005
		005048846	CO				
		005049431	CO			CX3-20f	03.24.020.5.006
		005049440	CO				
		005048749	CO			CX3-10c	03.24.010.5.008

Disk capacity	Model number	Part number	RoHS ¹	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision
46 GB	CX-2G10-146	005048128	CO	2 Gb FC	10K rpm	CX3-80	03.22.080.5.005
		005048255	NC			CX3-40 CX3-40c	03.22.040.5.005
		005048491	NC				
		005048495	CO			CX3-40f	03.24.040.5.006
		005048531	NC				
		005048563	NC			CX3-20 CX3-20c	03.22.020.5.005
		005048581	CO				
		005048702	CO			CX3-20f	03.24.020.5.006
		005048615	NC				
		005048624	CO			CX3-10c	03.24.010.5.008
		005048632	NC				
		005048698	CO				
		005048807	CO				
		005048971	CO				
		005048031 005048442 005048598 005048604	NC NC CO NC	2 Gb FC	10K rpm	CX3-80	03.22.080.5.005
						CX3-40 CX3-40c	03.22.040.5.005
						CX3-40f	03.24.040.5.006
						CX3-20 CX3-20c	03.22.020.5.005
						CX3-20f	03.24.020.5.006
						CX3-10c	03.24.010.5.008
73 GB	CX-4G15-73	005048646	NC	4 Gb FC	15K rpm	CX3-80	03.22.080.5.005
		005048659	CO			CX3-40 CX3-40c	03.22.040.5.005
		005048700	CO				
		005048729	CO			CX3-40f	03.24.040.5.006
		005048739	CO				
		005048843	CO			CX3-20 CX3-20c	03.22.020.5.005
		005048854	CO				
		005048833	CO			CX3-20f	03.24.020.5.006
		005048845	CO				
		005049015	CO			CX3-10c	03.24.010.5.008

Disk capacity	Model number	Part number	RoHS ¹	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision
73 GB	CX-2G15-73	005048729 005048843 005048854 005048833 005048845 005049015	CO CO CO CO CO CO	2 Gb FC	15K rpm	CX3-80	03.22.080.5.005
						CX3-40 CX3-40c	03.22.040.5.005
						CX3-40f	03.24.040.5.006
						CX3-20 CX3-20c	03.22.020.5.005
						CX3-20f	03.24.020.5.006
						CX3-10c	03.24.010.5.008
	CX-2G10-73	005047873 005048129 005048257 005048443 005048492 005048496 005048516 005048519 005048530 005048538 005048580 005048562 005048614 005048631 005048806 005048812 005049016	NC NC NC NC NC CO NC NC NC CO CO NC NC NC CO CO CO	2 Gb FC	10K rpm	CX3-80	03.22.080.5.005
						CX3-40 CX3-40c	03.22.040.5.005
						CX3-40f	03.24.040.5.006
						CX3-20 CX3-20c	03.22.020.5.005
						CX3-20f	03.24.020.5.006
						CX3-10c	03.24.010.5.008

Disk capacity	Model number	Part number	RoHS ¹	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision
36 GB4	CX-2G10-36	005047879	NC	2 Gb FC	15K rpm	CX3-80	03.22.080.5.005
		005048293	NC			CX3-40 CX3-40c	03.22.040.5.005
		005048539	NC			CX3-40f	03.24.040.5.006
		005048610	NC			CX3-20 CX3-20c	03.22.020.5.005
		005048611	CO				
		005049098	CO			CX3-20f	03.24.020.5.006

⁴ Cannot be used as a vault disk.

Table 2 CX series to CX3 series upgrade- Minimum FLARE OE revisions required

Disk capacity	Model number	Part number	RoHS ⁵	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision
1 TB	CX-AT07-10	005048800	CO	SATA	7.2K rpm	CX3-80	03.24.080.5.014
						CX3-40 CX3-40c CX3-40f	03.24.040.5.014
						CX3-20 CX3-20c CX3-20f	03.24.020.5.014
		005048823	CO	SATA	7.2K rpm	CX3-80	03.26.080.5.005 03.24.080.5.014
						CX3-40 CX3-40c CX3-40f	03.26.040.5.005 03.24.040.5.014
						CX3-20 CX3-20c CX3-20f	03.26.020.5.005 03.24.020.5.014
750 GB	CX-AT07-750	005048723	CO	SATA	7.2K rpm	CX3-80	03.24.080.5.006
						CX3-40 CX3-40c	03.24.040.5.007
						CX3-40f	03.24.040.5.006
						CX3-20 CX3-20c	03.24.020.5.007
						CX3-20f	03.24.020.5.006

⁵ In the RoHS column, CO = RoHS compliant; NC = not RoHS compliant.

Disk capacity	Model number	Part number	RoHS ⁵	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision
750 GB	CX-AT07-750	005048799	CO	SATA	7.2K rpm	CX3-80 CX3-40 CX3-40c CX3-40f	03.24.040.5.014
						CX3-20 CX3-20c CX3-20f	03.24.020.5.014
750 GB	CX-AT07-750	005048822	CO	SATA	7.2K rpm	CX3-80	03.26.080.5.005 03.24.080.5.006 03.22.080.5.510
						CX3-40 CX3-40c CX3-40f	03.26.040.5.005 03.24.040.5.006 03.22.040.5.510
						CX3-20 CX3-20c CX3-20f	03.26.020.5.005 03.24.020.5.006 03.22.020.5.510
500 GB	CX-AT07-500	005048574 005048697 (Both spares for CX-AT05-320)	NC CO	SATA	7.2K rpm	CX3-80	03.22.080.5.505
						CX3-40	03.22.040.5.505
						CX3-20	03.22.020.5.505
		005048716 (Spare for CX-AT05-320)	CO	SATA	7.2K rpm	CX3-80	03.24.080.5.006
						CX3-40 CX3-40c	03.24.040.5.007
						CX3-40f	03.24.040.5.006
						CX3-20 CX3-20c	03.24.020.5.007
						CX3-20f	03.24.020.5.006

Disk capacity	Model number	Part number	RoHS ⁵	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision
500 GB	CX-AT07-500	005048798 (Spare for CX-AT05-320)	CO	SATA	7.2K rpm	CX3-80	03.24.080.5.014
						CX3-40 CX3-40c CX3-40f	03.24.040.5.014
						CX3-20 CX3-20c CX3-20f	03.24.020.5.014
320 GB	CX-AT05-320	005048012	NC	ATA	5.4K rpm	CX3-80	03.22.080.5.510
						CX3-40	03.22.040.5.510
						CX3-20	03.22.020.5.510
	Spare for CX-AT05-320	005048715	CO	SATA	7.2K rpm	CX3-80	03.22.080.5.510
						CX3-40	03.22.040.5.510
						CX3-20	03.22.020.5.510
250 GB	CX-AT05-250	005047939	NC	ATA	5.4K rpm	CX3-80	03.22.080.5.505
						CX3-40	03.22.040.5.505
						CX3-20	03.22.020.5.505
		005048427	NC	SATA	7.2K rpm	CX3-80	03.22.080.5.505
						CX3-40	03.22.040.5.505
						CX3-20	03.22.020.5.505
		005048821	CO	SATA	7.2K rpm	CX3-80	03.26.080.5.005 03.24.080.5.006 03.22.080.5.504
						CX3-40 CX3-40c CX3-40f	03.26.040.5.005 03.24.040.5.006 03.22.040.5.504

Disk capacity	Model number	Part number	RoHS ⁵	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision
250 GB	CX-AT05-250	005048821	CO	SATA	7.2K rpm	CX3-20	03.26.020.5.005
						CX3-20c	03.24.020.5.006
						CX3-20f	03.22.020.5.504
	Spare for CX-AT05-250 or CX-AT07-250	005048711	CO	SATA	7.2K rpm	CX3-10c	03.26.010.5.005
						CX3-10c	03.24.010.5.006
						CX3-10c	03.22.010.5.504
						CX3-80	03.22.080.5.510
146 GB	CX-2G15-146	005048534	NC	2 Gb FC	15K rpm	CX3-80	03.22.080.5.505
		005048584	CO			CX3-40	03.22.040.5.505
		005048588	NC			CX3-40c	
		005048602	NC			CX3-40f	03.24.040.5.006
		005048618	NC				
		005048627	CO			CX3-20	03.22.020.5.505
		005048844	CO				
		005048855	CO			CX3-20c	03.22.020.5.505
		005048839	CO				
		005048834	CO				
73 GB	CX-2G15-73	005048846	CO				
		005048968	CO			CX3-20f	03.24.020.5.006
		005049440	CO				
		005048730	CO			CX3-80	03.22.080.5.505
		005048290	NC				
		005048533	NC				
		005048583	CO				
		005048589	NC			CX3-40c	03.22.040.5.505
		005048600	NC				
		05048617	NC			CX3-40f	03.24.040.5.006
		05048626	CO				
73 GB	CX-2G15-73	005048617	NC	2 Gb FC	15K rpm	CX3-20	03.22.020.5.505
						CX3-20c	
						CX3-20	
						CX3-20c	

Disk capacity	Model number	Part number	RoHS ⁵	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision
73 GB	CX-2G15-73	05048843	CO	2 Gb FC	15K rpm	CX3-20f	03.24.020.5.006
		05048854	CO				
		05048833	CO				
		05048845	CO				
		05049015	CO				
		005048700	CO				
36 GB	CX-2G15-36	005047879 005048293 005048539 005048610	NC NC NC NC	2 Gb FC	15K rpm	CX3-80	03.22.080.5.505
						CX3-40 CX3-40c	03.22.040.5.505
						CX3-40f	03.24.040.5.006
						CX3-20 CX3-20c	03.22.020.5.505
						CX3-20f	03.24.020.5.006

Table 3 Usable disk space

Listed capacity ⁶	Usable space per disk ⁷		
	Disk	CX3-10c	CX3-20, CX3-20c, CX3-20f, CX3-40, CX3-40c, CX3-40f, CX3-80
2 TB	Disk 0-4 (vault disk)	Not supported as vault disk	Not supported as vault disk
	Other disk	1823.5632 GB	1823.5632 GB
1 TB	Disk 0-4 (vault disk)	884.1824 GB	Not supported as vault disk
	Other disk	917.1492 GB	917.1492 GB
750 GB	Disk 0-4 (vault disk)	654.8893 GB	Not supported as vault disk
	Other disk	687.8560 GB	687.8560 GB
600 GB	Disk 0-4 (vault disk)	503.8083 GB	503.8083 GB
	Other disk	536.7751 GB	536.7751 GB
500 GB	Disk 0-4 (vault disk)	425.5962 GB	Not supported as vault disk
	Other disk	458.5629 GB	458.5629 GB
450 GB	Disk 0-4 (vault disk)	369.6062 GB	369.6062 GB
	Other disk	402.5730 GB	402.5730 GB
400 GB	Disk 0-4 (vault disk)	333.7978 GB	333.7978 GB
	Other disk	366.7646 GB	366.7646 GB

⁶ The listed capacity is the disk capacity listed for the disks in⁷ 1 GB = 1,073,741,824 bytes (1024³).

Listed capacity ⁶	Usable space per disk ⁷		
	Disk	CX3-10c	CX3-20, CX3-20c, CX3-20f, CX3-40, CX3-40c, CX3-40f, CX3-80
300 GB	Disk 0-4 (vault disk)	235.4042 GB	235.4042 GB
	Other disk	268.3709 GB	268.3709 GB
146 GB	Disk 0-4 (vault disk)	100.6808 GB	100.6808 GB
	Other disk	133.6473 GB	133.6473 GB
73 GB	Disk 0-4 (vault disk)	33.6387 GB	33.6387 GB
	Other disk	66.6055 GB	66.6055 GB

Table 4 Supported disk-array enclosures (DAEs)

DAE type	Storage systems supported			
	CX200, CX400, CX600	CX300, CX500, CX700	CX3 series ⁸	CX4 series ⁹
DAE2	Yes	Yes	Yes	Yes ¹⁰
DAE2-ATA	Yes	Yes	Yes	Yes ¹⁴
DAE2P	No	Yes	Yes	Yes ¹⁴
DAE3P (DAE4P)	No	No	Yes	Yes

Table 5 Disk models supported for disk-array enclosures (DAEs)

DAE type	Storage systems supported				
	CX-SA	CX-2G ¹¹	CX-4G ¹⁵	CX-AT ¹²	CX-FC (EFDs)
DAE2	No	Yes	Yes	No	No
DAE2-ATA	No	No	No	Yes	No
DAE2P	No	Yes	Some ¹³	No	No
DAE3P (DAE4P)	Yes ¹⁴	Yes	Yes ¹⁵	No	Yes ¹⁶

⁸ The CX3 series models are CX3-10c, CX3-20, CX3-20c, CX3-20f, CX3-40, CX3-40c, CX3-40f, and CX3-80.

⁹ The CX4 series models are CX4-120, CX4-240, CX4-480, and CX4-960.

¹⁰ The DAE2, DAE2-ATA, and DAE2P are supported in CX4 series storage systems. If you repurpose any of these DAEs (that is, reuse them from an older storage system) in a CX4 series storage system, you may have to run "Refresh Management Server State" from the Navisphere Manager Setup page for the drives to come online, and, if that does not work, you will need to reboot the SPs. Knowledgebase solution emc200651 provides more information.

¹¹ You can mix CX-2G and CX-4G model disks in the same DAE, but the maximum speed will be 2 Gb/s for the buses connected to the DAE with both these model disks.

¹² CX-AT model disks cannot co-exist with other disk models in the same DAE.

¹³ The specific CX-4G model disks supported for a DAE2P depend on the storage system with the DAE2P. This document lists the supported CX-4G model disks for CX4 series storage systems. The *EMC CX Series Storage Systems Disk and FLARE OE Matrix* and the *EMC CX3 UltraScale Series Storage Systems Disk and FLARE OE Matrix* list the supported CX-4G model disks for the CX series storage systems and the CX3 series storage systems, respectively.

¹⁴ CX-SA model disks cannot co-exist with other disk models in the same DAE.

¹⁵ This document lists the specific CX-4G model disks supported for the DAE3P in a CX4 series storage system.

¹⁶ This document lists the specific CX-FC (EFDs) model disks supported for the DAE3P in a CX4 series storage system.

Copyright © 2009-2012 EMC Corporation. All Rights Reserved.

EMC believes the information in this publication is accurate as of its publication date. However, the information is subject to change without notice.

THE INFORMATION IN THIS PUBLICATION IS PROVIDED "AS IS." EMC CORPORATION MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND WITH RESPECT TO THE INFORMATION IN THIS PUBLICATION, AND SPECIFICALLY DISCLAIMS IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Use, copying, and distribution of any EMC software described in this publication requires an applicable software license.

For the most up-to-date regulatory document for your product line, go to the Technical Documentation and Advisories section on EMC Powerlink.

For the most up-to-date listing of EMC product names, see EMC Corporation Trademarks on EMC.com.

All other trademarks used herein are the property of their respective owners.



EMC CX Series Storage Systems

Disk and FLARE OE Matrix

P/N 014003111

REV A50

January 6, 2011

For CX3 UltraScale™ series storage systems, refer to the *EMC CX3 UltraScale Series Storage Systems Disk and FLARE OE Matrix* (P/N 300-009-312).

To function properly, disks in an EMC® CLARiiON® system require that each storage processor run minimum revisions of the EMC FLARE® Operating Environment (FLARE OE). This document lists the disk part numbers supported for CX series storage systems and the minimum software revisions required for each disk model.

The disk part number (PN) appears on a label on the front of the disk carrier.



CAUTION

Verify that the proper version of FLARE OE is running on the storage system before installing any disk drives. Results ranging from non-recognition of the drives to data loss may occur if an improper FLARE OE version is installed.

CX series systems

Before installing a new disk in a storage system, use EMC Navisphere® Manager to determine the FLARE OE revision running on the storage system. In Navisphere Manager the FLARE OE revision appears on the

Software tab of the **Storage System Properties** dialog box for the storage system. If this revision is lower than the minimum revision required for the disk, as listed in the tables that follow, you must upgrade FLARE OE on the storage system before installing the disk. We recommend that you upgrade FLARE OE with the Software Assistant in the Navisphere Service Taskbar (NST), though you can use the Navisphere Secure CLI.

[Table 1](#) lists the Fibre Channel interface disk modules supported by CX series systems, and the minimum FLARE OE required for each one.

[Table 2](#) lists the ATA interface disk modules supported by CX series systems, and the minimum FLARE OE required for each one.

Changes and additions in the tables since the last revision of this document are noted in **bold blue** type.

Supported disk array enclosures

[Table 3](#) lists the disk-array enclosures (DAEs) supported for CLARiON storage systems, and [Table 4](#) lists the disk models supported for these DAEs.

Table 1 Fibre Channel interface disk modules - Minimum FLARE OE revisions required

Disk capacity	Model number	Part number	RoHS ¹	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision ²
500 GB	CX-2G72-500	PN005048696	CO	2 Gb FC	7.2K rpm	CX700	02.24.700.5.007
		PN005048809	CO			CX500	02.19.700.5.007
							02.24.500.5.007
							02.19.500.5.007

¹ In the RoHS column, CO = RoHS compliant; NC = not RoHS compliant.

² Where x is 1 when Access Logix is installed and 0 when it is not.

Disk capacity	Model number	Part number	RoHS ¹	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision ²
						CX300	02.24.300.5.007 02.19.300.5.007
450 GB	CX-4G15-450	PN005048849	CO	4 Gb FC	15K rpm	CX700	02.26.700.5.014
		PN005048927	CO			CX500	02.26.500.5.014
		PN005048951	CO			CX300	02.26.300.5.014
		PN005049032	CO				
		PN005049120	CO				
		PN005049158	CO				
		PN005048970	CO				

Disk capacity	Model number	Part number	RoHS ¹	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision ²
300 GB	CX-4G15-300	PN005048731 PN005048741 PN005048848 PN005048856 PN005049156 PN005048969 PN005048926 PN005048950 PN005049031 PN005049119	CO CO CO CO CO CO CO CO	4 Gb FC	15K rpm	CX700	02.26.700.5.005 02.24.700.5.006 02.19.700.5.007 02.16.700.5.004 02.07.700.5.003
						CX600	02.19.600.5.007 02.16.600.5.004 02.07.600.5.003
						CX500	02.26.500.5.005 02.24.500.5.006 02.19.500.5.007 02.16.500.5.004 02.07.500.5.003
						CX400	02.19.400.5.007 02.16.400.5.004 02.07.400.5.003
						CX300	02.26.300.5.005 02.24.300.5.006 02.19.300.5.007 02.16.300.5.004 02.07.300.5.003
						CX200	02.19.200.5.007 02.16.200.5.004 02.07.200.5.003

Disk capacity	Model number	Part number	RoHS ¹	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision ²
300 GB	CX-4G10-300	PN005048953	CO	4 Gb FC	10K rpm	CX700	02.07.700.5.003
		PN005049117	CO			CX600	02.07.600.5.003
		PN005048972	CO			CX500	02.07.500.5.003
		PN005048841	CO			CX400	02.07.400.5.003
		PN005048751	CO			CX300	02.07.300.5.003
		PN005048842	CO			CX200	02.07.200.5.003
		PN005048836	CO				
		PN005049162	CO				
	CX-2G10-300	PN005048532	NC	2 Gb FC	10K rpm	CX700	02.07.700.5.005
		PN005048582	CO			CX600	02.07.600.5.005
		PN005048597	NC			CX500	02.07.500.5.005
		PN005048633	NC			CX400	02.07.400.5.005
		PN005048564	NC			CX300	02.07.300.5.003
		PN005048616	NC				
		PN005048625	NC				
		PN005048699	CO				
		PN005048703	NC				
		PN005048751	CO				
		PN005048808	CO				
		PN005048836	CO				
		PN005048953	CO			CX200	02.07.200.5.003
		PN005048972	CO				
		PN005049162	CO				
		PN005048841	CO				
		PN005048842	CO				
		PN005049117	CO				
146 GB	CX-4G15-146 CX-2G15-146	PN005048730	CO	4/2 Gb FC	15K rpm	CX700	02.06.700.5.003
		PN005048847	CO			CX600	02.02.x.60.5.003
		PN005048855	CO			CX500	02.06.500.5.003
		PN005048847	CO			CX400	02.02.x.40.5.004
		PN005048740	CO			CX300	02.06.300.5.003
		PN005048844	CO			CX200	02.03.x.20.5.001

Disk capacity	Model number	Part number	RoHS ¹	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision ²
						CX200LC	02.04.x.20.5.002

Disk capacity	Model number	Part number	RoHS ¹	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision ²
146 GB	CX-2G15-146	PN005048534	NC	2 Gb FC	15K rpm	CX700	02.06.700.5.003
		PN005048584	CO			CX600	02.02.x.60.5.003
		PN005048602	NC			CX500	02.06.500.5.003
		PN005048618	NC			CX400	02.02.x.40.5.004
		PN005048627	CO			CX300	02.06.300.5.003
		PN005048847	CO			CX200	02.03.x.20.5.001
		PN005049440	CO			CX200LC	02.04.x.20.5.002
		PN005048730	CO				
		PN005048844	CO				
		PN005048968	CO				
		PN005048846	CO				
		PN005048834	CO				
		PN005048855	CO				
	PN005048588	NC	2 Gb FC	15K rpm	CX700	02.06.700.5.001	
					CX600	02.06.600.5.001	
					CX500	02.06.500.5.001	
					CX400	02.06.400.5.001	
					CX300	02.06.300.5.001	
					CX200 CX200LC	02.06.200.5.001	
	CX-2G10-146	PN005048128	CO	2 Gb FC	10K rpm	CX700	02.06.700.5.003
		PN005048255	NC			CX600	02.02.x.60.5.003
		PN005048491	NC			CX500	02.06.500.5.003
		PN005048495	CO			CX400	02.02.x.40.5.004
		PN005048531	NC			CX300	02.06.300.5.003
		PN005048563	NC			CX200	02.03.x.20.5.001
		PN005048581	CO				
		PN005048615	NC				

Disk capacity	Model number	Part number	RoHS ¹	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision ²
		PN005048624	CO				
		PN005048632	NC				
		PN005048698	CO				
		PN005048702	CO				
		PN005048807	CO				
		PN005048971	CO			CX200LC	02.04.x.20.5.002

Disk capacity	Model number	Part number	RoHS ¹	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision ²
146 GB	CX-2G10-146	PN005048031 PN005048442 PN005048598 PN005048604	NC NC CO NC	2 Gb FC	10K rpm	CX700	02.06.700.5.003
						CX600	02.06.600.5.005
						CX500	02.06.500.5.003
						CX400	02.06.400.5.004
						CX300	02.06.300.5.003
						CX200 CX200LC	02.06.200.5.004
73 GB	CX-2G15-73	PN005048290 PN005048583 PN005048600 PN005048617 PN005048626 PN005048833 PN005048845 PN005049015	NC CO NC NC CO CO CO CO	2 Gb FC	15K rpm	CX700	02.06.700.5.003
						CX600	02.01.x.60.5.006
						CX500	02.06.500.5.003
						CX400	02.02.x.40.5.004
						CX300	02.06.300.5.003
						CX200	02.03.x.20.5.001
						CX200LC	02.04.x.20.5.002
		PN005048533 PN005048589	NC NC	2 Gb FC	15K rpm	CX700	02.06.700.5.001
						CX600	02.06.600.5.001
						CX500	02.06.500.5.001
						CX400	02.06.400.5.001
						CX300	02.06.300.5.001
						CX200 CX200LC	02.06.200.5.001

Disk capacity	Model number	Part number	RoHS ¹	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision ²
73 GB	CX-2G10-73	PN005048129	NC	2 Gb FC	10K rpm	CX700	02.06.700.5.003
		PN005048257	NC			CX600	02.01.x.60.5.006
		PN005048443	NC			CX500	02.06.500.5.003
		PN005048492	NC			CX400	02.02.x.40.5.004
		PN005048496	CO			CX300	02.06.300.5.003
		PN005048516	NC			CX200	02.03.x.20.5.001
		PN005048519	NC			CX200LC	02.04.x.20.5.002
		PN005048530	NC				
		PN005048538	CO				
		PN005048580	CO				
		PN005048562	NC				
		PN005048614	NC				
		PN005048631	NC				
		PN005048806	CO				
		PN005048812	CO				
	CX-4G15-73 CX-2G15-73	PN005048729	CO	4/2 Gb FC	15K rpm	CX700	02.06.700.5.003
						CX600	02.01.x.60.5.006
						CX500	02.06.500.5.003
						CX400	02.02.x.40.5.004
						CX300	02.06.300.5.003
						CX200	02.03.x.20.5.001
						CX200LC	02.04.x.20.5.002

Disk capacity	Model number	Part number	RoHS ¹	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision ²
36 GB	CX-2G15-36	PN005047879 PN005048293 PN005048539 PN005048610 PN005048611	NC NC NC NC CO	2 Gb FC	15K rpm	CX700	02.06.700.5.003
						CX600	02.01.x.60.5.006
						CX500	02.06.500.5.003
						CX400	02.02.x.40.5.004
						CX300	02.06.300.5.003
						CX200	02.03.x.20.5.001
						CX200LC	02.04.x.20.5.002
	CX-2G10-36	PN005047874 PN005048357 PN005048360 PN005048498 PN005048556 PN005048566 PN005048636	NC CO NC NC NC NC NC	2 Gb FC	10K rpm	CX700	02.06.700.5.003
						CX600	02.01.x.60.5.006
						CX500	02.06.500.5.003
						CX400	02.02.x.40.5.004
						CX300	02.06.300.5.003
						CX200	02.03.x.20.5.001
						CX200LC	02.04.x.20.5.002

Table 2 ATA interface disk modules - Minimum FLARE OE revisions required

Disk capacity	Model number	Part number	RoHS ³	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision ⁴
1 TB	CX-AT07-010	PN005048800	CO	SATA	7.2K rpm	CX700	02.24.700.5.014
						CX500 CX500i	02.24.500.5.014
						CX300	02.24.300.5.014
						CX300i	02.24.301.5.014
		PN005048823	CO	SATA	7.2K rpm	CX700	02.26.700.5.005 02.24.700.5.014
						CX500	02.26.500.5.005 02.24.500.5.014
						CX300	02.26.300.5.005 02.24.300.5.014
750 GB	CX-AT07-750	PN005048723 PN005048799	CO CO	SATA	7.2K rpm	CX700	02.24.700.5.006 02.19.700.5.040
						CX600	02.19.600.5.040
						CX500	02.24.500.5.006 02.19.500.5.040
						CX500i	02.24.500.5.006
						CX400	02.19.400.5.040
						CX300	02.24.300.5.006 02.19.300.5.040

³ In the RoHS column, CO = RoHS compliant; NC = not RoHS compliant.

⁴ Where x is 1 when Access Logix is installed and 0 when it is not.

Disk capacity	Model number	Part number	RoHS ³	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision ⁴
						CX300i	02.24.301.5.006
						CX200	02.19.200.5.040

Disk capacity	Model number	Part number	RoHS ³	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision ⁴
750 GB	CX-AT07-750	PN005048822	CO	SATA	7.2K rpm	CX700	02.26.700.5.005 02.24.700.5.006 02.22.700.5.504 02.19.700.5.040
						CX600	02.19.600.5.040
						CX500	02.26.500.5.005 02.24.500.5.006 02.22.500.5.504 02.19.500.5.040
						CX400	02.19.400.5.040
						CX300	02.26.300.5.005 02.24.300.5.006 02.22.300.5.504 02.19.300.5.040
						CX200	02.19.200.5.040
500 GB	CX-AT07-500	PN005048798 (spare for CX-AT05-320)	CO	SATA	7.2K rpm	CX700	02.24.700.5.006 02.19.700.5.019
						CX600	02.19.600.5.040
						CX500 CX500i	02.24.500.5.006 02.19.500.5.019
						CX400	02.19.400.5.040
						CX300	02.24.300.5.006 02.19.300.5.019
						CX300i	02.24.301.5.006 02.19.301.5.019
						CX200	02.19.200.5.040

Disk capacity	Model number	Part number	RoHS ³	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision ⁴
500 GB	CX-AT07-500	PN005048716 (spare for CX-AT05-320)	CO	SATA	7.2K rpm	CX700	02.19.700.5.040
						CX600	02.19.600.5.040
						CX500	02.19.500.5.040
						CX500i	02.24.500.5.006
						CX400	02.19.400.5.040
						CX300	02.19.300.5.040
						CX300i	02.24.301.5.006
						CX200	02.19.200.5.040
		PN005048574 (spare for CX-AT05-320) PN005048697 (spare for CX-AT05-320)	NC CO	SATA	7.2K rpm	CX700	02.19.700.5.019
						CX600	02.19.600.5.019
						CX500 CX500i	02.19.500.5.019
						CX400	02.19.400.5.019
						CX300	02.19.300.5.019
						CX300i	02.19.301.5.019
						CX200	02.19.200.5.019
						320 GB	CX-AT05-320
CX600	02.04.x.60.5.002						
CX500	02.06.500.5.003						
CX400	02.04.x.40.5.002						
CX300	02.06.300.5.003						
CX200	02.04.x.20.5.002						

Disk capacity	Model number	Part number	RoHS ³	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision ⁴
320 GB	Spare for CX-AT05-320	PN005048715	CO	SATA	7.2K rpm	CX700	02.19.700.5.040 02.07.700.5.016 ⁵
						CX600	02.19.600.5.040 02.07.600.5.016 ⁵
						CX500	02.19.500.5.040 02.07.500.5.016 ⁵
						CX400	02.19.400.5.040 02.07.400.5.016 ⁵
						CX300	02.19.300.5.040 02.07.300.5.016 ⁵
						CX200	02.19.200.5.040 02.07.200.5.016 ⁵
250 GB	CX-AT05-250	PN005047939	NC	ATA	5.4K rpm	CX700	02.06.700.5.003
						CX600	02.04.x.60.5.002
						CX500	02.06.500.5.003
						CX400	02.04.x.40.5.002
						CX300	02.06.300.5.003
						CX200	02.04.x.20.5.002
		PN005048427	NC	SATA	7.2K rpm	CX700	02.07.700.5.016
						CX600	02.07.600.5.016
						CX500	02.07.500.5.016
						CX400	02.07.400.5.016
						CX300	02.07.300.5.016
						CX200	02.07.200.5.016

Disk capacity	Model number	Part number	RoHS ³	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision ⁴
250 GB	CX-AT07-250	PN005048821	CO	SATA	7.2K rpm	CX700	02.26.700.5.005 02.24.700.5.006 02.19.700.5.007 02.16.700.5.003 02.07.700.5.005
						CX600	02.19.600.5.007 02.16.600.5.004 02.07.600.5.005
						CX500	02.26.500.5.005 02.24.500.5.006 02.19.500.5.007 02.16.500.5.003 02.07.500.5.005
						CX400	02.19.400.5.007 02.16.400.5.004 02.07.400.5.005
						CX300	02.26.300.5.005 02.24.300.5.006 02.19.300.5.007 02.16.300.5.003 02.07.300.5.003
						CX200	02.19.200.5.007 02.16.200.5.004 02.07.200.5.003

Disk capacity	Model number	Part number	RoHS ³	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision ⁴
250 GB	Spare for CX-AT05-250 or CX-AT07-250	PN005048711	CO	SATA	7.2K rpm	CX700	02.19.700.5.040 02.07.700.5.016 ⁵
						CX600	02.19.600.5.040 02.07.600.5.016 ⁵
						CX500	02.19.500.5.040 02.07.500.5.016 ⁵
						CX400	02.19.400.5.040 02.07.400.5.016 ⁵
						CX300	02.19.300.5.040 02.07.300.5.016 ⁵
						CX200	02.19.200.5.040 02.07.200.5.016 ⁵

⁵ Only if FRUMON 1.93 or later is loaded with rebootless NDU.

Table 3 Supported disk-array enclosures (DAEs)

DAE type	Storage systems supported			
	CX200, CX400, CX600	CX300, CX500, CX700	CX3 series ⁶	CX4 series ⁷
DAE2	Yes	Yes	Yes	Yes ⁸
DAE2-ATA	Yes	Yes	Yes	Yes ⁸
DAE2P	No	Yes	Yes	Yes ⁸
DAE3P (DAE4P)	No	No	Yes	Yes

Table 4 Disk models supported for disk-array enclosures (DAEs)

DAE type	Storage systems supported				
	CX-SA	CX-2G ⁹	CX-4G ¹¹	CX-AT ¹⁰	CX-FC (EFDs)
DAE2	No	Yes	Yes	No	No
DAE2-ATA	No	No	No	Yes	No
DAE2P	No	Yes	Some ¹¹	No	No
DAE3P (DAE4P)	Yes ¹²	Yes	Yes ¹³	No	Yes ¹³

⁶ The CX3 series models are CX3-10c, CX3-20, CX3-20c, CX3-20f, CX3-40, CX3-40c, CX3-40f, and CX3-80.

⁷ The CX4 series models are CX4-120, CX4-240, CX4-480, and CX4-960.

⁸ The DAE2, DAE2-ATA, and DAE2P are supported. However, if you repurpose any of these DAEs (that is, reuse them from an older storage system) in a CX4 series storage system, you may have to run "Refresh Management Server State" from the Navisphere Manager Setup page for the drives to come online, and, if that does not work, you will need to reboot the SPs. Knowledgebase solution emc200651 provides more information.

⁹ You can mix CX-2G and CX-4G model disks in the same DAE, but the maximum speed will be 2 Gb/s for the buses connected to the DAE with both these model disks.

¹⁰ CX-AT model disks cannot co-exist with other disk models in the same DAE.

¹¹ The specific CX-4G model disks supported for a DAE2P depend on the storage system with the DAE2P. This document lists the supported CX-4G model disks for CX series storage systems. The *EMC CX3 UltraScale Series Storage Systems Disk and FLARE OE Matrix* and the *EMC CX4 Series Storage Systems Disk and FLARE OE Matrix* list the supported CX-4G model disks for the CX3 series storage systems and the CX4 series storage systems, respectively.

¹² CX-SA model disks cannot co-exist with other disk models in the same DAE.

¹³ The *EMC CX3 UltraScale Series Storage Systems Disk and FLARE OE Matrix* and the *EMC CX4 Series Storage Systems Disk and FLARE OE Matrix* list the specific CX-4G model disks supported for the DAE3P in CX3 series storage systems and CX4 series storage systems, respectively.

Copyright © 2009-2011 EMC Corporation. All Rights Reserved.

EMC believes the information in this publication is accurate as of its publication date. However, the information is subject to change without notice.

THE INFORMATION IN THIS PUBLICATION IS PROVIDED "AS IS." EMC CORPORATION MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND WITH RESPECT TO THE INFORMATION IN THIS PUBLICATION, AND SPECIFICALLY DISCLAIMS IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Use, copying, and distribution of any EMC software described in this publication requires an applicable software license.

For the most up-to-date regulatory document for your product line, go to the Technical Documentation and Advisories section on EMC Powerlink.

For the most up-to-date listing of EMC product names, see EMC Corporation Trademarks on EMC.com.

All other trademarks used herein are the property of their respective owners.

Disk and FLARE OE Matrix

PN 300-006-162

To function properly, serial advanced technology attachment (SATA) or serial attached SCSI (SAS) disks in an EMC® AX4-5 series storage system require that each storage processor run minimum versions of the EMC FLARE® Operating Environment (FLARE OE). This document lists the disk part numbers supported by EMC AX4-5 series storage systems and the minimum software versions required for each disk model.

The AX4-5SC, AX4-5SCF4, AX4-5, AX4-5F8, AX4-5SCi, and AX4-5i are also called the AX4-5FSC, AX4-5FSCX, AX4-5F, AX4-5FX, AX4-5ISC, and AX4-5I, respectively.

The disk part number (PN) appears on a label on the front of the disk carrier.



CAUTION

Verify that the proper version of FLARE OE is running on the storage system before installing any disk drives. Results ranging from non-recognition of the drives to data loss may occur if an improper FLARE OE version is installed.

Use the EMC Navisphere® Express software to view the AX4-5 series FLARE OE version. Open Navisphere Express for the AX4-5 storage system and select **Software** from the **System** menu to open the System Software page. If the FLARE OE does not meet the minimum version required for your disks as shown in [Table 1](#), then upgrade FLARE OE on the storage systems before installing the disk. See the Upgrade section under **Service & support**, on the AX4-5 support website. For information on accessing the AX4-5 support website, refer to the support information that shipped with your storage system.

[N] Denotes that the disk part number shown has been certified for use in a NEBS environment

Changes and additions in the tables since the last revision of this document are noted in **red** type.

Usable disk space

Table 2 gives the usable space for the disks listed in Table 1.

Table 1 Minimum FLARE OE revisions required for AX4-5 series disks

Disk capacity	Model number	Part number	RoHS ¹	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision
2 TB ²	AX-SS07-020	005049059	CO	SATA II	7.2K rpm	AX4-5F8	02.23.050.5.707
		005049025	CO			AX4-5SCF4	
		005050064	CO			AX4-5	
		005050668	CO			AX4-5SC	
		005052500	CO			AX4-5i AX4-5SCi	
1TB	AX-SS07-010	005048805	CO	SATA II	7.2K rpm	AX4-5F8	02.23.050.5.707
		005048831	CO			AX4-5SCF4	
		005049024	CO			AX4-5	02.23.050.5.505
		005050063	CO			AX4-5SC	
		005050669	CO			AX4-5i	
		005052499	CO			AX4-5SCi	
750 GB	AX-SS07-750	005048777 [N]	CO	SATA II	7.2K rpm	AX4-5F8	02.23.050.5.707
		005048830	CO			AX4-5SCF4	
		005050670	CO			AX4-5	02.23.050.5.004
		005052498	CO			AX4-5SC	
						AX4-5i AX4-5SCi	

¹ In the RoHS column, CO = RoHS compliant; NC = not RoHS compliant.

² 2 TB vault support (model V-AX452TB72K) requires minimum FLARE revision 02.23.050.3.709 and Utility Partition revision 02.23.050.5.709.

Disk capacity	Model number	Part number	RoHS ³	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision
600 GB	AX-SS10-600	005048960 005050108 005050225 005052497	CO	3 Gb SAS	10K rpm	AX4-5F8 AX4-5SCF4	02.23.050.5.707
						AX4-5 AX4-5SC AX4-5i AX4-5SCi	02.23.050.5.703
	AXSS15-600	005048958 [N] 005049036 005050914	CO CO CO	3 Gb SAS	15K rpm	AX4-5F8 AX4-5SCF4	02.23.050.5.707
						AX4-5 AX4-5SC AX4-5i AX4-5SCi	02.23.050.5.703
450 GB	AX-SS15-450	005048877 [N] 005048957 [N] 005049035 005048965 005050913	CO CO CO CO CO	3 Gb SAS	15K rpm	AX4-5F8 AX4-5SCF4	02.23.050.5.707
						AX4-5 AX4-5SC AX4-5i AX4-5SCi	02.23.050.5.505
	NB-SS15-450	005048917 [N] 005048957 [N]	CO CO	3 Gb SAS	15K rpm	AX4-5F8 AX4-5SCF4	02.23.050.5.707
						AX4-5 AX4-5SC AX4-5i AX4-5SCi	02.23.050.5.505
400 GB	AX-SS10-400	005048811 005048960 005050107 005050224 005052496	CO CO CO CO	3 Gb SAS	10K rpm	AX4-5F8 AX4-5SCF4	02.23.050.5.707
						AX4-5	02.23.050.5.004
						AX4-5SC	02.23.050.5.703
						AX4-5i	02.23.050.5.004
						AX4-5SCi	02.23.050.5.703

³ In the RoHS column, CO = RoHS compliant; NC = not RoHS compliant.

Disk capacity	Model number	Part number	RoHS ⁴	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision
300 GB	AX-2SS10-300	005049084 [N] 005050106 005050223 005052495	CO CO	3 Gb SAS	10K rpm	AX4-5F8 AX4-5SCF4	02.23.050.5.707
						AX4-5	02.23.050.5.004
						AX4-5SC	02.23.050.5.703
						AX4-5i	02.23.050.5.004
						AX4-5SCi	02.23.050.5.703
	AX-SS15-300	005048786 [N] 005048875 [N] 005048956 [N] 005049034 005050912	CO CO CO CO CO	3 Gb SAS	15K rpm	AX4-5F8 AX4-5SCF4	02.23.050.5.707
						AX4-5	02.23.050.5.004
						AX4-5SC	02.23.050.5.703
						AX4-5i	02.23.050.5.004
						AX4-5SCi	02.23.050.5.703
	NB-SS15-300	005048786 [N] 005048852 [N]	CO	3 Gb SAS NEBS	15K rpm	AX4-5F8 AX4-5SCF4	02.23.050.5.707
						AX4-5	02.23.050.5.004
						AX4-5SC	02.23.050.5.703
						AX4-5i	02.23.050.5.004
						AX4-5SCi	02.23.050.5.703
146 GB	AX-2SS10-146	005049083 [N] 005050105 005052494	CO CO	3 Gb SAS	10K rpm	AX4-5F8 AX4-5SCF4	02.23.050.5.707
						AX4-5	02.23.050.5.004
						AX4-5SC	02.23.050.5.703
						AX4-5i	02.23.050.5.004
						AX4-5SCi	02.23.050.5.703

⁴ In the RoHS column, CO = RoHS compliant; NC = not RoHS compliant.

Disk capacity	Model number	Part number	RoHS ⁵	Drive type	Spindle speed	Platform	Minimum FLARE OE software revision
146 GB	AX-SS15-146	005048785 [N] 005048873 [N] 005048851 [N] 005048963 [N]	CO CO CO CO	3 Gb SAS	15K rpm	AX4-5F8 AX4-5SCF4	02.23.050.5.707
						AX4-5	02.23.050.5.004
						AX4-5SC	02.23.050.5.703
						AX4-5i	02.23.050.5.004
						AX4-5SCi	02.23.050.5.703
	NB-SS15-146	005048785 [N] 005048851 [N] 005048963 [Y]	CO CO CO CO	3 Gb SAS NEBS	15K rpm	AX4-5F8 AX4-5SCF4	02.23.050.5.707
						AX4-5	02.23.050.5.004
						AX4-5SC	02.23.050.5.703
						AX4-5i	02.23.050.5.004
						AX4-5SCi	02.23.050.5.703

Table 2 Usable disk space

Listed capacity ⁶	Disk	Usable space per disk ⁷
2 TB	Disk 0-3 (vault disk)	1,806.1707 GB
	Other disk	1,823.2878 GB
1 TB	Disk 0-3 (vault disk)	899.7566 GB
	Other disk	916.8738 GB
750 GB	Disk 0-3 (vault disk)	670.4635 GB
	Other disk	687.5807 GB

⁵ In the RoHS column, CO = RoHS compliant; NC = not RoHS compliant.

⁶ The listed capacity is the disk capacity listed for the disks in Table 1.

⁷ 1 GB = 1,073,741,824 bytes (1024³).

Listed capacity ⁸	Disk	Usable space per disk ⁹
600 GB	Disk 0-3 (vault disk)	519.3825 GB
	Other disk	536.4997 GB
450 GB	Disk 0-3 (vault disk)	385.1804 GB
	Other disk	402.2976 GB
400 GB	Disk 0-3 (vault disk) ¹⁰	349.3720 GB
	Other disk	366.4892 GB
300 GB	Disk 0-3 (vault disk) ¹⁰	250.9783 GB
	Other disk	268.0955 GB
146 GB	Disk 0-3 (vault disk) ¹⁰	116.2548 GB
	Other disk	133.3719 GB

Copyright © 2007-2011 EMC Corporation. All Rights Reserved.

EMC believes the information in this publication is accurate as of its publication date. However, the information is subject to change without notice.

THE INFORMATION IN THIS PUBLICATION IS PROVIDED "AS IS." EMC CORPORATION MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND WITH RESPECT TO THE INFORMATION IN THIS PUBLICATION, AND SPECIFICALLY DISCLAIMS IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Use, copying, and distribution of any EMC software described in this publication requires an applicable software license.

For the most up-to-date regulatory document for your product line, go to the Technical Documentation and Advisories section on EMC Powerlink.

For the most up-to-date listing of EMC product names, see EMC Corporation Trademarks on EMC.com.

⁸ The listed capacity is the disk capacity listed for the disks in Table 1.

⁹ 1 GB = 1,073,741,824 bytes (1024³).

¹⁰ 146 GB, 300 GB, and 400 GB disks are SAS disks so they cannot be used as vault disks (disks 0-3) in a base system running FLARE OE 02.23.050.5.5xx or lower.

All other trademarks used herein are the property of their respective owners.



EMC® AX Series Storage Systems

Disk and FLARE® OE Matrix

P/N 300-002-276

REV A10

April 15, 2009

To function properly, Serial Advanced Technology Attachment (SATA) disks in an EMC® AX series storage system require that each storage processor run minimum revisions of the FLARE® Operating Environment (FLARE OE). This document lists the disk part numbers supported by EMC AX series (page 2) storage systems and the minimum software revisions required for each disk model.

The disk part number (PN) appears on a label on the front of the plastic carrier.



CAUTION

Verify that the proper version of FLARE OE is running on the storage system before installing any disk drives. Results ranging from non-recognition of the drives to data loss may occur if an improper FLARE OE version is installed.

AX series systems

Use EMC Navisphere® Express or EMC Navisphere Manager software to view the AX series FLARE OE revision.

Using Navisphere Express

Select **Software** under the System menu to open the System Software page. If the FLARE OE does not meet the minimum revision required for your disks as shown in [Table 1](#), then upgrade the storage-system software before installing the disk. For an AX100 series storage system, see the **Upgrade** section of the AX100 support website; for an AX150 series storage system, see the **Upgrade** section under **Service & support**, on the AX150 support website. For information on accessing the AX100 or AX150 support website, refer to the support information that shipped with your storage system.

Using Navisphere Manager

Select the **General** tab from the **Storage System Properties** dialog box for the storage system. If the FLARE OE does not meet the minimum revision required for your disks as shown in [Table 1](#), then upgrade the software as explained in the Navisphere Manager help before installing the disk.

[Table 1](#) lists the disks supported by AX series systems, and the minimum FLARE OE required to use each one.

Note: Changes and additions in the tables since the last revision of this document are noted in **bold blue** type.

Table 1 Disk minimum FLARE OE revisions required in an AX series system

Disk capacity	Model number	Part number	RoHS ^a	Drive type ^b	Spindle speed	Platform	Minimum FLARE OE software revision
750GB	AX-S207-750	PN005048826	CO	3 Gb SATA	7.2K	AX150 AX150SC AX150i AX150SCi	02.20.150.5.022
		PN005048803	CO	3 Gb SATA	7.2K	AX150 AX150SC AX150i AX150SCi	02.20.150.5.026
		PN005048724	CO	3 Gb SATA	7.2K	AX150 AX150SC AX150i AX150SCi	02.20.150.5.024
500 GB	AX-S207-500	PN005048802	CO	3 Gb SATA	7.2K	AX150 AX150SC AX150i AX150SCi	02.20.150.5.026
		PN005048718 PN005048607	CO CO	3 Gb SATA	7.2K	AX150 AX150SC AX150i AX150SCi	02.20.150.5.016
	AX-SA-500	PN005048820	CO	SATA	7.2K	AX100 AX100SC AX100i AX100SCi	02.19.100.5.046
		PN005048606	CO	SATA	7.2K	AX100 AX100SC AX100i AX100SCi	02.19.100.5.014

Table 1 Disk minimum FLARE OE revisions required in an AX series system (continued)

Disk capacity	Model number	Part number	RoHS ^a	Drive type ^b	Spindle speed	Platform	Minimum FLARE OE software revision
250 GB	AX-S207-250	PN005048825	CO	3 Gb SATA	7.2K	AX150 AX150SC AX150i AX150SCi	02.20.150.5.019
		PN005048713	CO	SATA	7.2K	AX150 AX150SC AX150i AX150SCi	02.20.150.4.005
		PN005048578	CO	SATA	7.2K	AX150 AX150SC AX150i AX150SCi	02.20.150.5.017
250 GB	AX-SA07-250	PN005048824	CO	3 Gb SATA	7.2K	AX100 AX100SC AX100i AX100SCi	02.19.100.5.050
		PN005048712	NC	SATA	7.2K	AX100 AX100SC AX100i AX100SCi	02.19.100.5.041
		PN005048379	NC	SATA	7.2K	AX100 AX100SC	02.08.100.5.011
						AX100i AX100SCi	02.17.100.5.006
160 GB	AX-SA07-160	PN005048378	NC	SATA	7.2K	AX100 AX100SC	02.08.100.5.011
						AX100i AX100SCi	02.17.100.5.006

a. In the RoHS column, CO = RoHS compliant; NC = not RoHS compliant.

b. A 3 Gb SATA drive type in an AX100 series storage system will exhibit performance similar to a SATA drive type.

Copyright © 2006-2009 EMC Corporation. All rights reserved.

EMC believes the information in this publication is accurate as of its publication date. The information is subject to change without notice.

THE INFORMATION IN THIS PUBLICATION IS PROVIDED "AS IS." EMC CORPORATION MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND WITH RESPECT TO THE INFORMATION IN THIS PUBLICATION, AND SPECIFICALLY DISCLAIMS IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Use, copying, and distribution of any EMC software described in this publication requires an applicable software license.

For the most up-to-date regulatory document for your product line, go to the Technical Documentation and Advisories section on EMC Powerlink.

For the most up-to-date listing of EMC product names, see EMC Corporation Trademarks on EMC.com. All other trademarks used herein are the property of their respective owners.

Disk and FLARE OE Matrix

P/N 014002833

REV A22

June 6, 2005

To function properly, Fibre Channel disks require that each storage processor run minimum revisions of the following software:

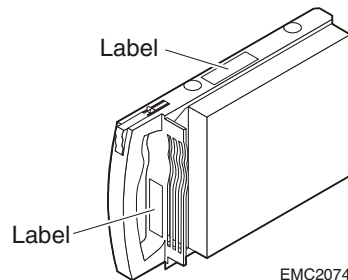
- ◆ FLARE™ Operating Environment (FLARE OE) in an EMC® FC4700-2 or FC4700 storage system
- ◆ System software in an EMC IP4700 system
- ◆ FLARE OE and PROM code in any other model of an EMC FC-Series storage system (non-4700 storage systems)

This document lists the disk part numbers supported for the following systems and the minimum software revisions required for each disk model:

- ◆ FC4700-2, FC4700, and IP4700 storage systems (page 2)
- ◆ Non-4700 FC-Series storage systems (page 5)

Changes and additions since the last revision of this document are noted in **bold blue** type.

The disk part number (PN) appears on a label on the front or side of the plastic carrier, as shown below.



EMC2074

Figure 1 Location of Disk Part Number Label

FC4700-2, FC4700, and IP4700 Systems



CAUTION

If you use a disk with an incorrect revision of system software or FLARE OE running in the SP, data loss will result due to incorrectly sized drives. Similarly, using an unsupported disk with any revision of system software or FLARE OE may result in data loss.

The FC4700-2 and FC4700 FLARE OE revision is displayed by EMC Navisphere® Manager in the **General** tab of the **Storage System Properties** dialog box for the storage system. If the FLARE OE does not meet the minimum revision, then before installing a disk, upgrade the software as explained in the *EMC Navisphere Manager Administrator's Guide*.

The IP4700 system software revision is displayed by the Administrative Interface as the System Version on the IP4700 home page. If the system software does not meet the minimum revision, then before installing a disk, upgrade the software as explained in the *IP4700 Administrator's Guide*.

Table 1 lists the disks supported by FC4700-2 and FC4700 systems, and the minimum system software or FLARE OE required to use each one.

Table 2 lists the disks supported by IP4700 system, and the minimum system software required to use each one.

Table 1 Minimum FLARE OE Revisions Required for Disks in an FC4700-2 or FC4700 System

Disk Capacity	Part Number	Spindle Speed	Platform	Minimum FLARE OE Revision	
				with Access Logix	without Access Logix
181 Gbytes	PN005047551 ^a	7.2K	FC4700-2	8.44.51	8.44.01
			FC4700		
146 Gbytes	PN005048172	10K	FC4700-2	8.47.52	8.47.02
	PN005048444 PN005048565		FC4700		

Table 1 Minimum FLARE OE Revisions Required for Disks in an FC4700-2 or FC4700 System (continued)

Disk Capacity	Part Number	Spindle Speed	Platform	Minimum FLARE OE Revision	
				with Access Logix	without Access Logix
73 Gbytes	PN005046734	10K	FC4700-2	8.42.58	8.41.04
	PN005047169		FC4700		
	PN005048173				
	PN005048445				
	PN005048517				
	PN005048567				
36 Gbytes	PN005048176 ^a	15K	FC4700-2	8.42.58	8.41.04
	FC4700				
	PN005045719	10K	FC4700-2	8.42.58	8.41.04
			FC4700		
PN005045936	FC4700-2				
PN005046732	FC4700				
PN005047171					
18 Gbytes	PN005047314 ^a	15K	FC4700-2	8.44.51	8.44.01
	PN005048177 ^a		FC4700		
	PN005045268	7.2K	FC4700-2	8.42.58	8.41.04
			FC4700		
PN005045272	10K	FC4700-2			
PN005045713		FC4700			
PN005045932					
PN005046730					
	PN005046630 ^b	15K	FC4700-2		
	PN005047331		FC4700		
9 Gbytes	PN005045266	7.2K	FC4700-2	8.42.58	8.41.04
			FC4700		
	PN005045270	10K	FC4700-2		
	PN005045715		FC4700		
PN005045934					

a.RAID configurations only; not supported in JBOD systems.

b.Only supported in DAEs using power supplies with part number revisions at or above 005042633-21 or 005045508-04.

Table 2 Minimum System Software Revisions Required for Disks in an IP4700 System

Disk Capacity	Part Number	Spindle Speed	Platform	Minimum System Software Revision
73 Gbytes	PN005046734	10K	IP4700	R1.1
	PN005047169			R2.0
	PN005048173 PN005048445 PN005048517 PN005048567			R2.1 p46
	PN005048176 ^a			
		15K		
36 Gbytes	PN005045719	7.2K	IP4700	R1.0
	PN005045936	10K		
	PN005046732			
	PN005047171			R2.0 p21
	PN005047314 ^a	15K		R2.0 p24
	PN005048177 ^a			R2.1 p46
18 Gbytes	PN005045272 PN005045713 PN005045932 PN005046730	10K	IP4700	R1.0
	PN005046630 ^b	15K		R1.1
	PN005047331			R2.0 p24

a.RAID configurations only; not supported in JBOD systems.

b.Only supported in DAEs using power supplies with part number revisions at or above 005042633-21 or 005045508-04.

Non-4700 FC-Series Storage Systems



CAUTION

If you use a disk with an incorrect revision of FLARE OE or PROM code running in the SP, data loss will result due to incorrectly sized drives. Similarly, using an unsupported disk with any revision of FLARE OE and PROM code may result in data loss.

EMC Navisphere Manager or Supervisor displays the FLARE OE and PROM code revisions in the **General** tab of the **SP Properties** dialog box for the storage system. If the FLARE OE or PROM code running in the SPs does not meet the minimum revision, then before installing a disk, upgrade the FLARE OE or PROM code as explained in the EMC Navisphere Manager or Supervisor manual.

Table 3 lists the disks supported by the FC4500 and the FC5300 storage systems and the minimum FLARE OE and PROM code required to use each one. The FC4500 and FC5300 are the only storage systems that support the Access Logix™ software.

Table 4 lists the disks supported by the FC5600, FC5700, FC5603, and the FC5703 storage systems and the minimum FLARE OE and PROM code required to use each one.

Table 5 lists the disks supported by the FC5500, FC5400, FC5200, FC5210, and the FC5310 storage systems and the minimum FLARE OE and PROM code required to use each one.

Table 3 Minimum FLARE OE and PROM Code Revisions Required for an FC4500 or FC5300 Storage System

Disk Capacity	Part Number	Spindle Speed	Platform	Minimum FLARE OE and PROM Revisions	
				With Access Logix	Without Access Logix
181 Gbytes	PN005047551 ^a	7.2K	FC4500	6.32.14 2.09	5.32.14 2.09
			FC5300 ^b	Not supported	Not supported
146 Gbytes	PN005048172 PN005048444 PN005048565	10K	FC4500	6.32.18 2.10	5.32.18 2.10
			FC5300	6.24.08 2.09	5.24.08 2.09
73 Gbytes	PN005046734 PN005047169 PN005048173 PN005048445 PN005048517 PN005048567	10K	FC4500	6.32.01 2.08	5.32.01 2.08
			FC5300	6.24.05 2.09	5.22.08 2.04
	PN005048176 ^a	15K	FC4500	6.32.01 2.08	5.32.01 2.08
			FC5300	6.24.05 2.09	5.22.08 2.04
36 Gbytes	PN005045719	7.2K	FC4500	6.31.02 1.05	5.31.00 1.05
			FC5300	6.24.05 2.09	5.21.03 1.09
	PN005045936 PN005046732 PN005047171	10K	FC4500	6.31.02 1.05	5.31.00 1.05
			FC5300	6.24.05 2.09	5.21.03 1.09
	PN005047314 ^a PN005048177 ^a	15K	FC4500	6.31.02 1.05	5.31.00 1.05
			FC5300	6.24.05 2.09	5.21.03 1.09

Table 3 Minimum FLARE OE and PROM Code Revisions Required for an FC4500 or FC5300 Storage System (continued)

Disk Capacity	Part Number	Spindle Speed	Platform	Minimum FLARE OE and PROM Revisions	
				With Access Logix	Without Access Logix
18 Gbytes	PN005045268	7.2K	FC4500	6.31.02 1.05	5.31.00 1.05
			FC5300	6.24.05 2.09	5.21.03 1.01
	PN005045272 PN005045713 PN005045932 PN005046730	10K	FC4500	6.31.02 1.05	5.31.00 1.05
			FC5300	6.24.05 2.09	5.21.03 1.09
	PN005046630 ^c PN005047331	15K	FC4500	6.31.02 1.05	5.31.00 1.05
			FC5300	6.24.05 2.09	5.21.03 1.09
9 Gbytes	PN005045266	7.2K	FC4500	6.31.02 1.05	5.31.00 1.05
			FC5300	6.24.05 2.09	5.21.03 1.09
	PN005045270	10K	FC4500	6.31.02 1.05	5.31.00 1.05
			FC5300	6.24.05 2.09	5.21.03 1.01
	PN005045715 PN005045934	10K	FC4500	6.31.02 1.05	5.31.00 1.05
			FC5300	6.24.05 2.09	5.21.03 1.09

a.RAID configurations only; not supported in JBOD systems.

b.Access Logix for FC5300 is available from selected channels.

c.Only supported in iDAEs using power supplies with part number revisions at or above 005045508-04, and in DAEs using power supplies with part number revisions at or above 005042633-21 or 005045508-04.

Table 4 Minimum FLARE OE and PROM Code Revisions Required for the FC5600, FC5700, FC5603, and the FC5703 Storage System

Disk Capacity	Part Number	Spindle Speed	Platform	Minimum FLARE OE and PROM Revisions	
				Partitioned	Non-Partitioned
73 Gbytes	PN005046734 PN005047169 PN005048173 PN005048517 PN005048567	10K	FC5703	5.11.59	Not supported
			FC5603	3.23	
			FC5700	5.11.09	Not supported
			FC5600	3.23	
	PN005048176 ^a	15K	FC5703	5.11.59	Not supported
			FC5603	3.23	
			FC5700	5.11.09	Not supported
			FC5600	3.23	
36 Gbytes	PN005045719	7.2K	FC5703	5.11.52	4.12.62
			FC5603	3.18	2.14
			FC5700	5.11.02	4.12.11
			FC5600	3.18	2.14
	PN005045936 PN005046732 PN005047171	10K	FC5703	5.11.52	4.12.62
			FC5603	3.18	2.14
			FC5700	5.11.02	4.12.11
			FC5600	3.18	2.14
	PN005047314 PN005048177 ^a	15K	FC5703	5.11.52	4.12.62
			FC5603	3.18	2.14
			FC5700	5.11.02	4.12.11
			FC5600	3.18	2.14

Table 4 Minimum FLARE OE and PROM Code Revisions Required for the FC5600, FC5700, FC5603, and the FC5703 Storage System (continued)

Disk Capacity	Part Number	Spindle Speed	Platform	Minimum FLARE OE and PROM Revisions	
				Partitioned	Non-Partitioned
18 Gbytes	PN005045268	7.2K	FC5703	5.11.52	4.11.50
			FC5603	3.18	1.01
			FC5700	5.11.02	4.11.00
			FC5600	3.18	1.01
	PN005045272	10K	FC5703	5.11.52	4.11.50
			FC5603	3.18	1.01
			FC5700	5.11.02	4.11.00
			FC5600	3.18	1.01
	PN005045713 PN005045932 PN005046730	10K	FC5703	5.11.52	4.12.62
			FC5603	3.18	2.14
			FC5700	5.11.02	4.12.11
			FC5600	3.18	2.14
	PN005047331	15K	FC5703	5.11.52	4.12.62
			FC5603	3.18	2.14
			FC5700	5.11.02	4.12.11
			FC5600	3.18	2.14

Table 4 Minimum FLARE OE and PROM Code Revisions Required for the FC5600, FC5700, FC5603, and the FC5703 Storage System (continued)

Disk Capacity	Part Number	Spindle Speed	Platform	Minimum FLARE OE and PROM Revisions	
				Partitioned	Non-Partitioned
9 Gbytes	PN005045266	7.2K	FC5703	5.11.52	4.11.50
			FC5603	3.18	1.01
			FC5700	5.11.02	4.11.00
			FC5600	3.18	1.01
	PN005045270	10K	FC5703	5.11.52	4.11.50
			FC5603	3.18	1.01
			FC5700	5.11.02	4.11.00
			FC5600	3.18	1.01
	PN005045715 PN005045934	10K	FC5703	5.11.52	4.12.62
			FC5603	3.18	2.14
			FC5700	5.11.02	4.12.11
			FC5600	3.18	2.14

a.RAID configurations only; not supported in JBOD systems.

Table 5 Minimum FLARE OE and PROM Code Revisions Required for the FC5500, FC5400, FC5200, FC5210, and the FC5310 Storage System

Disk Capacity	Part Number	Spindle Speed	Platform	Minimum FLARE OE and PROM Revisions
73 Gbytes	PN005046734 PN005047169 PN005048173 PN005048517 PN005048567	10K	FC5500	2.04.40
			FC5400	4.26
			FC5310	5.22.08 2.04
			FC5210	
			FC5200	
	PN005048176 ^a	15K	FC5500	2.04.40
			FC5400	4.26
			FC5310	5.22.08 2.04
			FC5210	
			FC5200	

Table 5 Minimum FLARE OE and PROM Code Revisions Required for the FC5500, FC5400, FC5200, FC5210, and the FC5310 Storage System (continued)

Disk Capacity	Part Number	Spindle Speed	Platform	Minimum FLARE OE and PROM Revisions
36 Gbytes	PN005045719	7.2K	FC5500	2.04.25
			FC5400	4.26
			FC5310	5.21.03 1.09
			FC5210	
			FC5200	
	PN005045936 PN005046732 PN005047171	10K	FC5500	2.04.25
			FC5400	4.26
			FC5310	5.21.03 1.09
			FC5210	
			FC5200	
	PN005047314 PN005048177	15K	FC5500	2.04.25
			FC5400	4.26
			FC5310	5.21.03 1.09
			FC5210	
			FC5200	

Table 5 Minimum FLARE OE and PROM Code Revisions Required for the FC5500, FC5400, FC5200, FC5210, and the FC5310 Storage System (continued)

Disk Capacity	Part Number	Spindle Speed	Platform	Minimum FLARE OE and PROM Revisions
18 Gbytes	PN005045268	7.2K	FC5500	2.03.23
			FC5400	4.23
			FC5310	5.21.03 1.01
			FC5210	
			FC5200	
	PN005045272	10K	FC5500	2.03.23
			FC5400	4.23
			FC5310	5.21.03 1.09
			FC5210	
			FC5200	
	PN005045713 PN005045932 PN005046730	10K	FC5500	2.04.25
			FC5400	4.26
			FC5310	5.21.03 1.09
			FC5210	
			FC5200	
	PN005047331	15K	FC5500	2.04.25
			FC5400	4.26
			FC5310	5.21.03 1.09
			FC5210	
			FC5200	
	PN005046630 ^b	15K	FC5500	Not supported
			FC5400	
			FC5310	5.21.03 1.09
			FC5210	
			FC5200	

Table 5 Minimum FLARE OE and PROM Code Revisions Required for the FC5500, FC5400, FC5200, FC5210, and the FC5310 Storage System (continued)

Disk Capacity	Part Number	Spindle Speed	Platform	Minimum FLARE OE and PROM Revisions
9 Gbytes	PN005045266	7.2K	FC5500	2.03.23
			FC5400	4.23
			FC5310	5.21.03 1.09
			FC5210	
			FC5200	
	PN005045270	10K	FC5500	2.03.23
			FC5400	4.23
			FC5310	5.21.03 1.01
			FC5210	
			FC5200	
	PN005045715 PN005045934	10K	FC5500	2.04.25
			FC5400	4.26
			FC5310	5.21.03 1.09
			FC5210	
			FC5200	

a.RAID configurations only; not supported in JBOD systems.

b.Only supported in DAEs using power supplies with part number revisions at or above 005042633-21 or 005045508-04.

Copyright © 1998-2005 EMC Corporation. All Rights Reserved.

EMC believes the information in this publication is accurate as of its publication date. The information is subject to change without notice. INFORMATION IN THIS PUBLICATION IS PROVIDED "AS IS." EMC CORPORATION MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND WITH RESPECT TO THE INFORMATION IN THIS PUBLICATION, AND SPECIFICALLY DISCLAIMS IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Use, copying, and distribution of any EMC software described in this publication requires an applicable software license.

Trademark Information

EMC², EMC, CLARiiON, Navisphere, and PowerPath are registered trademarks and Access Logix, FLARE, MirrorView, Powerlink, SAN Copy, and SnapView are trademarks of EMC Corporation.

All other trademarks mentioned herein are the property of their respective owners.