



DEDICATED,
SUPERIOR DATA SECURITY AND
SUSTAINABILITY
HIKVISION
HYBRID SAN STORAGE PRODUCTS



OVERVIEW

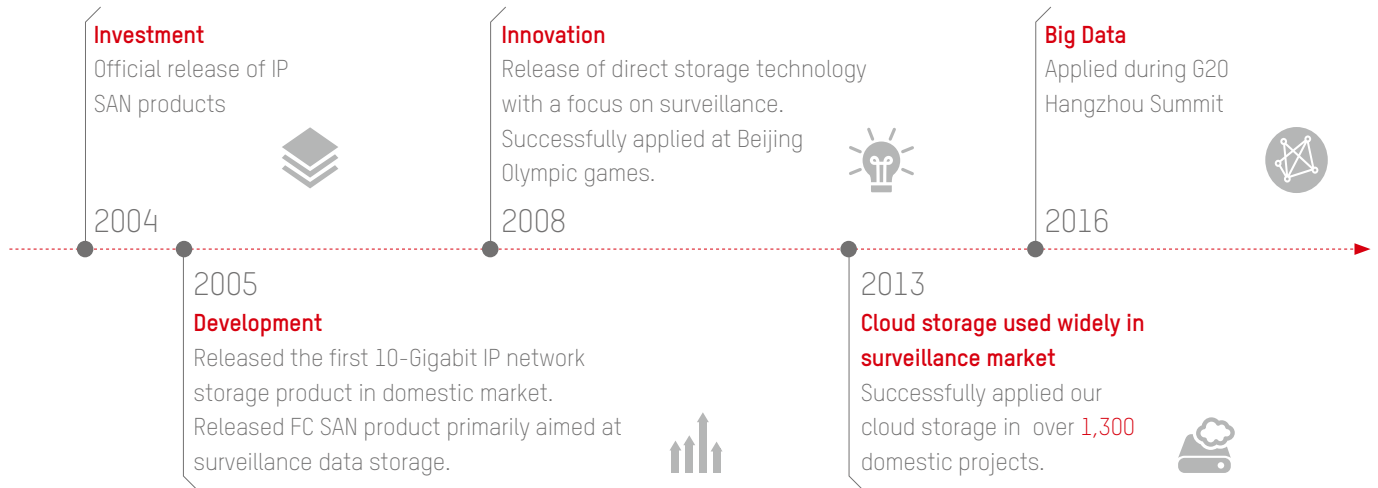
For over 10 years, Hikvision's industry-leading R&D department has provided state-of-the-art, application-specific data storage products, building a reputation for superior data security and sustainability for our customers.

With years of technological innovations, Hikvision has established an extensive and well-developed line of storage products, combining high data density, modularized design, video management, data safety, and device management features. Together, these characteristics create the most advanced and flexible storage solutions available to date. Hikvision's unique support for direct streaming, IPSAN, FCSAN, and other models, provides customers with autonomous control, stability, and efficiency.

Now Hikvision's Enterprise Network Storage has come to the SMB market with an advanced design that will leave a mark in the security industry. The Hybrid Storage Area Network (SAN) System creates a network with access to data storage servers, and it integrates Hikvision's unique video direct streaming technology as well as IPSAN. This flexible, cost-effective solution features ONVIF-support to third-party cameras, support for RTSP, and SIP protocols, and extended data retention. With no recording server needed, Hikvision's Hybrid SAN systems truly make applications simple, flexible, and budget-friendly.



HISTORY OF HIKVISION STORAGE PRODUCTS



MARKETING MILESTONES

No. 1

Four consecutive quarters as **No.1** in China external IP storage market according to IDC



No. 1

First

- to develop direct video streaming technology
- to develop direct picture streaming technology
- to release CCTV cloud storage solution
- to develop video + picture direct streaming technology

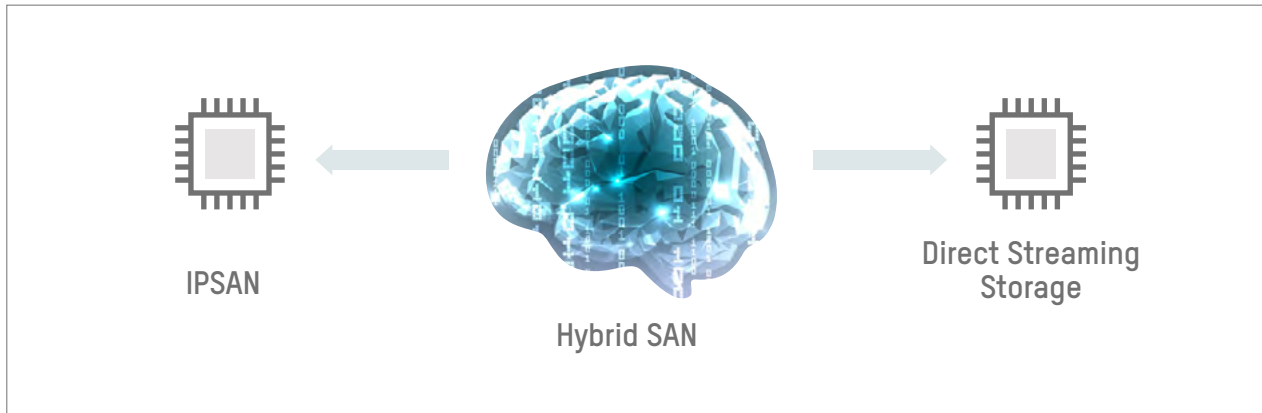
150 PB

150 PB in a single, very large Safe City project deployment

CCTV Storage Leader

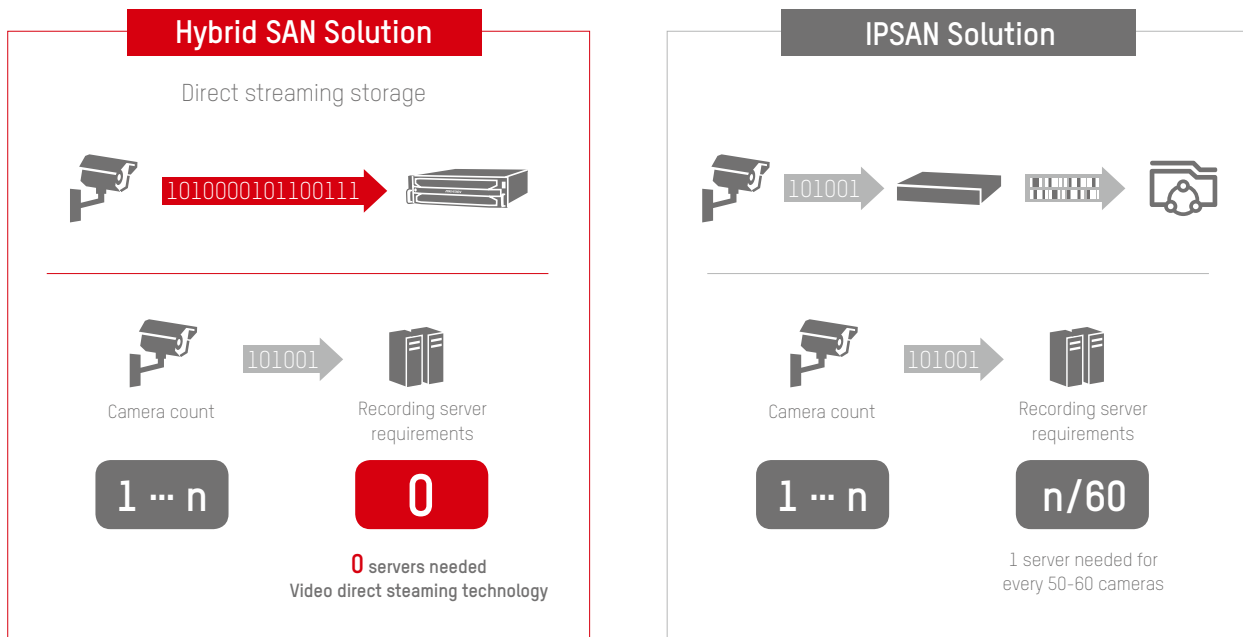
■ DUAL STORAGE MODE SUPPORT

Hikvision Hybrid SAN can work perfectly in IPSAN mode with your existing system. It can also work in direct streaming storage mode when installed new, without the need for a recording server, making it a cost-effective and flexible solution.



- Dual modes support: IPSAN/direct streaming storage
- IPSAN support to integrate with 3rd party VMS
- ONVIF support to fetch stream from 3rd party cameras

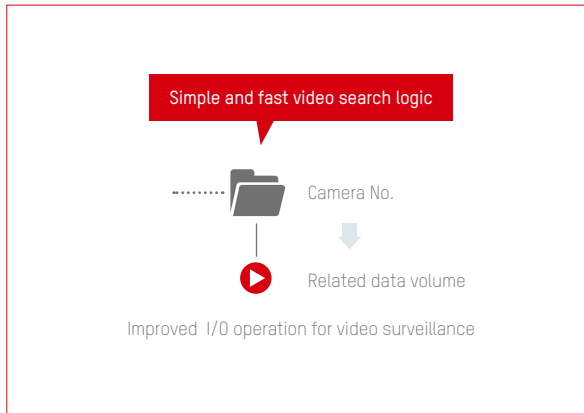
■ FLEXIBLE AND COST-EFFECTIVE ENTERPRISE STORAGE SOLUTION



■ FAST SEARCH AND RETRIEVAL OF VIDEO

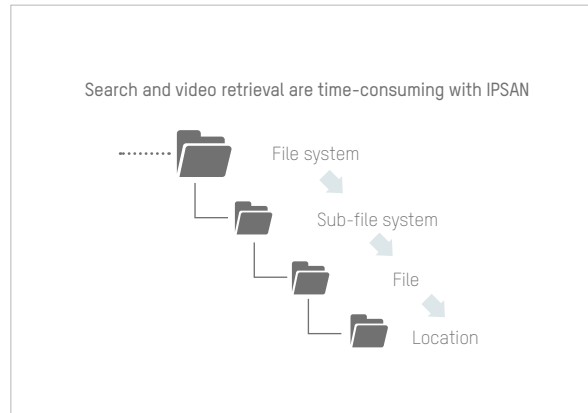
Fast index with direct streaming mode:

Device No. > Related data volume > Offset



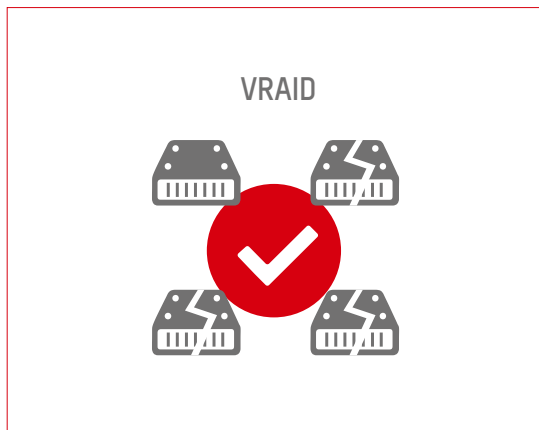
Traditional file retrieval with IPSAN:

File system > Sub-file system > File > Location

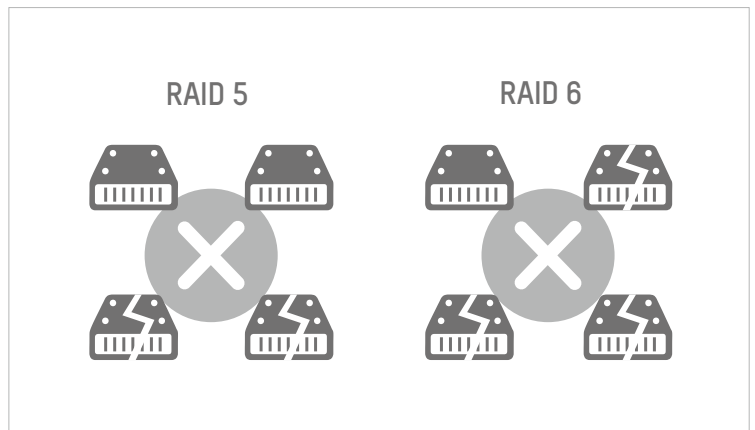


■ SUPER HDD AVAILABILITY: VRAID

Hikvision's VRAID technology ensures video recording continuity as long as 1 disk remains functioning.



With generic RAID technology, when there is more than 1 disk fails, RAID will cease functioning

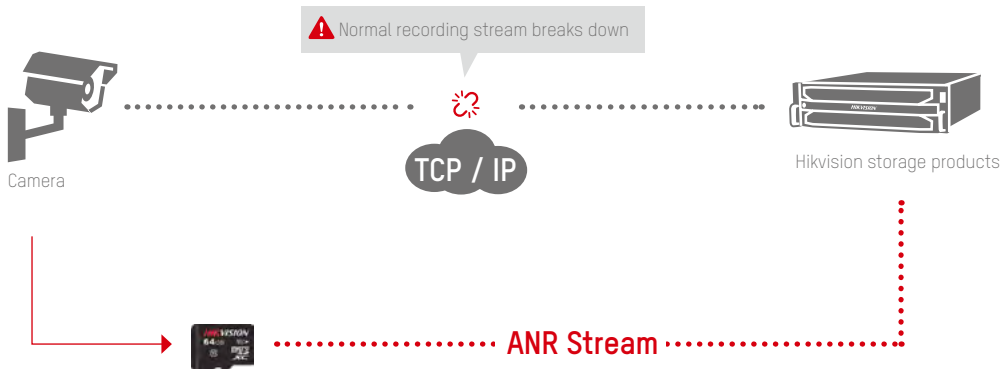


Tips

VRAID technology is only available in single-controller storage products, such as DS-A81016S, DS-A80624S.

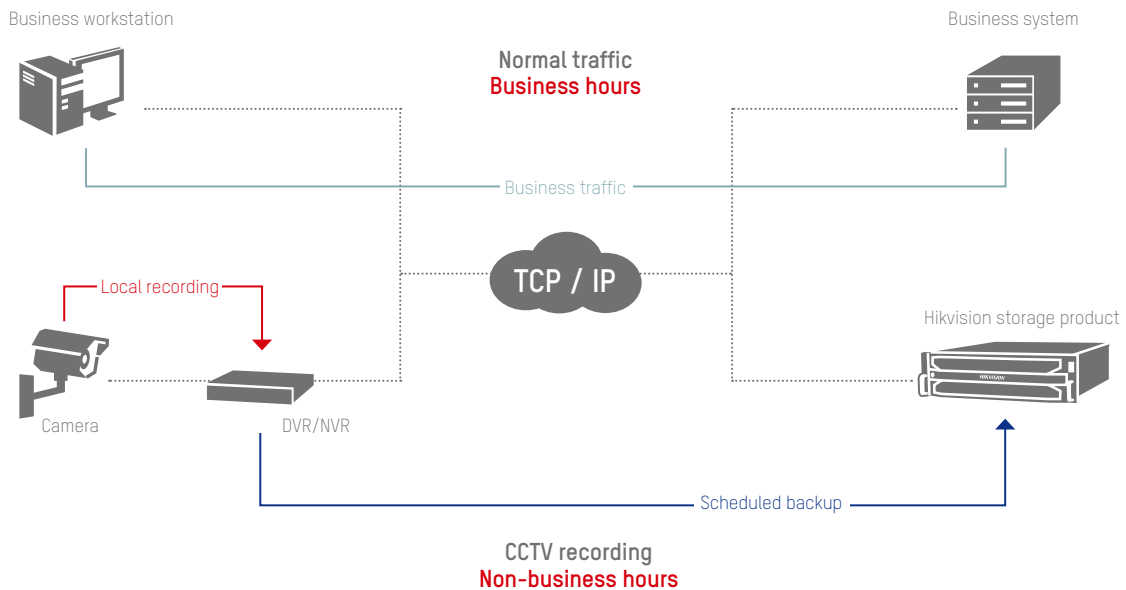
■ ANR TECHNOLOGY FOR EDGE STORAGE TRANSFER

- Network cameras normally store recordings in Hikvision storage products
- When network is down, networked cameras begin recording on embedded SD cards
- When network connection resumes, SD cards transfer data to storage products automatically



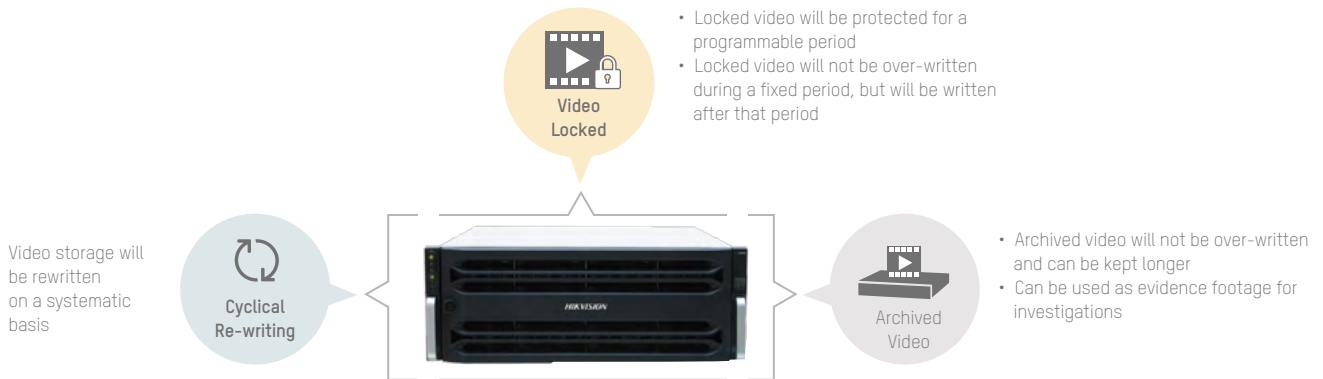
■ SCHEDULED BACKUP OF RECORDING

- DVR/NVRs record locally to ensure normal business traffic bandwidth during business hours
- Hikvision storage products recognize active and scheduled backup of recording from NVR/DVRs at night when network bandwidth is available



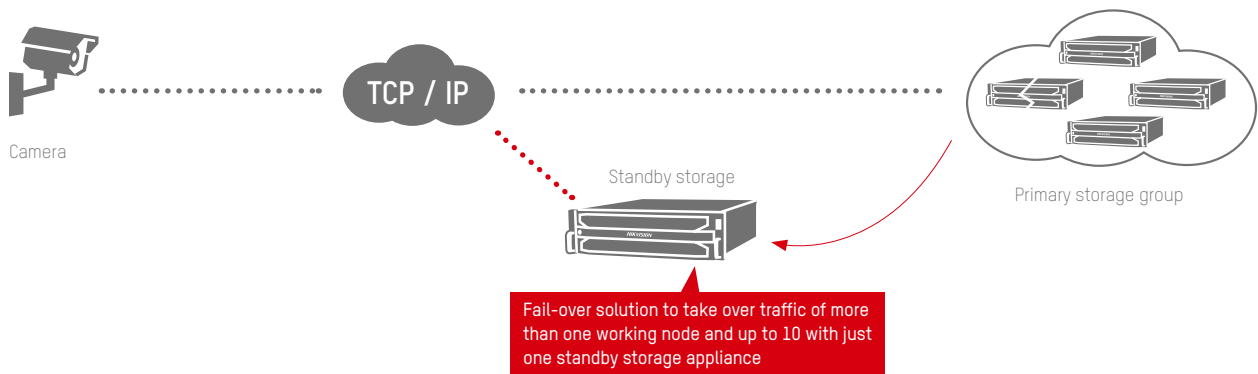
■ FLEXIBLE VIDEO RECORDING MANAGEMENT

- Cyclical re-writing for normal video storage
- Locked video for specified period protection
- Archived video for longer protection



■ ADVANCED N+1 FAIL OVER

- 10+1 equipment hot backup, when more than 1 out of 10 nodes stops functioning
- Hot backup will take over traffic of all problematic nodes



■ EASY TO USE AND MAINTAIN

One-Key Configuration

- Create RAID
- Form storage pool
- Configure video volumes into logical partitions

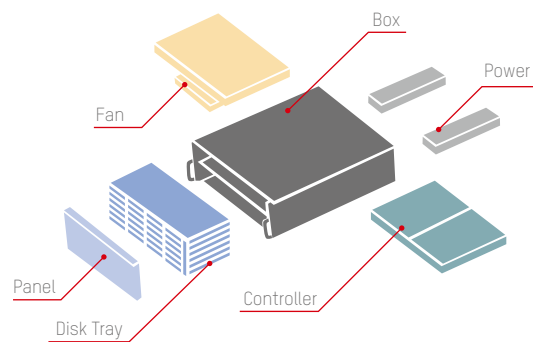
- Use storage products like plug-and-play NVRs
- Avoid complex network configuration
- No need for advanced IT knowledge

User-Friendly Management Interface

- User-friendly system status dashboard for easy daily maintenance
- Storage device batch upgrade support decreases large system upgrade workload



- Modularized hardware design, easy to install and maintain
- Hot-swappable hard drive and controller won't stop traffic, ensuring system availability

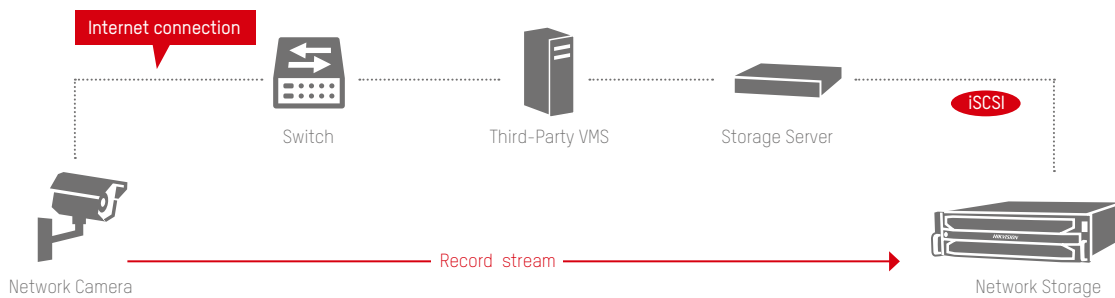


- Multiple alarm configurations to notify personnel of possible system malfunction



STANDARD IP-SAN SUPPORT

- Standard and Open Source – Standard iSCSI protocol works with 3rd-party VMS systems such as Milestone and others
- Proven solution with many existing applications, operating in conjunction with leading VMS partners



ENERGY SAVING PRODUCTS



The CPU changes its operating frequency and voltage corresponding to system load intelligence and lowers the power consumption without affecting operation.








Based on the temperature of the device, the system adjusts fan speed – up to 20 levels of speed (about 1°C per level adjustment).



Depending on the workload, some or all hard disks enter sleep mode, reducing power consumption and prolonging hard disk life.

■ PRODUCT DATA SHEET

Model Name	DS-A81016S	DS-A80624S	DS-A81024D	DS-A82012D	DS-A82024D
Product Image					
D1 (2 Mbps) Record+Playback	IPSAN 180-ch Direct streaming 320-ch	IPSAN 180-ch Direct streaming 320-ch	IPSAN 180-ch Direct streaming 320-ch	IPSAN 256-ch Direct streaming 448-ch	IPSAN 256-ch Direct streaming 448-ch
Controller	Single	Single	Dual	Dual	Dual
Drive Support	SATA/1 TB, 2 TB, 3 TB, 4 TB, 6 TB	SATA/1 TB, 2 TB, 3 TB, 4 TB, 6 TB	SAS/1 TB, 2 TB, 3 TB, 4 TB, 6 TB (SSD is optional)	SAS/1 TB, 2 TB, 3 TB, 4 TB, 6 TB (SSD is optional)	SAS/1 TB, 2 TB, 3 TB, 4 TB, 6 TB (SSD is optional)
Form Factor	3U16, 19" rackmount	4U24, 19" rackmount	4U24, 19" rackmount	2U12, 19" rackmount	4U24, 19" rackmount
RAID Levels	0, 1, 3, 5, 6, 10, 50, JBOD Hot-Spare	0, 1, 3, 5, 6, 10, 50, JBOD Hot-Spare	0, 1, 3, 5, 6, 10, 50, JBOD Hot-Spare	0, 1, 3, 5, 6, 10, 50, JBOD Hot-Spare	0, 1, 3, 5, 6, 10, 50, JBOD Hot-Spare
Processor	64-bit Multi-core Processor	64-bit Multi-core Processor	64-bit Multi-core Processor	64-bit Multi-core Processor	64-bit Multi-core Processor
SAS Extension Interface	Supported	Supported	Supported	Supported	Supported
Ethernet	7 RJ-45 100 / 1000 Mbps (one for management)	3 RJ-45 100 / 1000 Mbps (one for management)	5 RJ-45 100 / 1000 Mbps (one for management) Per Controller (Can be extended to 4 GE or 2 × 10GE or 4 × 8G FC)	4 × 1000 M Ethernet Port per Controller (Can Be Extended to 4 × GE or 2 × 10GE Interface)	5 RJ-45 100 / 1000 Mbps (one for management) Per Controller (Can be extended to 4 GE or 2 × 10GE or 4 × 8G FC)
Management Method	Web	Web	Web	Web	Web
Power Consumption	Two Redundant 460 W	Two Redundant 875 W	Two Redundant 1050 W	Two Redundant 595 W	Two Redundant 1050 W
Dimensions (W × H × D)	440 × 132 × 480 mm	445 × 175 × 746 mm	447 × 172 × 550 mm	486 × 87 × 570 mm	447 × 172 × 550 mm
Weight	20 Kg	40 Kg	33.5 Kg	20 Kg	32 Kg



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Distributed by



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