

# NEO 8000e Tape Library Specifications

### **Physical Characteristics**

All Versions	Specifics
Unpacked Dimensions (H x W x D)	76 x 24 x 41.5 in. (193 x 61 x 105 cm) <sup>*</sup>
Shipping Dimensions (H x W x D)	84 x 48 x 48 in. (213 x 122 x 122 cm)
Maximum Weight, Unpacked	705 lb. (320kg) with no drives or media
Maximum Weight, Shipping	878 lb. (398kg) with no drives or media
Maximum Number of Drives	12
Maximum Number of Active Drawers	6
Number of Slots per Drawer	80
Maximum Number of Cartridges	500 LTO (including 20 Fixed slots)
Number of Mail Slots	15
Number of Partitions Supported	Up to 4
Maximum Number of Power Supply	6†

 $^{\ast}$  Add about 2 in. (5cm) for the optional rear door.

† Primary and Redundant power modules for the library, Drives 1-6, and Drives 7-12.

## **Expansion Options**

Туре	Specifics
Maximum Number of Add-on Modules	1
Maximum Number of Tape Drives per Module	12
Drive Types Supported	LTO-6, LTO-5
Maximum Drive Capacity per Module by Drive Type	LTO-6: 1.3PB (native), 3.1PB (compressed)
	LTO-5: 750TB (native), 1.5TB (compressed)

#### Interfaces

Connection Type	Specifics
Ethernet	RJ-45
Serial	RJ-11
Fibre Channel	LC connector, up to 8Gb maximum
SAS	Mini-SAS (SFF-8088), up to 6Gb maximum

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# Operations

Operation	Specifics
Maximum Native Data Transfer Rate	LTO-6: 7TB/hr
	LTO-5: 6TB/hr
Maximum Compressed Data Transfer Rate	LTO-6: 17.3TB/hr
	LTO-5: 12TB/hr
Mount Time, into Drive (Excluding pass-through channel access)	Less than 20 seconds
Dismount Time, from Drive (excluding drive rewind/unload/eject time)	Less than 20 seconds
Inventory Time (80 cartridges/1 drawer)	Less than 25 seconds
Inventory Time (full library including drives)	Less than 5 minutes
Library Calibration (SelfTrue Technology) Time	Less than 20 minutes

## Reliability

Feature	Specifics
MTBF (Mean Time Between Failures)	More than 250,000 hours
MCBF (Mean Cycles Between Failures)	More than 4,000,000 cartridge swap cycles
MTTR (Mean Time To Repair)	Less than 15 minutes
Maximum Time to Repair	1 hour (for most FRUs)
Design Life	7 years at 30% Duty Cycle

## Safety

Agency	Standard
NRTL - US	IEC60950-1, Standard for Safety of Information Technology Equipment
NRTL - Canada	CAN/CSA-C22.2 No. 950, Standard for Safety of Information Technology Equipment
CE Marking (European Union)	Low Voltage Directive, 72/23/EEC, European Union
TÜV GS Mark (Germany)	EN60950, (IEC950) Standard for Safety of Information Technology Equipment, Third addition

## **Electromagnetic Emissions**

Agency	Standard
FCC-A	US Std. 47 CFR, Part 15 Rules, Class A. Notation on Product
Industry Canada (ICES)	Industry Canada Rules, ICES-003, Class A. Notation on product
CE Marking (European Union)	EMC Directive, 89/336/EEC Laws, relating to electromagnetic compatibility, European Union EN55022, Standard, RFI limits, Information Technology Equipment, Class A EN55024, Information Technology Equipment, Immunity.
VCCI (Japan)	Class A per CISPR 22, Japan. VCCI statement on product
BSMI (Taiwan)	CNS: 13438, Taiwan. Class A

## Temperature, Humidity & Altitude

Operating		
Dry Bulb Temperature	10°C to 40°C	
Temperature Gradient	1°C / min. (across the range)	
Temperature Shock	15°C (over 2 min.)	
Wet Bulb Temperature	26°C	
Relative Humidity	10% to 80% (noncondensing)	
Humidity Gradient	10% / hr.	
Altitude (Sea Level)	-1000 ft. to +10,000 ft.	
Power On – No Tape Loaded (Unpacked – 72 hours)		
Dry Bulb Temperature	0°C to 40°C	
Temperature Gradient	15°C / hr. (across the range)	
Temperature Shock	15°C (over 2 min.)	
Wet Bulb Temperature	30°C	
Relative Humidity	10% to 80% (noncondensing)	
Humidity Gradient	10% / hr.	
Altitude (Sea Level)	-1000 ft. to +10,000 ft.	
Non-Operating – Long Term (Packed or Unpacked)		
Dry Bulb Temperature	-40°C to 60°C	
Temperature Gradient	20°C / hr. (across the range)	
Temperature Shock	15°C (over 2 min.)	
Wet Bulb Temperature	30°C	
Relative Humidity	5% to 95% (noncondensing)	
Humidity Gradient	10% / hr.	

Altitude (Sea Level)	-1000 ft. to +10,000 ft.	
Transit – Short Term (Packed 7 Days)		
Dry Bulb Temperature	-40°C to 60°C	
Temperature Gradient	25°C / hr. (across the range)	
Temperature Shock	15°C (over 2 min.)	
Wet Bulb Temperature	30°C	
Relative Humidity	5% to 95% (noncondensing)	
Humidity Gradient	10% / hr.	
Altitude (Sea Level)	-1000 ft. to +50,000 ft.	

#### Shock

Operating (Within Spec – No Damage)		
Peak Acceleration	1.5 G's	
Duration	11ms	
Wave Shape	1/2 sine pulses	
Application	X,Y,Z axes, repeat 3 times	
Non-Operating, with Tape Cartridges Removed (Unpacked – No Damage)		
Peak Acceleration	25 G's	
Duration	11ms	
Wave Shape	1/2 sine pulses	
Application	X,Y,Z axes, repeat 3 times	
	Transit/Storage (Packed – No Damage)	
Peak Acceleration	30 G's	
Duration	30ms	
Wave Shape	1/2 sine pulses	
Application	X,Y,Z axes, repeat 3 times	
Physical Drop Test (Packed – No Damage)		
Drop Test Distanc	e 12 in.	
Application	Per ISTA (1 time)	

#### Vibration

Operating (Within Spec – No Damage)		
Frequency Range	5-1000-5Hz	
Peak Acceleration	0.25 G	
Wave shape	Sinusoidal, 1 octave/min.	
Application	X,Y,Z axes 2 sweeps per axis	
Non-Operating (Unpacked – No Damage)		
Frequency Range	5-1000-5Hz	
Peak Acceleration	1.0 G	
Wave shape	Sinusoidal, 1 octave/min.	
Application	X,Y,Z axes 2 sweeps per axis	
Transit/Storage (Packed – No Damage)		
Random Vibration Test	ASTM D4728-95	
Considerations	Air and Truck only	

## **Power Consumption**

Status	Power Consumed
Idle State	484 Watts
Average Running State	638 Watts
Peak Power	990 Watts

## **Environmental Impact**

Status	Heat Produced
Idle State	1653 BTU/h (1744 KJ)
Average Running State	2179 BTU/h (2299 KJ)
Peak Power	3381 BTU/h (3567 KJ)

### **Air Flow**

Status	Volume
Basic two-drive model	234.80 ft <sup>3</sup> /min (7.04 m <sup>3</sup> /min)
Each additional drive installed	Add 18.00 ft <sup>3</sup> /min (0.54 m <sup>3</sup> /min)
Each additional power supply installed	Add 50.80 ft <sup>3</sup> /min (1.52 m <sup>3</sup> /min)

#### Power

Rating	Range	
Input Voltage, Low	100-120 VAC ±10%	
Input Voltage, High	200-240 VAC ±10%	
NOTE: The low voltage nominal will be 110 VAC and the high voltage nominal will be 220 VAC.		
Input Frequency	47-63 Hz	
AC Power Input	Two IEC320-C20 type rear-panel receptacles	

#### FCC Notice

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

#### Japanese Voluntary Control Council for Interference (VCCI)

この装置は、情報処理装置等電波障害自主規制協議会(VCCI)の基準に基づくク ラスA情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすこと があります。この場合には使用者が適切な対策を講ずるよう要求されることがありま す。

#### Translation

This is a Class A product based on the standard of the Voluntary Control Council for Interference by Information Technology Equipment (VCCI). If this equipment is used in a domestic environment, radio disturbance may occur, in which case, the user may be required to take corrective actions.

#### **Taiwan BSMI Class A Warning**

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

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