## Lenovo ThinkCentre M90a Pro Gen 4 Intel® Core™ i7 i7-13700 68,6 cm (27") 2560 x 1440 pixels []-[]-[] PC 16 GB DDR5-SDRAM 512 GB SSD Windows 11 Pro Wi-Fi 6E (802.11ax)

Brand : Lenovo

Product family: ThinkCentre

68.6 cm (27") 2560 x 1440 pixels

× Quad HD 16:9 350 cd/m<sup>2</sup>

IPS

1

99%

Intel

sRGB

Product code: 12JM0019SP







Display resolution *
Touchscreen *
HD type *
Native aspect ratio
Display brightness
Panel type

## RGB colour space Anti-glare screen Colour gamut

Display

Display diagonal \*

## Processor Processor manufacturer \*

Processor family *	Intel® Core™ i7	
Processor generation	13th gen Intel® Core <sup>™</sup> i7	
Processor model *	i7-13700	
Processor cores	16	
Processor boost frequency	5.2 GHz	
Performance cores	8	
Efficient cores	8	
Performance-core Max Turbo Frequency	5.1 GHz	
Efficient-core Max Turbo Frequency	4.1 GHz	
Performance-core base frequency	2.1 GHz	
Efficient-core base frequency	1.5 GHz	
Processor cache	30 MB	
Processor cache type	Smart Cache	
Processor base power	65 W	
Maximum turbo power	219 W	

Camera	
Privacy type	Privacy shutter
Network	
Wi-Fi *	1
Top Wi-Fi standard * Wi-Fi standards WLAN controller manufacturer WLAN controller model Antenna type	Wi-Fi 6E (802.11ax) Wi-Fi 6E (802.11ax) Intel Intel Wi-Fi 6E AX211 2x2
Ethernet LAN *	1
Ethernet LAN data rates	100,1000 Mbit/s
Bluetooth *	<b>v</b>
Bluetooth version	5.1
Ports & interfaces	
Ethernet LAN (RJ-45) ports USB 3.2 Gen 1 (3.1 Gen 1) Type-A ports quantity *	1 3
USB 3.2 Gen 2 (3.1 Gen 2) Type-A ports quantity *	2
USB 3.2 Gen 2 (3.1 Gen 2) Type-C ports quantity *	1
Intel® Thunderbolt 4	1
Thunderbolt 4 ports quantity HDMI ports quantity * DisplayPorts quantity	1 1 1
Combo headphone/mic port	1
Design	
Colour name Product colour *	Black Black

Memory		Design	
Internal memory *	16 GB	Cable lock slot	✓
Internal memory type	DDR5-SDRAM	Cable lock slot type	Kensington
Maximum internal memory * Memory slots	64 GB 2	Performance	
Memory slots type	SO-DIMM	Product type *	All-in-One PC
Memory clock speed	5600 MHz	Motherboard chipset	Intel Q670
Memory layout (slots x size)	1 x 16 GB	Trusted Platform Module (TPM)	<ul> <li>Image: A start of the start of</li></ul>
Memory form factor	DIMM/SO-DIMM	Trusted Platform Module (TPM) version	2.0
Storage		Software	
Total storage capacity *	ge media * SSD	Operating system architecture	64-bit
Storage media * Total SSDs capacity		Operating system installed *	Windows 11 Pro
Number of SSDs installed	1	Power	
SSD capacity	512 GB	AC adapter power	230 W
SSD interface	PCI Express 4.0	AC adapter frequency	50 - 60 Hz
NVMe	<ul> <li>Image: A set of the set of the</li></ul>	AC adapter input voltage	100 - 240 V
SSD form factor	M.2	Weight & dimensions	
Optical drive type *	DVD±RW	Width (with stand)	613.6 mm
Card reader integrated	✓	Depth (with stand)	219.8 mm
Graphics		Height (with stand)	411 mm
Discrete graphics card *	×	Weight (with stand)	11.2 kg
Discrete graphics card model *	Not available	Operational conditions	
On-board graphics card *	J.	Operating temperature (T-T)	5 - 35 °C
On-board GPU manufacturer	Intel	Storage temperature (T-T)	-20 - 60 °C
On-board graphics card family	Intel® UHD Graphics	Operating relative humidity (H-H)	20 - 80%
On-board graphics card model *	Intel UHD Graphics 770	Storage relative humidity (H-H)	10 - 90% -15.2 - 3048 m
Audio		Operating altitude Non-operating altitude	-15.2 - 3048 m
Built-in speaker(s) *	1	Non operating attrade	15.2 12152 11
Number of speakers		Contification	
•	2	Certificates	D. UC
RMS rated power	10 W	Compliance certificates	RoHS
•	-	Compliance certificates Sustainability	
RMS rated power	10 W	Compliance certificates	RoHS ENERGY STAR, TCO, EPEAT Gold
RMS rated power Built-in microphone	10 W	Compliance certificates Sustainability	
RMS rated power Built-in microphone <b>Camera</b>	10 W	Compliance certificates Sustainability Sustainability certificates	
RMS rated power Built-in microphone <b>Camera</b> Built-in camera *	10 W	Compliance certificates Sustainability Sustainability certificates Packaging content	ENERGY STAR, TCO, EPEAT Gold
RMS rated power Built-in microphone Camera Built-in camera * Total megapixels	10 W ✓ 5 MP	Compliance certificates Sustainability Sustainability certificates Packaging content Mouse included	ENERGY STAR, TCO, EPEAT Gold
RMS rated power Built-in microphone Camera Built-in camera * Total megapixels	10 W ✓ 5 MP	Compliance certificates Sustainability Sustainability certificates Packaging content Mouse included Mouse connectivity	ENERGY STAR, TCO, EPEAT Gold





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