Lenovo

# Lenovo ThinkCentre M90a Intel® Core™ i7 i7-12700 60.5 cm (23.8") 1920 x 1080 Pixeles Pantalla táctil PC todo en uno 16 GB DDR4-SDRAM 512 GB SSD Windows 11 Pro Wi-Fi 6 (802.11ax) Negro

**Marca :** Lenovo

**Familia de productos:**
ThinkCentre

**Código del producto:**
11VGS38T00

**Nombre del producto :** M90a

- Windows 11 Pro 64-bit
- Intel Core i7-12700 (25MB Cache)
- 60.5 cm (23.8") Full HD 1920 x 1080 IPS Touch
- 16GB (3200MHz) DDR4-SDRAM (1 x 16) & 512GB SSD

Intel Core i7-12700 (25MB Cache), 16GB DDR4-SDRAM, 512GB SSD, 60.5 cm (23.8") Full HD 1920 x 1080 IPS Touch, DVD±RW, Intel UHD Graphics 770, LAN, WLAN, Bluetooth, Webcam, Windows 11 Pro 64-bit

Lenovo ThinkCentre M90a. Tipo de producto: PC todo en uno. Diagonal de la pantalla: 60.5 cm (23.8"), Tipo HD: Full HD, Resolución de la pantalla: 1920 x 1080 Pixeles, Pantalla táctil, Tipo de panel: IPS. Familia de procesador: Intel® Core™ i7. Memoria interna: 16 GB, Tipo de memoria interna: DDR4-SDRAM. Capacidad total de almacenaje: 512 GB, Unidad de almacenamiento: SSD. Cámara incorporada. Tipo de unidad óptica: DVD±RW. Sistema operativo instalado: Windows 11 Pro. Color del producto: Negro

## Display

| | |
|---|---|
| Display diagonal * | 60.5 cm (23.8") |
| Display resolution * | 1920 x 1080 pixels |
| Touchscreen * | ✔ |
| HD type * | Full HD |
| Native aspect ratio | 16:9 |
| Display brightness | 250 cd/m² |
| Panel type | IPS |
| RGB colour space | NTSC |
| Anti-glare screen | ✔ |
| Colour gamut | 72% |
| Tilt adjustment | ✔ |
| Tilt angle range | -5 - 70° |

## Processor

| | |
|---|---|
| Processor manufacturer * | Intel |
| Processor family * | Intel® Core™ i7 |
| Processor generation | 12th gen Intel® Core™ i7 |
| Processor model * | i7-12700 |
| Processor cores | 12 |
| Processor boost frequency | 4.9 GHz |
| Performance cores | 8 |
| Efficient cores | 4 |
| Performance-core Max Turbo Frequency | 4.8 GHz |
| Efficient-core Max Turbo Frequency | 3.6 GHz |
| Performance-core base frequency | 2.1 GHz |
| Efficient-core base frequency | 1.6 GHz |
| Processor cache | 25 MB |
| Processor cache type | Smart Cache |

## Camera

| | |
|---|---|
| Privacy type | Privacy shutter |

## Network

| | |
|---|---|
| Wi-Fi * | ✔ |
| Top Wi-Fi standard * | Wi-Fi 6 (802.11ax) |
| Wi-Fi standards | Wi-Fi 6 (802.11ax) |
| WLAN controller manufacturer | Realtek |
| Antenna type | 2x2 |
| Ethernet LAN * | ✔ |
| Ethernet LAN data rates | 100,1000 Mbit/s |
| Bluetooth * | ✔ |
| Bluetooth version | 5.1 |

## Ports & interfaces

| | |
|---|---|
| Ethernet LAN (RJ-45) ports | 1 |
| USB 3.2 Gen 1 (3.1 Gen 1) Type-A ports quantity * | 3 |
| USB 3.2 Gen 2 (3.1 Gen 2) Type-A ports quantity * | 3 |
| USB 3.2 Gen 2 (3.1 Gen 2) Type-C ports quantity * | 1 |
| HDMI ports quantity * | 1 |
| HDMI version | 1.4/2.1 |
| DisplayPorts quantity | 1 |
| Combo headphone/mic port | ✔ |

## Design

| | |
|---|---|
| Product colour * | Black |
| Cable lock slot | ✔ |
| Cable lock slot type | Kensington |

## Processor

| | |
|---|---|
| Processor base power | 65 W |
| Maximum turbo power | 180 W |

## Memory

| | |
|---|---|
| Internal memory * | 16 GB |
| Internal memory type | DDR4-SDRAM |
| Maximum internal memory * | 64 GB |
| Memory slots | 2 |
| Memory slots type | SO-DIMM |
| Memory clock speed | 3200 MHz |
| Memory layout (slots x size) | 1 x 16 GB |
| Memory form factor | DIMM/SO-DIMM |

## Storage

| | |
|---|---|
| Total storage capacity * | 512 GB |
| Storage media * | SSD |
| Number of storage drives installed | 1 |
| Total SSDs capacity | 512 GB |
| Number of SSDs installed | 1 |
| SSD capacity | 512 GB |
| SSD interface | PCI Express 4.0 |
| NVMe | ✔ |
| SSD form factor | M.2 |
| Optical drive type * | DVD±RW |
| Card reader integrated | ✔ |
| Compatible memory cards | SD, SDHC, SDXC |

## Graphics

| | |
|---|---|
| Discrete graphics card * | ✗ |
| Discrete graphics card model * | Not available |
| On-board graphics card * | ✔ |
| On-board GPU manufacturer | Intel |
| On-board graphics card family | Intel® UHD Graphics |
| On-board graphics card model * | Intel UHD Graphics 770 |

## Audio

| | |
|---|---|
| Built-in speaker(s) * | ✔ |
| Number of speakers | 2 |
| RMS rated power | 6 W |
| Built-in microphone | ✔ |
| Audio system | HD |

## Camera

| | |
|---|---|
| Built-in camera * | ✔ |
| Total megapixels | 5 MP |
| Privacy camera | ✔ |

## Design

| | |
|---|---|
| VESA mounting | ✔ |

## Performance

| | |
|---|---|
| Product type * | All-in-One PC |
| Motherboard chipset | Intel Q670 |
| Trusted Platform Module (TPM) | ✔ |
| Trusted Platform Module (TPM) version | 2.0 |
| BIOS password | ✔ |
| HDD user password | ✔ |

## Software

| | |
|---|---|
| Operating system architecture | 64-bit |
| Operating system installed * | Windows 11 Pro |
| Operating system language | Spanish |

## Power

| | |
|---|---|
| AC adapter power | 180 W |
| AC adapter frequency | 50 - 60 Hz |
| AC adapter input voltage | 100 - 240 V |

## Weight & dimensions

| | |
|---|---|
| Width (with stand) | 539.6 mm |
| Depth (with stand) | 216.3 mm |
| Height (with stand) | 472 mm |
| Weight (with stand) | 8.74 kg |
| Width (without stand) | 539.6 mm |
| Depth (without stand) | 216.3 mm |
| Height (without stand) | 387.6 mm |
| Package width | 660 mm |
| Package depth | 238 mm |
| Package height | 545 mm |

## Operational conditions

| | |
|---|---|
| Operating temperature (T-T) | 5 - 35 °C |
| Storage temperature (T-T) | -20 - 60 °C |
| Operating relative humidity (H-H) | 20 - 80% |
| Operating altitude | 0 - 3048 m |
| Non-operating altitude | 0 - 12192 m |

## Certificates

| | |
|---|---|
| Compliance certificates | RoHS |
| Certification | TÜV MIL-STD-810H UL Anti-dust |

## Sustainability

| | |
|---|---|
| Sustainability certificates | TCO, ErP |

## Packaging content

| | |
|---|---|
| Mouse included | ✔ |
| Mouse connectivity | Wired |
| Keyboard included | ✔ |
| Keyboard connectivity | Wired |
| Keyboard language | Spanish |

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