

## Minimum Hardware Specification

The minimum requirements for hardware and software operating environments are described in the tables below.

Please contact your Yokogawa representative for large or non-standard system requirements.

### Exaquantum Server (real-time and historical database)

CPU: Intel x64 architecture as shown below.

No. of tags	CPU
Less than 20,000 tags	Xeon dual core 2 GHz or higher
20,000 - 50,000 tags	Xeon dual core 3 GHz or higher
50,000 - 100,000 tags	Xeon 4 core 3 GHz or higher
100,000 - 500,000 tags	Xeon 8 core 3 GHz or higher with Hyper-Threading enabled

Note: Please consider the number of Alarm and Event when required CPU Specification is considered. For details, please contact your Yokogawa representative.

### Main memory

No. of tags	Operating System	Main Memory Capacity
Less than 20,000 tags	Windows Server 2016 Standard 64-bit	8 GB or more
	Windows Server 2019 Standard 64-bit	
	Windows Server 2022 Standard 64-bit	
20,000 - 100,000 tags	Windows Server 2016 Standard 64-bit	10 GB or more
	Windows Server 2019 Standard 64-bit	
	Windows Server 2022 Standard 64-bit	
100,000 - 300,000 tags	Windows Server 2016 Standard 64-bit	32 GB or more
	Windows Server 2019 Standard 64-bit	
	Windows Server 2022 Standard 64-bit	
300,000 - 500,000 tags	Windows Server 2016 Standard 64-bit	64 GB or more
	Windows Server 2019 Standard 64-bit	
	Windows Server 2022 Standard 64-bit	

Please combine the required capacity when another software package is to be installed on the Exaquantum server.

Disk capacity: Depends on the process data scan rate and retention period.

Disk free space required for installation:

- System drive: minimum 8 GB (\*1)
- SQL server installed drive: minimum 8 GB (\*2)

\*1: 16 GB or more empty space in main memory is required when a SQL server is installed on a system drive.

\*2: 1 TB or more empty space in disk is required when OPC CAMS for HIS or UACS A&E messages are collected and saved.

### **Web Server**

CPU: Intel x64 architecture Xeon dual core 2 GHz or higher.

<b>Supported OS</b>	<b>Main Memory Capacity</b>
Windows Server 2016 Standard 64-bit	8 GB or more
Windows Server 2019 Standard 64-bit	
Windows Server 2022 Standard 64-bit	

Disk capacity: 2 GB or more.

The above hardware environment is suitable when the Exaquantum server and Web server are installed on different servers.

Please combine the required capacity if the Web server is to be installed on the Exaquantum server.