

Powerful. Tough. Future-Proof.

Our NY industrial Box PC has been designed from first principles to be powerful, reliable and scalable, making it ideally suited to visualization, data handling, measuring and controlling. The latest insights in design simplification eliminates faults caused by complexity which, with other unique design features, maximizes uptime and reduces costs. The future will be IT driven: Omron's Industrial PC platform will make you part of it.



NYB27,
NYB2E,
NYB37,
NYB55



NYB35,
NYB2C,
NYB65,
NYB13



NYB27,
NYB2E,
NYB37,
NYB55



NYB35,
NYB2C,
NYB2A,
NYB13,
NYB3A

Features

- No internal cables to cut faults, maximizes uptime
- Unique simplified thermal design to reduce downtime
- Powerful Intel® Core™ technology for optimized performance
- Industrial CPU's with long availability
- Three Ethernet ports to increase connectivity
- USB3.0 for fast data-transmission
- Optional NY Monitor Link interface for connectivity up to 100 m

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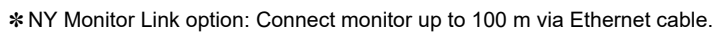
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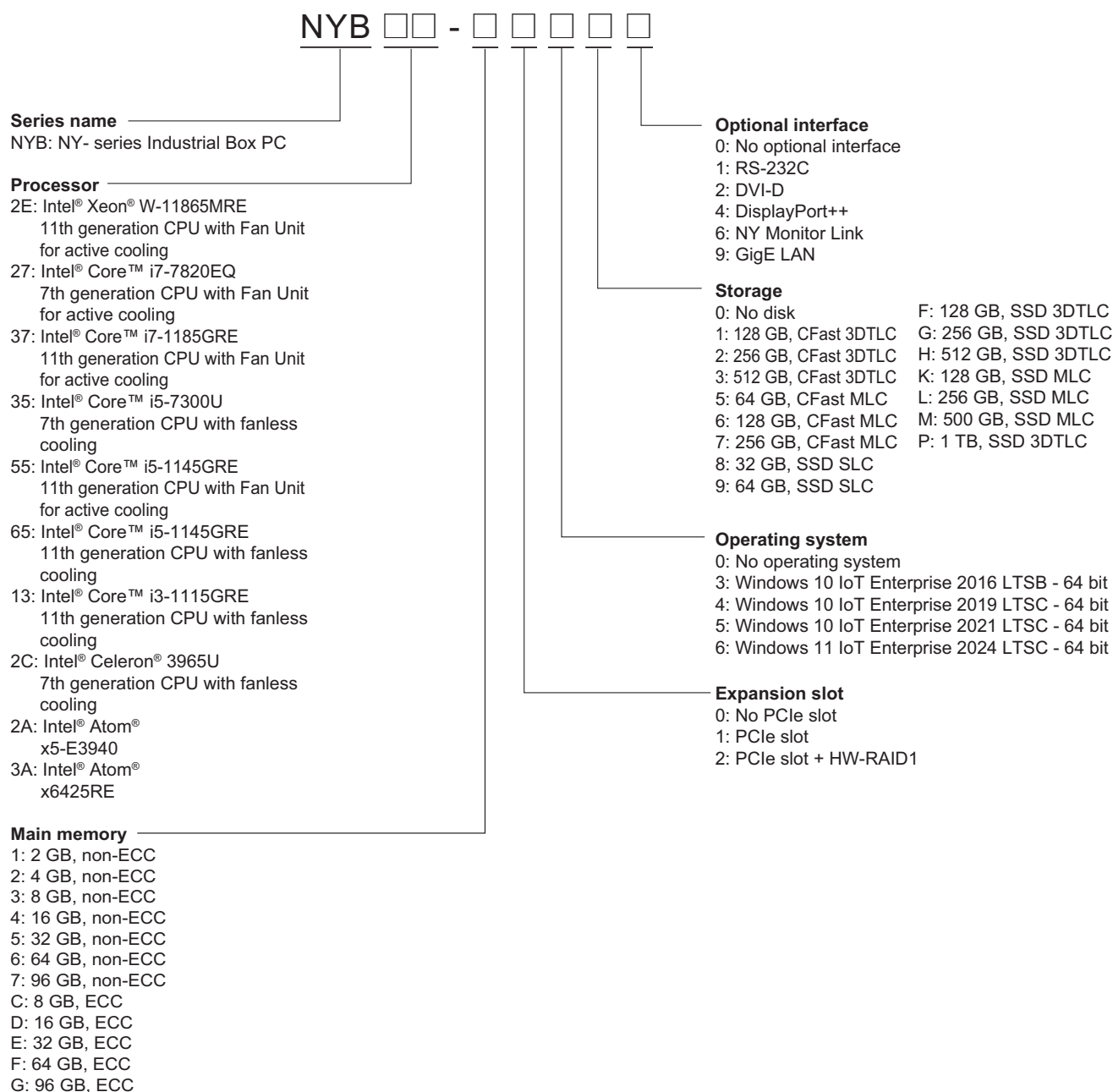
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Model Number Structure

The purpose of this model number legend is to provide understanding of the meaning of specifications from the model number. Models are not available for all combinations of code numbers.



Ordering Information

NY-series Industrial PC Platform

Recommended models

The industrial Box PC has extended configuration possibilities to meet your requirements, below an overview of the most used and recommended models. Selecting one of the models below will bring the benefit of faster delivery times.

In case your preferred model is not listed below, please contact your Omron representative to discuss the possibilities.

Product name	Specifications						Model
	Operating system	CPU type	RAM memory (non-ECC/ECC type)	Storage size	Interface option	PCIe-slot	
Industrial Box PC	Windows 11 IoT Enterprise 2024 LTSC - 64 bit	Intel® Xeon® W-11865MRE	16 GB	512 GB, SSD 3DTLC	NY Monitor Link	Yes	NYB2E-416H6
		Intel® Core™ i7-1185GRE	16 GB	256 GB, SSD 3DTLC	NY Monitor Link	Yes	NYB37-416G6
		Intel® Core™ i5-1145GRE (active cooling)	16 GB	256 GB, SSD 3DTLC	NY Monitor Link	Yes	NYB55-416G6
		Intel® Core™ i5-1145GRE (fanless cooling)	8 GB	128 GB, CFast 3DTLC	None	None	NYB65-30610
				256 GB, CFast 3DTLC	NY Monitor Link	None	NYB65-316G6
		Intel® Core™ i3-1115GRE	8 GB	128 GB, CFast 3DTLC	RS-232C	None	NYB13-30611
				256 GB, CFast 3DTLC	NY Monitor Link	None	NYB13-30626
		Intel® Atom® x5-E3940 Processor	8 GB	128 GB, CFast 3DTLC	None	None	NYB3A-30610
			8 GB	256 GB, CFast 3DTLC	NY Monitor Link	None	NYB3A-30626

Accessories

Optional Hardware

Product name	Specifications	Model
Mounting Brackets *1	Book mount	NY000-AB00 NY000-AB02 NY000-AB04 NY000-AB05
	Wall mount	NY000-AB01
SD Memory Cards	Card type: SD Card Capacity: 2 GB Format: FAT16	HMC-SD292
	Card type: SDHC Card Capacity: 4 GB Format: FAT32	HMC-SD492
	Card type: SDHC Card Capacity: 16 GB Format: FAT32	HMC-SD1A2
USB Flash Drives	Capacity: 2 GB	FZ-MEM2G
	Capacity: 16 GB	FZ-MEM16G
Storage Devices	Storage type: SSD SLC, Capacity: 32 GB	NY000-AS00
	Storage type: SSD SLC (Apacer), Capacity: 64 GB	NY000-AS01
	Storage type: SSD SLC (Hagiwara), Capacity: 64 GB	NY000-AS03
	Storage type: SSD MLC (Innodisk), Capacity: 128 GB	NY000-AS04
	Storage type: SSD MLC, Capacity: 500 GB	NY000-AS05
	Storage type: SSD 3DTLC, Capacity: 1 TB	NY000-AS07
	Storage type: SSD MLC (Innodisk), Capacity: 256 GB	NY000-AS08
	Storage type: SSD 3DTLC (Acon), Capacity: 128 GB	NY000-AS09
	Storage type: SSD 3DTLC (Acon), Capacity: 256 GB	NY000-AS10
	Storage type: SSD 3DTLC (Acon), Capacity: 512 GB	NY000-AS11
	Storage type: SSD 3DTLC (Acon), Capacity: 1 TB	NY000-AS12
	Storage type: SSD 3DTLC (Acon), Capacity: 2 TB	NY000-AS13
	Storage type: CFast MLC, Capacity: 64 GB	NY000-AT00
	Storage type: CFast MLC, Capacity: 128 GB	NY000-AT01
	Storage type: CFast MLC, Capacity: 256 GB	NY000-AT02
	Storage type: CFast 3DTLC (Acon), Capacity: 128 GB	NY000-AT05
	Storage type: CFast 3DTLC (Acon), Capacity: 256 GB	NY000-AT06
	Storage type: CFast 3DTLC (Acon), Capacity: 512 GB	NY000-AT07
DVI Cables	Cable length: 2 m Supports DVI-D Minimum bend radius: 36 mm	NY000-AC00 2M
	Cable length: 5 m Supports DVI-D Minimum bend radius: 36 mm	NY000-AC00 5M-V1
Industrial Monitor	- LCD touchscreen - Multi-touch functionality - Supply voltage: 24 VDC 2 USB Type-A Connectors - Programmable brightness control - Standard and 100 m cable models are available.	NYM1□W-C10□□
Power Supply	- Output voltage: 24 VDC - Push-In Plus terminal blocks	S8VK-G□□□24
	- Output voltage: 24 VDC - EtherNet/IP, Modbus TCP-Compatible	S8VK-X□□□24A-EIP
	- Output voltage: 24 VDC - Compact	S8VK-S□□□24
	- Output voltage: 24 VDC - Three-phase 200-V Power Supplies	S8VK-WA□□□24
UPS *2	Output voltage during backup operation: 24 VDC ± 5%	S8BA
UPS Communication Cable	Cable length: 2 m Signals for - Signal output (BL, TR, BU, WB) - Remote ON/OFF input - UPS Stop Signal input (BS)	S8BW-C02

Note: Orders for NY000-AS02 are no longer accepted, as of November 30, 2018.

*1. Select the required type:

NY000-AB00: NYB27-□1□□□, NYB27-□2□□□, NYB2E-□1□□□, NYB2E-□2□□□, NYB37-□1□□□, NYB37-□2□□□, NYB55-□1□□□, NYB55-□2□□□

NY000-AB02: NYB35-□1□□□, NYB35-□2□□□, NYB2C-□1□□□, NYB65-□1□□□, NYB65-□2□□□, NYB13-□1□□□, NYB13-□2□□□

NY000-AB04: NYB35-□0, NYB2C-□0, NYB2A-□0, NYB65-□0□□□, NYB13-□0□□□, NYB3A-□0□□□

NY000-AB05: NYB27-□0, NYB2E-□0□□□, NYB37-□0□□□, NYB55-□0□□□

*2. Revision number 09 or higher.

Item	Description
1	Product code
2	Product period and sequential number
3	Revision number
4	RoHS status

The following spare parts for the Industrial Box PC are available.

Product name	Specifications	Model
Battery	One battery is supplied with the Industrial Box PC. The battery supplies power to the real-time clock. The battery is located inside the Industrial Box PC. Service life: 5 years at 25°C	CJ1W-BAT01*
Fan Unit	The Fan Unit is available for the Industrial Box PC that has active cooling. Service life: 70,000 hours of continuous operation at 40°C with 15% to 65% relative humidity. Shelf life: 6 months This is the storage limitation with no power supplied.	NY000-AF00
Accessory Kit	Accessory Kit containing all accessories supplied with the Industrial Box PC. • Power connector • I/O connector • Drive bracket for drive installation • 4 mounting screws for drive installation • PCIe Card support for PCIe Card installation • PCIe Card clip for PCIe Card installation	NY000-AK00
	Power connectors (10 pcs) for Industrial Box PC and Industrial Panel PC	NY000-AK01

* Only for models with replaceable battery.

Item	Specifications
Industrial PC Support Utility	The Industrial PC Support Utility is a software utility to assist in diagnosing and resolving problems of the Industrial Box PC. It is pre-installed on the Industrial Box PC and the Industrial Panel PC.
Industrial PC Tray Utility	The Industrial PC Tray Utility is a software utility that provides information about the current state of the Industrial PC, its related devices, and associated software. It is pre-installed on the Industrial Box PC and the Industrial Panel PC.
Industrial PC System API	The Industrial PC System API allows programmers to create programs that can retrieve information or set an indicator status of the Industrial Box PC. The API makes use of the included IPC System Service to manage the hardware. It is pre-installed on the Industrial Box PC and the Industrial Panel PC.
Industrial Monitor Utility	For the optional OMRON Industrial Monitor. The Industrial Monitor Utility provides a user interface to control settings and display details of connected Industrial Monitors. It is pre-installed on the Industrial Box PC and the Industrial Panel PC.
Industrial Monitor Brightness Utility	For the optional OMRON Industrial Monitor. The Industrial Monitor Brightness Utility is a small software utility that allows you to control the brightness of the screen backlight of all connected Industrial Monitors. It is pre-installed on the Industrial Box PC and the Industrial Panel PC.
Industrial Monitor API	For the optional OMRON Industrial Monitor. The Industrial Monitor API allows programmers to create applications that can control the hardware features and retrieve information from connected Industrial Monitors. It is pre-installed on the Industrial Box PC and the Industrial Panel PC.
Industrial PC Rescue Disk Creator	The Industrial PC Rescue Disk Creator creates a USB Rescue Disk which can be used to back-up and restore the Omron IPC Operating System. It is pre-installed on the Industrial Box PC and the Industrial Panel PC.

Soft-NA

Product name	Specifications	Number of licenses	Media	Model
Soft-NA	The Soft-NA is software that displays information on FA manufacturing sites while providing safety, reliability, and maintainability as an industrial display on which operations can be performed as necessary.	— (Media only)	DVD	NA-RTSM
		1 license	USB dongle	NA-RTLD01
		3 licenses		NA-RTLD03
		10 licenses		NA-RTLD10

System Requirements

Item		Requirement	
OS		Windows 10 Pro Version 1903 or later 64 bit	Windows 11 Pro Version 24H2 or later
Processor		Intel Atom® x5-E3940 equivalent or higher processor *1	Intel Celeron® N4000 equivalent or higher processor *1
RAM		4 GB or more	
Free space in the hard drive necessary for installation		1 GB or more	
Optical disk drive		DVD-ROM drive *2	
Communication port	USB	USB2.0 Type-A x 2 *3	
	LAN	Ethernet x 2 *3	

*1. ARM-based processors are not supported.

*2. It is required when installing using NA-RTSM.

*3. Since one port is for project transfer, it is not required unless the corresponding path is used.

Note: Refer to NA-series catalog (Cat. No. V413) for the system configuration of Soft-NA.

General Specifications

Performance Specifications

Item				NYB2E- □1□□□/ NYB2E- □2□□□	NYB37- □1□□□/ NYB37- □2□□□	NYB55- □1□□□/ NYB55- □2□□□	NYB65- □1□□□/ NYB65- □2□□□	NYB13- □1□□□/ NYB13- □2□□□	NYB2E- □0□□□	NYB37- □0□□□	NYB55- □0□□□	NYB65- □0□□□	NYB13- □0□□□	NYB3A- □0□□□									
Main system	CPU	CPU type		Intel® Xeon® W-11865MRE		Intel® Core™ i7-1185GRE		Intel® Core™ i5-1145GRE		Intel® Core™ i3-1115GRE		Intel® Xeon® W-11865MRE		Intel® Core™ i7-1185GRE		Intel® Core™ i5-1145GRE		Intel® Core™ i3-1115GRE	Intel Atom® x6425RE				
		Cores / Threads		8 / 16		4 / 8		4 / 8		2 / 4		8 / 16		4 / 8		4 / 8		2 / 4	4 / 4				
		CPU base frequency		2.6 GHz		2.8 GHz		2.6 GHz		1.5 GHz		2.2 GHz		2.6 GHz		1.8 GHz		2.6 GHz	1.9 GHz				
		Maximum turbo frequency		4.7 GHz		4.4 GHz		4.1 GHz		3.9 GHz		4.7 GHz		4.4 GHz		4.1 GHz		3.9 GHz	-				
		Cache		24 MB		12 MB		8 MB		6 MB		24 MB		12 MB		8 MB		6 MB	1.5 MB				
		Cooling details		Active cooling (fan)		Active cooling (fan)		Active cooling (fan)		Passive cooling (fanless)		Active cooling (fan)		Active cooling (fan)		Active cooling (fan)		Passive cooling (fanless)					
		Intel CPU category		Industrial		(100% operation minimal 10yr)								Industrial (100% operation minimal 10yr)									
	Memory	Memory size *1		8, 16, 32, 64 or 96 GB		8, 16, 32, 64 GB								8, 16, 32, 64 or 96 GB				8, 16, 32, 64 GB				4, 8, 16, 32 GB	
		Memory type		DDR4 (ECC is available)		DDR4								DDR4 (ECC is available)				DDR4					
		Package Memory Format		SO-DIMM														SO-DIMM					
		Serial Presence Detect (SPD)	Speed grade	3200 MT/s														3200 MT/s					
			CAS latency	CL17														CL17					
	Trusted platform module (TPM)		Available														Available						
	Graphics controller		Intel® UHD Graphics. Up to four independent screens.		Intel® Iris® Xe Graphics. Up to four independent screens.				Intel® UHD Graphics. Up to four independent screens.		Intel® UHD Graphics. Up to four independent screens.		Intel® Iris® Xe Graphics. Up to four independent screens.				Intel® UHD Graphics. Up to four independent screens.						
			Intel® UHD Graphics (32 EU)		Intel® Iris® Xe Graphics (96 EU)		Intel® Iris® Xe Graphics (80 EU)				Intel® UHD Graphics (48 EU)		Intel® UHD Graphics (32 EU)		Intel® Iris® Xe Graphics (96 EU)		Intel® Iris® Xe Graphics (80 EU)				Intel® UHD Graphics (48 EU)		Intel® UHD Graphics (32 EU)
Watchdog		Yes														Yes							
Operating system	Windows OS		Windows 10 IoT Enterprise 2021 LTSC - 64 bit Windows 11 IoT Enterprise 2024 LTSC - 64 bit														Windows 10 IoT Enterprise 2021 LTSC - 64 bit Windows 11 IoT Enterprise 2024 LTSC - 64 bit						
Storage devices	Drives *1	Solid State Drive	3DTLC type	128 GB, 256GB, 512 GB, 1 TB														128 GB, 256GB, 512 GB					
				Drive bays (HDD/SSD) *2		2														CFast slot			
	Hardware-RAID support		RAID1: NYB2E-□2□□□		RAID1: NYB37-□2□□□		NYB55-□2□□□		NYB65-□2□□□		NYB13-□2□□□		N/A										
Connectors	Power connector		24 VDC														24 VDC						
	I/O connector		2 inputs and 1 output														2 inputs and 1 output						
	USB2.0 Type-A	Number of ports		-														-					
		Maximum current		-														-					
		Maximum cable length		-														-					
	USB3.0 Type-A	Number of ports		4														4					
		Maximum current		900 mA														900 mA					
		Maximum cable length		3 m														3 m					
	Ethernet connectors	Number of ports		3														3					
		Physical layer		10BASE-T, 100BASE-TX, 1000BASE-T or 2500BASE-T														10BASE-T, 100BASE-TX, 1000BASE-T or 2500BASE-T					
		Maximum transmission distance between Ethernet switch and node		100 m														100 m					
	DVI-I connector	Video interface		-														-					
Resolution		-														-							
Maximum DVI cable length		-														-							
DisplayPort ++	Resolution		Up to 4,096 x 2,304 at 60 Hz														Up to 4,096 x 2,304 at 60 Hz						
	Maximum cable length		3 m														3 m						

Item			NYB2E- □1□□□/ NYB2E- □2□□□	NYB37- □1□□□/ NYB37- □2□□□	NYB55- □1□□□/ NYB55- □2□□□	NYB65- □1□□□/ NYB65- □2□□□	NYB13- □1□□□/ NYB13- □2□□□	NYB2E- □0□□□	NYB37- □0□□□	NYB55- □0□□□	NYB65- □0□□□	NYB13- □0□□□	NYB3A- □0□□□	
Optional connector (select one per system)	RS-232C		Standard SUBD9 connector (Non-Isolated)						Standard SUBD9 connector (Non-Isolated)					
	DVI-D	Video interface							-					
		Resolution							-					
		Maximum DVI cable length							-					
	NY Monitor Link	Video interface	Digital only						Digital only					
		Resolution	1,280 x 800 pixels at 60 Hz						1,280 x 800 pixels at 60 Hz					
		Connector type	RJ45						RJ45					
		Cable shielding, type and max. length	S/FTP, Cat.6A, 100 m						S/FTP, Cat.6A, 100 m					
	GigE LAN	USB data throughput	280 Mbps max.						280 Mbps max.					
		Physical layer	10BASE-T, 100BASE-TX or 1000BASE-T						10BASE-T, 100BASE-TX or 1000BASE-T					
Resolution			Up to 4,096 x 2,304 at 60 Hz						Up to 4,096 x 2,304 at 60 Hz					
PCIe Card Slot	DisplayPort ++	Maximum cable length	3 m						3 m					
		Configuration	X4 (4 lanes) up to Gen 3						N/A					
		Card height	Standard height cards, 4.20 inches (106.7 mm) *3						N/A					
Battery	Card length		Half length cards, 6.6 inches (167.65 mm)						N/A					
	Model	CJ1W-BAT01						CJ1W-BAT01						
	Service life	5 years at 25°C						5 years at 25°C						
Fan unit	Model	NY000-AF00				-		NY000-AF00			-			
	Service life	70,000 hours of continuous operation at 40°C with 15% to 65% relative humidity				-		70,000 hours of continuous operation at 40°C with 15% to 65% relative humidity			-			
LED			PWR, ERR, HDD, RUN						PWR, ERR, HDD, RUN					

*1. Not all combinations are possible or standard available. Please contact your Omron representative to discuss the possibilities.

*2. Depending on the model one or two drives are supported.

*3. Low profile cards, 2.536 inches (64.4 mm) are not supported.

Item				NYB27- □1□□□ NYB27- □2□□□	NYB35- □1□□□ NYB35- □2□□□	NYB2C- □1□□□	NYB27- □0□□□	NYB35- □0□□□	NYB2C- □0□□□	NYB2A- □0□□□		
Main system	CPU	CPU type		Intel® Core™ i7-7820EQ	Intel® Core™ i5-7300U	Intel® Celeron® 3965U	Intel® Core™ i7-7820EQ	Intel® Core™ i5-7300U	Intel® Celeron® 3965U	Intel® Atom® x5-E3940		
		Cores / Threads		4 / 8	2 / 4	2 / 2	4 / 8	2 / 4	2 / 2	4 / 4		
		CPU base frequency		3.0 GHz	2.6 GHz	2.2 GHz	3.0 GHz	2.6 GHz	2.2 GHz	1.6 GHz		
		Maximum turbo frequency		3.7 GHz	3.5 GHz	–	3.7 GHz	3.5 GHz	–	1.8 GHz		
		Cache		8 MB	3 MB	2 MB	8 MB	3 MB	2 MB	2 MB		
		Cooling details		Requires active cooling (fan)	Passive cooling (fanless)			Requires active cooling (fan)	Passive cooling (fanless)			
		Intel CPU category		Industrial (100% operation minimal 10yr)								
	Memory	Memory size *1		8, 16 or 32 GB	4 or 8 GB	4 or 8 GB	8, 16 or 32 GB	8 or 16 GB	4 or 8 GB	2, 4 or 8 GB		
		Memory type		DDR4 (non ECC)								DDR3L (non ECC)
	Trusted platform module (TPM)		Available									
	Graphics controller		Intel® HD Graphics. Up to two independent screens.									
			Intel® HD Graphics 630	Intel® HD Graphics 620	Intel® HD Graphics 610	Intel® HD Graphics 630	Intel® HD Graphics 620	Intel® HD Graphics 610	Intel® HD Graphics 500			
Watchdog		Yes										
Operating system	Windows OS			Windows 10 IoT Enterprise 2019 LTSC - 64 bit Windows 10 IoT Enterprise 2021 LTSC - 64 bit	Windows 10 IoT Enterprise 2016 LTSB - 64 bit Windows 10 IoT Enterprise 2019 LTSC - 64 bit Windows 10 IoT Enterprise 2021 LTSC - 64 bit	Windows 10 IoT Enterprise 2016 LTSB - 64 bit Windows 10 IoT Enterprise 2019 LTSC - 64 bit Windows 10 IoT Enterprise 2021 LTSC - 64 bit	Windows 10 IoT Enterprise 2019 LTSC - 64 bit Windows 10 IoT Enterprise 2021 LTSC - 64 bit	Windows 10 IoT Enterprise 2016 LTSB - 64 bit Windows 10 IoT Enterprise 2019 LTSC - 64 bit Windows 10 IoT Enterprise 2021 LTSC - 64 bit		Windows 10 IoT Enterprise 2019 LTSC - 64 bit Windows 10 IoT Enterprise 2021 LTSC - 64 bit		
Storage devices	Drives *1	Solid State Drive	SLC type	• 64 GB			N/A					
			MLC type	• 128 GB, 256 GB, 500 GB	• 128 GB		• 64 GB, 128 GB, 256 GB					
			3DTLC type	• 128 GB, 256 GB, 512 GB, 1 TB			• 128 GB, 256 GB					
	Drive bays (HDD/SSD) *2		2	2	2	CFast slot	CFast slot	CFast slot	CFast slot			
	Hardware-RAID support		NYB27-□2□□□ only	NYB35-□2□□□ only	N/A	N/A	N/A	N/A	N/A			
Connectors	Power connector		24 VDC									
	I/O connector		2 inputs (UPS signal and power OFF control) and 1 output (Industrial Box PC power state)									
	USB2.0 Type-A	Number of ports	2									
		Maximum current	500 mA									
		Maximum cable length	5 m									
	USB3.0 Type-A	Number of ports	2									
		Maximum current	900 mA									
		Maximum cable length	3 m									
	Ethernet connectors	Number of ports	3									
		Physical layer	10BASE-T, 100BASE-TX or 1000BASE-T									
	DVI-I connector	Video interface	Digital or analog	Digital only								
		Resolution	Up to 1,920 x 1,200 pixels at 60 Hz									
Maximum DVI cable length		Dependent upon connected monitor type and resolution										
DisplayPort ++	Resolution	N/A										
	Maximum cable length	N/A										

Item			NYB27- □1□□□ NYB27- □2□□□	NYB35- □1□□□ NYB35- □2□□□	NYB2C- □1□□□	NYB27- □0□□□	NYB35- □0□□□	NYB2C- □0□□□	NYB2A- □0□□□
Optional connector (select one per system)	RS-232C		Standard DSUB9 connector (Non-Isolated)			N/A			
	DVI-D	Video interface	Digital only			N/A			
		Resolution	Up to 1,920 x 1,200 pixels at 60 Hz			N/A			
		Maximum DVI cable length	Dependent upon connected monitor type and resolution			N/A			
	NY Monitor Link	Video interface	Digital only						
		Resolution	1,280 x 800 pixels at 60 Hz						
		Connector type	RJ45						
		Cable shielding, type and max. length	S/FTP, Cat.6A, 100 m						
		USB data throughput	280 Mbps max.						
	GigE LAN	Physical layer	10BASE-T, 100BASE-TX or 1000BASE-T	—					
DisplayPort ++	Resolution	N/A							
	Maximum cable length	N/A							
PCIe Card Slot	Configuration		X4 (4 lanes) up to Gen 3	X2 (2 lanes) up to Gen 3		N/A			
	Card height		Standard height cards, 4.20 inches (106.7 mm) *3			N/A			
	Card length		Half length cards, 6.6 inches (167.65 mm)			N/A			
Battery	Model		CJ1W-BAT01	Non replaceable battery		CJ1W-BAT01	Non replaceable battery		
	Service life		5 years at 25°C	10 years at 40°C *4		5 years at 25°C	10 years at 40°C *4		
Fan unit	Model		NY000-AF00	No fan unit		NY000-AF00	No fan unit		
	Service life		70,000 hours of continuous operation at 40°C with 15% to 65% relative humidity	—		70,000 hours of continuous operation at 40°C with 15% to 65% relative humidity	—		
LED			PWR, ERR, HDD, RUN						

*1. Not all combinations are possible or standard available. Please contact your Omron representative to discuss the possibilities.

*2. Depending on the model one or two drives are supported.

*3. Low profile cards, 2.536 inches (64.4 mm) are not supported.

*4. Battery service life highly depend on circuntance and is in normal operation 20yr longer

Electrical Specifications

Item	NYB2E- □1□□□ NYB2E- □2□□□	NYB37- □1□□□ NYB37- □2□□□	NYB55- □1□□□ NYB55- □2□□□	NYB65- □1□□□ NYB65- □2□□□	NYB13- □1□□□ NYB13- □2□□□	NYB2E- □0□□□	NYB37- □0□□□	NYB55- □0□□□	NYB65- □0□□□	NYB13- □0□□□	NYB3A- □0□□□
CPU type	Intel® Xeon® W-11865MRE	Intel® Core™ i7-1185GRE	Intel® Core™ i5-1145GRE		Intel® Core™ i3-1115GRE	Intel® Xeon® W-11865MRE	Intel® Core™ i7-1185GRE	Intel® Core™ i5-1145GRE		Intel® Core™ i3-1115GRE	Intel® Atom® x6425RE
Rated power supply voltage	24 VDC, non-isolated										
Allowable power supply voltage range	20.4 to 28.8 VDC										
Grounding method	Ground to less than 100 Ω										
Inrush current	At 24 VDC: 12 A / 6 ms max. for cold start at room temperature										
Overvoltage category	JIS B3502 and IEC 61131-2: Category II										
EMC immunity level	IEC 61131-2: Zone B										
RTC accuracy	At ambient temperature of 55°C: -3.5 to +0.5 min error per month At ambient temperature of 25°C: -1.5 to +1.5 min error per month At ambient temperature of 0°C: -3 to +1 min error per month										
Power button life	100,000 operations										
Battery life	5 years at 25°C (for battery CJ1W-BAT01)										
Fan life	8 years of continuous operation at 40°C				-						
Power consumption *	-										
Maximum power consumption including drives and expansions	167 W	123 W	108 W	89 W	68 W	150 W	106 W	91 W	82 W	61 W	44 W
Maximum power consumption excluding drives and expansions	130 W	86 W	71 W	62 W	41 W	130 W	86 W	71 W	62 W	41 W	24 W
Drives	-										
SSD SLC 32 GB	-					-					
SSD SLC 64 GB	-					-					
SSD MLC 128 GB	-					-					
SSD MLC 500 GB	-					-					
SSD 3DTLC 128 GB	1 W					-					
SSD 3DTLC 256 GB	1 W					-					
SSD 3DTLC 512 GB	2 W					-					
SSD 3DTLC 1 TB	2 W					-					
CFast MLC 64 GB	-					-					
CFast MLC 128 GB	-					-					
CFast MLC 256 GB	-					-					
CFast 3DTLC 128 GB	-					1 W					
CFast 3DTLC 256 GB	-					1 W					
CFast 3DTLC 512 GB	-					2 W					
Expansions	-										
USB	18 W max. (4 x 900 mA at 5 V)										
PCIe	15 W max.			5 W max.		-					

Note: Refer to the Industrial Box PC User's Manual (W553) for details.

* The total power consumption is the sum of the power consumption of all items that are installed in your Industrial Box PC.

To guarantee S8BA UPS operation in combination with our IPC, the specified combination of UPS and power-supply must be used.

Item		NYB2E- □1□□□ NYB2E- □2□□□	NYB37- □1□□□ NYB37- □2□□□	NYB55- □1□□□ NYB55- □2□□□	NYB65- □1□□□ NYB65- □2□□□	NYB13- □1□□□ NYB13- □2□□□	NYB2E- □0□□□	NYB37- □0□□□	NYB55- □0□□□	NYB65- □0□□□	NYB13- □0□□□	NYB3A- □0□□□
Minimum power requirements	Power supply	240 W			120 W		240 W		120 W			
	UPS	240 W		120 W			240 W	120 W				

Item	NYB27- □1□□□ NYB27- □2□□□	NYB35- □1□□□ NYB35- □2□□□	NYB2C- □1□□□	NYB27- □0□□□	NYB35- □0□□□	NYB2C- □0□□□	NYB2A- □0□□□
CPU type	Intel® Core™ i7-7820EQ CPU	Intel® Core™ i5-7300U	Intel® Celeron® 3965U	Intel® Core™ i7-7820EQ	Intel® Core™ i5-7300U	Intel® Celeron® 3965U	Intel® Atom® x5-E3940
Rated power supply voltage	24 VDC, non-isolated						
Allowable power supply voltage range	20.4 to 28.8 VDC						
Grounding method	Ground to less than 100 Ω						
Inrush current	At 24 VDC: 12 A / 6 ms max. for cold start at room temperature						
Overvoltage category	Meets IEC 61010-2-201: Category II						
EMC immunity level	IEC 61131-2: Zone B						
RTC accuracy	At ambient temperature of 55°C: -3.5 to +0.5 min error per month At ambient temperature of 25°C: -1.5 to +1.5 min error per month At ambient temperature of 0°C: -3 to +1 min error per month						
Power button life	100,000 operations						
Battery life	5 years at 25°C (for battery CJ1W-BAT01)	10 years at 40°C		5 years at 25°C (for battery CJ1W-BAT01)	10 years at 40°C		
Fan life	8 years of continuous operation at 40°C	—	—	8 years of continuous operation at 40°C	—	—	—
Power consumption ※1	—						
Maximum power consumption including drives and expansions	121 W	69 W	50 W	101 W	61 W	42 W	41 W
Maximum power consumption excluding drives and expansions	86 W	46 W	27 W	86 W	46 W	27 W	26 W
Drives	—						
SSD SLC 32 GB	2 W			—			
SSD SLC 64 GB	2 W			—			
SSD MLC 128 GB	2 W			—			
SSD MLC 500 GB	3 W			—			
SSD 3DTLC 128 GB	1 W			—			
SSD 3DTLC 256 GB	1 W			—			
SSD 3DTLC 512 GB	2 W			—			
SSD 3DTLC 1 TB	2 W			—			
CFast MLC 64 GB	—			1 W			
CFast MLC 128 GB	—			1 W			
CFast MLC 256 GB	—			1 W			
CFast 3DTLC 128 GB	—			1 W			
CFast 3DTLC 256 GB	—			1 W			
CFast 3DTLC 512 GB	—			2 W			
Expansions	—						
USB	14 W max. ((2 x 500 mA at 5 V) + (2 x 900 mA at 5 V))						
PCIe	15 W max.	5 W max.	5 W max.	—			

Note: Refer to the *Industrial Box PC User's Manual (W553)* for detail.

*1. The total power consumption is the sum of the power consumption of all items that are installed in your Industrial Box PC.

To guarantee S8BA UPS operation in combination with our IPC, the specified combination of UPS and power-supply must be used.

Item		NYB27	NYB35 / NYB2C / NYB27-□0 / NYB2A
Minimum power requirements	Power supply	240 W	120 W
	UPS	240 W	120 W

Components and functions

The intent behind our IPC platform is to empower engineers to become unstoppable in developing machines and factories that are better, faster and safer by giving them the freedom and flexibility to explore the opportunities provided by modern IT. In line with Omron's traditional quality standards, the Industrial Box PC is designed to meet the demands of industrial users for maximum robustness and reliability. All maintenance sensitive products (HDD/SDD, fan, battery, and PCIe Card) can be easily reached from the outside of the system. No need to open the electronics compartment, less risk on failure.

Optional connection

RS-232C, DVI-D or DisplayPort++ *1,
NY Monitor Link or GigE LAN.
NY Monitor Link allows high speed video and data communication over 100 m via Ethernet cable.

DVI-D video

Digital, up to 1,920 x 1,200 pixels at 60 Hz
(Intel® Core™ i7: DVI-I (Digital or analog))

DisplayPort++ *1

Digital, Up to 4,096 x 2,304 pixels at 60 Hz

3x High speed Ethernet

10BASE-T, 100BASE-TX or 1000BASE-T

2x USB2.0

500 mA maximum current
Maximum cable length: 5 m

2x USB3.0

900 mA maximum current
Maximum cable length: 3 m

Indication LEDs

Robust Mechanics

Full metal housing with black industrial coating

Industrial Design

Winner of the 2016 Red Dot design award *2 for excellent industrial design



1x PCIe slot

Half Length Cards 6.6 inches
Standard Height Cards 4.2 inches
Easy PCIe mounting drawer

Intel® Xeon®, Intel® Core™ i7: X4 (4 lanes)
Other CPUs: X1 (1 lane)

1x SD Memory Card slot *1

SDHC type (SD 2.0 specification)
Up to 32 GB capacity

1x CFast Card slot

Storage

2.5 inch Solid State Drive (SSD) or Hard Disk Drive (HDD), 7 mm height

I/O (UPS connection)

Input:

Power sequence signal

Output:

SPST-NO contact configuration

24 VDC at 2 A switching capacity (resistive load)

Power switch

24 VDC Power

24 VDC non isolated

Lockable power connector

Note: Not all combinations are possible or standard available. Please contact your Omron representative to discuss the possibilities.

*1. 11th generation CPU: Equipped with DisplayPort++ instead of DVI, but no SD Memory Card slot.

*2. The Red Dot design award has been presented by the Design Zentrum Nordrhein Westfalen since 1955. It is one of the best-respected design competitions in the world, along with the iF award (Germany) and IDEA (the United States).

Environmental Specifications

Item		Specifications
Operation environment	Ambient operating temperature *1	0 to 55°C
	Ambient storage temperature *1	-20 to 70°C
	Ambient operating humidity *1	10% to 90% with no condensation
	Ambient storage humidity *1	10% to 90% with no condensation
	Operating atmosphere	No corrosive gases
	Altitude	2,000 m max.
	Noise resistance (during operation)	Conforms to IEC61000-4-4, 2kV (power lines)
	Vibration resistance (during operation)	Conforms to IEC 60068-2-6. For a product with an SSD: 5 to 8.4 Hz with 3.5 mm single amplitude and 8.4 to 150 Hz with 9.8 m/s ² for 10 times each in X, Y and Z directions. For a product with a HDD the vibration resistance depends on the mounting orientation *2.
	Shock resistance (during operation)	Conforms to IEC 60068-2-27. 147 m/s ² , 3 times in each X, Y and Z directions
Installation method		Book mount, Wall mount
Pollution degree		2 or less: Meets IEC 61010-2-201.
Applicable standards *3		EU Directives: EMC Directive 2014/30/EU (EN 61131-2) and RoHS Directive KC Registration, RCM, cULus

*1. The allowed ambient operating temperature and ambient humidity depend on product type, CPU type, mounting orientation, and storage device type.

*2. Vibration resistance depends on the Industrial Box PC's mounting orientation and storage device type:

Mounting orientation	SSD or CFast Card
Book	9.8 m/s ²
Wall	

*3. Refer to the OMRON website (www.ia.omron.com) or contact your OMRON representative for the most recent applicable standards for each model.

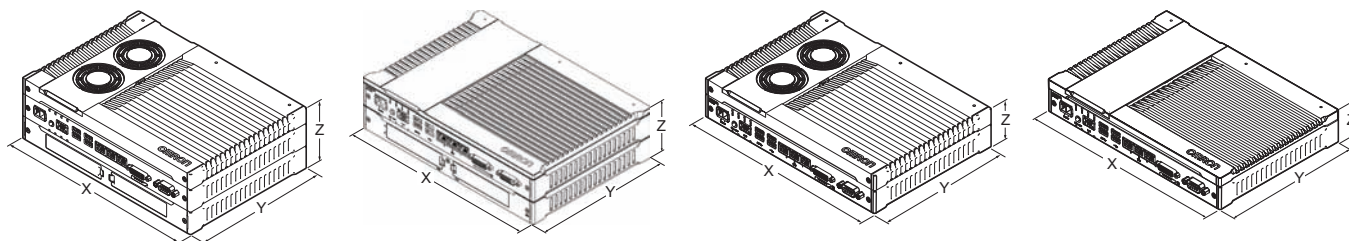
Storage Device Specifications

Item	Specifications											
Model	NY000-AS00	NY000-AS01	NY000-AS03	NY000-AS04	NY000-AS05	NY000-AS07	NY000-AS08	NY000-AS09	NY000-AS10	NY000-AS11	NY000-AS12	NY000-AS13
Capacity	32 GB	64 GB	64 GB	128 GB	500 GB	1 TB	256 GB	128 GB	256 GB	512 GB	1 TB	2 TB
Type	SSD (SLC)		SSD (SLC)	SSD (MLC)	SSD (MLC)	SSD (3DTLC)	SSD (MLC)	SSD (3DTLC)	SSD (3DTLC)	SSD (3DTLC)	SSD (3DTLC)	SSD (3DTLC)
S.M.A.R.T. support	Yes											
Rotation speed	–	–	–	–	–	–	–	–	–	–	–	–
Interface	Serial ATA 3.1											
Sustained standard read speed	Up to 160 MB/s	Up to 160 MB/s	Up to 500 MB/s	Up to 530 MB/s	Up to 415 MB/s	Up to 550 MB/s	Up to 530 MB/s	Up to 550 MB/s	Up to 550 MB/s	Up to 550 MB/s	Up to 550 MB/s	Up to 550 MB/s
Sustained standard write speed	Up to 145 MB/s	Up to 150 MB/s	Up to 370 MB/s	Up to 190 MB/s	Up to 200 MB/s	Up to 340 MB/s	Up to 210 MB/s	Up to 450 MB/s	Up to 485 MB/s	Up to 500 MB/s	Up to 510 MB/s	Up to 510 MB/s
Operating temperature	0 to 70°C											
Operating humidity	10% to 95% (with no condensation)		10% to 85% (with no condensation)	10% to 95% (with no condensation)				5% to 90% (with no condensation)				
Storage temperature	-40 to 100°C		-45 to 90°C	-55 to 95°C				-40 to 85°C				
Storage humidity	10% to 95% (with no condensation)							5% to 93% (with no condensation)				
Life	1,500 TB written	3,000 TB written	1900 TB written	208 TB written	154 TB written	1000 TB written	416 TB written	90 TB written	230 TB written	550 TB written	1200 TB written	3000 TB written

Item	Specifications					
Model	NY000-AT00	NY000-AT01	NY000-AT02	NY000-AT05	NY000-AT06	NY000-AT07
Capacity	64 GB	128 GB	256 GB	128 GB	256 GB	512 GB
Type	CFast (MLC)	CFast (MLC)	CFast (MLC)	CFast (3DTLC)	CFast (3DTLC)	CFast (3DTLC)
S.M.A.R.T. support	Yes					
Rotation speed	–	–	–	–	–	–
Interface	Serial ATA 3.1					
Sustained standard read speed	Up to 530 MB/s	Up to 530 MB/s	Up to 530 MB/s	Up to 550 MB/s	Up to 550 MB/s	Up to 550 MB/s
Sustained standard write speed	Up to 100 MB/s	Up to 190 MB/s	Up to 210 MB/s	Up to 450 MB/s	Up to 485 MB/s	Up to 500 MB/s
Operating temperature	-40 to 85°C			-40 to 85°C		
Operating humidity	10% to 95% (with no condensation)			5% to 90% (with no condensation)		
Storage temperature	-55 to 95°C			-40 to 85°C		
Storage humidity	10% to 95% (with no condensation)			5% to 90% (with no condensation)		
Life	125 TB written	208 TB written	417 TB written	90 TB written	230 TB written	550 TB written

Note: Orders for NY000-AH00/-AH01/-AH02 will be accepted until the end of December 2025.

Dimensions



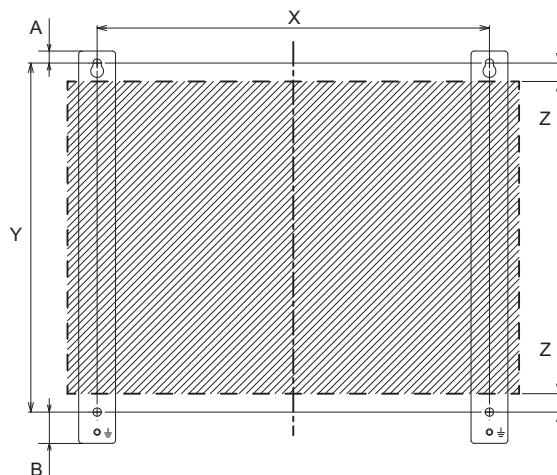
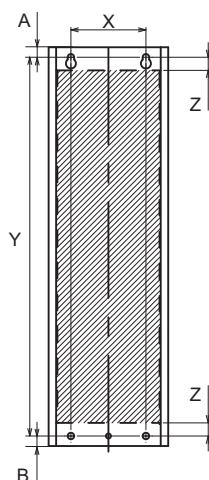
Item	Specifications			
	Box			
	NYB27-□1□□□ NYB27-□2□□□ NYB2E-□1□□□ NYB2E-□2□□□ NYB37-□1□□□ NYB37-□2□□□ NYB55-□1□□□ NYB55-□2□□□	NYB35-□1□□□ NYB35-□2□□□ NYB2C-□1□□□ NYB65-□1□□□ NYB65-□2□□□ NYB13-□1□□□ NYB13-□2□□□	NYB27-□0□□□ NYB2E-□0□□□ NYB37-□0□□□ NYB55-□0□□□	NYB35-□0□□□ NYB2C-□0□□□ NYB2A-□0□□□ NYB65-□0□□□ NYB13-□0□□□ NYB3A-□0□□□
Dimensions	Width X = 282 mm Depth Y = 195 mm. Y = 200 mm including the DVI connectors. Height Z = 89 mm	Width X = 282 mm Depth Y = 195 mm. Y = 200 mm including the DVI connectors. Height Z = 73 mm	Width X = 282 mm Depth Y = 195 mm. Y = 200 mm including the DVI connectors. Height Z = 56 mm	Width X = 282 mm Depth Y = 195 mm. Y = 200 mm including the DVI connectors. Height Z = 41 mm
Weight	3.8 kg	3.0 kg	2.6 kg	2.1 kg

Bracket Specifications

The metal mounting brackets mount your Industrial Box PC and they are the connection for the functional ground.

Use metal screws with a diameter of 4 mm or 5 mm to mount the brackets.

Mounting screw locations for book mount and wall mount orientation:



(Unit: mm)

Model	Bracket type	Bracket ID	Drill Specifications			Product Dimensions			
			Hole Distance X	Hole Distance Y	Distance Z	Bracket Width	Bracket Height	Top to hole A	Top to hole B
All	Wall mount	NY000-AB01	245 mm	218 mm	12 mm	23 mm	245 mm	7.5 mm	19.5 mm
NYB27-□1□□□ NYB27-□2□□□ NYB2E-□1□□□ NYB2E-□2□□□ NYB37-□1□□□ NYB37-□2□□□ NYB55-□1□□□ NYB55-□2□□□	Book mount	NY000-AB00	60 mm	303 mm	11 mm	96 mm	319 mm	8 mm	8 mm
NYB35-□1□□□ NYB35-□2□□□ NYB2C-□1□□□ NYB65-□1□□□ NYB65-□2□□□ NYB13-□1□□□ NYB13-□2□□□	Book mount	NY000-AB02	50 mm	303 mm	11 mm	80 mm	319 mm	8 mm	8 mm
NYB35-□0□□□ NYB2C-□0□□□ NYB65-□0□□□ NYB13-□0□□□ NYB2A-□0□□□ NYB3A-□0□□□	Book mount	NY000-AB04	N/A	298 mm	11 mm	47 mm	339 mm	8 mm	28 mm
NYB27-□0□□□ NYB2E-□0□□□ NYB37-□0□□□ NYB55-□0□□□	Book mount	NY000-AB05	25 mm	303 mm	11 mm	63 mm	339 mm	8 mm	28 mm

Recommended Related Products



Industrial Monitor NY-series

The Industrial Monitor is of key importance at the interface between operator and system. The Industrial Monitor is efficient, effective and highly visible with an attractive design.



Industrial Panel PC NY-series

The Industrial Panel PC intelligently combines the functionality of the Industrial Box PC and Industrial Monitor. No cables are used between the two components, which ensures optimal signal distribution and reliable operation in industrial environments.



UPS S8BA-series

The OMRON S8BA UPS protects the Industrial Box PC from power failures, voltage variations and instantaneous voltage drops.

Related Manuals

The following manuals are related. Use these manuals for reference.

Manual name	Cat. No.	Model numbers	Application	Description
Industrial Box PC User's Manual	W553	NYB1E-□1□□□ NYB27-□□□□□ NYB35-□□□□□ NYB2C-□□□□□ NYB2A-□0□□□ NYB2E-□1□□□ NYB37-□□□□□ NYB55-□□□□□ NYB65-□□□□□ NYB13-□□□□□ NYB3A-□0□□□	Learning all basic information about the Industrial Box PC. This includes introductory information with features, hardware overview, software overview, specifications, mounting, wiring, connecting, operating and maintaining the Industrial Box PC.	An introduction to the Industrial Box PC is provided along with the following information: • Overview • Hardware • Software • Specifications • Installation • Operating Procedures • Maintenance
Industrial Monitor User's Manual	W554	NYM19W-C1□□□ NYM15W-C10□□ NYM12W-C10□□	Learning all basic information about the Industrial Monitor. This includes introductory information with features, hardware overview, specifications, mounting, wiring, connecting, operating and maintaining the Industrial Monitor.	An introduction to the Industrial Monitor is provided along with the following information: • Overview • Hardware • Software • Specifications • Installation • Operating Procedures • Maintenance
Industrial Panel PC User's Manual	W555	NYP27-□□□□□ NYP35-□□□□□ NYP2C-□□□□□ NYP65-□□□□□ NYP13-□□□□□ NYP3A-□□□□□ NYP2A-□□□□□ NYP37-□□□□□ NYP55-□□□□□	Learning all basic information about the Industrial Panel PC. This includes introductory information with features, hardware overview, software overview, specifications, mounting, wiring, connecting, operating and maintaining the Industrial Panel PC.	An introduction to the Industrial Panel PC is provided along with the following information: • Overview • Hardware • Software • Specifications • Installation • Operating Procedures • Maintenance
UPS S8BA User's Manual	U702	S8BA	Learning the information that is necessary to use the Uninterruptible Power Supply (UPS) Unit.	An introduction to the UPS is provided along with the following information: • Overview • Preparation • Installation and Connection • Check and Start Operation • Maintenance and Inspection • Shutdown Processing • I/O Signal Functions • Troubleshooting
NY-series Operating Systems and Software Utilities Manual	W616	NYB□□-□□0 NYB□□-□□1 NYB□□-□□2 NYB□□-□□3 NYB□□-□□4 NYB□□-□□5 NYB□□-□□6 NYP□□-□□0 NYP□□-□□1 NYP□□-□□2 NYP□□-□□3 NYP□□-□□4 NYP□□-□□5 NYP□□-□□6	Learning all software related information about the Industrial Box PC. This includes introductory information, installation, operating procedures and maintenance. Mainly software information is provided.	An introduction to the Box PC is provided along with the following information: • Overview • Software • Specifications • Installation • Operating Procedures • Maintenance