



SIMATIC IPC BX-59A (box PC); mainboard (chipset R680E); 4x Gigabit Ethernet (IE/PN) RJ45; 6x USB 3.1 Gen. 2; 1x USB-C, 2x serial (COM); 2x DP; audio; 2x SIM slots; 2xM.2 flex module slots internal; RAID controller onboard; watchdog,temperature/fan monitoring; Core i7-13700E, 65 W; 16C(8P+8E)/24T, 1.9(5.1) GHz; with 24 V DC, 400 W power supply RAID1 2*1TB M.2 NVME SSDs [Eco] in the SIMATIC IPC slider 64 GB DDR5(2*32) without hardware extension (M.2) no power supply unit cable Windows 11 IoT Enterprise LTSC 2024, 64-bit, MUI, for Core i7, for Core i9 (without USB flash drive restore image; D&D) no expansion module no expansion module, no EM memory

General information	
Product type designation	BX-59A
Installation type/mounting	
Mounting	Wall mounting, book mounting, desk mounting, tower mounting
Design	Box PC, built-in unit
Supply voltage	
Type of supply voltage	100 / 240 V AC (autorange); 24 V DC(220 W / 9~36 V DC, 400 W / 19.2~28.8 V DC, 800 W / 19.2~28.8 V DC)
Rated value (DC)	24 V; 12...24 V DC on 220 W
Rated value (AC)	240 V; 100 - 240V, 50/60Hz
Line frequency	
<ul style="list-style-type: none"> Rated value 50 Hz Rated value 60 Hz 	<p>Yes</p> <p>Yes</p>
Mains buffering	
<ul style="list-style-type: none"> Mains/voltage failure stored energy time 	20 ms
Processor	
Processor type	Core i9-13900E 24C (8P+16E)/32T, 1.8 (5.2) GHz, 36 MB cache; Core i7-13700E 16C (8P+8E)/24T, 1.9 (5.1) GHz, 30 MB cache; Core i7-13700TE 16C (8P+8E)/24T, 1.1 (4.8) GHz, 30 MB cache; Core i5-13500E 14C (6P+8E)/20T, 2.4 (4.6) GHz, 24 MB cache
Chipset	Intel R680E
Graphic	
Graphics controller	Intel UHD Graphics 770 (Core i5, Core i7, Core i9)
Graphics card	Yes; Optional
Drives	
SSD	Yes; base module: 480 GB 2.5" SATA SSD (PLP); 960 GB 2.5" SATA SSD (PLP); 512 GB 2.5" SATA SSD; 1 TB 2.5" SATA SSD; 512 GB M.2 NVME onboard SSD; 1 TB M.2 NVME onboard SSD; 512 GB M.2 NVME onboard SSD with 1* 512 GB M.2 NVME on 1 exchangeable SSD slider; 512 GB M.2 NVME onboard SSD with 1* 1 TB M.2 NVME on 1 exchangeable SSD slider; RAID1 2* 512 GB M.2 NVME on 2 exchangeable SSD slider; RAID1 2* 1 TB M.2 NVME on 2 exchangeable SSD slider; 512 GB M.2 NVME onboard SSD with RAID1 2* 512 GB M.2 NVME on 2 exchangeable SSD slider
expansion for storage medium	extension module 4 slots: 1 TB 2.5" SATA SSD; 2* 1 TB 2.5" SATA SSD RAID1, extension module 6 slots: 1 TB 2.5" SATA SSD; 2* 1 TB 2.5" SATA SSD RAID1; 3* 1TB 2.5" SATA SSD RAID5
Memory	
Type of memory	DDR5-4800 SO-DIMM
Main memory	8 / 16 / 32 / 64 GB; ECC optional
Capacity of main memory, max.	64 Gbyte
Data areas and their retentivity	
Retentive data area (incl. timers, counters, flags), max.	512 kbyte; 128 KB can be stored in the buffer time
Interfaces	
Number of industrial Ethernet interfaces	4; 4x Gigabit Ethernet (RJ45)
serial interface	2x / 4x (optional) COM (RS 232 / 485 / 422; selectable)
Video interfaces	
<ul style="list-style-type: none"> Graphics interface 	2x DisplayPort
Industrial Ethernet	

<ul style="list-style-type: none"> Industrial Ethernet interface <ul style="list-style-type: none"> — 100 Mbps — 1000 Mbps 	<p>Yes</p> <p>Yes</p>
Interrupts/diagnostics/status information	
LED status display	base module (1x power, 3x user, 1x SSD), extension module (4 slots: 2x SSD; 6 slots: 3x SSD)
Integrated Functions	
Monitoring functions	
<ul style="list-style-type: none"> Temperature monitoring Fan Monitoring function via network 	<p>Yes</p> <p>Yes</p> <p>Optional</p>
Degree and class of protection	
IP degree of protection	IP20 with fan or extension modules, IP40 without fan
Standards, approvals, certificates	
Siemens Eco Profile (SEP)	Siemens EcoTech
CE mark	Yes; also UKCA
cULus	Yes
RCM (formerly C-TICK)	Yes
FCC	Yes
BIS	Yes; 400 W DC power supply configuration only (base module, base module + extension module 1/2 slot)
Ecological footprint	
<ul style="list-style-type: none"> environmental product declaration 	Yes
Global warming potential	
— global warming potential, (total) [CO2 eq]	1 480 kg
— global warming potential, (during production) [CO2 eq]	113 kg
— global warming potential, (during operation) [CO2 eq]	1 380 kg
— global warming potential, (after end of life cycle) [CO2 eq]	-16.9 kg
Ambient conditions	
Ambient temperature during operation	
<ul style="list-style-type: none"> min. max. 	<p>0 °C</p> <p>55 °C; base module only: 40 °C at fanless and 2.5" non power loss protection SSD configuration; 50 °C at fanless and M.2 SSD configuration; with extension module: 40 °C</p>
Ambient temperature during storage/transportation	
<ul style="list-style-type: none"> min. max. 	<p>-20 °C</p> <p>60 °C</p>
Vibrations	
<ul style="list-style-type: none"> Vibration resistance during operation acc. to IEC 60068-2-6 	tested in accordance with IEC 60068-2-6; operation - base module (5 to 8.4 Hz: 3.5 mm; 8.4 to 200 Hz: 9.8 m/s ²); extension module w/o storages (10 to 58 Hz: 0.0375 mm; 58 to 200 Hz: 4.9 m/s ²); extension module with SSD (10 to 58 Hz: 0.0375 mm; 58 to 200 Hz: 4.9 m/s ²); storage / transport - 5 to 8.4 Hz: 3.5 mm; 8.4 to 500 Hz: 9.8 m/s ²
Operating systems	
pre-installed operating system	Windows 10 IoT Enterprise 2021 LTSC, Windows 11 IoT Enterprise 2024 LTSC
without operating system	Yes; Optional
pre-installed operating system	
<ul style="list-style-type: none"> Windows 10 Enterprise Windows 11 	<p>Yes; Windows 10 Enterprise 2021 LTSC, 64-bit, MUI</p> <p>Yes; Windows 11 Enterprise 2024 LTSC 64 bit, MUI</p>
Dimensions	
Width	79 mm; 116 mm with extension module 1 slot, 138 mm with extension module 2 slots, 225 mm with extension module 4 slots, 280 mm with extension module 6 slots
Height	194 mm
Depth	237 mm; 237 mm base module without fan module and with / without extension module 1 slot, 307 mm base module with fan module and with / without extension module 1/2 slots, 402 mm with extension module 4/6 slots
Approvals / Certificates	
General Product Approval	



[Miscellaneous](#)



General Product Approval

[BIS.CRS](#)



[China RoHS](#)



EMV

Dangerous goods

Environment



[Test Summary Report UN 38.3](#)

[Dangerous goods information](#)



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