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Data sheet 6AG4133-0DH40-0KA0

Siemens EcoTech

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; Intel Core i9-13900E, 65 W; 24C(8P+16E)/32T, 1.8(5.2) GHz; with 24 V DC, 400 W power supply RAID1 2 x 512 GB M.2 NVME SSDs [Eco] in the SIMATIC IPC slider 32 GB DDR5(1*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 (with USB flash drive restore image; D&D) EM1: PCIe x 16 gen4 EM without storage

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	
● Rated value 50 Hz	Yes
● Rated value 60 Hz	Yes
Mains buffering	
● 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; Core 9 273PE 12C (12P+0E)/24T, 2.3 (5.4) GHz, 36MB cache; Core 7 253PE 10C (10P+0E)/20T, 2.5 (5.3) GHz, 33MB cache; Core 5 223PE 8C (8P+0E)/16T, 2.9 (5.4) GHz, 24MB cache
Chipset	Intel R680E
Graphic	
Graphics controller	Intel UHD Graphics 770 (Core i5, Core i7, Core i9)
Graphics card	Yes; NVIDIA RTX 4000, RTX pro 4000 Blackwell, L4
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; 2 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; 512GB M.2 NVME SSD on SSD slider; 1 TB M.2 NVME onboard SSD with 1* 1 TB M.2 NVME on 1 exchangeable SSD slider; 512 GB M.2 NVME onboard SSD with 1* 2 TB M.2 NVME on 1 exchangeable SSD slider; 512 GB M.2 NVME onboard SSD with RAID1 2* 1 TB 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
Storage	
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	

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Number of industrial Ethernet interfaces	4; 4x Gigabit Ethernet (RJ45)
serial interface	2x / 4x (optional) COM (RS 232 / 485 / 422; selectable)
Video interfaces	
● Graphics interface	2x DisplayPort
Industrial Ethernet	
● Industrial Ethernet interface	
— 100 Mbps	Yes
— 1000 Mbps	Yes
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	
● Temperature monitoring	Yes
● Fan	Yes
● Monitoring function via network	Optional
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
KC approval	Yes
FCC	Yes
BIS	Yes
Ecological footprint	
● 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	
● min.	0 °C
● max.	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 exenstion module: 40°C
Ambient temperature during storage/transportation	
● min.	-20 °C
● max.	60 °C
Vibrations	
● 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/s²); extension module w/o storages (10 to 58 Hz: 0.0375 mm; 58 to 200 Hz: 4.9 m/s²); extension module with SSD (10 to 58 Hz: 0.0375 mm; 58 to 200 Hz: 4.9 m/s²); storage / transport - 5 to 8.4 Hz: 3.5 mm; 8.4 to 500 Hz: 9.8 m/s²
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	
● Windows 10 Enterprise	Yes; Windows 10 Enterprise 2021 LTSC, 64-bit, MUI
● Windows 11	Yes; Windows 11 Enterprise 2024 LTSC 64 bit, MUI
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

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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

Classifications

	Version	Classification
eClass	16	19-20-01-02
eClass	14	19-20-01-02
eClass	12	19-20-01-02
eClass	9.1	19-20-01-02
eClass	9	19-20-01-02
eClass	8	19-20-01-02
eClass	7.1	19-20-01-02
eClass	6	19-20-01-02
ETIM	10	EC001413
ETIM	9	EC001413
ETIM	8	EC001413
ETIM	7	EC001413

Approvals / Certificates

General Product Approval

Miscellaneous

General Product Approval

BIS CRS

Manufacturer Declaration

China RoHS

General Product Approval	EMV	Dangerous goods		Environment
		Dangerous goods information	Test Summary Report UN 38.3	

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