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Data sheet 6AG2647-8BE72-1HA1



Figure similar

SIPLUS IPC 227E ET rail based on 6ES7647-8BE72-7HA1 with conformal coating, -25…+60 °C, OT1 with ST1/2 (+70 °C für 10 minutes), 1x display port; 2x 10/100/1000 Mbps Ethernet RJ45; 1x USB3.0, 3x USB2.0; CFast slot; 24 V DC industrial power supply Celeron E3845 ET (4C/4T) with TPM (not for China); 4 GB ET with NVRAM; box: basic with COM 1/2; Windows 10 IoT Enterprise LTSB 2016, 64-bit, MUI (en, de, fr, it, es) 60 GB SSD ET, not exchangeable

General information	
Product type designation	IPC227E
based on	6ES7647-8BE72-7HA1
Installation type/mounting	
Mounting	DIN rail, wall mounting, portrait mounting
Design	Box PC, built-in unit
Supply voltage	
Type of supply voltage	24 V DC
Mains buffering	
● Mains/voltage failure stored energy time	20 ms
Processor	
Processor type	Intel Atom E3845
Chipset	SoC
Graphic	
Graphics controller	Integrated
Graphics card	Yes
Drives	
SSD	Yes
Memory	
Type of memory	DDR3L SO-DIMM
Capacity of main memory, max.	4 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; optional
Hardware configuration	
Slots	
● Number of PCI slots	0
● Number of PCI slots	1; Optional
● Number of compact flash slots	1; CFast
Interfaces	
Number of industrial Ethernet interfaces	2; 2x Ethernet (RJ45)
Number of PROFINET interfaces	1
serial interface	Without / 2x COM (RS 232 / 422 / 485), selectable in the BIOS
Video interfaces	
● Graphics interface	1x DisplayPort
Industrial Ethernet	
● Industrial Ethernet interface	
— 100 Mbps	Yes
— 1000 Mbps	Yes

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Interrupts/diagnostics/status information	
LED status display	1x power, 3x user
Integrated Functions	
Monitoring functions	
● Temperature monitoring	Yes
● Fan	No
● Monitoring function via network	Optional
Degree and class of protection	
IP degree of protection	IP40
IP (rear)	IP40
Standards, approvals, certificates	
Railway application	
● EN 50121-3-2	Yes; EMC for rail vehicles
● EN 50121-4	Yes; EMC for signal and telecommunications systems
● EN 50124-1	Yes; Railway applications - overvoltage category OV2; pollution degree PD2; rated surge voltage UNi = 0.5 kV; UNm = 24 V DC
● EN 50125-1	Yes; Rail vehicles - see ambient conditions
● EN 50125-2	Yes; Stationary electrical equipment - see ambient conditions
● EN 50125-3	Yes; Signal and telecommunications systems - see ambient conditions; vibrations and shocks: Application point outside of tracks (1 m to 3 m away from track)
● EN 50155	Yes; Rail vehicles - temperature class OT1, ST1/ST2, horizontal mounting position
● EN 61373	Yes; Rail vehicles - vibrations and shocks: Category 1 Class A/B
● Fire protection acc. to EN 45545-2	Yes; For proof of conformity, see Service & Support
Ambient conditions	
Ambient temperature during operation	
● min.	-25 °C; = Tmin (incl. condensation/frost)
● max.	60 °C; = Tmax; +70 °C for 10 min (OT1, ST1/ST2 acc. to EN 50155)
Ambient temperature during storage/transportation	
● min.	-20 °C
● max.	60 °C
Altitude during operation relating to sea level	
● Installation altitude above sea level, max.	2 000 m
● Ambient air temperature-barometric pressure-altitude	Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m)
Relative humidity	
● With condensation, tested in accordance with IEC 60068-2-38, max.	100 %; RH incl. condensation / frost (no commissioning in bedewed state), horizontal installation
Vibrations	
● Vibration resistance during operation acc. to IEC 60068-2-6	tested to DIN IEC 60068-2-6: 10 Hz to 58 Hz: 0.075 mm, 58 Hz to 200 Hz: 9.8 m/s² (1 g)
Resistance	
Coolants and lubricants	
— Resistant to commercially available coolants and lubricants	Yes; Incl. diesel and oil droplets in the air
Use in stationary industrial systems	
— to biologically active substances according to EN 60721-3-3	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request
— to chemically active substances according to EN 60721-3-3	Available soon
— to mechanically active substances according to EN 60721-3-3	Yes; Class 3S4 incl. sand, dust, *
Use on land craft, rail vehicles and special-purpose vehicles	
— to biologically active substances according to EN 60721-3-5	Yes; Class 5B2 mold, fungus and dry rot spores (with the exception of fauna); Class 5B3 on request
— to chemically active substances according to EN 60721-3-5	in preparation
— to mechanically active substances according to EN 60721-3-5	Yes; Class 5S3 incl. sand, dust; *
Usage in industrial process technology	
— Against chemically active substances acc. to EN 60654-4	in preparation
— Environmental conditions for process, measuring	in preparation

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and control systems acc. to ANSI/ISA-71.04	
Remark	
— Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04	* The supplied plug covers must remain in place over the unused interfaces during operation!
Conformal coating	
● Coatings for printed circuit board assemblies acc. to EN 61086	Yes; Class 2 for high reliability
● Protection against fouling acc. to EN 60664-3	Yes; Type 1 protection
● Electronic equipment on rolling stock acc. to EN 50155	Yes; Class PC2 protective coating acc. to EN 50155:2017
● Military testing according to MIL-I-46058C, Amendment 7	Yes; Discoloration of coating possible during service life
● Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A	Yes; Conformal coating, Class A
Operating systems	
pre-installed operating system	Windows 10 IoT Enterprise 2016 LTSB, 64bit, MUI
without operating system	Yes; Optional
pre-installed operating system	
● Windows 7	Yes; Ultimate 32 bit or 64 bit
● Windows 10 Enterprise	Yes; Windows 10 Enterprise 2016 LTSB, 64 bit, MUI
Dimensions	
Width	191 mm
Height	100 mm
Depth	60 mm
Other	
Note:	for use in railway applications, also observe the product information "SIPLUS extreme RAIL" A5E37661960A, Online Support article 109736776

Classifications

	Version	Classification
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
IDEA	4	6606
UNSPSC	15	43-21-15-06

Approvals / Certificates

General Product Approval			Railway	Dangerous goods
Manufacturer Declaration	UKCA	CE EG-Konf.	China RoHS	Confirmation	Dangerous goods information

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