SIEMENS

Data sheet

6AG4112-2GW43-1DB6

SIMATIC IPC647D (Rack PC, 19", 2 HU); 2x Gbit Ethernet (IE/PN), RJ45; 1x DVI-I; 2x display ports; 1x COM 1; 2x PS/2; audio; 4x USB 3.0, incl. 1x internal; 3x USB 2.0; Temp. and fan monitoring; Watchdog, Card retainer Core I5-4570TE (2C/4T, 2.7 (3.3) GHz, 4 MB cache, TB, VT-D, AMT); mainboard without fieldbus RAID1, 240 GB (2x 240 GB SSD SATA mirror disks), in removable frame, hot swap; front-side 16 GB DDR3 SD-RAM (2x 8 GB), Dual channel Bus module 2 slots: 2x PCIE X16; DVD +/-RW (SLIM) without expansion (HW); graphics onboard; Adapter cable DVI-I according to VGA for onboard graphics Windows 10 Enterprise 2016 LTSB, MUI (en/de/fr/it/es), 64 bit for Core i3/i5 SIMATIC PC Image&Partition Creator V3.5 enclosed 2x 110/240V redund. power supply; without line cable

Installation type/mounting	
Mounting	For horizontal installation; prepared for telescopic rails; 19" mounting bracket can be removed externally
Design	Rack PC, 19", 2U
Supply voltage	
Type of supply voltage	100/240 V AC (autorange) 50 / 60 Hz; optional redundant 100/240 V AC
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	Xeon E3-1268L v3 (4C/8T, 2.3 (3.3) GHz, 8 MB cache); Core i5-4570TE (2C/4T, 2.7 (3.3) GHz, 4 MB cache); Core i3-4330TE (2C/4T, 2.4 GHz, 4 MB cache)
Chipset	Intel DH82C226 PCH
Graphic	
Graphics controller	Onboard graphics controller Intel HD 4600 Graphics integrated into the processor / PCI-Express graphics card (Dual Head: 2x VGA or 2x DVI-D) in the PCIe (x16) slot (optional)
Drives	
Optical drives	DVD±R/RW (SlimLine)
Hard disk	500 GB HDD, 1 TB HDD, 2x 1 TB HDD, RAID1 (2x 1 TB HDD, mirror disks); RAID1 (2x 1 TB HDD SAS, mirror disks) with PCIe (x8) RAID controller incl. ZMCP module
SSD	Yes; 240 GB SSD; RAID1 (2x 240 GB SSD, mirror disks)
Slot for drives	Mounted internally on the fixed hard disk support, or mounted internally in vibration/shock-absorbing hard disk support, or mounted at the front in the low-profile removable drive bay (hot-swap in RAID configurations)
Memory	
Main memory	2 GB to 32 GB DDR3-1600 DIMM, ECC optional
Capacity of main memory, max.	32 Gbyte
lardware configuration	
Slots	
free slots	2x PCIe mech. (x16) (4 lanes) or 4x PCIe mech. (x16) (4 lanes / 8 lanes depending on slot) or 2x PCI, 2x PCIe mech. (x16) (8 lanes); all modules to a length of 312 mm can be used
nterfaces	
Interfaces/bus type	1x COM1, 1x COM2 (optional), 1x LPT (optional), 2x DisplayPort, 1x DVI-I, 2x PS/2, audio (Microphone In, Line Out), 7x USB, 2x Gigabit Ethernet, PROFIBUS or PROFINET optional
PROFIBUS/MPI	optionally onboard, isolated, max. 12 Mbit/s, no plug-in card necessary, CP 5622-compatible
USB port	2x USB 3.0, 2x USB 2.0 rear, 1x USB 3.0, 1x USB 2.0 front, 1x USB 3.0 internal
Connection for keyboard/mouse	2x PS/2
serial interface	COM1: 1x RS 232, COM2 (optional): 1x RS 232
parallel interface	optional LPT1
Multimedia	

• Microphone InYesVideo interfaces• Graphics interface2x DisplayPort and 1x DVI-1 onboard; 1x VGA via DVI-VGA adapter cable (optional); graphics card PCIe (x16), Dual Head (2x VGA or 2x DVI-D), 1 GB graphics memory (optional)Industrial Ethernet• Industrial Ethernet interface2x Ethernet (RJ45)- 100 MbpsYes- 100 MbpsYes- 100 MbpsYesIntegrated Functions• Temperature monitoringYes• Temperature monitoringYes• Status LEDsPOWER, HDD, ETHERNET 1, ETHERNET 2, PROFIBUS / MPI, SF PROFINET, WATCHDOG, TEMP, FAN, HDD0 ALARM, HDD1 ALARM• FanYes• Monitoring function via networkOptional	a Audia In/Out	Vaa
Value substrained - DisplayPort and 1% DNI - locussed: 1% VGA via bulk / each bid probable graphics maneral CEs (vi6). Dual Head (2x VGA or 2x DVI-D). 1 GB graphics maneral (PGI or 16). Dual Head (2x VGA or 2x DVI-D). 1 GB graphics maneral (PGI or 16). Dual Head (2x VGA or 2x DVI-D). 1 GB graphics maneral (PGI or 16). Dual Head (2x VGA or 2x DVI-D). 1 GB graphics maneral (PGI or 16). Dual Head (2x VGA or 2x DVI-D). 1 GB graphics maneral (PGI or 10). Dubgs - 100 Mbps - Vas - 100 Mbps Vas - 100 Mbps Vas - 100 Mbps Vas - 100 Mbps Vas - National function Vas - National function Vas - National function Vas - Status LEDS POVER HDD. ETHERNET 1 ETHERNET 2. PROFIBURS I MPI ST - Ferr - Vas - National function van network Vas - Ferr Vas - Interference Immunity against discharge of status electrons * National function van network - Interference Immunity against discharge of status electrons * National function 4.5, surge anymetric - Interference Immunity against high-frequency relation 4.5, surge anymetric * National function 4.5, surge anymetric - Interference Immunity against high-frequency relation 4.5, surge anymetric * National function 4.5, surge	Audio In/Out	Yes
• Graphics interface 2.8 bishup/soft and 1.8 UVI onloaved, 12 VIA via DVI VAB a dashed cable (consult operation cambod (reling), Dauh Head (dar VAB or 2.8 UVI.0, 1 GB consult of the consult o	· · ·	Tes
induitial Etheme infrace 2 k Ethemet (RJ46) - 100 Maps Yes information controls Status LEDs information controls Status L		(optional); graphics card PCIe (x16), Dual Head (2x VGA or 2x DVI-D), 1 GB
	Industrial Ethernet	
	Industrial Ethernet interface	2x Ethernet (RJ45)
Integrated functions Monitoring functions Yes Valatchog Yes Inteference Yes	— 100 Mbps	Yes
Monitoring functions Yes • Temporature monitoring Yes • Stabu LEDs POWER, HDD, ETHERNET 1, ETHERNET 2, PROFIBUS / MPI, SF PROFINET, WATCHDOG, TEMP, FAN, HDDD ALARM, HDDT ALARM • Fan Yes • Indreference immunity against discharge of static iselectricity Yes Interference immunity against discharge of static iselectricity #SKV contact discharge acc. to IEC 61000-4-2; 148 kV air discharge acc. to IEC 61000-4-3; 10V fm for 80 - 1000 MHz and 1.4 - 2 GHz, 80% AM acc. to IEC 61000-4-3; 10V fm for 80 - 1000 MHz and 1.4 - 2 GHz, 80% AM acc. to IEC 61000-4-4; Linet; 14 kV acc. to IEC 61000-4-4; Linet; 14 kV acc. to IEC 61000-4-4; Linet; 24 kV acc. to IEC 61000-4-3; Linet; 24 kV acc. to IEC 61000-4-4; Linet; 24 kV acc. to IEC 61000-4-3; Linet; 24 kV acc. to IEC 61000-4-4; Lin	— 1000 Mbps	Yes
• Temperature monitoring Yes • Vatarbdog Yes • Status LEDs POWER, HDD, ETHERNET 1, ETHERNET 2, PROFIBUS / MPI, SF • Fan Ves • Solontoring function via network Optional Interference immunity against discharge of static electricity #6 W contact discharge acc. to IEC 61000 4-2; ±6 W and ischarge acc. to IEC 61000 4-2; ±6 W and ischarge acc. to IEC 61000 4-2; ±6 W and ischarge acc. to IEC 61000 4-3; 10 V for 10 kHz - 80 MHz, ads into 10 V m for 80 - 1 000 MHz and 1.4 - 2 GHz, 80% AM acc. to IEC 61000 4-3; 10 V for 10 kHz - 80 MHz, ads into 10 V m for 80 - 1 000 MHz and 1.4 - 2 GHz, 80% AM acc. to IEC 61000 4-4; staty acc. to IEC 61000	Integrated Functions	
• Watchdog Yes • Watchdog Yes • POWER PLOD. ETHERNET 1. ETHERNET 2. PROFINELY ALARM. POWER PLOD. ETHERNET 1. ETHERNET 2. PROFINELY ALARM. • Fan Yes • Working function via network Yes • Watchdog ************************************	Monitoring functions	
• Status EDs POWER, HOD. ETHERNET 1, ETHERNET 2, ROFFIEUS / MPL SF • Fan Yes • Monitoring function via network Optional • Bonitoring function via network Optional • Monitoring function via network Status electricus • Interference immunity against discharge of status electricus if KV contact discharge of a tabus electricus • Interference immunity against high-frequency relations 10 Vin for 80 - 1 000 MHz and 1.4 - 2 GHz, 80% AM acc. to IEC 6 1000 -4.2, 18 KV air discharge of a tabus electricus • Interference immunity against high-frequency relations 10 Vin for 80 - 1 000 MHz and 1.4 - 2 GHz, 80% AM acc. to IEC 6 1000 -4.2, 10 V for 10 MHz. = 80 MHz. • Interference immunity on supply cables 2 EV acc. to IEC 6 1000 -4.4, burst, ±1 KV acc. to IEC 6 1000 -4.5, surge asymmetric • Interference immunity on supply cables 2 EV acc. to IEC 6 1000 -4.4, Burst • Interference immunity on supply cables 2 EV acc. to IEC 6 1000 -4.4, Burst • Interference immunity on supply cables 10 Vin for 80 - 1000 MHz and 1.4 - 2 GHz, 80% AM acc. to IEC 6 1000 -4.5, surge asymmetric • Interference immunity on supply cables 2 EV acc. to IEC 6 1000 -4.4, Burst • Interference immunity on supply cables 2 EV acc. to IEC 6 1000 -4.4, Burst • Interference immunity on signal cables - 30m 1 V acc. to IEC 6 1000 -4.5, surge asymmetric • Interference immunity on signal cables - 30m 1 V acc. to IEC 6 1000 -4.5, surge asy	Temperature monitoring	Yes
• Fight ProTINET_WATCHDOG, TEMP, FAN, HDDD ALARM, HDD1 ÁLARM • Monitoring function via network Yes • Monitoring function via network Optional ENC • Monitoring function via network Stream (Stream (Str	Watchdog	Yes
• Monitoring function via network Optimal MC FinderGene immunity against discharge of static electricity. Interference immunity against discharge of static electricity. Isk VV contract discharge acc. to EC 61000-4.2; ±8 KV ari discharge acc. to IEC 61000-4.3; to V more 20.0; To XI, 2004, 42, 40, 40, 40, 40, 40, 40, 40, 40, 40, 40	Status LEDs	
EMC Interference immunity against discharge of static electricity Interference immunity against discharge of static electricity #6 KV contact discharge acc. to IEC 61000-4-2; ±8 KV air discharge acc. to IEC 61000-4-2; Interference immunity against high-frequency radiation #6 KV contact discharge acc. to IEC 61000-4-2; Interference immunity against high-frequency radiation 10 Vm for 80 - 1 000 MHz and 1.4 - 2 GHz, 80% AM acc to IEC 61000-4-3; Interference immunity to subply cables #2 KV acc. to IEC 61000-4-4; Interference immunity on supply cables #2 KV acc. to IEC 61000-4-4; Interference immunity on signal cables >30m #1 KV acc. to IEC 61000-4-4; Interference immunity on signal cables >30m #1 KV acc. to IEC 61000-4-4; Interference immunity on signal cables >30m #1 KV acc. to IEC 61000-4-5; Interference immunity on signal cables >30m #1 KV acc. to IEC 61000-4-4; Interference immunity on signal cables >30m #1 KV acc. to IEC 61000-4-5; Interference immunity on signal cables >30m #1 KV acc. to IEC 61000-4-4; Interference immunity on signal cables >30m #1 KV acc. to IEC 61000-4-5; Interference immunity to magnetic fields at 50 Hz 100 Arm; to IEC 61000-4-4; Interference emission of sindice fields at 50 Hz 100 Arm; to IEC 61000-4-3; Interference emission of sindice f	• Fan	
Interference immunity against discharge of static electricity 46 kV contact discharge acc. to IEC 61000 4-2; 48 kV air discharge acc. to IEC 61000 4-2 Interference immunity against high frequency relation electricity 10 Vm for 80 - 1000 MHz and 1.4 - 2 GHz, 80% AM acc. to IEC 61000-4.3; 30 Vm for 72 - 27 GHz, 80% AM acc. to IEC 61000-4.3; 10 V for 10 kHz - 80 MHz, 80% AM acc. to IEC 61000-4.4; burst ±1 kV acc. to IEC 61000-4.5; surge symmetric; 22 VM acc. to IEC 61000-4.4; burst ±1 kV acc. to IEC 61000-4.5; surge symmetric; 24 VM acc. to IEC 61000-4.4; burst ±1 kV acc. to IEC 61000-4.5; surge symmetric; 12 VM acc. to IEC 61000-4.4; burst ±2 kV acc. to IEC 61000-4.5; surge symmetric; 12 VM acc. to IEC 61000-4.4; burst ±2 kV acc. to IEC 61000-4.5; surge symmetric; 12 VM acc. to IEC 61000-4.4; burst ±2 kV acc. to IEC 61000-4.5; surge symmetric; 12 VM acc. to IEC 61000-4.4; burst ±2 kV acc. to IEC 61000-4.5; surge symmetric; 12 VM acc. to IEC 61000-4.4; burst ±2 kV acc. to IEC 61000-4.5; surge symmetric; 12 VM acc. to IEC 61000-4.4; burst ±2 kV acc. to IEC 61000-4.5; surge symmetric; 12 VM acc. to IEC 61000-4.4; Burst Interference immunity against voltage surge 12 kV acc. to IEC 61000-4.5; surge symmetric Interference immunity to magnetic fields 100 Am; to IEC 61000-4.3; Surge symmetric Interference immunity to magnetic fields 100 Am; to IEC 61000-4.3; Surge symmetric Interference immunity to magnetic fields 100 Am; to IEC 61000-4.3; Surge symmetric Interference immunity to magnetic fields 100 Am; to IEC 61000-4.3; EV 61000-6.4; CISPR 22; EN 55022 Class B, EN 61000-6.3; 2007 4A1; 2017, noise Interference immunity to magnetic fie	-	Optional
interference immunity against discharge of static electricity af KV contact discharge acc. to IEC 6 1000-4-2; ±8 kV air discharge acc. to IEC fi000-4-2 Interference immunity against high-frequency electromagnetic fields 10 V/m for 80 - 1 000 MHz and 1.4 - 2 GHz, 80% AM acc. to IEC 61000-4.3; uV for 10 kHz - 80 MHz, 80% AM acc. to IEC 61000-4.4; BVX M acc. to IEC 61000-4.5; SVX B a	EMC	
electricity 6100-42 Interference immunity against high frequency electromagnetic fields elinterference immunity against high frequency radiation 10 V/m for 80 - 1 000 MHz and 1.4 - 2 GHz, 80% AM acc. to IEC 61000-4.3; 10 V/m for 80 - 1 000 MHz and 1.4 - 2 GHz, 80% AM acc. to IEC 61000-4.3; 10 V/m for 80 - 1 000 MHz and 1.4 - 2 GHz, 80% AM acc. to IEC 61000-4.5; aurge asymmetric elinterference immunity on supply cables 22 KV acc. to IEC 61000-4.4, burst; 14 KV acc. to IEC 61000-4.5, surge asymmetric elinterference immunity on signal cables >30m 21 KV acc. to IEC 61000-4.5, surge asymmetric elinterference immunity on signal cables >30m 11 KV acc. to IEC 61000-4.5, surge asymmetric elinterference immunity on signal cables >30m 11 KV acc. to IEC 61000-4.5, surge asymmetric elinterference immunity on signal cables >30m 12 KV acc. to IEC 61000-4.5, surge asymmetric elinterference immunity to magnetic fields 11 KV acc. to IEC 61000-4.5, surge asymmetric elinterference immunity to magnetic fields at 50 Hz 100 A/m; to IEC 61000-4.3 elinterference immunity to magnetic fields EN 61000-6.3, FCC Class A, EN 61000-6.4, CISPR 22, EN 55022 Class B, EN 61000-6.3, FCC Class A, EN 61000-6.4, CISPR 22, EN 55022 Class B, EN 61000-6.3, FCC Class A, EN 61000-6.3, 2007 +A1.2011, noise elinterference immunity to magnetic fields FP1 IP (earth front) IP20	Interference immunity against discharge of static electricity	
• Interference immunity against high frequency radiation 10 V/m for 8.0 - 1000 MHz and 1.4 - 2.6Hz .80% AM acc. 10 EC 61000-4.3. 3 Interference immunity to cable-borne interference 2 KV acc. to IEC 61000-4.4. burst; ±1 KV acc. to IEC 61000-4.5, surge symmetric • Interference immunity on signal cables >30m 2 KV acc. to IEC 61000-4.4. burst; ±1 KV acc. to IEC 61000-4.5, surge symmetric • Interference immunity on signal cables >30m ±1 KV acc. to IEC 61000-4.5, surge asymmetric • Interference immunity on signal cables >30m ±1 KV acc. to IEC 61000-4.5, surge asymmetric • Interference immunity against valtage surge ************************************	, , , ,	
Wm for 2 - 27 GHz, 80% AM acc. to IEC 61000-4-3; 10 V for 10 kHz - 80 MHz, 80% AM acc. to IEC 61000-4-6 Interference immunity on supply cables ± 2 kV acc. to IEC 61000-4-4, burst; ±1 kV acc. to IEC 61000-4-5, surge symmetric. E0 61000-4-5, surge asymmetric • Interference immunity on signal cables >30m ± 2 kV acc. to IEC 61000-4-4, burst; ±1 kV acc. to IEC 61000-4-5, surge symmetric. E0 61000-4-5, surge asymmetric • Interference immunity on signal cables >30m ± 2 kV acc. to IEC 61000-4-4, Burst • Interference immunity on signal cables >30m ± kV acc. to IEC 61000-4-5, surge asymmetric • symmetric interference ± 2 kV acc. to IEC 61000-4-5, surge asymmetric • symmetric interference ± 2 kV acc. to IEC 61000-4-5, surge asymmetric • symmetric interference ± 2 kV acc. to IEC 61000-4-5, surge asymmetric • Interference immunity to magnetic fields 100 A/m; to IEC 61000-4-5, surge asymmetric • Interference emission via line/AC current cables EN 61000-6-3, FCC Class A, EN 61000-6-4, CISPR 22, EN 55022 Class B, EN 61000-3-3 Degree and class of protection IP41 IP (ear) IP41 IP (ear) IP20 Standards, approvals, certificates Yes; For use in industrial areas as well as domestic, business and commercial environments (emitted interference: 18 1600-6-3;2007 + A1:2011, noise immunity: N 61000-6-2;2005 CE mark Yes; Included in CULus UL approval Yes CC mark Yes		
• Interference immunity on supply cables ±2 kV acc. to IEC 6 1000-4.4, burst. 14 VV acc. to IEC 6 1000-4.5, surge asymmetric • Interference immunity on signal cables >30m ±2 kV acc. to IEC 6 1000-4.4, burst. ±2 kV acc. to IEC 6 1000-4.5, surge asymmetric • Interference immunity against voltage surge ±2 kV acc. to IEC 6 1000-4.4, Burst. ±2 kV acc. to IEC 6 1000-4.4, Burst. • asymmetric interference ±2 kV acc. to IEC 6 1000-4.5, surge asymmetric • symmetric interference ±2 kV acc. to IEC 6 1000-4.5, surge asymmetric • symmetric interference ±1 kV acc. to IEC 6 1000-4.5, surge asymmetric • Interference immunity to magnetic fields ±0 kV acc. to IEC 6 1000-4.5, surge asymmetric • Interference immunity to magnetic fields ±50 Hz 100 A/m; to IEC 6 1000-4.5 • Interference immunity to magnetic fields ±50 Hz 100 A/m; to IEC 6 1000-4.5 • Interference immunity to magnetic fields ±50 Hz 100 A/m; to IEC 6 1000-4.5 • Interference immunity to magnetic fields ±50 Hz 100 A/m; to IEC 6 1000-4.5 • Interference immunity to magnetic fields ±50 Hz 100 A/m; to IEC 6 1000-6.3, CC Class A, EN 61000-6.4, CISPR 22, EN 55022 Class B, EN 61000-6.3, COC 1000, EN • Interference immunity to magnetic fields ±50 Hz Ves • IP (at the front) IP 41 IP (at the front) IP 41 IP (are y) I	 Interference immunity against high frequency radiation 	V/m for 2 - 2.7 GHz, 80% AM acc. to IEC 61000-4-3; 10 V for 10 kHz - 80 MHz,
symmetric; ±2 kV acc. to IEC 61000-4-5, surge asymmetric ±2 kV acc. to IEC 61000-4-5, surge asymmetric ±2 kV acc. to IEC 61000-4-5, surge asymmetric ±2 kV acc. to IEC 61000-4-4, Burst Interference immunity against voltage surge ±2 kV acc. to IEC 61000-4-5, surge asymmetric ±2 kV acc. to IEC 61000-4-5, surge asymmetric ±1 kV acc. to IEC 61000-6-3, surge asymmetric ±1 kV acc. to IEC 61000-6-3	Interference immunity to cable-borne interference	
Interference immunity on signal cables < 30m Interference immunity against voltage surge 24 kV acc. to IEC 61000-4-4, Burst easymmetric interference asymmetric interference 1kV acc. to IEC 61000-4-5, surge asymmetric surge asymmetric 1kV acc. to IEC 61000-4-5, surge asymmetric 1kV acc. to IEC 61000-4-5, surge asymmetric 1kV acc. to IEC 61000-4-5, surge asymmetric 1kV acc. to IEC 61000-4-8 Interference immunity to magnetic fields 100 Am; to IEC 61000-4-8 Emission of conducted and non-conducted interference Interference emission via line/AC current cables BN 61000-8-3, FCC Class A, EN 61000-6-4, CISPR 22, EN 55022 Class B, EN 61000-3-2 Class D, EN 61000-3-3 Degree and class of protection IP (at the front) IP (area) Standards, approvals, certificates CE mark Yes; For use in industrial areas as well as domestic, business and commercial environments (emitted interference: EN 81000-6-3.2007 +A1.2011, noise immunity: EN 81000-6-3.2007 +A1.2011, EN 81000-6-2.2005 Us aso t cas t	• Interference immunity on supply cables	
Interference immunity against voltage surge ± 2 KV acc. to IEC 61000-4.5, surge asymmetric • asymmetric interference ± 1 kV acc. to IEC 61000-4.5, surge asymmetric • Interference immunity to magnetic fields at 50 Hz 100 Atm; to IEC 61000-4.5, surge symmetric • Interference immunity to magnetic fields at 50 Hz 100 Atm; to IEC 61000-4.5, Surge symmetric • Interference immunity to magnetic fields at 50 Hz 100 Atm; to IEC 61000-4.8 Emission of conducted and non-conducted interference EN 61000-6.3, FCC Class A, EN 61000-6.4, CISPR 22, EN 55022 Class B, EN 61000-3-2 • Interference emission via line/AC current cables EN 61000-3-2 Class D, EN 61000-3-3 >pegree and class of protection IP41 IP (rath front) IP41 IP (rath fort) IP20 Standards, approvals, certificates Yes; For use in industrial areas as well as domestic, business and commercial environments (emitted interference: EN 61000-6-3:2007 + A1:2011, noise immunity: EN 61000-6-3:2005 CE mark Yes; Included in cULus UL approval Yes CL approval Yes CE (ormerly Gost-R) Yes EAC (formerly Gost-R) Yes EAC (formerly Gost-R) Yes; Only with fostD Optionational	 Interference immunity on signal cables >30m 	±2 kV acc. to IEC 61000-4-4, burst; ±2 kV acc. to IEC 61000-4-5, surge
• asymmetric interference ±2 kV acc. to IEC 61000-4-5, surge asymmetric • symmetric interference ±1 kV acc. to IEC 61000-4-5, surge symmetric • Interference immunity to magnetic fields at 50 Hz 100 A/m; to IEC 61000-4-8 Emission of conducted and non-conducted interference 100 A/m; to IEC 61000-6-3, FCC Class A, EN 61000-6-4, CISPR 22, EN 55022 Class B, EN 61000-3-2 Class D, EN 61000-3-2 Class D, EN 61000-3-3 Degree and class of protection IP41 IP (ear) IP20 Standards, approvals, certificates Yes; For use in industrial areas as well as domestic, business and commercial environments (emitted interference: EN 61000-6-3:2007 +A1:2011, noise immunity: EN 61000-6-2:2005) CSA approval Yes; Included in cULus UL approval Yes; Included in cULus UL approval Yes; UL 60950-1, file number E115352 RCM (formerly C-TICK) Yes KC approval Yes; UL 60950-4, A1:2011, EN 61000-6-2:2005 Dust protection Yes Marine approval Yes; Only with SSD EMC CE, EN 61000-6-3:2007 +A1:2011, EN 61000-6-2:2005 Dust protection With front door closed: G2 EN 779, 99% of particles > 0.5 mm are filtered Marine approval Yes; Only with SSD • Germanischer Lloyd (GL) Yes; Only with SSD <td> Interference immunity on signal cables < 30m </td> <td>±1 kV acc. to IEC 61000-4-4, Burst</td>	 Interference immunity on signal cables < 30m 	±1 kV acc. to IEC 61000-4-4, Burst
• symmetric interference ±1 kV acc. to IEC 61000-4-5, surge symmetric Interference immunity to magnetic fields 100 A/m; to IEC 61000-4-8 Emission of conducted and non-conducted interference EN 61000-6-3, FCC Class A, EN 61000-6-4, CISPR 22, EN 55022 Class B, EN 61000-3-2 Class D, EN 61000-3-3 Degree and class of protection IP41 IP (at the front) IP41 IP (rear) IP20 Standards, approvals, certificates EN 61000-6-22 Class a set environments (emitted interference: EN 61000-6-3.2007 +A1:2011, noise immunity: EN 61000-6-22005) CSA approval Yes; For use in industrial areas as well as domestic, business and commercial environments (emitted interference: EN 61000-6-3.2007 +A1:2011, noise immunity: EN 61000-6-22005) CSA approval Yes; UL 60950-1, file number E115352 UL approval Yes CG (formerly C-TICK) Yes KC approval Yes EMC CE, EN 61000-6-3:2007 +A1:2011, EN 61000-6-2:2005 Dust protection With front door closed: G2 EN 779, 99% of particles > 0.5 mm are filtered Marine approval Yes; Only with SSD • American Bureau of Shipping (ABS) Yes; Only with SSD • Bureau Verlias (BV) Yes; Only with SSD • Dust Norske Verlias (DNV) Yes; Only with SSD <tr< td=""><td>Interference immunity against voltage surge</td><td></td></tr<>	Interference immunity against voltage surge	
Interference immunity to magnetic fields at 50 Hz 100 A/m; to IEC 61000-4-8 Emission of conducted and non-conducted interference Enission of conducted interference Interference emission via line/AC current cables EN 61000-6-3, FCC Class A, EN 61000-6-4, CISPR 22, EN 55022 Class B, EN 61000-3-2 Class D, EN 61000-3-3 Degree and class of protection IP (at the front) IP41 IP (rear) IP40 Standards, approvals, certificates CE mark Yes; For use in industrial areas as well as domestic, business and commercial environments (entited interference: EN 61000-6-3:2007 +A1:2011, noise immunity: EN 61000-6-2:2005) CSA approval Yes; Included in cULus UL approval Yes; Included in cULus UL approval Yes; Included in cULus KC approval Yes; Included in cULus KC approval Yes KC approval Yes KC approval Yes KC approval Yes ENC CE, EN 61000-6-3:2007 +A1:2011, EN 61000-6-2:2005 Dust protection Wes Marine approval Yes eGermanischer Lloyd (GL) Yes; Only with SSD eAmerican Bureau of Shipping (ABS) Yes; Only with SSD	 asymmetric interference 	
• Interference immunity to magnetic fields at 50 Hz 100 A/m; to IEC 61000-4-8 Emission of conducted and non-conducted interference EN 61000-6-3, FCC Class A, EN 61000-6-4, CISPR 22, EN 55022 Class B, EN 61000-3-3 Degree and class of protection IP (at the front) IP41 IP (at the front) IP20 Standards, approvals, cortificates Ves; For use in industrial areas as well as domestic, business and commercial environments (emitted interference: EN 61000-6-3:2007 +A1:2011, noise immunity: EN 61000-6-2:2005) CSA approval Yes; Included in cULus UL approval Yes; Included in cULus UL approval Yes CGUus Yes (LogoSo-1, file number E115352 RCM (formerly C-TICK) Yes KC approval Yes Dust protection Yes Marine approval Yes eGermanischer Lloyd (GL) Yes; Only with SSD • Germanischer Lloyd (GL) Yes; Only with SSD • American Bureau Of hisping (ABS) Yes; Only with SSD • Bureau Veritas (BV) Yes; Only with SSD • Det Norske Veritas (DNV) Yes; Only with SSD • Loyds Register of Shipping (LRS) Yes; Only with SSD • Loyds Register of Shipping (LRS) Yes; Only with SSD	symmetric interference	±1 kV acc. to IEC 61000-4-5, surge symmetric
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KC approval Yes EAC (formerly Gost-R) Yes EMC CE, EN 61000-6-3:2007 +A1:2011, EN 61000-6-2:2005 Dust protection With front door closed: G2 EN 779, 99% of particles > 0.5 mm are filtered Marine approval	cULus	Yes; UL 60950-1, file number E115352
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Dust protection With front door closed: G2 EN 779, 99% of particles > 0.5 mm are filtered Marine approval	EAC (formerly Gost-R)	Yes
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Det Norske Veritas (DNV) Yes; Only with SSD Lloyds Register of Shipping (LRS) Yes; Only with SSD Ambient conditions Ambient temperature during operation	 American Bureau of Shipping (ABS) 	Yes; Only with SSD
Lloyds Register of Shipping (LRS) Yes; Only with SSD Ambient conditions Ambient temperature during operation	• Bureau Veritas (BV)	Yes; Only with SSD
Ambient conditions Ambient temperature during operation	 Det Norske Veritas (DNV) 	Yes; Only with SSD
Ambient temperature during operation	Lloyds Register of Shipping (LRS)	Yes; Only with SSD
	Ambient conditions	
• min. 0 °C	Ambient temperature during operation	
	• min.	0°0

• max.	50 °C
Ambient temperature during storage/transportation	
• min.	-20 °C
• max.	60 °C
Relative humidity	
Relative humidity	tested to IEC 60068-78, DIN IEC 68-2-30: 5 $\%$ to 80 $\%$ at 25 $^{\circ}\mathrm{C}$ (no condensation)
Vibrations	
 Vibration resistance during operation acc. to IEC 60068- 2-6 	Tested according to IEC 60068-2-6: 10 cycles, 10 Hz to 58 Hz: 0.0375 mm, 58 Hz to 500 Hz: 4.9 m/s² (0.5 g)
Shock testing	
 Shock load during operation 	Tested according to IEC 60068-2-27, IEC 60068-2-29: half-sine: 50 m/s² (5 g), 30 ms, 100 shocks per axis
Operating systems	
pre-installed operating system	Windows 7 Ultimate, multi-language (32-bit/64-bit), Windows 10 Enterprise 2015 LTSB, multi-language (64-bit), Windows 10 Enterprise 2016 LTSB, multi-language (64-bit), Windows Server 2008 R2 Standard Edition incl. 5 clients, multi-language (64-bit); Windows Server 2012 R2 Standard Edition incl. 5 clients, multi-language (64-bit); Windows Server 2016 Standard Edition incl. 5 clients, multi-language (64-bit); Windows Server 2016 Standard Edition incl. 5 clients, multi-language (64-bit); Windows Server 2016 Standard Edition incl. 5 clients, multi-language (64-bit); Windows Server 2016 Standard Edition incl. 5 clients, multi-language (64-bit); Windows Server 2016 Standard Edition incl. 5 clients, multi-language (64-bit); Windows Server 2016 Standard Edition incl. 5 clients, multi-language (64-bit); Windows Server 2016 Standard Edition incl. 5 clients, multi-language (64-bit); Windows Server 2016 Standard Edition incl. 5 clients, multi-language (64-bit); Windows Server 2016 Standard Edition incl. 5 clients, multi-language (64-bit); Windows Server 2016 Standard Edition incl. 5 clients, multi-language (64-bit); Windows Server 2016 Standard Edition incl. 5 clients, multi-language (64-bit); Windows Server 2016 Standard Edition incl. 5 clients, multi-language (64-bit); Windows Server 2016 Standard Edition incl. 5 clients, multi-language (64-bit); Windows Server 2016 Standard Edition incl. 5 clients, multi-language (64-bit); Windows Server 2016 Standard Edition incl. 5 clients, multi-language (64-bit); Windows Server 2016 Standard Edition incl. 5 clients, multi-language (64-bit); Windows Server 2016 Standard Edition incl. 5 clients, multi-language (64-bit); Windows Server 2016 Standard Edition incl. 5 clients, multi-language (64-bit); Windows Server 2016 Standard Edition incl. 5 clients, multi-language (64-bit); Windows Server 2016 Standard Edition incl. 5 clients, multi-language (64-bit); Windows Server 2016 Standard Edition incl. 5 clients, multi-language (64-bit); Windows Server 2016 Standard Edition incl. 5 clients, m
Additional info on operating system	Multi-Language User Interface (MUI): 5 languages (English, German, French, Spanish, Italian)
without operating system	Yes
Software	
SIMATIC Software	Optionally in package with SIMATIC WinCC or WinCC flexible
Dimensions	
Width	430 mm
Height	88 mm; 2U
Depth	444 mm

last modified:

6/25/2021 🖸