SIEMENS

Data sheet

6AG4141-7BK58-3GA0

SIMATIC IPC427E (Microbox PC), HD graphic onboard, 4x USB V3.0 (high current), PCIE (optional), XEON E3-1505L; 3x Gbit Ethernet (IE/PN); Mounting onto standard rail; 16 GB with ECC and NVRAM; 2x RS232/485; 2x PCIe (x4 and x1); Windows 10 IoT Enterprise 2016 LTSB (64-bit) für Xeon, CFAST 8 GB, (only optionally with operating system/SW, if no internal mass storage); 480 GB solid-state drive SATA Without SIMATIC software; 24 V DC industrial power supply

	software, 24 v DC industrial power suppry
General information	
Product type designation	IPC427E
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	Celeron G3902 (2C/2T, 1.6 GHz, 2 MB Cache); Core i3-6102E (2C/4T, 1.9 GHz, 3 MB Cache); Core i5-6442EQ (4C/4T, 1.9 (2.7) GHz, 6 MB Cache, iAMT); Xeon E3-1505L v5 (4C/8T, 2.0 (2.8) GHz, 8 MB Cache, iAMT)
Chipset	Intel C236 / Intel H110
Graphic	
Graphics controller	Intel HD graphics controller
Drives	
Optical drives	possible as external drive via USB
Hard disk	2.5" SATA ≥ 320 GB
SSD	Yes; 128 / 240 / 480 GB
Memory	
Type of memory	DDR4-2400 SO-DIMM
Main memory	4 / 8 / 16 GB, ECC optional
Capacity of main memory, max.	16 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	
● free slots	2x PCle; optional: 1x PCle (x4); 2x PCle (x1, x4), with card retainer
Number of PCI slots	2; Optional
 Number of compact flash slots 	1; CFast
Interfaces	
Number of industrial Ethernet interfaces	3; Ethernet (2x RJ45, optional 3x RJ45)
USB port	4x USB 3.0
Connection for keyboard/mouse	USB / USB
serial interface	Without / 2x COM (RS 232 / 485 / 422; switchable)
Video interfaces	
Graphics interface	2x DisplayPort
Industrial Ethernet	
 Industrial Ethernet interface 	3x Ethernet (RJ45)
— 100 Mbps	Yes
— 1000 Mbps	Yes
Interrupts/diagnostics/status information	
Bus diagnostics	Yes

Monitoring functions Yes • Transporture monitoring Yes • Valiation Its power, 3x user • Fain No • Monitoring function via network Optional Exer Monitoring function via network Optional Exer Monitoring function via network Optional Exer Monitoring function via network Optional Interference immunity against discharge of static electricity as KV contact discharge act. to IEC 61000-4.2; MV air discharge act. • Interference immunity against high-frequency electroanspote Fields • Interference immunity against high-frequency electroanspote Fields • Interference immunity on asphy cables 92 kW act. to IEC 61000-42, BWA act. to IEC 61000-43, BWA act. to IEC 61000-44, BWA act. • Interference immunity against values some 92 kW act. to IEC 61000-44, BWA act. to IEC 61000-45, BWP act. • Interference immunity againet values some 92 kW act. to IEC 61000-45, BWP act. • Interference immunity againet values some 12 kW act. to IEC 61000-44, BWP act. • Interference immunity againet values some 12 kW act. to IEC 61000-45, BWP act. • Interference immunity againet values some 12 kW act. to IEC 61000-45, BWP act. </th <th colspan="3">Integrated Functions</th>	Integrated Functions		
Temperature monitoring Yes Webstobg Webstobg Webstobg Webstobg Yes Stabula LEDs Tx power, 3x user Fan No Monitoring function via network Optional Exec Interference immunity against discharge of static electricity Interference immunity against high frequency electromagnets. Felss Interference immunity on signal cables > 30m Interference immunity against high frequency electromagnets. Felss Interference immunity on supply cables Interference immunity on signal cables < 30m Interference immunity against widtage suge Interference immunity against widtage suge Interference immunity on signal cables < 30m Interference immunity against widtage suge Interference immunity against widtage suge Interference immunity on signal cables < 30m Interference Interference immunity on againet fields Interference Interferencence Interference Interference			
• Watch dog Yes • Solute LEDs 1x power, 3x user • Fan No • Monitoring function via network Optional EME Interference immunity against discharge of static electricity • Interference immunity against discharge of static electricity 16 K Contact discharge acc. to IEC 61000-4-2; 18 KV air discharge acc. to IEC 61000-4-2; 10 V for 10 • Interference immunity against discharge of static electricity 10 Vm for 80 - 1000 MHz and 14 - 2 GHz, 80% AM acc. to IEC 61000-4-3; 10 V for 10 • Interference immunity on supply cables 2 KV acc. to IEC 61000-4-4, BV for 10 EC 61000-4-4; 10 V for 10 • Interference immunity on signal cables - 30m 2 KV acc. to IEC 61000-4-4, burst; length > 3 m; 22 KV acc. to IEC 61000-4-4; burst; length > 3 m; 22 KV acc. to IEC 61000-4-4; burst; length > 3 m; 22 KV acc. to IEC 61000-4-4; burst; length > 3 m; 22 KV acc. to IEC 61000-4-4; burst; length > 3 m; 22 KV acc. to IEC 61000-4-4; • Interference immunity on supple: fields 10 Vm to IEC 61000-4-4; burst; length > 3 m; 22 KV acc. to IEC 61000-4-4; • Interference immunity on supple: fields 150 Hz 10 Vm to IEC 61000-4-4; burst; length > 3 m; 22 KV acc. to IEC 61000-4-4; • Interference immunity on supple: fields 150 Hz 10 Vm to IEC 61000-4-4; BV acc. to IEC 61000-4-4; • Interference immunity against voltage surge 10 Vm to IEC 61000-4-4; CISPR 22 Class B, FCC Class A Degree of protection </td <td>0</td> <td>Yes</td>	0	Yes	
s Suba LEDs 1 power, 3 x user Fan 0 optional Exec E			
Fan Monitoring function via network Optional EXC Exc Interference immunity against discharge of static electricity interference immunity against discharge of static electricity Interference immunity against discharge of static is KV contact discharge acc. to IEC 61000-4-2; 18 KV air discharge acc. to IEC 61000-4-2; 10 Vm for 801 000 MHz and 14 - 2 GHz, 80% AM acc. to IEC 61000- 4-3; 18 Vm for 2 - 2 GHz, 80% AM acc. to IEC 61000-4-3; 10 V for 10 Interference immunity on supply cables Interference immunity on signal cable-3:00 Interference I	0	1x power. 3x user	
Avoitating function via network Optional EAC Interference immunity against discharge of static electricity Interference immunity against discharge of static electricity Interference immunity against high-frequency if KV contact discharge acc. to IEC 61000-4-2; ±8 KV air discharge acc. to IEC 61000-4-2; Interference immunity against high-frequency if VV mor 80 - 1 000 MHz and 14 - 2 GHz, 80% AM acc. to IEC 61000 -4; if XV mor 2, -2 7 GHz, 80% AM acc. to IEC 61000-4-3; It VV mor 10 Hz/z = 0.00 MHz and 14 - 2 GHz, 80% AM acc. to IEC 61000 -4; if XV mor 2, -2 7 GHz, 80% AM acc. to IEC 61000-4-3; It V mor 10 Hz/z = 0.00 MHz and 14 - 2 GHz, 80% AM acc. to IEC 61000-4-3; It V mor 10 Hz/z = 0.00 Hz, 80% AM acc. to IEC 61000-4-3; It V mor 10 Hz/z = 0.00 Hz, 80% AM acc. to IEC 61000-4-3; It V mor 10 Hz/z = 0.00 Hz, 80% AM acc. to IEC 61000-4-4; Iterference immunity on signal cables >30m thereference thereference immunity on signal cables >30m thereference thereference immunity on signal cables >30m thereference thereference immunity to magnetic fields thereference			
EMC Interference immunity against discharge of static electricity Interference immunity against discharge of static electricity ±6 kV contact discharge acc. to EC 61000-4-2; ±8 kV air discharge acc. to EC 61000-4-3; ±0 kV acc. to EC 61000-4-3; ±0 kV acc. to EC 61000-4-3; ±1 kV acc. to EC 61000-4-4; ±0 kV acc. to E			
Interference immunity against discharge of static electricity ±8 V contact discharge acc. to IEC 61000-4-2; 18 KV air discharge acc. to IEC 61000-4-3; 13 Vinot 2; 2: 7 Gite, 80% AM acc to IEC 61000-4-3; 10 Vinot 10 Kt 2; 2: 0 bite, 80% AM acc to IEC 61000-4-3; 10 Vinot 10 Kt 2; 2: 0 bite, 80% AM acc to IEC 61000-4-4; 18 VI acc to IEC 61000-4-4; 18 VI acc to IEC 61000-4-4; 18 VI acc to IEC 61000-4-5; auge asymmetric Interference immunity on supply cables ±2 KV acc to IEC 61000-4-4; burst; ±1 kV acc to IEC 61000-4-5; auge asymmetric Interference immunity on signal cables > 30m ±1 KV acc to IEC 61000-4-4; burst; therefore acc. to IEC 61000-4-4; burst; length > 3 m; ±2 kV acc; to IEC 61000-4-4; burst; length > 3 m; ±2 kV acc; to IEC 61000-4-4; burst; length > 3 m; ±2 kV acc; to IEC 61000-4-4; burst; length > 3 m; ±2 kV acc; to IEC 61000-4-4; burst; length > 3 m; ±2 kV acc; to IEC 61000-4-4; burst; length > 3 m; ±1 kV acc; to IEC 61000-4-4; burst; length > 3 m; ±1 kV acc; to IEC 61000-4-4; burst; length > 3 m; ±1 kV acc; to IEC 61000-4-4; burst; length > 3 m; ±1 kV acc; to IEC 61000-4-4; burst; length > 3 m; ±1 kV acc; to IEC 61000-4-4; burst; length > 3 m; ±1 kV acc; to IEC 61000-4-4; burst; elength > 3 m; ±1 kV acc; to IEC 61000-4-4; burst; elength > 3 m; ±1 kV acc; to IEC 61000-4-4; burst; elength > 3 m; ±1 kV acc; to IEC 61000-4-4; burst; elength > 3 m; ±1 kV acc; to IEC 61000-4-4; burst; elength > 3 m; ±1 kV acc; to IEC 61000-4-4; burst; elength > 3 m; ±1 kV acc; to IEC 61000-4-4; burst; elength > 3 m; ±1 kV acc; to IEC 61000-4-4; burst; elength > 3 m; ±1 kV acc; to IEC 61	5	optional	
Interference immunity against discharge of static electricity Interference immunity against high-frequency electromagnetic fields Interference immunity against high-frequency electromagnetic fields Interference immunity against high-frequency Interference immunity to cable-borne interference Interference immunity to cable-borne interference Interference immunity on signal cables >30m Interference immunity against voltage surge Interference immunity against voltage surge Interference immunity on signal cables >30m Interference immunity against voltage surge Interference immunity to magnetic fields Interference Interferen			
electricity to IEC 61000-4-2 Interference immunity against high-frequency relation 10 Vm for 80 -1 000 MHz and 1.4 - 2 GHz, 80% AM acc, to IEC 61000-4-3; 10 V for 10 MHz and 1.4 - 2 GHz, 80% AM acc, to IEC 61000-4-4; 10 V for 10 MHz and 1.4 - 2 GHz, 80% AM acc, to IEC 61000-4-4; 10 V for 10 MHz and 1.4 - 2 GHz, 80% AM acc, to IEC 61000-4-4; 10 V for 10 MHz and 1.4 - 2 GHz, 80% AM acc, to IEC 61000-4-4; 10 V for 10 MHz and 1.4 - 2 GHz, 80% AM acc, to IEC 61000-4-4; 10 V for 10 V for 10 MHz and 1.4 - 2 GHz, 80% AM acc, to IEC 61000-4-4; 10 V for	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	+6 kV contact discharge acc. to IEC 61000-4-2: +8 kV air discharge acc.	
Interference immunity against high frequency radiation Interference immunity to cable-borne interference Interference immunity to cable-borne interference Interference immunity on supply cables Interference immunity on supply cables Interference immunity on signal cables >30m Interference immunity on magnetic fields at 50 Hz Interference immunity on signal cables Interferen	, , , ,		
Interference immunity against high frequency radiation Interference immunity to cable-borne interference Interference immunity to cable-borne interference Interference immunity on supply cables Interference immunity on signal cables >30m Interfe	Interference immunity against high-frequency electromagneti	c fields	
Interference immunity to cable-borne interference Interference immunity on supply cables interference immunity on signal cables >30m Interference immunity an signal cables >30m Interference immunity on signal cables >30m Interference immunity on signal cables >30m Interference immunity on signal cables >30m It V acc. to IEC 61000-44; burst; length > 3 m Interference immunity on signal cables >30m Interference immunity on signal cables >30m Interference immunity on signal cables >30m It V acc. to IEC 61000-44; burst; length > 3 m Interference immunity on signal cables >42 kV acc. to IEC 61000-44; burst; length > 3 m Interference immunity to magnetic fields Interference immunity to magnetic field	 Interference immunity against high frequency 	10 V/m for 80 - 1 000 MHz and 1.4 - 2 GHz, 80% AM acc. to IEC 61000- 4-3; 3 V/m for 2 - 2.7 GHz, 80% AM acc. to IEC 61000-4-3; 10 V for 10	
Interference immunity on supply cables 42 kV acc. to IEC 61000-44, burst, 14 kV acc. to IEC 61000-45, surge asymmetric kV acc. to IEC 61000-44, burst, length < 3 m, ±2 kV acc. to IEC foldo-44, burst, length < 3 m, ±2 kV acc. to IEC foldo-44, burst, length < 3 m, ±2 kV acc. to IEC foldo-44, burst, length < 3 m, ±2 kV acc. to IEC foldo-44, burst, length < 3 m, ±2 kV acc. to IEC foldo-44, burst, length < 3 m, ±2 kV acc. to IEC foldo-44, burst, length < 3 m, ±2 kV acc. to IEC foldo-44, burst, length < 3 m, ±2 kV acc. to IEC foldo-44, burst, length < 3 m, ±2 kV acc. to IEC foldo-44, burst, length < 3 m, ±2 kV acc. to IEC foldo-44, burst, length < 3 m, ±2 kV acc. to IEC foldo-44, burst, length < 3 m, ±2 kV acc. to IEC foldo-44, burst, length < 3 m, ±2 kV acc. to IEC foldo-44, burst, length < 3 m, ±2 kV acc. to IEC foldo-44, burst, length < 3 m, ±2 kV acc. to IEC foldo-44, burst, length < 3 m, ±2 kV acc. to IEC foldo-44, burst, length < 3 m, ±2 kV acc. to IEC foldo-44, burst, length < 3 m, ±2 kV acc. to IEC foldo-44, burst, length < 3 m, ±2 kV acc. to IEC foldo-44, burst, length < 3 m, ±2 kV acc. to IEC foldo-44, burst, length < 3 m, ±2 kV acc. to IEC foldo-44, burst, length < 3 m, ±2 kV acc. to IEC foldo-44, burst, length < 3 m, ±2 kV acc. to IEC foldo-44, burst, length < 3 m, ±2 kV acc. to IEC foldo-44, burst, length < 3 m, ±2 kV acc. to IEC foldo-44, burst, length < 3 m, ±2 kV acc. to IEC foldo-44, burst, length < 4 m, to IEC foldo-44, burst, length <	Interference immunity to cable-borne interference		
• Interference immunity on signal cables >30m • Interference immunity on signal cables >30m • Interference immunity against voltage surge • 2k Vacc. to IEC 61000-4.5, surge, length > 3 m • asymmetric interference • 2k Vacc. to IEC 61000-4.5, surge, length > 3 m • asymmetric interference • 2k Vacc. to IEC 61000-4.5, surge asymmetric • asymmetric interference • 2k Vacc. to IEC 61000-4.5, surge asymmetric • Interference immunity to magnetic fields • 1k Vacc. to IEC 61000-4.5, surge asymmetric • Interference immunity to magnetic fields at 50 Hz 100 A/m; to IEC 61000-4.3, EN 61000-6.4, CISPR 22 Class B, FCC Class A Degree and class of protection IP20 Standards, approvals, certificates IP20 CE mark Yes UL approval Yes • UL 508 Yes • OUL S08 Yes • ATEX Zone 2 Yes; Optional • CEC Yes • ATEX Zone 2 Yes; Optional • CULus Class I Zone 2 Yes; Optional • CULus Class I Zone 2 Yes; Optional • CEC and Register of Shipping (ABS) Yes • Dureau Vertias (RV) Yes • Dureau Vertias (RV) Yes • Du	-	+2 kV acc. to IEC 61000-4-4, burst: +1 kV acc. to IEC 61000-4-5, surge	
Interference immunity on signal cables < 30m e1 kV acc. to IEC 6 1000-4-4; burst; length < 3 m; ±2 kV acc. to IEC 6 1000-4-4; burst; length < 3 m; ±2 kV acc. to IEC 6 1000-4-4; burst; length < 3 m; ±2 kV acc. to IEC 6 1000-4-5; surge asymmetric e1 kV acc. to IEC 6 1000-4-5; surge asymmetric e1 kV acc. to IEC 6 1000-4-5; surge asymmetric e1 kV acc. to IEC 6 1000-4-5; surge asymmetric e1 kV acc. to IEC 6 1000-4-5; surge asymmetric e1 kV acc. to IEC 6 1000-4-5; surge asymmetric e1 kV acc. to IEC 6 1000-4-6; surge asymmetric e1 kV acc. to IEC 6 1000-4-6; surge asymmetric e1 kV acc. to IEC 6 1000-4-6; surge asymmetric e1 kV acc. to IEC 6 1000-4-6; surge asymmetric e1 kV acc. to IEC 6 1000-6-4; surge asymmetric e1 kV acc. to IEC 6 100-6-2; surge asymmetric e1 kV acc. to IEC 6 100-6-2; surge asymoter asymmetric e1 kV acc asymmetric e1 kV acc. to IEC 6 100-6-2;			
61000-4.4; burst; length > 3 m Interference immunity angenist voltage surge • asymmetric interference • ymmetric interference • ymmetric interference • thereference immunity to magnetic fields • Interference immunity to magnetic fields at 50 Hz Interference mission of conducted and non-conducted interference • Interference emission via line/AC current cables Degree and class of protection IP degree of protection IP degree of protection Standards, approvals, certificates CE mark Yes • UL 508 Yes cUL us 508 Yes cUL us 608 Yes cUL sold Yes RCM (formerly C-TICK) Yes FCC Yes FCC Yes EAC (formerly Gost-R) Yes Ves (Detamator areas Yes; Optional • LUs Class 12one 2, Division 2 Yes; Optional • LUs Class 12one 2, Division 2 Yes; Optional • Ucasu Ventas (BV) Yes • Det Norske Ventas (DNV) Yes • Dermanischer Lloyd (GL) Yes • Det Norske Ven		0 0	
e symmetric interference	Interference immunity on signal cables < 30m		
• symmetric interference ±1 kV acc. to IEC 61000-4-5, surge symmetric Interference immunity to magnetic fields at 50 Hz 100 Am; to IEC 61000-4-8 Emission of conducted and non-conducted interference EN 61000-6-3, EN 61000-6-4, CISPR 22 Class B, FCC Class A Degree and class of protection IP20 Standards, approvals, certificates EN 61000-6-3, EN 61000-6-4, CISPR 22 Class B, FCC Class A CE mark Yes UL approval Yes • UL 508 Yes cULus Yes RCM (formerly C-TICK) Yes RCA (formerly Gost-R) Yes FCC Yes EAC (formerly Gost-R) Yes FCC Yes MC Yes: Optional • ATEX Zone 2 Yes: Optional • Cluss Isone 2, Division 2 Yes: Optional • Cluss Verias (DV) Yes • Atex Zone 2, Division 2 Yes: Optional • Cluss Verias (DNV) Yes • Atex Zone 2, Division 2 Yes: Optional • Cluss Isone 2, Division 2 Yes: Optional • Cluss Verias (DNV) Yes • American Bureau of Shipping (ABS) Yes <	Interference immunity against voltage surge		
Interference immunity to magnetic fields 100 A/m; to IEC 61000-4-8 Emission of conducted and non-conducted interference EN 61000-6-3, EN 61000-6-4, CISPR 22 Class B, FCC Class A Degree and class of protection IP20 Standards, approvals, cortificates EN 61000-6-3, EN 61000-6-4, CISPR 22 Class B, FCC Class A CE mark Yes UL sporval Yes OLL 508 Yes CULus Yes CUL 508 Yes CUL 508 Yes CULus Comerly C-TICK) Yes RCM (formerly C-TICK) Yes RCM (formerly C-TICK) Yes FCC Yes EMC CC E, EN 55022A, EN 61000-6-4, EN 61000-6-2 Use in hazardous areas Yes; Optional • LUL SOB 2. Division 2 Yes; Optional • ECEx Zone 2 Yes; Optional • ECEx Zone 2 Yes; Optional • ECEx Zone 2. Division 2 Yes; Optional • ECEx Zone 2. Division 2 Yes; Optional • ECEx Zone 2. Division 2 Yes; Optional • ECEx Rore Register of Shipping (ABS) Yes • Marrica Bureau of Shipping (ABS) Yes	asymmetric interference	±2 kV acc. to IEC 61000-4-5, surge asymmetric	
Interference immunity to magnetic fields at 50 Hz Interference emission via line/AC current cables Interference emission via line/AC current cables EN 61000-6-3, EN 61000-6-4, CISPR 22 Class B, FCC Class A Degree and class of protection IP degree of protection IP degree of protection Ves CE mark UL approval UL approval Ves CULus RCM (formerly C-TICK) Yes RCA (formerly C-TICK) Yes EAC (formerly Gost-R) Yes EAC (formerly Gost-R) Yes EMC CE, EN 55022A, EN 61000-6-4, EN 61000-6-2 Use in hazardous areas EEMC CE, EN 55022A, EN 61000-6-4, EN 61000-6-2 Use in hazardous areas EMC CE, EN 55022A, EN 61000-6-4, EN 61000-6-2 Use CH cash CA	symmetric interference	±1 kV acc. to IEC 61000-4-5, surge symmetric	
Emission of conducted and non-conducted interference • Interference emission via line/AC current cables Degree and class of protection IP degree of protection IP degree of protection Standards, approvals, certificates CE mark UL approval • UL 508 • UL 508 • ULus RCM (formerly C-TICK) KC approval CE, EN 55022A, EN 61000-6-4, EN 61000-6-2 Use in hazardous areas • EAC (formerly Gost-R) FCC Yes EMC CE area Ves EMC Collus class 1 Zone 2 • CEC Ex Zone 2 • Cec area • Cec area • American Bureau of Shipping (ABS) • American Bureau of Shipping (KRS) • Bureau Veritas (BV) • Korean Register of Shipping (KRS)	Interference immunity to magnetic fields		
• Interference emission via line/AC current cables EN 61000-6-3, EN 61000-6-4, CISPR 22 Class B, FCC Class A Degree and class of protection IP degree of protection IP degree of protection IP20 Standards, approvals, certificates CE mark Yes • UL 508 Yes • UL 508 Yes • UL 508 Yes cEducts Yes RCM (formerly C-TICK) Yes RCA (formerly Gost-R) Yes FCC Yes EAC (formerly Gost-R) Yes FCC Yes Use in hazardous areas Yes; Optional • ATEX Zone 2 Yes; Optional • ATEX Zone 2, Division 2 Yes; Optional • Clus Class I Zone 2, Division 2 Yes; Optional • Opermainscher Lloyd (GL) Yes • American Bureau of Shipping (ABS) Yes • Bureau Veritas (BV) Yes • Det Norsk Veritas (DNV) Yes • Det Norsk Veritas (DNV) Yes • Lloyds Register of Shipping (LRS) Yes • Nipon Kaiji K	 Interference immunity to magnetic fields at 50 Hz 	100 A/m; to IEC 61000-4-8	
Degree and class of protection IP20 Standards, approvals, certificates CE mark Yes UL approval Yes • UL 508 Yes cULus Yes RCM (formerly C-TICK) Yes KC approval Yes EAC (formerly Gost-R) Yes FCC Yes EMC CE, EN 55022A, EN 61000-6-4, EN 61000-6-2 Use in hazardous areas • ATEX Zone 2 Yes; Optional • CLLus Class I Zone 2, Yes; Optional • CULus Class I Zone 2, Yes; Optional • CULus Class I Zone 2, Division 2 Yes; Optional • Clus Class I Zone 2, Yes; Optional • Clus Class I Zone 2, Yes; Optional • Clus Class I Zone 2, Yes; Optional • Clus Class I Zone 2, Yes; Optional • Clus Class I Zone 2, Yes; Optional • Clus Class I Zone 2, Yes; Optional • Clus Class I Zone 2, Yes; Optional • Lock Class I Zone 2, Yes; Optional • Low Charge T Cone 2,	Emission of conducted and non-conducted interference		
IP degree of protection IP20 Standards, approvals, cortificates //es CE mark Yes UL approval Yes • UL 508 Yes cULus Yes RCM (formerly C-TICK) Yes KC approval Yes EAC (formerly C-TICK) Yes KC approval Yes EAC (formerly Gost-R) Yes FCC Yes EMC CE, EN 55022A, EN 61000-6-4, EN 61000-6-2 Use in hazardous areas * • ATEX Zone 2 Yes; Optional • IECEx Zone 2 Yes; Optional • CLEx Zone 2 Yes; Optional • CLEx Zone 2 Yes; Optional • CLUs Class I Zone 2, Division 2 Yes; Optional • Bureau Veritas (BV) Yes • Germanischer Lloyd (GL) Yes • Bureau Veritas (BV) Yes • Bureau Veritas (BV) Yes • Bureau Veritas (BV) Yes • Loyds Register of Shipping (KRS) Yes • Inbient temperature during operation 0 °C to 55 °C Ambient temperature during operation	 Interference emission via line/AC current cables 	EN 61000-6-3, EN 61000-6-4, CISPR 22 Class B, FCC Class A	
Standards, approvals, certificates CE mark Yes UL approval Yes • UL 508 Yes cdLus Yes RCM (formerly C-TICK) Yes KC approval Yes EAC (formerly C-TICK) Yes FCC Yes EAC (formerly Gost-R) Yes FCC Yes EMC CE, EN 55022A, EN 61000-6-4, EN 61000-6-2 Use in hazardous areas Yes; Optional • EICEX Zone 2 Yes; Optional • CIECEX Zone 2 Yes; Optional • Class I Zone 2, Division 2 Yes; Optional • CIECEX Zone 2 Yes; Optional	Degree and class of protection		
CE mark Yes UL approval Yes • UL 508 Yes cULus Yes RCM (formerly C-TICK) Yes KC approval Yes EAC (formerly C-TICK) Yes FCC Yes EAC (formerly Gost-R) Yes FCC Yes EMC CE, EN 55022A, EN 61000-6-4, EN 61000-6-2 Use in hazardous areas • • ATEX Zone 2 Yes; Optional • EICE Zone 2 Yes; Optional • CULus Class I Zone 2, Division 2 Yes; Optional • CULus Class I Zone 2, Division 2 Yes; Optional • CULus Class I Zone 2, Division 2 Yes; Optional • CULus Class I Zone 2, Division 2 Yes; Optional • CULus Class I Zone 2, Division 2 Yes; Optional • CULus Class I Zone 2, Division 2 Yes; Optional • CULus Class I Zone 2, Division 2 Yes; Optional • CULus Class I Zone 2, Division 2 Yes; Optional • Class I Zone 2, Division 2 Yes; Optional • Class I Zone 2, Division 2 Yes; Optional • Class I Zone 2, Division 2 Yes		IP20	
CE mark Yes UL approval Yes • UL 508 Yes cULus Yes RCM (formerly C-TICK) Yes KC approval Yes EAC (formerly C-TICK) Yes FCC Yes EAC (formerly Gost-R) Yes FCC Yes EMC CE, EN 55022A, EN 61000-6-4, EN 61000-6-2 Use in hazardous areas • • ATEX Zone 2 Yes; Optional • EICE Zone 2 Yes; Optional • CULus Class I Zone 2, Division 2 Yes; Optional • CULus Class I Zone 2, Division 2 Yes; Optional • CULus Class I Zone 2, Division 2 Yes; Optional • CULus Class I Zone 2, Division 2 Yes; Optional • CULus Class I Zone 2, Division 2 Yes; Optional • CULus Class I Zone 2, Division 2 Yes; Optional • CULus Class I Zone 2, Division 2 Yes; Optional • CULus Class I Zone 2, Division 2 Yes; Optional • Class I Zone 2, Division 2 Yes; Optional • Class I Zone 2, Division 2 Yes; Optional • Class I Zone 2, Division 2 Yes	Standards, approvals, certificates		
• UL 508 Yes CULus CULus RCM (formerly C-TICK) Yes RCA approval Yes EAC (formerly Gost-R) FCC Yes EAC (formerly Gost-R) FCC Yes EMC CC CE, EN 55022A, EN 61000-6-4, EN 61000-6-2 Use in hazardous areas • ATEX Zone 2 Yes; Optional • IECEx Zone 2 Yes; Optional • CLLus Class I Zone 2, Division 2 Yes; Optional • CLUs Class I Zone 2, Division 2 Yes Ves; Optional • Clus Class I Zone 2, Division 2 Yes Yes • American Bureau of Shipping (ABS) Yes • Bureau Veritas (BV) Yes • Loyds Register of Shipping (KRS) Yes • Nippon Kalij Kyokai (Class NK) Yes • Nippon Kalij Kyokai (Class NK) Yes • Ambient temperature during operation • Ambient temperature during operation • Ambient temperature during operation • min.		Yes	
• UL 508 Yes cULus Yes RCM (formerly C-TICK) Yes KC approval Yes EAC (formerly Gost-R) Yes FCC Yes EMC CE, EN 55022A, EN 61000-6-4, EN 61000-6-2 Use in hazardous areas * • ATEX Zone 2 Yes; Optional • IECEx Zone 2 Yes; Optional • cULus Class I Zone 2, Division 2 Yes; Optional • CLUsus Class I Zone 2, Division 2 Yes; Optional • Cluss Class I Zone 2, Division 2 Yes; Optional • Cluss Class I Zone 2, Division 2 Yes; Optional • Cluss Class I Zone 2, Division 2 Yes; Optional • Cluss Class I Zone 2, Division 2 Yes; Optional • Cluss Class I Zone 2, Division 2 Yes; Optional • Bureau Veritas (BV) Yes • Det Norske Veritas (BV) Yes • Lloyds Register of Shipping (LRS) Yes • Nippon Kalij Kyokai (Class NK) Yes Ambient temperature during operation 0 °C to 55 °C Ambient temperature during operation 0 °C to 55 °C Ambient temperature during storage/transportation -40 °C <	UL approval	Yes	
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Relative humidity • Relative humidity Tested according to IEC 60068-2-78, IEC 60068-2-30: Operation: 5% to			
Relative humidity Tested according to IEC 60068-2-78, IEC 60068-2-30: Operation: 5% to			

	condensation)
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)
Shock testing	
 Shock load during operation 	Tested to DIN IEC 60068-2-29: 50 m/s ² (5 g), 30 ms, 100 shocks
Operating systems	
pre-installed operating system	Windows 7 Ultimate (Multi-Language) 64-bit, Windows Embedded Standard 7 E/P 32-bit / 64-bit, Windows 10
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
Software	
SIMATIC Software	Optionally with pre-installed SIMATIC WinCC RT Advanced / Software Controller CPU 1500S software bundle
Dimensions	
Width	262 mm
Height	139.7 mm
Depth	55.5 mm
last modified:	1/31/2021 🖸