

SIMATIC IPC477E PRO fully protected IP65; 22" multi-touch (1920 x 1080); for supporting foot (expandable, flange at bottom), 4 USB (back); without USB (front); Ethernet (10/100/1000 Core i5-6442EQ; 3x Gbit Ethernet (IE/PN); 8 GB; without RS 232/RS485; without PCIe; Windows 10 IoT Enterprise 2016 LTSP (64-bit) for Celeron/I3/I5; Without replaceable mass storage; 240 GB solid-state drive SATA Without SIMATIC software 24 V DC industrial power supply

| General information                                       |                                                                                                                                                                                                            |
|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product type designation                                  | IPC477E PRO                                                                                                                                                                                                |
| Display                                                   |                                                                                                                                                                                                            |
| Design of display                                         | TFT widescreen display, LED backlighting                                                                                                                                                                   |
| Screen diagonal                                           | 22 in                                                                                                                                                                                                      |
| Display width                                             | 497.6 mm                                                                                                                                                                                                   |
| Display height                                            | 292.2 mm                                                                                                                                                                                                   |
| Resolution (pixels)                                       |                                                                                                                                                                                                            |
| • Horizontal image resolution                             | 1 920 pixel                                                                                                                                                                                                |
| • Vertical image resolution                               | 1 080 pixel                                                                                                                                                                                                |
| Control elements                                          |                                                                                                                                                                                                            |
| Touch operation                                           |                                                                                                                                                                                                            |
| • Design as touch screen                                  | Yes; Projective-capacitive                                                                                                                                                                                 |
| Installation type/mounting                                |                                                                                                                                                                                                            |
| Mounting                                                  | For mounting on stand or supporting bracket                                                                                                                                                                |
| Design                                                    | Panel PC on pedestal or supporting arm                                                                                                                                                                     |
| Support arm mounting                                      | No                                                                                                                                                                                                         |
| Stand mounting                                            | Yes; Prepared for pedestal and extension components                                                                                                                                                        |
| Mounting in portrait format possible                      | No                                                                                                                                                                                                         |
| maximum permissible installation angle +/-                | ±45 °                                                                                                                                                                                                      |
| 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                                                                                                                                                                         |
| SSD                                                       | Yes; ≥ 128 GB optional                                                                                                                                                                                     |
| Storage                                                   |                                                                                                                                                                                                            |
| 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                                                                                                                                                         |
| Hardware configuration                                    |                                                                                                                                                                                                            |
| Slots                                                     |                                                                                                                                                                                                            |
| • Number of PCI slots                                     | 0; Different to the built-in unit                                                                                                                                                                          |
| • Number of PCI slots                                     | 0; Different to the built-in unit                                                                                                                                                                          |
| • Number of compact flash slots                           | 1; CFAST                                                                                                                                                                                                   |
| Interfaces                                                |                                                                                                                                                                                                            |

|                                                                            |                                                                                                                                 |
|----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Number of industrial Ethernet interfaces                                   | 3; 3x Ethernet (RJ45)                                                                                                           |
| USB port                                                                   | 4x USB 3.0 onboard (rear)                                                                                                       |
| Connection for keyboard/mouse                                              | USB / USB                                                                                                                       |
| <b>Video interfaces</b>                                                    |                                                                                                                                 |
| • Graphics interface                                                       | 2x DisplayPort                                                                                                                  |
| <b>Industrial Ethernet</b>                                                 |                                                                                                                                 |
| • Industrial Ethernet interface                                            | 3x Ethernet (RJ45)                                                                                                              |
| — 100 Mbps                                                                 | Yes                                                                                                                             |
| — 1000 Mbps                                                                | Yes                                                                                                                             |
| <b>Interrupts/diagnostics/status information</b>                           |                                                                                                                                 |
| Bus diagnostics                                                            | Yes                                                                                                                             |
| <b>Integrated Functions</b>                                                |                                                                                                                                 |
| <b>Monitoring functions</b>                                                |                                                                                                                                 |
| • Temperature monitoring                                                   | Yes                                                                                                                             |
| • Watchdog                                                                 | Yes                                                                                                                             |
| • Fan                                                                      | No                                                                                                                              |
| • Monitoring function via network                                          | Optional                                                                                                                        |
| <b>EMC</b>                                                                 |                                                                                                                                 |
| <b>Interference immunity against discharge of static electricity</b>       |                                                                                                                                 |
| • 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                                        |
| <b>Interference immunity against high-frequency electromagnetic fields</b> |                                                                                                                                 |
| • Interference immunity against high frequency radiation                   | 10 V/m, 80 ... 2 000 MHz, 80 % AM acc. to IEC 61000-4-3; 3 V/m, 2 ... 2.7 GHz; 10 V, 10 kHz ... 80 MHz acc. to IEC 61000-4-6    |
| <b>Interference immunity to cable-borne interference</b>                   |                                                                                                                                 |
| • Interference immunity on supply cables                                   | ±2 kV acc. to IEC 61000-4-4, burst; ±1 kV acc. to IEC 61000-4-5, surge symmetric; ±2 kV acc. to IEC 61000-4-5, surge asymmetric |
| • Interference immunity on signal cables >30m                              | ±2 kV acc. to IEC 61000-4-5, surge, length > 30 m                                                                               |
| • Interference immunity on signal cables < 30m                             | ±1 kV acc. to IEC 61000-4-4; burst; length < 3 m; ±2 kV acc. to IEC 61000-4-4; burst; length > 3 m                              |
| <b>Interference immunity against voltage surge</b>                         |                                                                                                                                 |
| • asymmetric interference                                                  | ±2 kV acc. to IEC 61000-4-5, surge asymmetric                                                                                   |
| • symmetric interference                                                   | ±1 kV acc. to IEC 61000-4-5, surge symmetric                                                                                    |
| <b>Interference immunity to magnetic fields</b>                            |                                                                                                                                 |
| • Interference immunity to magnetic fields at 50 Hz                        | 100 A/m; to IEC 61000-4-8                                                                                                       |
| <b>Emission of conducted and non-conducted interference</b>                |                                                                                                                                 |
| • Interference emission via line/AC current cables                         | EN 61000-6-3, EN 61000-6-4, CISPR 22 Class B, FCC Class A                                                                       |
| <b>Degree and class of protection</b>                                      |                                                                                                                                 |
| IP (at the front)                                                          | IP65                                                                                                                            |
| IP (rear)                                                                  | IP65                                                                                                                            |
| <b>Standards, approvals, certificates</b>                                  |                                                                                                                                 |
| CE mark                                                                    | Yes                                                                                                                             |
| CSA approval                                                               | Yes                                                                                                                             |
| UL approval                                                                | Yes                                                                                                                             |
| • UL 508                                                                   | Yes                                                                                                                             |
| cULus                                                                      | Yes                                                                                                                             |
| RCM (formerly C-TICK)                                                      | Yes                                                                                                                             |
| KC approval                                                                | Yes                                                                                                                             |
| EAC (formerly Gost-R)                                                      | Yes                                                                                                                             |
| EMC                                                                        | CE, EN 61000-6-4; CISPR 22 Class A; FCC Class A                                                                                 |
| <b>Use in hazardous areas</b>                                              |                                                                                                                                 |
| • ATEX Zone 2                                                              | Yes; Optional                                                                                                                   |
| • IECEx Zone 2                                                             | Yes; Optional                                                                                                                   |
| • cULus Class I Zone 2, Division 2                                         | Yes; Optional                                                                                                                   |
| <b>Marine approval</b>                                                     |                                                                                                                                 |
| • Germanischer Lloyd (GL)                                                  | Yes                                                                                                                             |
| • American Bureau of Shipping (ABS)                                        | Yes                                                                                                                             |
| • Det Norske Veritas (DNV)                                                 | Yes                                                                                                                             |
| • Korean Register of Shipping (KRS)                                        | Yes                                                                                                                             |
| • Lloyds Register of Shipping (LRS)                                        | Yes                                                                                                                             |

| Ambient conditions                                            |                                                                                                                                                                         |
|---------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ambient temperature during operation                          |                                                                                                                                                                         |
| • min.                                                        | 0 °C                                                                                                                                                                    |
| • max.                                                        | 45 °C                                                                                                                                                                   |
| Ambient temperature during storage/transportation             |                                                                                                                                                                         |
| • min.                                                        | -20 °C                                                                                                                                                                  |
| • max.                                                        | 60 °C                                                                                                                                                                   |
| Relative humidity                                             |                                                                                                                                                                         |
| • Relative humidity                                           | Tested according to IEC 60068-2-78, IEC 60068-2-30: Operation: 5 % to 85 % at 30 °C (no condensation), storage / transport: 5 % to 95 % at 25 / 55 °C (no 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/s <sup>2</sup> (1 g)                                                                      |
| Shock testing                                                 |                                                                                                                                                                         |
| • Shock load during operation                                 | Tested according to IEC 60068-2-27, IEC 60068-2-29: half-sine: 50 m/s <sup>2</sup> (5 g), 30 ms, 100 shocks per axis                                                    |
| 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 64 bit                                                                                                                                                    |
| • Windows 10 Enterprise                                       | Yes; Windows 10 Enterprise 2016 LTSC, 64 bit, MUI                                                                                                                       |
| Dimensions                                                    |                                                                                                                                                                         |
| Width of the housing front                                    | 527 mm                                                                                                                                                                  |
| Height of housing front                                       | 329 mm; Without basic adapter                                                                                                                                           |
| Weights                                                       |                                                                                                                                                                         |
| Weight, approx.                                               | 9.3 kg                                                                                                                                                                  |
| Classifications                                               |                                                                                                                                                                         |

|        | Version | Classification |
|--------|---------|----------------|
| eClass | 14      | 19-20-01-03    |
| eClass | 12      | 19-20-01-03    |
| eClass | 9.1     | 19-20-01-03    |
| eClass | 9       | 19-20-01-03    |
| eClass | 8       | 27-24-23-01    |
| eClass | 7.1     | 27-24-23-01    |
| eClass | 6       | 27-24-23-01    |
| ETIM   | 10      | EC001414       |
| ETIM   | 9       | EC001414       |
| ETIM   | 8       | EC001414       |
| ETIM   | 7       | EC001414       |

| Approvals / Certificates |                                |
|--------------------------|--------------------------------|
| General Product Approval | For use in hazardous locations |

[Miscellaneous](#)



[BIS CRS](#)

[China RoHS](#)



For use in hazardous locations

Maritime application

[Miscellaneous](#)



|                                                |                                                   |                                                 |
|------------------------------------------------|---------------------------------------------------|-------------------------------------------------|
| <a href="#">NK / Nippon Kaiji Ky-<br/>okai</a> | <a href="#">Dangerous goods in-<br/>formation</a> | <a href="#">Test Summary Report<br/>UN 38.3</a> |
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