## **SIEMENS**

## **Data sheet**

## 6AV7880-0BB12-2DA2

SIMATIC ITP1000, 8 function keys, Ethernet 10/100/1000 Mbit/s, 1x RS232, 2x USB 3.0, 1x UAJ, 1x USB type-C, 1x SD card reader, Wifi 802.11 a/b/c/g, Bluetooth, Lithium-ion battery; 10" Multitouch (1280 x 800); camera on the rear side, 5 megapixel; 512 GB SSD; Windows 7 Ultimate 64 bit SP1, MUI (de, en, fr, es, it); Core I5-6442EQ; 16 GB RAM; 110/230 V AC power supply unit, Power supply cable for USA; without software (included);

| Consuel information                             | supply cable for OSA, without software (included);  |
|---|---|
| General information                             | THIP  |
| Design of the programming device                | Tablet PC   |
| Display   |   |
| Design of display                               | 10" multi-touch   |
| Resolution (pixels)                             |   |
| <ul> <li>Horizontal image resolution</li> </ul> | 1 280 pixel; 1 920 pixels   |
| Vertical image resolution                       | 800 pixel; 1 200 pixels   |
| General features                                |   |
| Luminance                                       | 220 cd/m²; 350 cd/m²  |
| Backlighting                                    |   |
| Type of backlighting                            | LED   |
| Control elements                                |   |
| Keyboard fonts                                  |   |
| Design  | Touch   |
| Touch operation                                 |   |
| <ul> <li>Integrated touch pad</li> </ul>        | No  |
| Supply voltage                                  |   |
| Design of the power supply                      | External wide-range power supply; 3-pole  |
| permissible range, lower limit (AC)             | 100 V; ±10 %, sinusoidal  |
| permissible range, upper limit (AC)             | 240 V; ±10 %, sinusoidal  |
| Line frequency                                  |   |
| permissible range, lower limit                  | 47 Hz   |
| permissible range, upper limit                  | 63 Hz   |
| Processor                                       |   |
| Processor type                                  | Celeron G3902 (2C/2T, 1.6 GHz, 2 MB cache); Intel Core i5-6442EQ (6 MB cache, up to 2.70 GHz, iAMT) |
| Hyper-threading                                 | No  |
| Turbo Boost Technology 2.0                      | Yes   |
| Graphic   |   |
| Graphics controller                             | Intel® HD graphics 530  |
| Drives  |   |
| SSD   | Yes   |
| <ul> <li>Memory capacity</li> </ul>             | 256 Gbyte; Up to 512 GB SSD   |
| TPM Security Chip                               | Yes   |
| Memory  |   |
| Type of memory                                  | DDR4-SDRAM SO-DIMM  |
| Work memory                                     |   |
| • integrated                                    | 4 Gbyte; 8 GB or 16 GB  |
| Accumulator                                     | ,,  |
| Replaceable                                     | Yes; Lithium-ion battery  |
| Capacity  | 5 900 mA·h  |
| Battery runtime, min.                           | 6 h; According to MobileMark 2014   |
| Interfaces                                      | TI, 7 GOOTHING TO INIODIIGHTEE 20 17  |
| Number of industrial Ethernet interfaces        | 1   |
| Number of RS 232 interfaces                     | 1<br>1  |
|   |   |
| Number of USB interfaces                        | 3; USB 3.0  |
| • Type A  | 2   |
| Type C  | 1   |

| But the first test to  | V V/A  |
|--|--|
| Bluetooth radio standard   | Yes; V4.0  |
| Multimedia card/SD card slot   | 2 in 1 (SDHC UHS-II, MMC)  |
| Universal Audio Jack   | Yes; Audio socket for 3.5 mm jack  |
| Video interfaces  • DisplayPort  | Yes; DP 1.2 (Mini DisplayPort)   |
| Industrial Ethernet  | Tes, DF 1.2 (Willi DisplayFort)  |
| Industrial Ethernet interface  | 1x Ethernet (RJ45)   |
| — 100 Mbps   | Yes  |
| — 1000 Mbps  | Yes  |
| IAMT (Intel Active Management Technology)  | Yes  |
| WLAN   |  |
| • Type   | IEEE 802.11 a/b/g/n and ac   |
| Wireless transmission  |  |
| Protocol for wireless transmission   | Legic Prime, Legic Advant, ISO 15693, ISO 14443 A/B  |
| <ul> <li>Operating frequency (rated value)</li> </ul>  | 13.56 MHz  |
| • Range, max.  | 30 mm; Range depends on transponder  |
| Interrupts/diagnostics/status information  |  |
| LED status display   | Battery charge level, device status, access to drive, WLAN active, SD card,  |
| ENC  | application LED  |
| EMC  |  |
| Interference immunity against discharge of static electricity  | Veg. 14 IV/ contect dischars - (1- IEO 004 0/IEO 4000 4 0 EOD) - 0 IV/   |
| <ul> <li>Interference immunity against discharge of static<br/>electricity acc. to IEC 61000-4-2</li> </ul>  | Yes; ±4 kV contact discharge (to IEC 801-2/IEC 1000-4-2; ESD), ±8 kV air discharge (to IEC 801-2/IEC 1000-4-2; ESD)  |
| Interference immunity to cable-borne interference  |  |
| Interference immunity on supply cables   | ±2 kV (according to IEC 61000-4-4, burst); ±1 kV (according to IEC 61000-4-5,  |
|  | surge pulse/line to line); ±2 kV (according to IEC 61000-4-5, surge pulse/line to  |
| Interference immunity on signal cables   | ground) ±1 kV (according to IEC 61000-4-4, burst, length < 30 m); ±2 kV (according to  |
| • Interierence infinitifity off signal cables  | IEC 61000-4-4, burst, length > 30 m); ±2 kV (according to IEC 61000-4-5, surge   |
|  | sym./line to ground, length > 30 m)  |
| Degree and class of protection   |  |
| IP degree of protection  | IP40   |
| Standards, approvals, certificates   |  |
| CE mark  | Yes  |
| UL approval  | Yes  |
| DIN/ISO 9001   | Yes  |
| Military use  • Conforms to MIL-STD-810G   | Yes  |
| Ambient conditions   | Tes  |
| Ambient temperature during operation   |  |
| min.   | 5 °C; Max. 10 °C/h (no condensation)   |
| • max.   | 45 °C; Max. 10 °C/h (no condensation)  |
| Ambient temperature during storage/transportation  | is a, maximum control of the control |
|  |  |
| • min.   | -20 °C; Max. 20 °C/h (no condensation)   |
| • min. • max.  | -20 °C; Max. 20 °C/h (no condensation) 60 °C; Max. 20 °C/h (no condensation)   |
|  |  |
| • max.   | 60 °C; Max. 20 °C/h (no condensation)  5 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC  |
| max.  Relative humidity  Operation, min.   | 60 °C; Max. 20 °C/h (no condensation)  5 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14   |
| max.  Relative humidity  | 60 °C; Max. 20 °C/h (no condensation)  5 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14  85 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC  |
| max.  Relative humidity  Operation, min.   | 60 °C; Max. 20 °C/h (no condensation)  5 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14   |
| <ul> <li>max.</li> <li>Relative humidity</li> <li>Operation, min.</li> <li>Operation, max.</li> </ul>  | 60 °C; Max. 20 °C/h (no condensation)  5 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14  85 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC  |
| <ul> <li>max.</li> <li>Relative humidity</li> <li>Operation, min.</li> <li>Operation, max.</li> </ul> Vibrations   | 60 °C; Max. 20 °C/h (no condensation)  5 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14  85 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14   |
| <ul> <li>max.</li> <li>Relative humidity</li> <li>Operation, min.</li> <li>Operation, max.</li> </ul> Vibrations <ul> <li>Operation, tested according to IEC 60068-2-6</li> </ul>  | 60 °C; Max. 20 °C/h (no condensation)  5 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14  85 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14   |
| <ul> <li>max.</li> <li>Relative humidity</li> <li>Operation, min.</li> <li>Operation, max.</li> </ul> Vibrations <ul> <li>Operation, tested according to IEC 60068-2-6</li> </ul> Shock testing  | 60 °C; Max. 20 °C/h (no condensation)  5 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14  85 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14  Yes  |
| <ul> <li>max.</li> <li>Relative humidity</li> <li>Operation, min.</li> <li>Operation, max.</li> </ul> Vibrations <ul> <li>Operation, tested according to IEC 60068-2-6</li> </ul> Shock testing <ul> <li>tested according to IEC 60068-2-27</li> </ul>   | 60 °C; Max. 20 °C/h (no condensation)  5 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14  85 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14  Yes  |
| max.  Relative humidity     Operation, min.     Operation, max.  Vibrations     Operation, tested according to IEC 60068-2-6  Shock testing     tested according to IEC 60068-2-27  Operating systems  Local language of operating system  | 60 °C; Max. 20 °C/h (no condensation)  5 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14  85 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14  Yes  Yes   |
| max.  Relative humidity  | 60 °C; Max. 20 °C/h (no condensation)  5 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14  85 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14  Yes  Yes  Multi-Language User Interface (MUI): 6 languages (English, German, French, Spanish, Italian, Chinese)  |
| <ul> <li>max.</li> <li>Relative humidity</li> <li>Operation, min.</li> <li>Operation, max.</li> <li>Vibrations         <ul> <li>Operation, tested according to IEC 60068-2-6</li> </ul> </li> <li>Shock testing         <ul> <li>tested according to IEC 60068-2-27</li> </ul> </li> <li>Operating systems         <ul> <li>Local language of operating system</li> <li>windows 7</li> </ul> </li> </ul>                                     | 60 °C; Max. 20 °C/h (no condensation)  5 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14  85 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14  Yes  Yes  Multi-Language User Interface (MUI): 6 languages (English, German, French, Spanish, Italian, Chinese)  Yes; Ultimate 64 bit, SP1   |
| <ul> <li>max.</li> <li>Relative humidity</li> <li>Operation, min.</li> <li>Operation, max.</li> <li>Vibrations <ul> <li>Operation, tested according to IEC 60068-2-6</li> </ul> </li> <li>Shock testing <ul> <li>tested according to IEC 60068-2-27</li> </ul> </li> <li>Operating systems <ul> <li>Local language of operating system</li> </ul> </li> <li>pre-installed operating system</li> <li>Windows 7</li> <li>Windows 10</li> </ul> | 60 °C; Max. 20 °C/h (no condensation)  5 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14  85 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14  Yes  Yes  Multi-Language User Interface (MUI): 6 languages (English, German, French, Spanish, Italian, Chinese)  |
| max.  Relative humidity         Operation, min.         Operation, max.  Vibrations         Operation, tested according to IEC 60068-2-6  Shock testing         tested according to IEC 60068-2-27  Operating systems  Local language of operating system  pre-installed operating system         Windows 7         Windows 10  Software   | 60 °C; Max. 20 °C/h (no condensation)  5 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14  85 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14  Yes  Yes  Multi-Language User Interface (MUI): 6 languages (English, German, French, Spanish, Italian, Chinese)  Yes; Ultimate 64 bit, SP1   |
| <ul> <li>max.</li> <li>Relative humidity</li> <li>Operation, min.</li> <li>Operation, max.</li> <li>Vibrations <ul> <li>Operation, tested according to IEC 60068-2-6</li> </ul> </li> <li>Shock testing <ul> <li>tested according to IEC 60068-2-27</li> </ul> </li> <li>Operating systems <ul> <li>Local language of operating system</li> </ul> </li> <li>pre-installed operating system</li> <li>Windows 7</li> <li>Windows 10</li> </ul> | 60 °C; Max. 20 °C/h (no condensation)  5 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14  85 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14  Yes  Yes  Multi-Language User Interface (MUI): 6 languages (English, German, French, Spanish, Italian, Chinese)  Yes; Ultimate 64 bit, SP1   |

| <ul> <li>STEP 7 Professional (TIA Portal)</li> </ul> | No   |  |
|--|--|--|
| • STEP 7   | No   |  |
| <ul> <li>WinCC flexible Advanced 2008</li> </ul>     | No   |  |
| <ul> <li>WinCC Advanced (TIA Portal)</li> </ul>      | No   |  |
| • STEP 5   | No   |  |
| Mechanics/material                                   |  |  |
| Material of housing                                  | metal  |  |
| Magnesium alloy                                      | Yes  |  |
| Socket for Kensington lock                           | Yes  |  |
| rubber corner guards                                 | Yes  |  |
| Dimensions   |  |  |
| Width  | 330 mm   |  |
| Height   | 32 mm  |  |
| Depth  | 214 mm   |  |
| Weights  |  |  |
| Weight, approx.                                      | 1.6 kg; incl. rechargeable battery                     |  |
| Scope of supply                                      |  |  |
| Accumulator  | Yes  |  |
| Power supply   | Yes  |  |
| Recovery media                                       | Yes; Restore & Recovery                                |  |
| Other  |  |  |
| free hotline   | Yes  |  |
| Note:  | Made in Germany: development and production in Germany |  |

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