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## Data sheet 6AU1435-2AD00-0AA0



SIMOTION Drive-based Control Unit D435-2 DP/PN; programmable motion controller; STANDARD performance; interfaces: 12 DI, 16 DI/DO, 6 DRIVE-CLiQ, 2 PROFIBUS, 3 PROFINET ports, 2 ethernet, 2 USB, 1 option slot; incl. dual fan / battery module and battery

| | |
|---|---|
| product brand name | SIMOTION |
| product type designation | D435-2 DP/PN |
| Performance class for motion control system | STANDARD Performance |
| Version of the motion control system | Multiple-axis system |
| **PLC and motion control performance** | |
| number of axes / maximum | 32 |
| Minimum PROFIBUS cycle clock | 1 ms |
| Minimum PROFINET send cycle clock | 0.25 ms |
| Minimum interpolator cycle clock | 0.25 ms |
| Minimum servo cycle clock | 0.25 ms |
| ● note | 0.25 ms for SERVO or SERVO-FAST |
| **Integrated drive control / header** | |
| Maximum number of axes for integrated drive control | |
| ● servo | 6 |
| ● vector | 6 |
| ● V/f | 12 |
| ● note | Alternative control modes; drive control based on SINAMICS S120 CU320-2, firmware version V4.x/V5.x |
| **Memory** | |
| RAM (work memory) | 109 Mbyte |
| Additional RAM work memory for Java applications | 20 Mbyte |
| RAM disk (load memory) | 50 Mbyte |
| Retentive memory | 364 kbyte |
| Persistent memory (user data on CF) | 1.5 Gbyte |
| **Communication** | |
| Interfaces | |
| ● DRIVE-CLiQ | 6 |
| ● USB | 2 |
| ● Industrial Ethernet | 2 |
| ● PROFIBUS | 2 |
| — note | Equidistant and isochronous; Can be configured as master or slave |
| ● PROFINET | 1 |
| — note | 1 interface with 3 ports onboard; 1 interface with 4 ports optional via CBE30-2; functionality: supports PROFINET IO with IRT and RT; configurable as PROFINET IO Controller and/or Device; supports media redundancy (MRP and MRPD) |
| **General technical data** | |
| Fan | Double fan/battery module included in scope of delivery |
| DC supply voltage | |
| ● rated value | 24 V |


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| | |
|---|---|
| ● minimum | 20.4 V |
| ● maximum | 28.8 V |
| consumed current / typical | 1 000 mA |
| ● note | with no load on inputs/outputs, no 24 V supply via DRIVE-CLiQ and PROFIBUS interface |
| Making current, typ. | 5 A |
| Power loss, typ. | 24 W |
| Ambient temperature, during | |
| ● long-term storage | -25 ... +55 °C |
| ● transport | -40 ... +70 °C |
| ● operation | 0 ... 55 °C |
| — note | Maximum installation altitude 4000 m (13124 ft) above sea level. Above an altitude of 2000 m (6562 ft), the maximum ambient temperature decreases by 7 °C (12.6 °F) per 1000 m (3281 ft). |
| Relative humidity | |
| ● during operation | 5 ... 95 % |
| ● without condensation, tested acc. to IEC 60068-2-38 | Wert fehlt |
| Product property / Conformal coating | No |
| Resistance | |
| ● to biologically active substances, / conformity acc. to EN 60721-3-3 | No |
| ● to chemically active substances, / conformity acc. to EN 60721-3-3 | No |
| Air pressure | 620 ... 1 060 hPa |
| Degree of protection | IP20 / UL open type |
| height | 380 mm |
| width | 50 mm |
| ● depth | 270 mm |
| ● Depth / Note | When the spacer is removed 230 mm (9.05 in) deep |
| net weight | 3 700 g |
| **Digital inputs / header** | |
| number of digital inputs | 12 |
| DC input voltage | |
| ● rated value | 24 V |
| ● for signal "1" | 15 ... 30 V |
| ● for signal "0" | -3 ... +5 V |
| Electrical isolation | Yes |
| ● note | Yes, in groups of 6 |
| Current consumption for "1" signal level, typ. | 9 mA |
| Input delay time for | |
| ● signal "0" → "1", typ. | 50 µs |
| ● signal "1" → "0", typ. | 150 µs |
| **Digital inputs/outputs / header** | |
| Number of digital I/Os | 16 |
| Parameterization possibility of the digital I/Os | can be parameterized - as DI - as DO - as probe input (max. 16) - as cam output (max. 8) |
| **If used as an input / header** | |
| DC input voltage | |
| ● rated value | 24 V |
| ● for signal "1" | 15 ... 30 V |
| ● for signal "0" | -3 ... +5 V |
| Electrical isolation | No |
| Current consumption for "1" signal level, typ. | 9 mA |
| Input delay time for | |
| ● signal "0" → "1", typ. | 5 µs |
| ● signal "1" → "0", typ. | 50 µs |
| Measuring input / reproducibility | 5 µs |
| Measuring input / resolution | 1 µs |
| **If used as an output / header** | |


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| | |
|---|---|
| Load voltage | |
| ● rated value | 24 V |
| ● minimum | 20.4 V |
| ● maximum | 28.8 V |
| Electrical isolation | No |
| Current carrying capacity for each output, max. | 500 mA |
| Leakage current, max. | 2 mA |
| Output delay for | |
| ● signal "0" → "1", typ. | 150 µs |
| ● signal "0" → "1", max. | 400 µs |
| ● signal "1" → "0", typ. | 75 µs |
| ● signal "1" → "0", max. | 150 µs |
| — note | Data for Vcc = 24 V; load 48 Ohm; "1" = 90 % VOut, "0" = 10 % VOut |
| Cam output | |
| ● reproducibility | 10 µs |
| ● resolution | 1 µs |
| Switching frequency of the outputs for | |
| ● resistive load, max. | 4 kHz |
| ● inductive load, max. | 2 Hz |
| ● lamp load, max. | 11 Hz |
| Short-circuit protection | Yes |
| **Additional technical data** | |
| Back-up of non-volatile data | |
| ● of retentive data | unlimited buffer duration |
| ● of real-time clock, min. | 4 d |
| ● note | longer buffer duration of the real-time clock using a battery inserted in the double fan/battery module |
| Approvals | |
| ● USA | cULus |
| ● Canada | cULus |
| ● Australia | RCM (formerly C-Tick) |
| ● Korea | KCC |
| ● Russia, Belarus and Kazakhstan | EAC |




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