SIEMENS

Product data sheet 6AU1425-2AD00-0AA0

Fig. similar

SIMOTION DRIVE-BASED CONTROL UNIT D425-2 DP/PN;
PROGRAMMABLE MOTION CONTROLLER;
BASIC PERFORMANCE;
INTERFACES: 12 DI, 16 DI/DO,
4 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	D425-2 DP/PN
Performance class for motion control system	BASIC Performance
Version of the motion control system	Multiple-axis system
PLC and motion control performance	
Maximum number of axes	16
Minimum PROFIBUS cycle clock	1 ms
Minimum PROFINET send cycle clock	0.25 ms
Minimum servo cycle clock	0.5 ms
Minimum interpolator cycle clock	0.5 ms
Integrated drive control	
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
Memory	
RAM (work memory)	48 Mbyte
Additional RAM work memory for Java applications	20 Mbyte
RAM disk (load memory)	31 Mbyte
Retentive memory	364 kbyte
Persistent memory (user data on CF)	300 Mbyte
Communications	
Interfaces	4
Interfaces	2
Interfaces	2
Interfaces	2
• PROFIBUS	Equidistant and isochronous; Can be configured as master or slave
Interfaces	1
• PROFINET	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 Control and/or device - supports media redundancy (MRP and MRPD)
General technical data	
Fan	Double fan/battery module included in scope of delivery
Supply voltage	
• rated value	24 V
Making current, typ.	5 A
Power loss, typ.	24 W
Ambient temperature	
• during long-term storage	-25 … +55 °C
• during transport	-40 … +70 °C
• during operating	0 … 55 °C
• note	Maximum installation altitude 4000 m above sea level. Above an altitude of 2000 m, the maximum ambient temperature decreases by 7 °C per 1000 m.
Relative humidity / without condensation	

• during operating phase	5 … 95 %
Air pressure	620 … 1060 hPa
Protection class IP	IP20
Dimensions	380 mm
Dimensions	50 mm
Depth	270 mm
• remark	when the spacer is removed 230 mm deep
Weight, approx.	3600 g
Digital inputs	
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	
Number of digital inputs/outputs	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	
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
• resolution	1 µs
If used as an output	
Load voltage	
• rated value	24 V
• minimum	20.4 … 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	10 µs
Cam output	1 µs
Switching frequency of the outputs for	
• resistive load, max.	100 Hz
• inductive load, max.	2 Hz
• lamp load, max.	11 Hz
Short-circuit protection	Yes
If used as an current input	
Backup 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	C-Tick
Further information	