S-DIAS CPU Unit
CP 833

with 1 EtherCAT
1 Ethernet
2 VARAN, 1 CAN
2 USB 2.0 (Type A), 1 USB 3.2 (Type C)

The S-DIAS CPU unit CP 833 is equipped with an Intel® Atom x6413E. The CPU unit is used to control S-DIAS modules and has various interface connections. Status LEDs directly on the CPU unit provide current CPU status information. The CPU unit is mounted directly on the DIN rail.

Performance Data

Processor	Intel® Atom x6413E
Processor cores	4
Processor clock	1.5 GHz
Internal program and data memory (RAM)	4-Gbyte DDR4, 3200 MHz
Internal remnant data memory	1-Mbyte MRAM
Internal storage device	128-Gbyte M.2 SATA SSD
Graphic	Intel® UHD Graphics
Addressable I/O/P modules	VARAN Bus: 65,280 CAN Bus: > 100 S-DIAS Bus: 64
Interfaces	1x EtherCAT Drive Controller (100) 1x Ethernet (10/100/1000) 2x VARAN Out Manager 1x CAN 2x USB 2.0 Type A 1x USB 3.2 Gen 1 Type C (only host) 1x S-DIAS
Internal interfaces and devices	M.2 Slot 2280 Key M (SATA 3 / PCIe 3.0 x1, occupied by main memory) Expansion module slot
Controls	2x button (SET/RESET)
Status LEDs	14x Status LEDs 2x 7-Segment Displays
Real-time clock	yes (battery buffered)
Temperature sensors	7 (2x ambient, 5x core temperature sensors)
Input voltage measurement	yes
Cooling	passive

Electrical Requirements

Supply voltage	+24 V DC ±20 % (SELV)	
Protection class	III	
Current consumption of (+24 V) power supply	typically 0.7 A (with no external devices connected)	maximum 3.5 A (with external devices connected)
Inrush current without currentlimiting supply	maximum 45 A (for 153 µs, load-dependent)	
Inrush current with 24 V/10 A fixed voltage supply	maximum 1.5 A (for 6 ms, load-dependent)	
USB host current load (Type A & Type C)	maximum 0.9 A per USB	
Available current for S-DIAS (+5 V)	maximum 1.6 A	
Available current for S-DIAS (+24 V)	maximum 1.6 A	

Environmental Conditions

Storage temperature	-10 ... +70 °C	
Ambient temperature	0 ... +50 °C (65 °C with opt. fan module)	
Humidity	10-95 %, non-condensing	
Installation altitude above sea level	0-2000 m without derating > 2000 m up to a maximum of 5000 m with derating of the maximum environmental temperature by 0.5 °C per 100 m	
Operating conditions	pollution degree 2	
Noise emissions	≤ 70 dB	
EMC resistance	EN 61000-6-2 (industrial area)	
EMC noise generation	EN 61000-6-4 EN 61000-6-3	
Vibration resistance	EN 60068-2-6	3.5 mm from 5-8.4 Hz 1 g from 8.4-150 Hz
Shock resistance	EN 60068-2-27	15 g (147.15 m/s²)
Protection type	EN 60529 protection through housing	IP20

Article Number and Miscellaneous

Article number	20-004-833
Operating system	Salamander
Dimensions	60 x 110 x 193.5 mm (W x H x D)
Standard	cULus (E247993)
Approvals	CE

Notes