

# S-DIAS CPU Unit CP 841



with 2 Ethernet  
2 VARAN, 1 CAN  
2 USB 2.0 (Type A), 1 USB 3.2 (Type C)  
1 S-DVI

The S-DIAS CPU unit CP 841 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	2x 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-DVI 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 (occupied by S-DVI expansion)

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/PELV) UL: NEC Class 2	
Protection class	III	
Current consumption of (+24 V) power supply	typically 0.7 A (with no external devices connected)	maximum 4 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	
Available current for S-DVI	maximum 2 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 (industrial area with S-DVI) EN 61000-6-3 (residential area without S-DVI)	
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	20-004-841
Operating system	Salamander
Dimensions	60 x 110 x 193.5 mm (W x H x D)
Standard	designed according to UL
Approvals	CE

## Notes

