2. Entire device

2.1 Overview of APC810 1 PCI slot variations
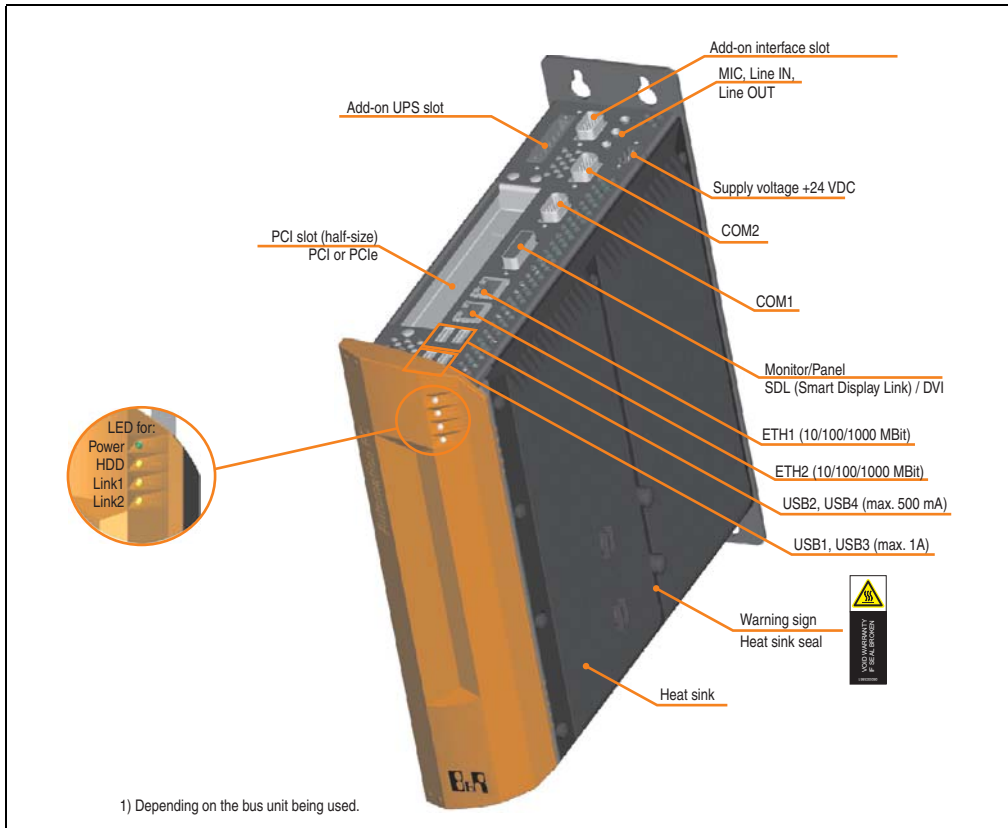
2.1.1 Interfaces

Figure 3: Interface overview - APC810, 1 card slot variant (top)

Warning!

Do not remove the mounting screws from the heat sink, as it is connected to the processor and chipset by a thermal coupling. If this connection is broken, the APC810 must be sent for repair. Removal of the mounting screws, which can be determined by a broken seal, voids all warranty.

During operation, surface temperatures of the heat sink may reach 70°C (warning "hot surface").
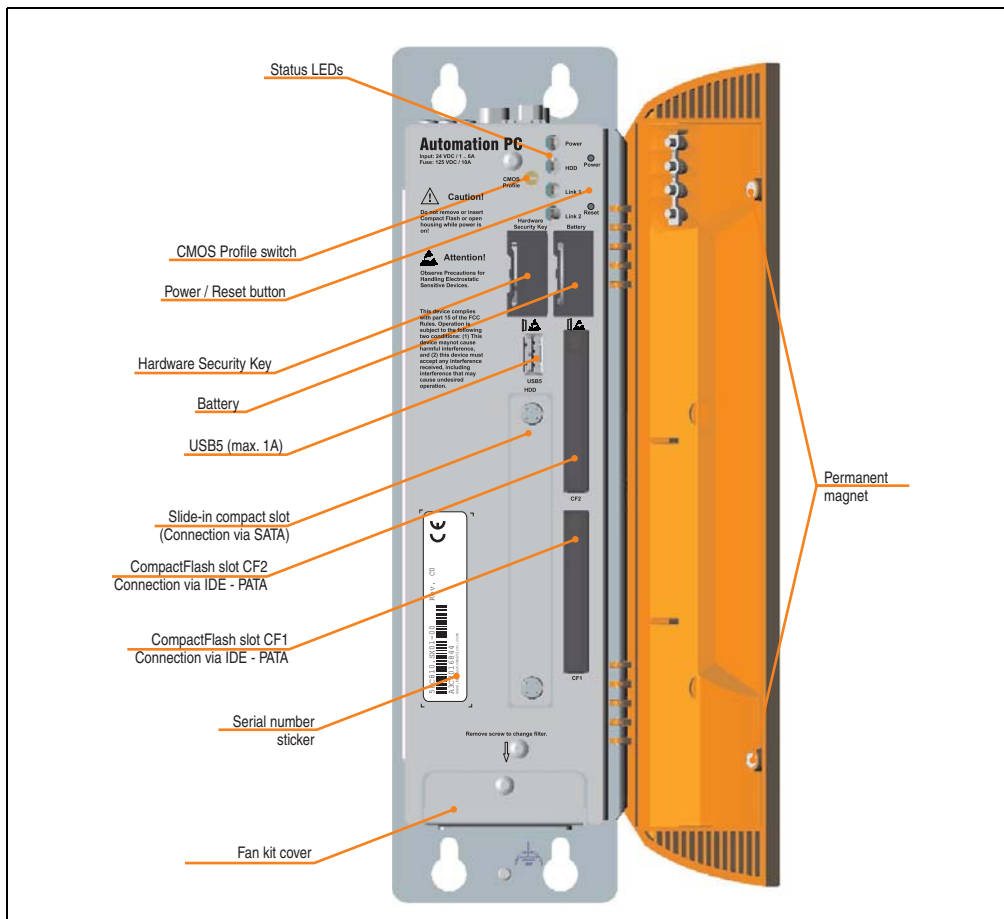
Figure 4: Interface overview - APC810, 1 card slot variant (bottom)

Information:

The front doors contain two permanent magnets. Contact between a data carrier that saves data magnetically (hard disk, diskette, the magnetic strip of a credit card, etc.) and a magnet can cause loss of data.

2.1.2 Technical data

Features	APC810 1 card slot variant
Boot loader / Operating system	BIOS
Processor Cooling Method	Component-dependent, see technical data for the "CPU boards 945GME" on page 95 Passive via heat sink and optionally supported with an active fan kit
Main memory	Max. 3 GB
Graphics Controller	Component-dependent, see technical data for the "CPU boards 945GME" on page 95

Power failure logic
  Controller
  Buffer time
	MTCX[1] (see also page 384)
	10 ms

Real-time clock (RTC)
  Battery-buffered
  Accuracy
	Yes
	see technical data of the "CPU boards 945GME" on page 95

SRAM
  Battery-buffered
  Quantity
	Yes
	512 kB

Battery
  Type
  removable
  Lifespan
	See also page 84
	Renata 950 mAh
	Yes, accessible behind the orange front doors
	2 1/2 years[2]

Ethernet
  Amount
  Speed
  Controller
	2
	10/100/1000 MBit/s
	See also page 73 or page 75

CAN bus	Optional with add-on interface (5AC600.CANI-00)

CompactFlash
  Type
  Amount
	See also page 86 or page 87
	Type I
	2

Serial interface
  Amount
  Type
  UART
  Transfer rate
  Connection
	See also page 72 or page 73
	2
	RS232, modem-capable, not electrically isolated
	16550-compatible, 16-byte FIFO
	Max. 115 kBaud
	9-pin DSUB

USB interface
  Type
  Amount
  Transfer rate
  Connection
  Current load
	Also see page 76
	USB 2.0
	5
	Low speed (1.5 MBit/s), full speed (12 MBit/s), to high speed (480 Mbit/s)
	Type A
	Max. 500 mA or 1 A per connection

Reset button	Yes, accessible behind the orange front doors
LEDs	4 directed outwards via fiber optic lines, see also section "status LEDs" on page 81

Card slots
  Amount
  half-size
	See also section "Card slot (PCI / PCIe)" on page 80
	1
	Dimensions of the PCI / PCIe cards vary

Add-on UPS slot	Yes

Table 15: Technical data - APC810, 1 card slot variant

Features	APC810 1 card slot variant
AP Link slot	-
Electrical characteristics	

Power supply
    Rated voltage
    Rated current
    Starting current
    Power consumption
	24 VDC ± 25%
	6 A
	Typ. 7 A, max. 50 A < 300μs
	Component-dependent, see section "Powercalculation with 5PC810.SX01-00 Revision >= D0" on page 57

Mechanical characteristics	

Housing[3]
    Material
    Paint
    Front cover
	Galvanized plate, plastic
	Light gray (similar to Pantone 427CV), dark gray (similar to Pantone 432CV)
	Colored orange plastic (similar to Pantone 144CV)

Outer dimensions	See section "Dimensions - APC810 1 card slot variant" on page 39.
Weight	approx. 2.2 kg (component-dependent)
Environmental characteristics	

Ambient temperature
    Operation
    Storage
    Transport
	Component-dependent - see section 2.4 "Ambient temperatures" on page 50
	-20°C .. +60°C
	-20°C .. +60°C

Relative humidity
    Operation
    Storage
    Transport
	Component-dependent, see section "Humidity specifications" on page 55
	Component-dependent, see section "Humidity specifications" on page 55
	Component-dependent, see section "Humidity specifications" on page 55

Vibration[4]
    Operation (continuous)
    Operation (occasional)
    Storage
    Transport
	2 - 9 Hz: 1.75 mm amplitude / 9 - 200 Hz: 0.5 g
	2 - 9 Hz: 3.5 mm amplitude / 9 - 200 Hz: 1 g
	2 - 8 Hz: 7.5 mm amplitude / 8 - 200 Hz: 2 g / 200 - 500 Hz: 4 g
	2 - 8 Hz: 7.5 mm amplitude / 8 - 200 Hz: 2 g / 200 - 500 Hz: 4 g

Shock[4]
    Operation
    Storage
    Transport
	15 g, 11 ms
	30 g, 15 ms
	30 g, 15 ms

Protection type	IP20
Altitude Operation	max. 3000 m[5] (component-dependent)

Table 15: Technical data - APC810, 1 card slot variant (Forts.)

1) Maintenance Controller Extended.

2) at 50°C, 8.5 μA of the supplied components and a self discharge of 40%.

3) Depending on the process or batch, there may be visible deviations in the color and surface structure.

4) Maximum values, as long as no other individual component specifies any other.

5) Derating the maximum ambient temperature - typically 1°C per 1000 meters (from 500 meters above sea level).

2.1.3 Dimensions

The figure contains the following dimension labels and information:

71, 18, 35, ⌀ 5.4, 9, 42.7, ⌀ 11, 184.6, 244, 18, Automation PC

2.5, 24, 270, 222, 15, 13, 00, 260, 00, 5, Automation PC

3, 65.5, "A", 252.7, 241, 71

Information:

Measurement "A" depends on which heat sink is used.

Model number	Value in mm
5AC801.HS00-00	12.8
5AC801.HS00-01	28

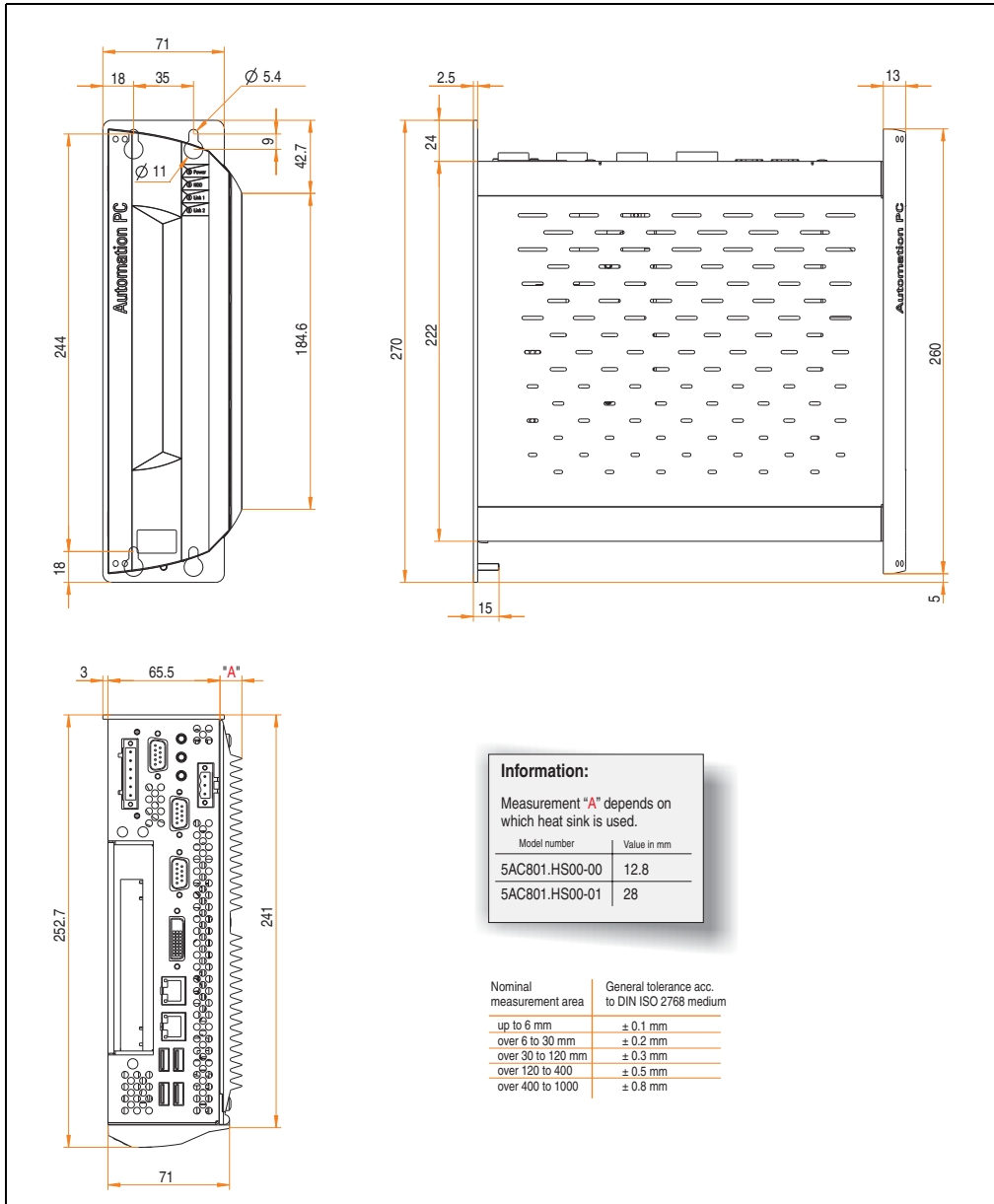| Nominal measurement area	General tolerance acc. to DIN ISO 2768 medium
up to 6 mm	± 0.1 mm
over 6 to 30 mm	± 0.2 mm
over 30 to 120 mm	± 0.3 mm
over 120 to 400	± 0.5 mm
over 400 to 1000	± 0.8 mm

Figure 5: Dimensions - APC810 1 card slot variant

Chapter 2
Technical data