



# Hardbook SoftPLC® Processor

## Cat. No. HB2-HPQA-x

### General Description

Hardbook SoftPLC's are open architecture controller CPU's that can connect to a wide variety of I/O and communication networks. Hardbook SoftPLC's are customized at the factory to application specific configurations and include hardware assembly, driver installation, system software configuration, and system level testing.

Hardbook SoftPLC models differ only in the discrete I/O capacity (see table). Analog or special purpose module I/O channels allowed are limited only by the selected hardware, not the SoftPLC. For Allen-Bradley Remote I/O, allow for 16 discrete input points and 16 discrete output points per block transfer module.

### Features

Hardbook SoftPLC's include the rich set of functions provided by SoftPLC Control Software, including:

- ◆ Powerful Ladder Logic instruction set
- ◆ Loadable Instructions for specialized or user-written functions
- ◆ Unlimited user application memory for logic and data table
- ◆ All application documentation resides in the SoftPLC CPU
- ◆ Wide variety of I/O Drivers - ModbusTCP, Tealware™, Profibus, DeviceNet, A-B RIO, many others
- ◆ Communication Drivers - A-B Ethernet, DF1, Modbus serial, Modbus TCP/UDP, others
- ◆ Compatible with all HMI/SCADA products
- ◆ Embedded Gatecraft™ Firewall technology (optional)
- ◆ Ladder logic/data table addressing similar to Allen-Bradley PLC-5/ SLC-500 with import/conversions available
- ◆ (2) Ethernet, (4) Serial, (5) USB communication ports
- ◆ Heavy Duty Metal Enclosure with mounting brackets
- ◆ Fanless operation
- ◆ Externally accessible CFast card socket
- ◆ (2) PCI and (2) Mini-PCIe sockets for I/O or other interfaces
- ◆ Internal expansion slot for solid state/ hard disk



Front View



Rear View

Catalog Number	Discrete Inputs	Discrete Outputs	ModbusTCP Servers	Ethernet/IP Conn. Bytes
HB2-HPQA-1K	up to 1024	up to 1024	16	512
HB2-HPQA-2K	up to 2048	up to 2048	32	1024
HB2-HPQA-8K	up to 8192	up to 8192	128	4096

# Hardbook SoftPLC Specifications

Hardbook HB2-HPQA-x Specifications		
System Hardware		
<b>CPU</b>	1.91GHz Intel Atom quad core	
<b>Memory</b>	2GB DDRAM, up to 8GB optional	
<b>Storage</b>	Industrial Cfast card (option) Externally accessible in locked socket	
<b>Expansion</b>	(2) PCI slots, (2) Mini-PCIe sockets	
I/O Interfaces		
<b>Ethernet</b>	(2) 10/100/1000 MB ports, RJ45	
<b>Serial</b>	(2) RS-232 ports, (2) RS-232/422/485 ports, DB9 connectors	
<b>USB</b>	(4) USB 2.0 ports, (1) USB 3.0 port (900mA max)	
<b>Other</b>	SATA 2.0 2.5" HDD, status LED's, Mic-in/Line-out, Dual Independent display (HDMI, DVI-I)	
Power Supply		
<b>Type</b>	3 pin terminal	
<b>Input Requirement</b>	9 - 30 VDC	
<b>Option</b>	24V/60W adapter for AC input power	
Enclosure		
<b>Construction</b>	Heavy Duty Aluminum, Fanless	
<b>Mounting</b>	Panel Mount Brackets included	
<b>Dimensions (LxWxH)</b>	7.7 x 7.87 x 4.37 in	195 x 200 x 111 mm
<b>Weight (approx.)</b>	10 lbs	4.5 kg
Environmental		
<b>Operating Temp</b>	-20 ~ 70 °C	23 ~ 131°F
<b>Storage Temp</b>	-30 ~ 85°C	-4 ~ 176°F
<b>Humidity</b>	10 ~ 95%, non-condensing	
<b>Shock/Vibration</b>	CFast: 50G, half-sine, 11ms, 2Grms @5~500Hz random, 2Grms @5~500Hz Sinusoidal	
<b>Standards</b>	CE/FCC/RoHS	

Recommended Options	
<b>ICO-PS12024</b>	DIN-rail mount Power Supply, 100W, 24VDC out, 120VDC in
<b>SPZ-WEB</b>	SoftPLC Embedded Web Server
<b>SPZ-FW</b>	SoftPLC Embedded Firewall
<b>ICO-SSx</b>	Surge Suppression Equipment
<b>TDNG-FN-x</b>	TOPDOC NexGen Development/Maintenance Software

HB2-HPQA-x Mounting Diagram  
(Dimensions in mm)

