



# Hardbook SoftPLC™ Processor

## Cat. No. HB-H0QA-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.



Front View



Rear View

### 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) Mini-PCIe sockets for I/O or other interfaces
- ◆ Internal expansion slot for solid state/hard disk

Catalog Number	Discrete Inputs	Discrete Outputs
HB-H0QA-1K	up to 1024	up to 1024
HB-H0QA-2K	up to 2048	up to 2048
HB-H0QA-8K	up to 8192	up to 8192

# Hardbook SoftPLC Specifications

Hardbook HB-H0QA-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>	4GB Industrial CFast card, expandable Externally accessible in locked socket	
<b>Expansion</b>	(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 port, DB9 connectors	
<b>USB</b>	(4) USB 2.0 ports, (1) USB 3.0 (900mA max)	
<b>Other</b>	SATA 2.0 2.5" HDD, status LED's, Mic-in/Line-out, Dual Independent display (HDMI, DVI-D)	
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>	7.52 x 7.87 x 2.36 in	191 x 200 x 60 mm
<b>Weight (approx.)</b>	6 lbs	2.8 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-PS6024</b>	Din Rail Mount Power Supply, 60W, 24VDC
<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

HB-H0QA-x Mounting Diagram  
(Dimensions in mm)

