

Highlights

The Harmony Network Communications Coupler serves as a gateway between the Control Network (Cnet) and the Operations Network (Onet) of the Symphony™ Enterprise Management and Control System. It is a real-time data server that provides high-speed, high volume, bidirectional data access to single or multiple client applications. The primary functions of the coupler are to allow an Onet device to access process and system data and to perform process tuning and control functions where appropriate.

On the Cnet side, the coupler operates as a Cnet-to-computer interface to allow communication with Harmony control units (HCU). An HCU is comprised of, for example, a Harmony area controller with its associated Harmony I/O blocks and Harmony rack I/O modules.

On the Onet side, the coupler can be configured to interface one specific Onet (i.e., Ethernet™ TCP/IP) device or multiple devices. These devices include Conductor human system interfaces, Composer™ tools platforms, and Performer applications platforms. Additionally, the coupler can interface third-party applications using semAPI, a high performance software interface.

The Harmony network communications coupler is comprised of a P-HC-DOC docking station, P-HC-PLT coupler module, and S-HB-NCC software.

Specifications

Property	Characteristic/Value				
Microprocessor	64-bit processor running at 100 MHz				
Memory	<table border="1"> <thead> <tr> <th>DRAM</th> <th>Flash-ROM</th> </tr> </thead> <tbody> <tr> <td>32 Mb</td> <td>8 Mb</td> </tr> </tbody> </table>	DRAM	Flash-ROM	32 Mb	8 Mb
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Power requirements	24 VDC at 2.1 A typical, 5.1 A maximum				
Overvoltage category	I per IEC 61010-1				
Heat dissipation	50 W typical, 120 W maximum				
Communication channels					
Cnet	1 redundant Cnet (loop 1 and loop 2)				
Onet (AUI)	1 Onet (IEEE 802.3 Ethernet compliant, TCP/IP protocol)				
Communication rate					
Cnet	10 MHz or 2 MHz				
Onet	10 Mbps				
semAPI server	Up to 10 simultaneous clients				

Property	Characteristic/Value																		
Dimensions																			
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Coupler module	4.1 kg (9 lb, 2 oz)																		
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Environmental	<table border="1"> <thead> <tr> <th>Environment</th> <th>Operating</th> <th>Storage and Transportation</th> </tr> </thead> <tbody> <tr> <td>Air quality</td> <td>Noncorrosive (level 1)</td> <td>Noncorrosive (level 1)</td> </tr> <tr> <td>Altitude</td> <td>Sea level to 3,048 m (10,000 ft)</td> <td>Sea level to 12,000 m (40,000 ft)</td> </tr> <tr> <td>Relative humidity (noncondensing)</td> <td>20% to 95% up to 55°C (133°F) 20% to 45% at 55° to 70°C (133° to 158°F)</td> <td>20% to 95%</td> </tr> <tr> <td>Temperature (internal enclosure)</td> <td>0° to 70°C (32° to 158°F)</td> <td>-40° to +85°C (-40° to 185°F)</td> </tr> <tr> <td>Vibration</td> <td>2 to 13.2 Hz, 2 mm (0.08 in.) peak-to-peak; 13.2 to 100 Hz, 0.7 Gs</td> <td></td> </tr> </tbody> </table>	Environment	Operating	Storage and Transportation	Air quality	Noncorrosive (level 1)	Noncorrosive (level 1)	Altitude	Sea level to 3,048 m (10,000 ft)	Sea level to 12,000 m (40,000 ft)	Relative humidity (noncondensing)	20% to 95% up to 55°C (133°F) 20% to 45% at 55° to 70°C (133° to 158°F)	20% to 95%	Temperature (internal enclosure)	0° to 70°C (32° to 158°F)	-40° to +85°C (-40° to 185°F)	Vibration	2 to 13.2 Hz, 2 mm (0.08 in.) peak-to-peak; 13.2 to 100 Hz, 0.7 Gs	
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NOTE:
1. Includes heat sink.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

Design Standards and Certifications

Category	Standard	Description
Safety	ANSI/ISA S82.01-1994 CSA C22.2 No. 142 CSA C22.2 No. 1010.1 IEC 61010-1	Safety standards for process control equipment
Environmental	IEC 60068-2-1,2,14	Operating temperature
	IEC 60068-2-4,30	Operating relative humidity
	MIL-STD-810E 502.3 & 501.3	Storage/transportation temperature
	ISA S71.04 (level 1 liquids, solids, gases)	Air quality
	IEC 60068-2-6	Operating vibration (sinusoidal)
	MIL-STD-810E 514.4	Storage/transportation vibration Category 1, basic transportation
EMI, RFI, and electrical surge	IEC 61000-4-2 (level 3)	ESD (6 kV contact discharge, 8 kV air discharge)
	IEC 61000-4-3 (level 3)	EMI susceptibility (test field strength = 10 V/m)
	IEC 61000-4-4 (level 3)	Electrical fast transient (P/S test = 2 kV, I/O = 1 kV)
	IEC 61000-4-5 (level 3)	Electrical surges
Flammable atmospheres	CSA C22.2 No. 213	Nonincendive equipment
	FM class 3611	Division 2 equipment
	ISA S12.12	Nonincendive equipment

Category	Standard	Description
Flammability of product components	UL 94 V-0, V-1, V-2, 5V	Flammability of plastic materials
CE mark directives	73/23/EEC	Low voltage directive
	89/336/EEC 92/31/EEC	EMC directive
	90/683/EEC 93/68/EEC 93/465/EEC	CE marking directives
Certifications	Canadian Standards Association (CSA) <i>(pending)</i>	Certified for use as process control equipment in an ordinary (nonhazardous) location
	Factory Mutual (FM) <i>(pending)</i>	Approved for use in Class I, Division 2, hazardous locations.

TM Composer is a trademark of ABB.

TM Control^{IT} is a trademark of ABB.

TM Ethernet is a trademark of Xerox Corporation.

TM Symphony is a trademark of ABB.

*For more information on the Control^{IT} suite of products , contact us at ControlIT@us.abb.com
For the latest information on ABB visit us on the World Wide Web at <http://www.abb.com>*



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