

CI868A

ABB Ability™ System 800xA® hardware selector



The CI868A can be used to connect an AC 800M controller to external Ethernet devices using IEC 61850 – Edition 2 standard. Since this is a standard for Substation Automation, this allows the combination of Process Automation and Electrical Control in the same controller.

The TP868 Baseplate has two RJ45 Ethernet connectors, where CH1 connector can use 10Mbps or 100Mbps (Mega bits/sec.). The baseplate has a code lock that prevents the installation of an incorrect type of unit onto the TP867 Baseplate.

The CI868 expansion unit contains the CEX-Bus logic, a communication unit and a DC/DC converter that supplies appropriate voltages from the +24 V supply via the CEX-Bus. The Ethernet cable must be connected to the main network through an Ethernet switch.

The CI868A module will only work with System 800xA 6.0.3.3, 6.1.1 and subsequent versions

Features and benefits

- Allows communication via both protocols defined by IEC 61850 standard: MMS (client) and GOOSE
- A maximum of 120 IEDs (GOOSE) and 40 IEDs (MMS) is allowed per CI868A. The combination of both protocols in the same module is allowed. (40 IEDs / CI868A)
- Up to 12 modules can be used in one AC 800M Controller

General info

Article number	3BSE092691R1
Communication protocol	IEC 61850
Client or server	MMS (Client), Goose (Publisher & Subscriber)
Transmission speed	10/100 Mbit/s
Network redundancy	No
Module redundancy	No
Hot Swap	Yes
Used together with HI Controller	Yes

Detailed data

Max units on CEX bus	12
Connector	RJ-45 female (8-pin)
24 V consumption typ.	typ 160 mA
Power dissipation	3.8 W

Environment and certification	
Temperature, Operating	+5 to +55 °C (+41 to +131 °F)
Temperature, Storage	-40 to +70 °C (-40 to +158 °F)
Altitude	2000 m according to IEC/EN 61131-2
Pollution degree	Degree 2 according to IEC/EN 61131-2
Corrosion protection	G3 compliant to ISA 71.04
Relative humidity	5 to 95 %, non-condensing
Protection class	IP20 according to EN60529, IEC 529
CE- marking	Yes
Electrical Safety	UL 61010-1, UL 61010-2-201
Hazardous location	UL 60079-15, cULus Class 1, Zone 2, AEx nA IIC T4, ExnA IIC T4Gc X
Marine certificates	DNV-GL, (Pending: ABS, BV, LR)
RoHS compliance	DIRECTIVE/2011/65/EU (EN 50581:2012)
WEEE compliance	DIRECTIVE/2012/19/EU

Dimensions	
Width	59 mm (2.3 in.)
Height	185 mm (7.3 in.)
Depth	127.5 mm (5.0 in.)
Weight (including base)	700 g (1.5 lbs)

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