

CATALOG

ABB Ability™ System 800xA 6.0.3.2

Product Catalog



Table of contents

008	System 800xA Extended Automation	01
010	System 800xA, System Capabilities	01
012	System 800xA Software	01
012	License	
013	800xA 6.0 System, Lifecycle Management – System Expansion	01
013	Automation Sentinel Program	
014	System 800xA 6.0 System Identifier	01
014	Control System Lifecycle Management Program	
014	System Identifier	
015 – 036	800xA 6.0 System	02
015	System 800xA Base System	
016	Tag Expansion	
017	Subscriber System Tags	
018	System 800xA Applications	
018	Connectivity	
019	Connectivity	
020	System Extensions	

021	Cyber Security	
022	Control Room Solutions	
023	Control Room Prestudy	
024	Operator Workplaces	
025	Extended Operations	
025	Live Video System - Public Addressing	
026	Batch Management	
027	Standard Engineering Tools	
027	Engineering Systems	
028	Professional Engineering Tools	
028	Information Management	
029	System 800xA History	
030	IM Historian Server	
031	IM Historian	
032	Safety	
032	Asset Optimization	
033	Asset Monitors	
033	Device Management & Fieldbuses	
035	Libraries	
036	Localization	
037–057	AC 800M Processor Units	
038	AC 800M Controllers selection guide	03
042	Hardware Upgrade orders	
042	System Units	
042	AC 800M Processor Units	

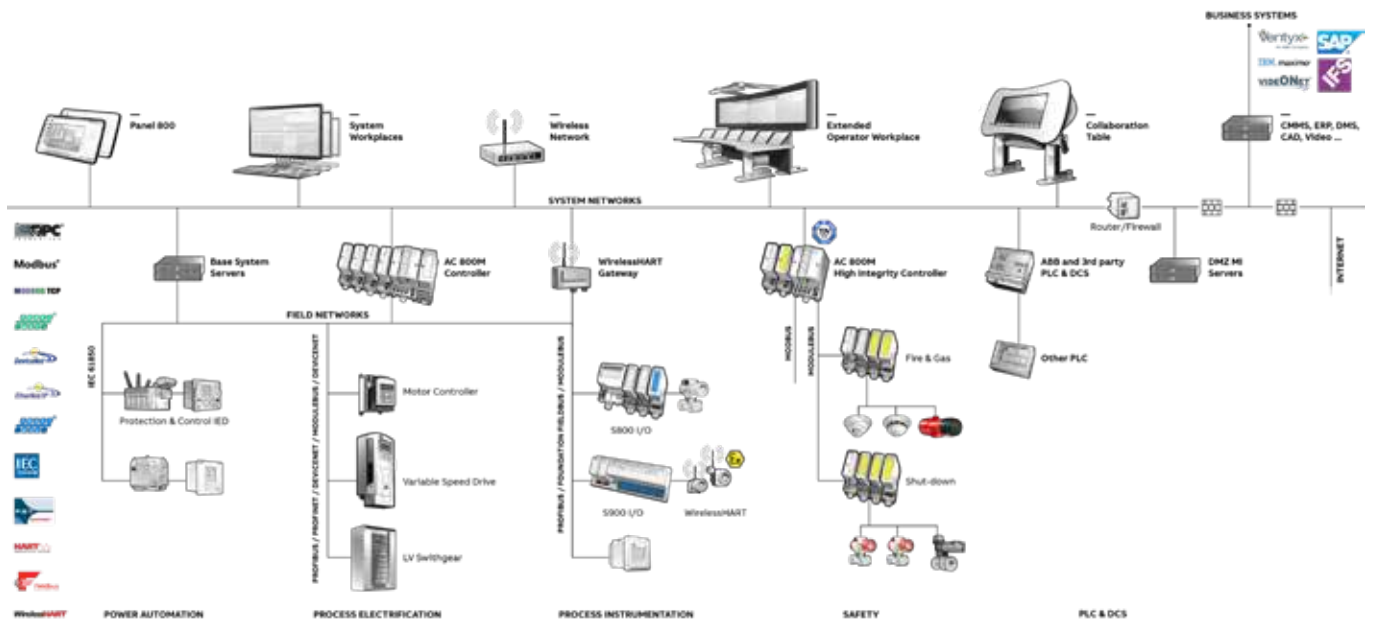
046	AC 800M High Integrity Units
047	Extra Batteries
047	Control Network
047	Serial Interfaces on TP830
048	Communication Interface selection guide
050	Serial Communication Interface
050	MODBUS TCP
050	PROFIBUS DP
050	PROFINET IO
051	FOUNDATION Fieldbus
051	IEC 61850
051	Ethernet/IP
052	Advant Fieldbus 100
052	MasterBus 300
052	S100 I/O Bus
053	TRIO
053	Satt I/O
053	INSUM
054	DriveBus
054	Bus Accessories
055	AC 800M Power supply and Voters selection guide
057	AC 800M Power supply and Voters
057	AC 800M Mounting Rails
058–080	S800 I/O Modules
061	S800 I/O Modules Selection guide

062	Extended warranty for S800 I/O Hardware
062	ISA-S71.04 level G3 Compliance
062	Field Communication Interface
063	Upgrade Kit and Tool Cables
064	S800 I/O Modules
067	Pulse Counting Modules
068	Label sets for I/O Modules
068	High Integrity I/O Modules
069	Module Termination Units
071	S800L I/O Modules
071	Label sets for S800L I/O Modules
072	ModuleBus Communication Parts
073	S800 I/O Power Supply and selection guide
075	Power Supply
076	Process Industries Application Libraries
076	Process Control Device Library
077	Process Control Device Library Licenses
077	Additional Control Device Library Licenses
077	PCDL Application Engineering
078	Process Control Equipment Library
078	Process Control Equipment Library Licenses
079	Additional Control Equipment Library Licenses
080	PCEL Application Engineering
080	ProBase

081–093	S900 Remote I/O System	—
082	Ex zone 1 system components	05
084	Ex zone 2 system components	
086	S900 Remote I/O System – Safe area system components	
087	Safe area system components	
088	Accessories	
089	Field Housing S900-FH660S	
090	Field Housing S900-FH680S	
091	FOUNDATION Fieldbus Network Components	
092	PROFIBUS Network Components	
093	S800 I/O, S900 I/O, Fieldbus and AC 800M - Extended warranty time	
094–095	Media and Documentation	—
094	Related Documentation	06
095	800xA – Media	
095	Dongles	
096–100	System 800xA Networks	
097	System 800xA Networks selection guide	
099	Network switches	—
099	Network routers/firewalls	07
100	Network accessories	
100	Modular Transceivers (SFPs)	

102–108	Panel 800 Version 6.2	08
103	Specifications Panel 800 Version 6.2	
104	Lifecycle Management Program	
105	Panel Builder 800	
105	Operator Panels	
107	Dongles	
107	Accessories	
109	IEC 61850 Engineering Tool for System 800xA 6.0	09
110	Extended Warranty Time S800 I/O, S900 I/O, Fieldbus and AC 800M	09
111	Reference documentation	09
117	System 800xA Hardware Selector	

System 800xA Extended Automation



System 800xA is not only a DCS (Distributed Control System) it's also an Electrical Control System, a Safety System and a collaboration enabler with the capacity to improve engineering efficiency, operator performance and asset utilization.

Promoting collaboration

Collaboration between people and systems is a necessity to increase engineering efficiency, asset utilization, energy savings, and operator effectiveness. System 800xA's 'xA' stands for Extended Automation and utilizes the system architecture which was built for collaboration. System 800xA is the only automation platform that has the ability to engineer, commission, control, and operate automation strategies for process, power, electrical and safety in the same, redundant, reliable system. Also, facilitating collaboration is System 800xA's pre-integrated applications such as a full featured historian, asset optimization and batch management.

System 800xA

ABB's award winning System 800xA provides you with a better way to achieve measurable productivity and profitability improvements. System 800xA extends the scope of traditional DCS systems to include all automation functions in a single operations and engineering environment; enabling your plants to perform smarter and better at substantial cost savings.

Embracing the principles of open, real-time networking, System 800xA provides a scalable solution that spans and integrates loop, unit, area, plant, and inter plant controls. From providing a secure foundation with robust, but flexible, base level regulatory and sequence control to higher level management and advanced control functions that include safety controls, batch management, maintenance management, information management, and network management solutions, System 800xA meets the application needs of a wide variety of industries.

System 800xA provides you with a secure, reliable control environment with minimum effort through built-in security features such as access control, user authentication, and audit trail capability. ABB enhances secure system operations by actively participating on security standards committees, conducting threat-modeling studies, and incorporating "safe design" practices into product development.

Based upon the Aspect Object technology and a common set of hardware, System 800xA seamlessly integrates traditionally isolated DCS and Safety systems. SIS realization is achieved by either utilizing individual controllers or through dedicated applications within the same controller. With this embedded control and safety architecture, System 800xA reduces costs significantly; achieving the objectives of both systems – maximum plant availability at minimum risk.

For more information about System 800xA please visit our web: www.abb.com/800xA

System 800xA

System Capabilities

System 800xA from ABB is a control system that enables plant wide collaboration between people, systems and equipment. System 800xA utilizes a system architecture built for collaboration in a fully redundant, reliable environment.

Removing the barriers in traditional distributed control systems, System 800xA provides a collaboration environment that is required to increase productivity while reducing risk and total cost of ownership.

System 800xA Capabilities

Tags	120,000
Total number of Clients, normal or remote (nodes with one or several workplaces)	80
I/O channels	From a hundred to over 1,000 per controller depending on CPU type and application.
Operator screens per system	160
Operator screens per Operator Workplace	4
Operator Workplaces, normal or remote	80
Engineering Workplaces	20
Remote Engineering Workplaces	5
Information Management Workplaces	80
Desktop Displays for trends and events	150
Batch Workplaces	40
Nodes in one control network segment (excl. domain server and controllers)	100
Aspect Services redundancy	1 (single, redundant 1oo2 or 2oo3)
AC 800M Connectivity services	8 (16 if redundant)
AC 800M controllers per connectivity services	48 (Application Dependent)

System 800xA Capabilities

PROFIBUS Connectivity services	8 (16 if redundant), 2,500 devices per server
HART Connectivity services	8 (16 if redundant), 2,500 devices per server
Foundation Fieldbus Connectivity services	8 (16 if redundant), 4,000 devices per server
PLC Connect services	3 (6 if redundant), 25,000 signals per server
Asset Optimization services	4
Multisystem Integration Subscribers	2
Multisystem Integration Providers	20
Connectivity servers, total	12 (24 if redundant)
Application servers	10
Batch servers	1 (single or redundant 1oo2)
Information Management servers (used as single, redundant, or consolidating servers)	6
Supported Fieldbuses	Foundation Fieldbus, PROFIBUS, PROFINET, HART
Electrical Integration	IEC 61850
Standard Serial Protocols	RS232C: MODBUS RTU/TCP, 3964R, Comli
External application communication	OPC, OLE-DB, ODBC
Network	Ethernet TCP/IP Redundant
Network device supervision	SNMP
Operating System	Server: Windows Server 2012 R2 or Windows Server 2016. Client: Windows 8.1 Professional/Enterprise (64 bit US English Version), Windows 10 Enterprise or Windows IoT Enterprise, 2015 or 2016 Long Term Service branch.

PC Requirements	Server	Client	Single PC
PC models verified for use with System 800xA can be found on our web page for certified 3rd party products at http://www.abb.com/product/us/9AAC171278.aspx For System 800xA Workstations, pre-installed with Windows IoT Enterprise LTSB see https://link.arrow.com/abb/customer/account/login			
Processor	State of the art certified hardware for best performance.		
Memory	Minimum 8GB, additional memory based on intended use. Only running 64-bit.		
Disk	120 GB For additional requirements for History Data, see System 800xA System Guide	120 GB	120 GB
Network Interface Card	Minimum 100 Mbit. 1 Gbit backbone and network cards recommended.		
Graphic Card	-	Min. 512 MB Graphics card. For optimal performance 512 MB per monitor is recommended.	Min. 512 MB Graphics card. For optimal performance 512 MB per monitor is recommended.
Monitor	Large monitor (19" or more) recommended. Resolution: minimum 1280x1024 recommended.	Large monitor (19" or more) recommended. Resolution: minimum 1280x1024 recommended.	Large monitor (19" or more) recommended. Resolution: minimum 1280x1024 recommended.
UPS	Recommended	Recommended	Recommended
Virtualization	VMware vSphere ESXi	VMware vSphere ESXi	VMware vSphere ESXi

Performance and capacity	
Graphical displays	Unlimited (depending on available Hard disk space)
Display exchange time	Standard Main Faceplate: ≤1 second. Graphic display with 100 objects: ≤1 seconds
Command response time (order to indication)	<2 seconds
Reports	Unlimited
Alarm and event lists	100
X-Y plots	Unlimited
Active Batch Phases	300
Asset Monitors	20,000
History Logs per system (Information Manager)	180,000
History Log disc space per value (Information Manager)	21 bytes
Stored OPC Messages (Information Manager)	12,000,000
History Logs per server (800xA History)	150,000
History Log disc space requirements (800xA History)	40 bytes
Stored OPC Messages (800xA History)	Time/Disc space limited
Event burst capacity	1000 alarms/second for 3 seconds plus 10/s for 15 minutes
Event storage disc space requirements	Storage per message: 6k bytes
Alarm/Event throughput/sec	30
OPC DA throughput (items per sec) per AC 800M Connectivity server	30,000
Max number of softpoint signals	25,000
Max number of soft events	10 /second
Scheduling Service capacity	Max. 200 simultaneous jobs per scheduling server
Calculation Services	10
Calculations/second	100
Write transactions/second	The Calculation server can write up to 10 values/second to process (AC 800M) objects
Calculations that may be queued waiting to be executed	1,000 calculations per Calculation server

This table is an extract from the "800xA 6.0 System Guide Summary" and may be changed without notice. Note that combination of functions may impact the total capacity, and that conditions may apply for certain parameters. For explanations and further details we kindly refer to the System 800xA System Guide.

System 800xA Software

The system installation is supported by the Automated Installation program. The Automated Installation program is a shell framework to ease the installation and configuration of your 800xA System.

Installation is never prevented due to lack of licensing, but licenses are required to unlock features for operating or engineering the system. Updates and security related software from non-ABB companies must be downloaded and installed separately, as guided from the Automated Installation program.

The Automated Installation program is supplied on the 800xA media box. The common part is to specify the system details of your system in the Automated Installation program System Planner and generate a unique setup package for each node (workstation) describing what should be installed from the 800xA media box, or a file server, onto each node, and how it should be configured.

The System 800xA Installer is installed on each node, and then the following steps are executed to install and configure your node:

- Windows configuration
- System Verifier tool
- System installation
- System configuration

The setup-files may also reside on the file server. Windows configuration configures the environment (IP address, hostname, Windows components, and Windows services) connect to the workgroup or domain. The System Verifier tool checks for the necessary 3rd party software and where installations are required.

License

The central licensing system (CLS) is local to each system. Each system is ordered separately, and a separate license file is fetched for each system from the Software Factory. This also means that each system is managed individually updates and upgrades, as well as initial system installation.

The software or hardware described in the document is furnished under a license and may be used, copied, or disclosed only in accordance with the terms of such license.



800xA 6.0 System

Lifecycle Management – System Expansion

Automation Sentinel Program

Automation Sentinel is the control system life-cycle support program and is aimed at providing services for the maintenance, continuous enhancement and evolution of the ABB installed base of control systems.

Each and every control system under Automation Sentinel can make use, depending on the active subscription mode, of the following main program deliverables listed below:

Software Updates and upgrades

Automation Sentinel users have the exclusive right to receive control system software updates and upgrades:

- Automation Sentinel users with a Maintain subscription have the possibility to receive technical corrections, roll-ups, service packs and software revisions for the current 800xA software version in use.
- Automation Sentinel users with a Maintain Plus subscription receive all what the Maintain users are receiving PLUS software upgrades to move from any 800xA version to the latest available 800xA software version.
- Automation Sentinel users with a Maintain & Evolve subscription receive all what the Maintain Plus users are receiving PLUS the possibility to take an ABB heritage control system (and selected 3rd party control systems) all the way to the latest available 800xA software version.

Cyber and IT security reports and updates

Automation Sentinel users have the exclusive right to access IT security validation reports:

ABB reviews, tests and validates on a regular basis Microsoft security updates and 3rd party virus scanner software for compatibility with the 800xA control system. Automation Sentinel users will have access to all available cyber and IT security reports and updates for application as needed in order to ensure that the running control systems are better protected against any security risks which are encountered more often now than ever before. Each and every control system must be under Automation Sentinel before making use of the published IT security validation reports.

System Benchmark Tool

Automation Sentinel users will have the right to use, at no additional cost, the following service tools:

- 800xA Control System Software and Performance Benchmark
- 800xA Control System Security Benchmark

The above listed service tools are employed to perform health and security checks on the 800xA control system and generate 'Traffic light' reports of the findings.

Expert product technical support

Automation Sentinel users have access to ABB expert and R&D support organizations. This support is being provided for troubleshooting of product defects and issues they encounter during the validity of the subscription.

Read more about our Automation Sentinel Program here: <http://new.abb.com/control-systems/service/offerings/service-agreements>

Program Options	Maintain Basic	Maintain	Maintain Plus	Maintain & Evolve
Basic Deliverables	<ul style="list-style-type: none"> • IT Security verification and validation reports • Web access via My Control System and SolutionsBank • Access to expert product support (L3/L4 support) 			
Maintenance Deliverables	<ul style="list-style-type: none"> • Software maintenance updates & corrections • System status and performance Benchmark tool • Scalable discount on selected service products • Scalable discount on selected expansion HW & SW 			
Enhancement Deliverables	<ul style="list-style-type: none"> • New software versions & enhancements 			
Evolution Deliverables	<ul style="list-style-type: none"> • Evolution from ABB Heritage OCS and 3rd party control systems to the latest ABB control platform 			

System 800xA 6.0 System Identifier

Control System Lifecycle Management Program

Control System Lifecycle Management Program



Automation Sentinel is the ABB control system lifecycle management program for the Extended Automation, Freelance, Compact Product Suite, Symphony Plus and OCS product lines. ABB recommends its customers to use Automation Sentinel for all its installed control systems. With this program, customers can keep control software up-to-date and maintain a flexible path forward to new system software technology. It provides services to maintain and continually advance and enhance your ABB control system installation. You may choose the level of maintenance and upgrade support that works best for your immediate needs and long-term production targets.

Read more about our Automation Sentinel Program and its many valuable services here: <http://new.abb.com/control-systems/service/offerings/service-agreements>

Please contact your local sales representative for detailed information on the program and on how to order Automation Sentinel subscriptions.

01

System Identifier

800xA System Identifier	Article no.	
<p>800xA System Identifier System identifier, used as identifier for each individual 800xA system. The ID must be used when ordering hardware and software to a system. After ordering this item a system license in design phase can be downloaded from SOFA.</p>	<p>3BSE081075R1</p>	

800xA 6.0 System

Remark

Remark

When System Software Expansion licenses are ordered, the Serial Number of the ABB Software License Certificate for the previously ordered System Software licenses must be stated on the order to the ABB Supplier.

Base System

System 800xA Base System

The base system is used as the base for 800xA production system, mulitsystem integration subscriber system and as Read only system. Tags can be added to all these systems.

800xA Base System	Only one type of subscriber tags (ie. subscriber tags or read only subscriber tags) can be added to a subscriber system. A subscriber system can not be converted from read only to read and write and vice versa.	Article no.
<p>Includes one Operator Workplace, one Engineering Workplace, AC800M Connectivity, Redundant Aspect Server, Plant Explorer, Logging of Operator actions, Topology Status Viewer, Softpoint Server, Scheduler, Primary Logs (logging of signals for Operator trends.</p> <p>800xA Base System Will run on Windows 10.</p>		3BSE087723R1
800xA Production License		Article no.
<p>Ordered to be able to download a production license to switch the system from Engineering Phase to Production Phase.</p> <p>800xA Production License</p>		3BSE081642R1

Base System

Tag Expansion

Tags	Article no.	
All process objects with faceplate for operator interactions counts as a tag. (Total max 120,000. Can not be mixed with redundant tags)		
100 tags, non-redundant	3BSE078782R1	
1,000 tags, non-redundant	3BSE078782R2	
10,000 tags, non-redundant	3BSE078782R3	
A TSA is NEEDED for a system with more than 60,000 tags.		

Redundant Tags	Article no.	
All process objects with an operator faceplate counts as a tag. (Total max 120,000. Can not be mixed with non-redundant tags) Enables tag access through redundant Connectivity Servers.		
100 tags, redundant	3BSE078783R1	
1,000 tags, redundant	3BSE078783R2	
10,000 tags, redundant	3BSE078783R3	
A TSA is NEEDED for a system with more than 60,000 tags.		

Non-Redundant to Redundant Tag Conversion	Article no.	
All process objects with faceplate for operator interaction counts as a tag. (Total max 120,000. Redundant and non-redundant tags can not be mixed) Enables tag access through redundant Connectivity Servers.		
100 Non-redundant to Redundant Tag Expansion	3BSE079637R1	
1,000 Non-redundant to Redundant Tag Expansion	3BSE079637R2	
10,000 Non-redundant to Redundant Tag Expansion	3BSE079637R3	
A TSA is NEEDED for a system with more than 60,000 tags.		

Base System

Subscriber System Tags

Subscriber System Tags

Tags in the subscriber system in a Multisystem Integration configuration. These tags are Object with a faceplate that collects data from a provider system. Subscriber tags are only required in the subscriber system.

Subscriber tag is required for every provider tag that needs to be accessed from graphics, alarms, trends etc, in a subscriber system.

Note that non-redundant Multisystem Subscriber Tags can not be mixed with Multisystem Subscriber Redundant Tags. Note that Multisystem Subscriber Tags can not be mixed with Multisystem Read Only Subscriber Tags.

Multisystem Subscriber Tags	Article no.	
Tags in the subscriber system in a Multisystem Integration configuration.		
100 Multisystem Subscriber Tags	3BSE079526R1	
1,000 Multisystem Subscriber Tags	3BSE079526R2	
10,000 Multisystem Subscriber Tags	3BSE079526R3	
A TSA is NEEDED for a system with more than 60,000 tags.		

Multisystem Subscriber Redundant Tags	Article no.	
Tags in the subscriber system in a Multisystem Integration configuration. Enables tag access through redundant Connectivity Servers.		
100 Multisystem Subscriber Redundant Tags	3BSE079527R1	
1,000 Multisystem Subscriber Redundant Tags	3BSE079527R2	
10,000 Multisystem Subscriber Redundant Tags	3BSE079527R3	
A TSA is NEEDED for a system with more than 60,000 tags.		

Non-Redundant to Redundant Multisystem Subscriber Tag Conversion	Article no.	
Tags in the subscriber system in a Multisystem Integration configuration.		
100 Multisystem Subscriber Non-Redundant to Redundant Tags	3BSE079641R1	
1,000 Multisystem Subscriber Non-Redundant to Redundant Tags	3BSE079641R2	
10,000 Multisystem Subscriber Non-Redundant to Redundant Tags	3BSE079641R3	
A TSA is NEEDED for a system with more than 60,000 tags.		

Base System

System 800xA Applications

Multisystem Read Only Subscriber Tags	Article no.	
<p>Tags in a read only subscriber system in a Multisystem Integration Configuration. Read only subscriber systems provides aspect object enabled read only clients to office users. Subscriber tags are only required in the subscriber system.</p> <p>A subscriber tag is required for every tag that needs to be accessed in a provider system.</p> <p>Tag access is required for tags in graphics, alarms, trends etc. Note that Multisystem Read Only Subscriber Tags can not be mixed with Multisystem Subscriber Tags.</p>		
<p>100 Multisystem Read Only Subscriber Tags Tags in a read only subscriber system in a Multisystem Integration Configuration.</p>	3BSE079104R1	
<p>1,000 Multisystem Read Only Subscriber Tags Tags in a read only subscriber system in a Multisystem Integration Configuration.</p>	3BSE079104R2	
<p>10,000 Multisystem Read Only Subscriber Tags Tags in a read only subscriber system in a Multisystem Integration Configuration.</p>	3BSE079104R3	
A TSA is NEEDED for a system with more than 60,000 tags.		
<p>Office Workplace – Read Only Client Includes one local or remote read-only operator workplace, Excel based reporting aspects. Microsoft Excel is NOT included. Use of up to 2 screens is included. (Only in systems with read-only MI tags)</p>	3BSE078864R1	

02

Base System

Connectivity

Connectivity	Article no.	
<p>Note that there may be 800xA price list options that are not supported with a particular OCS controller. Please refer to the table "Available functions per Controller Connectivity" in the System Guide "Technical Data and Configuration Information". To check what connectivity combinations that are valid, use the Project Wizard or refer to the System 800xA System Guide for information.</p>		
<p>PLC Connect Faceplates, graphical elements and means to communicate with the system. (one per system)</p>	3BSE078822R1	
<p>PLC Connect Dial-Up Scaled on number of dial up lines in a system.</p>	3BSE078823R1	
<p>KNX Connect Data access to KNX devices connected via ABB KNX IP router. Only a limited set of KNX protocol functions are implemented. The 800xAserver node communicates over TCP/IP with the router. (Router is not included) A TSA is NEEDED to buy this item.</p>	3BSE078865R1	
<p>800xA for Advant Master Faceplates, graphical elements and means to communicate with the system. (One license per system.) 800xA for Advant Master hardware (PU410) needs to be ordered separately. Please refer to price book 3BSE001706, Advant OCS with Master Software.</p>	3BSE078816R1	

Base System

Connectivity

Connectivity	Article no.	
<p>Advant Master Central Backup Backup and restore of applications for Advant Master controllers(AC410, AC450, MP200/1, SG400) One license per system. Requires 800xA for Advant Master.</p>	3BSE078817R1	
<p>800xA for Harmony Faceplates, graphical elements and means to communicate with the system.</p>	3BSE078819R1	
<p>800xA for AC 870P / Melody Graphical elements and means to communicate with the system (Faceplates not included) (One per system.)</p>	3BSE078821R1	
<p>800xA for MOD 300 Faceplates, graphical elements and means to communicate with the system. One license per system. 800xA for MOD 300 hardware (PU410/PU412) needs to be ordered separately. Please refer to price book 3BSE001709, Advant OCS with MOD 300 Software.</p>	3BSE078818R1	
<p>800xA for DCI Faceplates, graphical elements and means to communicate with the Harmony Distributed Control Unit (HDCU), includes: Batch connectivity, VB6 and PG2 faceplates, HDCU maintenance functions.</p>	3BSE078820R1	
<p>800xA for Safeguard Faceplates, graphical elements and means to communicate with the system. Note: Requires also 800xA for Advant Master.</p>	3BSE078824R1	
<p>800xA for AC 100 Faceplates, graphical elements and means to communicate with the AC 100 Controller, OPC server included. AC 100 OPC Server Hardware needs to be ordered separately. Please refer to price book 3BSE001706, Advant OCS with Master Software.</p>	3BSE078825R1	

Base System

System Extensions

System Extensions	Article no.	
<p>Multicore support Enables the possibility to run 800xA on servers with more than 4 cores. Required only for servers, valid for all servers in a system. Scaled on max number of cores in any server, scaled in steps of 4 cores. (4 cores are included in the base system)</p>	3BSE078862R1	
<p>Point of Control Collaboration based transfer of plant operation responsibility between locations and users.</p>	3BSE078830R1	
<p>800xA OPC Client Connection This enables third party OPC clients to connect to 800xA via the 800xA. OPC server, includes OPC DA, AE & HDA. One per external access.</p>	3BSE078826R1	
<p>OLE-DB Real Time Data Client Connection Allows realtime system data to be accessed via an OLE-DB interface. One per external access.</p>	3BSE078827R1	
<p>SMS and e-mail Messaging Sending messages based on alarm and event information to user devices such as mobile telephones, e-mail accounts and pagers.</p>	3BSE078828R1	
<p>Calculation Engine Provides the ability to run mathematical calculations on any available System 800xA aspect property or attribute. One license per server or redundant server pair.</p>	3BSE078829R1	
<p>Snapshot Reports Makes it possible to create aspects that automatically executes a query and produces a report consisting of properties of objects in the system.</p>	3BSE078832R1	
<p>CAD Viewer license View CAD drawings in DXF and DWG formats stored in aspects. DWG (version 13, 14, 2000, 2004, 2007, 2010) DXF (version 12, 13, 14, 2000, 2004, 2007, 2010)</p>	3BSE079674R1	

Base System

Cyber Security

Cyber Security	Article no.	
<p>Digital Signature Makes it possible to digitally sign aspects to ensure that data is kept unchanged after approval.</p>	3BSE078833R1	
<p>Advanced Access Control Reauthentication, double reauthentication and inactivity logout.</p>	3BSE078834R1	
<p>Audit Trail Logging of all user initiated actions in a system. e.g. Graphics editing, Control Logic editing, Batch recipe editing and start/stop of servers etc.</p>	3BSE078835R1	
<p>800xA for Industrial Defender Industrial Defender monitoring is updated with 800xA security events. No Industrial Defender HW or SW is included. (one per system)</p>	3BSE079528R1	
<p>Whitelisting SE46 Whitelisting SE46 provides advanced threat protection, through checks of executing SW on clients and servers. The number of licenses should match the number of nodes running workplace functionality (client functionality) in a system. Protection of servers is included. Requires Whitelisting Studio SE46.</p>	3BSE079529R1	
<p>Whitelisting Studio SE46 Configuration tool required when using Whitelisting SE46 option. One tool needed per site using Whitelisting SE46.</p>	3BSE079530R1	

Operations

Control Room Solutions

Control room operators make hundreds of decisions every working day – decisions that have a great impact on productivity, quality, and safety. What's more, the more alert, stimulated and harmonious they are, the better the decisions they make. For plant and control room managers, the key question is thus how to create and maintain operator well-being at levels that ensure their very best performance.

An operator environment designed with human factors in focus can convert potentially dangerous fatigue and distraction into proactive alertness that extracts the very best from every individual – in both routine operations and critical situations.

Operator well-being is a key success factor for safe, productive and reliable operations.



24/7 control room solutions designed for the long-run and built to last

Equipment such as Control room equipment, chairs, desks, sound absorbers, cap desks, operator desks and other adjacent accessories. The equipment is marketed along an extensive knowledge about control room design and human factors. Collaboration is a key word and is used from a workflow perspective, analyzing operations in normal and critical situations and how collaboration is enhanced through design are interesting values for the end user operations. The equipment itself might not be the main competitive advantage, but in combination with their know-how this offering is highly interested to almost any projects.

By involving ABB in a control room pre-study, you get the unique possibility to create a control room environment that perfectly suits your needs and individual situation of operations. The pre-study focuses on human factors interacting with 800xA and uses high standard control room equipment in a very cost efficient way.

Operator information overviews are built to match the physical dimensions and personal preferences of each individual. With motorized sit/stand desk-height, screen adjustment

options, light and sound settings, each environment represents the ultimate in form and function. Designed to keep operators alert even during calm or monotonous periods, the desks and auxiliary products are bio-mechanically optimized, appealing to use and built to last.

The main purpose of this Product guide is to give a good overview and understanding of products specified to be used with 800xA. The offering includes other desk series and adjacent equipment suitable for 24/7 environments. To fully comply with project specification, we are able to customize desk to meet the desired requirements. Please contact CGM for support.

The Control Room Solution offering is being expanded due to our Acquisition of CGM and some products will remain visible in Wizard for configuration purposes. During a transition period we kindly request to use e-mail for orders and request. The offering is available as hardware only, in a separate price book named Control room solutions.

Please send all questions related to control room solutions to SE-cgm-info@abb.com and your orders to SE-cgm-order@abb.com

Operations

Control Room Prestudy

Control Room Prestudy	Article no.	
<p>Control Room Review Prestudy Results in a customer unique future design of an existing or new control room. Based on general information in existing plans and photos. Operational information is collected through a questionnaire and phone interviews. A remote process including three iterations of the original design through online meetings with the customer. Final result is a 3D SketchUp model that will be presented in a web meeting.</p>	3BSE079590R1	
<p>Control Room Design Prestudy Results in a customer unique future design of an existing or new control room. Based on essential information from plans and photos. Operational information is collected through a questionnaires, phone interviews and onsite interviews with a workflow study. Four iterations of the original design through meetings with the customer. Final result is a rendered model for interactive presentation, a material board and a 3D model in SketchUp that will be presented in a web meeting. The onsite work is included in the price.</p>	3BSE079591R1	
<p>Complete Control Room Prestudy Results in a customer unique future design of an existing or new control room. Based on extensive information collection, including brand values and Human factor reports. Operational information is collected through a questionnaires, phone interviews and onsite interviews with a workflow and mood board study. Five iterations of the original design through meetings with the customer, to ensure that no possibility is overlooked. Final result is a project specific Human Factors Report, rendered model for interactive presentation and/or a hologram picture, a material board, and a 3D model in SketchUp that will be presented in a web meeting. The onsite interviews is included in the price.</p>	3BSE079592R1	



Operations

Operator Workplaces

Operator Workplaces	Article no.
<p>Operator Workplace – Additional Client Includes one local or remote operator workplace, Excel based reporting aspects, Microsoft Excel is NOT included, use of up to 2 screens is included. The total quantity of Operator Workplaces, Large Operator Workplaces and Engineering Workplaces – must not exceed 80.</p>	3BSE078749R1
<p>Large Operator Workplace Client Includes one local or remote Operator Workplace, with the possibility to use more than 2 screens and up to 4 screens and Desktop with higher resolution than 1920*1024. The total quantity of Operator Workplaces, Large Operator Workplaces and Engineering Workplaces – must not exceed 80.</p>	3BSE078750R1
<p>Convert Operator Workplace to large Operator Workplace</p>	3BSE079107R1

Extended Operator Workplaces	Article no.
<p>The EOW specific hardware is during a transition period not available for ordering through BOL.</p> <p>Information and order of EOW hardware specific setup and configuration should be sent to ABB-request@cgml.se</p>	
<p>EOW-2 Workplace License Includes the Software licenses for an Extended operator workplace size 2, the following features are included: 2 Operator Workplace, 1 Large workplace, 1 Video Input channel, 3 Video Clients, 3 CAD viewer.</p>	3BSE087745R1
<p>EOW-3 Workplace License Includes the Software licenses for an Extended operator workplace size 2, the following features are included: 3 Large workplace, 1 Video Input channel, 3 Video Clients, 3 CAD viewer.</p>	3BSE087746R1

Extended Operations	Article no.
<p>Alarm awareness light control (per area) Situation awareness with colored light showing the alarm priority. LED light combined with sound absorbers, covered surface approx 6 sqm. Including KNX connect and LED Lighting Control and Power Box.</p> <p>A TSA is NEEDED to buy this item.</p>	3BSE078868R1
<p>Alarm Operations, < 2000 Tags Alarm Grouping, Alarm Shelving and Basic Alarm Analysis. Alarm Help aspects. (Alarm Hiding and Alarm Response are parts of the base system)</p>	3BSE078751R1
<p>Alarm Operations, < 5000 Tags Alarm Grouping, Alarm Shelving and Basic Alarm Analysis. Alarm Help aspects. (Alarm Hiding and Alarm Response are parts of the base system)</p>	3BSE078751R2
<p>Alarm Operations, >= 5000 Tags Alarm Grouping, Alarm Shelving and Basic Alarm Analysis. Alarm Help aspects. (Alarm Hiding and Alarm Response are parts of the base system)</p>	3BSE078751R3

Operations

Extended Operations

Extended Operations	Article no.
Alarm History and Reports, < 2000 Tags Long term Alarm storage and analyze, Alarm system KPI reports, web and e-mail distribution of reports.	3BSE078869R1
Alarm History and Reports, < 5000 Tags Long term Alarm storage and analyze, Alarm system KPI reports, web and e-mail distribution of reports.	3BSE078869R2
Alarm History and Reports, >= 5000 Tags Long term Alarm storage and analyze, Alarm system KPI reports, web and e-mail distribution of reports.	3BSE078869R3
Symbol Factory for Process Graphics 2 Support for Symbol Factory graphics items in graphics displays.	3BSE080146R1

Live Video System	Article no.
Video Input Channel 1-10 Includes one software license needed to receive an IP addressed video stream to the video server. Article used to buy stream 1-1	3BSE087724R1
Video Input Channel 11-25 Includes one software license needed to receive an IP addressed video stream to the video server. Article used to buy stream 11-25	3BSE087725R1
Video Input Channel 26-50 Includes one software license needed to receive an IP addressed video stream to the video server. Article used to buy stream 26-50	3BSE087726R1
Video Input Channel 51 - 500 Includes one software license needed to receive an IP addressed video stream to the video server. Article used to buy stream 51-500	3BSE087727R1
Video View Client One concurrent client using video stream viewing from either recorded or live video source. The total quantity of Video clients must not exceed the total number of clients in a system.	3BSE079119R1

Operations

Public Addressing

Public Addressing	Article no.
Public Addressing output channel One output channel with one language. The channel can convert alarms in alarmlists and predefined text messages to sound. The sound content can be configured differently for each output channel.	3BSE078808R1
Public Addressing additional language One additional language for all channels.	3BSE078809R1

Production Management

Batch Management

Batch Management	Article no.	
<p>Batch Base System Provides the basic server functionality for Batch Management. The Batch Server includes 10 Batch Equipment. 1 Batch client included.</p>	3BSE078752R1	
<p>10 Additional Batch Equipment The number of batch equipment instances includes each piece of equipment configured in Batch Management including both Units and Shared Equipment Modules.</p>	3BSE078756R1	
<p>100 Additional Batch Equipment The number of batch equipment instances includes each piece of equipment configured in Batch Management including both Units and Shared Equipment Modules.</p>	3BSE078757R1	
<p>Batch Management Full Client This Client feature provides access to Batch Management functions. The Client feature is based upon concurrent users, not physical workstation installation. Including SL and SQL server licenses. Requires Operator Workplace Client or Engineering Workplace Client. Maximum 40 Clients. One Batch Client is included with the Batch Base System.</p>	3BSE078754R1	
<p>Redundant Batch Server Option Provides redundancy for the basic server functionality for batch management. Requires Batch Base System, item D010.</p>	3BSE078753R1	
<p>Batch Advanced Phase Templates This feature provides access to the Batch Advanced templates control modules for phases, units and shared equipment modules. For use with AC 800M controllers. Batch Phase Control library option, includes 2000 Advanced Phases.</p>	3BSE078758R1	
<p>Batch Schedule Interface Webservice interface to batch scheduling and equipment status. This feature is used to interface Batch Management to external applications such as schedulers and ERP systems.</p>	3BSE078755R1	
<p>Simple Batch Parameter Management Batch spreadsheet recipe scheduling tool for desktop PC interface to Batch Management using Excel. (Not required when Batch Schedule Interface is ordered)</p>	3BSE079105R1	

Engineering

Standard Engineering Tools

Standard Engineering Tools	Article no.	
<p>Engineering Workplace – Additional Client Includes Control Configuration for AC 800M, Bulk Data Handling, Graphic Configuration, Document Manager, Parameter Manager, I/O allocation function and Script Manager Professional. (one client is included with the Base system) The total quantity of Operator Workplaces-Additional and Remote Clients, Large Operator Workplaces and Engineering Workplaces – must not exceed 80.</p>	3BSE078790R1	
<p>Engineering Workplace with Application Change Management – Client Includes one Engineering Workplace and in addition Application Change Management. The total quantity of Operator Workplaces-Additional and Remote Clients, Large Operator Workplaces and Engineering Workplaces – must not exceed 80.</p>	3BSE078810R1	
<p>Engineering Workplace with Load Evaluate Go – Client Includes one Engineering Workplace and in addition Load Evaluate Go. The total quantity of Operator Workplaces-Additional and Remote Clients, Large Operator Workplaces and Engineering Workplaces - must not exceed 80. A TSA is NEEDED for a system with more than 60,000 tags.</p>	3BSE079103R1	
<p>Advanced Engineering Workplace – Client Includes one Engineering Workplace and licence for Application Change Management (ACM) and Load Evaluate Go (LEG). The total quantity of Operator Workplace-Additional and Remote Clients, Large Operator Workplaces and Engineering Workplaces – must not exceed 80. A TSA is NEEDED for a system with more than 60,000 tags.</p>	3BSE079106R1	
<p>SoftController To be used with the programming tool Control Builder M. This product is to be used as a test tool only. One license is required per SoftController.</p>	3BSE078794R1	

Engineering

Engineering Systems

Engineering Systems	Article no.	
<p>Engineering system small Includes a copy of the licences in corresponding production system but the licence can only run in engineering mode. System up to 2000 Tags.</p>	3BSE080147R1	
<p>Engineering system large Includes a copy of the licences in corresponding production system but the licence can only run in engineering mode. System larger than 2000 Tags.</p>	3BSE079593R1	

Engineering

Professional Engineering Tools

Professional Engineering Tools	Article no.	
Reuse Assistant Wizard help for selection of reusable solutions.	3BSE078791R1	
Process Engineering Tool Integration – Base for INtools Supports synchronization of properties between INtools objects and existing 800xA objects and property map definition changes. New 800xA object creation is NOT supported.	3BSE078792R1	
Process Engineering Tool Integration – New Object Creation Support for INtools Supports new 800xA object creation.	3BSE078793R1	

Information Management

Smart Client Workplaces	Article no.	
Smart Client Workplaces - Includes access to system information from the office network. Includes: View Process Graphics 2 displays, Trend displays, Build/view business graphics, historic data, alarm & events analyze (H & AE analyze requires IM or 800xA History)		
Smart Client Workplace - Client 1-10	3BSE079531R10	
Smart Client Workplace - Client 11-50	3BSE079531R50	
Smart Client Workplace - Client 51-100	3BSE079531R100	

Information Management

System 800xA History

800xA History Signals – Logs	Article no.	
History signals capable of storing actual and historic values retrieved from 800xA, Heritage ABB DCS systems and OPC sources. The signals include logging, trending, calculations, Alarm and Events, and archiving. Max 150,000 per Server node, signal storage for up to 6 data sources per Server.		
800xA History Signals – Basic 100 signals	3BSE079539R1	
800xA History Signals – Basic 1,000 signals	3BSE079539R10	
800xA History Signals – Basic 15,000 signals	3BSE079539R150	

800xA Dual History Signals – Logs	Article no.	
History signals for parallel logging in two history servers. The number of dual history signals should match the number of history signals that should be logged in two servers. Including Decathlon history service.		
800xA Dual History Signals – 100 signals	3BSE079540R1	
800xA Dual History Signals – 1,000 signals	3BSE079540R10	
800xA Dual History Signals – 15,000 signals	3BSE079540R150	

Data access to 800xA History Signals	Article no.	
For OPC UA: DA and HDA client is included. For OPC: DA, HDA client and server is included. In addition ODBC access to data stored in history signals is included.		
Gives access to both the current and the historical values, and in addition Alarms and Events for the signals. (Same size as total number of 800xA History Signals).		
Data Access to 800xA History Signals – 100 signals	3BSE079541R1	
Data Access to 800xA History Signals – 1,000 signals	3BSE079541R10	
Data Access to 800xA History Signals – 15,000 signals	3BSE079541R150	

Information Manager

IM Historian Server

IM Historian Server	Article no.
<p>IM Historian Server Logging of signals for Operator trends is included in the core system for up to three months. Logging for a longer time period, archiving to external media like DVD, discs or web based Historian tools require Historian server. 500 logs are included. Max 120,000 logs allowed in one server (Includes Archiving license, PDL, up to 12,000,000 events, MDI client and one Excel Data Access).</p>	3BSE078842R1

History Logs	Article no.
<p>Number of initial Information Management Hierarchical Logs in the system. Each signal to be logged counts as one log. Note: Information Management provides only Hierarchical Logs.(Total max 300,000 and max 50,000/Server)</p>	
100 History Logs	3BSE078843R1
1,000 History Logs	3BSE078843R2
15,000 History Logs	3BSE078843R3

Dual History Logs	Article no.
<p>For parallel logging in two history servers. (Two Basic Historian Servers are required). Number of initial Information Management Hierarchical Logs in the system. Each signal to be logged counts as one log. Note: Information Management provides only Hierarchical Logs. (Total max 150,000 and max 50,000/Server.)</p>	
100 Dual History Logs	3BSE078844R1
1,000 Dual History Logs	3BSE078844R2
15,000 Dual History Logs	3BSE078844R3

Consolidated History Logs	Article no.
<p>Consolidated logs collect data from multiple History Servers and store it in a single location. This provides a common history repository for viewing and reporting. (Total max 300,000 and max 50,000/Server.)</p>	
100 Consolidated History Logs	3BSE078845R1
1,000 Consolidated History Logs	3BSE078845R2
15,000 Consolidated History Logs	3BSE078845R3

Information Manager

IM Historian

Convert History Logs to Dual History Logs	Article no.	
(Total max 150,000, and max 50,000/Server) Use this option when converting an existing systems single History Logs to Dual History Logs.		
100 Convert Single to Dual History Logs	3BSE079643R1	
1,000 Convert Single to Dual History Logs	3BSE079643R2	
15,000 Convert Single to Dual History Logs	3BSE079643R3	

Historian Display and Reporting Options	Article no.	
Display Builder for MDI – Additional Client Provides the ability to create MDI information displays for desktop applications.	3BSE078846R1	
Multi-Display Interface (MDI) – Additional Client Provides the ability to view MDI information displays on any PC Desktop (Max 64 per Server)	3BSE078847R1	
Desktop Trends – Additional Client Provides trend viewing for desktop applications. Includes web enabled trend display for long and short term history and stock ticker like viewer. (Max 64 per Server)	3BSE078848R1	

Historian Data Access Options	Article no.	
To access historical data through SQL from third party applications. Batch Reports with trending requires the ODBC Server (E920) and ODBC Client (E930) option. This option provides the links necessary to connect the Oracle database (PDL) and the numeric log and process data. Applications which utilize commercial third party reporting tools should also include the ODBC Server (E920) and ODBC Client (E930) option. The number of client connection is based on whether the applications utilize the connection directly or indirectly. If the connection is made indirectly (using Oracle), then the client connection requires only one. If the client connections are direct, then the number of clients should equal the number of concurrent users.		
Excel Data Access To access historical data through SQL from third party applications. Used to access historical data in Excel from non-800xA PC's. For 800xA Client PC's Excel Data Access is included. (Max 64 per Server)	3BSE078849R1	
ODBC Historical Data Server ODBC, includes third party code. (One per server.)	3BSE078850R1	
ODBC Client Connection ODBC Clients are purchased separately from the ODBC server. (Max 10 per ODBC Server.)	3BSE078851R1	

800xA 6.0 System

Safety

Enabler for combined PA Control and Certified Safety software	Article no.	
AC 800M High Integrity and Process Control One fixed license feature per AC 800M controller running both non-SIL and SIL applications in the same controller.	3BSE078759R1	

800xA 6.0 System

Asset Optimization

Asset Optimization	Article no.	
100 Asset Monitors Asset monitoring and Basic Asset Monitor Library. Each Aspect Object being monitored by one or more asset monitors counts as one.	3BSE078871R1	
1000 Asset Monitors Asset monitoring and Basic Asset Monitor Library. Each Aspect Object being monitored by one or more asset monitors counts as one.	3BSE078871R2	
800xA Maximo Integration Enables integration into Maximo for work order management. Application Engineering available through ConsultIT.	3BSE078873R1	
800xA SAP / Plant Maintenance Integration Enables integration into SAP for work order management. Application Engineering available through ConsultIT.	3BSE078874R1	

Asset Optimization

Asset Monitors

Asset Monitors	Article no.	
Generic Heat Exchanger Asset Monitor It monitors the performance against standard operating parameters independent of type of heat exchanger.	3BSE078875R1	
Shell and Tube Heat Exchanger Asset Monitor It monitors the performance against standard operating parameters based on the size of shell and tube heat exchanger.	3BSE078876R1	
Advanced Harmony Control System Monitoring Enables Harmony Control Network monitors for diagnostic monitoring, reporting, and analysis	3BSE078877R1	
100 Control Loop Asset Monitors Each Control Loop Asset Monitor monitors and assesses the performance of a control loop in real-time and report significant problems related to the control loop and final control element. The total quantity of Control Loop Asset Monitors must not exceed 500.	3BSE078878R100	
300 Control Loop Asset Monitors Each Control Loop Asset Monitor monitors and assesses the performance of a control loop in real-time and report significant problems related to the control loop and final control element. The total quantity of Control Loop Asset Monitors must not exceed 500.	3BSE078878R300	
500 Control Loop Asset Monitors Each Control Loop Asset Monitor monitors and assesses the performance of a control loop in real-time and report significant problems related to the control loop and final control element. The total quantity of Control Loop Asset Monitors must not exceed 500.	3BSE078878R500	
PC, Network and Software Monitoring Enables availability monitoring of IT assets.	3BSE078879R1	

800xA 6.0 System

Device Management & Fieldbuses

Device Management HART	Article no.	
For HART devices to be accessed using Device Type Manager (DTM's) within System 800xA. Includes HART Device Library with generic and specific HART Device Aspect Objects incl. DTM's, I/O DTM for S800 and S900, HART Instruments Asset Monitor Library and OPC Server. Each HART device aspect object accessed with DTM counts as one. (Max 2500 per Connectivity Server if OPC Communication is used. For details refer to System Guide)		
100 HART Device Aspect Objects	3BSE078880R1	
1,000 HART Device Aspect Objects	3BSE078880R2	
10,000 HART Device Aspect Objects	3BSE078880R3	
HART Multiplexer Connect Enables HART Device Integration to connect to HART devices using HART Multiplexers.	3BSE078881R1	

800xA 6.0 System

Device Management & Fieldbuses

Device Management FOUNDATION Fieldbus	Article no.	
For FOUNDATION Fieldbus (FF) devices to be accessed using Fieldbus Builder FF within System 800xA. Includes FF Device Library with FF Device Aspect Objects, FF Instruments Asset Monitor Library and OPC Server. Each FF device aspect object counts as one. (Max 1000 per Connectivity Server. For details refer to System Guide.)		
100 FF Device Aspect Objects	3BSE078882R1	
1,000 FF Device Aspect Objects	3BSE078882R2	
10,000 FF Device Aspect Objects	3BSE078882R3	
Device Management PROFIBUS	Article no.	
For PROFIBUS DP/PA devices to be accessed using Device Type Manager (DTM's) within System 800xA. Includes PROFIBUS Device Library with specific PROFIBUS Device Aspect Objects incl. DTM's, I/O DTM for S800 and S900, and PROFIBUS Instruments Asset Monitor Library. Each PROFIBUS device aspect object accessed with DTM counts as one. (Max 2500 per Connectivity Server if OPC communication is used. For details refer to System Guide.)		
100 PROFIBUS Device Aspect Objects	3BSE078883R1	
1,000 PROFIBUS Device Aspect Objects	3BSE078883R2	
10,000 PROFIBUS Device Aspect Objects	3BSE078883R3	
IEC 61850-Ed1 Connect	Article no.	
For order of IEC 61850 related products, local organizations must comply with the Demands on the Purchaser to secure successful sales of IEC 61850 with System 800xA. Ref doc, 3BSE058798.		
IEC 61850-Ed1 Connect Allows operation clients to access data and alarm and event values from Intelligent Electronic Devices (IEDs) according IEC 61850-Ed1 (Edition1). Package includes IEC 61850 OPC server software with configuration tool on Connectivity Servers. You have to order number of used OPC server instances (max. 16 per System). IEC 61850 Substation Operation Library with Faceplates to control substation equipment (Bay, Breaker, Switch, ..) is included	3BSE078884R1	
Redundant IEC 61850-Ed1 Connect Option Allows operation clients to access data and alarm and event values through redundant OPC-servers from Intelligent Electronic Devices (IEDs) according IEC 61850-Ed1 (Edition1). Package includes IEC 61850 OPC server software with configuration tool on Connectivity Servers. You have to order the number of used OPC server instances. (max. 16 per System) IEC 61850 Substation Operation Library with Faceplates to control substation equipment (Bay, Breaker, Switch, ..) is included. Requires IEC 61850-Ed1 Connect.	3BSE078885R1	

800xA 6.0 System

Libraries

Libraries	Article no.	
<p>INFI90 Function Code Library for AC 800M Control functions, faceplates and graphics elements that makes it easier to create functionality that has earlier been configured in an INFI90 system. Requires separate media.</p>	3BSE078890R1	
<p>MOD 300 CCF Library for AC 800M Control functions, faceplates and graphics elements that makes it easier to create functionality that has earlier been configured in a MOD300 system. Requires separate media.</p>	3BSE078889R1	
<p>TCP Communication Library License Control functions to create TCP based communication protocols in the AC800M controller. One licence is needed for each controller using the library.</p>	3BSE079542R1	
<p>UDP Communication Library License Control functions to create UDP based communication protocols in the AC800M controller. One licence is needed for each controller using the library.</p>	3BSE079543R1	
<p>PM865 Burner Management Library License Control functions for burner management applications. One license is needed for each PM865 using the library.</p>	3BSE086362R1	
<p>PM867 Burner Management Library License Control functions for burner management applications. One license is needed for each PM867 using the library.</p>	3BSE086363R1	

Localization

National Language Support (NLS) is intended for the localization of the operator interface to the desired language. NLS contains a set of functions that are harmonized with the Windows regional settings to enable a multilingual environment for the System 800xA.

The System 800xA supports translations, mainly the operator interface and the operator manuals as shown in the Table 3 and Table 4. The translation, or System 800xA Language Package, is implemented as a system extension and is possible to install without stopping the system.

The NLS Localization Guide describes what and how localization can be performed by a project with or without an installed Language Package. The English version of the Windows operating system is required. The System 800xA Language Packages can be downloaded free of charge from ABB Library.

It is always advisable to download full Language Package from ABB Library or advised, for each new installation to secure the latest updates for language packages.

Table 3. Supported Language Packages for Functional Areas

Language Packages	Functional Areas							
	Base System	Safety	SMS & eMailing	*Asset Optimization	FOUNDATION FIELDBUS	Batch Management	** Information Management	SFC Viewer
English (default)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Arabic	Yes	Yes						Yes
Chinese	Yes	Yes		Yes	Yes	Yes	Yes	Yes
French	Yes	Yes	Yes				Yes	Yes
German	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Russian	Yes	Yes					Yes	Yes
Spanish	Yes	Yes	Yes				Yes	Yes
Swedish	Yes	Yes	Yes			Yes	Yes	Yes

* Only system messages

** Storage of messages in local language

Table 4. Supported Language Packages for Connectivity

Language Packages	Connectivity			
	800xA for AC 800M	800xA for Advant Master	PLC Connect	800xA for Melody
English (default)	Yes	Yes	Yes	Yes
Arabic	Yes			
Chinese	Yes	Yes	Yes	
French	Yes	Yes		
German	Yes	Yes		Yes
Russian	Yes	Yes		
Spanish	Yes			
Swedish	Yes	Yes		

AC 800M Processor Units

CPU Modules

Several CPU modules are available that vary in terms of processing power, memory size, and redundancy support. Each CPU module is equipped with built in Ethernet port(s) for communication with other controllers and for interaction with operators, engineers, managers, and higher level applications. These ports can be configured for redundancy for those cases where availability is of paramount importance. It is also equipped with two RS-232C ports that can be used for point-to-point communication with programming/debugging tools and with third-party systems and devices.

The SIL3-rated and IEC61508-certified, AC 800HI controller supports running both process control and safety application, in the same machine.

The AC 800M controller can be configured with 800xA control builder. When configured with the 800xA control builder AC 800M becomes a tightly integrated part of the System 800xA.

Communication & I/O Modules

To each CPU module, a number of communication and I/O modules can be added, for example:

- Additional RS-232C ports
- PROFIBUS DP, PROFINET IO
- Foundation Fieldbus HSE/H1
- DeviceNet
- IEC 61850
- Ethernet IP
- MasterBus 300
- MODBUS TCP
- S100 I/O
- S800 I/O
- S800L I/O
- S900 I/O



AC 800M PM891 controller



AC 800M controller



AC 800M High Integrity

AC 800M Controllers selection guide

Features / CPUs	PM851A	PM856A	PM858	PM860A	PM861A	PM862
Processor Unit	PM851AK01 incl: 1 PM851 CPU and required optional items	PM856AK01 incl: 1 PM856 CPU and required optional items	PM858K01 incl: 1 PM858 CPU and required optional items PM858K02 incl: 2 PM858K01	PM860AK01 incl: 1 PM860 CPU and required optional items	PM861AK01 incl: 1 PM861A CPU and required optional items PM861AK02 incl: 2 PM861AK01	PM862K01 incl: 1 PM862 CPU and required optional items. PM862K02 incl: 2 PM862K01
Optional items (partly included in Processor Units, see Price List)	TP830 Baseplate, TP850 CEX-bus term., TK850 CEX-bus cable, TB807, Modulebus term, Battery RAM backup, TB852/TB853 RCU-link term, TB851/TB855/TB856 RCU-link cable, SB822 External Battery Unit, TK212A Tool cable, TC562 Short Distance Modem, TK853V020 Modem cable, BC810K02, BC820K02, CEX-bus Interconnection unit; TK851V010 Connection cable, SD831/SD832/SD833 Power Supply, SS832 Voting Unit, Mains Breaker Kit, SM811 Supervisory Module and SM812 Supervisory Module.					
High Integrity Controller	No	No	No	No	No	No
Clock frequency	24 MHz	24 MHz	33 MHz	48 MHz	48 MHz	67 MHz
Memory (RAM)	8 MB	8 MB	16MB	8 MB	16 MB	32 MB
From 5.1 FP4	12 MB	16 MB		16 MB		
RAM available for application	2.282 MB	2.282 MB	7.147 MB	2.282 MB	7.155 MB	23.521 MB
From 5.1 FP4	6.253 MB	10.337 MB		10.346 MB		
Processor type	MPC860	MPC860	MPC866	MPC860	MPC860	MPC866
Flash memory for storage of application and data	Yes	Yes	Yes	Yes	Yes	Yes
CPU redundancy support	No	No	Yes	No	Yes	Yes
Switch over time in red. conf.	-	-	max 10 ms	-	max 10 ms	max 10 ms
Performance, 1000 boolean operations (a=b and c)	0.46 ms	0.46 ms	0.36 ms	0.23 ms	0.23 ms	0.18 ms
No. controllers per control projects	32					
No. of applications per control project	1024					
No. of applications per controller	32					
No. of programs per application	64					
No. of tasks per controller	32					
Number of different cycle times	32					
Cycle time per application programs	Down to 1 ms					
Flash PROM for firmware storage	2 MB	2 MB	4 MB	2 MB	2 MB	4 MB
Power supply	24 V DC (19.2-30 V DC) max 5 % ripple acc. to IEC 61131-2					
Power consumption +24 V	typ/max 180/300 mA	typ/max 180/300 mA	typ/max 210/360 mA	typ/max 180/300 mA	typ/max 250/430 mA	typ/max 210/360 mA
Power dissipation	typ 4.32 W	typ 4.32 W	typ 5.1 W	typ 4.32 W	typ 6.0 W	5.1 W
Power Reservoir	Internal 5 ms power reservoir, sufficient for the CPU to make a controlled power down					
Power supply connector	Detachable 4-pole screw terminal block					
Redundant power supply status inputs	Yes: 2 inputs designated SA, SB (Max 30 V, high level >15 V, low level < 8 V)					
Built-in back-up battery	Type: Lithium, 3.6 V, 0.95 Ah, size 1/2 AA, 0.3 g Lithium content					
Real-time clock stability	100 ppm (approx. 1 h/year)					
Clock synchronization	1 ms between AC 800M controllers by CNCP protocol					
Comm. modules on CEX bus	1	12	12	12	12	12
Supply current on CEX bus	Supply current: Max 24 V - 2.4 A (fuse 3.15 A fast, PM891 has an embedded auto fuse)					
I/O clusters on Modulebus with non-redundant CPU	1 el. + 1 opt.	1 el. + 7 opt.	1 el. + 7 opt.	1 el. + 7 opt.	1 el. + 7 opt.	1 el. + 7 opt.
I/O clusters on Modulebus with redundant CPU	NA	NA	7 optical	NA	0 el. + 7 opt.	7 optical

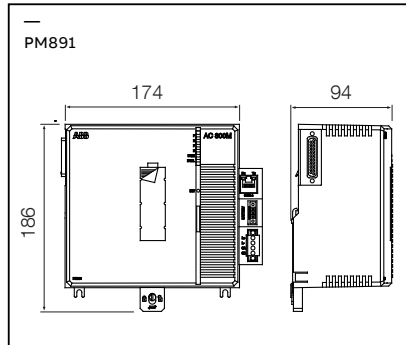
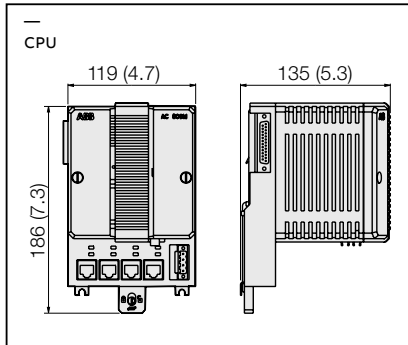
Features / CPUs	PM851A	PM856A	PM858	PM860A	PM861A	PM862
I/O capacity on Modulebus with non-redundant/redundant CPU	Max 24/NA I/O modules	Max 96/NA I/O modules	Max 96/84 I/O modules	Max 96/NA I/O modules	Max 96/84 I/O modules	Max 96/84 I/O modules
Modulebus scan rate	0 - 100 ms (actual time depending on number of I/O modules)					
Supply current on Electrical Modulebus	Supply current: Max 24 V - 1.0 A (short circuit proof, fuse 2.0 A), Max 5 V - 1.5 A (short circuit proof)					
I/O capacity on PROFIBUS (remote I/O)	Max 99 I/O stations (max 62 redundant I/O stations), max 24 I/O modules per I/O station (max 12 redundant I/O pairs)					
Ethernet channels	1	2	2	2	2	2
Ethernet interface	Ethernet (IEEE 802.3), 10 Mbit/s, RJ-45, female (8-pole)					
Control Network protocol	MMS (Manufacturing Message Service) and IAC (Inter Application Communication)					
Recommended Control Network backbone	100 Mbit/s switched Ethernet					
No. of controllers on Control Network	max 50					
RS-232C interface	2 (one general, 1 for service tool)					
RS-232C interface (COM3) (non red.conf. only)	RS-232C, 75-19 200 baud, RJ-45 female (8-pole), not opto isolated, full RTS-CTS support					
RS-232C interface (COM4) (non red.conf. only)	RS-232C, 9 600 baud, RJ-45 female (8-pole), opto isolated, no RTS-CTS support					
Temperature	+5 to +55 °C (+41 to +131 °F)					
• Operating	-40 to +70 °C (-40 to +158 °F)					
• Storage						
Temperature changes	3 °C/minutes according to IEC/EN 61131-2					
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					
Vibration	10 < f < 50 Hz: 0.0375 mm amplitude, 50 < f < 150 Hz: 0.5 g acceleration, 5 < f < 500 Hz: 0.2 g acceleration					
Emitted noise	< 55 dB (A)					
Shock, no package	150 m/s ² in 11 ms, 20 g in 3 ms					
Relative humidity	5 to 95 %, non-condensing					
Isolation voltage	Type test voltage: 500 V AC (corresponding to 700 V DC)					
Environmental conditions	Industrial					
Protection class	IP20 according to EN 60529, IEC 529					
Certificates and Standards	CE- marking: Meets EMC directive 2004/108/EC acc. to EN 61000-6-4, EN 61000-6-2 and Low Voltage Directive acc. to EN 61131-2 Electrical Safety: EN 50178, IEC 61131-2, UL 508 Hazardous location: UL 60079-15, cULus Class 1, Zone 2, AEx nA IIC T4, ExnA IIC T4Gc X					
TÜV Approval	No	No	No	No	No	No
Emission	Tested according to EN 61000-6-4 EMC – Generic Emission Standard, Part 2 – Industrial Environment					
Immunity	Tested according to EN 61000-6-2 EMC – Generic Immunity Standard, Part 2 – Industrial Environment					
Dimensions	Width 119 x Height 186 x Depth 135 mm (4.7 x 7.3 x 5.3 in.)					
Weight (including base)	1100 g (2.4 lbs)	1100 g (2.4 lbs)	1200 g (2.6 lbs)	1100 g (2.4 lbs)	1200 g (2.6 lbs)	1200 g (2.6 lbs)

AC 800M Controllers selection guide

Features / CPUs	PM864A	PM865	PM866A	PM867	PM891
Processor Unit	PM864AK01 incl: 1 PM864A CPU and required optional items PM864AK02 incl: 2 PM864AK01	PM865K01 incl: 1 PM865 CPU and required optional items PM865K02 incl: 2 PM865K01	PM866AK01 incl: 1 PM866A CPU and required optional items PM866AK02 incl: 2 PM866AK01	PM867K01 incl: 1 PM867 CPU and required optional items PM867K02 incl: 2 PM867K01	PM891K01 incl: 1 PM891 CPU and required optional items PM891K02 incl: 2 PM891K01
Optional items (partly included in Processor Units, see Price List)	TP830 Baseplate, TP850 CEX-bus term., TK850 CEX-bus cable, TB807, Modulebus term, Battery RAM backup, TB852/TB853 RCU-link term, TB851/TB855/TB856 RCU-link cable, SB822 External Battery Unit, TK212A Tool cable, TC562 Short Distance Modem, TK853V020 Modem cable, BC810K02, BC820K02, CEX-bus Interconnection unit; TK851V010 Connection cable, SD831/SD832/SD833 Power Supply, SS832 Voting Unit, Mains Breaker Kit, SM811 Supervisory Module and SM812 Supervisory Module.				
High Integrity Controller	No	Yes	No	Yes	No
Clock frequency	96 MHz	96 MHz	133 MHz	133 MHz	450 MHz
Memory (RAM) From 5.1 FP4	32 MB	32 MB	64 MB	64 MB	256 MB
RAM available for application	23.522 MB	22.184 MB	51.389 MB	46.559 MB	208.985 MB
Processor type	MPC862	MPC862P	MPC866	MPC866	MPC8270
Flash memory for storage of application and data	Yes	No	Yes	No	Yes
CPU redundancy support	Yes	Yes	Yes	Yes	Yes
Switch over time in red. conf.	max 10 ms	max 10 ms	max 10 ms	max 10 ms	max 10 ms
Performance, 1000 boolean operations (a:=b and c)	0.15 ms	0.17 ms	0.09 ms	0.09 ms	0.043 ms
No. controllers per control projects	32				
No. of applications per control project	1024				
No. of applications per controller	32				
No. of programs per application	64				
No. of tasks per controller	32				
Number of different cycle times	32				
Cycle time per application programs	Down to 1 ms				
Flash PROM for firmware storage	2 MB	4 MB	4 MB	18 MB	16 MB
Power supply	24 V DC (19.2-30 V DC) max 5 % ripple acc. to IEC 61131-2				
Power consumption +24 V	typ/max 287/487 mA	typ/max 287/487 mA	typ/max 210/360 mA	typ/max 210/360 mA	typ/max 660/750 mA
Power dissipation typ.	6.9 W	6.9 W	5.1 W	5.1 W	15.8 W
Power Reservoir	Internal 5 ms power reservoir, sufficient for the CPU to make a controlled power down				
Power supply connector	Detachable 4-pole screw terminal block				
Redundant power supply status inputs	Yes: 2 inputs designated SA, SB (Max 30 V, high level >15 V, low level < 8 V)				
Built-in back-up battery	Type: Lithium, 3.6 V, 0.95 Ah, size 1/2 AA, 0.3 g Lithium content				No
Real-time clock stability	100 ppm (approx. 1 h/year)				50 ppm
Clock synchronization	1 ms between AC 800M controllers by CNCP protocol				
Comm. modules on CEX bus	12	12	12	12	12
Supply current on CEX bus	Supply current: Max 24 V - 2.4 A (fuse 3.15 A fast, PM891 has an embedded auto fuse)				
I/O clusters on Modulebus with non-redundant CPU	1 el. + 7 opt.	1 el. + 7 opt.	1 el. + 7 opt.	1 el. + 7 opt.	0 el. + 7 opt.
I/O clusters on Modulebus with redundant CPU	0 el. + 7 opt.	0 el. + 7 opt.	0 el. + 7 opt.	0 el. + 7 opt.	0 el. + 7 opt.
I/O capacity on Modulebus with non-redundant/ redundant CPU	Max 96/84 I/O modules	Max 96/84 I/O modules	Max 96/84 I/O modules	Max 96/84 I/O modules	Max 84/84 I/O modules

Features / CPUs	PM864A	PM865	PM866A	PM867	PM891
Modulebus scan rate	0 - 100 ms (actual time depending on number of I/O modules), 0 - 300 for PM865 and PM867				
Supply current on Electrical Modulebus	Supply current: Max 24 V - 1.0 A (short circuit proof, fuse 2.0 A), Max 5 V - 1.5 A (short circuit proof)			24 V : max 1.0 A 5 V : max 1.5 A	Not supported
I/O capacity on PROFIBUS (remote I/O)	Max 99 I/O stations (max 62 redundant I/O stations), max 24 I/O modules per I/O station (max 12 redundant I/O pairs)				
Ethernet channels	2	2	2	2	2
Ethernet interface	Ethernet (IEEE 802.3), 10 Mbit/s, RJ-45, female (8-pole)				10/100 Mbit/s
Control Network protocol	MMS (Manufacturing Message Service) and IAC (Inter Application Communication)				
Recommended Control Network backbone	100 Mbit/s switched Ethernet				
No of controllers on Control Network	max 50				
RS-232C interface	2 (one general, 1 for service tool)				1 for service tool (COM 4)
RS-232C interface (COM3) (non red.conf. only)	RS-232C, 75-19 200 baud, RJ-45 female (8-pole), not opto isolated, full RTS-CTS support				Not supported
RS-232C interface (COM4) (non red.conf. only)	RS-232C, 9 600 baud, RJ-45 female (8-pole), opto isolated, no RTS-CTS support				
Temperature	<ul style="list-style-type: none"> • Operating +5 to +55 °C (+41 to +131 °F) • Storage -40 to +70 °C (-40 to +158 °F) 				
Temperature changes	3 °C/minutes according to IEC/EN 61131-2				
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				
Vibration	10 < f < 50 Hz: 0.0375 mm amplitude, 50 < f < 150 Hz: 0.5 g acceleration, 5 < f < 500 Hz: 0.2 g acceleration				
Emitted noise	< 55 dB (A)				
Shock, no package	150 m/s ² in 11 ms, 20 g in 3 ms				
Relative humidity	5 to 95 %, non-condensing				
Isolation voltage	Type test voltage: 500 V AC (corresponding to 700 V DC)				
Environmental conditions	Industrial				
Protection class	IP20 according to EN 60529, IEC 529				
Certificates and Standards	CE- marking: Meets EMC directive 2004/108/EC acc. to EN 61000-6-4, EN 61000-6-2 and Low Voltage Directive acc. to EN 61131-2 Electrical Safety: EN 50178, IEC 61131-2, UL 508 Hazardous location: UL 60079-15, cULus Class 1, Zone 2, AEx nA IIC T4, ExnA IIC T4Gc X				
TÜV Approval	No	IEC 61508 SIL3	No	IEC 61508 SIL3	No
Emission	Tested according to EN 61000-6-4 EMC – Generic Emission Standard, Part 2 – Industrial Environment				
Immunity	Tested according to EN 61000-6-2 EMC – Generic Immunity Standard, Part 2 – Industrial Environment				
Dimensions	Width 119 x Height 186 x Depth 135 mm (4.7 x 7.3 x 5.3 in.)				Width 174 x Height 186 x Depth 94 mm
Weight (including base)	1100 g (2.4 lbs)	1200 g (2.6 lbs)	1200 g (2.6 lbs)	1200 g (2.6 lbs)	1600 g (3.5 lbs)

Measurements



AC 800M Hardware

Hardware Upgrade orders

AC 800M Hardware

Please note that this Hardware Price List can be used for both System 800xA v5 and System 800xA v6. No licenses are included for the items in this Price List. Licenses for running the Hardware can be purchased using the Software Expansion Lists.

Hardware Upgrade orders

For Hardware Upgrade orders please send your inquiry to Service Center mail box: offer.selog@se.abb.com

ISA-S71.04 level G3 Compliance

Modules are compliant to ISA-S71.04 level G3, unless explicitly stated differently.

Extended Warranty for AC 800M Hardware

We can offer an extended warranty for one, two, or three years in addition to normal warranty conditions for AC 800M Hardware. See price list Extended Warranty 3BSE049908.

AC 800M Hardware

System Units


System Units



The Tool Cable TK212A is most useful when working with AC 800M. Please order a cable (Item P215) together with your first order of PM851AK01, PM856AK01, PM858K01, PM858K02, PM860AK01, PM861AK01, PM861AK02, PM862K01, PM862K02, PM864AK01, PM864AK02, PM865K01, PM865K02, PM866K01, PM866K02, PM866AK01, PM866AK02, PM867K01, PM867K02, PM891K01 or PM891K02.


AC 800M Hardware

AC 800M Processor Units

AC 800M Processor Units	Article no.	
 <p>PM851AK01 Processor Unit Package including:</p> <ul style="list-style-type: none"> • PM851A, CPU • TP830, Baseplate, width=115 mm • TB850, CEX-bus terminator • TB807, ModuleBus terminator • Battery for memory backup (4943013-6) • No license included. 	3BSE066485R1	
<p>PM856AK01 Processor Unit Package including:</p> <ul style="list-style-type: none"> • PM856A, CPU • TP830, Baseplate, width=115 mm • TB850, CEX-bus terminator • TB807, ModuleBus terminator • Battery for memory backup (4943013-6) • No license included. 	3BSE066490R1	






AC 800M Hardware

AC 800M Processor Units

AC 800M Processor Units	Article no.	
 <p>PM858K01 Processor Unit Package including:</p> <ul style="list-style-type: none"> • PM858, CPU • TP830, Baseplate, width =115mm • TB850, CEX-bus terminator • TB807, ModuleBus terminator • TB852, RCU-Link terminator • Battery for memory backup (4943013-6) • No license included. 	3BSE082895R1	
	<p>PM858K02 Redundant Processor Units Package including:</p> <ul style="list-style-type: none"> • 2 pcs PM858, CPU • 2 pcs TP830, Baseplate, width =115mm • 2 pcs TB807, ModuleBus terminator • 1 pcs TK850, CEX-bus expansion cable • 1 pcs TK851, RCU-Link cable • 2 pcs Battery for memory backup (4943013-6) • No license included. 	3BSE082896R1
	<p>PM860AK01 Processor Unit Package including:</p> <ul style="list-style-type: none"> • PM860A, CPU • TP830, Baseplate, width=115 mm • TB850, CEX-bus terminator • TB807, ModuleBus terminator • Battery for memory backup (4943013-6) • No license included. 	3BSE066495R1
<p>PM862K01 Processor Unit Package including:</p> <ul style="list-style-type: none"> • PM862, CPU • TP830, Baseplate, width =115mm • TB850, CEX-bus terminator • TB807, ModuleBus terminator • TB852, RCU-Link terminator • Battery for memory backup (4943013-6) • No license included. <p>Only compatible with 800xA 6.0.2, Compact Control Builder 6.0.0-1 and onwards. Please see Product Update for more information.</p>	3BSE076940R1	
<p>PM862K02 Redundant Processor Units Package including:</p> <ul style="list-style-type: none"> • 2 pcs PM862, CPU • 2 pcs TP830, Baseplate, width =115mm • 2 pcs TB807, ModuleBus terminator • 1 pcs TK850, CEX-bus expansion cable • 1 pcs TB851, RCU-Link cable • 2 pcs Battery for memory backup (4943013-6) • No license included. <p>Only compatible with 800xA 6.0.2, Compact Control Builder 6.0.0-1 and onwards. Please see Product Update for more information.</p>	3BSE081636R1	




AC 800M Hardware


AC 800M Processor Units

AC 800M Processor Units	Article no.	
 <p>PM866AK01 Processor Unit Package including:</p> <ul style="list-style-type: none"> • PM866A, CPU • TP830, Baseplate, width =115mm • TB850, CEX-bus terminator • TB807, ModuleBus terminator • TB852, RCU-Link terminator • Battery for memory backup (4943013-6) • No license included. 	3BSE076939R1	
 <p>PM866AK02 Redundant Processor Units Package including:</p> <ul style="list-style-type: none"> • 2 pcs PM866A, CPU • 2 pcs TP830, Baseplate, width =115mm • 2 pcs TB807, ModuleBus terminator • 1 pcs TK850, CEX-bus expansion cable • 1 pcs TB851, RCU-Link cable • 2 pcs Battery for memory backup (4943013-6) • No license included. 	3BSE081637R1	
 <p>PM891K01 Processor Unit Package including:</p> <ul style="list-style-type: none"> • PM891 CPU Module • TB850, CEX-bus terminator • TB853, RCU Control Link Terminator • No license included 	3BSE053241R1	
 <p>PM891K02 Redundant Processor Unit Package including:</p> <ul style="list-style-type: none"> • 2 pcs PM891K01 Processor Unit • 1 pcs TK850V007 CEX-bus Extension Cable • 1 pcs TK855 RCU Data Link Cable • 1 pcs TK856 RCU Control Link Cable • No license included <p>Please note: The BC810K02 is not included in the PM891K02 Redundant Processor Unit kit. In order to make hot replacement of PM891 Processor Unit possible, the BC810K02 is required and has to be ordered separately.</p>	3BSE053242R1	
 <p>SB822 Rechargeable battery unit External DIN-rail mounted rechargeable battery unit including lithium-ion battery, 24V DC connector and connection cable TK821V020. Width=85 mm. Equivalent amount of Lithium metal=0,8g (0,03oz)</p>	3BSE018172R1	

System Units


AC 800M High Integrity Units

AC 800M High Integrity Units	Article no.	
<p>The PM865 or PM867 CPU units are intended for use in High Integrity systems. Local organizations must comply with the Qualifications to secure successful sales of ABB safety systems, to order safety equipment. Ref doc, 3BSE047224</p>		
 <p>PM865K01 Processor Unit Package including:</p> <ul style="list-style-type: none"> • PM865, CPU • TP830, Baseplate, width =115mm • TB850, CEX-bus terminator • TB807, ModuleBus terminator • TB852, RCU-Link terminator • Battery for memory backup (4943013-6) • No license included <p>Note! This part is not RoHS 2 2011/65/EU compliant. This is a spare part for systems placed on the market before July 22, 2017 and may only be ordered for repair, reuse, updating of functionalities or upgrading of capacity. For new installations, please order PM867K01 instead.</p>	3BSE031151R1	
 <p>PM865K02 Redundant Processor Unit Package including:</p> <ul style="list-style-type: none"> • 2 pcs PM865K01, Processor unit • 1 pcs TK850, CEX-bus expansion cable • 1 pcs TK851, RCU-Link cable • No license included <p>Note! This part is not RoHS 2 2011/65/EU compliant. This is a spare part for systems placed on the market before July 22, 2017 and may only be ordered for repair, reuse, updating of functionalities or upgrading of capacity. For new installations, please order PM867K02 instead</p>	3BSE031150R1	
<p>PM867K01 Processor Unit Package including:</p> <ul style="list-style-type: none"> • PM867, CPU • TP830, Baseplate, width =115mm • TB850, CEX-bus terminator • TB807, ModuleBus terminator • TB852, RCU-Link terminator • Battery for memory backup (4943013-6) • No license included. <p>Only compatible for 800xA 6.0.2 and onwards. Please see Product Update for more information.</p>	3BSE076355R1	
<p>PM867K02 Redundants Processor Units Package including:</p> <ul style="list-style-type: none"> • 2 pcs PM867, CPU • 2 pcs TP830, Baseplate, width =115mm • 2 pcs TB807, ModuleBus terminator • 1 pcs TK850, CEX-bus expansion cable • 1 pcs TB851, RCU-Link cable • 2 pcs Battery for memory backup (4943013-6) • No license included. <p>Only compatible for 800xA 6.0.2 and onwards. Please see Product Update for more information.</p>	3BSE081638R1	
 <p>SM811K01 Safety CPU module kit Collaborating safety CPU with PM865 processor unit. Connects to CEX bus after BC810 CEX bus interconnection box. Including:</p> <ul style="list-style-type: none"> • SM811, Safety Module • TP868, Baseplate, width=60mm • TK852V10, Synchronization link cable <p>Note! This part is not RoHS 2 2011/65/EU compliant. This is a spare part for systems placed on the market before July 22, 2017 and may only be ordered for repair, reuse, updating of functionalities or upgrading of capacity. For new installations, please order SM812K01 instead.</p>	3BSE018173R1	

AC 800M High Integrity Units		Article no.
	SM812K01 Safety CPU module kit Collaborating safety CPU with PM867 processor unit. Package including: <ul style="list-style-type: none"> • SM812, Safety Module • TP868, Baseplate, width=60mm • TK852V10, Synchronization link cable Only compatible for 800xA 6.0.2 and onwards. Please see Product Update for more information.	3BSE072270R1
	SS823 Voting Device Required in a High Integrity 800xA system. One per power supply unit, also at redundant configurations. Input d.c. 24 V. Dual 24 V to single 24 V, 20A. DIN rail mounted.	3BSE038226R1

System Units

Extra Batteries

Extra Batteries	
	For extra Lithium batteries (4943013-6), please refer to Business Online.


Communication

Control Network

Control Network	
	No articles, such as cables, hubs, switches etc, for Control Network are included in this price list. Please refer to Product Guide AC 800M, for recommended articles. Recommended network components are available in 800xA Networks price list, 3BSE081392

Communication

Serial Interfaces on TP830

Serial Interfaces on TP830		Article no.
	RS232-C interfaces for protocols COMLI, MODBUS, Siemens 3964R, the free-programmable serial protocol etc. Also for connection of engineering tool.	
	TK212A Tool cable RJ45 (male) to Dsub-9 (female), length 3 m. RJ45 8P8C plug (with shell). Cable : UL2464 26 AWG x 8C.	3BSC630197R1
	TC562 Short Distance Modem, G1 Compliant Length < 10 km. Point-to-point up to 1 km at 19200 bps. Power 24V d.c. Width=55 mm	3BSC630049R1
	TK853V020 Modem Cable Length 2 m	3BSC950201R1


Communication Interface selection guide

Supported Communication modules	PROFIBUS DP	FOUNDATION FIELDBUS	RS-232 C	MB300	INSUM	Drivebus	S100 I/O	Genius TRIO I/O	Satt I/O	MODBUS TCP	IEC 61850
Module	CI854A/ CI854B	CI860	CI853	CI855	CI857	CI858	CI856	CI862	CI865	CI867	CI868
Protocol	DP-V1 (PA via Linking Device)	FF HSE (H1 via Linking Device)	MODBUS RTU master, COMLI master/slave, Siemens 3964R master, User defined protocols	MasterBus 300	IEEE 802.3	ABB's DriveBus	ABB's S100 I/O	Genius	ABB's Satt I/O	MODBUS TCP	IEC 61850
Master or slave	Master	Master	Master/slave	Master/slave	Master	Master	Master	Master	Master	Master/slave	
Number of channels	2	1	2	2	1	1 main, 2 aux	1	1	1	2	1
Max units on CEX bus	12	12	12	12	6	2	12	12	4	12	12
Transmission speed	9.6 - 12,000 kbit/s	10/100 Mbit/s	75 - 19 200 b/s	10 Mbit/s, 200 Datasets/s	10 Mbit/s	4 Mbit/s	-	38.4 - 153.6 kbit/s	-	10/100 Mbit/s (Ch1), 10 Mbit/s (Ch2)	10/100 Mbit/s
Cable redundancy	Yes	No	No	Yes	No	No	No	No	No	No	No
Module redundancy	Yes	Yes	No	No	No	No	No	No	No	Yes	No
Hot Swap	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Used together with High Integrity Controller	Yes	No	Yes	Yes	Yes	No	No	No	No	Yes	Yes
Connectors	DB female (9-pin)	RJ-45 female (8-pin)	RJ-45 female (8-pin)	RJ-45 female (8-pin)	RJ-45 female (8-pin)	Fiberoptic	Miniribbon (36-pin)	Phoenix (4-pin)	BNC	RJ-45 female (8-pin)	RJ-45 female (8-pin)
24 V current consumption	typ 190 mA	typ 100 mA	typ 100 mA	typ 150 mA	typ 150 mA	typ 200 mA	typ 200 mA	typ 190 mA	typ 120 mA	typ 160 mA	typ 160 mA
Protection class	IP20 according to EN60529, IEC 529										
Certification											
• CE-marked	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
• UL 508	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
• UL 60079-15 (Class 1 Zone 2)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
Dimensions	Width 58 x Height 186 x Depth 135 mm (2.3 x 7.3 x 5.3 in.)										
Weight (including base)	700 g (1.5 lbs)	455 g (0.9 lbs)	520 g (1.2 lbs)	700 g (1.5 lbs)	600 g (1.3 lbs)	700 g (1.5 lbs)	600 g (1.3 lbs)	600 g (1.3 lbs)	600 g (1.3 lbs)	700 g (1.5 lbs)	700 g (1.5 lbs)

Supported Communication modules	AF100	PROFINET IO	EtherNet/IP DeviceNet
Module	CI869	CI871	CI873
Protocol	Advant Fieldbus 100	PROFINET IO	EtherNet/IP DeviceNet (via LD800DN)
Master or slave	Slave	Master	Master
Number of channels	2	1	1
Max units on CEX bus	4	12	4
Transmission speed	Up to 500 Kbit/s	10/100 Mbit/s	10/100 Mbit/s
Cable redundancy	Yes	No	No
Module redundancy	Yes	No	No
Hot Swap	Yes	Yes	Yes
Used together with High Integrity Controller	Yes	Yes	Yes
Connectors	Phoenix (4-pin)	RJ-45 female (8-pin)	RJ-45 female (8-pin)
24 V current consumption	typ 160 mA	typ 160 mA	typ 160 mA
Protection class	IP20 according to EN60529, IEC 529		
UL 508	Yes	Yes	Yes
UL 60079-15 (Class 1 Zone 2)	Yes	Yes	Yes
Dimensions	Width 58 x Height 186 x Depth 135 mm (2.3 x 7.3 x 5.3 in.)		
Weight (including base)	700 g (1.5 lbs)	700 g (1.5 lbs)	700 g (1.5 lbs)


Communication

Serial Communication Interface

Serial Communication Interface	Article no.	
 <p>RS232-C interfaces for protocols COMLI, MODBUS, Siemens 3964R, the free-programmable serial protocol etc.</p> <p>CI853K01 Dual RS232-C interface Package including:</p> <ul style="list-style-type: none"> • CI853, Communication Interface • TP853, Baseplate, width = 60 mm 	3BSE018103R1	


Communication

MODBUS TCP

MODBUS TCP	Article no.	
 <p>CI867K01 Modbus TCP Interface Package including:</p> <ul style="list-style-type: none"> • CI867, Communication Interface • TP867, Baseplate, width = 60mm 	3BSE043660R1	


Communication

PROFIBUS DP

PROFIBUS DP	Article no.	
 <p>The required PROFIBUS network components (Linking Devices, etc) must be ordered from price list 3BDD 013 232, PROFIBUS Network Components.</p> <p>CI854AK01 Profibus Communication Interface Package including:</p> <ul style="list-style-type: none"> • CI854A, Communication Interface • TP854, Baseplate, width = 60 mm <p>CI854BK01 Profibus Communication Interface Package including:</p> <ul style="list-style-type: none"> • CI854B, Communication Interface • TP854, Baseplate, width = 60 mm 	3BSE030220R1	3BSE069449R1


Communication

PROFINET IO

PROFINET IO	Article no.	
 <p>CI871K01 PROFINET IO Communication Interface Package including:</p> <ul style="list-style-type: none"> • CI871, Communication Interface • TP867, Baseplate, width = 60 mm 	3BSE056767R1	


Communication

FOUNDATION Fieldbus

FOUNDATION Fieldbus	Article no.	
	<p>The required FOUNDATION Fieldbus network components (Linking devices, etc) must be ordered from price list 3BDD 013 231, FOUNDATION Fieldbus Network Components.</p>	
	<p>CI860K01 FOUNDATION Fieldbus HSE Interface Package including:</p> <ul style="list-style-type: none"> • CI860, Communication Interface • TP860, Baseplate, width = 60 mm 	3BSE032444R1



Communication

IEC 61850

IEC 61850	Article no.	
	<p>For order of IEC 61850 related products, local organizations must comply with the Demands on the Purchaser to secure successful sales of IEC 61850 with System 800xA. Ref doc, 3BSE058798.</p>	
	<p>CI868K01 IEC61850-Ed1 (Edition 1) Communication Package including:</p> <ul style="list-style-type: none"> • CI868, Communication Interface • TP867, Baseplate, width=60mm 	3BSE048845R1


Communication

Ethernet/IP

Ethernet/IP	Article no.	
 	<p>CI873K01 Ethernet/IP Communication Interface Packaging including:</p> <ul style="list-style-type: none"> • CI873, Communication Interface • TP867, Baseplate width=60mm 	3BSE056899R1
	<p>LD 800DN EtherNet/IP to DeviceNet Linking Device, G1 Compliant Package including:</p> <ul style="list-style-type: none"> 1 pcs LD 800DN 1 pcs Installation Guide 2 pcs Termination resistors for DeviceNet, 1/4 W, 121 Ohm May only be used with CI873 Communication Interface.	3BSC690164R1


Communication

Advant Fieldbus 100

Advant Fieldbus 100	Article no.	
 <p>CI869K01 AF 100 Communication Interface Package including:</p> <ul style="list-style-type: none"> • CI869, Communication Interface • TP869, Baseplate, width=60mm 	3BSE049110R1	


Communication

MasterBus 300

MasterBus 300	Article no.	
 <p>CI855K01 MB 300 Dual Ethernet port Package including:</p> <ul style="list-style-type: none"> • CI855, MB300 Interface Module • TP853, Base plate 	3BSE018106R1	



Communication

S100 I/O Bus

S100 I/O Bus	Article no.	
 <p>CI856K01 S100 I/O Interface Installed on DIN rail. Communication bridge between AC800M and S100 system. Package including:</p> <ul style="list-style-type: none"> • CI856, Communication Interface • TP856, Baseplate, width = 60mm 	3BSE026055R1	


Communication

TRIO

TRIO		Article no.
	CI862K01 TRIO Interface Kit, G1 Compliant Package including: <ul style="list-style-type: none"> • CI862, Communication Interface • TP862, Baseplate, width = 60 mm 	3BUA000037R1
	CI862K02 Redundant TRIO Interface Kit with Connection Cable, G1 Compliant Package including: <ul style="list-style-type: none"> • 2 x CI862, Communication Interface • 2 x TP862, Baseplate, width = 60 mm • TK862 Cable, 1 m 	3BUA000111R1


Communication

Satt I/O

Satt I/O		Article no.
	For SATT 19" rack I/O and S200 I/O via ControlNet. For additional Satt 19" rack I/O components, see price list 3BSE014353 (Interface) in price book 3BSE014360 (SattLine/SattCon). CI865K01 Communication Interface Module for Satt I/O Package including: <ul style="list-style-type: none"> • - CI865, Communication Interface • - TP865, Baseplate, width = 60 mm 	3BSE040795R1


Communication

INSUM

INSUM		Article no.
	CI857K01 INSUM Ethernet Interface Package including: <ul style="list-style-type: none"> • CI857, Communication Interface • TP853, Baseplate, width = 60 mm 	3BSE018144R1

Communication

DriveBus

DriveBus		Article no.
	CI858K01 DriveBus Interface Package including: <ul style="list-style-type: none"> • CI858, Communication Interface • TP858, Baseplate, width = 60 mm 	3BSE018135R1

Communication

Bus Accessories

Bus Accessories		Article no.
	TK850V007 CEX-Bus Extension Cable Length = 0.7 m	3BSC950192R1
	TB850 CEX-Bus Terminator With 25-pin DB25P male connector. With screw fixing.	3BSC950193R1
	TB851 CEX-Bus Terminator With 25-pin DB25S female connector. With screw fixing.	3BSC950194R1
	BC810K02 CEX-bus Interconnection Unit Including: <ul style="list-style-type: none"> • BC810, Interconnection Unit, 2 units • TP857, Baseplate, width = 60 mm, 2 units • TK851, Interconnection Cable • TB850, CEX-Bus Terminator, 2 units 	3BSE031155R1
	BC820K02 RCU-Link and CEX-Bus Interconnection Units Allows AC 800M redundant PM858, PM862 or PM866 (A) pair to be up to 200 m apart, cables not included. Including: <ul style="list-style-type: none"> • BC820, RCU-Link and CEX-Bus Interconnection Unit, 2 units • TP850, Baseplate, width=60mm, 2 units • TK857 RCU-Link Cable for BC820, 2 units • TB850, CEX-Bus Terminator, 2 units PM866 PR:H or later is required.	3BSE071500R1
	TK851V010 Connection Cable Length = 1.0 m. Used as: <ul style="list-style-type: none"> • RCU Link Cable • BC810 Interconnection Cable 	3BSC950262R1
	TB852 RCU Link Terminator	3BSC950263R1
	TB853 RCU Control Link Terminator	3BSE057022R1
	TK855 RCU Data Link Cable Length = 1.0 m. Used as: RCU Data Link Cable	3BSC950356R1
	TK856 RCU Control Link Cable Length = 1.0 m. Used as: RCU Control Link Cable	3BSE057021R1
	TK857V003 RCU Link Cable Length = 0.3 m. Used as: RCU Link cable	3BSC950375R1

AC 800M Power supply and Voters selection guide

Feature	SD822Z	SD831	SD832	SD833	SD834	SS822Z	SS832	SS823
Rated output current	5 A	3 A	5 A	10 A	20 A	20 A	10 A (20 A in parallell operation)	20 A
Rated output power	120 W	72 W	120 W	240 W	480 W	-	-	-
Rated output voltage	d.c. 24 V	d.c. 24 V	d.c. 24 V	d.c. 24 V	d.c. 24 V	-	-	-
Rated input power	280 VA 135 W	134/143 VA	240/283 VA	447/514 VA	547/568 VA	500 W	240 W (480 W in parallell operation)	500 W
Mains/input voltage, nominal	115/230 V a.c. 225-250 V d.c.	100-240 V a.c. 110-300 V d.c.	100-120 V a.c. 200-240 V a.c. Auto-select input	100-120 V a.c. 200-240 V a.c. Auto-select input	100-240 V a.c. 110-150 V d.c.	2x24 V d.c.	2x24 V d.c (1x24 V d.c in parallell operation)	1x24 V d.c
Mains voltage variation allowed	85 - 110%	90-264 V a.c. 88-375 V d.c.	90-132 V a.c. 180-264 V a.c.	90-132 V a.c. 180-264 V a.c.	85-276 V a.c. 88-375 V d.c.	-	-	-
Mains/input voltage, max. (a.c.= 45-65 Hz)	138/275 V a.c. 375 V d.c.	264-300 V a.c.	264-300 V a.c.	264-300 V a.c.	264-300 V a.c.	60 V d.c.	60 V d.c.	60 V d.c.
Primary peak inrush current at power on	Typ 15 A	<28/<54 A	<10 A	<10 A	<13 A	-	-	-
Applications	SELV and PELV	SELV and PELV	SELV and PELV	SELV and PELV	SELV and PELV	-	-	-
Load sharing	Two in parallell	-	-	-	Parallell connection	Two in parallell	Two in parallell	Yes
Power Factor (at rated output power)		0.61/0.56	0.56/0.47	0.59/0.51	0.95/0.90	-	-	-
Heat dissipation	13.3 W	10/8 W	14/13 W	24/22 W	40/32 W	10 W at 20 A and 2,5 W at 5 A	9 W (18 W)	24 W at 20 A and 6 W at 5 A
Efficiency factor	88 %	88/89.8 %	89.4/90.2 %	91/91.6 %	92.4/93.9 %	-	-	-
Output voltage regulation at max. current	+ - 2%	< 50 mV / < 100 mV	< 70 mV / < 100 mV s	< 70 mV / < 100 mV	< 10 mV / < 100 mV	0,5 V lower than input	0.85 V lower than input	1.2 V lower than input
Ripple (peak to peak)	< 50 mV	< 50 mV	< 50 mV	< 50 mV	< 100 mV	-	-	-
Secondary voltage holdup time at mains blackout	> 20 ms	29/120 ms	80/78 ms	46/47 ms	32/51 ms	-	-	-
Maximum output current (min)	10 A	3.3 A	6 A At ambient temp < 45 °C	12 A At ambient temp < 45 °C	30 A < 4 s	35 A (Overload)	25 A (Overload)	35 A (Overload)
Maximum ambient temperature	60 °C	60 °C	60 °C	60 °C	60 °C	60 °C	60 °C	55 °C
Primary: Recommended external fuse ⁽¹⁾	10 A	10-20 A	10-20 A	10-20 A	10-20 A	-	-	-
Secondary: Short circuit	< 10 A	< 8 A	< 14 A	< 18 A	< 40 A	-	-	-
Secondary: Over-Voltage protection	29 V	< 39 V	< 39 V	< 39 V	< 37 V	-	-	< 30 V
Class of protection	I PE (Protective Earth) connection required					-	-	-
Protection rating	IP20 according to IEC60529							
Width	65 mm (2.56")	32 mm (1.26")	32 mm (1.26")	60 mm (2.36")	82 mm (3.23")	50 mm (1.97")	32 mm (1.26")	116 mm (4.6")
Depth	110 mm (4.3")	102 mm (4.02")	117 mm (4.61")	117 mm (4.61")	127 mm (5.0")	110 mm (4.3")	117 mm (4.61")	145 mm (5.8") including connector
Height	125 mm (4.9")	124 mm (4.88")	124 mm (4.88")	124 mm (4.88")	124 mm (4.88")	125 mm (4.9")	125 mm (4.9")	132 mm (5.3")

AC 800M Power supply and Voters selection guide

Feature	SD822Z	SD831	SD832	SD833	SD834	SS822Z	SS832	SS823
Mounting spacing Width mm	15 mm (0.59")	15 mm (0.59")	15 mm (0.59")	15 mm (0.59")	15 mm (0.59")	15 mm (0.59")	15 mm (0.59")	15 mm (0.6")
Mounting spacing Height mm	25 mm (1")	40 mm (1.57")	40 mm (1.57")	40 mm (1.57")	40 mm (1.57")	25 mm (1")	25 mm (1")	25 mm (1.2")
Weight (lbs.)	620 g (1.4 lbs)	430 g (0.9 lbs.)	500 g (1.1 lbs.)	700 g (1.5 lbs.)	1200 g (2.6 lbs.)	630 g (1.4 lbs)	350 g (0.77 lbs.)	870 g (1.9 lbs.)
Corrosive atmosphere ISA-S71.04	G3	G2	G2	G2	G2	G3	G2	G3
CE mark	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
El. safety, Haz loc, C1 Zone 2	No	No	No	No	No	No	No	No
El. safety, Haz loc, C1 Div 2	No	No	No	No	Yes	No	No	No
Electrical safety	IEC 61131-2, UL 508, EN 50178 (Note! UL 508 not valid for SS823)							
Pollution degree	Degree 2, IEC 60664-1							
Mechanical operating conditions	EN 61131-2							
EMC	EN 61000-6-4 and EN 61000-6-2							
Overvoltage Categories	Over-voltage Category III (IEC/EN 60664-1)							

⁽¹⁾ Microcircuit Breaker (MCB), Characteristic B


AC 800M Processor Units

AC 800M Power supply and Voters

AC 800M Power supply		Article no.
	SD822Z Power Supply Device, G3 Compliant Input 115/230V a.c. switch selectable, output 24V d.c., 5A. If redundant power application is required connect to SS822Z Voting Unit.. Width = 65 mm. DIN rail mounted.	3BSC610054R1
	SD831 Power Supply Device, G2 Compliant Input a.c. 100-240 V or d.c. 110-300 V. Output d.c. 24 V 3A. If redundant power application is required connect to SS8XX. Voting unit. Width = 35mm. DIN rail mounted.	3BSC610064R1
	SD832 Power Supply Device, G2 Compliant Input a.c. 100-120/200-240 V. Output d.c. 24 V 5A, auto-select input. If redundant power application is required connect to SD8XX. Voting unit. Width = 35mm. DIN rail mounted.	3BSC610065R1
	SD833 Power Supply Device, G2 Compliant Input a.c. 100-120/200-240 V, auto-select input. Output d.c. 24 V 10A. If redundant power application is required connect to SD8XX. Voting unit. Width = 60mm. DIN rail mounted.	3BSC610066R1
	SD834 Power Supply Device, G2 Compliant Input a.c. 100-240 V or d.c. 110-150 V. Output d.c. 24 V 20A. If redundant power application is required connect to SS8XX. Voting unit. Width = 85mm. DIN rail mounted.	3BSC610067R1
	SS822Z Power Voting Unit, G3 Compliant With dual 24V d.c 20A inputs, single 24V d.c. 20A output. Each power input supervised. Used if redundant power supply is required. For use with power supply SD822Z. Width = 50 mm. DIN rail mounted.	3BSC610055R1
	SS832 Voting Device, G2 Compliant Input d.c. 24 V. Dual 24 V to single 24 V, 2x10A. Width = 35mm. DIN rail mounted.	3BSC610068R1
	Mains Breaker Kit for DIN Rail 115/230V a.c. with input terminals, breaker and 3 fused (6.3A), double output terminals. Width = 102,5 mm.	3BSE022262R1

AC 800M Processor Units

AC 800M Mounting Rails

AC 800M Mounting Rails		Article no.
	Al-profile with DIN rail and Cable Duct for RE820, mounting 719 mm (28,3") DIN rail length 683 mm (26,9")	3BSE022257R1
	Al-profile with DIN Rail and Cable Duct for RM550, mounting 592 mm (24") DIN rail length 556 mm (21,9")	3BSE022256R1
	Al-profile with DIN Rail and Cable Duct, mounting 465 mm (19") DIN rail length 429 mm (16,9")	3BSE022255R1

S800 I/O Modules

S800 I/O is a comprehensive and modular process I/O system that communicates with parent controllers either direct connected using the Modulebus or over industry-standard field buses. Thanks to its broad connectivity it fits a wide range of process controllers from ABB and others.

By permitting installation in the field, close to sensors and actuators, S800 I/O reduces the installation cost by reducing the cost of cabling. And thanks to features such as hot swap of modules, on-line reconfiguration and redundancy options, it contributes to keeping production – and thereby profits up.

S800 I/O features include:

- Comprehensive coverage
- Flexible configuration and installation
- Ease of set up
- Reliability and accuracy

- HART pass-through
- Redundancy also on I/O module level
- High Integrity I/O modules certified to SIL3
- High accuracy time tagging
- Defined outputs at communication errors
- I/O modules with Intrinsic Safety interfaces

With its cost-effective design and just 59 mm depth installation, S800L I/O modules are the perfect choice for PLC applications. Robust mechanics, one-piece handling, easy mounting and smart connections save your time in all phases of installation. The comprehensive S800 I/O system consists of more than 40 different module types to respond to every need. Classification of corrosive protection, electrical safety, hazardous location and marine certification brings the possibility to install S800 I/O in a wide variety of applications. S800 I/O is installed with more than 30 million channels worldwide.



S800 I/O



S800 I/O



S800L I/O

S800 I/O Modules

Digital input modules	
DI810	16 channels, 2 groups of 8 channels, 24 V d.c., current sink.
DI811	16 channels, 2 groups of 8 channels, 48 V d.c., current sink.
DI814	16 channels, 2 groups of 8 channels, 24 V d.c., current source.
DI818	32 channels, 2 groups of 16 channels, 24 V d.c., current sink.
DI820	8 channels, separate returns, 110 V d.c., 120 V a.c.
DI821	8 channels, separate returns, 220 V d.c., 230 V a.c.
DI825	With time tagging, 8 channels, separate returns, 125 V d.c.
DI828	16 channels, separate returns, 110 V d.c., 120 V a.c. / d.c.
DI830	With time tagging. 16 channels, 2 groups of 8 channels, 24 V d.c., current sink. Resolution: < 0.5 ms.
DI831	With time tagging. 16 channels, 2 groups of 8 channels, 48 V d.c., current sink. Resolution: < 0.5 ms.
DI885	With time tagging & wire-fault detection. 8 channels, common return, 24-48 V d.c., current sink. Resolution: 1 ms.
Pulse input module	
DP820	2 channels, separate returns, 0.25 Hz - 1.5 MHz, signal voltage: 5 / 12 V d.c.
DP840	8 channels, extended diagnostics, wire-fault detection, current limited sensor supply, 0.5-20 kHz, 12/24 V d.c or NAMUR, common return.
Digital output modules	
DO810	16 channels, 2 groups of 8 channels, 24 V d.c., max 0.5 A d.c., transistor, current source, short-circuit-proof.
DO814	16 channels, 2 groups of 8 channels, 24 V d.c., max 0.5 A, transistor, current sink, short-circuit-proof.
DO815	8 channels, 2 groups of 4 channels, 24 V d.c., max 2 A, transistor, current source, short-circuit-proof, wire-fault detection.
DO818	32 channels, 2 groups of 16 channels, 24 V, max 0.5 A d.c., transistor, current source, short-circuit-proof
DO820	8 channels, separate returns, 5-250 V, max 3 A a.c./d.c., relay (N.O.).
DO821	8 channels, separate returns, 5-250 V, max 3 A a.c./d.c., relay (N.C.).
DO828	16 channels, separate returns, 5-250V a.c. / 5-125V d.c. max 2A a.c./d.c., relay (N.O.).
Analog input modules	
AI810	8 channels, single-ended, 0(4)-20 mA, 0(2)-10 V, 12 bits.
AI815	8 channels with HART. 0(4)..20 mA, 0(1)..5 V, 12 bit, single ended, current limited transmitter supply.
AI820	Differential inputs, 4 channels, 0(1)-5 V, ±0(2)-10 V, ±0(4)-20 mA, 14 bits + sign.
AI825	Individually galvanically isolated channels, 4 channels, ±0(2)-10 V, ±0(4)- 20 mA, 14 bits + sign.
AI830A	RTD inputs, 8 channels, Pt100, Ni100, Ni120, Cu10, resistor 0-400 ohms, 14 bits, 3-wire.
AI835A	TC inputs, 8 channels, (7+ ref. junction), separate returns. TC types B, C, D, E, J, K, L, N, R, S, T, U, - 30...75 mV, 15 bits.
Analog output modules	
AO810V2	8 channels, common return, 0(4)-20 mA, 14 bits, load: 850 ohms (short-circuit-proof).
AO815	8 channels with HART. 4..20 mA, 12 bit, load: 750 ohms, common return, short-circuit-proof.
AO820	4 channels, individually galvanically isolated, separate returns, measuring range: ±0(2)-10 V, ±0(4)-20 mA, resolution: 12 bits + sign, load: 500 ohms (current) / 5 kohms (voltage), short-circuit-proof.
Intrinsic-safety modules	
DI890	8 channels, separate returns, proximity sensors (NAMUR) or voltage-free contact., current sink, wire-fault detection.
DO890	4 channels, separate returns, load 150-5000 ohms, 11 V @ 40 mA, current source, wire-fault detection, short circuit-proof.
AI890	8 channels, single-ended, 0(4)-20 mA, 12 bits, transmitter power supply.
AI893	8 channels, TC: 7 + ref. junction, sep. returns. TC types B, C, E, J, K, L, N, R, S, T, U, -10...80 mV. RTD: Pt50-1000, Ni100-500, Cu10-100, resistor 0-4000 W, 3-wire. 15 bits + sign.
AI895	8 channels, single-ended, 4-20 mA, 12 bits, transmitter power supply, HART pass-through.
AO890	8 channels, common return, 0(4)-20 mA, 12 bits, load: 725 ohms short-circuit-proof.
AO895	8 channels, common return, 4-20 mA, 12 bits, load: 725 ohms short-circuit-proof, HART pass-through.
Redundant modules	
DI840	16 channels, common return, 24 V d.c., current sink, extended diagnostics, time-tagging, current limited sensor supply.
DP840	8 channels, common return, 0.5-20 kHz, 12/24 V d.c or NAMUR, extended diagnostics, wire-fault detection.
DO840	16 channels, common return, 24 V d.c., max. 0.5 A, transistor, current source, short-circuit-proof, extended diagnostics.
AI843	TC input, 8 channels + ref. junction. TC types: B, C, E, J, K, L, N, R, S, T, U, -30...75 mV, 16 bits, extended diagnostics.
AI845	8 channels, 12 bits, 0(4)-20 mA 0(1)-5 V, extended diagnostics, HART pass-through, current limited transmitter supply, single ended.
AO845A	8 channels, 12 bits, common return, 4-20 mA, extended diagnostics, HART pass-through, 750 ohms.

S800L I/O Modules

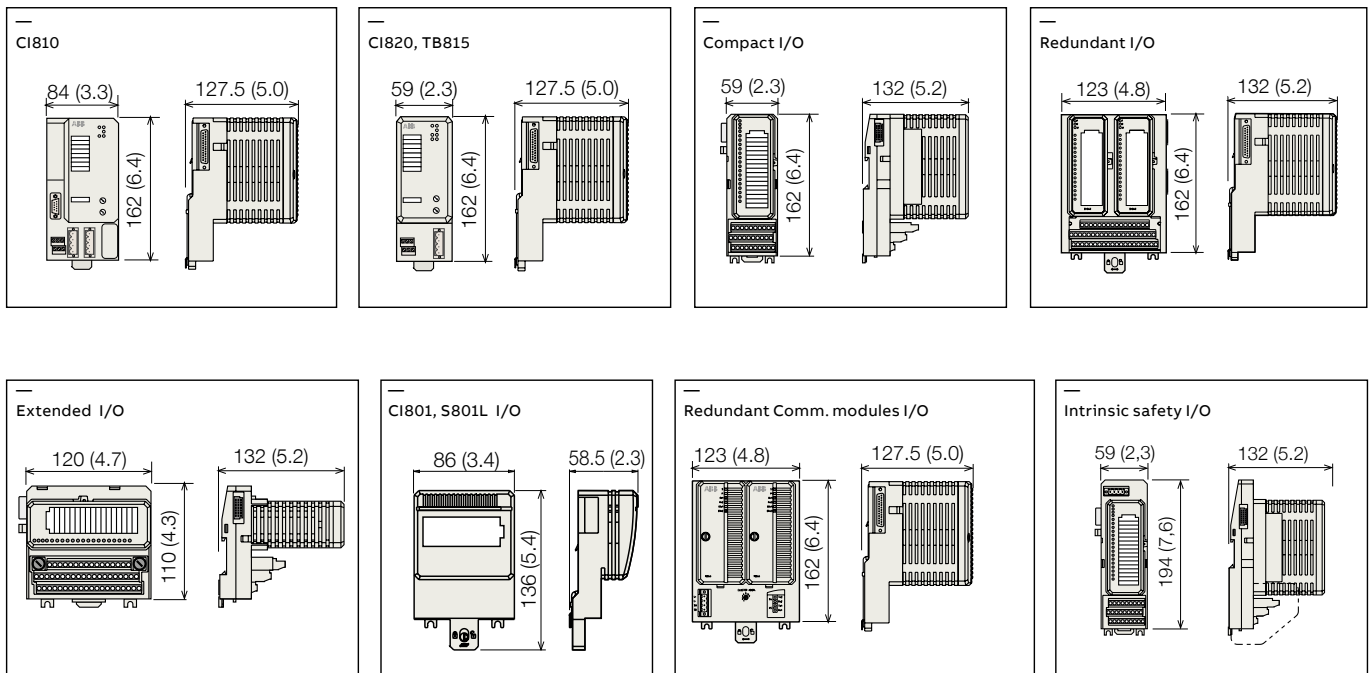
S800L modules	
DI801	16 channels, 1 group, 24 V d.c., current sink.
DI802	8 channels, 110 V d.c., 150 V a.c.
DI803	8 channels, 220 V d.c., 230 V a.c.
DO801	16 channels, common return, 24 V, max 0.5 A d.c., transistor, current source, short-circuit-proof.
DO802	8 channels, 5-250 V, max 2 A a.c./d.c., relay (N.O.).
AI801	8 channels, single-ended, 0(4)-20 mA, 12 bits.
AO801	8 channels, common return, 0(4)-20 mA, 12 bits, load: less than 750 ohms.
Accessories	
TU805K01	For DI801 & DO801. With field power distribution screw terminals. For two or three wire connection.

Environmental Data for S800 I/O	
Climatic Operating Conditions	+5 to +55 °C (Storage -40 to +70 °C, RH = 5 to 95 % no condensation, IEC/EN 61131-2)
Protection class	IP20 according to EN 60529, IEC 529
Corrosive protection	G3 compliant according to ISA-71.04
Electromagnetic Compatibility and CE-mark	Meets EMC directive 2004/108/EC according to EN 61000-6-2 and EN 61000-6-4
Electromagnetic Emission	Tested according to EN 61000-6-4 EMC – Generic Emission Standard, Part 2 – Industrial Environment
Electromagnetic Immunity	Tested according to EN 61000-6-2 EMC – Generic Immunity Standard, Part 2 – Industrial Environment
Electrical Safety *	UL508, IEC/EN 61131-2
Hazardous Classified Locations *	C1 Div 2 cULus, C1 Zone 2 cULus, ATEX Zone 2
Safety Integrity (IEC 61508)	PM865/SM811, PM867/SM812, AI880A, DI880, DO880: IEC 61508 up to SIL3

* For detailed information on each module, please visit: www.800xahardwareselector.com

04

Measurements



Dimensions in mm (in.)

S800 I/O modules selection guide

	NAMUR inputs	Binary 24 V	Binary 48 V	Binary 110 V	Binary 230 V	Binary Relay	Analog Unipolar	Analog Bipolar	Temperature RTD	Temperature T/C	SOE	HART	Intrinsic safety	Redundant	High integrity	
I/O Features S800																
Digital input modules																
DI810		•														
DI811			•													
DI814		•														
DI818		•														
DI820				•												
DI821					•											
DI825				•							•					
DI828				•												
DI830		•									•					
DI831			•								•					
DI840		•									•			•		
DI880		•									•			•		•
DI885		•	•								•					
DI890	•												•			
Digital output modules																
DO810		•														
DO814		•														
DO815		•														
DO818		•														
DO820						•										
DO821						•										
DO828						•										
DO840		•												•		
DO880		•												•		•
DO890													•			
Pulse input modules																
DP820		•														
DP840	•	•												•		
Analog input modules																
AI810							•									
AI815							•					•				
AI820								•								
AI825								•								
AI830A									•							
AI835A										•						
AI843										•				•		
AI845							•					•		•		
AI880A							•					•		•		•
AI890							•						•			
AI893								•	•				•			
AI895							•					•	•			
Analog output modules																
AO810V2							•									
AO815							•					•				
AO820								•								
AO845A							•					•		•		
AO890							•						•			
AO895							•					•	•			
S800L modules																
DI801		•														
DI802				•												
DI803					•											
DO801		•														
DO802						•										
AI801							•									
AO801							•									

S800 I/O

Extended warranty for S800 I/O Hardware

S800 I/O

Please note that this Hardware Price List can be used for both System 800xA v5 and System 800xA v6. No licenses are included for the items in this Price List. Licenses for running the Hardware can be purchased using the Software Expansion Lists.

Extended warranty for S800 I/O Hardware

We can offer an extended warranty for one, two, or three years in addition to normal warranty conditions for S800 I/O Hardware. See price list Extended Warranty Time 3BSE049908.

S800 I/O





ISA-S71.04 level G3 Compliance

ISA-S71.04 level G3 Compliance

Modules are compliant to ISA-S71.04 level G3, unless explicitly stated differently.


Communication

Field Communication Interface

Field Communication Interface	Article no.		
   	CI801 ProfiBus FCI S800 Communication Including: 1 pce Power Supply Connector 1 pce TB807 Modulebus Terminator	3BSE022366R1	
	CI801 Engineering kit SW1.3 Including: 1 pce CD with GSD file, Memory Maps and Release Note. 1 pce Reference Manual Memory Maps for CI801.	3BSE038540R1300	
	CI840A Profibus DP-V1 Communication Interface. For 1+1 redundant operation. Two CI840A and one TU847 or one TU846 must be ordered. The basic systemsoftware loaded in CI840 does not support the following I/O modules: DI825, DI830, DI831, DI885, AI880A, DI880, DO880 and ABB Drives.	3BSE041882R1	
	CI840 Engineering kit SW 4.0 Including: 1 pce CD with GSD file, Memory Maps and Release Notes. 1 pce Reference Manual Memory Maps for CI840.	3BSE031694R4000	
	TU846 Module Termination Unit, MTU, for 1+1 CI840. Support for redundant I/O. Vertical mounting of modules. Including: 1 pce Power Supply Connector 2 pcs TB807 Modulebus Terminator	3BSE022460R1	
TU847 Module Termination Unit for 1+1 CI840. Support for non-redundant I/O. Vertical mounting of modules. Including: 1 pce Power Supply Connector 1 pce TB807 Modulebus Terminator	3BSE022462R1		


Communication

Field Communication Interface

Field Communication Interface	Article no.	
	Extra, Front label set FCI/AC 70/TB Sheet with 12 labels. For CI810, CI820, CI830, and TB820.	3BSC970089R1
	Extra, Label set, item design. FCI/AC70/TB Sheet with 40 labels. For CI810, CI820, CI830, and TB820.	3BSC970091R1
	Mounting kit For vertical mounting of CI801, CI840, and TB840 on a vertical DIN rail.	3BSE040749R1
	Mounting profile 1800, 2 DIN rails and 1 cable duct. DIN rail length : 1650 mm + 210 mm (65") + (8.3").	3BSE049768R1
	Al-profile with DIN Rail and Cable Duct, mounting 465 mm (19"). DIN rail length 429 mm (16,9").	3BSE022255R1
	Al-profile with DIN Rail and Cable Duct for RM550, mounting 592 mm (24"). DIN rail length 556 mm (21,9").	3BSE022256R1


Communication

Upgrade Kit and Tool Cables

Upgrade Kit and Tool Cables	Article no.	
	Upgrading of CI801, CI810, CI820, CI830, CI840 or CI840A to latest software version are available for download from ABB Library/Solutions Bank. Item R160 is cable connecting a PC to CI810, CI820 and CI830 for download of software. Item R165 is cable connecting a PC to CI840 or CI840A for download of software. CI801 requires items A160 and A165 for download of software.	
	TK527V030 Interface cable L = 3 m. DE9 pin to DE9 socket. For connection of CI810, CI820 and CI830 to PC.	3BSC950004R1
	TK212A Tool cable RJ45 (male) to Dsub-9 (female), length 3 m. RJ45 8P8C plug (with shell). Cable : UL2464 26 AWG x 8C.	3BSC630197R1
	FS801K01 Service adapter kit Including: 1 pcs Service adapter FS801 1 pcs cable TK802 For connection of CI801 to PC. A cable TK212A is also needed.	3BSE038407R1


S800 I/O

S800 I/O Modules

Analog Input Modules	Article no.	
 <p>AI810 Analog input 1x8 ch. 0(4)..20mA, 0..10V, 12Bit, single ended, 0.1%, Rated isol. 50V Use Module Termination Unit TU810, TU812, TU814, TU818, TU830, TU833, TU835, TU838, TU850.</p>	3BSE008516R1	
<p>AI815 Analog Input 1x8 ch with HART 0(4)..20mA, 0(1)..5V, 12bit, single ended, 0.1%, Rated isol. 50V. Current limited transmitter power distribution. Use Module Termination Unit TU810, TU812, TU814, TU818, TU830, TU833, TU835, TU838.</p>	3BSE052604R1	
<p>AI820 Analog input 4x1 ch. +-20mA, 0(4)..20mA, +-10V, +-5V, 0(1)..5V, diff., 50V CMV, 14bit+sign. Rin(curr)250 Ohms, Rated isol. 50V. Use Module Termination Unit TU810, TU812, TU814, TU830, TU833.</p>	3BSE008544R1	
<p>AI825 Analog Input 4x1ch Galv. isol. -20..20mA, 0(4)..20mA, -10..10V, 0(2)..10V, Galvanically isolated channels 14Bit+sign, 0.1%, Rated isol. 250V Use Module Termination Unit TU811, TU813, TU831.</p>	3BSE036456R1	
<p>AI830A Analog input 1x8ch RTD Pt100, Ni100/120, Cu10, R, Rated isol. 50V. Use Module Termination Unit TU810, TU812, TU814, TU830, TU833.</p>	3BSE040662R1	
<p>AI835A Analog input 8 ch. Thermocouple/mV Rated isol. 50V. Use Module Termination Unit TU810, TU812, TU814, TU818, TU830, TU833.</p>	3BSE051306R1	
<p>AI843 Analog Input, Redundant or Single 1x8ch Thermocouple/mV Rated isol. 50V. Use Modules Termination Unit TU818, TU830, TU833, TU842, TU843, TU852.</p>	3BSE028925R1	
<p>AI845 Analog Input. Redundant or single 1x8ch. HART. 0(4)..20mA, 0(1)..5V, 12bit, single ended, 0.1%, Rated isol. 50V. Current limited transmitter power distribution. Advanced on-board diagnostics. Use Module Termination Unit TU810, TU812, TU814, TU818, TU830, TU833, TU835, TU838, TU844, TU845, TU854.</p>	3BSE023675R1	
<p>AI890 Analog Input 1x8 ch with Intrinsic Safety Interface 0 (4)..20mA single ended 0,1%. Rated isol. 50V Use Module Termination Unit TU890 or TU891.</p>	3BSC690071R1	
<p>AI893 Analog Input 8 ch. Temp. measuring. Intrinsic Safety Interf. For TC and RTD sensors. Rated isol. 50V.</p>	3BSC690141R1	
<p>AI895 Analog Input 1x8 ch with Intrinsic Safety and HART. 4..20mA single ended 0,1%. Rated isol. 50V. Use Module Termination Unit TU890 or TU891</p>	3BSC690086R1	

S800 I/O

S800 I/O Modules

Analog Output Modules	Article no.	
 <p>AO810V2 Analog Output 1x8 channels, 0(4)...20mA 0(4)...20mA, 14bit RLmax 500/850 Ohms, Rated isolation 50V. Use module Termination Unit TU810, TU812, TU814, TU830 or TU833.</p>	3BSE038415R1	
<p>AO815 Analog Output 1x8 ch with HART 4..20mA, 12bit, 0.1%, RLmax 750 ohm, Rated isol. 50V. Use Module Termination Unit TU810, TU812, TU814, TU830 or TU833.</p>	3BSE052605R1	
<p>AO820 Analog Output 4x1 ch, +-20mA, 0(4)...20mA, +-10V, 12bit+sign. Indiv. isol. ch. RL max 500 Ohms, Rated isol. 50V. Use Module Termination Unit TU810, TU812, TU814, TU830, TU833.</p>	3BSE008546R1	
<p>AO845A Analog Output Redundant or single 1x8 ch HART 4..20mA, 12bit, 0.1%, RLmax 750 ohm, Rated isol. 50V. Advanced on-board diagnostics. Use Module Termination Unit TU810, TU812, TU814, TU830, TU833, TU842, TU843, TU852.</p>	3BSE045584R1	
<p>AO890 Analog Output 1x8 ch with Intrinsic Safety Interface 0 (4)...20mA 0,1%. RL max 750 ohm Rated isol. 50V Use Module Termination Unit TU890 or TU891.</p>	3BSC690072R1	
<p>AO895 Analog Output 1x8 ch with Intrinsic Safety and HART. 4...20mA 0,1%. RL max 750 ohm Rated isol. 50V. Use Module Termination Unit TU890 or TU891.</p>	3BSC690087R1	

S800 I/O


S800 I/O Modules



Digital Input Modules	Article no.	
DI810 Digital Input 24V d.c. 2x8 ch. Rated isolation 50V. Use Module Termination Unit TU810, TU812, TU814, TU830, TU833, TU838.	3BSE008508R1	
DI811 2x8 ch 48V Digital input 48Vd.c. 2x8 ch, Rated isol. 50V. Use Module Termination Unit TU810, TU812, TU814, TU818, TU830, TU833, TU838.	3BSE008552R1	
DI814 Digital Input 24V d.c. Current Source 2x8 ch, Rated isol. 50V. Use Module Termination Unit TU810, TU812, TU814, TU830, TU833, TU838.	3BUR001454R1	
DI818 Digital Input 24V d.c. 32 ch 2x16 ch, Rated isol. 50V, Use Module Termination Unit TU818, TU819, TU830. Note: At pricebook release this item required a TSA to be ordered. Please, check current need of a TSA in the TSA Database before ordering.	3BSE069052R1	
DI820 Digital Input 120V a.c./d.c. 8x1 ch, Rated isol. 250V. Use Module Termination Unit TU811, TU813, TU831.	3BSE008512R1	
DI821 Digital Input 230V a.c./d.c. 8x1 ch, Rated isol. 250V. Use Module Termination Unit TU811, TU813, TU831.	3BSE008550R1	
DI825 Digital Input 1x8ch, 125V d.c. SOE Individually Isolated channels, Rated isol. 250V. Use Module Termination Unit TU811, TU813, TU831.	3BSE036373R1	
DI828 Digital Input, 120V a.c./d.c. 16 ch 16x1 ch, Rated isol. 250V, Use Module Termination Unit TU851. Note: At pricebook release this item required a TSA to be ordered. Please, check current need of a TSA in the TSA Database before ordering.	3BSE069054R1	
DI830 Digital Input 24V d.c. SOE 2x8 ch, Rated isol. 50V. Use Module Termination Unit TU810, TU812, TU814, TU818, TU830, TU833, TU838.	3BSE013210R1	
DI831 Digital Input 48V d.c., SOE 2x8 ch, Rated isol. 50V. Use Module Termination Unit TU810, TU812, TU814, TU830, TU833, TU838.	3BSE013212R1	
DI840 Digital Input. Redundant or single, 24V d.c., 1x16 ch. Advanced On-Board diagnostics. Rated isol. 50V. Use Module Termination Unit TU810, TU812, TU814, TU818, TU830, TU833, TU838, TU842, TU843, TU852.	3BSE020836R1	
DI885 Digital Input 24/48V d.c., SOE 1x8 ch, Rated isol. 50V Use Module Termination Unit TU810, TU812, TU814, TU818, TU830, TU833.	3BSE013088R1	
DI890 Digital Input 8x1 ch with Intrinsic Safety Interface Rated isol. 50V. Use Module Termination Unit TU890 or TU891.	3BSC690073R1	


S800 I/O

S800 I/O Modules

Digital Output Modules	Article no.	
	DO810 Digital Output 24 V d.c. 2x8 ch 0.5A, Short circuit proof, Rated isol. 50V. Use Module Termination Unit TU810, TU812, TU814, TU830, TU833.	3BSE008510R1
	DO814 Digital Output current sinking 2x8 ch 0,5A , shortcut circuit proof, Rated isol.50V Use Module Termination Unit TU810, TU812, TU814, TU830, TU833, TU838.	3BUR001455R1
	DO815 Digital Output 24V d.c 2x4 ch, 2.0A short circuit proof. Rated isolation 50V. Use Module Termination Unit TU810, TU812, TU814, TU830, TU833.	3BSE013258R1
	DO818 Digital Output 24V d.c. 32 ch 2x16 ch, 0.5A, Short circuit proof, Rated isol. 50V, Use Module Termination Unit TU818, TU819, TU830.	3BSE069053R1
	DO820 Digital Output, Relay. Normal open 8x1 ch, 24-230V a.c./d.c. 3A, cos phi>0.4, d.c. 42W, Rated isol. 250V. Use Module Termination Unit TU811, TU813, TU831, TU836, TU837, TU851.	3BSE008514R1
	DO821 Digital Output, Relay. Normal closed 8x1 ch, 24-230V a.c./d.c.. 3A, cos phi>0.4, d.c. 42W, Rated isol.250V. Use Module Termination Unit TU811, TU813, TU831, TU836, TU837, TU851.	3BSE013250R1
	DO828 Digital Output, Relay Normally Open, 16 ch 16x1 ch, 5-250V a.c and 5-125V d.c, max 2A, Rated isol. 250V, Use Module Termination Unit TU851.	3BSE069055R1
	DO840 Digital Output. Redundant or single. 24V d.c., 0.5A. 2x8 ch. Advanced On-board diagnostics. Rated isol. 50V. Use Module Termination Unit TU810, TU812, TU814, TU830, TU833, TU842, TU843, TU852.	3BSE020838R1
	DO890 Digital Output 4x1 ch with Intrinsic Safety Interface Rated isol. 50V. Use Module Termination Unit TU890 or TU891.	3BSC690074R1


S800 I/O

Pulse Counting Modules

Pulse Counting Modules	Article no.	
	DP820 Pulse Counter RS-422, Current, 5V, (12V), 24V 2 ch bidirectional pulse counters and frequency measurement. 1,5MHz Rated isol 50V. Use Module Termination Unit TU810, TU812, TU814, TU830, TU833.	3BSE013228R1
	DP840 Pulse Counter or Frequency Measurement Module. Redundant or single. DP840 Pulse Counter Module. Redundant or single. 1x8 ch, 20kHz. Rated isol. 50V Use Module Termination Unit TU810, TU812, TU814, TU818, TU830, TU833, TU842, TU843, TU844, TU845, TU852, TU854.	3BSE028926R1



S800 I/O

Label sets for I/O Modules

Label sets for I/O Modules	Article no.	
	Transparent film fronts 1Set of 12 transparent plastic film fronts. To be used with ordinary paper quality.	3BSE072159R1
	White colored plastic coated paper One sheet of size A4. Original paper quality. No need to use transparent films.	3BSE072160R1
	Yellow colored plastic coated paper One sheet of size A4. Original paper quality. No need to use transparent films. To be used with DI880, DO880, AI880A.	3BSE072161R1



















S800 I/O

High Integrity I/O Modules

High Integrity I/O Modules	Article no.	
 	The modules can only be connected to AC 800M controller PM858, PM862, PM866A, PM865, PM867 and PM891. Direct connection to the modulebus and via the optical modulebus via TB840 (not TB820).	
	AI880A High Integrity Analog Input. Single or Redundant. HART 4..20mA, 8 ch. Current input. HART communication. Certified for SIL3. Requires configuration according to Safety Manual. Use Module Termination Unit TU834, TU844, TU845, TU854.	3BSE039293R1
	DI880 High Integrity Digital Input Single or Redundant 24V d.c., 16 ch. 24V d.c. inputs. Certified for SIL3. Requires configuration according to Safety Manual. Use Module Termination Unit TU810, TU812, TU814, TU818, TU830, TU833, TU838, TU842, TU843, TU852.	3BSE028586R1
	DO880 High Integrity Digital Output. Single or Redundant. 24V d.c., 16 ch. 0,5A Outputs. Certified for SIL3. Requires configuration according to Safety Manual. Use Module Termination Unit TU810, TU812, TU814, TU830, TU833, TU842, TU843, TU852.	3BSE028602R1
	SS823 Voting Device, G3 Compliant Required in a High Integrity 800xA system. One per power supply unit, also at redundant configurations.	3BSE038226R1













S800 I/O

Module Termination Units

Module Termination Units	Article no.	
	TU805K01 Termination Units for two or three wire connection of DI801 and DO801 Include 10 pcs of Termination Unit TU805.	3BSE035990R1
	TU810V1 Compact Module Termination Unit, MTU, 50V. 2x8 signal terminals, rated isol. 50V.	3BSE013230R1
	TU811V1 Compact Module Termination Unit, MTU, 250V. 1x8 signal terminals, rated isol. 250V.	3BSE013231R1
	TU812V1 Compact Module Termination Unit, MTU, 50V. With 25 pin D-sub connector, rated isol. 50V. D-sub (female) connector is not enclosed.	3BSE013232R1
	TU813 Compact Module Termination Unit, MTU, 250V 2x8 Signal terminals, Rated isol. 250V Detachable (pluggable) connectors are enclosed.	3BSE036714R1
	TU814V1 Compact Module Termination Unit, MTU, 50V. 2x8 Signal terminals, rated isol. 50V. Detachable (pluggable) connectors are enclosed.	3BSE013233R1
	TU818 Compact Module Termination Unit, MTU, 50V 1x32 (and 2x16) signal terminals, Rated isol. 50V	3BSE069209R1
	TU819 Compact Module Termination Unit, MTU, 50V. With 2x25 pin D-sub connector, Rated isol. 50V, D-sub (female) connector is not enclosed.	3BSE068891R1
	TU830V1 Extended Module Termination Unit, MTU, 50V. 2x16 signal terminals, rated isol. 50V.	3BSE013234R1
	TU831V1 Extended Module Termination Unit, MTU, 250V. 2x8 signal terminals, rated isol. 250V.	3BSE013235R1
	TU833 Extended Module Termination Unit, MTU, 50V. 2x16 signal terminals, Rated isol. 50V. Spring-cage terminals.	3BSE038726R1
	TU835V1 Extended Module Termination Unit, MTU, 50V. 8 fused power outlets, 8 signal terminals, rated isol. 50V.	3BSE013236R1
	TU836V1 Extended Module Termination Unit, MTU, 250V. 2x4 fused signals, 2x4 return terminals, 2x2 L 2x2N terminals, rated isol. 250V.	3BSE013237R1
	TU837V1 Extended Module Termination Unit, MTU, 250V. 8x1 fused isol. signals, 8x1 L terminals, 2x6 N terminals, rated isol. 250V.	3BSE013238R1
	TU838 Extended Module Termination Unit, MTU, 50V. 2x4 fused transducer power outlets, 16 signal terminals, 2x4 return terminals, 2x2 L+, 2x2 L- terminals, rated isol. 50V. Module is mounted horizontally.	3BSE008572R1
	TU839 Extended Module Termination Unit, 250V 2x8 signal terminals. 2x4 fused sensor power. Rated isol. 250V	3BSE046966R1
	TU842 Module Termination Unit, MTU, for redundant applications, 50V. Used for AO845, DI840, DO840. Horizontal mounted DIN rail. Rated isol. 50V.	3BSE020850R1
	TU843 Module Termination Unit, MTU, for redundant applications, 50V. Used for AO845, DI840, DO840. Vertical mounted DIN rail. Rated isol. 50V.	3BSE021443R1


S800 I/O and S800L I/O

Module Termination Units

Module Termination Units	Article no.	
 <p>TU844 Module Termination Unit, MTU, for redundant applications, 50V. Used with AI845, AI880 and DP840. Horizontal mounted DIN rail. Rated isol. 50V. Shunt Stick not included.</p>	3BSE021445R1	
 <p>TU845 Module Termination Unit, MTU, for redundant applications, 50V. Used with AI845, AI880A and DP840. Vertical mounted DIN rail. Rated isol. 50V. Shunt Stick not included.</p>	3BSE021447R1	
 <p>TU850 Extended Module Termination Unit, MTU, 50V 2x8 signal terminals and 2x8 disconnectable current limited sensor/transmitter outlet power terminals. Rated isol. 50V.</p>	3BSE050930R1	
 <p>TU851 Extended Module Termination Unit, MTU, 250V 2x16 signal terminals, Rated isol. 250V</p>	3BSE068782R1	
 <p>TU852 Module Termination Unit, MTU, for redundant applications, 50V Horizontal mounted DIN rail, used with redundant AO, DI, DO and DP I/O modules, with 2x25 pin D-sub connector, Rated isol. 50V</p>	3BSE069964R1	
 <p>TU854 Module Termination Unit, MTU, for redundant applications, 50V Horizontal mounted DIN rail, used with redundant AI and DP I/O modules, with 1x25 pin D-sub connector, Rated isol. 50V, Shunt Stick not included.</p>	3BSE069966R1	
 <p>TU890 Module Termination Unit for Intrinsic Safety applications Intrinsic Safety Interface, 3x9 signal terminals Rated isol. 50V</p>	3BSC690075R1	
 <p>TU891 Module Termination Unit for non Intrinsic Safety applications 3x9 signal terminals Rated isol. 50V.</p>	3BSC840157R1	
 <p>TY801K01 8pcs Shunt Stick TY801 125 + 125 ohms shunt. Used for AI845 and AI880A on TU844, TU845, TU854.</p>	3BSE023607R1	
 <p>TY804K01 8pcs Shunt Stick TY804 1000 ohms shunt. Used for DP840 on TU844, TU845, TU854</p>	3BSE033670R1	
 <p>TY805K01 8pcs Shunt Stick TY805 125 + 125 ohms shunt with current limitation on transmitter power. Used for AI845 and AI880A on TU834, TU844, TU845, TU854.</p>	3BSE081160R1	
 <p>TY820K01 10pcs Temperature Sensor TY820 TY820 is a temperature sensor with a PT 100 element. Can be used with AI835/AI835A and AI843 to measure cold junction Temperature.</p>	3BSE056980R1	


S800L I/O

S800L I/O Modules

Analog Input Modules		Article no.
	AI801 Analog input 1x8 ch, 0(4)...20mA, 12bit, single ended, 0.1%, Rated isol. 50V.	3BSE020512R1
Analog Output Modules		Article no.
AO801 Analog output 1x8 ch, 0(4)...20mA, 12 bit, RLmax 850 Ohm, Rated isol. 50V.		3BSE020514R1
Digital Input Modules		Article no.
DI801 Digital Input 24V d.c. 1x16 ch, Rated isol.50V		3BSE020508R1
DI802 Digital Input 120V a.c./d.c., 8x1ch. Rated isol. 250V.		3BSE022360R1
DI803 Digital Input 230V a.c./d.c., 8x1ch. Rated isol. 250V.		3BSE022362R1
Digital Output Modules		Article no.
DO801 Digital Output 16ch. 24V d.c. 0.5A. Short circuit proof, Rated isol. 50V		3BSE020510R1
DO802 Digital Output, Relay. Normal open 8x1 ch, 24-230V, a.c./d.c. Rated isol. 250V		3BSE022364R1

















S800L I/O

Label sets for S800L I/O Modules

Label sets for S800L I/O Modules		Article no.
	Label Set S800L, 16ch Sheet with 12 labels for 16 channels I/O modules.	3BSE019419R1
	Label Set S800L, 8ch Text colour: Black, Text style: Helv. reg., Text height: 2 mm, Material: Polyesterfilm Xeroperm t = 0,12 Sheet with 12 labels for 8 channels I/O modules	3BSE019419R2









S800 I/O and S800L I/O

ModuleBus Communication Parts

ModuleBus Communication Parts	Article no.	
	TB805 Bus Outlet Modulebus extension cable adaptor D-sub 25, female. One required per extension cable TK801.	3BSE008534R1
	TB845, Dual Modulebus outlet Modulebus extension cable adaptor two D-sub, female. Two TK801 cables for redundancy.	3BSE021437R1
	TB806 Bus Inlet Modulebus extension cable adaptor D-sub 25, male. One required per extension cable TK801.	3BSE008536R1
	TB846, Dual Modulebus inlet Modulebus extension cable adaptor two D-sub, male. Two TK801 cables for redundancy.	3BSE021439R1
	TK801V003 Cable Modulebus Extension Shielded Cable 0.3m D-sub 25, male-female.	3BSC950089R1
	TK801V006 Cable Modulebus Extension Shielded Cable 0.6m D-sub 25, male-female.	3BSC950089R2
	TK801V012 Cable Modulebus Extension Shielded Cable 1.2m D-sub 25, male-female.	3BSC950089R3
	TB807 Modulebus terminator	3BSE008538R1
	TB820V2 Modulebus Cluster Modem Optical cluster modem for non redundant operation. Including: 1 pce Power Supply Connector 1 pce TB807 Modulebus Terminator	3BSE013208R1
	TB825 Optical Media Converter Multi Mode Short to long distance optical fiber conversion. For modulebus communication up to 1000 m.	3BSE036634R1
	TB826 Optical Media Converter Single Mode Short to long distance optical fiber conversion. For modulebus communication up to 5000 m, for S800 I/O HI up to 20000 m.	3BSE061637R1
	TB840A Modulebus Cluster Modem Optical cluster modem for 1+1 redundant operation. Optiskt cluster-modem for 1+1 redundans. Optisches Cluster-Modem for 1+1 redundanten Betrieb	3BSE037760R1
	TB842 Modulebus Optical Port Used together with C1801 and C1840, connected via TB806 or TB846. 10 Mbits driver.	3BSE022464R1
	TU807 Termination Unit for TB840/TB840A Support for single modulebus I/O. Including: 1 pcs TB807	3BSE039025R1
	TU840 Termination Unit for 1+1 TB840. Support for redundant I/O Including: 1 pce Power Supply Connector 2 pcs TB807 Modulebus Terminator	3BSE020846R1
	TU841 Termination unit for 1+1 TB840. Support for non-redundant I/O. Including: 1 pce Power Supply Connector 1 pce TB807 Modulebus Terminator	3BSE020848R1

S800 I/O and S800L I/O

ModuleBus Communication Parts

ModuleBus Communication Parts	Article no.	
	TU848, MTU with individual power supply for red. TB840/TB840A. Support for dual modulebus. Including: 2 pcs TB807	3BSE042558R1
	TU849, MTU with individual power supply for red. TB840/TB840A. Support for single modulebus Including: 1 pcs TB807	3BSE042560R1
	TK811V015 POF Cable, 1.5m, Duplex L = 1.5 m latching duplex connector Duplex plastic fibre	3BSC950107R1
	TK811V050 POF Cable, 5m, Duplex L = 5 m latching duplex connector Duplex plastic fibre	3BSC950107R2
	TK811V150 POF Cable, 15m, Duplex L = 15 m latching duplex connector Duplex plastic fibre	3BSC950107R3
	TK812V015 POF Cable, 1.5m, Simplex L = 1.5 m latching connector Simplex plastic fibre	3BSC950118R1
	TK812V050 POF Cable, 5m, Simplex L = 5.0 m latching connector Simplex plastic fibre	3BSC950118R2
	TK812V150 POF Cable, 15m, Simplex L = 15 m latching connector Simplex plastic fibre	3BSC950118R3

S800 I/O Power supply and selection guide

Feature	SD822Z	SD831	SD832	SD833	SD834	SS822Z	SS832	SS823
Rated output current	5 A	3 A	5 A	10 A	20 A	20 A	10 A (20 A in parallell operation)	20 A
Rated output power	120 W	72 W	120 W	240 W	480 W	-	-	-
Rated output voltage	d.c. 24 V	d.c. 24 V	d.c. 24 V	d.c. 24 V	d.c. 24 V	-	-	-
Rated input power	280 VA 135 W	134/143 VA	240/283 VA	447/514 VA	547/568 VA	500 W	240 W (480 W in parallell operation)	500 W
Mains/input voltage, nominal	115/230 V a.c. 225-250 V d.c.	100-240 V a.c. 110-300 V d.c.	100-120 V a.c. 200-240 V a.c. Auto-select input	100-120 V a.c. 200-240 V a.c. Auto-select input	100-240 V a.c. 110-150 V d.c.	2x24 V d.c.	2x24 V d.c (1x24 V d.c in parallell operation)	1x24 V d.c
Mains voltage variation allowed	85 - 110%	90-264 V a.c. 88-375 V d.c.	90-132 V a.c. 180-264 V a.c.	90-132 V a.c. 180-264 V a.c.	85-276 V a.c. 88-375 V d.c.	-	-	-
Mains/input voltage, max. (a.c.= 45-65 Hz)	138/275 V a.c. 375 V d.c.	264-300 V a.c.	264-300 V a.c.	264-300 V a.c.	264-300 V a.c.	60 V d.c.	60 V d.c.	60 V d.c.
Primary peak inrush current at power on	Typ 15 A	<28/<54 A	<10 A	<10 A	<13 A	-	-	-
Applications	SELV and PELV	SELV and PELV	SELV and PELV	SELV and PELV	SELV and PELV	-	-	-
Load sharing	Two in parallell	-	-	-	Parallell connection	Two in parallell	Two in parallell	Yes
Power Factor (at rated output power)		0.61/0.56	0.56/0.47	0.59/0.51	0.95/0.90	-	-	-
Heat dissipation	13.3 W	10/8 W	14/13 W	24/22 W	40/32 W	10 W at 20 A and 2,5 W at 5 A	9 W (18 W)	24 W at 20 A and 6 W at 5 A
Efficiency factor	88 %	88/89.8 %	89.4/90.2 %	91/91.6 %	92.4/93.9 %	-	-	-



S800I/O Power supply and selection guide

Feature	SD822Z	SD831	SD832	SD833	SD834	SS822Z	SS832	SS823
Output voltage regulation at max. current	+/- 2%	< 50 mV / < 100 mV	< 70 mV / < 100 mV s	< 70 mV / < 100 mV	< 10 mV / < 100 mV	0,5 V lower than input	0.85 V lower than input	1.2 V lower than input
Ripple (peak to peak)	< 50 mV	< 50 mV	< 50 mV	< 50 mV	< 100 mV	-	-	-
Secondary voltage holdup time at mains blackout	> 20 ms	29/120 ms	80/78 ms	46/47 ms	32/51 ms	-	-	-
Maximum output current (min)	10 A	3.3 A	6 A At ambient temp < 45 °C	12 A At ambient temp < 45 °C	30 A < 4 s	35 A (Overload)	25 A (Overload)	35 A (Overload)
Maximum ambient temperature	60 °C	60 °C	60 °C	60 °C	60 °C	60 °C	60 °C	55 °C
Primary: Recommended external fuse ⁽¹⁾	10 A	10-20 A	10-20 A	10-20 A	10-20 A	-	-	-
Secondary: Short circuit	< 10 A	< 8 A	< 14 A	< 18 A	< 40 A	-	-	-
Secondary: Over-Voltage protection	29 V	< 39 V	< 39 V	< 39 V	< 37 V	-	-	< 30 V
Class of protection	I PE (Protective Earth) connection required					-	-	-
Protection rating	IP20 according to IEC60529							
Width	65 mm (2.56")	32 mm (1.26")	32 mm (1.26")	60 mm (2.36")	82 mm (3.23")	50 mm (1.97")	32 mm (1.26")	116 mm (4.6")
Depth	110 mm (4.3")	102 mm (4.02")	117 mm (4.61")	117 mm (4.61")	127 mm (5.0")	110 mm (4.3")	117 mm (4.61")	145 mm (5.8") including connector
Height	125 mm (4.9")	124 mm (4.88")	124 mm (4.88")	124 mm (4.88")	124 mm (4.88")	125 mm (4.9")	125 mm (4.9")	132 mm (5.3")
Mounting spacing Width mm	15 mm (0.59")	15 mm (0.59")	15 mm (0.59")	15 mm (0.59")	15 mm (0.59")	15 mm (0.59")	15 mm (0.59")	15 mm (0.6")
Mounting spacing Height mm	25 mm (1")	40 mm (1.57")	40 mm (1.57")	40 mm (1.57")	40 mm (1.57")	25 mm (1")	25 mm (1")	25 mm (1.2")
Weight (lbs.)	620 g (1.4 lbs)	430 g (0.9 lbs.)	500 g (1.1 lbs.)	700 g (1.5 lbs.)	1200 g (2.6 lbs.)	630 g (1.4 lbs)	350 g (0.77 lbs.)	870 g (1.9 lbs.)
Corrosive atmosphere ISA-S71.04	G3	G2	G2	G2	G2	G3	G2	G3
CE mark	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
El. safety, Haz loc, C1 Zone 2	No	No	No	No	No	No	No	No
El. safety, Haz loc, C1 Div 2	No	No	No	No	Yes	No	No	No
Electrical safety	IEC 61131-2, UL 508, EN 50178 (Note! UL 508 not valid for SS823)							
Pollution degree	Degree 2, IEC 60664-1							
Mechanical operating conditions	EN 61131-2							
EMC	EN 61000-6-4 and EN 61000-6-2							
Overvoltage Categories	Over-voltage Category III (IEC/EN 60664-1)							

⁽¹⁾ Microcircuit Breaker (MCB), Characteristic B

S800 I/O

Power Supply

Power Supply		Article no.	
	SD822Z Power Supply Device, G3 Compliant Input 115/230V a.c. switch selectable, output 24V d.c., 5A. If redundant power application is required connect to SS822Z Voting Unit. Width = 65 mm. DIN rail mounted.	3BSC610054R1	
	SS822Z Power Voting Unit, G3 Compliant With dual 24V d.c 20A inputs, single 24V d.c. 20A output. Each power input supervised. Used if redundant power supply is required. For use with power supply SD822Z. Width = 50 mm. DIN rail mounted.	3BSC610055R1	
	SD831 Power Supply Device, G2 Compliant Input a.c. 100-240 V or d.c. 110-300 V. Output d.c. 24 V 3A. If redundant power application is required connect to SS8XX. Voting unit. Width = 35mm. DIN rail mounted.	3BSC610064R1	
	SD832 Power Supply Device, G2 Compliant Input a.c. 100-120/200-240 V. Output d.c. 24 V 5A, auto- select input. If redundant power application is required connect to SD8XX. Voting unit. Width = 35mm. DIN rail mounted.	3BSC610065R1	
	SD833 Power Supply Device, G2 Compliant Input a.c. 100-120/200-240 V, auto-select input. Output d.c. 24 V 10A. If redundant power application is required connect to SD8XX. Voting unit. Width = 60mm. DIN rail mounted.	3BSC610066R1	
	SD834 Power Supply Device, G2 Compliant Input a.c. 100-240 V or d.c. 110-150 V. Output d.c. 24 V 20A. If redundant power application is required connect to SS8XX. Voting unit. Width = 85mm. DIN rail mounted.	3BSC610067R1	
	SS832 Voting Device, G2 Compliant Input d.c. 24 V. Dual 24 V to single 24 V, 2x10A. Width = 35mm. DIN rail mounted.	3BSC610068R1	
	Mains Breaker Kit for DIN Rail 115/230V a.c. with input terminals, breaker and 3 fused (6.3A), double output terminals. Width = 102,5 mm.	3BSE022262R1	

Process Industries Application Libraries

Process Industries Application Libraries

The Process Industries Application Libraries (PIAL) in this book include Process Control Device Library (PCDL), Process Control Equipment Library (PCEL) and ProBase Library. One valid license is required per 800xA system. User documentation is provided electronically with the product media. The licenses support use with System 800xA. These licenses entitle license holders to use the library in one system, meaning one Aspect Server. Please refer to System Guide Ordering and Licensing (3BSE041435) for more information.

PIAL Media

Media for this product can be downloaded from ABB Library and MyABB/MyControlSystem.

Process Industries Application Libraries

Process Control Device Library

Process Control Device Library

The 800xA PC Device Library provides device-level objects. The PCDeviceLib is a customized library for the process industry. It builds upon the 800xA - AC800M library to provide additional functionality and engineering efficiency. Benefits include minimizing the initial learning curve for the Industrial IT Extended Automation System 800xA and to minimize the engineering effort.

The PCDevice Library contains an extensive list of objects, but it is licensed only by the number of Control Elements used. Control Elements are the Valves, Motors and PID Loops in a system.

The following PCDevice library control modules are categorized as Control Elements – Valve, ValveMan, MotorOnOff, MotorOnOffAdv, Motor2Speed, MotorVarSpeed, ControllerPIDLoop, ControlValvePneumatic, ControlValveElectric, ChokeValve, MotorOnOffCore, Motor2SpeedCore and MotorVarSpeedCore.

Process Industries Application Libraries

Process Control Device Library Licenses	Article no.	
<p>Base Process Control Device Library (including 125 Control Elements) The PCDevice Library comes with all PCDevice library objects but only the 13 objects listed above are counted as Control Elements. To arrive at the correct number of Control Elements to purchase, count the number of Valve, Motor and ControllerPIDLoop objects associated with the project.</p>	3BSE081553R1	
Additional Control Device Library Licenses	Article no.	
<p>Additional 125 Control Elements Additional 125 Control Elements Additional 125 Control Element</p>	3BSE081554R1	
PCDL Application Engineering	Article no.	
<p>PCDL License for Application Engineering This Engineering system License is intended to use for Application Engineering purpose only. A maximum of 2500 Control Elements will be issued as a part of the license. For production system, appropriate quantity of Control Elements license must be purchased separately. Media is ordered separately.</p>	3BSE081555R1	
<p>PCDL Additional License for Application Engineering Each additional license comes with 2500 control elements license.</p>	3BSE081556R1	

Process Industries Application Libraries

Process Control Equipment Library

Process Control Equipment Library

Process Control Equipment Library (PCEquipmentLib) is a comprehensive library of Equipment Module templates, and toolkit components for industrial IT Extended Automation System 800xA.

PCEquipmentLib is designed to optimize the specification and building of ANSI/ISA-88.01-1995 style Equipment Modules and customized Process Units. Designed to "plug and produce" with standard PCDeviceLib control objects, PCEquipmentLib shares common terminology, engineering principles, and naming conventions to make engineering consistent and easy. It is a requirement to use a compatible version of PCDevice Library in conjunction with PCEquipment Library. Refer to PCEquipment Library release notes for appropriate version information.

The PCEquipment Library contains an extensive list of pre-engineered and validated objects like Unit template and Standard Phases, equipment modules, Quality Monitor, pcc supervision, EqTimer, Prompts/PromptsAlarmOwner etc. The PCEquipment Library also contains pre-engineered facility automation Solution objects.

Process Control Equipment Library Licenses

Article no.

Base Process Control Equipment Library with Production Management

3BSE081558R1

This license is for working with up to 125 PCDevice Lib Control Elements.

This license shall allow using any number of PCEL Batch Unit type with Standard Phases. All other modules for Equipment module implementation, quality monitoring, PCC configuration, and operator visualization are included with this license. This license also includes Pre-engineered Facility Automation Solutions like AHUs, Scheduler, ZoneMonitor, Facility, Start-Stop sequence, Operator visualization etc.

With one base license, a maximum of 125 PCDeviceLib Control Elements can be used. An incremental purchase of PCDevice Lib Control Elements (License Expansion) requires an incremental purchase of PCEquipment Lib license (License Expansion).

Note: License for PCDevice Lib Control Elements to be purchased separately.

Process Industries Application Libraries

Process Control Equipment Library Licenses

Process Control Equipment Library Licenses	Article no.
<p>Base Process Control Equipment Library without Production Management This license is for working with up to 125 PCDevice Lib Control Elements. This license shall allow using any number of PCEL Equipment Module (EM) types with Device Summary and ModeControl. Other modules like Prompt, PromptAlarmOwner and EqTimer are included in the license. This license also includes Pre-engineered Facility Automation Solution objects like AHUs, Scheduler, ZoneMonitor, Facility Start-Stop sequence, Operator visualization etc.</p> <p>With one base license, a maximum of 125 PCDL Control Elements can be used. An incremental purchase of PCDevice Lib Control Elements(License Expansion) requires an incremental purchase of PCEquipment Lib license (License Expansion).</p> <p>Note: License for PCDevice Lib Control Elements to be purchased separately.</p>	3BSE081559R1

Additional Control Equipment Library Licenses

It is a requirement to use a compatible version of PCDevice Library in conjunction with PCEquipment Library. Refer to PCEquipment Library release notes for appropriate version information. Additional expansion licenses can be purchased. When ordering additional licenses, the original quantity and the license information must be included with the expansion order.

Additional Control Equipment Library Licenses	Article no.
<p>Additional Process Control Equipment Library With Production Management Each Expansion license is for working with up to 125 PCDevice Lib Control Elements.</p>	3BSE081560R1
<p>Additional Process Control Equipment Library Without Production Management Each Expansion license is for working with up to 125 PCDevice Lib Control Elements.</p>	3BSE081561R1

Process Industries Application Libraries

PCEL Application Engineering

PCEL Application Engineering	Article no.
<p>PCEL License for Application Engineering This Engineering system License is intended to use for Application Engineering purpose only. A maximum of 20 'PCEL With Production Management'. License quantity will be issued as a part of this license, which can be used with both Batch and Non-Batch version of PCEquipmentLib. For production system, appropriate quantity of PCEL With Production Management or WithOut Production Management license quantities must be purchased separately. Media is ordered separately.</p>	3BSE081562R1
<p>PCEL Additional License for Application Engineering Each additional license comes with 20 PCEL WithBatch license.</p>	3BSE081557R1

Process Industries Application Libraries

ProBase

ProBase
<p>ProBase is a set of System 800xA libraries with industry specific functionality targeting liquid process handling or other applications where routing, storage of material, CIP, etc. are a major concern in the application. Example industries are food & beverage, chemical, pharmaceuticals, tank farms, etc.</p>

ProBase Licenses	Article no.
<p>ProBase licensing is based on type and number of controllers executing ProBase.</p>	
ProBase 6.0 Operator Workplace - First Client	3BSE081563R1
ProBase 6.0 Operator Workplace - Additional Client	3BSE081564R1
ProBase 6.0 PM861/PM861A Software License	3BSE081565R1
ProBase 6.0 PM864/PM864A Software License	3BSE081566R1
ProBase 6.0 PM865 Software License	3BSE081567R1
ProBase 6.0 PM866 Software License	3BSE081568R1
ProBase 6.0 PM891 Software License	3BSE081569R1
<p>ProBase 6.0 Demo License and Application Engineering License This license is to be used with the 800xA Demo License and Application Engineering License. The intended use is sales related activities such as fairs, training centers etc that requires a full sized system. It is also intended for application engineering. Media is ordered separately.</p>	3BSE081570R1

S900 Remote I/O System

The S900 remote I/O system communicates with System 800xA or other controllers over PROFIBUS. Suitable for applications in the chemical, pharmaceutical, oil and gas industries, S900 I/O can be installed in hazardous areas, thereby reducing marshalling and wiring costs.

Further maintenance savings can be achieved through S900's extended diagnostics and the use of HART®-compliant field devices.

Three series of S900 I/O are available:

- S-series for applications in Zone 1 hazardous areas
- B-series for applications in Zone 2 hazardous areas
- N-series for applications in non hazardous areas

Additional solutions for specific applications are available:

- Field housing - for wall mounting and field mounting in Zone 1 installations with system approval fully certified in accordance with ATEX. The high-grade steel housing is prepared for wall-mounting with facility for insulated screen rails or terminals.

The S900 components are based on a passive backplane suitable for mounting on a DIN rail or directly in a sub-distribution board. The passive backplane includes internal bus communication,

terminals for field circuits, communication, and power supply. The function modules are plugged into the backplane in their appropriate slots. The redundant backplane has two slots for power supply units, two slots for communication interfaces, and 16 slots for function modules.

Digital function modules have up to 8 channels, analog modules up to four. Therefore, when using a redundant backplane, 128 digital or 64 analog channels can be connected per station. In the case of the S and B series, up to ten S900 stations can be connected on a single fieldbus line.

Key S900 benefits include:

- Intrinsically safe - can be installed in Zone 1 and Zone 2 areas.
- Good price/performance ratio because external barriers have been removed and costs are reduced in terms of cabling, installation, hardware, and maintenance.
- Easy configuration using either FDT/DTM or GSD files, allowing easy integration with System 800xA process control systems.
- High availability of the plant thanks to redundancy and hot-swap capability of all components during operation.

Series	Assembly	Field devices / signals	Hazardous area approval
S series	In Zone 1	In Zones 2, 1 and 0 (intrinsically safe signals)	ATEX Zone 1 (Blue TU921S)
B series	In Zone 2	In Zones 2, 1 and 0 (intrinsically safe signals)	ATEX Zone 2 (Blue TU921B)
N series	In safe areas	In safe areas	No (Black TU921N)



TU921N for S900 I/O




	NAMUR inputs	Binary 24 V	Binary 48 V	Binary 110 V	Binary 230 V	Binary Relay	Analog Unipolar	Analog Bipolar	Temperature RTD	Temperature T/C	SOE	HART	Intrinsic safety	Redundant	High integrity
I/O Features S900															
Digital I/O modules															
DX910S,B,N*	•													S,B	
Digital output modules															
DO910S,B,N*														S,B	
DO930N			•												
Pulse input modules															
DP910S,B,N*						•								S,B	
Analog input modules															
AI910S,B,N*							•							S,B	
AI930S,B,N*							•					•		S,B	
AI931S,B,N*							•					•		S,B	
AI950S,B,N*								•	•					S,B	
Analog output modules															
AO910S,B,N*							•							S,B	
AO920S,B,N*							•							S,B	
AO930S,B,N*							•					•		S,B	

* For details about S900 I/O please refer to the S900 catalog, document number 3BDD010420.

S900 Remote I/O System


Ex zone 1 system components


05


Termination Unit		Article no.
	TU921S Redundant Termination Unit (TU16R-Ex) for 16 I/O-modules redundant communication and power (Delivery includes CD910)	3KDE175111L9210
Power Supply		Article no.
	SA920S Power Supply for 24 V DC Do not mix SA910S with SA920S for redundancy (observe Release Notes)	3BDH000602R1
Communication Interface		Article no.
	CI920AS Communication Interface V 2.1 (CIPBA-Ex) Use only CI920AS with the same firmware for redundancy for PROFIBUS DP-V1 (observe Release Notes).	3BDH000690R1

S900 Remote I/O System

Ex zone 1 system components





Digital Input or Output		Article no.	
	DX910S Digital Input or Output (DIO8-Ex) input for dry contact or NAMUR initiator output for low power Intrinsic Safe valves	3KDE175311L9100	
	DO910S Digital Output (DO4-Ex) output for Intrinsic Safe valves	3KDE175321L9100	
	DP910S Frequency Input (FI2-Ex) input for dry contact or NAMUR initiator	3KDE175361L9100	

Analog Input		Article no.	
	AI910S Analog input (AI4-Ex) transmitter power supply, 4...20 mA	3KDE175511L9100	
	AI930S Analog Input, HART (AI4H-Ex) transmitter power supply, 4...20 mA	3KDE175511L9300	
	AI931S Analog Input, HART (AI4H-Ex) passive input, 0/4...20 mA	3KDE175511L9310	
	AI950S Temperature (TI4-Ex) Pt100, Pt1000, Ni100 in 2-/3-/4-technology thermocouples type B, E, J, K, L, N, R, S, T isolated inputs channel by channel.	3KDE175521L9500	

Analog Output		Article no.	
	AO910S Analog output (AO4-Ex) output 0/4...20 mA	3KDE175531L9100	
	AO920S Analog output, isolated (AO4I-Ex) output 0/4...20 mA isolated outputs channel by channel	3KDE175531L9200	
	AO930S Analog output HART (AO4H-Ex) output 0/4...20 mA	3KDE175531L9300	


S900 Remote I/O System


Ex zone 2 system components

Termination Unit	Article no.	
 <p>TU921B Redundant Termination Unit (TU16R-B) for 16 I/O-modules redundant communication and power (Delivery includes CD910)</p>	3KDE175112L9210	
Power Supply	Article no.	
 <p>SA920B Power Supply for 24 V DC the power supply filter type BP901S is not required SA920B is the functional replacement for SA910B do not mix SA910B with SA920B for redundancy (observe Release Notes)</p>	3BDH000601R1	
Communication Interface	Article no.	
 <p>CI920AB Communication Interface V 2.1 (CIPBA-B) Use only CI920AB with the same firmware for redundancy for PROFIBUS DP-V1 (observe Release Notes).</p>	3BDH000691R1	
Digital Input or Output	Article no.	
	<p>DX910B Digital Input or Output (DIO8-B) input for dry contact or NAMUR initiator output for low power I.S. valves</p>	3KDE175312L9100
	<p>DO910B Digital Output (DO4-B) output for I.S. valves</p>	3KDE175322L9100
	<p>DP910B Frequency Input (FI2-B) input for dry contact or NAMUR initiator</p>	3KDE175362L9100

S900 Remote I/O System





Ex zone 2 system components

Analog Input		Article no.
	AI910B Analog input (AI4-B) transmitter power supply, 4...20 mA	3KDE175512L9100
	AI930B Analog Input, HART (AI4H-B) transmitter power supply, 4...20 mA	3KDE175512L9300
	AI931B Analog Input, HART (AI4H-B) passive input, 0/4...20 mA	3KDE175512L9310
	AI950B Temperature (TI4-B) Pt100, Pt1000, Ni100 in 2-/3-/4-technology thermocouples type B, E, J, K, L, N, R, S, T isolated inputs channel by channel	3KDE175522L9500

Analog Output		Article no.
	AO910B Analog output (AO4-B) output 0/4...20 mA	3KDE175532L9100
	AO920B Analog output, isolated (AO4I-B) output 0/4...20 mA isolated outputs channel by channel	3KDE175532L9200
	AO930B Analog output HART (AO4H-B) output 0/4...20 mA	3KDE175532L9300


S900 Remote I/O System


Safe area system components

Termination Unit	Article no.	
 <p>TU921N Redundant Termination Unit (TU16R) for 16 I/O-modules redundant communication and power (Delivery includes CD910)</p>	3KDE175113L9210	
Power Supply	Article no.	
 <p>SA920N Power Supply for 24 V DC Do not mix SA910N with SA920N for redundancy (observe Release Notes)</p>	3BDH000600R1	
Communication Interface	Article no.	
 <p>CI920AN Communication Interface V 2.1 (CIPBA) use only CI920AN with the same firmware for redundancy for PROFIBUS DP-V1 (observe Release Notes)</p>	3BDH000692R1	
Digital Input or Output	Article no.	
	<p>DX910N Digital Input or Output (DIO8) input for dry contact or NAMUR initiator output for low power valves</p>	3KDE175313L9100
	<p>DO910N Digital Output (DO4) output for valves</p>	3KDE175323L9100
	<p>DO930N Relay Output (RO6) with 4 normally-open contacts and 2 changeover contacts</p>	3BDS014114
	<p>DP910N Frequency Input (FI2) input for dry contact or NAMUR initiator</p>	3KDE175363L9100

S900 Remote I/O System

Safe area system components


Analog Input		Article no.
	AI910N Analog input (AI4) transmitter power supply, 4...20 mA	3KDE175513L9100
	AI930N Analog Input, HART (AI4H) transmitter power supply, 4...20 mA	3KDE175513L9300
	AI931N Analog Input, HART (AI4H) passive input, 0/4...20 mA	3KDE175513L9310
	AI950N Temperature (TI4) Pt100, Pt1000, Ni100 in 2-/3-/4-technology thermocouples type B, E, J, K, L, N, R, S, T isolated inputs channel by channel	3KDE175523L9500

Analog Output		Article no.
	AO910N Analog output (AO4) output 0/4...20 mA	3KDE175533L9100
	AO920N Analog output, isolated (AO4I) output 0/4...20 mA isolated outputs channel by channel	3KDE175533L9200
	AO930N Analog output HART (AO4H) output 0/4...20 mA	3KDE175533L9300

S900 Remote I/O System

Accessories

Fieldbus isolating repeater	Article no.
BI914S Fieldbus isolating repeater separates an intrinsically safe RS485 fieldbus from a non intrinsically safe RS485 fieldbus with bus termination mounted in DIN rail mounted housing with IP20 protection one channel version BARTEC - 07-7311-97WP/K1E0	3BDH000649R1
BI923S Ring-coupler RS485 / FO - intrinsically safe - Slave separates an intrinsically safe fibre optic ring from a non intrinsically safe RS485 fieldbus BARTEC - 07-7311-97WP5400 mounted in DIN rail mounted housing with IP20 protection (Slave) Optical Plug FSMA	3KDE175831L9230
BI924S Ring-coupler RS485 / FO intrinsically safe - Master separates an intrinsically safe fibre optic ring from a non intrinsically safe RS485 fieldbus BARTEC - 07-7311-97WP5400 mounted in DIN rail mounted housing with IP20 protection (Master) Optical Plug FSMA	3KDE175831L9240
BI934S Ring-coupler RS485 / FO intrinsically safe – Slave Separates an intrinsically safe fibre optic ring from one intrinsically safe RS485 fieldbus segment Mounted in separate field housing BARTEC - 07-3103-2512/9003 Optical Plug FSMA	3BDH000674R0001

Accessories	Article no.
 <p>IP920 Module housing</p>	
BP914S Intrinsically safe PROFIBUS-DP connector for CI920AS and CI920AB D-SUB Connector (color blue) for operating the intrinsically safe PROFIBUS-DP with CI920AS and CI920AB.	3BSE067082R1
Siemens 6ES7972-0DA60-0XA0 Connector can only be used with CI920AS and CI920AB. Do not use in combination with CI920S or CI920B. This would violate the explosion protection and could cause destruction of CI920S or CI920B. For CI920S and CI920B connector BP910S has to be ordered as a spare part via Business Online.	
IP920 Module housing IP20 protection for empty slots on the termination unit for use in S900 S, B, and N systems	3KDE175831L9200
IL910 Insert labels 380 pcs.	3KDE175839L9101

Software	Article no.
CD910, S900 I/O Media CD-ROM CD-ROM incl S900 Documentation, Certificates, GSD (file) CD-ROM will be delivered with all TU921 and CB220 deliveries.	3KDE175839L9100

S900 Remote I/O System

Field Housing S900-FH660S

General Information

The Ex e field housings FH660S from stainless steel (1.4301) serves for the reception of one redundant termination unit (backplane) TU16R-Ex (Order-No. TU921S) as well as further components with ATEX-certification for the hazardous area in zone 1.

Dimensions 600x600x300 mm / for max 100 field cables

The field housings are pre-mounted with stopping plugs instead of cable glands. The cable glands have to be ordered separately at manufacturer Hummel or manufacturer Bimed.

To fulfill the ATEX-certification the following cable glands are recommended:

Manufacturer Hummel:

- Type HSK-M-EMV-Ex M16 (article no. 1646160050)
- Type HSK-M-EMV-Ex M20 (article no. 1646200051)
- Type HSK-M-EMV-Ex M32 (article no. 1646320050)

Manufacturer Bimed:

- Type EBS M16 (article no. EBS01M)
- Type EBS M20 (article no. EBS1M)
- Type EBS M25 (article no. EBS2M)

All S900 modules and power supply components have to be ordered separately!
Additional costs of air transport and courier transport ask under e-mail:
Orderbox-CtrlPr DEAPR/DEAPR/ABB or orderbox.control-products@de.abb.com

Internal Installation



With system certificate.

FH660S-2000 Field housing

- including the following components:
- Termination Unit (backplane) TU921S
 - 4 Terminals (UK10N)

Field housings are delivered without cable glands. Cable glands have to be ordered separately (see General information and Product Update 2PAA112874).

FH660S-2020 Field housing

- including the following components:
- Termination Unit (backplane) TU921S
 - 4 Terminals (UK10N)
 - 2 Switches

Field housings are delivered without cable glands. Cable glands have to be ordered separately (see General information and Product Update 2PAA112874).

Article no.

3KDE175804V2000

3KDE175804V2020

S900 Remote I/O System

Field Housing S900-FH680S

General Information

The Ex e field housings FH680S from stainless steel (1.4301) serves for the reception of one redundant termination unit (backplane) TU16R-Ex (Order-No. TU921S) as well as further components with ATEX-certification for the hazardous area in zone 1.

Dimensions 600x800x300 mm / for max 100 field cables

The field housings are pre-mounted with stopping plugs instead of cable glands. The cable glands have to be ordered separately at manufacturer Hummel or manufacturer Bimed.

To fulfill the ATEX-certification the following cable glands are recommended:

Manufacturer Hummel:

- Type HSK-M-EMV-Ex M16 (article no. 1646160050)
- Type HSK-M-EMV-Ex M20 (article no. 1646200051)
- Type HSK-M-EMV-Ex M32 (article no. 1646320050)

Manufacturer Bimed:

- Type EBS M16 (article no. EBS01M)
- Type EBS M20 (article no. EBS1M)
- Type EBS M25 (article no. EBS2M)

All S900 modules and power supply components have to be ordered separately!
 Additional costs of air transport and courier transport ask under e-mail:
 Orderbox-CtrlPr DEAPR/DEAPR/ABB or orderbox.control-products@de.abb.com

Internal Installation	Article no.	
With system certificate. FH660S-2020 Field housing including the following components: <ul style="list-style-type: none"> • Termination Unit (backplane) TU921S • 4 Terminals (UK10N) • 2 Switches Field housings are delivered without cable glands. Cable glands have to be ordered separately (see General information and Product Update 2PAA112874)	3KDE175811V2020	

Fieldbus Network

FOUNDATION Fieldbus Network Components

FOUNDATION Fieldbus HSE/H1 Linking Device

LD 800HSE EX links the FOUNDATION Fieldbus HSE protocol to the FOUNDATION Fieldbus H1 protocol and vice versa. Up to 4 external powered H1 lines can be connected to one LD 800HSE EX. Two LD 800HSE EX can be combined to a redundant set of devices. In this case the Redundancy Link cable is required.

Linking Devices



Linking Device LD 800HSE EX

LD 800HSE EX module for DIN rail mounting with 4 H1 links and one HSE connector. Certified for hazardous area Zone 2 acc. to ATEX and IECEx. (Observe Release Notes). The module itself needs external 24 VDC power supply. H1 links must be powered separately

Restrictions:

Both Linking Device versions, 3BDH000320R02 and 3BSE073314R1 are not suitable for replacing a device with article no 3BDH000320R0101 in a redundant set of devices. So this restriction is valid for both LDs, the EX and the non-EX version.

For this purpose a limited number of spare devices 3BDH000320R0101 are available via:

ABB Automation GmbH Repair Center Control
Oberhausener Str. 33
40472 Ratingen Germany
Tel.: +49 2102 12 251450
Fax: +49 2102 12 1588
E-Mail: parts-repair-control@de.abb.com

Article no.

3BSE073314R1

Accessories Linking Device LD 800HSE

Redundancy Link Cable, 0,5m

Redundancy Link Cable links two LD 800HSE to a redundant set of devices.

Article no.

3BDH000281R1

Media and Documentation

Media CD-ROM LD 800HSE/LD 800HSE Ex, Version 3.6.0, English

Documentation in pdf-format, tools, capabilities file, and bitmaps for LD 800HSE/LD 800HSE EX.

Article no.

3BDD011678R0801


Device Management FOUNDATION Fieldbus Linking Device, LD 800HSE 3.6.0

Describes in detail the FOUNDATION Fieldbus Linking Device LD 800HSE/LD 800HSE EX features, hardware installation, configuration, and diagnostics.

3BDD011677-600

Fieldbus Network

PROFIBUS Network Components

PROFIBUS Redundancy Link Module RLM01	Article no.	
 <p>The RLM01 is delivered with a printed manual.</p>		
<p>RLM01, PROFIBUS Redundancy Link Module for PROFIBUS line redundancy Converts a non-redundant PROFIBUS line to two redundant RS485 lines or vice versa. Germanischer Lloyd (GL) certified (cat. A,B,C,D) in connection with power supply filter (3BDZ000397R1).</p>	3BDZ000398R1	
<p>Power Supply Filter (surge) 24 V DC Mandatory to fulfill the requirements of Germanischer Lloyd (GL). WAGO article no. 750-626</p>	3BDZ000397R1	

PROFIBUS DP Accessories	Article no.	
<p>PCO 010, PROFIBUS DP connector, standard max. 12 Mbit/s, 35° cable outlet, IP40, without bus termination Phoenix Contact article no. 2744597</p>	3BDZ000370R1	
<p>PCO 011, PROFIBUS DP connector with bus termination max. 12 Mbit/s, 35° cable outlet, IP40, switchable bus termination Phoenix Contact article no. 2708232.</p>	3BDZ000371R1	
<p>PCO 012, PROFIBUS DP connector with bus termination and adapter max. 12 Mbit/s, 35° cable outlet, IP40, switchable bus termination, programming connection SUB-D Phoenix Contact article no. 2708245</p>	3BDZ000372R1	

Extended warranty time

S800 I/O, S900 I/O, Fieldbus and AC800M

Extended warranty time on hardware for S800 I/O, S900 I/O, Fieldbus and AC 800M	Article no.	
<p>Terms and conditions for the supply of products from Local Division Process Automation, LBU Control Technologies within ABB AB in Sweden is valid.</p> <p>Note that the price for the Extended Warranty Time order will be calculated as a percentage of the affected S800 I/O, S900 I/O, Fieldbus and AC 800M articles in the accompanying order.</p> <p>Item A100 => 3% of the affected HW articles within the whole order Item A110 => 6% of the affected HW articles within the whole order Item A120 => 9% of the affected HW articles within the whole order</p>		
<p>12 additional months warranty time S800 I/O, S900 I/O, Fieldbus and AC 800M</p>	3BSE049878R1	
<p>24 additional months warranty time S800 I/O, S900 I/O, Fieldbus and AC 800M</p>	3BSE049878R2	
<p>36 additional months warranty time S800 I/O, S900 I/O, Fieldbus and AC 800M</p>	3BSE049878R3	

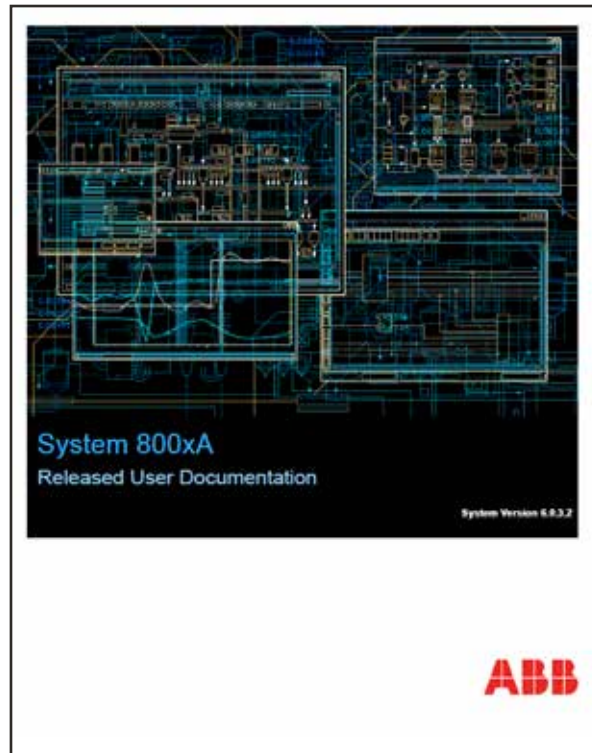
800xA 6.0.3.2 System

Media and Documentation

Related Documentation


A complete list of all documents applicable to the 800xA System is provided in Released User Documents (3BUA000263-6032). This document lists applicable Release Notes and User Instructions. It is provided in PDF format and is included on the Release Notes/Documentation media provided with your system.

Released User Documents are updated with each release and a new file is provided that contains all user documents applicable for that release with their applicable document number. Whenever a reference to a specific instruction is made, the instruction number is included in the reference.




Media

ABB Ability™ System 800xA

ABB Ability™ System 800xA - Media	Article no.	
 <p>The articles in section 1 may only be selected when ordering a new 800xA system, or if the end user has a valid Automation Sentinel agreement.</p>		
<p>System 800xA 6.0.3.2, Media Box (SSD) System 800xA Media Box, including: System 800xA 6.0.3.2 and User Documentation on a Solid State Drive device.</p>	3BSE091370R1	
<p>System 800xA 6.0.3.1, Media Box (SSD) Including: System 800xA 6.0.3.1, and User Documentation on a Solid State Drive device.</p>	3BSE079233R600	
<p>System 800xA 6.0.3.0, Media Box (SSD) Including: System 800xA 6.0.3.0, and User Documentation on a Solid State Drive device.</p>	3BSE091369R1	
<p>System 800xA 6.0.2.0, Media Box (SSD) Including: System 800xA 6.0.2.0, and User Documentation on a Solid State Drive device.</p>	3BSE091368R1	
<p>System 800xA 6.0.1.0, Media Box (SSD) Including: System 800xA 6.0.1.0, and User Documentation on a Solid State Drive device.</p>	3BSE091367R1	
<p>System 800xA 6.0.0.0, Media Box (SSD) Including: System 800xA 6.0.0.0, and User Documentation on a Solid State Drive device.</p>	3BSE091366R1	

Dongles

Dongles	Article no.	
 <p>License dongle for USB Port For use in 800xA or Compact HMI systems. To be used with 800xA 5.1 Rev A and later.</p>	3BSE064644R1	

System 800xA Networks

Control. Monitor. Communicate.

System 800xA Networks provide pre-configured network components that are tested with System 800xA to ensure top quality performance and provide protection against cyber threats.

Wired switches (NE800) - includes a set of rack- and DIN-mounted switches and a wide range of modular transceivers.

Redundant Network Routing Protocol (RNRP) routers are available as part of the System 800xA Networks portfolio developed for use with System 800xA.

System 800xA Networks enables you to take control of your network infrastructure, and benefit from the full potential of a robust, highly performing, and secure 800xA system.



NE870



NE801



PT801



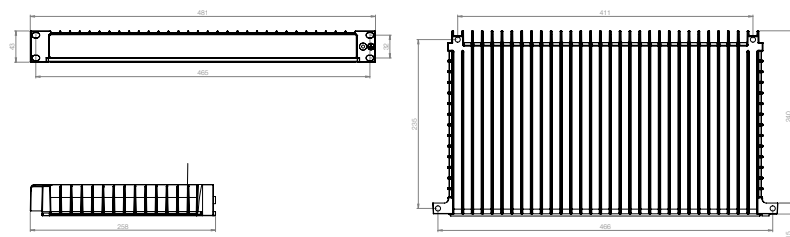
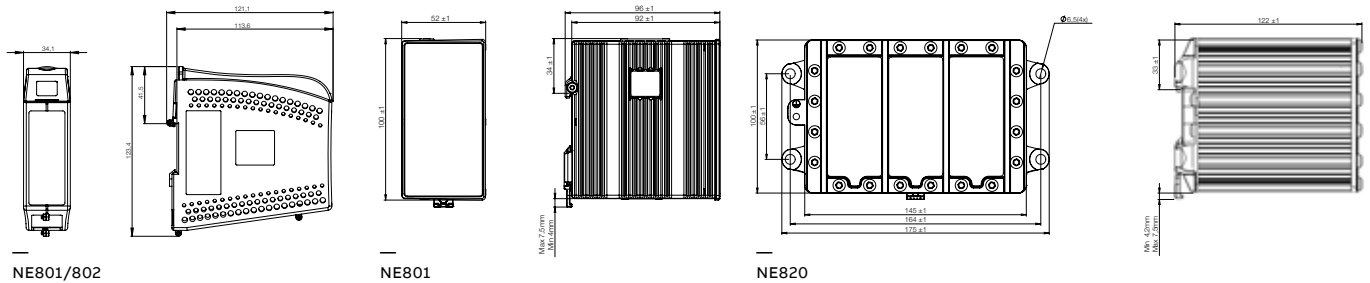
NE840

System 800xA Networks selection guide

Specific feature	NE801	NE802	NE810	NE820	NE840
Article number	3BSE080209R1	3BSE080237R1	3BSE080207R1	3BSE080208R1	3BSE080211R1
Managed	Lightly managed (configurable using physical dip-switches)	Lightly managed (configurable using physical dip-switches)	Managed	Managed	Managed
Dimension (W x H x D)	34 x 123 x 121 mm	34 x 123 x 121 mm	52 x 100 x 101 mm	175 x 105 x 122 mm	466 x 258 x 43 mm
Weight	0.2 kg	0.2 kg	0.7 kg	2.2 kg	3.8 kg
Degree of protection	IP21	IP21	IP40	IP40	IP40
Operating voltage	9.6 to 57.6 VDC redundant power input	9.6 to 57.6 VDC redundant power input	19 to 60 VDC redundant power input	16 to 60 VDC redundant power input	90 to 264VAC, 47 to 63 Hz
Rated current	350 mA @ 12 VDC	100 mA @ 12 VDC	240 mA @ 24 VDC 120 mA @ 48 VDC	930 (1120 ⁽¹⁾) mA @ 20 VDC 380 (450 ⁽¹⁾) mA @ 48 VDC	350 mA @ 120 VAC 60 Hz 220 mA @ 240 VAC 50 Hz
Ethernet TX	4 x 10/100 Mbit/s	4 x 10/100/1000 Mbit/s	8 x 10/100 Mbit/s	7 x 10/100/1000 Mbit/s, 8 x 10/100 Mbit/s	7 x 10/100/1000 Mbit/s, 8 x 10/100 Mbit/s
Ethernet SFP pluggable connections (FX or TX)	1 x LC-connection, 100 Mbit/s	1 x 10/100/1000 Mbit/s	2 x 10/100/1000 Mbit/s	4 x 10/100/1000 Mbit/s	4 x 10/100/1000 Mbit/s
Digital I/O	-	-	1 x 4-ports detachable screw terminal	1 x 4-ports detachable screw terminal	1 x 4-ports detachable screw terminal
Console	-	-	1 x 1 x 2.5 mm jack	1 x USB Micro-B connector	1 x USB Micro-B connector
Operating Temperature	-25 to +70 °C	-40 to +74 °C	-40 to +70 °C	-40 to +70 °C	-40 to +55 °C
Temperature Storage & Transport	-25 to +70 °C	-40 to +85 °C	-50 to +85 °C	-50 to +85 °C	-40 to +85 °C
Network redundancy	-	-	Fast reconfiguration of network typology (FRNT) FRNT ring coupling	Fast reconfiguration of network typology (FRNT) FRNT ring coupling	Fast reconfiguration of network typology (FRNT) FRNT ring coupling
Mounting	DIN-mounted	DIN-mounted	DIN-mounted	DIN-mounted	Rack-mounted
Marine certificate	DNV	DNV	DNV	DNV	DNV
G3 compliant	Compliant	Compliant	Compliant	Compliant	Compliant
MTBF ⁽²⁾	500,000 hours	1,182,374 hours	630,000 hours	303,000 hours	123,000 hours

⁽¹⁾ With 500 mA USB load

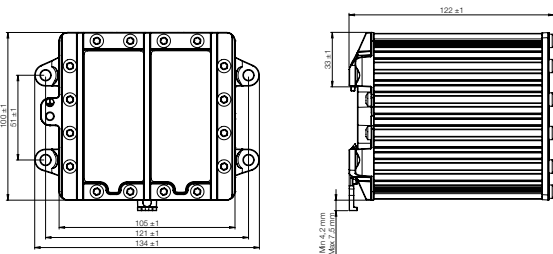
⁽²⁾ according to MIL-HDBK-217K



Specific feature	NE870	NE871
Article number	3BSE080239R1	3BSE080240R1
Managed	Yes	Yes
Routing	Yes	Yes
Firewall	Yes	Yes
Dimension (W x H x D)	134 x 100 x 122 mm	134 x 100 x 122 mm
Weight	1.5 kg	1.5 kg
Degree of protection	IP40	IP40
Operating voltage	16 to 60 VDC	16 to 60 VDC
Rated current	0.43 (0.60 ⁽¹⁾) A @ 20 VDC 0.19 (0.25 ⁽¹⁾) A @ 48 VDC	0.31 (0.48 ⁽¹⁾) A @ 20 VDC 0.15 (0.21 ⁽¹⁾) A @ 48 VDC
Ethernet TX	3 x 10/100/1000 Mbit/s, Ethernet TX, RJ-45 8 x 10/100 Mbit/s, Ethernet TX, RJ-45	3 x 10/100/1000 Mbit/s, Ethernet TX, RJ-45
Digital I/O	1 x 4-ports detachable screw terminal	1 x 4-ports detachable screw terminal
Console	1 x USB Micro-B connector	1 x USB Micro-B connector
Operating Temperature	-40 to +70 °C	-40 to +70 °C
Temperature Storage & Transport	-50 to +85 °C	-50 to +85 °C
Network redundancy	Redundant Network Routing Protocol (RNRP) Fast reconfiguration of network typology (FRNT) FRNT ring coppling	Redundant Network Routing Protocol (RNRP) Fast reconfiguration of network typology (FRNT) FRNT ring coppling
Mounting	DIN-mounted	DIN-mounted
Marine certificate	DNV	DNV
G3 compliant	Compliant	Compliant
MTBF ⁽²⁾	430,000 hours	430,000 hours






⁽¹⁾ With 500 mA USB load

⁽²⁾ according to MIL-HDBK-217K





System 800xA Networks

Network switches

Network switches	Article no.	
 <p>NE801 DIN-mounted 5 ports lightly managed switch, 4 10/100Mbit RJ45 ports & 100Mbit LC optical port. Redundant 24V DC-power input. Old type designation: DiLi 5P-1F(LC2)</p>	3BSE080209R1	
 <p>NE802 DIN-mounted 5 ports lightly managed switch; 4 10/100/1000Mbit RJ45 ports & 1Gbit SFP. Redundant 24V DC-power input.</p>	3BSE080237R1	
 <p>NE810 DIN-mounted 10 ports managed switch, 8 10/100Mbit RJ45 ports & 2 Gbit SFP ports. Redundant 24V DC-power input. Old type designation: DiMa 10P-2FG</p>	3BSE080207R1	
 <p>NE820 DIN-mounted 19 ports managed switch, 8 10/100Mbit RJ45 ports, 7 Gbit RJ45 ports & 4 Gbit SFP ports. Redundant 24V DC-power input. Old type designation: DiMa 19P-4FG-7RG</p>	3BSE080208R1	
 <p>NE840 Rack-mounted 19 ports managed switch, 8 10/100Mbit RJ45 ports, 7 Gbit RJ45 ports & 4 Gbit SFP ports. 110/230V AC-power input. Old type designation: RaMa 19P-4FG-7RG</p>	3BSE080211R1	



System 800xA Networks

Network routers/firewalls

Network routers/firewalls	Article no.	
 <p>NE870 DIN-mounted 11 ports RNRP router and firewall, 3 10/100/1000Mbit RJ45 ports and 8 10/100Mbit RJ45 ports. Redundant 24V DC-power input.</p>	3BSE080239R1	
 <p>NE871 DIN-mounted 3 ports RNRP router and firewall, 3 10/100/1000Mbit RJ45 ports. Redundant 24V DC-power input.</p>	3BSE080240R1	


System 800xA Networks

Network accessories

Network accessories	Article no.
 <p>TK863 Cable.USB 2,5mm plug for NE810</p>	3BSE080212R1
 <p>TK864 Micro USB Console cable for e.g. NE820, NE840, NE870 & NE871</p>	3BSE080213R1


System 800xA Networks

Modular Transceivers (SFPs)

Modular Transceivers (SFPs)	Article no.
 <p>The ABB range of Small Form-factor Pluggable (SFP) transceivers covers versions suitable for 100 Mbit/s and Gigabit applications. LC connectors are used as standard due their small size. Operating temperature specification: -40 to +85°C (-40 to +185°F)</p>	
<p>PT801 Multimode, LC-connector, 2 km, 1310nm, 100Mbit/s Old type designation: MLC2</p>	3BSE080214R1
<p>PT802 Singlemode, LC-connector, 20km, 1310nm, 100Mbit/s Old type designation: SLC20</p>	3BSE080215R1
<p>PT803 Singlemode,BiDi, 20km, 1310nm TX, 1550nm RX, 100Mbit/s Old type designation: SLC20-BiDi-A</p>	3BSE080223R1
<p>PT804 Singlemode, BiDi, 20 km, 1550nm TX, 1310 RX, 100Mbit/s Old type designation: SLC20-BiDi-B</p>	3BSE080224R1
<p>PT805 Singlemode, LC-connector, 40km, 1310nm, 100Mbit/s Old type designation: SLC40</p>	3BSE080216R1
<p>PT806 Singlemode, BiDi, 40Km, 1310nmTX, 1550RX, 100Mbit/s Old type designation: SLC40-BiDi-A</p>	3BSE080227R1
<p>PT807 Singlemode, BiDi, 40Km, 1550nmTX, 1310RX, 100Mbit/s Old type designation: SLC40-BiDi-B</p>	3BSE080228R1
<p>PT808 Singlemode, LC-connector, 80km,1550nm, 100Mbit/s Old type designation: SLC80</p>	3BSE080217R1
<p>PT809 Singlemode, BiDi, 80km, 1310nm TX, 1550nm RX, 100Mbit/s Old type designation: SLC80-BiDi-A</p>	3BSE080235R1
<p>PT810 Singlemode, BiDi, 80km, 1550nm TX, 1310nm RX, 100Mbit/s Old type designation: SLC80-BiDi-B</p>	3BSE080236R1
<p>PT811 Singlemode, LC-connector, 120km,1550nm, 100Mbit/s Old type designation: SLC120</p>	3BSE080218R1
<p>PT812 Singlemode, BiDi, 120km, 1550nm TX, 1490 nm RX, 100Mbit/s Old type designation: SLC120-BiDi-B</p>	3BSE080233R1
<p>PT813 Singlemode, BiDi, 120km, 1490nm TX, 1550nm RX, 100Mbit/s Old type designation: SLC120-BiDi-A</p>	3BSE080234R1

System 800xA Networks

Modular Transceivers (SFPs)

Modular Transceivers (SFPs)		Article no.
	PT814 RJ-45, 100m, 10/100Mbit/s TX	3BSE080232R1
	PT831 Multimode, LC-connector, 550m, 850nm, SX, 1000Mbit/s Old type designation: GMLC550	3BSE080222R1
	PT832 Multimode, LC-connector, 2km, 1310nm, SX+, 1000Mbit/s Old type designation: GMLC2	3BSE080225R1
	PT833 Singlemode, LC-connector, 10km, 1310nm, LX, 1000Mbit/s Old type designation: GSLC10	3BSE080219R1
	PT834 Singlemode, BiDi, 20km 1310nmTX, 1490nm RX, 1000Mbit/s Old type designation: GSLC20-BiDi-A	3BSE080229R1
	PT835 Singlemode, BiDi, 20 km, 1490TX, 1310nm RX, 1000Mbit/s Old type designation: GSLC20-BiDi-B	3BSE080230R1
	PT836 Singlemode, LC-connector, 50km, 1550nm, XD, 1000Mbit/s Old type designation: GSLC50	3BSE080220R1
	PT837 Singlemode, LC-connector, 80km, 1550nm, ZX, 1000Mbit/s Old type designation: GSLC80	3BSE080221R1
	PT838 Singlemode, LC-connector, 110km, 1550nm, EZX, 1000Mbit/s. Old type designation: GSLC110	3BSE080231R1
	PT839 GCX100-Copper, RJ-45, 100m, 1000Base TX	3BSE080226R1

Specifications Optical Transceivers

Product title	Type	Link speed (Mbit/s)	Indicative range (km)	Power budget (dB)	TX/RX wavelength (nm)
PT801	Multi mode	100	2	20	1310/1310
PT802	Single mode	100	20	17	1310/1310
PT803	Single mode, BiDi	100	20	18	1310/1550
PT804	Single mode, BiDi	100	20	18	1550/1310
PT805	Single mode	100	40	30	1310/1310
PT806	Single mode, BiDi	100	40	26	1310/1550
PT807	Single mode, BiDi	100	40	26	1550/1310
PT808	Single mode	100	80	30	1550/1550
PT809	Single mode, BiDi	100	80	29	1310/1550
PT810	Single mode, BiDi	100	80	35	1550/1310
PT811	Single mode	100	120	35	1550/1550
PT812	Single mode, BiDi	100	120	32	1550/1490
PT813	Single mode, BiDi	100	120	32	1490/1550
PT814	RJ45	10/100	0.1	-	-
PT831	Multi mode	1000	0.3–0.55	9	850/850
PT832	Multi mode	1000	1–2	1	1310/1310
PT833	Single mode	1000	10	11	1310/1310
PT834	Single mode, BiDi	1000	20	15	1310/1490
PT835	Single mode, BiDi	1000	20	15	1490/1310
PT836	Single mode	1000	50	20	1550/1550
PT837	Single mode	1000	80	24	1550/1550
PT838	Single mode	1000	110	30	1550/1550
PT839	RJ45	1000	0.1	-	-

Panel 800 version 6.2

Panel 800 is a user-friendly, intuitive and ergonomic operator panel that combines slim, space saving dimensions with a comprehensive range of advanced functions.

Panel 800 family comprises of user-friendly, intuitive and ergonomic operator panels that combine slim, space-saving dimensions with a comprehensive range of advanced functions.

Adding to the already well established feature rich Panel 800 version 6.2 our new Rugged and Black panels are designed to perform in challenging harsh environments.

Whether it is heavy outdoor use, usage in areas with explosion risk, or ship bridge use in marine applications, they are ready to provide you with the information needed.

Designed to make process automation easy, all panels are equipped with advanced functionality for process and equipment control, maneuvered by touching the LCD display.

Combined with market-leading performance and stunning graphical ability, Panel 800 erodes the line between ordinary Operator Panels and PC-based HMIs.

Panels are configured using ABB's Panel Builder tool that contains a wide range of advanced functions. The functions are tested and developed with customer needs and preferences in focus.



Specifications Panel 800 version 6.2

Standard panels



Panel	PP875	PP881	PP883	PP886	PP895
Display size	7"	10.4"	12.1"	15.4"	21.5"
Display resolution, ratio	800 × 480 (16:9)	1024 × 600 (16:9)	1280 × 800 (16:10)	1280 × 800 (16:10)	1920 × 1080 (16:9)
Processor	ARM9 (1 GHz)				
Main memory	512 MB	1.0 GB	1.0 GB	1.0 GB	2.0 GB
External storage media	1 × SD card slot (or SDHC with latest image loaded).				
Dimension WxHxD (mm)	204 × 243 × 50	292 × 194 × 52	340 × 242 × 37	410 × 286 × 61	556 × 347 × 65
Net weight (kg)	0.8	1.65	2.6	3.85	7.38
Power supply	+24 VDC (18-32 VDC)				
Operating temperature	-10 to +60 °C				0 °C to +50 °C
Certification					
CE	CE, FCC, KCC				
UL	UL610-2-201				
Marine	DNV, KR, GL, LR, ABS, CCS				-
RoHS compliance	DIRECTIVE/2011/65/EU				
WEEE compliance	DIRECTIVE/2012/19/EU				

Specifications Panel 800 version 6.2

Black panels



Panel	PP875M	PP875H	PP886M
Display size	7"	7"	15.4"
Display resolution, ratio	800 × 480 (16:9)	800 × 480 (16:9)	1280 × 800 (16:10)
Processor	ARM9 (1 GHz)		
Main memory	512 MB	2 GB	1 GB
External storage media	1 × SD card slot (or SDHC with latest image loaded)		
Dimension WxHxD (mm)	204 × 143 × 50		410 × 286 × 61
Net weight (kg)	0.8	0.8	3.85
Power supply	24 VDC (18-32 VDC)		
Operating temperature	-10 to +60 °C		
Certification			
CE	CE, FCC, KCC		
UL	UL61010-2-201		
Marine	DNV, KR, GL, LR, ABS, CCS		
RoHS compliance	DIRECTIVE/2011/65/EU		
WEEE compliance	DIRECTIVE/2012/19/EU		

Specifications Panel 800 version 6.2

Rugged panels



Panel	PP886R	PP887H	PP887S
Display size	15.4"		
Display resolution, ratio	1280 x 800 (16:10)		
Processor	ARM9 (800 MHz)	ARM9 (1 GHz)	ARM9 (1 GHz)
Main memory	1 GB		
External storage media	1 x SD card slot (or SDHC with latest image loaded)		
Dimension WxHxD (mm)	410 x 286 x 73		
Net weight (kg)	4.1	4.1	4.8
Power supply	24 VDC (18-32 VDC)		
Operating temperature	-30 to +70 °C		
Certification			
CE	CE, FCC, KCC		
UL	UL-61010-2-201		
Marine	DNV, KR, GL, LR, ABS, CCS		
Hazardous	UI/cUL C1D2, ATEX (Zone 2, Zone 22), IECEx (Zone 2, Zone 22)		
RoHS compliance	DIRECTIVE/2011/65/EU		
WEEE compliance	DIRECTIVE/2012/19/EU		

Panel 800 version 6.2

Lifecycle Management Program

Lifecycle Management Program

Automation Sentinel is the ABB control system lifecycle management program for the Extended Automation, Freelance, Compact Product Suite, Symphony Plus and OCS product lines. ABB recommends its customers to use Automation Sentinel for all its installed control systems. With this program, customers can keep control software up-to-date and maintain a flexible path forward to new system software technology. It provides services to maintain and continually advance and enhance your ABB control system installation. You may choose the level of maintenance and upgrade support that works best for your immediate needs and long-term production targets.


Read more about our Automation Sentinel Program here:

<http://new.abb.com/control-systems/service/offerings/service-agreements>

Upgrade Orders	Article no.
Panel Builder 800 Version 6, upgrade only Media folder with Panel Builder 800 Version 6 containing the latest version of: <ul style="list-style-type: none"> • Panel Builder 800 Version 6 • Panel 800 Runtime • Firmware for panels • Manuals as pdf-files • Release Notes • Renewed license This item can be ordered by users with a valid Automation Sentinel agreement for Panel Builder 800.	3BSE069301R1






Panel 800 version 6.2




Panel Builder 800




Panel Builder 800	Article no.
<p>Panel Builder 800 is the engineering tool for Panel 800.</p>  <p>Panel Builder 800 Version 6 Media folder with Panel Builder 800 Version 6 containing the latest version of:</p> <ul style="list-style-type: none"> • Panel Builder 800 Version 6 • Panel 800 Runtime • Firmware for panels • Manuals as pdf-files • Release Notes • License for one Panel Builder 800 Version 6 	<p>3BSE069300R1</p>

Panel 800 Version 6.2

Operator Panels


Standard Panels	Article no.
 <p>PP875 Standard panel 7" TFT 800x480 widescreen (16:9). Requires Panel Builder 800 Version 6.2 for configuration.</p> <p>To protect the front, it's recommended to use the RX874 Touch cover. Replaces PP874.</p>	<p>3BSE092977R1</p>
 <p>PP881 Standard panel 10" TFT 1024x600 widescreen (16:9). Requires Panel Builder 800 Version 6.2 for configuration.</p> <p>To protect the front, it's recommended to use the RX881 Touch cover. Replaces PP877. For mounting in the same cut-out as PP877, RX800 Adapter plate is required.</p>	<p>3BSE092978R1</p>
 <p>PP883 Standard panel 12" TFT 1280x800 widescreen (16:10). Requires Panel Builder 800 Version 6.2 for configuration.</p> <p>To protect the front, it's recommended to use the RX883 Touch cover. Replaces PP882.</p>	<p>3BSE092979R1</p>
 <p>PP886 Standard panel 15" TFT 1280x800 widescreen (16:10). Requires Panel Builder 800 Version 6.2 for configuration.</p> <p>To protect the front, it's recommended to use the RX886 Touch cover. Replaces PP885.</p>	<p>3BSE092980R1</p>
 <p>PP895 Standard panel 21" TFT 1920x1080 widescreen (16:9). Requires Panel Builder 800 Version 6.2 for configuration.</p> <p>To protect the front, it's recommended to use the RX895 Touch cover.</p>	<p>3BSE092981R1</p>

Black Panels		Article no.
	<p>PP875M Black Panel 7" TFT 800x480 widescreen (16:9). Requires Panel Builder 800 Version 6.2 for configuration.</p> <p>To protect the front, it's recommended to use the RX874 Touch cover. Replaces PP874M.</p>	3BSE092982R1
	<p>PP875H Black Panel, High Brightness 7" TFT 800x480 widescreen (16:9) Brightness 1000 cd/m². Requires Panel Builder 800 Version 6.2 for configuration.</p> <p>To protect the front, it's recommended to use the RX874 Touch cover.</p>	3BSE092983R1
	<p>PP886M Black Panel 15" High Brightness 1000 cd/m² TFT 1280x800 widescreen (16:10). Requires Panel Builder 800 Version 6.2 for configuration.</p> <p>To protect the front, it's recommended to use the RX886 Touch cover. Replaces PP885M.</p>	3BSE092984R1

Rugged Panels		Article no.
	<p>PP886R Rugged Panel 15" TFT 1280x800 widescreen (16:10). Requires Panel Builder 800 Version 6.2 for configuration.</p> <p>To protect the front, it's recommended to use the RX886 Touch cover. Replaces PP885R. One Ethernet port.</p>	3BSE092985R1
	<p>PP887H Rugged Panel, High Brightness 15" TFT 1280x800 widescreen (16:10) Brightness 1000 cd/m². Requires Panel Builder 800 Version 6.2 for configuration.</p> <p>To protect the front, it's recommended to use the RX886 Touch cover. Replaces PP886H.</p>	3BSE092986R1
	<p>PP887S Rugged Panel, Sealed 15" TFT 1280x800 widescreen (16:10) Brightness 1000 cd/m². Sealed on all sides, can be mounted directly on an arm.</p> <p>Requires Panel Builder 800 Version 6.2 for configuration. To protect the front, it's recommended to use the RX886 Touch cover.</p> <p>PP887S is a fully sealed version with M12 connectors with IP66 ingress protection rating and ATEX/IECEX Zone 2 and Zone 22 (IP65) certification.</p>	3BSE092987R1



Panel 800 Version 6.2







Dongles

Dongles	Article no.
Requires Panel 800 Runtime Version 6.2 to be installed on the PC. The USB dongle enables the runtime and the amount of signals.	
 Panel 800 Version 6.2 dongle 250 tags. USB dongle for 250 signals (tags).	3BSE093564R1
Panel 800 Version 6.2 dongle 2000 tags. USB dongle for 2000 signals (tags).	3BSE093565R1
Panel 800 Version 6 dongle 4000 tags. USB dongle for 4000 signals (tags).	3BSE093566R1


Panel 800 Version 6.2


Accessories

Communication Interface for Panel 800	Article no.
 CB802 Profibus DP Interface PROFIBUS DP slave expansion module for Panel 800 Version 6 panels. Not possible to use for PP880R, PP885H, PP885M, PP885R, PP886H, PP887H and PP887S. Not marine certified.	3BSE069285R1
 CB810 USB to Ethernet adapter for programming USB to Ethernet adapter with software. Cross over Ethernet patch cable included.	3BSE042255R1

Connection Cables for Panel 800	Article no.
 TK858V002 Adapter cable Adapter cable RS232 - RS485 0.2 m 9 pin D-Sub to 25 pin D-Sub. For using version 5 RS422/485 cables on Version 6 panels.	3BSE069474R1
 TK859V000 Gender changer Gender changer 9 pin D-Sub male/male.	3BSE069475R1
 TK860V001 Splitter cable Splitter cable Version 6 panel. Y-split for use with one RS232 and one RS422 connection. Not possible to use with PP887S.	3BSE069476R1
 TK868V002 Splitter 3 way (CAB150) Splitter cable. Used when two serial RS485 connections are needed (1xRS232 + 2xRS485). Not possible to use with PP887S.	3BSE093567R1
 TK865V030 Cable m. 8p to blank 3m (COM) Cable M12 male 8 pin to blank, 3 m (COM). Only for PP887S with M12 contacts.	3BSE092988R1
 TK865V100 Cable m. 8p to blank 10m (COM) Cable M12 male 8 pin to blank, 10 m (COM). Only for PP887S with M12 contacts.	3BSE092989R1

Connection Cables for Panel 800		Article no.
	TK866V030 Cable m. 4p to blank 3m (LAN) Cable M12 male 4 pin to blank, 3 m (LAN). Only for PP887S with M12 contacts.	3BSE092990R1
	TK866V100 Cable m. 4p to blank 10m (LAN) Cable M12 male 4 pin to blank, 10 m (LAN). Only for PP887S with M12 contacts.	3BSE092991R1
	TK867V030 Cable f. 4p to blank 3m (POW) Cable M12 female 4 pin to blank, 3 m (POWER). Only for PP887S with M12 contacts.	3BSE092992R1
	TK867V100 Cable f. 4p to blank 10m (POW) Cable M12 female 4 pin to blank, 10 m (POWER). Only for PP887S with M12 contacts.	3BSE092993R1
	TK865V000 Conn. 8p male 5.5-7.5mm (COM) Connector M12 male 8 pin 5.5 - 7.5 mm, Gland (COM) Only for PP887S with M12 contacts.	3BSE092994R1
	TK866V000 Conn. 4p male 5.5-7.5mm (LAN) Connector M12 male 4 pin 5.5 - 7.5 mm, Gland (LAN) Only for PP887S with M12 contacts.	3BSE092995R1
	TK867V000 Conn. 4p fem. 5.5-7.5mm (POW) Connector M12 female 4 pin 5.5 - 7.5 mm, Gland (POWER) Only for PP887S with M12 contacts.	3BSE092996R1

Front Protections		Article no.
	RX874 Touch cover 7" Plastic cover for protection. Possible to use for PP880R, PP874, PP874M, PP875, PP875M and PP875H.	3BSE069287R1
	RX881 Touch cover 10" Plastic cover for protection. Possible to use for PP881.	3BSE093559R1
	RX883 Touch cover 12" Plastic cover for protection. Possible to use for PP883.	3BSE093560R1
	RX886 Touch cover 15" Plastic cover for protection. Possible to use for PP886, PP886M, PP886R, PP887H and PP887S.	3BSE093561R1
	RX895 Touch cover 21" Plastic cover for protection. Possible to use for PP895.	3BSE093562R1

Adapter Plates		Article no.
	RX800 Adapter plate for PP877 to PP881 Adapter plate for installing the replacement panel PP881 on a PP877 mounting.	3BSE093563R1

Miscellaneous		Article no.
	MB802V2 SD card 2GB Secure Digital memory card 2GB Industrial grade for Version 6 panels.	3BSE069477R1

IEC 61850 Engineering Tool for 800xA 6.0

With the built-in electrical control system, ABB's 800xA provides ways to be in control of the complete electrical system, from high-voltage switchgear to low-voltage motor control. Whether together with 800xA DCS or not, 800xA is the ideal solution as your Engineering Tool for Electrical Control Systems.

Reduce hardwired cabling on switchgear by connecting to intelligent devices, no matter which standard protocol you have.

The high reliability on digital communication improves the information flow from the devices and additional electrical measurement equipment can be removed. Simpler installations and reduced automation system are easier to engineer and maintain.

In addition, 800xA electrical control system allows the asset management strategies to be extended to electrical equipment. The result is reduced plant downtime and an optimal level of production.

IEC 61850 Engineering Tool

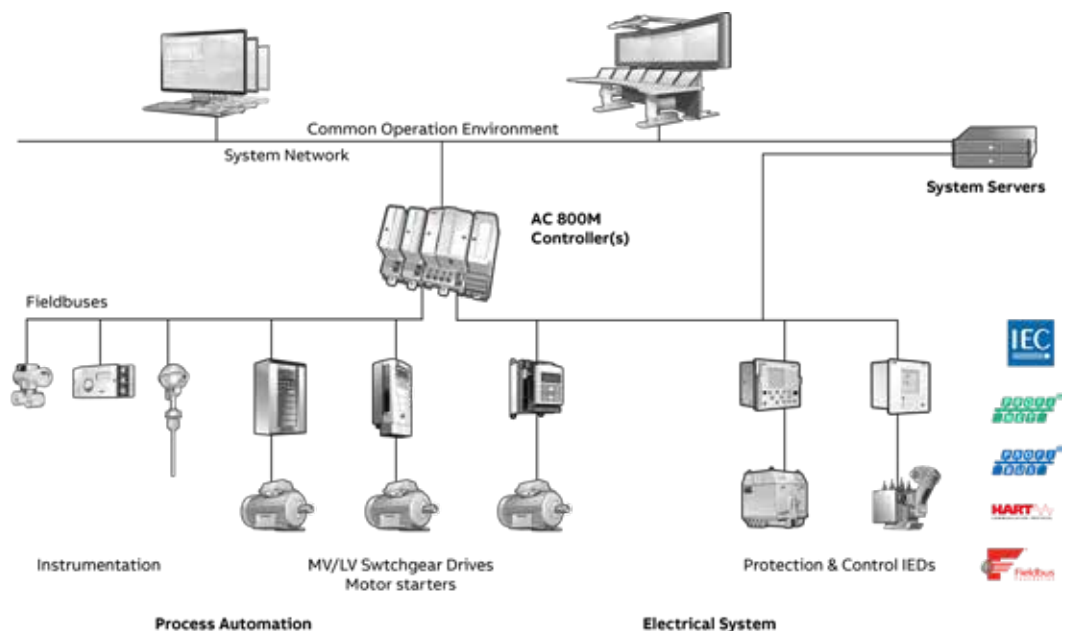
The engineering tool is licensed on a per seat basis, separate from System 800xA licenses. The detailed license process is described in Ref. Doc 2PAA113852. This ABB IEC 61850 Engineering Tool version can be used for 800xA 5.1 FP4 and 800xA 6.0

IEC 61850 Engineering Tool for 800xA 6.0 – Project Engineering and End Customer use

This ABB IEC 61850 Engineering Tool version IET 600 5.x is used ABB wide and can be ordered from one central place ABB Electrification Products. Product type IET 600 5.x – Integrated Engineering Tool with USB-dongle.

This tool version is released for Microsoft Windows 7/8.1 and Microsoft Server 2008/2012. This license is a one-time fee (no renewal is necessary) and can be ordered via the ABB Electrification Products website: **CCP – Common Configurator Platform ***

*The link is valid for authorized users only or written request to: sa-t.sales@se.abb.com



Extended Warranty Time

S800 I/O, S900 I/O, Fieldbus and AC 800M

Extended warranty time on hardware for S800 I/O, S900 I/O, Fieldbus and AC 800M	Article no.	
<p>Terms and conditions for the supply of products from Local Division Process Automation, LBU Control Technologies within ABB AB in Sweden is valid.</p> <p>Note that the price for the Extended Warranty Time order will be calculated as a percentage of the affected S800 I/O, S900 I/O, Fieldbus and AC 800M articles in the accompanying order.</p> <ul style="list-style-type: none"> • Item A100 => 3% of the affected HW articles within the whole order • Item A110 => 6% of the affected HW articles within the whole order • Item A120 => 9% of the affected HW articles within the whole order 		
<p>12 additional months warranty time – S800 I/O, S900 I/O, Fieldbus and AC 800M</p>	3BSE049878R1	
<p>24 additional months warranty time – S800 I/O, S900 I/O, Fieldbus and AC 800M</p>	3BSE049878R2	
<p>36 additional months warranty time – S800 I/O, S900 I/O, Fieldbus and AC 800M</p>	3BSE049878R3	



S800 I/O



AC 800M controller



S900 I/O

Reference documentation

This document includes listings of the Release Notes and User Instructions applicable for System 800xA 6.0.3.2 version. The listings include the title of the document and the corresponding document number.

The documents are grouped by functional areas within the system and by Release Notes and User Instructions.

For more information about System 800xA please visit our web: www.abb.com/800xA

Release Notes



This table lists the Release Notes and applicable document numbers that are released for use with System 800xA 6.0.3.2

Functional Area		Article no.	
System 800xA	System 800xA 6.0.3 Release Notes New Functions and Known Problems	2PAA111899-603	
	System 800xA 6.0 Release Notes Resolved Issues	2PAA112277-603	

System Guides

This table lists the System Guides and applicable document numbers that are released for use with System 800xA 6.0.3.2

Functional Area		Article no.	
System 800xA	System 800xA 6.0.3.1 System Guide Technical Data and Configuration	3BSE041434-600	
	ABB Ability System 800xA 6.0.3.2 System Guide Summary	3BSE078159	

Safety Manuals

This table lists the Safety Manuals and applicable document numbers that are released for use with System 800xA 6.0.3.2

Functional Area		Article no.	
System 800xA	System 800xA Safety AC 800M High Integrity Reliability and Availability	3BSE034876	
	AC 800M 6.0 Burner Library Safety and User Manual	3BSE079156-600	
	System 800xA Safety 6.0.0-1 AC 800M High Integrity Safety Manual	3BNP004865-601	
	System 800xA Operations Safety Operator Warnings	2PAA110888-603	

User Manuals



This table lists the User Manuals and associated document numbers that are released for use with 800xA System 6.0.3.2

Functional Area	Document title	Article no.	
System 800xA	System 800xA Safety AC 800M High Integrity Reliability and Availability	2PAA111708-600	
	System 800xA Update Manual	2PAA114580-600	
	System 800xA System Alarm Messages	2PAA114623-600	
	System 800xA 6.0 Tools	2PAA101888-600	
	System 800xA 6.0 Configuration	3BDS011222-600	
	System 800xA 6.0 Network Configuration	3BSE034463-600	

Reference documentation

Functional Area	Document title	Article no.	
System 800xA	System 800xA 5.1 to 6.0 Upgrade	2PAA111694-600	
	System 800xA 5.0 SP2 to 6.0 Upgrade	2PAA111695-600	
	System 800xA 4.1 to 5.0 SP2 Upgrade	2PAA113553-600	
	System 800xA 3.1 to 5.0 SP2 upgrade	2PAA113440-600	
	System 800xA 6.0 Multisystem Integration	3BSE037076-600	
	System 800xA 6.0 Administration and Security	3BSE037410-600	
	System 800xA 6.0 System Planning	3BSE041389-600	
	System 800xA 6.0 Maintenance	3BSE046784-600	
	System 800xA 6.0 Post Installation	2PAA111693-600	
	System 800xA 6.0 Virtualization with VMware vSphere ESXI	3BSE056141-600	
	System 800xA Virtualization with Microsoft Hyper-V	3BSE082294-600	
	System 800xA 6.0 Licensing Information	2PAA111691-600	
	System 800xA 3rd party software versions	3BUA0005000	
	System 800xA Security Deployment Guide	3BSE090880-6031	
System 800xA PC, Network and Software Monitoring	System 800xA 6.0 PC, Network, and Software Monitoring Operation	3BUA000446-600	
	System 800xA 6.0 PC, Network, and Software Monitoring Configuration	3BUA000447-600	
System 800xA PLC Connect	System 800xA 6.0 PLC Connect Operation	3BSE035040-600	
	System 800xA 6.0 PLC Connect Configuration	3BSE035041-600	
Asset Optimization	System 800xA Asset Optimization 6.0 Operation	3BUA000150-600	
	System 800xA Asset Optimization 6.0 Configuration	3BUA000118-600	
AC 800M	6.0 AC 800M DriveBus	2PAA113566-600	
	AC 800M 6.0 FOUNDATION Fieldbus HSE	3BDD012903-600	
	AC 800M 6.0 PROFIBUS DP Installation	3BDS009029-600	
	AC 800M 6.0 PROFIBUS DP Configuration	3BDS009030-600	
	AC 800M 6.0 Communication Protocols	3BSE035982-600	
	AC 800M 6.0 OPC Server	3BSE035983-600	
	AC 800M 6.0 Controller Hardware	3BSE036351-600	
	AC 800M 6.0 Interfacing SATT IO	3BSE042821-600	
	AC800M 6.0 Library Object Style Guide	3BSE042835-600	

Reference documentation

AC 800M (Continued)	AC 800M 6.0 IEC 61850 Configuration for CI868	9ARD171385-600	
	AC 800M 6.0 PROFINET IO Configuration	3BDS021515-600	
	AC 800M 6.0 EthernetIP DeviceNet Configuration	9ARD000014-600	
	AC 800M 6.0 Ethernet/IP DeviceNet Installation	9ARD000015-600	
	AC 800M 5.1 Ethernet/IP DeviceNet Linking Device LD 800DN	3BSE059754R0001	
	AC 800M 6.0 Controller Hardware Product Guide	3BSE036352-600	

Functional Area	Document title	Article no.	
Control	System 800xA Control 6.0 AC 800M Configuration	3BSE035980-600	
	System 800xA Control 6.0 AC 800M Binary and Analog Handling	3BSE035981-600	
	System 800xA Control 6.0 AC 800M Getting Started	3BSE041880-600	
	System 800xA Control 6.0 AC 800M Planning	3BSE043732-600	
	Advant Fieldbus 100 User Manual	3BSE000506-600	
	Compact Control Builder AC 800M 6.0 Getting Started	3BSE041584-600	
	Compact Control Builder AC 800M 6.0 Configuration	3BSE040935-600	
	Compact Control Builder AC 800M 6.0 Planning	3BSE044222-600	
	Compact Control Builder AC 800M 6.0 Binary and Analog Handling	3BSE041488-600	
	Compact Control Builder AC 800M 6.0 Product Guide	3BSE041586-600	
Device Management	System 800xA 6.0 Device Management Device Library Wizard	2PAA102573-600	
	System 800xA Device Management 6.0 FOUNDATION Fieldbus Configuration	3BDD012902-600	
	System 800xA 6.0 Device Management PROFIBUS and HART Configuration	3BDD011934-600	
	Device Management Basic PROFIBUS DTM	3BDD011938-600	
	Device Management Basic HART DTM	3BDD011939-600	
	Device Management PROFIBUS DTM Installation	3BDD011941-600	
	Device Management HART DTM Installation	3BDD011942-600	
	Device Management PROFIBUS POWER Hub	2PAA102122R0201	
	Device Management PROFIBUS DP FMS Redundancy Link Module RLM01	3BDD011600R0601	
	Device Management FOUNDATION Fieldbus Linking Device LD 800HSE 3.6.0	3BDD011677-600	
	Device Management PROFIBUS DTM Builder	3BDD011945-600	
	Device Management HART DTM Builder	3BDD011946-600	

Reference documentation

Functional Area	Document title	Article no.	
System 800xA Engineering	System 800xA Engineering 6.0 Engineering Studio	3BDS011223-600	
	System 800xA Engineering 6.0 Engineering Studio Function Designer	3BDS011224-600	
	System 800xA Engineering 6.0 Engineering Studio Function Designer Getting Started	3BDS100968-600	
	System 800xA Engineering 6.0 Application Change Management	2PAA108438-600	
	System 800xA Engineering 6.0 Engineering and Production Environments	3BSE045030-600	
	System 800xA Engineering 6.0 Engineering Studio Topology Designer	3BDS011225-600	
	System 800xA Engineering 6.0 Process Engineering Tool Integration	3BUA000184-600	
	System 800xA Engineering 6.0 Process Graphics	3BSE049230-600	
IEC 61850	System 800xA 6.0 IEC 61850 Engineering Workflow	9ARD171384-600	
	System 800xA 6.0 IEC 61850 Connect Configuration	9ARD171387-600	
	System 800xA 6.0 IEC 61850 Operation Library Substation Equipment	2PAA108626-600	
System 800xA Information Management	System 800xA Information Management 6.0 Getting Started	3BUF001091-600	
	System 800xA Information Management 6.0 Configuration	3BUF001092-600	
	System 800xA Information Management 6.0 Display Services	3BUF001093-600	
	System 800xA Information Management 6.0 Data Access and Reports	3BUF001094-600	
	System 800xA Information Management 6.0 Profile Historian Operation	3BUF001121-600	
	System 800xA Information Management 6.0 Enterprise Historian Migration	3BUF001150-600	
	System 800xA Information Management 6.0 Technical Support Reference	3BUF001147-600	

Reference documentation

Functional Area	Document title	Article no.
I/O	S900 I/O Manual DTM 6.x	3BDD010407-600
	S900 I/O S- and N-System with SA920 Installation	3BDD010421R0401
	S900 I/O Digital I/O Modules DO910 and DX910	3BDD010423R0601
	S900 I/O Frequency Input/Pulse Counter DP910	3BDD010424R0601
	S900 I/O Temperature Input Module AI950	3BDD010426R0601
	S900 I/O B-System with SA920 Installation	3BDD010432R0401
	S900 I/O Manual Communication Interface for PROFIBUS DP CI920A V2.1	2PAA107375
	S900 I/O Manual Installation-Guide S-N-System SA920 CI920A	3BDD010421R0601
	S900 I/O PROFIBUS DP Communication Interface, CI920 1.5	3BDD015031R0101
	S900 I/O Digital I/O Relay Module DO930N	3BDD010435R0601
	S900 I/O Analog I/O Modules (HART) AI930, AI931, AO930	3BDD010425R0601
	S900 I/O Manual Installation-Guide B-System SA920 CI920A	3BDD010432R0601
	S800 I/O Getting Started	3BSE020923-600
	S800 I/O Modules and Termination Units	3BSE020924-600
	S800 I/O Fieldbus Communication Interface for PROFIBUS DP/DPV1	3BSE020926-600
	S800 I/O DTM 6.0	3BSE027630-600
	S800 I/O Product Guide	3BSE015969-600
	S800 I/O CI801 Memory Maps	3BSE036959-600
	S800 I/O CI840 Memory Maps	3BSE025251-600
	S200 I/O Hardware	3BSE021356-600
	S200L I/O Hardware	3BSE021357-600
	S800 I/O Modules and Termination Units with Intrinsic Safety Interface	3BSE020927-600
System 800xA Operations	System 800xA Operations 6.0 Operator Workplace Configuration	3BSE030322-600
	System 800xA Operations 6.0	3BSE036904-600
	System 800xA 6.0 Snapshot Reports User Guide	3BSE060242-600
	VideoNet Connect for 800xA User Manual	2PAA109407-600
	System 800xA Operations Operator Workplace Support for Mobile Devices	2PAA110154-600
	System 800xA 6.0 ABB System Extension Configuration and Packager Tool	2PAA111022-600
System 800xA Batch Management	System 800xA Batch Management 6.0 Operation	3BUA000145-600
	System 800xA Batch Management 6.0 Configuration	3BUA000146-600
Public Address System	System 800xA Public Address System	2PAA114295-600

Reference documentation

Functional Area	Document title	Article no.	
800xA for AC 100	AC 100 OPC Server 6.0 Installation	3BSE077523-600	
	System 800xA for AC 100 6.0 Aspect Object Types	3BDS013986-600	
	800xA for AC 100 6.0 Configuration and Operation	3BDS013989-600	
	AC 100 OPC Server 6.0 Configuration and Operation	3BDS013988-600	
	AC 100 OPC Server 6.0 Product Guide	3BSE078405-600	
800xA for Advant Master	800xA for Advant Master 6.0 Extended Graphic Library	3BSE026427-600	
	800xA for Advant Master 6.0 Configuration	3BSE030340-600	
	800xA for Advant Master 6.0 Operation	3BSE030352-600	
	800xA for Advant Master 6.0 Graphic Library	3BSE030430-600	
800xA for DCI	800xA for DCI 6.0 Operation	3BUA000129-600	
	800xA for DCI 6.0 Configuration	3BUA000135-600	
800xA for Harmony	800xA for Harmony 6.0 Configuration	3BUA000157-600	
	800xA for Harmony 6.0 Operation	3BUA000158-600	
800xA for AC 870P/ Melody	System 800xA for AC870P/ Melody 6.0 Configuration	3BDD011741-600	
	System 800xA for AC870P/Melody 6.0 Asset Management for HART Devices Configuration	2VAA000938-600	
800xA for MOD 300	800xA for MOD 300 6.0 Configuration	3BUR002417-600	
	800xA for MOD 300 6.0 Operation	3BUR002418-600	
800xA for Safeguard	800xA for Safeguard 6.0 Configuration	3BNP004848-600	
	800xA for Safeguard 6.0 Operation	3BNP004849-600	
	800xA for Safeguard 6.0 Graphic Library	3BSE044423-600	
800xA for TRIO/ Genius	800xA for TRIO/Genius 6.0 Getting Started	3BUR002459-600	
	800xA for TRIO/Genius 6.0	3BUR002460-600	
800xA History	800xA History 6.0 Installation	2PAA107280-600	
	800xA History 6.0 Administration and Configuration	2PAA107563-600	
Freelance Connect	800xA for Freelance 6.0 Installation	3BDD011810-600	
	800xA for Freelance 6.0 Operation	3BDD011811-600	
	800xA for Freelance 6.0 Configuration	3BDD011812-600	
	800xA for Freelance 6.0 Product Guide	3BDD011861-600	

ABB Ability™ System 800xA

References

This page gives you references and links to more useful ABB Ability™ System 800xA information. For more information about System 800xA please also visit our web: www.abb.com/800xA

System 800xA References

- [1] System 800xA 6.0.3.1 System Guide, Technical data and configuration, 3BSE041434-600
- [2] System 800xA Released User Documentation, 3BUA000263-6032
- [3] System 800xA 6.0.3.2 System Guide Summary, 3BSE078159
- [4] For more information about System 800xA please visit: www.abb.com/800xA
- [5] For more information about System 800xA hardware please visit: www.800xAhardwareselector.com
- [6] For information and support about Industrial Automation, please visit: www.abb.com/industrialautomation

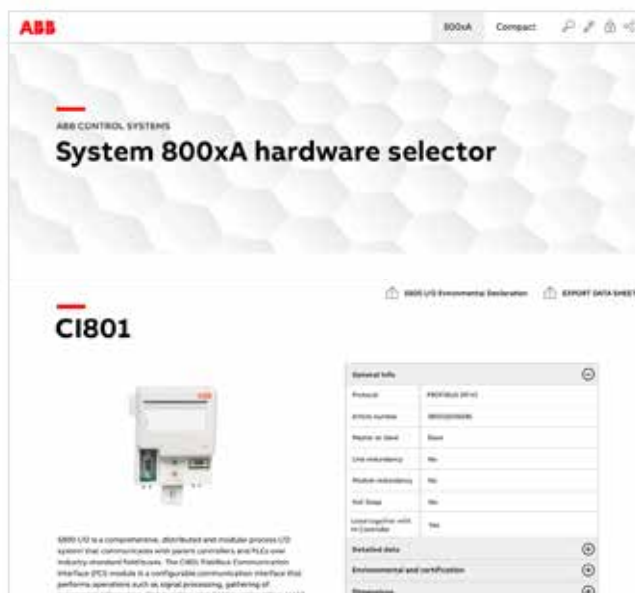
System 800xA Hardware Selector

Choosing the right hardware made easy

When planning your new project or expansion, finding the right hardware can be a challenge. Check out the new web based tool that helps you find the hardware you need in a few clicks:

- Quick filtering according to your needs
- Compare different units at a glance
- Find matching termination units
- Make lists and export everything in nice looking datasheets

Start using the System 800xA Hardware Selector now at: www.800xAhardwareselector.com



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