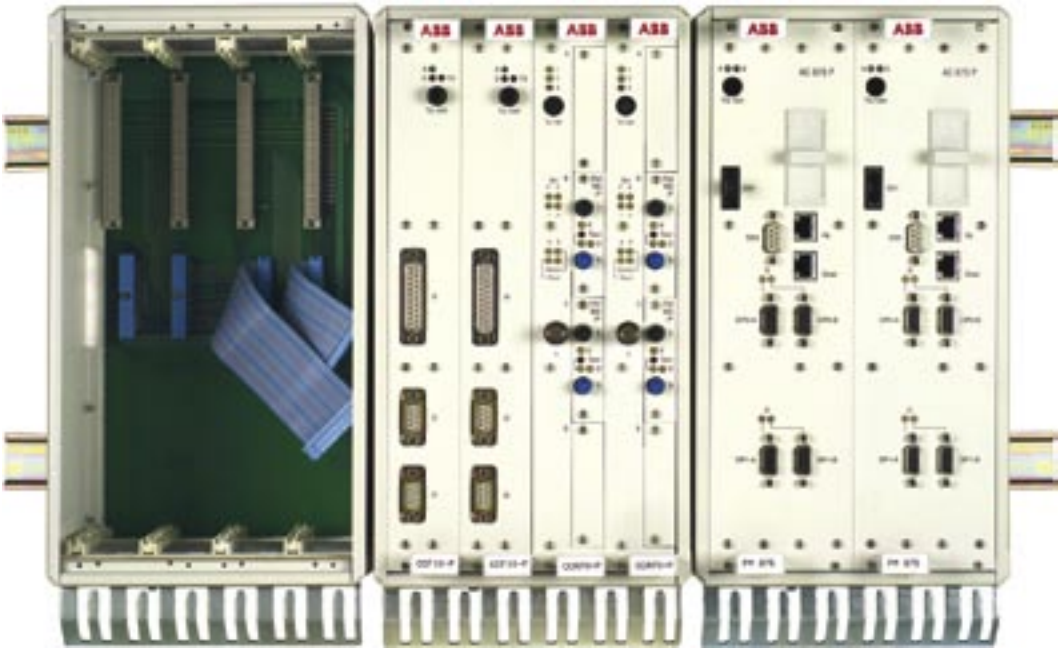
Industrial^{IT} System 800xA
AC 870P – PM 875 Controller

Data Sheet



The PM 875 controller is a member of the Extended Automation System 800xA family. The PM 875 controller uses a 32 bit processor for maximum computing power and modular scalability. The integrated redundant PROFIBUS interface provides connectivity to ABBs I/O families S800 and S900 and to other PROFIBUS devices. HART communication is system integrated, including configuration and diagnostic through the control network. The PM 875 controller is fully compatible to former Melody solutions, thus naturally allowing reuse of the comprehensive portfolio of I/O modules and communication interfaces. It seamlessly integrates into the control network. The network is easy to handle and does not need any routing configuration.

PM 875 Specification	
CPU	Intel Pentium Mobile, 32 bit with floating point unit
EEPROM	1 Mbit, Boot BIOS
Clock frequence	333 MHz
Flash Memory	32 MByte, operating system, firmware and non-volatile data
SDRAM	64 MByte, main memory
SRAM	6 KByte, battery-buffered for production and operating data
No. of application task	16
Application cycle time per task	between 16 ms ... 2900 h
On Board Interfaces	
Onet	serial, 100/10 Mbit/s (auto sense) via RJ45 socket on the front panel
	10BaseT (RJ45)
	physical connection based on Ethernet IEEE 802.3
RL	serial, 10 Mbit/s via RJ45 socket on the front panel
	10BaseT (RJ45)
	physical connection based on Ethernet IEEE 802.3
	Crossover patch cable (NT 031) required between redundant PM 875.
Cnet (C)/AB0	serial, 1 MBd
	redundant implementation
	accessible through the system plug in the rear
Fnet	serial, 2 MBd
	redundant implementation
	accessible through the system plug in the rear
Fnet capacity	up to 2000 I/O
PROFIBUS DPnet 0 (DP0)	serial, 9,600 bit/s ... 12 Mbit/s
	redundant implementation
	accessible via 9-pin SUB-D socket on the front panel
PROFIBUS DPnet 1 (DP1)	serial, 9,600 bit/s ... 12 Mbit/s
	redundant implementation
	accessible via 9-pin SUB-D socket on the front panel
PROFIBUS DP Capacity	up to 6000 I/O in total
Front panel interface (SS0)	RS422 interface for connection of radio clock
	accessible via 9-pin SUB-D socket on the front panel
Service interface (SS1)	plastic optical fiber interface
	accessible via front panel (special plastic optical fiber cable needed for conversion to RS232, max. length 15 m)
Redundancy link (Backup)	serial, 1.5 MBd
	accessible through the system plug in the rear
	serves as backup redundancy link if the redundancy link RL on the front panel fails
System plug	64-pin multipoint plug meeting DIN 41 612 and pattern C64 in the rear of the module
	contains signal lines for Cnet (C), Cnet (SC), Fnet, redundancy link, power supply, slot code, signaling outputs, malfunction output ST, etc.
Signaling	
Light emitting diode A (green)	Module active
Light emitting diode S (red)	Malfunction
Dimensions	
Height	7 HU (G format)
Width	16 TE
Power supply	
Supply voltage	Uv=+20...+33 V
Permissible overvoltage	35 V (for t=1 s)
	45 V (for t=10 ms)
Fuses	Fusible plug 5 * 20, M 3.15 E or T 3.15 H
Current consumption	I_{NOM}=1.3 A at UV=24 V
	I_{MAX}=1.51 A at UV=20 V
Power dissipation	Max. 31 W
Ambient temperature	0 ... 50 °C (temperature for ventilation of the module in the housing)

Basic Specification		
Power supply (all consuming modules)	+24 V DC (+20… +33 V DC) Details see “AC870P/Melody System Data and Handling (2PAA101137)”	
Climatic conditioning AC 870P housing and modules		
Permissible ambient temperature	0 ... 45° C	Permissible housing intake temperature according to power loss and protection type
	0 ... 50° C	Permissible module intake temperature
	0 ... 70° C	Module operating range
	-30...85°C	Transportation/ storage
Permissible relative air humidity	Yearly average 75 %; with no condensation in operation	
	approx. 95 % condensation permissible in transportation/storage	
Climatic class	3K3 to DIN EN 60 721 part 3-3	
	KSF to DIN 40 040 (of 04.87)	

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ABB
Process Automation Division
Västerås, Sweden
Phone: +46 (0)21 34 20 00
Fax: +46 (0)21 13 78 45
www.abb.com/controlsystems
e-mail: processautomation@se.abb.com

ABB
Process Automation Division
Wickliffe, Ohio, USA
Phone: +1 440 585 8500
Fax: +1 440 585 8756
www.abb.com/controlsystems
e-mail: industrialitsolutions@us.abb.com

ABB
Process Automation Division
Mannheim, Germany
Phone: +49 (0) 1805 26 67 76
Fax: +49 (0) 1805 77 63 29
www.abb.de/controlsystems
e-mail: marketing.control-products@de.abb.com

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