MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Selected official pages for procurement and maintenance review

PRODUCT BRAND

ABB

PRODUCT MODEL

PM802F 3BDH000002R1

PM 802F, article 3BDH000002R1: base-unit description, technical data and drawing. PM 803F-only specifications do not apply to PM 802F.

OFFICIAL SOURCE

Freelance Product Catalog, Version 9.2

3BDD015188 Rev. A; printed pages 40-41

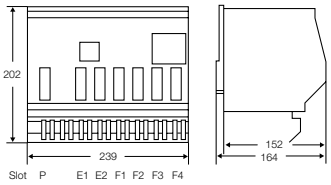
ABB-authored source pages follow unchanged. Catalog extracts and technical notes are reference material, not a complete service or installation manual.

AMIKON PRODUCT SUPPORT

+86-18020776786 INFO@AMIKON.CN

AMIKONG.COM

Amikon Limited prepared this independent reference package. Original manufacturer content, colors, drawings and printed pagination are retained on the following pages.



4.3.2 AC 800F, base units PM 802F / PM 803F

Name	Short Description	Article No.
PM 802F	Base Unit 4 MB, battery-buffered RAM Without operating system. The operating system has to be loaded during software installation. With special Contact Ledge RW 855F.	3BDH000002R1
PM 803F	Base Unit 16 MB, battery-buffered RAM Without operating system. The operating system has to be loaded during software installation. With special Contact Ledge RW 855F. Freelance V7.1PS2a or higher is mandatory. Restrictions: The CPU performance is typically lower around 5% and maximally around 10% than with PM 802F Base Unit.	3BDH000530R1

The basic unit, PM 802F and respectively PM 803F, cyclically scans signals from the fieldbus lines via the corresponding fieldbus modules, processes these signals according the application programs installed by the user and sends appropriate signals to the fieldbus actuators via the fieldbus modules.

Controller redundancy can be achieved by using two AC 800F. To ensure quick and smooth takeover in milliseconds by the secondary AC 800F in case the primary AC 800F fails, a dedicated redundancy communications link through the second Ethernet module makes sure that both AC 800F are always synchronized. All inputs and outputs are designed to support redundant operation.

Data communication between AC 700F, AC 800F, the engineering and operator stations runs via the control network. Engineering station communications can involve new or updated configuration files being downloaded to the controller, or information about the connected modules being reported back. When fieldbus modules are installed or exchanged, the required configuration information is automatically updated.

Configuration and real-time process data is stored in the controllers. To safeguard this data in case of power loss, the RAM power is backed up with batteries located either on the Ethernet modules or on battery modules.

The PM 803F has more memory than the PM 802F and is therefor capable to handle larger projects.

Features:

- Super Scalar RISC microprocessor (up to 150 MIPS)
- 16 K internal CPU cache RAM
- RAM memory with error detection and correction
  - PM 802F: 4 MB static
  - PM 803F: 16 MB synchronous dynamic
- Flash-EPROM
  - PM 802F: 4 MB, 32-bit words
  - PM 803F: 8 MB, 32-bit words
- EEPROM, serial, 16 kbit
- Monitoring of the temperature inside the device
- Watchdog
- 4 slots for fieldbus modules
- 2 slots for Ethernet communications modules, 32-bit data bus, 10 Mbits/s
- Battery backup incl. battery watchdog
- G3 compliant Z variant available (see also Chapter „4.5 AC 800F coated and G3 Compliant Hardware“)

Technical data

Technical data PM 802F / PM 803F	
CPU	CPU Intel® 32-bit RISC Super Scalar processor up to 150 MIPS
RAM	**PM 802F:** 4 MB static read / write memory battery back up **PM 803F:** 16 MB synchronous dynamic read / write memory, battery back up
I/O scan cycle time	Selectable by configuration. Depends on the capabilities of the fieldbus module
Processing time for 1000 instructions	< 1.0 ms for binary and 16 bit arithmetic instructions < 2 ms for fixed point arithmetic instructions < 1.5 ms for 32 bit arithmetic instructions
Power consumption:	Basic unit only: PM 802F: max. 6.3 W PM 803F: max. 7.8 W depending on CPU usage and cycle time
Power supply	PM 802F / 803F 115 - 230 VAC SA 811F 24 VDC SD 812F
Max. power output	See power supply modules
Weight	1.6 kg / 3.3 lbs max. 5 kg / 11 lbs (fully assembled)
Dimensions	Width 239 mm, 9.4” Height 202 mm, 8“ Depth 164 mm, 6.5“