

PM 783F

Freelance hardware selector



This is the smallest Freelance CPU that typically supports up to 300 I/Os. It optionally can be equipped with 8 direct I/O modules and one Profibus Interface module and supports Modbus TCP. Two serial line interfaces complement the connectivity. One interface can be used for Modbus communication, while the other is used for diagnosis.

For demanding applications, eight cyclic and priority-driven tasks with adjustable cycle time can be configured, as well as a cyclic PLC-type task, which runs as fast as possible. This multi-tasking scenario enables engineers to design applications that reflect all demands of process control, while at the same time balancing the CPU load. This keeps the resources needed in a project at a minimum. The small front panel display shows status and diagnostic information.

Furthermore, you can lock the controller via the keys. This means the controller can be blocked for downloads of application and firmware to enhance security. The status, if the controller is locked or unlocked, is shown on the display.

Features and benefits

- High-performance CPU for fast processing
- On-board Ethernet for system communication
- Serial interfaces for Modbus and diagnostics
- Multi-tasking capability to optimize CPU usage

General info	
Article number	3BDH000364R0005
Life cycle status	Active
Redundancy	No
Clock Frequency	96 MHz
Performance, 1000 boolean operations	0.71 ms
Memory	10 MB
RAM available for application	2 MB

Detailed data	
Processor type	PowerQUICC
Switch over time in red. conf.	N/A
No. of tasks per controller	9
Power supply	24 V DC
Power consumption +24 V typ/max	24 W
Power dissipation	10 W
Built-in back-up battery	Lithium battery (TA 521F)
Clock synchronization	yes
Ethernet channels	1
Ethernet interface	Ethernet (IEEE 802.3), 100/10 Mbit/s, RJ-45, female (8-pole)
RS-232C interface	2 (1 general, 1 for service tool)

Environment and certification	
Temperature, Operating	0°C ... +60°C
Temperature, Storage	-20 ... + 75°C
Corrosion protection	G3 compliant acc. ISA 71.04
Relative humidity	max. 95%, non-condensing
Vibration	1 g, 2 Hz ... 150 Hz
Protection class	IP20
Altitude	< 2000 m
Emission & Immunity	EN 61000-6-4, EN 61000-6-2
Environmental conditions	Industrial
CE Mark	Yes
Electrical Safety	EN 50178, IEC 61131-2, UL 61010-1, UL 61010-2-201
Hazardous location	cULus Class 1 Div 2
Marine certificates	DNV
RoHS compliance	Directive 2011/65/EU, (EU) 2015/863
WEEE compliance	Directive 2012/19/EU

Dimensions	
Width	67.5 mm
Height	76 mm
Depth	54 mm
Weight (including base)	0.4 kg

**solutions.abb/freelance
solutions.abb/controlsystems**

We reserve the right to make technical changes to the products or modify the contents of this document without prior notice. With regard to purchase orders, the agreed particulars shall prevail. ABB does not assume any responsibility for any errors or incomplete information in this document.

We reserve all rights to this document and the items and images it contains. The reproduction, disclosure to third parties or the use of the content of this document – including parts thereof – are prohibited without ABB's prior written permission.

Copyright© 2025 ABB All rights reserved