

ABB 1SAP140500R0271 PM585-ETH

Product Reference Manual

Modular PLC execution, I/O coordination and industrial communication



ABB product / lookup identity	1SAP140500R0271
Document scope	Independent Apter Power reference compiled only from the cited ABB public sources.
Image policy	No product photograph is included in this document.



Apter Power product page

<https://www.apterpower.com/ABB/1sap140500r0271-pm585-eth>

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Product identity and system role

The PM585-ETH executes the PLC application and exchanges control data with S500 or S500-eCo I/O through the local I/O bus or remote fieldbus stations. It has no onboard digital or analog process channels. Ethernet, two configurable serial ports and the FBP interface provide the documented communication paths, while the display and function keys support local operating status and diagnostics.

Official parameter	Published value
Product identity	AC500 V2 processor module / PLC CPU
Supply	24 V DC; ABB system range 20.4–28.8 V DC
Program memory	1024 kB Flash EPROM and RAM
Integrated data memory	1536 kB, including 512 kB buffered
Processor	32-bit Freescale ARM, 400 MHz
Communications	Ethernet, 2 configurable RS-232/RS-485 ports and 1 FBP interface
Local I/O	Up to 10 S500 or S500-eCo expansion modules
Net mass	150 g CPU without terminal base (ABB data sheet)

Functional path

1	Field sensors and actuators terminate on compatible S500/S500-eCo or remote I/O.
2	The CPU exchanges digital and analog process data across the local I/O bus, CS31 or configured fieldbus.
3	The 400 MHz processor executes cyclic, time-controlled or multitasking PLC logic.
4	Control results return to the configured output modules and connected plant equipment.

Compatible context

TB511-ETH ISAPI111100R0270	TB521-ETH ISAPI12100R0270
TB541-ETH ISAPI14100R0270	S500 and S500-eCo local I/O
ABB Automation Builder	Compatible remote I/O and communication modules

Applications supported by the cited ABB material

Machinery automation	Material handling
Water and wastewater systems	Building and HVAC control
Food and beverage production	Marine industrial control

Frequently asked questions

Does it include onboard I/O?	No. Process signals connect through compatible local or remote I/O.
What program memory is available?	1024 kB of Flash EPROM and RAM.
Which serial functions are supported?	Programming, Modbus master/slave and serial ASCII; COM1 also supports CS31 master.
Where is the Ethernet connector?	The RJ45 connection is provided by the compatible TB5x1-ETH terminal base.
How many local I/O modules are supported?	ABB specifies up to 10 central S500 or S500-eCo expansion modules.
Is the PM585-MC-KIT the same item?	No. ISAPI40500R0379 is a kit containing the CPU, CM579-ETHCAT and TB511-ETH.

Official ABB sources

ABB product record	https://www.abb.com/global/en/products/isapi40500r0271
PM57x/PM58x/PM59x Data Sheet, Rev. 11	https://library.e.abb.com/public/bd53984f89b94eafbff23c14a87ea0bf/PM57x_PM58x_PM59x_Data_Sheet%2C%2011%2C%20en_US.pdf
AC500 V2 Hardware Manual, Rev. 22	https://library.e.abb.com/public/d29142ffd3fb46e281a0e41eefeff7b7/CAA-Merger-2%2C%2022%2C%20en_US.pdf