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# Section 1 Overview

## Introduction

AC 800M can be defined as a hardware platform consisting of individual hardware units. AC 800M hardware platform can be programmed to perform multiple functions, depending on the specific unit configuration and operating system selected.

The hardware units which form the AC 800M Controller are:

- Processor units (including base plates)
- Communication interfaces for different protocols (including base plates)
- Power supply units, providing various power output levels
- Battery back-up unit
- For High Integrity systems control applications with AC 800M HI, special module SM810/SM811/SM812, is needed

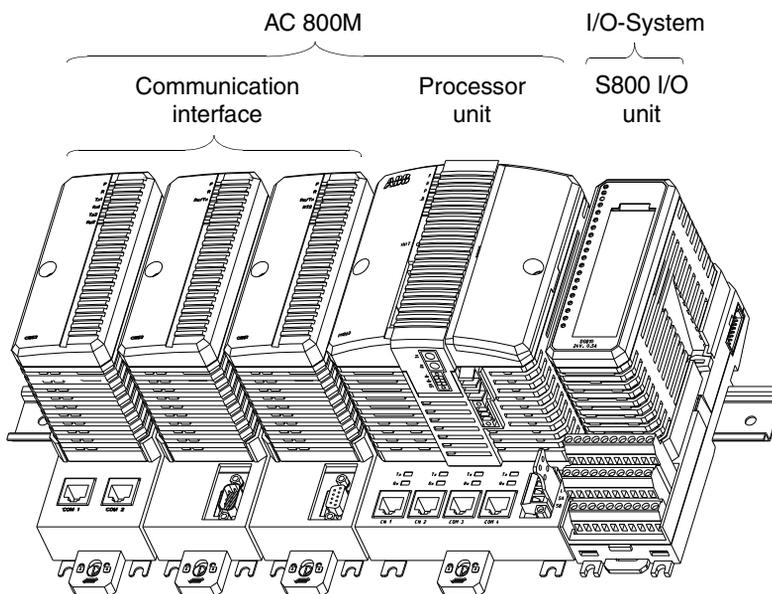
Once configured, the AC 800M hardware platform effectively becomes the AC 800M Controller.

Equipped with the specified Control Software, the AC 800M Controller can be used for all kinds of process and industrial automation applications. With Control Software, the controller can act either as a stand alone process controller or as a controller, performing local control tasks, in a control network consisting of many interconnected computers.

The AC 800M Controller is delivered without firmware. To provide the controller with Control Software, it will first be necessary to load the firmware and create the application separately by using the Control Builder interface.

The AC 800M Controller consists of a selection of units mounted on horizontal DIN rails, as shown in [Figure 1](#) on page 18, which can, if required, be housed within an enclosure.

The majority of units consist of a base mounting plate and a removable cover, which are attached to each other by means of screws. The base plate, which is always mounted on the DIN rail, carries the majority of the connections to the processor, power supplies and communication interfaces, as well as to the external buses and systems.



*Figure 1. Example of an AC 800M Controller with a S800 I/O Unit*