

Modicon MC80

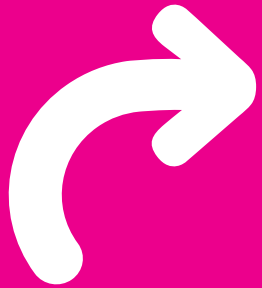
# The optimized programmable logic controller for concentrated solar power applications

Excellent value and high performance in a compact package



Requires Adobe Reader for full interactive experience

**Schneider**  
Electric™



An all-in-one controller that lets you save costs without compromising your solar harvest

How to navigate:

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# Introducing Modicon MC80, the compact and powerful PLC



Engineered for concentrated solar power (CSP) applications, Modicon MC80 is a cost-effective, all-in-one PLC with just enough high-end capabilities to let you:

- > Increase plant reliability thanks to durable designs for extreme CSP environments
- > Maximize energy harvest with highly accurate control of the heliostats and collectors
- > Promote operational efficiency through robust integration of your automation platforms
- > Minimize downtime thanks to native recovery capabilities as well as efficient program and data management software



# High-end capabilities tailored for demanding process automation

Modicon MC80 controller is a new addition to the best-in-class Modicon range of controllers from Schneider Electric

Built on proven Modicon technology, the Modicon MC80 unit is optimized to deliver the high speed and precision required for efficient and coordinated management of solar fields.



# Deployment efficiency thanks to ...

## All-in-one simplicity

Comprehensive processing, communication, and I/O capabilities in a compact unit to simplify installation

## Versatility and scalability

Fully distributed, scalable architecture based on open standard that accommodates diverse topologies

## Native resources

Unity Pro™ software and solar libraries for sun-tracking algorithm and heliostat control, help increase design productivity

## Proven architectures

Schneider Electric™ TVDA guide offers proven solutions to integrate controllers into power control systems

# Operational intelligence thanks to ...

## Reliable processing

Precise sun-tracking algorithm with up to 0.0003° accuracy<sup>1</sup> to optimize production

## Agile execution

Outstanding execution speed and application response time (ART)

## Ethernet transparency

Real-time data access from diverse locations enables timely action

<sup>1</sup> Test conducted based on data from the National Renewable Energy Laboratory



# Maintenance excellence, plus greater safety and security thanks to ...

## Outstanding durability

Robustly built for continuity of service in extreme temperatures (-25 °C to +70 °C)

## Powerful tools

Save time and effort with SGbackup, a user-friendly proprietary software that automates the management of the applications, firmware, and data for massive distributed intelligent systems

## Integrated cybersecurity

Access to PLC is password-protected and only selected devices are allowed to connect to Modicon MC80 units



# Investment protection thanks to ...

## Superior reliability

Engineered for solar plant applications, Modicon MC80 is robustly constructed for endurance and weather resistance for a long life cycle

## Support from Schneider Electric

Schneider Electric has the global presence to provide support and service throughout your plant's lifespan



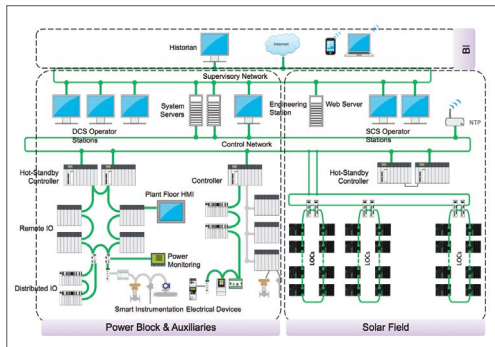


# Revolutionize your automation control with PlantStruxure

## Leverage PlantStruxure capabilities

Fully integrated with PlantStruxure architecture, Modicon MC80 controller facilitates the design and maintenance of automation processes by leveraging PlantStruxure resources:

- > Step-by-step user guide
- > Process automation system and SCADA application package
- > Guidelines for solar field security



# Modicon MC80 at a glance

## 64-bit CPU

User program	3590 k
User data	128 k
Mixed execution	0.08 us/ins
Bool execution	0.06 us/ins

## Communication

Serial	1 RS232/RS485
Ethernet port	2 ports with 1 mac
USB	1
Protocols	Modbus Ethernet/serial, CANopen, Character serial, RSTP, FDR client regular, FTP server, SNMP

## Input/output

Discrete inputs	8
Discrete outputs	8
Analog inputs	4 (Voltage and current)
HSC	2 main channels (12 IN/4 OUT) at 60 kHz

## Temperature range

Operation	-25 °C to +70 °C
Storage	-40 °C to +85 °C

## Certification

CE, UL, CSA, RCM (C-tick)  
Hazardous location CSA Class I Div 2

## Software platform

Unity Pro software with solar libraries



> Make the most of your energy<sup>SM</sup>

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