

# Advant Controller 450

## For demanding applications

Advant Controller 450 is the perfect choice when you want to expand your process while limiting engineering costs and ensuring high production efficiency. It is the obvious evolution path from MasterPiece 200, providing you with an extended life cycle. Its high processing capacity and wide-ranging capabilities fits for demanding applications and can be fully integrated with System 800xA.

With AC 450 you will have a proven equipment with high functionality, interoperability and performance. It supports a wide range of communication protocols such as; MODBUS, Profibus, Masterbus 300/300E, Advant Fieldbus 100 etc. making it easy to design an optimal control system architecture for every application.

To achieve the highest possible availability, AC 450 can be equipped with backup redundancy for communication, power supplies, CPUs and I/O boards.

Maximize your productivity and be prepared for easy integration of proven technology. AC 450 meets users' requirement of maximum plant availability.



Power supply alternatives	
Direct (unisolated)	24 V d.c.
D.C., by isolated DC/DC converter <sup>1</sup>	24/48 V d.c.
A.C. (isolated) <sup>1</sup>	120/230 V, 47-63 Hz
Basic capacity and performance	
Primary memory	8 or 16 MB
Available for application	approx. 5,4 or 13,4 MB
Processing capacity index <sup>2</sup>	3-4
Program execution cycle; Selectable	10ms-2s or 5ms-32s
Software options <sup>3</sup>	
Basic regulation and advanced arithmetics, QC07-LIB41	
Advanced process control incl self-tuning adaptive control, QC07-LIB42	
Fuzzy control, QC07-FUZ41	
MasterView 320, QC07-LOS41	
Operator functions support, QC07-OPF41	
MasterBatch 200/1 support, QC07-BAT41	
User defined PC Elements, QC07-UDP41	
Object support via Advant Fieldbus 100, QC07-COM41	

### S100 I/O capacity <sup>3,4</sup>

S100 I/O racks	Up to 5
S100 I/O modules	Up to 100
Analog input/output modules	Up to 32 for each type
Digital input/output modules	Up to 48 for each type

### S800 I/O capacity

S800 I/O stations per Advant Fieldbus	Up to 79 <sup>5</sup>
S800 I/O modules per I/O-station	Up to 24 <sup>6</sup>

### Total I/O capacity (S100 & S800 I/O) <sup>3</sup>

I/O channels	Up to 5,700
AI channels (incl. calculated)	Up to 910
AO channels (incl. calculated)	Up to 963
DI channels (incl. calculated)	Up to 2,340
DO channels (incl. calculated)	Up to 1,489
LED status	One per channel
Field cable length	Up to 300 m

### Notes

- 1 Can be combined for dual redundancy
- 2 Compared to MasterPiece 200 and Advant Controller 410 (approx. value).
- 3 See Advant Controller 450 Product Guide for more features and details.
- 4 With the Optical bus extensions up to 25 S100 I/O racks can be connected.
- 5 If other stations than S800 I/O stations are used on the same Advant Fieldbus 100, the maximum number of S800 I/O stations must be reduced with a corresponding number of stations.
- 6 Without Optical Modulebus Expansion the maximum

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Redundant CPU board, PM511 <sup>2</sup>	Up to 2
Submodule Carriers, SC510/SC520 <sup>3</sup>	Up to 6 or 7
Communication submodules <sup>4</sup>	Up to 12 or 14
– V.24/RS232 interface, CI531, 2 ch. <sup>5, 12</sup>	Up to 4
– MasterBus 300/300E interface, CS513 <sup>6, 7</sup>	Up to 2 or 6
– GCOM interface, CI543/SC510 <sup>8</sup>	Up to 5
– RCOM/RCOM+ interface, CI532Vxx, 2 ch. <sup>8</sup>	Up to 5
– MasterFieldbus interface, CI570 <sup>2</sup>	Up to 7
– Advant Fieldbus 100 interface, CI522A <sup>2, 9</sup>	Up to 8
– Profibus DP interface, CI541V1 <sup>9</sup>	Up to 8
– Modbus interface, CI532V02 & CI534V02, 2 ch.	Up to 5
– Siemens 3964R interface, CI532V03, 2 ch.	Up to 5
– Allen-Bradley DF1 interface, CI534V4, 2 ch.	Up to 5
– Telecontrol & SPA bus, CI535Vxx <sup>10</sup>	Up to 5
Voltage regulator, SR511 <sup>2</sup>	Up to 2
Battery charger, SB510	Up to 2

**Cabinets <sup>1, 11, 12</sup>**

- RM500V1, IP21, IP41 or IP54: WxDxH 800x512x2125 mm, (31.5"x20.2"x83.7")
- RM500V2, IP21, IP41 or IP54: WxDxH 700x637x2225 mm, (27.6"x25.1"x87.6")

**Notes**

1 See Advant Controller 450 Product Guides for details.

2 Can be combined for dual redundancy.

3 Up to 7 for SC510, 6 for SC520, total 8 modules including CPU(s).

4 Up to 12 with redundant CPU.

5 Up to one printer, two EXCOM and four MasterView 320 connections.

6 Up to 2 with execution in main CPU (SC510/SC520), 6 with execution in SC520 slave CPU.

7 Standard and low-load MasterBus 300/300E cannot coexist in the same controller.

8 Up to nine channels (GCOM + RCOM + Multi-Vendor interface).

9 Up to eight channels (AF100 + Profibus + LONWORKS + EXCOM).

10 See Advant OCS and Telecontrol Product Guides for details.

11 Corresponds to the NEMA protection classes 1, 2 and 5.

12 Can be combined into bays of multiple cabinets.

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