



**Features and Benefits Comparison of the Bulletin  
100-C Line to the Bulletin 100-A Line**

This Publication compares the major features and benefits of the Modular Control System (MCS) Bulletin 100-C Line to the Bulletin 100-A Line.

Refer to Publication 0100C-1.0.1 for detailed MCS selection, specification, and dimension information.

It is flexible, easy-to-apply,  
and meets global requirements

Configurable components to meet a  
wide range of motor control and  
protection needs

MCS Advantage VS. 100-A

1 Today's technology in a smaller, more flexible package

# Modular Control System

MCS is the next generation  
of Allen-Bradley IEC Motor  
Control and Protection Components

Panel System

is MCS

Overload  
Relays

Coil Mount  
Accessories

Contactors  
& Side Mount  
Accessories

Front Mount  
Accessories

Manual Motor  
Starter/Protection

 **Rockwell** Automation  
Allen-Bradley

MCS THE NEW

# Common MCS

On-Line  
arter

Reve  
Star

Rockwell  
Allen-Bradley

Automation  
Key

A  
Star

SION IN CONTROL

## arter Configurations

Quickly assemble  
from these common  
components:

Panel System Adapters

Manual Motor Starter/Protectors

Overload Relays

Contactors

Accessories and Wiring Kits

equates to more flexibility

Motor Starter

Direct-  
Star

Single  
Star

Wye-Delta/Star-Delta  
Starter

Group  
Star

Advantage VS. 100-A

2

Modularity of MCS components e

# Common MCS Motor Starter Configurations

Quickly assemble  
from these common  
components:

► Panel System Adapters

Manual Motor Starter/Protectors

Overload Relays

Contactors

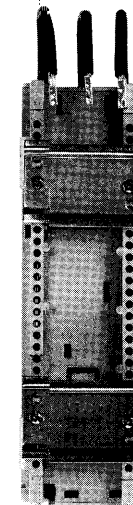
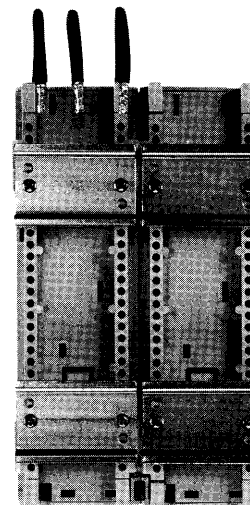
Accessories and Wiring Kits

Direct-on-Line  
Starter

Reversing  
Starter

Wye-Delta/Star-Delta  
Starter

Group Motor  
Starter



Advantage VS. 100-A

3

*Modularity of MCS components equates to more flexibility*

Advantage VS. 100-A

4 Modularity of MCS components equates to more flexibility

**Rockwell**  
**Allen-Bradley** Automation

MCS THE NEXT DIMENSION IN CONTROL

# Common MCS Motor Starter Configurations

Quickly assemble  
from these common  
components:

PLC System Adapters

Manual Motor  
Starter/Protectors

Load Relays

Reactors

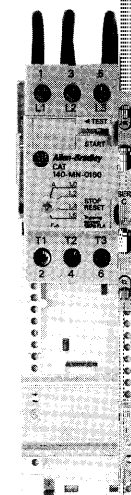
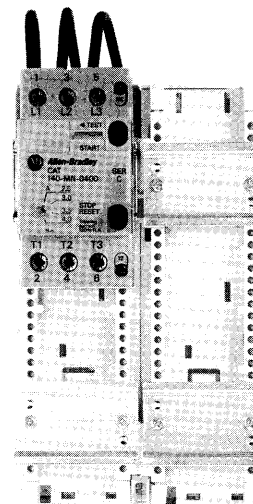
Accessories and Wiring Kits

Direct-on-Line  
Starter

Reversing  
Starter

Wye-Delta/Star-Delta  
Starter

Group Motor  
Starter

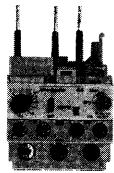


# Common MCS Motor Starter Configurations

Quickly  
from the  
controls  
Panel System  
Manual Motor

Overload  
Assembly  
Common  
nts:  
Adapters  
starter/Protectors  
ays

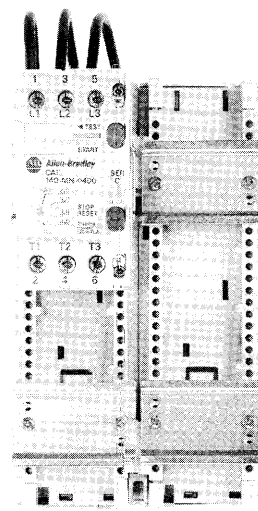
Wiring Kits



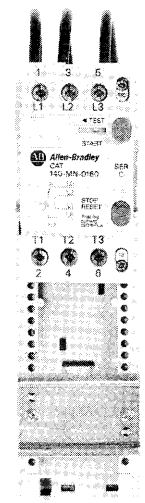
Direct-on-Line Starter



Reversing Starter



Wye-Delta/Star-Delta Starter



Group Motor Starter

Advantage VS. 100-A

Modularity of MCS components equates to more flexibility

# Common MCS Motor S

# t Configurations

Quickly assemble  
from these common  
components:

Panel Mount System Adapters  
Manual Motor Starter/Protectors  
Overload Relays

Accessories and Wiring Kits

Direct-on-Line  
Starter

Reversing  
Starter

Wye-Delta/Star-  
Starter

Starter Conf

Delta

Group Motor  
Starter

Advantage VS. 100-A

Modularity of MCS components equates to more flexibility

# Common MCS Motor Starter Configurations

Quickly assemble  
from these common  
components:

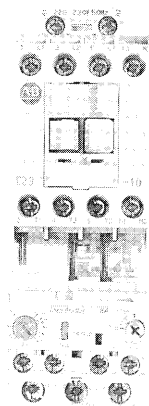
Panel System Adapters

Manual Motor Starters/Protectors

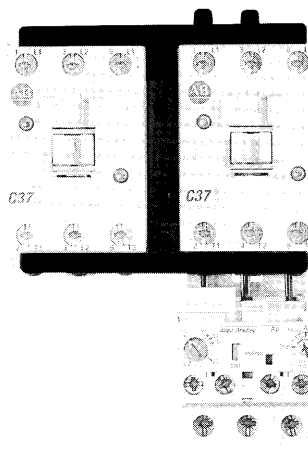
Overload Relays

Contactors

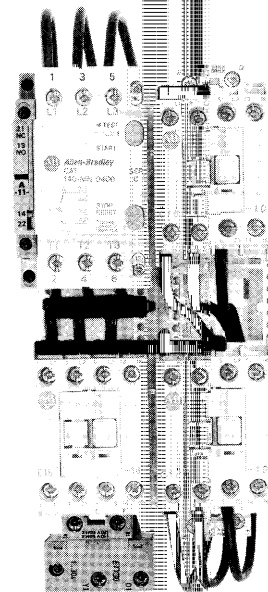
► Accessories and Wiring Kits



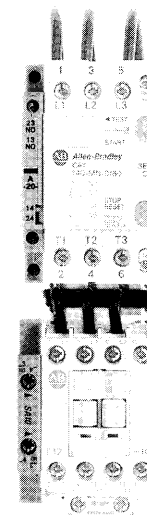
Direct-on-Line  
Starter



Reversing  
Starter



Wye-Delta/Star-Delta  
Starter



Group Motor  
Starter

MCS Advantage VS. 100-A

7

Modularity of MCS components equates to more flexibility

# Why Switch

- Smaller Dimensions
- Comprehensive Feature Set
- More Extensive Variety of Accessories
- Extends the Entire System
- Wider Variant Friendly
- Communicates in the Industry
- Environmentally Meets the latest world-wide requirements

Meets -

Compliant with a Wide Range of Global Standards

side requirements

Rockwell Automation  
Allen-Bradley

## Bulletin 100-A

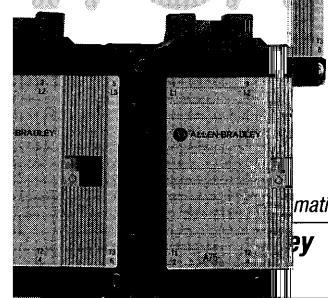
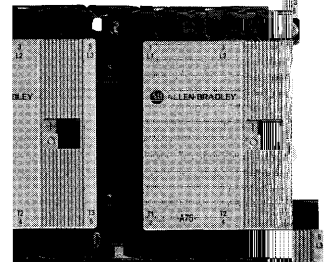
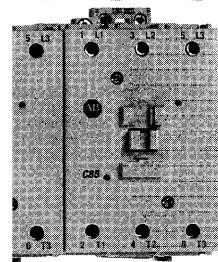
to MCS?

Requirements

Meets Latest Safety Components

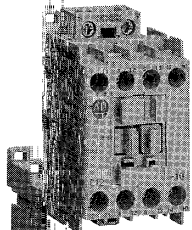
MCS Advantage  
8 Designed to match from

N T R O L

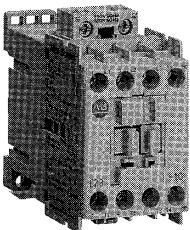


12

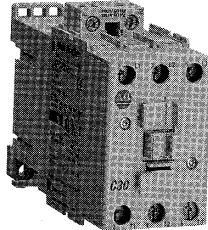
100-C  
100-A



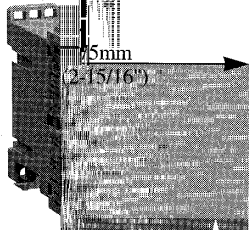
C09..C12



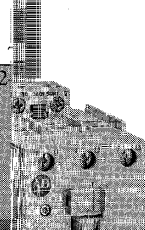
C16..C23



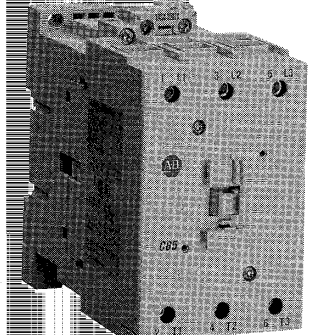
C30



A18..A24

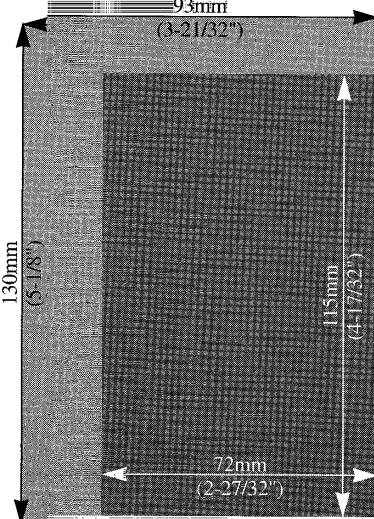
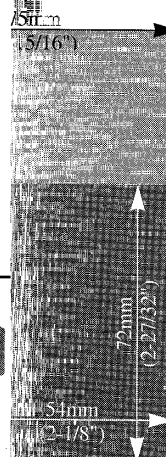
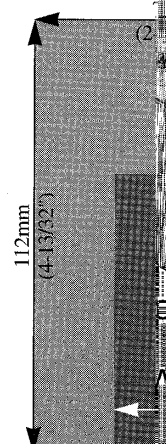
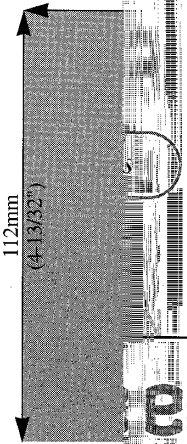
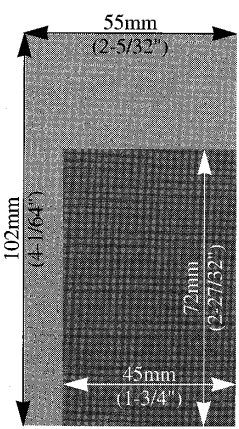
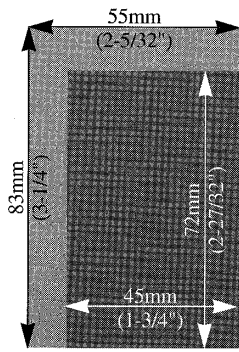
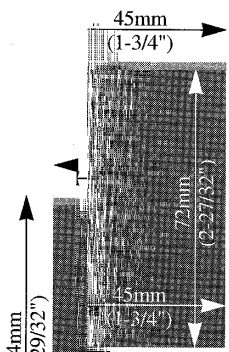


A30



C60..C85

A60..A75



Advantage VS. 100-A

Reduced panel space requirements for AC and DC contactors

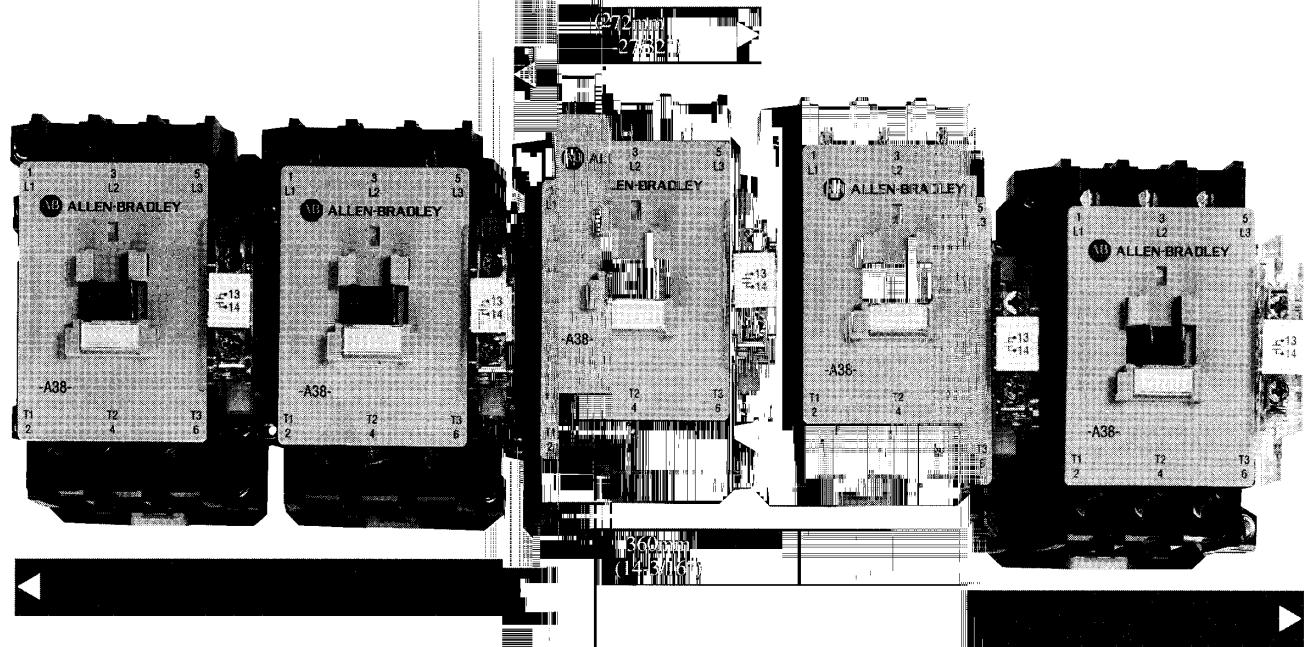
MCS A

THE NEXT TIME

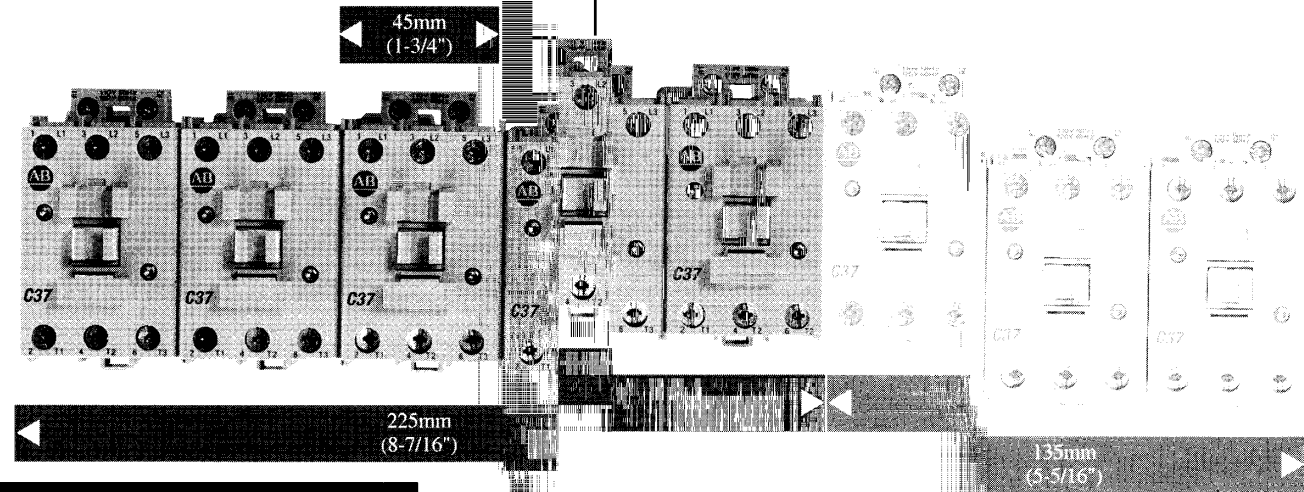
Rockwell Automation  
Allen-Bradley

# Increased Density = Reduced Panel Space

100-A38  
Contactors



100-C37  
Contactors



MCS Advantage VS. 100-A

11

MCS offers up to 50% panel space savings

"Load" Side

V.S. 100-A

on access for all starter configurations

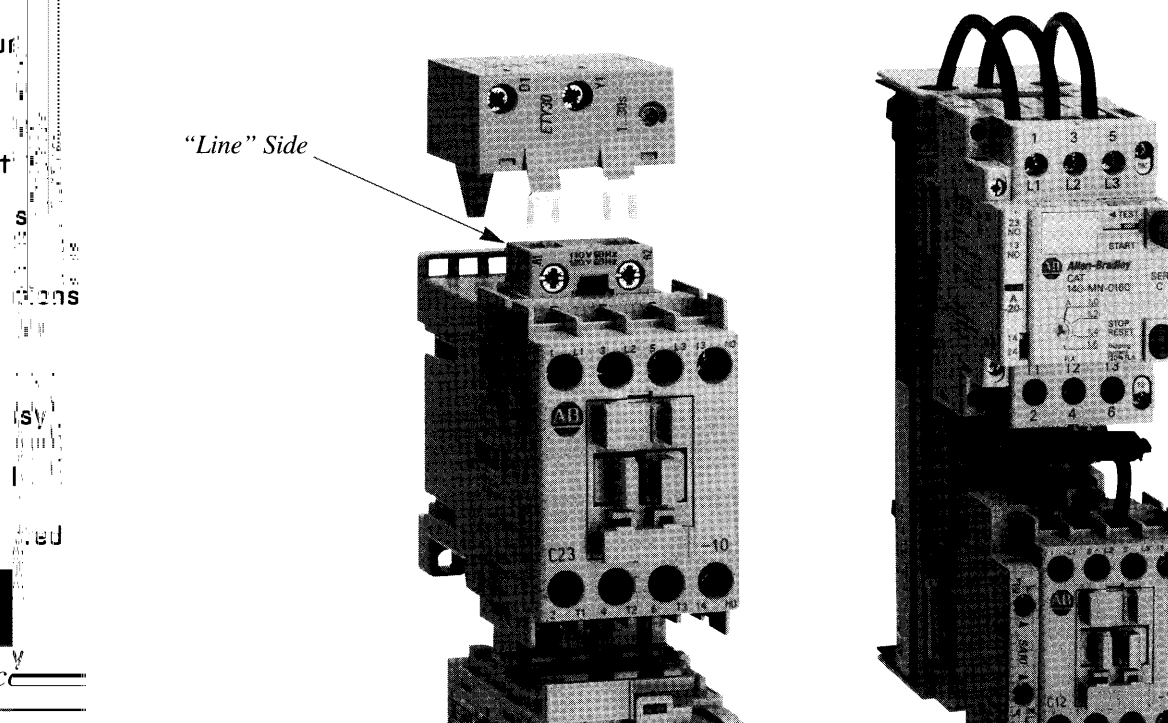
**Rockwell Automation**  
**Allen-Bradley**

- Available with AC & DC Coil
- Easy access to coil terminal from "line" or "load" side
- Accommodates quick and easy field modifications
- Maintained use of coil mount plug-in accessories
- Allows for greater flexibility when building different starter types

THE NEXT DIMENSION IN CONTROL

# Reversible Coil Terminals

"Line" Side



MDS Advantage

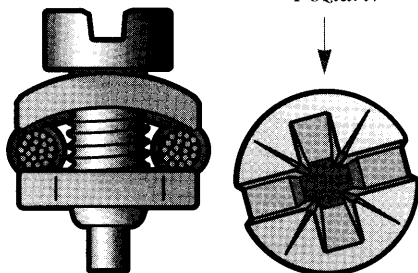
12 Maintained c

# Power Terminations

MCS 100-C

Saddle Clamp

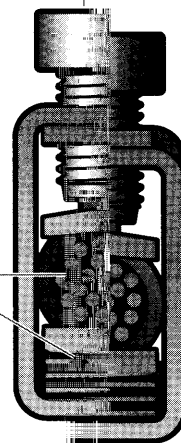
- Slotted
- Phillips
- Pozidriv®



9..23A

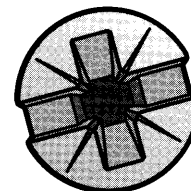
Box Lug - Dual Clamping Mechanism

Accepts flexibar,  
stranded wire,  
solid conductors, etc.



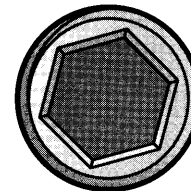
30..85A

- Slotted
- Phillips
- Pozidriv®



30..43A

4mm / 5/16"  
Allen Head

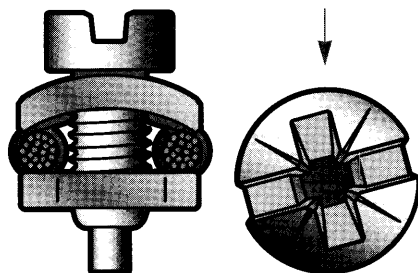


60..85A

100-A

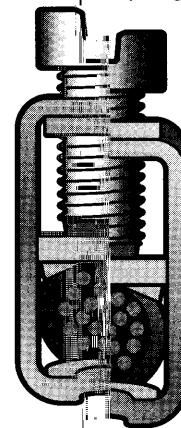
Saddle Clamp

- Slotted
- Phillips
- Pozidriv®



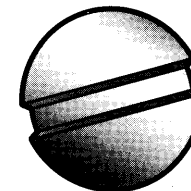
9..30A

Box Lug - Single Clamping Mechanism



38..75A

Slotted



38..75A

MCS Advantage VS. 100-A

13

Greater flexibility & reliability of power terminations

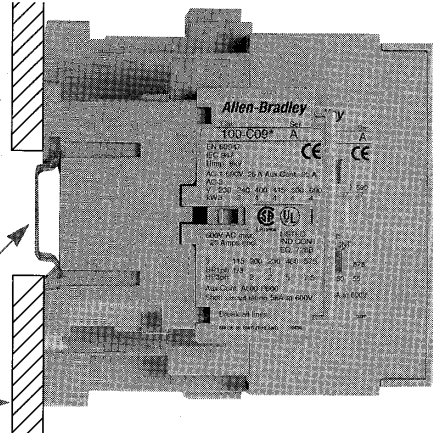
**Rockwell Automation**  
Allen-Bradley

MCS THE NEXT

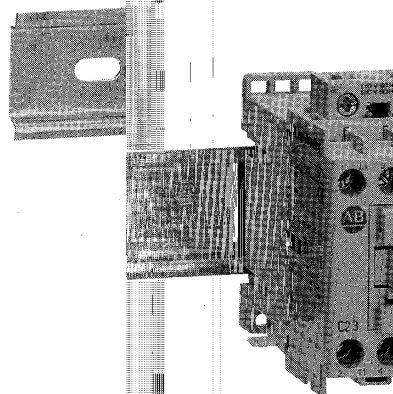
# Multiple Frame 1

Common interlock with  
detail connector -  
special components  
wired

Interlocked devices  
mount on same plane -  
Conduit or DIN rail  
no  
req.



- Ideal for use in:
  - 2-speed
  - Wye-Delta/Star-Delta
  - Change-over
  - Transfer switch applications
- A single interlock fits entire contactor range - 9..85A (AC)
- Eliminates stocking of unique interlock components
- Easier and quicker panel layout, mounting and assembly



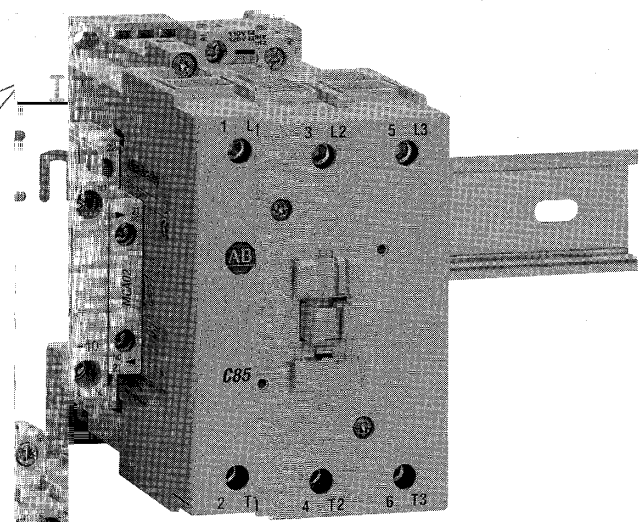
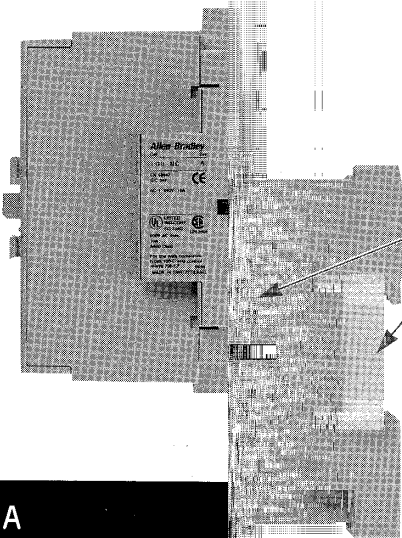
Inter  
mount  
panel

**Rockwell Automation**  
**Allen-Bradley**



ON IN CONTROL

## Interlocking



MCS Advantage VS. 100-A

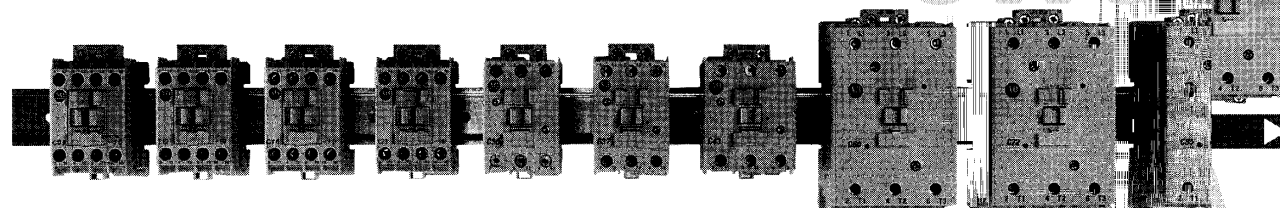
14 Reduced panel space, labor, and component cost

of contactors is panel and 35mm DIN rail mountable

Allen-Bradley

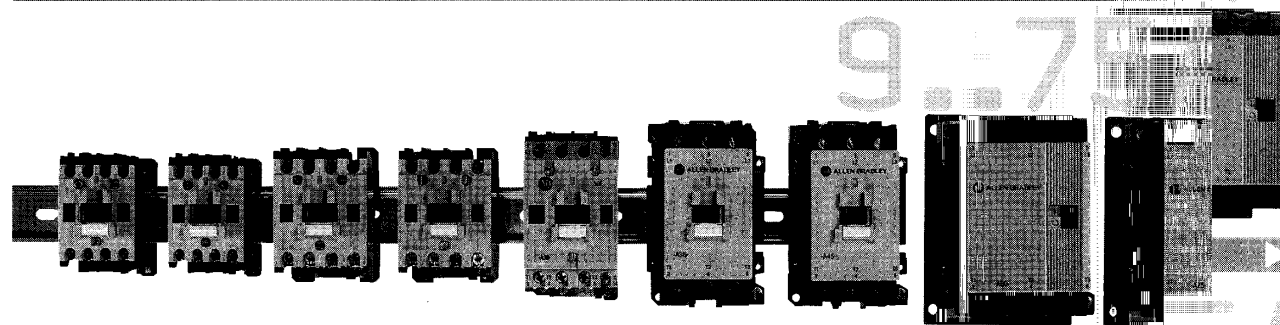
# Panel Mounting Options

■ 10 Bulletin 100-C AC contactors covering a range of 9..85 Amps. These contactors are the same size and rating.



Panel & 35mm DIN Rail

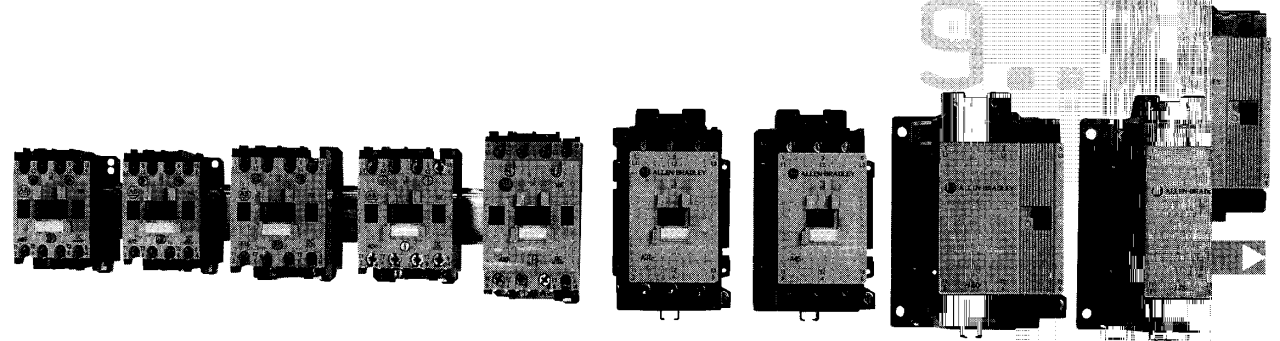
■ 9 Bulletin 100-A AC contactors covering a range of 9..75 Amps.



Panel & 35mm DIN Rail

Panel Only

■ 9 Bulletin 100-A DC contactors covering a range of 9..75 Amps.



Panel & 35mm DIN Rail

Panel Only

Information

Key

Advantage VS

15 Entire MCS line of 100-A

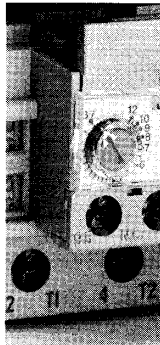
Rockwell Automation

# Finger



- IP 2LX Protection
- Finger protection from all directions when conductors are installed
- Protective covers meet SUVA requirements

*Completely shr  
terminal screw.*



# Accessories

## Cat No. 100-C..

- Interlocks
- Side Mount Auxiliary Contacts
- Front Mount Auxiliary Contacts
- Pneumatic Timers
- Mechanical Latch
- Electronic Timers
- Surge Suppressors
- DC Interface Module



	09	12	16	23	30	37	43	60	72	85
Interlocks										
Side Mount Auxiliary Contacts										
Front Mount Auxiliary Contacts										
Pneumatic Timers										
Mechanical Latch										
Electronic Timers										
Surge Suppressors										
DC Interface Module										

## Cat No. 100-A..

- Interlocks
- Side Mount Auxiliary Contacts
- Front Mount Auxiliary Contacts
- Pneumatic Timers
- Mechanical Latch
- Electronic Timers
- Surge Suppressors
- DC Interface Module



	09	12	18	24	30	38	45	60	75	
Interlocks										
Side Mount Auxiliary Contacts										
Front Mount Auxiliary Contacts										
Pneumatic Timers										
Mechanical Latch										
Electronic Timers										
Surge Suppressors										
DC Interface Module										

■ Indicates multiple versions in product range

relays

**Rockwell Automation**  
Allen-Bradley

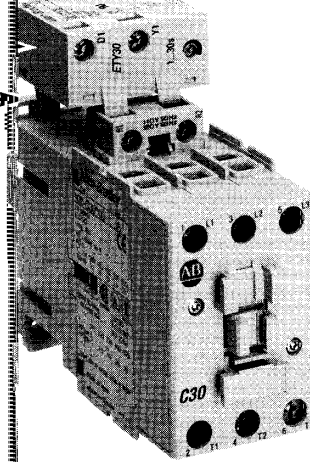
# Low

- Reliable switching down to 17V, 5mA
- Ideal for use in low power control circuits:
  - PLCs
  - SLCs
  - Drives
  - Sensors

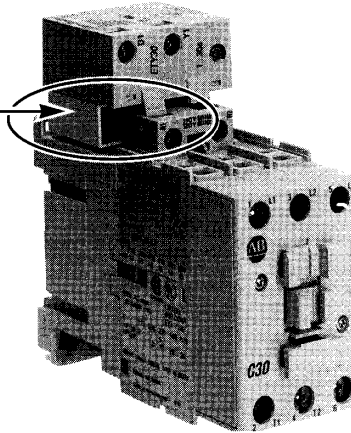
# Accessories

*Electronic Timer  
ensures high repeat  
accuracy, available in  
the following:*

- On-Delay
- Off-Delay
- Wye-Delta/Star-Delta



*Surge Suppressor  
(fits compactly  
underneath timer)*



**MCS Advantage VS. 100-A**

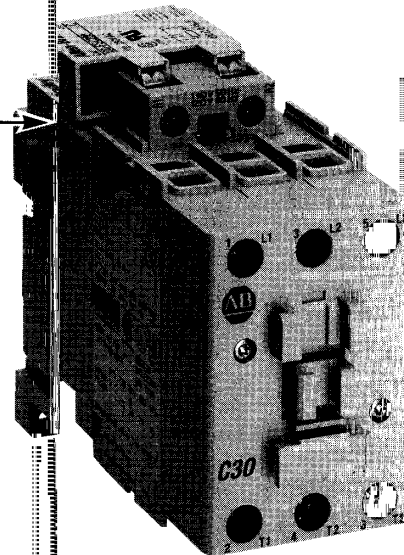
*Labor costs*

**19** *Compact, easier to install, reducing wire and*

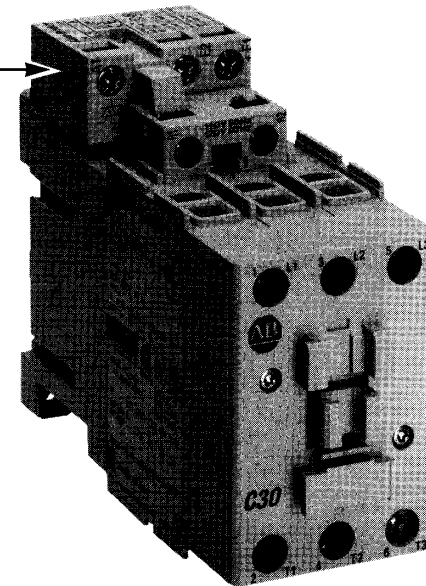
## Coil Mount Accessories

*Surge Suppressor*

- RC
- Varsistor
- Diode



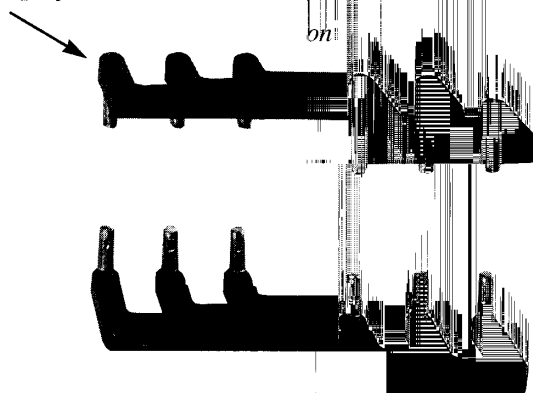
*DC Interface Module  
- 18..30V DC Input*



- "Plug-in" coil mounting
- Mount on line or load side of coil terminations
- Quick installation
- Less wiring required

# Power Wiring Kits

Single piece molded construction

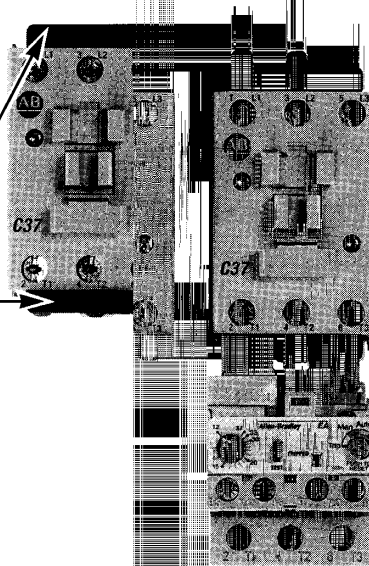


- Standard kits available for Reversing and Wye-Delta/Star-Delta assemblies

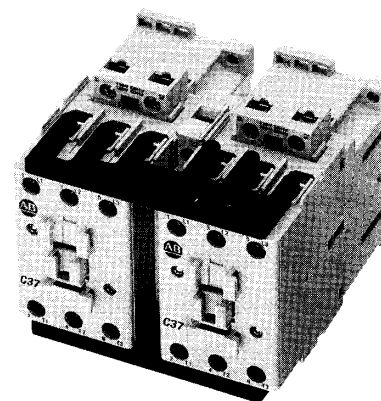
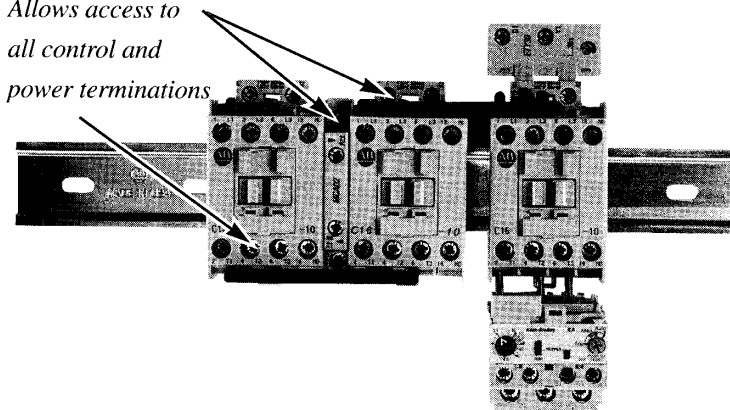
- Components satisfy requirements for:
  - 2-speed
  - Change-over
  - Transfer switch
  - Shorting connections

- IP 2LX Finger Protection

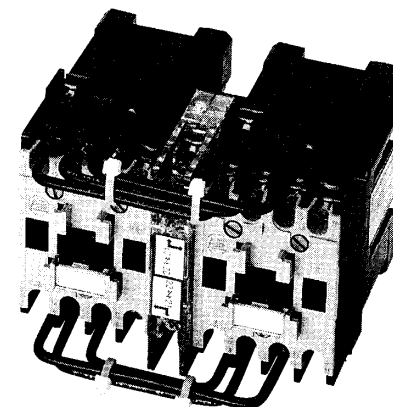
Slim profile



Allows access to all control and power terminations



100-C Wire Kit



100-A Wire Kit

MCS Advantage VS. 100-A

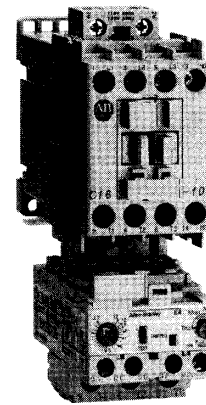
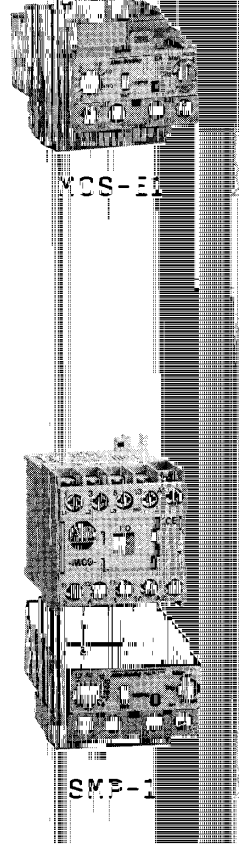
20

Molded construction provides for quick in

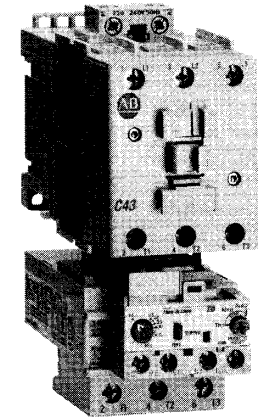
stallation and full terminal access

# Motor Protection

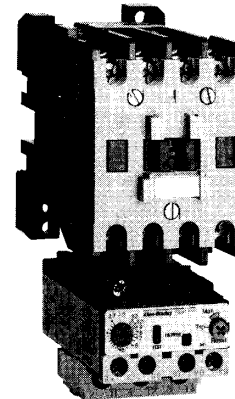
100-A Line



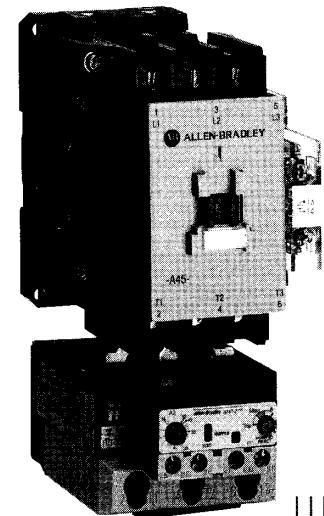
MCS-E1



MCS-E2



SMP-1



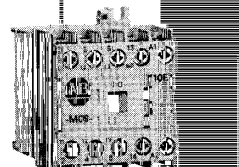
SMP-2



MCS Advantage VS. 100-A

21 SMP solid-state technology with MCS dimensions

## Solid-State



# MCS-E1 S

- Three or single phase versions
- Self-powered
- Low power consumption
- Phase loss protection

Label holder  
for device designation

Wide current  
adjustment  
range (3.0 to 10.0 A)

Visible trip indicator

- Reset Button:
- Automatic reset
  - Manual reset
  - Test trip

N.O./N.C. Alarm Contact;

**Rockwell Automation**  
**Allen-Bradley**

00-A

and a full range of single phase overloads

MCS Advantage VS.

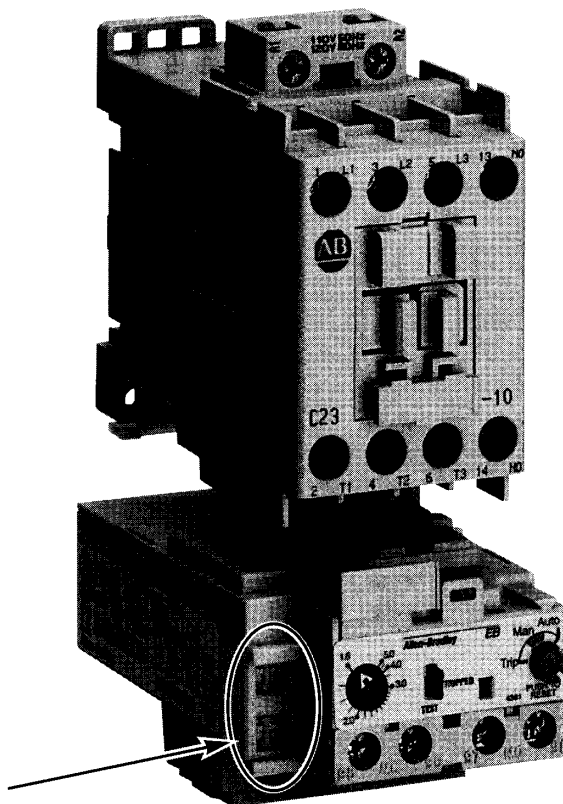
22 Compact dimension.

overload

Protection

# MCSE-E2 Solid-State Overload Protection

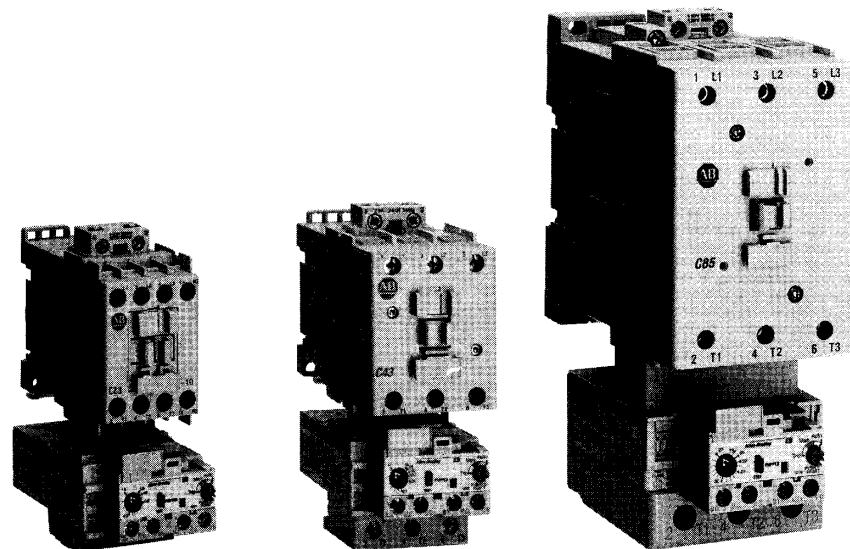
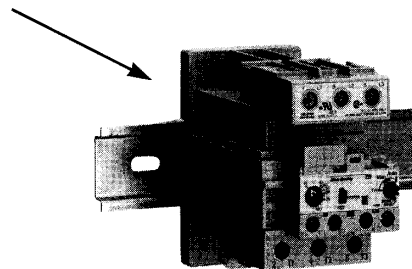
- Self-powered
- Low power consumption
- Phase loss protection
- Selectable trip class - 10, 15, 20
- Selectable Jam/Stall Protection
- Selectable Ground Fault Tripping



Selectable protection via  
DIP switches:

- Trip Class
- Jam/Stall Protection
- Ground Fault Tripping

Panel adapter for separate mounting onto  
35mm DIN rail or panel. All terminals and  
controls are accessible from the front

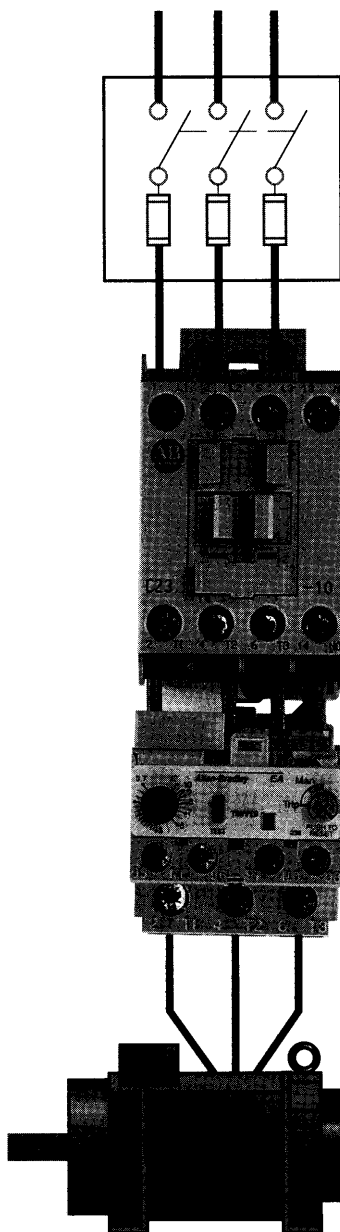


Advantage VS. 100-A

23 SMP-2 solid-state technology with MCS dimensions

# "Type 2 Short-Circuit Coordination"

- UL Certified
- 600V/100kA Available
- UL Fuses
  - Class CC
  - Class J
- CSA Fuses
  - Class HRCI-Misc
  - Class HRCI-J
  - Class HRCII-C
- DIN & BS88 Fuses
- Contactors Only
  - w/MCS-E Overload Relays
  - w/MCS-T Overload Relays
- Busmann, Gould-Schawmut,  
Littelfuse Brands



Advantage VS. 100-A

24

Same level of performance and protection in a smaller package

# Summary of Advantages

## Flexible Motor Control Solutions:

- Panel Space Savings
- Worldwide Standards Compliance
- Environmentally Friendly

- Meets Latest Safety Requirements
- Solid-State Overload Protection
- Common Accessories Across Range

Advantage VS. 100-A

25 More functionality and flexibility in a smaller package

MCS THE NEXT

DIMENSION IN CONTROL

# Summary of Advantages

## Feature

Panel Space Savings

Environmentally Friendly

Safety Compliance

Worldwide Standards Compliance

Reversible Coil Terminals

Dual Power Terminations

IP 2LX Finger Protection

Multiple Frame Interlocking

Mounting Options

Solid-State Overload Protection

Single Phase solid-state Overload Protection

Common Accessories Across Range

Plug-in Coil Mount Accessories

Low Power Rated Auxiliary Contacts

MCS Advantage

Up to 50% panel space savings

Recyclable Packaging and Molding Materials,

Printed Cartons, Toxicity Compliances

Type 2 Coordination, Positive Guidance of Auxiliaries, Toxicity Compliances, Protective SUVA Covers, IP 2LX

IEC, CE, UL, CSA, Lloyds, German Lloyds, RINA, Bureau Veritas, Norske Veritas, Russie Maritime, VVA, NFF, ZH1

Yes, 9..85A, AC &amp; DC

Yes, 9..85A, AC &amp; DC

Yes, All Components

Yes, 9..85A AC with Standard Components

Standard or 35mm DIN Rail Mounting  
9..85A, AC or DC

MC-S-E1 &amp; E2

Compact design to meet MCS dimensions

MC-S-E1 &amp; E2

Yes, Manual or Manual/Auto, Class 10 or 20

Yes, 9..85A, AC &amp; DC

Yes, 9..85A, AC &amp; DC

Yes, Surge Suppressors, Electronic Timers, DC Interface

Rated down to 17V, 5mA

100-A

Recyclable Packaging

Type 2 Coordination, IP 20

IEC, CE, UL, CSA

No

9..30A, AC &amp; DC

IP 20

Special Components Required

Limited Mounting Options

SMP-1 &amp; 2

Limited Range  
Manual/Auto, Class 10

No

Limited Range and Commonality

Rated down to 24V, 10mA



Rockwell Automation helps its customers receive a superior return on their investment by bringing together leading brands in industrial automation, creating a broad spectrum of easy-to-integrate products. These are supported by local technical resources available worldwide, a global network of system solutions providers, and the advanced technology resources of Rockwell.

## Worldwide representation.



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