

Low voltage switch gear

Magnetic Contactor (Contactor) J7KC / Thermal Overload Relay J7TC / Manual Motor Starter J7MC / Reversing Magnetic Contactor J7KCR / Auxiliary Relay (Contactor Relay) J7KCA



- Easy wiring with Push-In Plus technology
- Unified width (45 mm) among magnetic contactors, thermal relay and MMS for space-saving
- Applicable to a wide range of motor applications in every industry

Innovation in Control Panels

Control panels are the heart of manufacturing sites. Innovation in control panel technology spurs evolution in production facilities overall.

At Omron, we're always looking for ways to improve control panel design and manufacturing processes so that human interaction with these technologies becomes easier than ever. We'll continue to innovate upon our Value Design for Panel* concept with all products in our portfolio of related technologies.



*1 Value Design for Panel

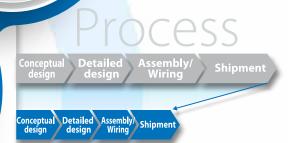
Our Value Design for Panel concept (referred to hereafter as "Value Design") serves the purpose of creating new value for our customers' control panels. By combining multiple products that share the Value Design concept, we can provide a solution that significantly boosts control panel functionality while saving space.

Innovations in the panel building

Process

Evolving capabilities of Panels

New Value For Control Panels



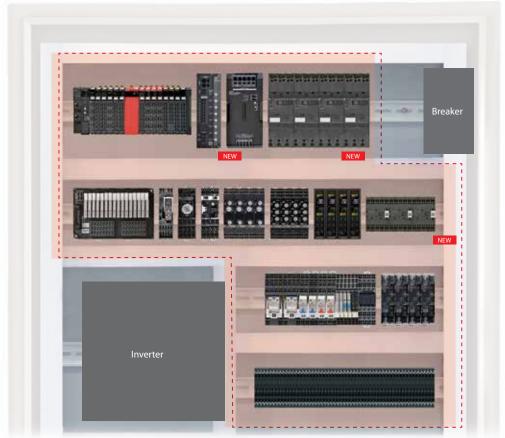
Panels

Simple and easy for your

People



A wide product lineup of control panel solutions that covers motor control and contributes to reduction in control panel manufacturing.



*1. TCO: Total Cost of Ownership. Total cost from control panel design / production to operation / maintenance.

Main Features of Value Design

Space Savings

• Unied slim size *2



• Side-by-side mounting at an ambient temperature of 55°C³



Workload Reduction

• Push-In Plus technology is used *2



· No retightening required



Lead Time Reduction

• Electrical control CAD Library



 $\hbox{E3.series is a product name of Zuken Inc. for their Electrical and Control Cable Design Solution.}\\$

 ${\it EPLAN\,is\,a\,registered\,trademark\,of\,\,EPLAN\,Software\,\&\,Service\,GmbH\,\&\,Co.\,KG.}$

· Certication for CE, UL, and CSA

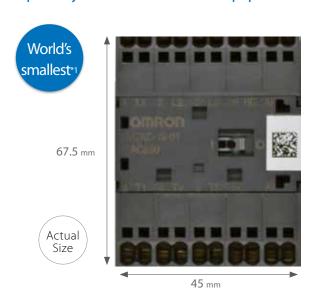


- *2. Expect for some products.
- *3. Applicable only within the same series.

A new line of low voltage switch gears for motor control

Magnetic Contactor (Contactor) J7KC

Best match for a motor drive (AC3 Class) and a primary side of drive control equipment



Compact The widths of all series models are unified to 45 mm. Compactly mountable in a control panel

Conform to main safety standards



Mirror contact mechanism Supports safety applications

High endurance One million times or more of electrical endurance^{*2}

Other models

Reversing Magnetic Contactor (Contactor) J7KCR

Reversible wiring (main circuit, control circuit) with interlock mechanism.

Appropriate for forward/reverse control of motors, and plugging control.



Thermal Overload Relay J7TC

Protects loads from thermal damage by detecting overload



Actual Size

Magnetic Starters

Combination example (Magnetic Contactor + Thermal Overload Relay)





Magnetic Contactor

Thermal Overload Relay J7TC

Auxiliary Relay (Contactor Relay) J7KCA

The contactor relay with the same size as the J7KC Magnetic Contactor. Includes a linked contact mechanism.



- *1. Based on June 2019 OMRON investigation. On the Push-In models.
- *2. Shutting off by thermal overload relay is excluded.



Manual Motor Starter J7MC

MMS is primarily used in motor breaker applications to protect against short circuits, current overloads and phase failures.



Rocker switch (Standard type) J7MC-3P



Rotary switch (High performance type) J7MC-3R

High tripping capacity

Shutting off the large current at short-circuit accidents.

At AC400 V

(High performance type) 50,100 kA



Conform to main safety standards





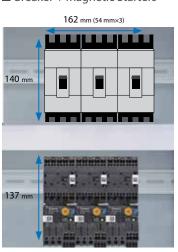




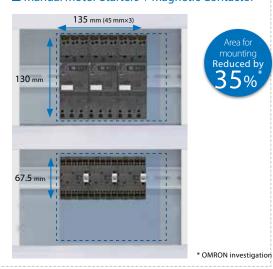


Our space-saving design helps downsize control panels.

■ Breaker + Magnetic Starters



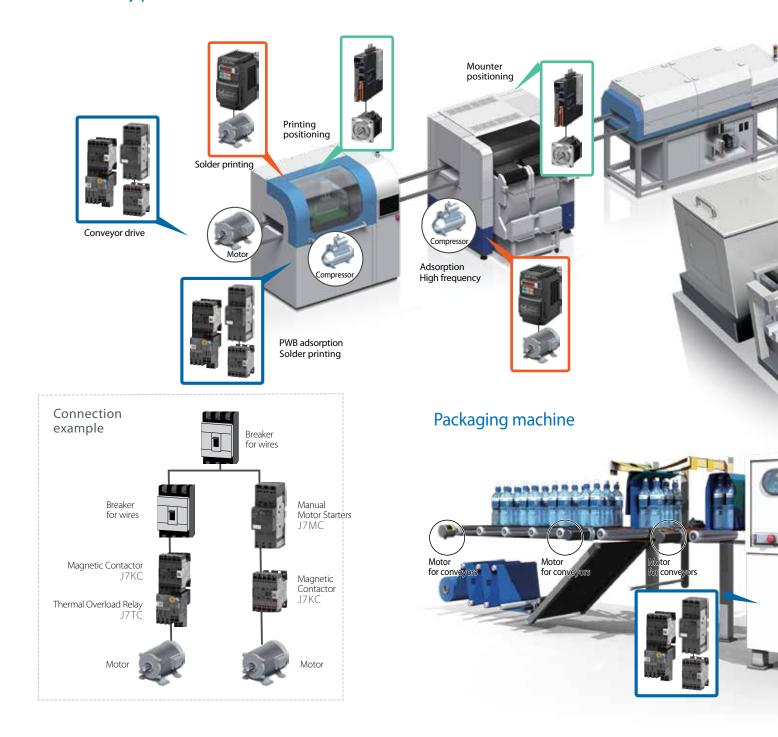
■ Manual Motor Starters + Magnetic Contactor

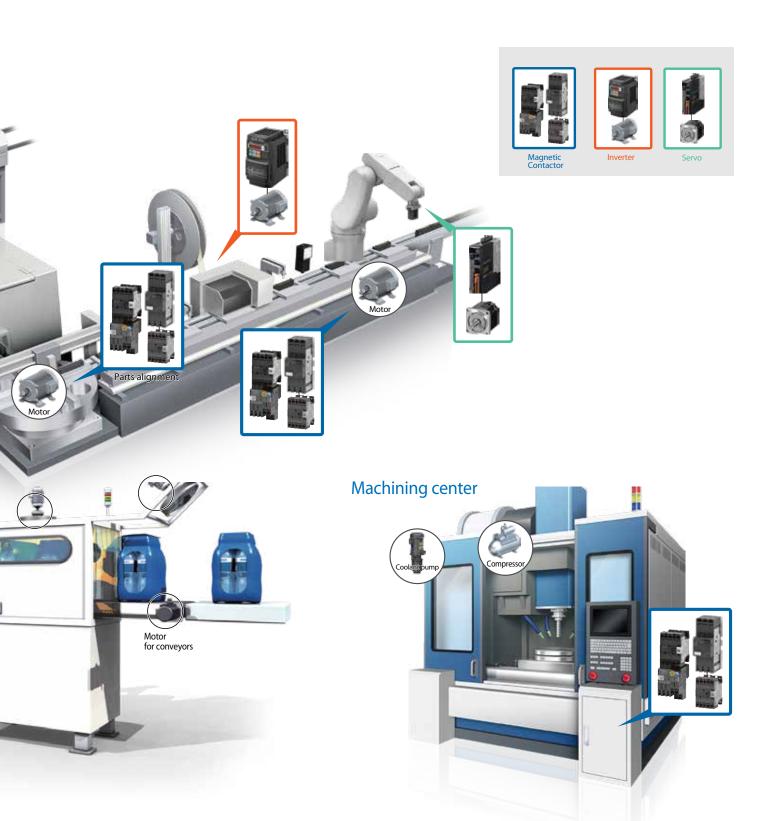


A complete solution for motor applications

In addition to inverters and servos, Omron offers On/Off low voltage switch gears for a complete motor control solution.

PCB assembly production line





Product lineup

Product lineup		Magnetic Contactor	Thermal Overload Relay	Manual Motor Starters
Model		J7KC	J7TC	J7MC
Number of poles		-		3
Rated current		15 A	0.1~13 A	0.16 ~ 20 A
Degree of protection		IP20		
Three-phase squirrelcage motor	200-240 V	2.2 KW (12 A)		
	380-440 V	5.5 KW (12 A)		
	500-550 V	5.5 KW (9 A)		
Dimensions (W×H×D)(mm)		45 × 67.5 × 46	45 × 79.5 × 55.5	Rocker: 45 × 130 × 71 Rotary: 45 × 130 × 91
Safety standard		JIS, IEC(CE), c-UL, TÜV, GB/T(CCC)		

Recommended part numbers			
Part Number	Descriptions		
J7KC-12-10 AC24	Magnetic Contactor,24 VAC,SPST-1N0		
J7KC-12-01 AC24	Magnetic Contactor,24 VAC,SPST-1NC		
J7KC-12-10 AC120	Magnetic Contactor,120 VAC,SPST-1N0		
J7KC-12-01 AC120	Magnetic Contactor,120 VAC,SPST-1NC		
J7KC-12-10 DC24	Magnetic Contactor,24 VDC,SPST-1N0		
J7KC-12-01 DC24	Magnetic Contactor,24 VDC,SPST-1NC		
J7KCR-12-10 AC120	Reversing Magnetic Contactor,120 VAC,SPST-1N0		
J7KCR-12-01 AC120	Reversing Magnetic Contactor,120 VAC,SPST-1NC		
J7KCA-40 DC24	Auxiliary Relay,24 VDC,4PST-4NO		
J7KCA-31 DC24	Auxiliary Relay,24 VDC,4PST-3NO 1 NC		
J7KCA-22 DC24	Auxiliary Relay,24 VDC,4PST-2NO 2NC		
J7MC-3P-2E5	Manual Motor Starter, 200-400 VAC, 2.5 A		
J7MC-3P-4	Manual Motor Starter,200-400VAC,4A		
J7MC-3P-10	Manual Motor Starter, 200-400 VAC, 10A		
J7MC-3P-10	Manual Motor Starter,200-400VAC,10A		

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Note: Specifications are subject to change.

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