For Reference

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OMRON Corporation
OMRON Relay & Devices Corporation

Prepared by	Checked by	Authorized by
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PRODUCT SPECIFICATIONS

Name: MINI POWER RELAY

Model:MY3

Item: ALL

Registration part number for Customer
Type name : Type number :

Receipt Stamp(For receipt purpose only)
Please accept handling of this specification sheet as for reference use if no reply received.

Handled by

Distribution

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Customer	
Sales( )	

Revision Record

Mark	Date	Contents

1．Classification　Single stable relay

2．Construction
2.1 Outline dimensions　Drawing No.１４６９８５５－２
2.2 Structure drawing　Drawing No.－－－－－－－－
2.3 Contact configuration　3PDT (3c contact)
2.4 Contact structure　Single contact
2.5 Contact material　Face material　－－－－－－－－
Base material　Ａｇ
2.6 Protective construction　Unsealed

３．Standards
3.1 Approved by standard(s)

ＣＳＡ	File No.	:LR31928
ＵＬ	File No.	:E41515
ＳＥＶ	Licence No.	:02.0747
ＴＵＶ	Licence No.	:R50030059

3.2 Others　－－－－－

４．Ratings
4.1 Coil ratings　See table1

4.2 Contact ratings
(1) Rated load　Resistive load　２２０ＶＡＣ　５Ａ
２４ＶＤＣ　５Ａ
Inductive load　２２０ＶＡＣ　２Ａ
（ｐ．ｆ．=0.4）
２４ＶＤＣ　２Ａ
（Ｌ／Ｒ=7ms）
(2) Rated carry current　５Ａ
(3) Maximum rated voltage　２５０ ＶＡＣ　１２５ＶＤＣ
(4) Maximum rated current
Resistive load　ＡＣ５Ａ ＤＣ５Ａ
Inductive load　ＡＣ５Ａ
（ｐ．ｆ．=0.4）
ＤＣ５Ａ
（Ｌ／Ｒ=7ms）
(5) Maximum switching capacity
Resistive load　ＡＣ１１００ＶＡ ＤＣ１２０Ｗ
Inductive load　ＡＣ４４０ＶＡ
（ｐ．ｆ．=0.4）
ＤＣ４８Ｗ
（Ｌ／Ｒ=7ms）
(6) Failure rate (reference value)
ＤＣ５Ｖ　１ｍＡ
（P level）（$\lambda_{60}=0.1\times10^{-6}$／ops.）

５．Characteristics (initial value)
5.1 Contact resistance　５０ ｍΩ MAX.
Measured by the voltage drop method with
ＤＣ５Ｖ　１Ａ applied
5.2 Must operate voltage (or set voltage)　See table 1
5.3 Must release voltage (or reset voltage)　See table 1
5.4 Operate time (or set time)　２０ ms MAX. (at rated voltage)
5.5 Release time (or reset time)　２０ ms MAX. (at rated voltage)
5.6 Minimum input pulse width　－－－ ms MIN.
(Applicable to latching relay only, at rated voltage)

5.7 Ｉnsulation resistance　５００ＶＤＣ
(1) Ｂetween coil terminals and contact terminals １００ ＭΩ MIN.
(2) Ｂetween non-continuous current-carrying contact terminals
１００ ＭΩ MIN.
(3) Ｂetween contact terminals of the same polarity
１００ ＭΩ MIN.
(4) Ｂetween set coil and reset coil －－－－ ＭΩ MIN.
(5) Ｂetween current-carrying terminal and exposed non-current currying metal part. －－－－ ＭΩ MIN.

5.8 Ｄielectric strength(leakage current３mA 50/60Ｈz for a minute)
(1) Ｂetween coil terminals and contact terminals
ＡＣ２０００ Ｖ
(2) Ｂetween non-continuous current-carrying terminals
ＡＣ２０００ Ｖ
(3) Ｂetween contact terminals of the same polarity
ＡＣ１０００ Ｖ
(4) Ｂetween set coil and reset coil ＡＣ－－－－ Ｖ
(5) Ｂetween current-carrying terminal and exposed non-current carrying metal part. ＡＣ－－－－ Ｖ

5.9 Ｔemperature rise

(1) Ｃoil	４５℃ MAX. (by the coil resistance method) at. ７０℃ Ａpplied voltage of coil：１１０％ of rated voltage５０ (AC only) Ｈz Ｃarry current of contact－－－Ａ
(2) Ｃontact	６５℃ MAX. (by the thermometer method) at.－－－℃ Ａpplied voltage of coil：１００％ of rated voltage ５０ (AC only) Ｈz Ｃarry current of contact５Ａ

5.10 Ｖibration

(1) Mechanical durability	Must be free from any abnormality in both the construction and characteristics after the relay is subjected to a variable vibration of 0.5mm single amplitude(1.0mm double amplitude) at a vibration frequency of 10-55-10 Ｈz in each direction for 2 hours.
(2) Malfunction durability (When energized) or set status	Ｃontacts must not open for １ms or longer after the relay is subjected to a variable vibration of 0.5mm single amplitude (1.0mm double amplitude) at a vibration frequency of 10-55-10 Ｈz in each direction for 1 cycle.
(When not energized) or reset status	Ｃontacts must not open for １ms or longer after the relay is subjected to a variable vibration of 0.5mm single amplitude (1.0mm double amplitude) at a vibration frequency of 10-55-10 Ｈz in each direction for 1 cycle.

5.11 Ｓhock

(1)Mechanical durability	Must be free from any abnormality in both the construction and characteristics after the relay is subjected to a shock of １０００m/s^2 in each direction ３ times.

(2)Malfunction durability (When energized) or set status	Contacts must not open for１ms or longer after the relay is subjected to a shock of ２００ m/s^2 in each direction ３times.
(When not energized) or reset status	Contacts must not open for１ms or longer after the relay is subjected to a shock of ２００m/s^2 in each direction ３times.
5.12 Terminal strength	Must be free from any abnormality after a tensile stress of ４９N is applied to the terminal in any direction vertical to the terminal tip for ６０ seconds. Any deformation of the terminal by the load shall not be regard as a mechanical damage.
5.13 Temperature resistance (1) Heat resistance	Must be free from any abnormality in both the construction and characteristics after the relay is left in a temperature of ８５±２℃ for 16 hours and then in room temperature and humidity for ２ hours.
(2) Cold resistance	Must be free from any abnormality in both the construction and characteristics after the relay is left in a temperature of －５５±３ ℃ for 72 hours and then in room temperature and humidity for ２ hours.
5.14 Moisture resistance	Must be free from any abnormality in both the construction and characteristics after the relay is left in a humidity of 90 to 95% ＲH for 48 hours at a temperature of 40±2℃, and then in room temperature and humidity for 2 hours. Insulation resistance, however, must be ５ MΩ MIN.
5.15 Soldering heat resistance	Must be free from any abnormality in both the construction and characteristics after the terminals are dipped into molten solder at ２６０±５℃ for １０ seconds and then left in room temperature and humidity for 2 hours.
5.16 Endurance	
(1)Mechanical endurance	AC50,000,000　DC100,000,000 operations MIN. (under no load at operating frequency of 18,000 operations／hour)
(2)Electrical endurance	500,000 operations MIN. (under rated load, at operating frequency of 1,800 operations／hour)

※Unless otherwise specified, the above mentioned item 4 (Ratings) and 5 (Characteristics) values are under the standard conditions of Ambient temperature 23℃ and Humidity 65%RH.

6. Storage conditions
(1) Store in locations in normal temperature,humidity and atmosphere pressure.
(2) Environments
・Store in locations where the product or container is not exposed to corrosive gas such as hydrogen sulfide gas or salty air.
・Store in locations where no visible dust exists.
・Store in locations where the product is not exposed to the direct ray of the sun and rain, snow.
Also please do not apply the force to product which may result in the deformation or a change in quality of the product.

7. Operating conditions — Use the product under the following conditions.

7.1 Ambient temperature	－５５ to ＋７０℃ (without freezing or condensation)
7.2 Relative humidity	５ to ８５ %RH
7.3 Mounting direction	Ｆｒｅｅ

7.4 Enviroments
(1) Use in locations where the product is not exposed to corrosive gas such as hydrogen sulfide gas or salty air.
(2) Use in locations where no visible dust exists.
(3) Use in locations where the product is not exposed to the direct ray of the sun and rain, snow.
Also please do not apply the force to product which may result in the deformation or a change in quality of the product.

8. Others

9. Agreement when Placing Orders

Thank you for using OMRON products.

Unless otherwise specified in a written estimate, contract, or specifications, the following conditions and warranty information apply when an OMRON control device (hereafter called "OMRON Product") is ordered from catalogs. Ordering an OMRON Product implies consent to these terms and conditions.

9.1 Warranty

a) Warranty Period

The warranty period for an OMRON Product is one year from either the date of purchase or the date on which the OMRON Product is delivered to the specified location.

b) Extent of Warranty

If an OMRON Product is subject to a failure for which OMRON is responsible during the warranty period, either a replacement product will be provided or the defective product will be repaired free of charge at the place of purchase. This warranty, however, will not cover problems that occur as a result of any of the following.

- a: Using the OMRON Product under conditions or in an environment not described in catalogs or in the specifications, or not operating the OMRON Product according to the instructions contained in catalogs or in the specifications.
- b: Problem caused by something other than the OMRON Product.
- c: Modifications or repairs performed by a party other than OMRON.
- d: Using the OMRON Product for other than its designed purpose.
- e: Problems that could not have been foreseen with the level of science and technology that existed at the time the OMRON Product was shipped.
- f: Problems caused by an Act of God or other circumstances for which OMRON is not responsible.

This warranty covers only the OMRON Product itself. It does not cover any other damages that may occur directly or indirectly as a result of a problem with the OMRON Product.

9.2 Limitations of Liability

OMRON shall not be responsible for special, indirect, or consequential damages originating in an OMRON Product.

9.3 Applicable Conditions

a) When using OMRON Products in combination with other products, it is the user's responsibility to confirm compliance with all applicable standards and regulations. It is also the user's responsibility to confirm the suitability of the OMRON Products for the system, devices, and equipment that are being used. OMRON accepts no responsibility for the suitability of OMRON Products used in combination with other products.

b) When using OMRON Products in any of the following applications, consult an OMRON representative and check specifications to allow sufficient leeway in ratings and performance, and to implement suitable safety measures, such as safety circuits, to minimize danger in the event of an accident.
   Ⅰ) Outdoor applications, applications with potential for chemical contamination or electrical interference, or application under conditions or environments not described in catalogs.
   Ⅱ) Nuclear control systems, railroad systems, aviation systems, vehicles, combustion systems, medical equipment, amusement machines, or equipment regulated by government or industrial standards.
   Ⅲ) Other systems, machines, and equipment that may have a serious influence on human life and property.
   Ⅳ) Equipment requiring a high level of reliability, such as gas, water, or electrical supply systems, and systems that operate 24 hours a day.
   Ⅴ) Other applications requiring a high level of safety, corresponding to points Ⅰ) to Ⅳ), above.

c) When OMRON Products are used in an application that could pose significant risk to human life or property, the overall system must be designed so that the required safety can be ensured by providing notice of the danger and incorporating redundancy into the design. Make sure that OMRON Products are appropriately wired and mounted to serve their intended purpose in the overall system.
d) Application examples provided in catalogs are for reference only. Confirm functionality and safety before actually using the devices and equipment.
e) To prevent unexpected problems from arising due to the OMRON Product being used incorrectly by the customer or any other party, make sure that you understand and carefully observe all of the relevant prohibitions and precautions.
f) Each rating and performance value given in catalogs etc. is the value in an independent examination, and does not guarantee simultaneously the compound conditions of each rating and performance value.

9.4 Changes to Specifications
Specifications and accessories to the products in catalogs may be changed as needed to improve the products or for any other reason. Check with your OMRON representative for the actual specifications for OMRON Products at the time of purchase.

9.5 Treatment of the specifications for reference
When these specifications are issued for reference, please consult with your OMRON representative before actually using the specifications and confirm the latest specifications for the OMRON Product.

9.6 Extent of Service
The price of an OMRON Product does not include service costs, such as dispatching technical staff. If you wish for service, please consult with your OMRON representative.

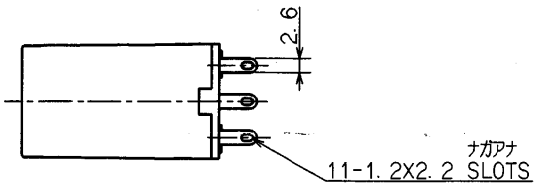
9.7 Applicability
The above information assumes that business and product application will be conducted in Japan. For business and application outside of Japan, consult with your OMRON representative.

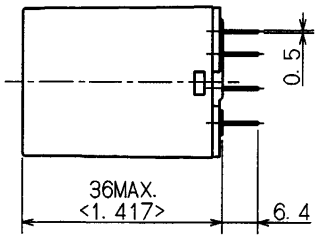
9.8 Effective term
These specifications will be invalid when there is not return or an order for one year from the date of issue.

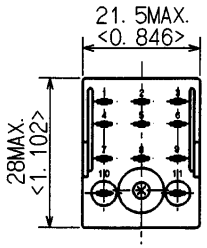
１０．Coil ratings （ table １ ）

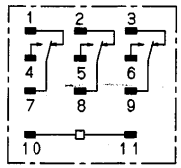
Rated voltage (V)	Rated current (mA) 50Hz	Rated current (mA) 60Hz	Coil resistance (Ω)	Must operate voltage	Must release voltage	Rated power consumption (VA, W)	Permissible voltage range
AC 6	214.1	183				Approx. 1.0～1.2 (60Hz)	
AC １２	106.5	91					
AC ２４	53.8	46			30%min of rated voltage		
AC100/110	11.7/12.9	10/11				Approx. 0.9～1.1 (60Hz)	90～110% of rated voltage
AC110/120	9.9/10.8	8.4/9.2		80%max of rated voltage			
AC200/220	6.2/6.8	5.3/5.8					
AC220/240	4.8/5.3	4.2/4.6					
DC 6	１５０		４０				
DC １２	７５		１６０		10%min of rated voltage	Approx. 0.9	
DC ２４	３６.９		６５０				
DC ４８	１８.５		２６００				
DC100/110	９.１/１０		１１０００				

The value of above list is measured at ambient temperature ２３℃ with the tolerances of AC rated current ＋１５%,－２０% and DC coil resistance ±１５%.









タンシハイチ／ナイフセツソクズ
TERMINAL ARRANGEMENT/
INTERNAL CONNECTIONS
(BOTTOM VIEW)

出　図
DRAWING
オムロンリレーアンドデバイス株式会社
OMRON Relay & Devices Corporation

< >IN INCHES

SYM	DATE	E/C CONTENTS	E/C NO.	SIGN

MATERIAL
FINISH
TOLERANCES UNLESS SPECIFIED

DESIGNED	CHECKED	APPROVED
92/07/07		
商品技術課 タナカ	商品技術課 シモダ	商品技術課課長 コガ

㊞ 92.10.20 古賀

SCALE 1:1
3RD ANGLE
SHEET 1/1

ミニパワーリレー　ガイクイズ
MINI POWER RELAY OUTL. DRWG.
DRWG NO. 1469855-2 B
DESIGNED FOR MY3(GU)

OMRON