

1. Ratings

OUTPUT contact side

Listed to UL

20 A 480 V ac :General use  
 2400 W 120 V ac :Tungsten  
 20 A 480 V ac :Standard Ballast  
 (Electric discharge lamps)  
 1/2HP at 110-125 V ac } Motor starting ,  
 1-1/2HP at 220-277 V ac } single phase

Listed to CSA

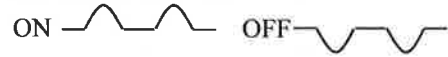
20 A 347 V ac :General use  
 2400 W 120 V ac :Tungsten  
 20 A 347 V ac :Standard Ballast  
 (Electric discharge lamps)  
 1/2HP at 110-125 V ac } Motor starting ,  
 1-1/2HP at 220-277 V ac } single phase

Short circuit rating : 5,000 A 277 V ac

\*Suitable for use on a Circuit Capable of Delivering , Not more than 5,000 rms Symmetrical Amperes, 277 Volts Maximum.

INPUT side 350 mA 24 V dc Reversible Polarity

《Electric current waveform》



2. Electrical switching performance

Switching speed 20 times/minute. 30,000 cycles.(60,000 operations.)

3. Mechanical switching performance

Switching speed 20 times/minute. 300,000 cycles.(600,000 operations.)

4. Insulation resistance

Between terminals of each OUTPUT(OFF condition).  
 Between terminals of OUTPUT and terminals of INPUT.

} More than 10 MΩ  
 (Using 500 V megger)

5. Dielectric strength

Between terminals of different pole OUTPUT.  
 Between terminals of each OUTPUT (OFF condition).  
 Between live parts and non-live metal parts.

} 1960 V ac No abnormality after 1 minute

Between terminals of OUTPUT and INPUT.

— 2500 V ac No abnormality after 1 minute

Between terminals of INPUT and non-live metal parts.

— 600 V ac No abnormality after 1 minute

6. INPUT voltage

18 V ~ 30 V dc Reversible Polarity

7. Appropriate terminal screw tightening torque

OUTPUT terminal 1.24 N·m ~ 1.53 N·m  
 INPUT terminal 0.68 N·m ~ 0.9 N·m

8. Appropriate wire

OUTPUT terminal AWG#12 to #14 copper wire only  
 INPUT terminal AWG#16 to #20 copper wire only

\*Same wire gage shall be used in case of applying multiple wires in the same terminal.

9. Temperature rise

In contact section before and after switching test 65 °C max  
 (thermocouple method)

|                                  |   |                  |
|----------------------------------|---|------------------|
| <b>Catalog No.</b><br>WR6172K-84 | <b>NAME</b><br>480V 20A HID Relay (Double Pole) (Panel Use) | <b>REV.</b><br>3 |
|----------------------------------|---|------------------|

10. Ambient operating temperature range -30 °C ~ +50 °C

11. 480V 20A HID Relay should be used for One-Shot Remote Control System and FULL 2-WAY Remote Control System.

12. Possible wiring distance (Between transformer and switch, selector switch)

| Wire used<br>For each switch | 0.5 mm <sup>2</sup> or<br>0.8 mm dia<br>(AWG 20) | 0.75 mm <sup>2</sup> or<br>1.0 mm dia<br>(AWG 18) | 0.9 mm <sup>2</sup> or<br>1.2 mm dia<br>(AWG 17) | 1.25 mm <sup>2</sup> or<br>1.4 mm dia<br>(AWG 16) |
|------------------------------|--|---|--|---|
| 20A HID Relay,<br>1 UNIT     | 400 m  | 600 m   | 720 m  | 1000 m  |
| 20A HID Relay,<br>2 UNIT     | 300 m  | 450 m   | 540 m  | 750 m   |
| 20A HID Relay,<br>3 UNIT     | 200 m  | 300 m   | 360 m  | 500 m   |
| 20A HID Relay,<br>4 UNIT     | 100 m  | 150 m   | 180 m  | 250 m   |

13. Changeability with selector switch

• Number of selector switches to activate one 20A HID Relay from multiple locations.

• A number of 20A HID Relay can be activated by one selector switch.

| One-Shot remote control (selector) switch | FULL 2-WAY remote control switch |
|---|----------------------------------|
| 6 places                                  | without Limit                    |

| One-Shot remote control (selector) switch | FULL 2-WAY remote control switch |
|---|----------------------------------|
| 4 pcs.                                    | 4 pcs.                           |

14. How to mount 20A HID Relay

Use Mounting Strap WR9910-8(Sold Separately) for Panel Use.

15. Caution

15-1 As the INPUT terminal has polarity, wiring should be connected with the same colored terminal of a transformer or a switch.

15-2 No changeability or other company's remote control products.

Catalog No.

WR6172K-84

NAME

480V 20A HID Relay (Double Pole) (Panel Use)

REV.

## 16. Safety Cautions on Design and Use

This unit must be used in accordance with the requirements stated below and all other operating procedures. Panasonic Corporation assumes no responsibility for any damage or loss caused by misuse of this unit.

16-1 When using this product, observe the following conditions:

- (1) This product has been developed only for lighting control.  
Do not use it for any security purpose (security against theft, accident prevention, etc.).  
If the product is to be used for any purpose where security is important:
  - Employ a backup system.
  - Use a protective device or circuit to improve overall system safety.
  - To ensure user safety, affix a warning label on any system that incorporates this product.

16-2 The prohibition matter on use:

- (1) Please do not use it at outdoors.



It becomes a defect of operation and the cause of failure.

- (2) Please do not install in the place of heat and high humidity.



It becomes a defect of operation and the cause of failure.

- (3) Please do not use this remote control relay for the remote control system of the other company.



It becomes a defect of operation and the cause of failure.

16-3 The prohibition matter on a design:

- (1) It is not operate by the load more than rating.  
(Please check about HID and an inverter in the number table of lights of these specifications.)



It becomes the cause of breakage by unusual generation of heat.

16-4 The prohibition matter on construction:

- (1) Please do not use other than the appointed application electric wire at the line to connect.



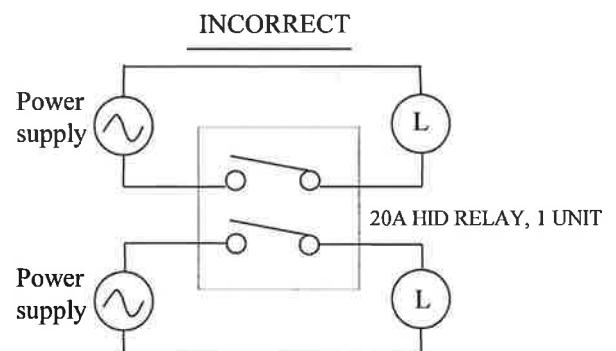
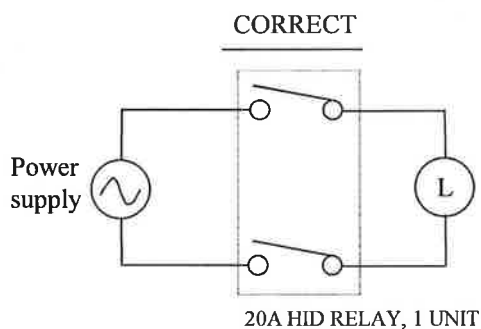
It becomes the cause of the short circuit by the omission of an electric wire, and breakage by unusual generation of heat.

- (2) Please do not connect an electric wire of a different kind to a screw terminal.  
(When it is necessary to connect, always use an application pressure arrival terminal)



It becomes the cause of the short circuit by the omission of an electric wire, and breakage by unusual generation of heat.

16-5 Double pole use only.



Catalog No.

WR6172K-84

NAME

480V 20A HID Relay (Double Pole) (Panel Use)

REV.

17. Quality guarantee

17-1 Period of guarantee

- The warranty of this product is one year from the purchasing day.

17-2 Contents of guarantee

- Free repair service is assured in case of breakdown during the period of guarantee when used properly according to the specification and instruction labeled on the products.

17-3 Escape clause of guarantee

- In case of the following, payment will occur in principle.

- (1) Breakdown or damage due to misuse and injustice repair or reconstruction.
- (2) Breakdown or damage due to transfer or installation, transportation, and fall down after purchase.
- (3) Breakdown or damage due to fire, earthquake, flood, thunderbolt and other calamity; pollution, damage by sea air, gas pollution (sulfuration), abnormal voltage, and usage of other undesignated power source (voltage, frequency).
- (4) Breakdown or damage due to loading on vehicles and vessels.
- (5) Breakdown or inconvenience originated to deficiency in installation.
- (6) Breakdown or damage due to not performing the examination demanded in the law or installation.

|                                  |   |             |
|----------------------------------|---|-------------|
| <b>Catalog No.</b><br>WR6172K-84 | <b>NAME</b><br>480V 20A HID Relay (Double Pole) (Panel Use) | <b>REV.</b> |
|----------------------------------|---|-------------|