

DESCRIPTION

PRODUCT COVERED:

Model W followed by 28, followed by S, X or H, followed by Q, S or T, followed by up to four numbers and/or letters, followed by 0.25 through 20 inclusive (W28S followed by 3 through 15 inclusive only). Also W28X followed by 1000 through 1999 inclusive, followed by 0.25 through 20 inclusive.

GENERAL:

The W28 Series are thermally operated current sensitive supplementary protectors intended for use with office appliances, vending machines, data processing equipment or similar appliances. They are also suitable in industrial applications. They are provided with a trip-free manual reset to close the circuit after automatic opening as a result of an overload. Additionally, W28S may be manually operated.

Protectors rated 0.25 A to 2 A have a trip-ampere rating based on 175 percent of the marked full load ampere rating. Protectors rated 3 A to 20 A have a trip-ampere rating based on 135 percent of the marked full load ampere rating.

RATINGS:

W28X or H:

All devices from 0.25 to 2.0 A inclusive are rated for general purpose:

277 V ac maximum at 60 Hz
240 V ac maximum at 400 Hz
2 hp maximum at 250 V ac single phase
50 V dc maximum

All devices from 3.0 A to 20.0 A inclusive are rated for:

277 V ac maximum at 60 Hz
2 hp maximum at 250 V ac single phase
(Across the line motor starting)
1 hp maximum at 125 V ac single phase
(Across the line motor starting)
50 V dc maximum
240 V ac maximum at 400 Hz

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W28S:

All devices from 3 to 15 A inclusive are rated for general purpose:

120 V ac maximum 50, 60 or 400 Hz 30,000 operations

SHORT CIRCUIT RATINGS:

1000 A at above voltages with a K5 fuse rated 4 x full load current maximum.

Devices with "H" circuit function have an additional short circuit rating of 2000 A at 125 V ac.

ENGINEERING CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE'S USE):

Use - For use only in products where the acceptability of the combination is determined by Underwriters Laboratories Inc.

Conditions of Acceptability -

1. These devices should be mounted in enclosures having adequate strength and thickness and in the intended manner and with spacings in accordance with the requirements of the overall equipment.

2. For alternating-current rated devices, short circuit capacity of the alternating-current supply shall not exceed 1000 A at 277 V ac (W28X and H), 240 V ac (W28S), 60 Hz and 240 V, 400 Hz single phase. Series fuses shall be rated not more than four times the full load current marked on the device using K5 fuses.

3. For direct-current rated devices, the short circuit capacity of the direct-current supply shall not exceed 1000 A at 50 V dc. The series fuses shall be rated not more than four times the full load current marking device using K5 fuses.

4. 3.2 A devices shall comply with the following in the end-use application.

A. It shall be located inside the enclosure housing the transformer.

5. Cat. No. W28, rated 15A, 250 Vac, de-rated to 4.85 Amps and placed in a 105°C ambient for Calibration and Temperature tests. The maximum temperature obtained were 106°C on the load terminal. An Overload test was conducted at the de-rated current value at 600% of rated current. The unit was tested with a R/C (QMFZ2) Valox 420SEO 1.22 mm. Thick rated at 130 deg C.

6. These protectors have been deemed trip-free, cycling.

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- B. The protector shall be inaccessible to tampering (shorting of the terminals).
- C. The protector shall not be shunted during the temperature testing of the transformer, and shall not operate during this testing.

5. For devices with the "H" circuit function, short circuit capacity of the alternating-current supply shall not exceed 100 A at 277 V, 60 Hz and 2000 A at 125 V, 60Hz single phase. Series fuses shall be rated not more than four times the full load current marked on the device using K5 fuses.

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NOMENCLATURE BREAKDOWN:

<u>W</u>	<u>28</u>	<u>X</u>	<u>Q</u>	<u>1</u>	<u>A</u>	<u>1.0</u>
I	II	III	IV	V	VI	VII

I - Circuit breaker designator W

II - Series number

28 - Single pole push to reset only.

III - Circuit function

X - Series trip

H - High interrupting current series trip

S - Manually switchable series trip

IV - Terminal connections

Q - 0.250 quick connect

S - 6/32 screw

T - 0.250 quick connect/for mounting in increased panel thickness

V - Bezel color and/or marking (nonelectrical feature)

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VI - Button color (nonelectrical feature)

VII - Ampere rating

0.25 through 20 inclusive (W28X or H)

3 A through 15 A inclusive (W28S)

(3.2 designed for use in secondary of Class 2 transformer).