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REPORT

ON

COMPONENT - MISCELLANEOUS, MOTOR CONTROLLERS

COMUS INTERNATIONAL N V
3700 TONGEREN, BELGIUM

DESCRIPTION

PRODUCT COVERED:

USR, CNR - Component, Motor Controllers, Models WG, followed by 120, 240, 280 or 480, followed by A, C, D, E or R, followed by 10, 25, 40 or 45, followed by R or Z, may be followed by -1 through -999.

GENERAL:

These devices are solid state relays, intended to be used in industrial applications where the suitability of the combination has been determined by Underwriters Laboratories Inc.

RATINGS:

Input:
- Suffix A - 90 to 480 V ac input
- Suffix C - 3.8 to 8.0 V dc resistive input
- Suffix D - 3 to 32 V dc resistive input
- Suffix E - 24 V ac input
- Suffix R - 3 to 32 V dc regulated input

Output:
- Suffix 10 - 10 A, general purpose (voltage 0 - 480 Vac)
- Suffix 25 - 25 A, general purpose (voltage 0 - 480 Vac)
- Suffix 40 - 40 A, general purpose (voltage 0 - 480 Vac)
- Suffix 45 - 45 A, general purpose (voltage 0 - 480 Vac)

The horsepower ratings of these devices are tabulated below according to the general purpose of the device.

General Purpose Rating	Hp Rating 120 V rms	240 V rms
10 A, 120 V	1/4	-
10 A, 240 V, 280 V or 480 V	1/4	1/3
25 A, 120 V	1/2	-
25 A, 240 V, 280 V or 480 V	1/2	3/4
45 A, 120 V	3/4	-
45 A, 240 V, 280 V or 480 V	3/4	1-1/2

NOMENCLATURE BREAKDOWN:

WG	240	D	25	R	123
I	II	III	IV	V	VI

I - Designates basic series designation: WG

II - Designates line voltage rating:
120 - 120 V ac, 250 blocking volt, 47/63 Hz
240 - 240 V ac, 500 blocking volt, 47/63 Hz
280 - 240 V ac, (H.P.), 280 V ac (General Purpose), 600 blocking volt, 47/63 Hz.
480 - 480 V ac, 800 blocking volt, 47/63 Hz

III - Designates control input voltage rating:
A - 90 to 480 V ac input
C - 3.8 to 8.0 V dc resistive input
D - 3 to 32 V dc resistive input
E - 24 V ac input
R - 3 to 32 V dc regulated input

IV - Designates load current rating:
10 - 10 A
25 - 25 A
40 - 40 A
45 - 45 A

V - Switching
Z - Zero voltage switching
R - Random switching

VI - Manufacturer's identification: -1 through -999

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

CNR - Indicates investigation to Canadian National Standards C22.2 No. 14 - 95.

USR - Indicates investigation to U.S. National Standard UL 508.

Note:

CNR = Canadian National Standards - Recognized.
USR = United States Standards - Recognized.

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 used within their Recognized ratings as specified above.

2. The devices should be mounted in an enclosure having adequate strength and thickness in the intended manner and with acceptable spacings being provided.

3. When open type devices are mounted in enclosures, the test record should be reviewed to determine if tests need to be repeated, giving particular attention to heating test. The maximum thyristor junction temperatures for the substrate-type inverse/parallel SCR output devices should not exceed the chip manufacturer's specification which is recorded for each device Listed in this Report. The device was tested on an aluminum heat sink, thickness 3.2 mm, 305 mm by 305 mm overall. If a different heat sink is used in the end application, consideration should be given to repeating the heating test.

   Following min. values should be required as min. value for the rated currents at an ambient temperature of max. 40°C:

Part no. WG xxx x x 10 x	-	3.1 K/W
Part no. WG xxx x x 25 x	-	1.1 K/W
Part no. WG xxx x x 40 x	-	0.80 K/W
Part no. WG xxx x x 45 x	-	0.75 K/W

   x - denotes model differences not affecting the electrical ratings.

4. The terminals are to be factory wired only and the suitability of the connection (including spacings between factory connectors) shall be determined.

5. The output wave-form of this device may not be sinusodial under certain inductive loading conditions and the effect of this output wave on the intended equipment must be determined in the end use application.

6. The input voltage ratings are considered to be absolute minimum and maximum values.

7. Devices rated in horsepower have not been subjected to Short-Circuit Tests.