JULY 1, 2020

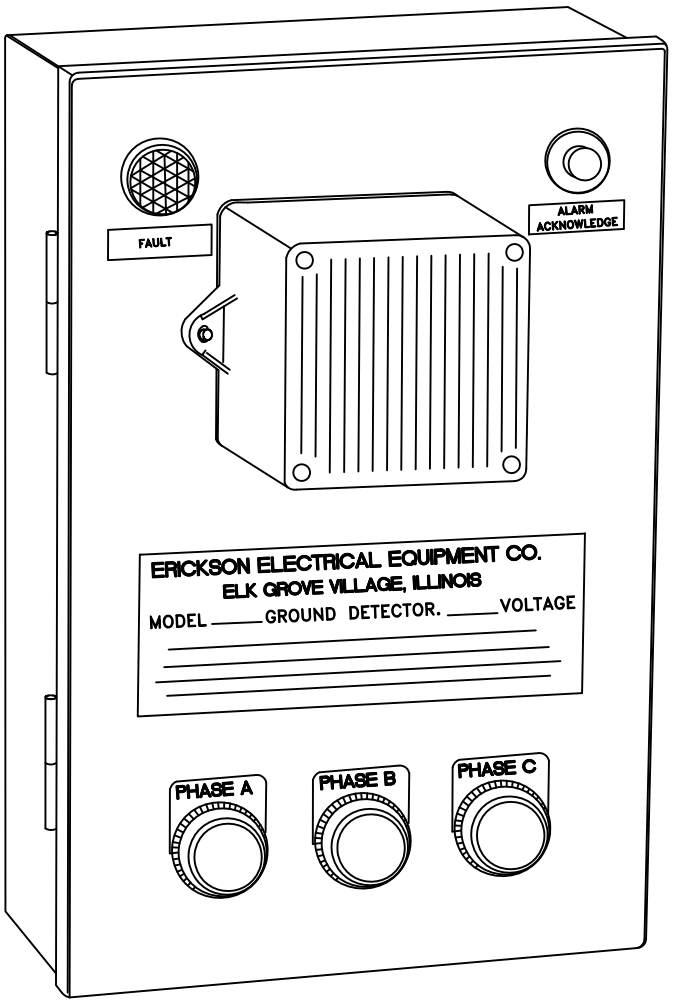
BULLETIN

GD-20.1

www.ericksonelectric.com

GROUND DETECTORS

For Use On 3Ø 3W Delta Ungrounded Systems



MODEL 'XVAP'
THREE PHASE GROUND DETECTOR

UL LISTED
E57995

POSITIVE DETECTION OF GROUND FAULT TO PREVENT UNSCHEDULED SHUTDOWN AND POSSIBLE HAZARD, DAMAGE AND EXPENSE.

ERICKSON ELECTRICAL EQUIPMENT CO.
475 BONNIE LANE • ELK GROVE VILLAGE, IL 60007
TELEPHONE: (847) 640-7701 / 1-800-952-7225
FAX: (847) 640-0565

ITEM NUMBER DESCRIPTION --- NEMA 1 ENCLOSURE (INDOOR USE)

XVAP120FB	120V AUDIBLE/VISUAL WITH INTERNAL FUSE BLOCK
XVAP240FB	240V AUDIBLE/VISUAL WITH INTERNAL FUSE BLOCK
XVAP480FB	480V AUDIBLE/VISUAL WITH INTERNAL FUSE BLOCK
XVAP600FB	600V AUDIBLE/VISUAL WITH INTERNAL FUSE BLOCK
YXVAP120FB	120V AUDIBLE/VISUAL WITH INTERNAL FUSE BLOCK WITH PUSH TO TEST LIGHTS
YXVAP240FB	240V AUDIBLE/VISUAL WITH INTERNAL FUSE BLOCK WITH PUSH TO TEST LIGHTS
YXVAP480FB	480V AUDIBLE/VISUAL WITH INTERNAL FUSE BLOCK WITH PUSH TO TEST LIGHTS
YXVAP600FB	600V AUDIBLE/VISUAL WITH INTERNAL FUSE BLOCK WITH PUSH TO TEST LIGHTS

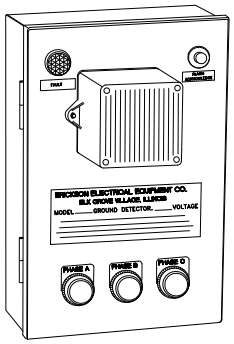
ITEM NUMBER DESCRIPTION --- NEMA 3R ENCLOSURE (OUTDOOR USE)

WPXVAP120FB	120V AUDIBLE/VISUAL WITH INTERNAL FUSE BLOCK
WPXVAP240FB	240V AUDIBLE/VISUAL WITH INTERNAL FUSE BLOCK
WPXVAP480FB	480V AUDIBLE/VISUAL WITH INTERNAL FUSE BLOCK
WPXVAP600FB	600V AUDIBLE/VISUAL WITH INTERNAL FUSE BLOCK
YWPXVAP120FB	120V AUDIBLE/VISUAL WITH INTERNAL FUSE BLOCK WITH PUSH TO TEST LIGHTS
YWPXVAP240FB	240V AUDIBLE/VISUAL WITH INTERNAL FUSE BLOCK WITH PUSH TO TEST LIGHTS
YWPXVAP480FB	480V AUDIBLE/VISUAL WITH INTERNAL FUSE BLOCK WITH PUSH TO TEST LIGHTS
YWPXVAP600FB	600V AUDIBLE/VISUAL WITH INTERNAL FUSE BLOCK WITH PUSH TO TEST LIGHTS

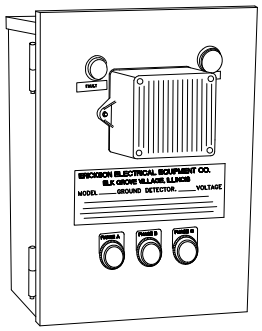
FOR PRICING INFORMATION PLEASE HAVE YOUR ELECTRICAL SUPPLY HOUSE CONTACT US AT SALES@ERICKSONELECTRIC.COM
ALL SALES MUST GO THROUGH ELECTRICAL DISTRIBUTION

*** NOTE: THESE ARE NOT GROUND FAULT CURRENT DEVICES ***

AUDIBLE-VISUAL DETECTORS



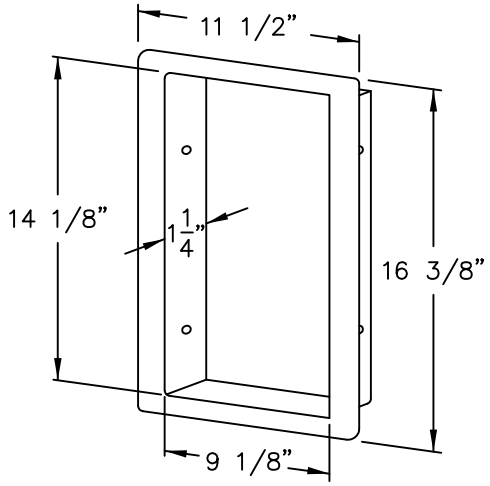
MODEL 'XVAP'
(NEMA 1 ENCLOSURE)
14 1/2"H X 9 1/2"W X 9 1/2"D*
* DEPTH INCLUDES HORN
SHIPPING WEIGHT APPROX. 20 LBS.



MODEL 'WPXVAP'
(NEMA 3R ENCLOSURE)
17"H X 13" W X 12 1/2"D*
* DEPTH INCLUDES HORN
SHIPPING WEIGHT APPROX. 30 LBS.

- DEPENDABILITY– No resistors, capacitors, or rectifiers are used. All components designed for long life. Sealed–type relays are normally de–energized.
- AUDIBLE SIGNAL– Alarm horn sounds when fault occurs. Signal may be silenced by pressing acknowledge button. Acknowledge circuit is automaticaly reset when fault is corrected.
- VISUAL SIGNAL– Red fault light glows when fault occurs and remains lit until fault is corrected.
- FAULT PHASE INDICATION– White lights indicate which phase has gone to ground.
- PROVISION FOR REMOTE SIGNALING DEVICE– One normally open and one normally closed dry contact is provided for auxillary alarm systems 120 V. maximum.
- VERY LOW POWER CONSUMPTION– Floating on the line, this device will draw only a negligible amount of power. Approx. 30 watts max.
- ATTRACTIVE DESIGN– Cabinet has a grey baked enamel finish. Wiring is neatly dressed to terminal blocks.
- PRE–WIRED PANEL– All components, including alarm horn, acknowledge button, indicating lights and power transformer are wired and factory tested. Panel and front are easily removed to permit roughing in of tub.

SWITCHBOARD MOUNTING FRAME



THE SWITCHBOARD MOUNTING FRAME ALLOWS MODEL XVAP GROUND DETECTORS TO BE MOUNTED SEMI–FLUSH IN THE FRONT OF SWITCHBOARDS OR OTHER ENCLOSURES. FOR NEMA 1 APPLICATIONS ONLY.

MADE FROM 16 GA. GALVANNEALED STEEL WITH URETHANE POWDER COAT FINISH

RECOMMENDED CUT OUT FOR MOUNTING FRAME 9–1/2" W X 14–1/2" H

CATALOG NO. 'GDMF'

Ground Detector: Description of application and use

3 Phase 3 Wire (Ungrounded) systems are used where it is difficult to establish permanent grounds for equipment. Examples of this are crushers and conveyors in gravel pit or quarry operations and drill rigs in remote areas. These systems are also used in operations that must not be stopped immediately because to do so would endanger personnel or equipment. This may be in pumping or process equipment where a sudden stoppage could cause dangerous pressures or catastrophic failure. Let's take for example a crusher that is driven by a 500 horsepower motor in a mining operation that uses this system. When a first ground occurs in a 3 phase 3 wire ungrounded system the motor will continue to operate with no sign that one phase has been grounded. If however a second phase goes to ground the motor will be severely damaged. It is therefore extremely important that there is indication when a ground occurs in the system. It is in fact required by the National Electric Code.
Erickson Electric manufactures Visual/Audible ground detectors (Model XVAP).

X indicates a set of dry contacts that can be used for remote monitoring, V and P indicates visual phase indicating pilot lights, A indicated an audible horn or bell.
These ground detectors are available for 120V, 240V, 480V and 600V applications. High voltage applications require that potential transformers are used with the ground detector. They are only for use on 3 phase 3 wire UNGROUNDED systems. They are not ground fault devices. They do not interrupt the power. They are not to be used on Y systems or corner grounded systems.

The Model XVAP ground detector is provided with an internal fuse block.
The ground detector should be installed as close to the source as possible and is protected by the fuses installed in the internal fuse block. The fuses protect the conductors to the ground detector and allow the ground detector to be disconnected should it need to be removed for repair. (If the ground detector is mounted remote from the source – then separate, customer-provided fuses should be installed as close to the source as possible).

One ground detector is used to monitor the entire system. If it is installed ahead of the main service switch and a ground occurs, opening the main switch will establish if the ground is on the customer side or the utility side. (While the theory is good in the real world the main switch would never be opened to establish the location). If a ground in the system occurs the electrician must establish the location of the ground by isolating sections of the electrical system. This is done by opening each circuit in the distribution panelboard to see if the ground detector indicates the return of a normal situation.

The ground detector monitors the voltage. It cannot cause a power surge. It can be damaged by a power surge, typically a lightning strike.