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G.A.L. TYPE MOVFR ENCODERLESS CLOSED LOOP DOOR OPERATOR.

QUESTIONS & ANSWERS:

Q1: What is the MOVFR operator?
A: The MOVFR door operator is an AC operator controlled by a variable voltage variable frequency (VVVF) closed loop drive. The controls consists of an AC motor, a VVVF Drive, and a PC board.
It features keypad programming with digital display, electronic door position optical cams with sequential lights indicating speed and door positions, over current re open signal and DPM Fault Monitor* signal. It accepts universal input signals, from dry contacts to signal voltage, from 12 to 230 volts AC or DC. The output contacts are rated at 10 amp 230 volts AC including door open limit, door close limit, re open signal and DPM signal.

* The Fault Monitor is a patented door lock and gate switch protection device used to meet ASME A17.1 RULE 210.15 and CAN/CSA-B44-M90 RULE 3.12.1.5.

Q2: What makes it encoderless closed loop?
A: The VVVF drive reads the motor parameters and varies the power applied to the motor to compensate for load changes such as wind conditions. This results in consistent door timing from floor to floor without the use of a separate speed sensing rotating device such as an encoder.

Q3: What type of motor does it use?
A: The motor is ½ HP, 230 volt, 3 phase, 60 Hz, 1140 RPM

Q4: What is the power requirement?
A: The operator requires from 200 to 230 volts AC single phase, 50 or 60 Hertz, 3 amps fused power supply. The fuse can be either 3 amp time delay or 6 amp fast acting.

If 120 volts AC <u>is</u> available and 200 to 230 volts AC is <u>not</u> available, G.A.L. can provide a 500 VA single phase step-up transformer from 120 volts AC to 220 volts AC.

Q5: What type of input signals does it require and what type of output contacts does it provide.?
A: The input signals (door open, door close and nudging) can be either dry contacts or voltage signals ranging from 12 to 230 volts AC or DC, 30 milliamps.
The output contacts, such as the open and close limits, are rated at 230 volts, 10 amp AC.

Q6: How are speeds and torque adjusted?
A: The parameter values pre-set by our factory and indicated on the back of the PUO4 parameter unit and on the operator are easily changed by entering new values in the parameter unit. The electronic door position optical cams are also pre-set with sequential lights indicating speed and door positions. Minor adjustments may be required.

Q7: What is a parameter unit?
A: The parameter unit is a keypad device with digital display used to change the factory set values of the various Drive parameters to exact speeds and rates of acceleration, deceleration, and torque as required on the particular installation.

Q8: What is the difference between the PAO2 and the PUO4 parameters?
A: The PAO2 plugs into the drive and can be left attached to it. It cannot be hand-held, adjustments can only be made from the car top. This unit uses arrows to scan up or down through the parameters. For example, when reaching parameter # 25 on the digital display, high speed open can be changed by scanning up or down to the desired speed indicated on the display.

The PUO4 is hand-held and can be used inside the elevator for door adjustments.
The desired parameter is entered directly from the numbers keypad, the digital display shows the numbered entered. For example, parameter # 25 is entered for high speed open and its present value displayed when the READ button is pressed. That value can then be changed to the exact new speed by entering the new number and pressing the WRITE button.
This parameter unit also has uploading and downloading capabilities. This is desirable when all doors in a group of elevators are to operate exactly the same. After adjusting one set of doors to the desired operation, this information can than be transferred to all the other cars for the same operation.