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AUTOMATIC TRANSFER SWITCH

Protection - Control - Metering - Load Transfer

These EAOM-210 controllers automatically start, stop, transfer, protect, control and meter generator sets. A mains supply failure, such as phase loss, initiates the generator and transfers the load. When the mains supply is restored within the pre-set limits, the load is transferred back to the mains supply and the generator is shutdown in a controlled manner. If a fault is detected, the engine will be shutdown, the failure indicated on the display and the alarm sounded. They also display voltage and numerous other parameters. The technology used by Z-TRAUQ INC. allows exact measurement, set point adjustment and timing functions via the front panel or use the PC based software and RS232 port to communicate directly or over modem. The LCD can display such parameters as Phase-to-Phase and Phase-to-Neutral voltage (V) and Frequency (Hz) for both mains and generator; the generator's Phase current(I), Active power(W), Reactive power(VAR), Apparent power(VA), Active energy(Wh), Reactive energy(VARh), Power factor(PF) and Earth current(IEA). The engine's status, oil pressure, run time, coolant temp., fuel level, battery and charge generator voltages, next maintenance hour and month, working modes, event logs, error messages and program parameters all in real time. Change the EAOM-210 operation mode from automatic to manual to test without changing the operational status of the generator or load connections.

Features:

Automatic engine start/stop	Push-button operation
Automatic load transfer	Six user configurable inputs
Automatic shutdown on fault	Four configurable relay output
LED status and fault indication	Three resistive inputs
Man - Auto - Test modes	Fully programmable
Engine speed monitor	Exerciser

Failure Monitoring:

Voltage	Low / high battery voltage
Oil pressure	Multiple starting attempts
Engine start	Maintenance due
Charge generator voltage	Emergency stop
Engine over/under speed	Engine temperature
Over current	Ground fault
Fuel level	Short circuit
Generator stop	Six user configurable

Controls:

Automatic generator start	Mains contactor
Automatic load transfer	Preheating
Alarm silence	Engine stop & fuel supply

EAOM-210FL



EAOM-210FD
LED display
EAOM-210FL
LCD display

Diesel or Gas Generator



General Specifications:

EAOM-210FD

Housing & Mounting	144 x 204 x 37mm	
Protection	NEMA4X (IP65 front, IP20 rear)	
Operating / Storage Temp.	-25°C to +70°C for EAOM-210FD; -40°C to +85°C for EAOM-210FL	
Supply Voltage	8V to 32Vdc max operating current: 360mA dc	
Battery Voltage Measurement	8.0 to 32.0 Vdc Accuracy: 1% FS, Resolution : 0.1Vdc	
Mains Voltage Measurement	Single & three phase 35 to 300 Vac L-N RMS 15.6 - 99.9Hz Accuracy: 1% FS, Resolution : 1Vac	
Generator Current Input	0 to 5AAC from CT	
Cranking Dropouts	Battery voltage can be 0Vdc for max. 100ms during cranking (battery volts should be at least nominal voltage before cranking)	
Generator Speed	Magnetic pickup 35-10kHz (4-35v peak continuous). Accuracy: 0.25% FS	
Generator Frequency	From alternator volts 15.6-99.9 Hz @ 35-300VAC L-N Accuracy: 0.25% FS Res.: 0.1Hz	
Charge Generator Excitation	220mA, max. 4W	
Communication Interface	RS-232 Modbus RTU serial communication	
Inputs	Emergency Stop (NC)	6 x Configurable (NO or NC)
Output Relays	Start 16 A @ 8-32Vdc Fuel 16 A @ 8-32Vdc Generator open 5A @ 8-32Vdc Mains open 5A @ 8-32Vdc	1 x config. 16A @ 8-32Vdc 3 x configurable 5A @ 8-32Vdc Generator close 5A @ 8-32Vdc Mains close 5A @ 8-32Vdc
Failure Indicators	Failed engine start Engine high temperature Engine over/under speed Low oil pressure	Charging fail Generator voltage failure 3 x configurable
Status Indicators	Manual/Auto/Test/Off/Program Engine start/stop/running Mains contactor	Generator is ready for the load Mains voltage available Generator contactor
Alarms	Low/high battery voltage CanBus (S-3 only) Emergency stop Gen. breaker not open/closed Mains breaker not open/closed Short circuit Speed loss Multi attempt starting failed	Maintenance due Over current Over/under speed Ground fault Gen. over/under frequency/volts Reverse power Gen. temp. pre alarm Fuel level

TRANSFER

877-798-7287

CONTROL

MONITOR

www.z-trauq.com

PROTECT

EAOM 210

Connection Diagrams

Actual diagrams may differ. Always refer to the Owner's Manual for the wiring instructions of your particular controller.

