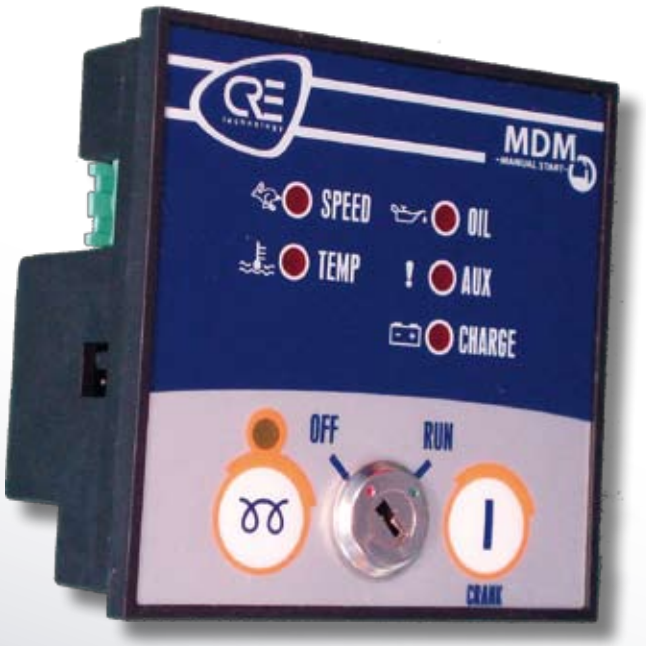
MDM

Manual start unit



- Simple and basic unit
- 50/60 Hz compatibility
- Basic engine protection
- Preheat or “Energize to stop” output

The MDM unit from CRE Technology is a basic, microprocessor controlled unit designed to start and stop the genset manually using the key switch and pushbuttons on the front panel. It has high power relay outputs enabling it to interface directly with diesel gensets.

When the engine is running, the unit monitors fault conditions and shuts-down the engine automatically if an alarm occurs. The alarms are indicated with LEDs which display the first one to occur.

A SIMPLE PRODUCT FOR BASIC APPLICATIONS

The manual start and stop sequences have been reduced to their simplest form. The front panel provides “RUN” and “OFF” positions, with a preheat button when required. This button is also used in the “energize to stop” mode. The alarm LEDs show any engine fault conditions: overspeed, underspeed, high engine temperature, low oil pressure, auxiliary shutdown.

ENERGIZE TO STOP CONTROL

The MDM is also able to control ‘Energize to Stop’ engines. When the ‘Energize to Stop’ option is selected, the auxiliary relay output will be energized during the stop timer and the led associated with this condition will be turned on.
The choice of engine type is made using a jumper switch.

50/60 HZ COMPATIBILITY

The limits for the correct generator frequency are 25 to 57 Hz when in 50Hz operation and 25 to 68Hz for 60Hz operation.

RELIABLE AND SIMPLE

The MDM is dedicated for basic applications which require no extra costs or expensive hardware. The MDM has passed EMC and low voltage tests, and all units are 100% tested before delivery.

AFTER SALES SERVICE

Like every CRE Technology product, the unit also benefits from our technical support. All CRE products are delivered with one year warranty.

OUTPUTS

- Fuel solenoid: 10amps@28V-DC.
- Start: 10amps@28V-DC.
- Auxiliary: 10amps@28V-DC.

INPUTS

- DC supply: 12 or 24 volts DC, (+) and (-) terminals.
- L1: generator phase voltage.
- Neutral: generator neutral terminal.
- High temp switch.
- Low oil pressure.
- Aux: spare fault input. A negative supply connected to this input will cause the engine to be stopped immediately and an alarm to be triggered (independent of the protection hold-off timer).
- Charge: this terminal will supply the excitation current and measure the voltage of the charge alternator.

CHARACTERISTICS

Current, voltage and frequency

- Alternator voltage: 15 to 300 V-AC
- Alternator frequency: 50 or 60 hz nominal.
- Overspeed: nominal frequency + 14% (+24% overshoot)
- Underspeed: 25hz
- DC supply range: 8 to 33 V-DC.
- Current consumption: 80mA max. (Outputs open).
- Charge fail threshold: 6 V-DC.
- Charge excitation current: via a 82 ohm resistor connected to the FUEL output.

Environment

- Operating temperature: -20°C (-4°F) to 70 °C (158°F).
- Storage temperature: -30°C (-22°F) to 80 °C (176°F).
- Maximum humidity: 95% non-condensing.

Dimensions and weight

- Dimensions: 72x72x38mm (WxHxD)
- Panel cut-out dimensions: 68x68 mm
- Weight: 140g (approx.)

Homologation

- EMC
- Low Voltage

PART NUMBER
A60Z3

SOFTWARE
Rainbow 2.026

ASSOCIATED PRODUCTS
Complementary: UNIGEN FAMILY

MDM