

# MDA



## Automatic start unit

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



**The MDA unit from CRE Technology is a basic, microprocessor controlled unit designed to start and stop the genset automatically on request of an external Remote Start signal. It has high power relay outputs enabling it to interface directly with diesel gensets.**

### A SIMPLE PRODUCT FOR BASIC FUNCTIONS

When the engine is running, the unit monitors fault conditions and shuts down the engine automatically if an alarm occurs. The alarms are identified with LEDs which display the first one to occur. On an OFF position, the module is de-energized and the remote start is disabled with no current consumption. The unit uses high current two part connectors for easy replacement.

### ENERGIZE TO STOP CONTROL

The MDA 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 switched on. The selection of engine type is made by a jumper switch.

### 50/60 Hz COMPATIBILITY

The unit is able to operate with both 50 and 60 Hz systems. The selection is made with a jumper switch.

### RELIABLE AND SIMPLE

The MDA is dedicated to basic applications which need no extra costs or expensive hardware. CRE Technology has just added two things: Reliability and After Sales Service. All CRE Technology products aim to provide the same satisfaction levels. The MDA 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: negative closing switch input.
- Low oil pressure: negative closing switch input.
- Remote start: a negative supply connected to this input will run the engine.
- Charge: connect the charge alternator's D+ output to this terminal. This terminal will supply the excitation current and measure the voltage of the charge alternator.

## OPTIONS

- Preheat with activate to start
- Energize to stop without preheat.

## 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 82 ohm resistor connected to the FUEL output.

### Start/Stop sequence

- Preheat delay: 10 sec.
- Wait before Start: 0.75 sec.
- Start duration: 6 sec.
- Wait between starts: 10 sec.
- Number of start cycles: 3
- Protection hold-off timer: 12 sec.
- Cooldown duration: 2 minutes
- Stop timer: 30 sec.

## Environment

- Operating temp.: -20°C (-4°F) to 70°C (158°F).
- Storage temp.: -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

A60Y1

### SOFTWARE

Rainbow 2.026

### ASSOCIATED PRODUCTS

Advanced: MDA PLUS

Complementary: UNIGEN FAMILY

