

# MODEL 450/3

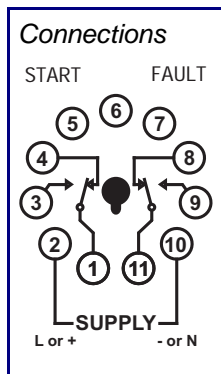
# AUTOMATIC ENGINE STARTER

- ( Made in South Africa
- ( 11 pin Plug-In
- ( Compact Size
- ( Economical
- ( One Unit for 12V & 24V Systems

The model 450 timer has been specially designed for automatic starting of stationary internal combustion engines.

The crank and pause times are normally preset to industry standard values however non standard values and versions with adjustable settings are available to special order.

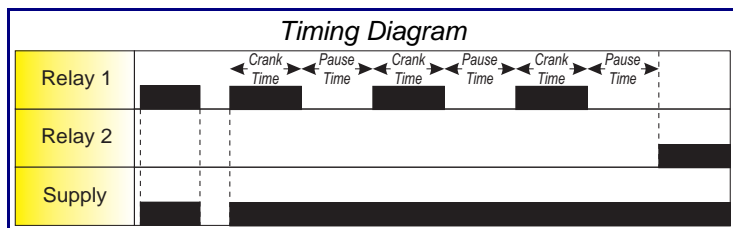
The standard supply voltage is 10-30V DC which covers both 12V and 24V systems in one module.



On applying power the crank relay energises for 10 seconds followed by a pause of 10 seconds. Three crank attempts are made after which the "Fail" relay is energised.

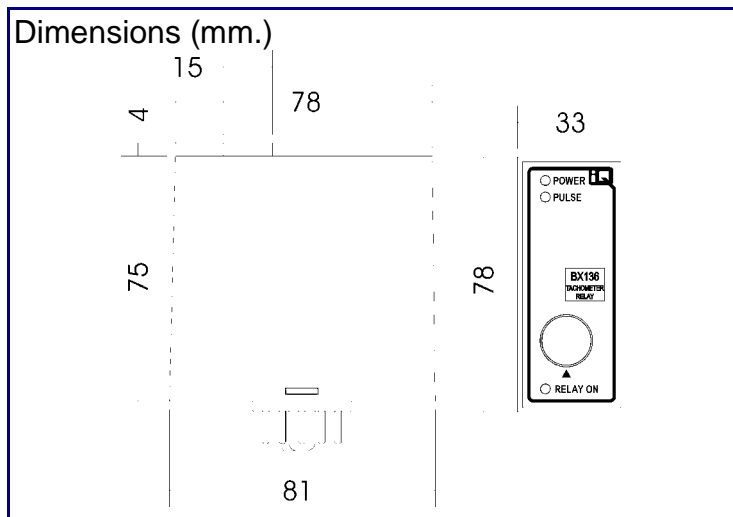
Once the engine starts this module must be disabled and this is usually done using a contact from the battery charger control circuit connected to the alternator or dynamo. Alternatively a voltage monitor relay (model 340) or speed sensing switch (model BX136) could be used

LEDs are provided to indicate "Power", "Start", and "Fault".



### Specifications

POWER SUPPLY Options	10 – 30V DC
POWER CONSUMPTION	2 Watts Approx.
RELAY CONTACTS	10A 400VAC 2500VA Max. 10A 30VDC 300W Max.
CRANK TIME	10 seconds
PAUSE TIME	10 seconds
START ATTEMPTS	3



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