



## TCP 2000

The TCP 2000 is an Auto Start Control Module suitable for a wide variety of single, diesel or gas, generator set applications.

A sophisticated module monitoring an extensive number of engine parameters, the TCP 2000 will annunciate warnings, shutdown and engine status information on the back-lit LCD screen, illuminated LED, remote PC, and audible alarms. The module includes RS232, RS485 & Ethernet ports as well as dedicated terminals for system expansion.

TCP 2000 control panels are compatible with electronic (CAN) and non-electronic (magnetic pick-up/alternator sensing) engines and offer a comprehensive number of flexible inputs, outputs and extensive engine protections so the system can be easily adapted to meet industry requirements. They can be easily configured using the DSE Configuration Suite Software. Selected front panel editing is also available.

## Features

- 4-Line back-lit LCD text display
- Five key menu navigation
- Front panel editing with PIN protection
- Customisable status screens
- Power save mode
- 11 configurable inputs
- 8 configurable outputs
- Flexible sensor inputs
- Configurable timers and alarms
- 3 configurable maintenance alarms
- Multiple date and time scheduler
- Configurable event log (250)
- Tier 4 CAN engine support
- Integral PLC editor
- Easy access diagnostic page
- CAN and Magnetic Pick-up/Alt. sensing
- Fuel usage monitor and low fuel alarms
- Charge alternator failure alarm
- Manual speed control (on compatible CAN engines)
- Manual fuel pump control
- Engine exerciser
- “Protections disabled” feature
- kW protection
- Reverse power (kW) protection
- LED and LCD alarm indication
- Power monitoring (kW h, kV Ar, kV A h, kV Ar h)
- Load switching (load shedding and dummy load outputs)
- Unbalanced load protection
- Independent Earth Fault trip
- USB connectivity
- Backed up real time clock
- Fully configurable via DSE Configuration Suite PC software
- Configurable display languages
- Remote SCADA monitoring via DSE Configuration Suite PC software
- User selectable simultaneous RS232, RS485 & Ethernet communications
- Configurable MODBUS pages
- MODBUS RTU & TCP support
- Advanced SMS messaging (additional external modem required)
- Additional display screens to help with modem diagnostics
- Idle control for starting
- 20 parameter data logging

## Benefits

- 132 x 64 pixel ratio display for clarity
- Real-time clock provides accurate event logging
- Multiple date and time scheduler
- Set maintenance periods can be configured to maintain optimum engine performance
- Built in ethernet communications provides advanced remote monitoring
- Modules can be integrated into building management systems (BMS) using MODBUS
- Licence-free PC software
- IP65 rating (with supplied gasket) offers increased resistance to water ingress
- PLC editor allows user configurable functions to meet specific application requirements
- Data logging to assist with fault finding

## Specifications

### DC SUPPLY

#### CONTINUOUS VOLTAGE RATING

8 V to 35 V Continuous

#### CRANKING DROPOUTS

Able to survive 0 V for 50 mS, providing supply was at least 10 V before dropout and supply recovers to 5 V. This is achieved without the need for internal batteries

#### MAXIMUM OPERATING CURRENT

260 mA at 12 V, 130 mA at 24 V

#### MAXIMUM STANDBY CURRENT

120 mA at 12 V, 65 mA at 24 V

#### CHARGE FAIL/EXCITATION RANGE

0 V to 35 V

### OUTPUTS

#### OUTPUT A (FUEL)

15 A DC at supply voltage

#### OUTPUT B (START)

15 A DC at supply voltage

#### OUTPUTS C & D

8 A AC at 250 V AC (Volt free)

### AUXILIARY OUTPUTS E,F,G,H,I & J

2 A DC at supply voltage

### GENERATOR VOLTAGE RANGE

15 V to 333 V AC (L-N)

### FREQUENCY RANGE

3.5 Hz to 75 Hz

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3.5 Hz to 75 Hz

### BUS (DSE7410) VOLTAGE RANGE

15 V to 333 V AC (L-N)

### FREQUENCY RANGE

3.5 Hz to 75 Hz

### MAGNETIC PICK UP VOLTAGE RANGE

+/- 0.5 V to 70 V

### FREQUENCY RANGE

10,000 Hz (max)

### OVERALL DIMENSIONS

240 mm x 181 mm x 42 mm

9.4" x 6.8" x 1.6"

### PANEL CUTOUT

220 mm x 160 mm

8.7" x 6.3"

### MAXIMUM PANEL THICKNESS

8 mm

0.3"

### STORAGE TEMPERATURE RANGE

-40 °C to +85°C

-40 °F to +185 °F

### OPERATING TEMPERATURE RANGE

-30 °C to +70 °C

-22 °F to +158 °F

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