

DynaGen[™] TOUGH SERIES[™] TG350



AUTOSTART CONTROLLER FOR ENGINES OR GENERATORS

• Designed for complete control, protection and engine instrumentation on mechanical or electronic engines

- Three phase voltage metering for generator applications
- Easily configured using the front panel buttons or RapidCore[™] configurator software
- Tier 4F and Euro Stage V compliant. Call factory for specific engine types
- Ideal for applications where reliability is critical, such as mobile and stationary engine equipment or generators
- OEM private label branding available

FEATURES •

HIGHLIGHTS

- Displays: - Oil pressure
 - Engine temperature
 - Fuel level
 - Oil level
 - Hour meter
 - RPM
 - Battery voltage
 - Real time clock with time/date
 - J1939 DTC codes with custom text
- Supports mechanical or CANbus J1939 engines
- Configurable Diagnostic Trouble Code (DTC) readout
- Conformally coated for protection against moisture
 and contaminants
- Front panel gasket for panel water ingress protection
- RPM via J1939, magnetic pick-up or generator
- Full electronic variable speed control over J1939
- Autostart on low battery and other sensors
- Trim features for sensors and AC voltage inputs
- Exercise clock
- 150 event logs (events, warnings, failures)
- Fast and rugged installation clips
- Automatic shutdown and warnings
- Manual and remote start
- Accepts common senders (VDO, Datcon, Murphy and more)

- DPF and DEF status icons (fluid level and temp)
- Two customer defined parameters (temperature, pressure, voltage, levels)
- Three-phase AC Volts and Hz (for generators)
- J1939 percent load and percent torque
- Custom screens for pumping/compressor applications
- Display PF, KW, and KVA
- Momentary start/stop inputs
- Configurable warm-up idle (timer, oil and engine temperature and ECM control)
- Stall detection
- Restart on false start
- Custom warnings and failures
- Single or dual float switch input control
- Built-in weekly scheduler
- Maintenance counter
- Preheat and many configurable timers
- Autostart trigger on sensor value (pressure, temperature, level, voltage)
- Easy-to-use field configuration from front panel menu (passcode protected)
- Configurable set point RPM output feature
- Long-term run
- Closed loop control on custom sender

OPTIONS

- Snap on RelayPak eliminates the need to mount and wire external slave relays for fuel crank and up to two other loads TOUGH-Link remote monitoring and control available with cellular modem
- Heated LCD version available for operation and display down to -40°C



Snap-on RelyPak





TECHNICAL DATA AND SPECIFICATIONS

Operating Voltage	5.5 to 38 VDC continuous. Cranking dropouts to 0 VDC for 50mS, also meets SAE J1113-11 Standby current draw: 50mA Reverse battery protected Surge withstand and load dump: SAE J1113-11		
Vibration and Shock	Meets or exceeds SAE J1455 plus DynaGen's five year accelerated life test		
Operating Temperature	Controller function: -40°C to 70°C Display screen viewing: -20°C to 70°C		
Electromagnetic Compatibility	Meets or exceeds MIL-STD-461E conducted emissions		
Dimensions	4.17" H x 6.5" W x 1.38" D		
Weight	0.83 lb		
Speed Sensing	Via J1939 bus, magnetic pick-up, tachometer or AC voltage		
Inputs:		Inputs & Outputs	
AC Voltage Sensing	Single-phase 2 and 3-wire Delta 3 and 4-wire Wye 2, 3 and 4-wire Max 600 VAC (direct connection) true RMS, +/- 1% of full scale	J1939 CANbus Magnetric Pick-Up Input Generator Volts Configurable Switched Inputs	Model TG350 X X 3-Phase 5
Fixed Sensor Inputs	0-7500Ω engine temperature sender 0-750Ω senders or switches*	Resistive Sensor Inputs Universal Sensor Inputs	3
Universal Sensor Inputs	0-7500Ω senders, 4-20mA, 0-5V or switch* 0-750Ω senders	(Resistive, voltage, 4-20mA) Configurable Switched Outputs (in addition to fuel & crank)	1
Configurable Switched Inputs	With programmable text, auto detect close to +Bat or Gnd	(in addition to fuel & crank)	4
Outputs:	Includes standard fuel and crank outputs, as well as configurable pre-heat		
Switched Outputs	1A max UL pilot duty. Switched to +battery. Short circuit and overload protected		
SAE J1939 Communications	Tier II, III and IV engines. Address settings for both controller and the engine ECM		
USB Communications	RapidCore™ configuration software. High retention socket accepts standard USB cable		
Warranty	Five-year warranty or 17,500 hours		

* Failure inputs must close to ground. All failure inputs are ignored for an adjustable bypass period.

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DynaGen_TOUGHSeries_TG350_Datasheet_Apr2021



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