

# GTS V3 Controller



Proven  
Technology



2 Year  
Warranty



Plug & Play  
Easy Installation

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Creating the future of  
thermal management

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**Grayson**  
THERMAL SYSTEMS

*Excellence in  
product quality  
and service*

## V3 Controller

### Hybrid Fan System Controller | Technical Specifications

#### System overview

The Grayson Thermal Systems GTS-V3 range of E-Drive controllers has been developed to satisfy the need for a reliable thermal management system implementation.

Three variants of the GTS-V3 have been introduced. Two CAN bus (J1939) capable versions which are compatible with common fan variants and a thermistor only version for aftermarket applications.

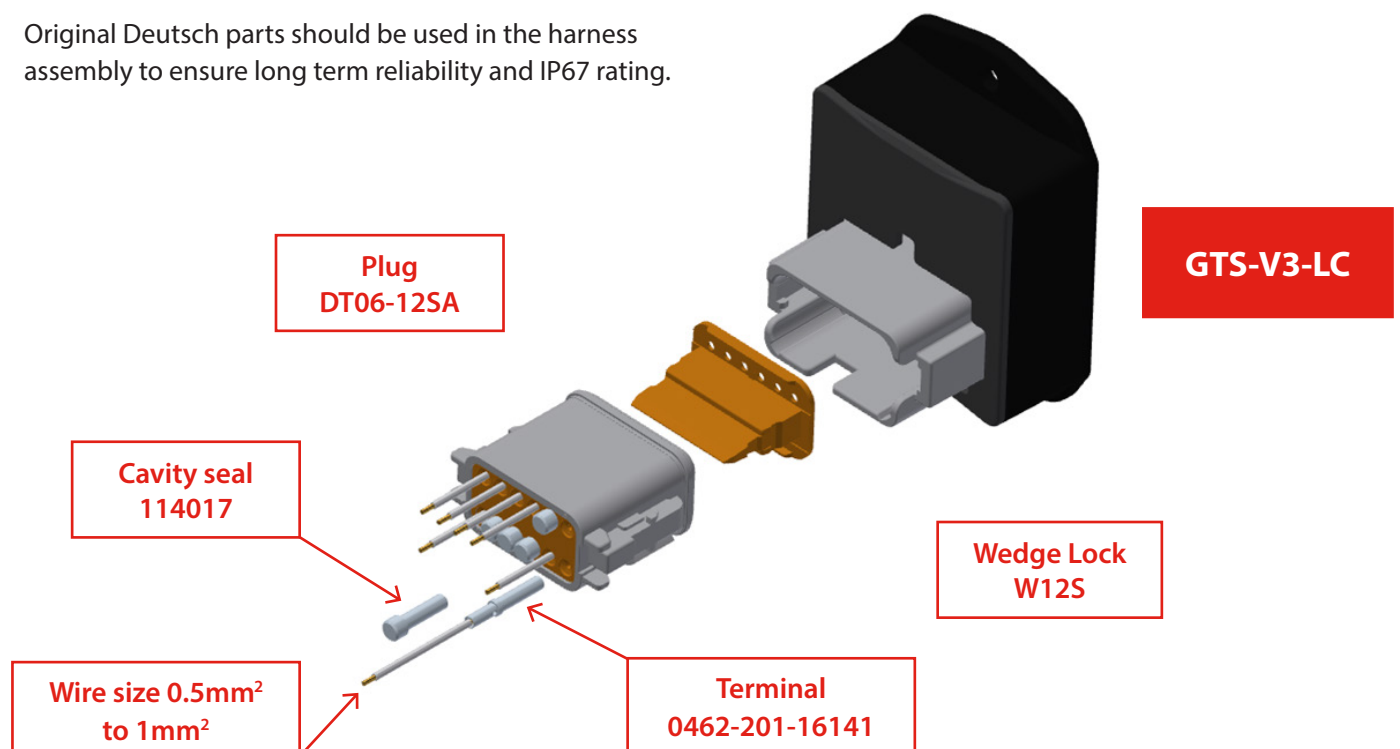
The GTS-V3 controller is E-marked and has deployed successfully all over the globe.

FEATURE	SPECIFICATION
Housing Type	Encapsulated ABS enclosure. Flame resistant.
Voltage range	16V to 32V
Current Consumption	Load current(to fans) + 50mA (max)
CAN interface (GTS-V3-XC)	ISO11898 / SAE J1939   125kbps to 1Mbps
Thermistor interface (GTS-V3-XT)	2 thermistor interfaces
Inputs	2 x digital inputs
Outputs (GTS-V3-HX)	2 x PWM sourcing (500Hz max)

FEATURE	SPECIFICATION
Outputs (GTS-V3-LX)	2 x PWM sinking (1kHz max)
Connector	12-way Deutsch DT series header
Programming	Via single RS232 interface
Mounting	2 x M4 screws
Operating temperature range	-40Deg.C to +75Deg.C
IP rating	IP69K
Approval ratings	E-mark/Regulation 10 (GTS-V3-XC)
Controls	E-fan system up to 20 fans

#### Harness Integration

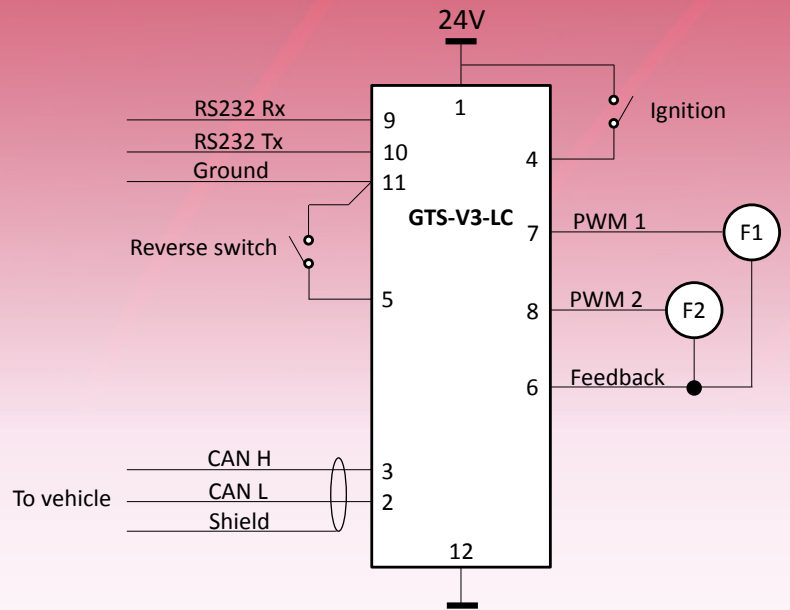
Original Deutsch parts should be used in the harness assembly to ensure long term reliability and IP67 rating.



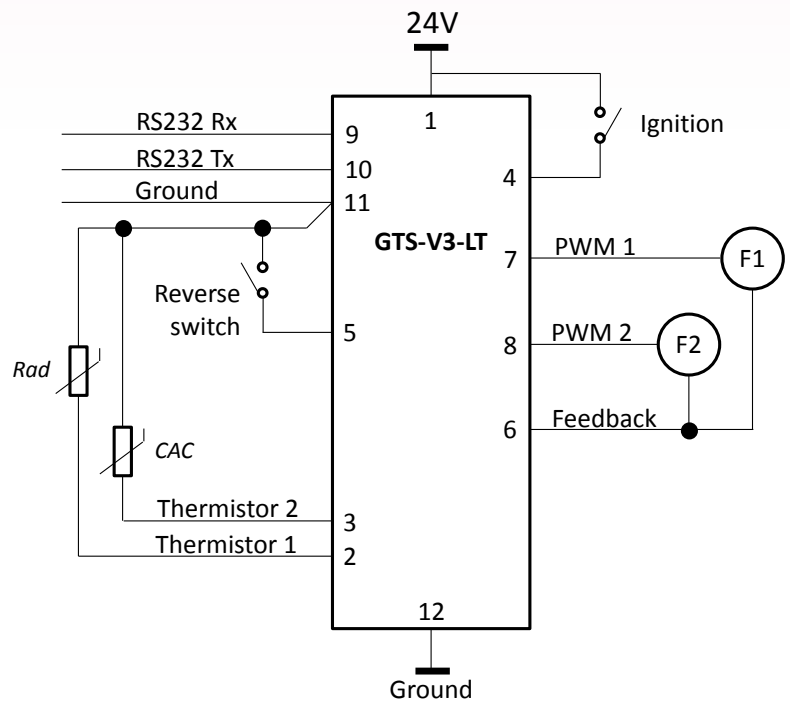
## GTS-V3 Pinouts

GTS-V3-HC / GTS-V3-LC	
PIN	Function
1	Battery +
2	CAN L
3	CAN H
4	Ignition / Wakeup
5	Switch input 1
6	Switch input 2
7	PWM 1
8	PWM 2
9	RS232 Receive
10	RS232 Transmit
11	Signal ground
12	Battery ground

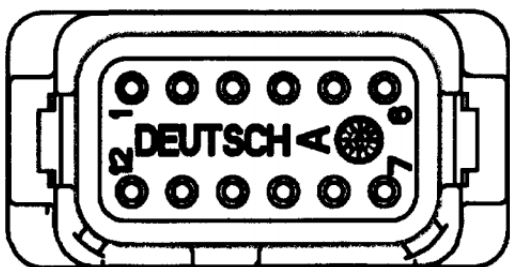
## An example cooling application with CAN



## An example cooling application with thermistors



GTS-V3-LT	
PIN	Function
1	Battery +
2	Thermistor input 1
3	Thermistor input 2
4	Ignition / Wakeup
5	Switch input 1
6	Switch input 2
7	PWM 1
8	PWM 2
9	RS232 Receive
10	RS232 Transmit
11	Signal ground
12	Battery ground



The pin positions are clearly visible when looking into the GTS-V3 connector.

## V3 controllers designed to fit Grayson Electric cooling systems

**Grayson**  
**eDrive**

**e** MOBILITY  
RANGE

### Electric Cooling System





#### System overview

The E-Drive (Electric fan cooling system) is designed to work only when required, lowering running costs, and environmental impact.

The unique configuration ensures that energy is not wasted and fuel savings of up to 10% can be achieved.



#### Features & Benefits

- Buy America Compliant
  - Improved fuel economy compared to Hydraulic systems
  - Reduced noise
  - Reduced CO2 emissions
  - Reduced weight
  - Reduced thermal events
  - Reduced maintenance time
  - Reduced clogging and cleaning
  - Easy troubleshooting
  - Designed to customer specifications
  - Standard 2 year warranty (extended warranty can be purchased)
  - Exceptional ROI
  - Fits next generation V3 controller
  - Communicates with engine ECS
  - Finger guards for fans
  - Lightweight fan
  - 40,000 hour fan life
  - Lightweight tube and fin design
  - Consists of 2 heat exchangers, one radiator, and a charge air cooler
  - Up to 20 variations of fans available depending on specification requirements
  - Stainless or Carbon Steel frame
  - Fan reverse button
  - Diagnostics & fault indicator LED
  - Independently isolated heat exchangers
-  Proven Technology
  -  Improved Recycling capability
  -  Save on maintenance costs
  -  2 year Warranty on Heat exchangers

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