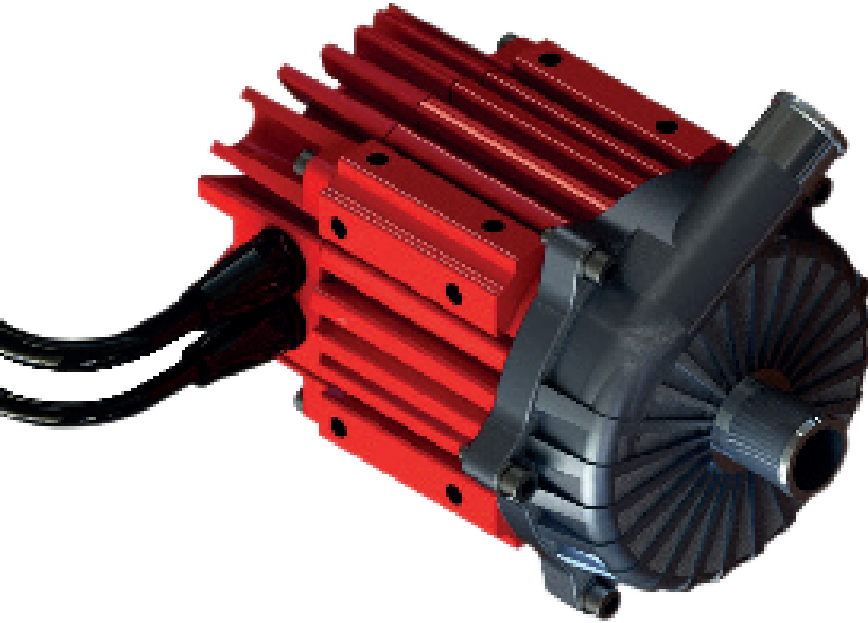


ELECTRIC WATER PUMP RANGE

generations of knowledge



High flow at
low pump



Up to
40,000
hour life



Quiet
operation

SPECIFICATION & TECHNICAL INFORMATION

ISSUE 4

designed to the highest standards / built to deliver



Built to deliver



Higher flow at lower pump speed



Up to 40,000 hour life



Quieter operation



ELECTRIC WATER PUMP

Grayson Thermal Systems 24V electric water ethylene-glycol (WEG) pump range has been developed specifically for hybrid, electric, hydrogen and ICE vehicle applications.

The pumps, suitable for global use in a variety of operating and environmental territories, are lightweight whilst offering long motor life, variable flow control and exceptional corrosion and water resistance. Mounted in a number of orientations, without impacting reliability or performance.

BENEFITS

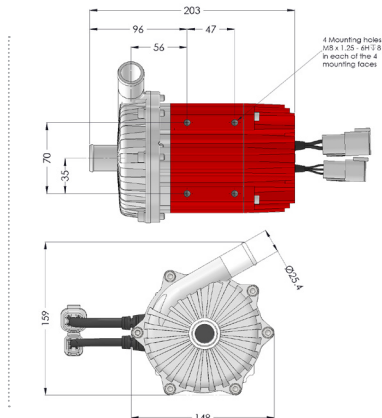
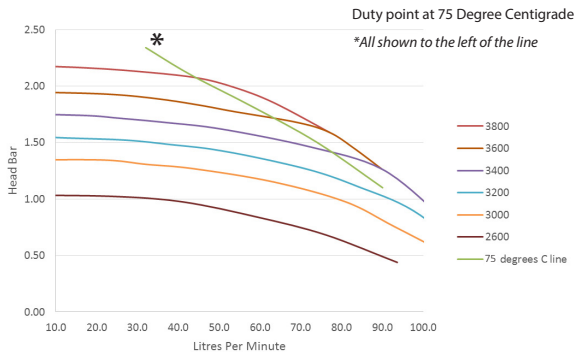
- High flow / pressure at low pump speed
- Can be mounted in various orientations
- Up to 40,000 hour life (motor)
- 2 year warranty
- Extremely robust design
- Quiet operation
- Various methods of control
- Corrosion and coolant resistant
- Integrated controller and power electronics
- Brushless DC permanent magnet motor
- Designed to match industry standard control protocols

FEATURES

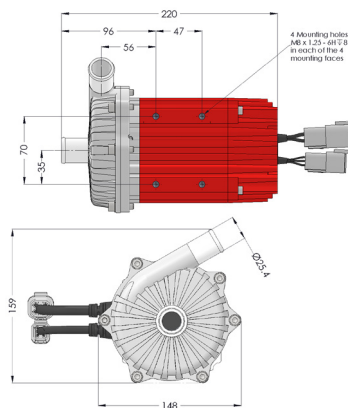
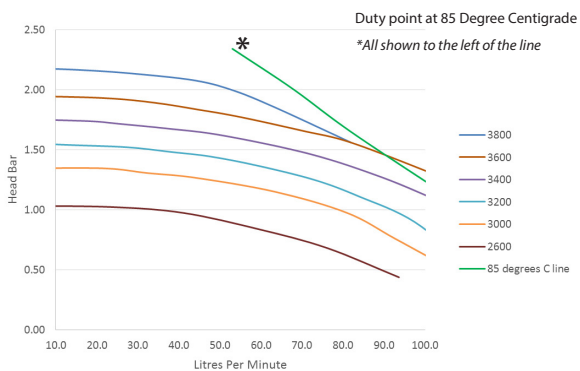
- No Media Function - Run Dry Protection
- Triple 'O' Ring seal design with EU high quality spring
- Long life SIC / EPDM sealing
- Heavy duty bearings
- EMC certified
- Integrated overvoltage protection
- Integrated thermal protection
- Stand alone / PWM / CAN control configurations



WP-3970-000 PERFORMANCE & SIZE



WP-6550-000 PERFORMANCE

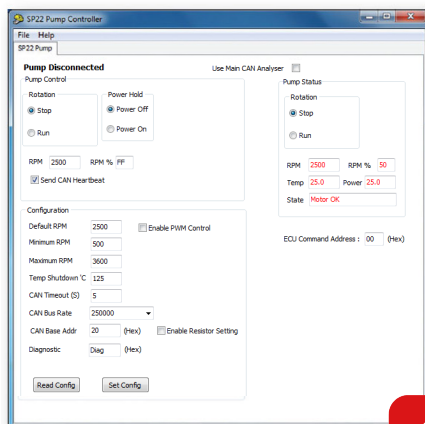


EASY CONFIGURATION

- 1 PC based app to configure the pump (free app)
- 2 Run the pump for test purposes
- 3 Used in conjunction with CAN interface

EASY CONTROL

- 1 Default (On/Off)
- 2 CAN SAE J1939
- 3 PWM



TECHNICAL SPECIFICATIONS

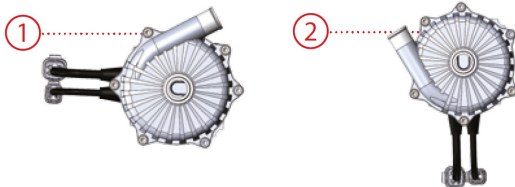
	MINIMUM	TYPICAL	MAXIMUM	UNITS
VOLTAGE	18	27.2	32	V DC
CURRENT	-	16	19	A
TARGET LIFE	10,000	-	40,000	Hours
FLUID TEMPERATURE	-20	-	WP-3970-000: 75 WP-6550-000: 85	°C
AMBIENT TEMPERATURE	-40	-	85	°C
STORAGE TEMPERATURE	-40	-	95	°C
WETTED MATERIALS	Cast aluminium & stainless steel			
PRESSURE	-	1.6	2.2	bar
FLOW RATE	-	45	100	l/min
MOTOR IP	-	-	69K	IP
WEIGHT	-	WP-3970-000: 4.2/9.3 WP-6550-000: 4.6/10.1	-	kg/lb

TECHNICAL PARAMETERS

Geometry	WP-3970-000: X = 203mm Y= 159mm Z= 148mm WP-6550-000: X = 220mm Y= 159mm Z= 148mm	Head Orientation	170° x 2 options via inbuilt motor mountings, please ask advice for other options
Core Materials	Aluminium body, aluminium head and brushless motor	Outlet Size	25.4mm O.D. (1") / 20mm I.D. (3/4")
Connectors	DTM and DTP connectors 6 and 4 Pin, heavy duty vehicle approved cable	Fluid Temperature	WP-3970-000: -20 to 75°C WP-6550-000: -20 to 85°C
Fuel Size	25A recommended	Ambient Temperature	-40 to 85°C
Current/ Maximum Current	Rated current 16A / maximum self-regulating at 19A, operational 3A - 17A	Voltage	24V, (operational range 18V - 32V) (Absolute maximum) Optimised to 27.2 V DC
Flow/ Maximum Pressure	Rated 45 l/min (11.8 US gpm) / maximum 120 l/min (32.5 US gpm)	Relevant Standards	J1939, ISO7637, ISO16750, IP69K
Pressure/ Maximum Pressure	Rated 1.6 bar (24 psi) / maximum 2.2 bar (33 psi)	Testing	HALT (Highly Accelerated Life Testing), including arduous cold, hot and vibration testing from -60°C to 125°C combined with vibration inputs from 2.5g RMS to 11.45g RMS
Inlet Pressure	Grayson Thermal Systems Electric Pump requires inlet pressure greater than +0.03bar (+0.45psi) at the operating speed under all operating conditions	Control Capability	CAN J1939 / PWM / Standalone
Weight	WP-3970-000: 4.2kg / 9.3lb WP-6550-000: 4.6kg / 10.1lb	Electronics	Fully encapsulated, protected against voltage transients and reverse polarity connection
Motor Life	Up to 40,000 hours design life	Storage Temperature	-40 to 95°C
		No Media Function	Run Dry Protection

Recommended Mounting Orientations

Vertical & Horizontal Mounting



For more information visit [graysonts.com](https://www.graysonts.com)

