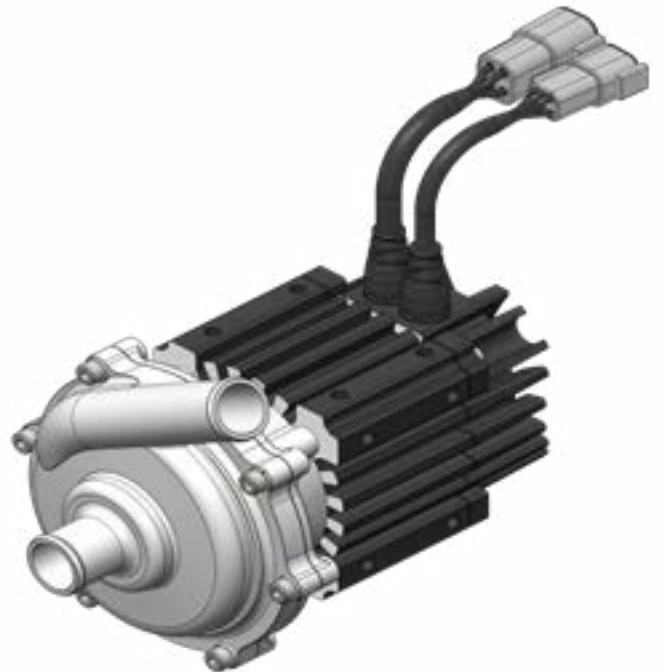


ELECTRIC WATER PUMP (EWP) RANGE

generations of knowledge

MECHANICAL SEAL
MAGNETIC DRIVE



Designed to the highest standards Built to deliver



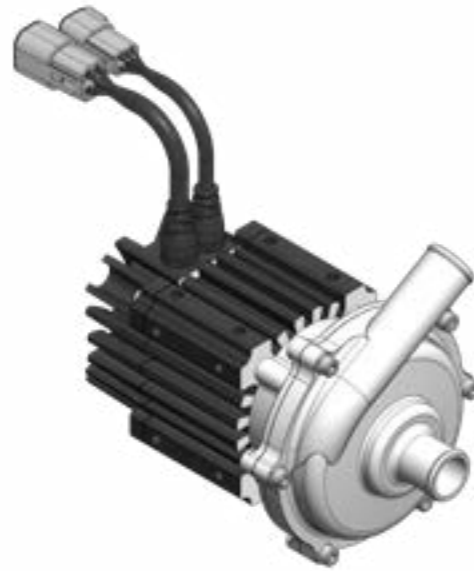
Voltage range
18V-32V



Up to 40,000
hours motor life



>2bar maximum
System Pressure



Compatible with
de-ionised water



Suitable for fuel
cell application



Compatible with
BTMS & electric
motor cooling



MAGNETIC DRIVE ELECTRIC WATER PUMP RANGE 5A-6792 (Base Model)

For superior reliability, low maintenance and high flow vs pressure performance for your hybrid, electric, hydrogen or internal combustion application, our Magnetic Drive Electric Water Pump is your ideal solution.

Magnetic Drive Electric Water Pump provides you with a robust and reliable solution that uses advanced magnetic drive technology to circulate coolant through the pump head and around the circuit.

Its heavy-duty and high-strength magnetic coupling means no connection between the electric motor shaft and the impeller is required, removing the need for a seal – and significantly reducing the risk of coolant leakage – alongside removing the need for a lubricant.

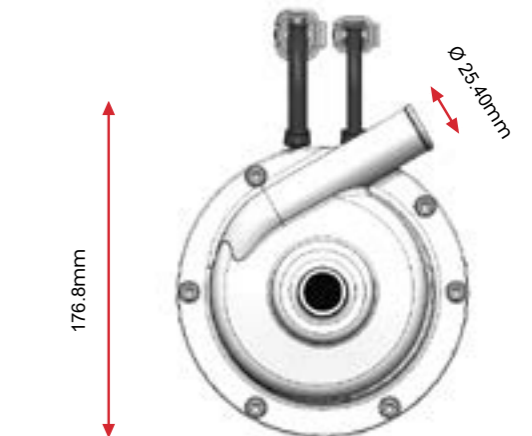
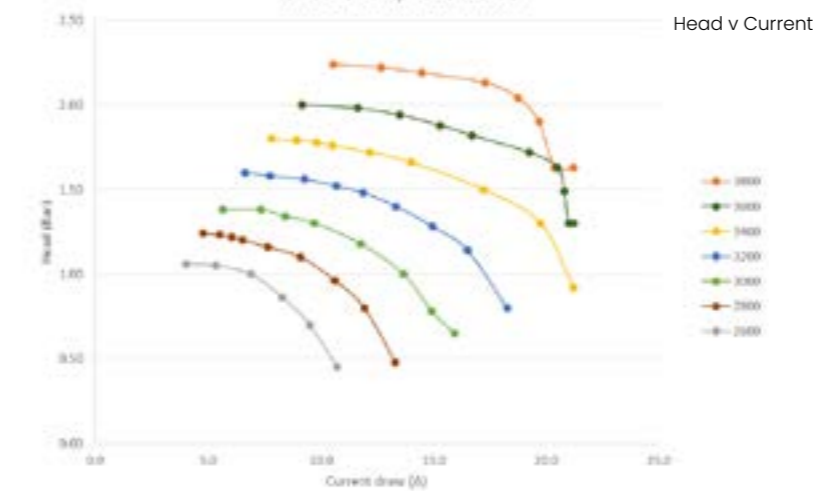
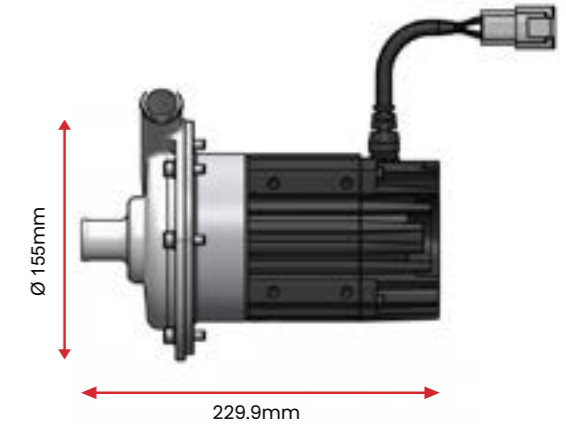
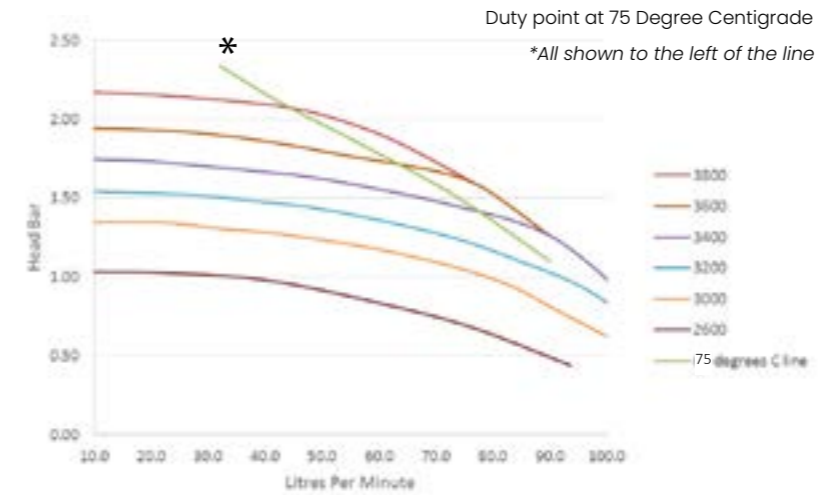
FEATURES

- High flow/ pressure at low pump speed
- Can be mounted in various orientations
- Up to 40,000 hour life (motor)
- Extended warranty options
- Extremely robust design
- Quiet operation
- Various methods of control
- Corrosion resistant
- Integrated controller & power electronics
- Brushless DC permanent magnet motor
- De-ionised water compatible
- No mechanical seal
- Reduced maintenance
- 3Nm magnet
- No media function – run dry protection
- Heavy duty bearings
- EMC certified
- Integrated voltage protection
- Integrated thermal protection
- Standalone/ PWM/ CAN control configurations
- Motor manufactured to Class F temperature rating
- Multiple pump operation on single CAN network through addressing
- Heavy-duty magnet coupling

Enquire today
www.graysonts.com



5A-6792 PERFORMANCE & SIZE



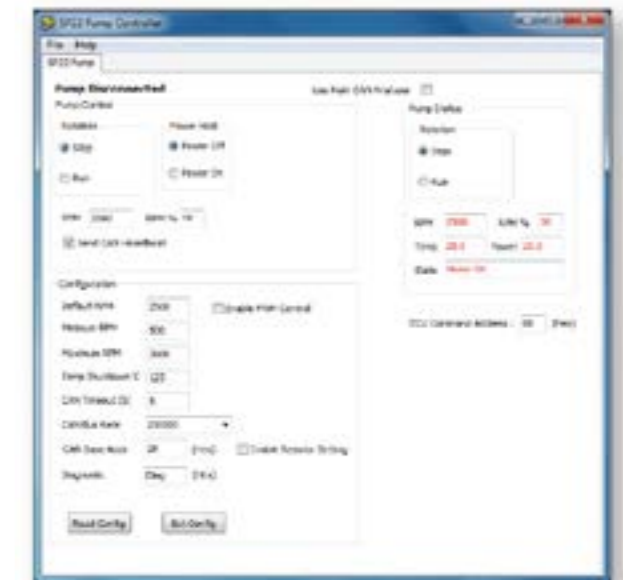
CONFIGURATION AND CONTROL

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



Enquire today
www.graysonts.com



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	-	75	°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	-	4.5/ 9.9	-	kg/lb

TECHNICAL PARAMETERS

Geometry	X = 229.9mm Y= 176.8mm Z= 155mm
Core materials	Aluminium body, aluminium head and brushless motor
Connectors	DTM and DTP connectors 6 and 4 Pin, heavy duty vehicle approved cable
Fuse size	25A recommended
Current / Maximum current	Rated current 16A / Maximum self-regulating at 19A, operational 3A - 17A
Flow / Maximum flow	Rated 45 l/min (11.8 US gpm) / Maximum 120 l/min (32.5 US gpm)
Pressure / Maximum pressure	Rated 1.6 bar (24 psi) / Maximum 2.2 bar (33 psi)
Inlet pressure	Grayson Thermal Systems Electric Pump requires inlet pressure greater than +0.03bar (+0.45psi) at the operating speed under all operating conditions
Weight	4.5kg/ 9.9lb
Motor life	Up to 40,000 hours design life
Head orientation	170° x 2 options via inbuilt motor mountings, please ask advice for other options
Outlet size	25.4mm O.D. (1") / 20mm I.D. (3/4")
Ambient temperature	-40 to 85°C
Voltage	24V, (operational range 18V - 32V) (Absolute maximum) Optimised to 27.2 V DC
Relevant standards	J1939, ISO7637, ISO16750, IP69K
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
Control capability	CAN J1939 / PWM / Standalone
Electronics	Fully encapsulated, protected against voltage transients and reverse polarity connection
Storage temperature	-40 to 95°C
No media function	Run Dry Protection

Enquire today

www.graysonts.com



Designed to the highest standards
Built to deliver



Built to deliver



Higher flow at lower pump speed



Up to 40,000
hour motor life



Quieter
operation



ELECTRIC WATER PUMP RANGE

5A-3970 & 5A-6550 (Base Models)

Grayson Thermal Systems 24V mechanical seal 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

Additional benefits of 5A-6550

- Operates at a higher duty temperature

FEATURES

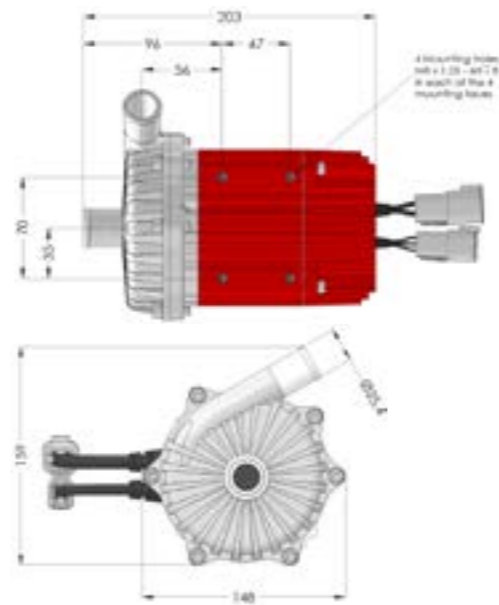
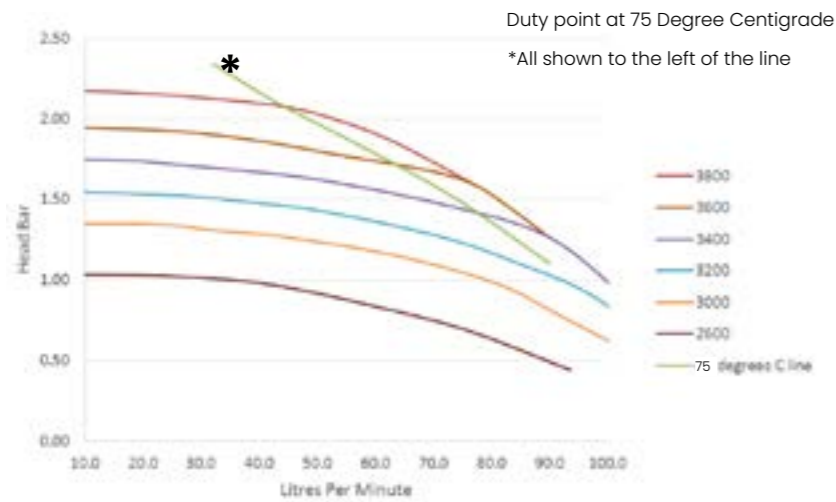
- No Media Function - Run Dry Protection
- Triple 'O' Ring seal design with EU high quality spring
- Long life SIC / EPDM sealing
- Heavy duty bearings
- EMC certified
- Integrated overvoltage protection
- Integrated thermal protection
- Stand alone / PWM / CAN control configurations
- Motor manufactured to Class F temperature rating
- Multiple pump operation on single CAN network through addressing

Enquire today

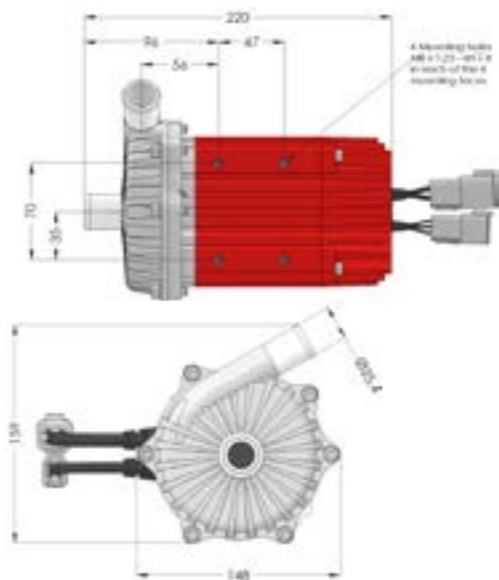
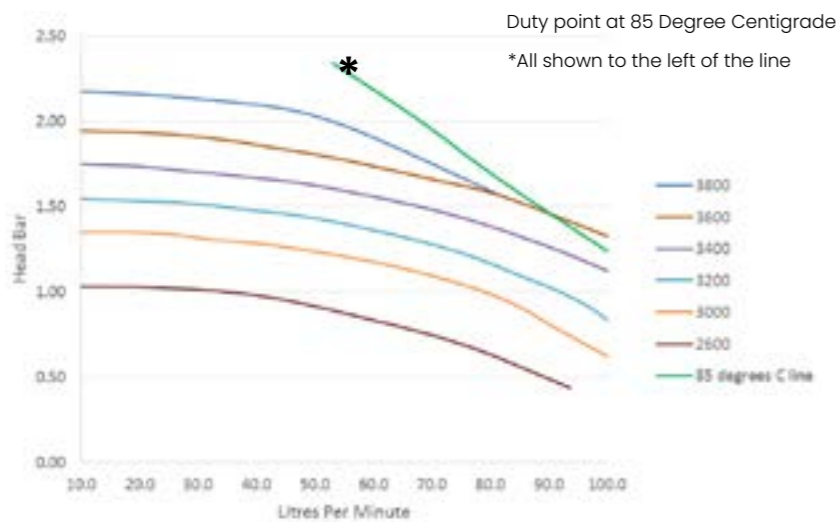
www.graysonts.com



5A-3970 PERFORMANCE & SIZE



5A-6550 PERFORMANCE & SIZE



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	-	5A-3970: 75 5A-6550: 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	-	5A-3970: 4.2/9.3 5A-6550: 4.6/10.1	-	kg/lb

TECHNICAL PARAMETERS

GEOMETRY	5A-3970: X = 203mm Y= 159mm Z= 148mm 5A-6550: 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	5A-3970: -20 to 75°C 5A-6550: -20 to 85°C
FUSE 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 FLOW	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	5A-3970: 4.2kg / 9.3lb 5A-6550: 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 and Horizontal Mounting

