Electric Vehicle Charging Stations
Alternative Energy
GRI Product Application Sheet

GRI PUMPS
A GORMAN-RUPP COMPANY
The Pump People.

Market: Alternative Energy

Application/OEM Device: Charging Stations for Electric Vehicle (EV)

- Charging stations produce large amounts of heat as EV's are charged.
- Electronics will fail due to long term exposure to high temperatures.
- Manufacturers are designing devices to charge EV's faster and more efficiently.
  - Less wait at the pump.

Purpose of pumps: Moving fluid

- Fluid cooling loops are used to remove heat from electronics.
- Cable cooling for the components (i.e. cables, handles) that are handled by the end user.

Pump models: Integrity Series Magnetic Drive Circulation Pumps

Integrity Series Pumps Market Advantages

- **Brushless DC motors**: 12-24, 36, 48V
- **Motors manufactured in-house** - Designed to customize pumps for OEM specific flow and pressure requirements.
- **Smart** - Proprietary algorithm provides smart feedback i.e.: dry run, over/under voltage, over temperature alerts, etc.
- **Multiple Control Options**
  - 0-5v Analog
  - PWM Digital
  - CAN-Bus: J1939
  - Microprocessor Driven
- **Available Agency Approvals**
  - SAE J1455
  - UL778: Motor-operated water pumps.
- **Magnetically driven** - Sealless
  - No mechanical seals to wear out over time.
  - Motor is contained away from the fluid.
- **Maximum temperature:**
  - Up to 221°F (105°C) (Electronics are separate from pump).
  - Up to 149°F (65°C) (Electronics are housed within the pump).
- **Multiple OEM options available**


INTG3 Series


INTG7 Series


INTG8 Series

Pump Series	Maximum Flow GPM, (LPM)	Maximum Head FT, (PSI)	Maximum System Pressure	Motor Specs/ Voltages
INTG3	8.85, (33.5)	37.0, (16.0)	75 PSI	12-24 VDC
INTG7	22.0, (83.0)	80.0, (35.0)	75 PSI	12-24, 36, 48 VDC
INTG8	39.0, (145.0)	70.0, (30.0)	75 PSI	12-24, 36, 48 VDC

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