LOOP™ ENERGY

S1200

120 kW Hydrogen Fuel Cell

Efficiency Where It Counts

Up to 60% net system efficiency in cruise mode

Wide Cruise Range

Across a wide power range 17-83 kW

Low Cost Integration

Factory preprogrammed system & flexible packaging

LOOP ENERGY | S1200

Enabling Zero-Emissions Heavy Duty Vehicles via High Fuel Efficiency & Wide Cruise Range

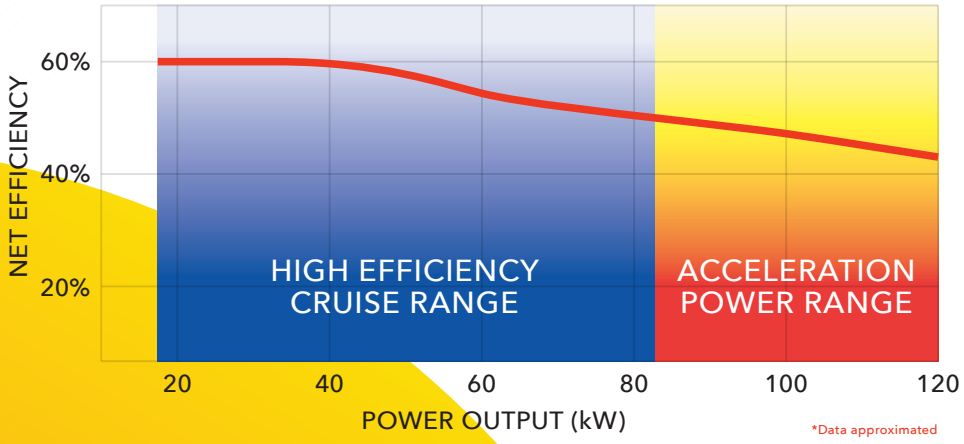
Product Highlights

- **Up to 120 kW peak power using next-gen bipolar plates**
- **Wide cruise range with up to 60% fuel efficiency**
- **Small foot print, flexible packaging, IP67 protection**
- **Dynamic response time over a wide power range**
- **Wide temperature range with freeze-start capability**
- **Low cost integration**

S1200 sets a new standard in fuel efficiency with up to 20 kWh/kg NET energy output at the system level. Most importantly, this level of fuel consumption is available in cruise mode as opposed to idle power.

S1200 is designed for the real world. We know that no two routes are the same.

So S1200 features a wide cruise mode power range that ensures fuel efficient operation for under just about any conditions. At the same time, impressive acceleration power is always there, should the real world conditions require it.



*Data approximated

S1200 Key Specifications

Power & Efficiency

Net Rated Power	100 kW
Net Rated Power Efficiency	48%
Net Intermittent Peak Power	110-120 kW
Net Peak Power Efficiency	40-44%
Net Cruise Mode Range	17-83 kW
Net Cruise Mode Range Efficiency	50-60%

Physical Dimensions

Dimensions (L x W x H)*	1,008 mm x 679 mm x 787 mm
Mass (dry)**	<300 kg
Volume	539 L

Compliance

Certifications	CE to IEC 62282, UN ECE R10

Optional Add-ons

Heat Exchanger, Air Filters, Service Kits, Radiator

* Estimated. All dimensions include export power DC-DC, air compressor system, fuel recirculation and cooling system (radiator not included)
** Dry weight. Includes DC-DC & cooling system (radiator not included)

Electrical Interface

Output Voltage Range	520 VDC–850 VDC
Maximum Output Current	300 A, from DC-DC
Low Voltage Supply, Nominal	24 VDC
High Voltage Supply Min. Voltage	Internally supplied
Control Interface	CAN Bus V2.0B

Hydrogen Interface

Fuel Quality	SAE J2719 or ISO 14687 (Grade D)
Fuel Inlet Pressure	14 bara

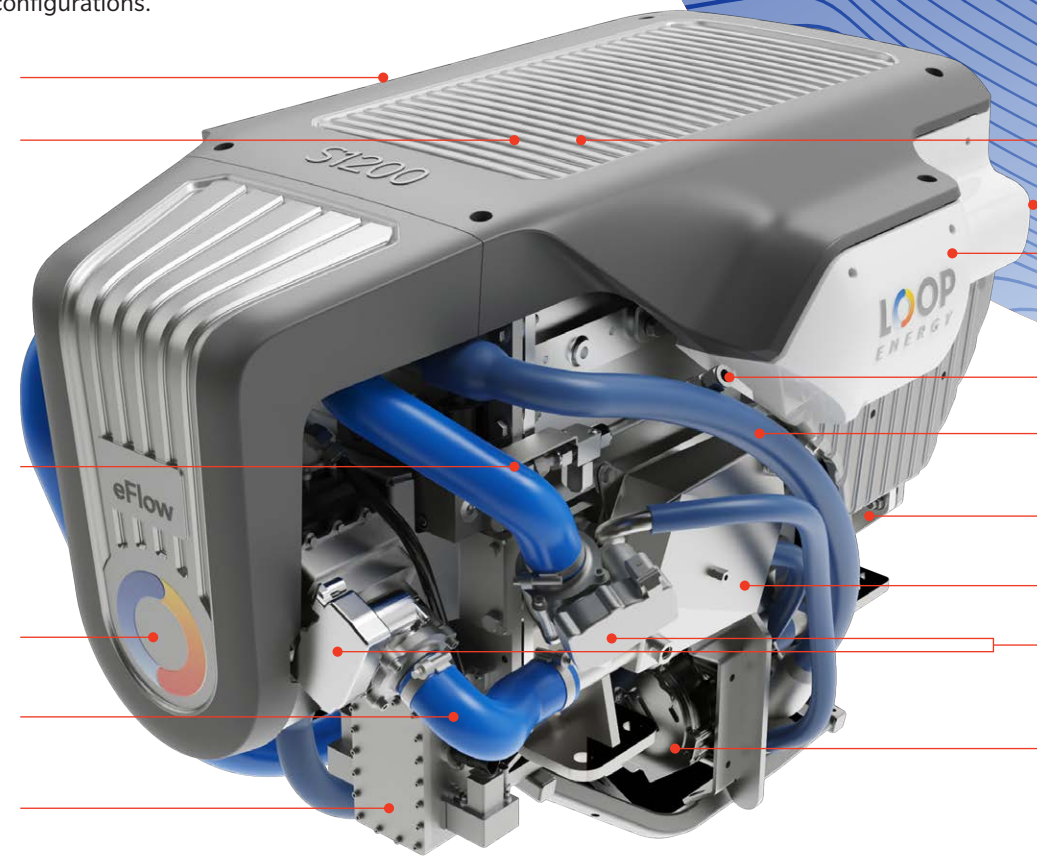
Cooling & Environmental Temperatures

Ingress Protection, Enclosure	IP67, IEC 60529
Recommended Coolant Type	50/50 DI/Glycol mix, BASF Glysantin FC G 20 or similar FC-specific coolant
Ambient Operating Temperature Range	-30°C to +50°C
Storage Temperature Range	-30°C to +85°C

All specifications are subject to change without notice.

Designed for Versatility

S1200 is designed as a fully-integrated system that not only offers a plug-and-play solution, but we have also made the packaging flexible with moveable components. This allows us to customize the S1200 according to your spacing requirements and platform configurations.



- Export DC-DC
- Fuel Cell Control Unit
- Dry Air Input
- Humidifier
- Humidifier Air Input
- Condensate Trap
- Fuel Cell Stack
- Air Inlet
- Compressor
- Hydrogen Inlet
- Coolant Input Hose
- Compressor Inverter
- Intercooler
- Air Control Valves
- Coolant Pump

Efficiency Where It Counts

Up to 60% net system efficiency in cruise mode

Powered by eFlow™, Loop Energy has improved S1200's fuel efficiency over our existing products by another 20%, bringing the future forward by making hydrogen-diesel fuel cost parity a reality for the first time.

With our latest product operating at up to 60% efficiency, hydrogen-electric can now be cost-competitive with the fuel costs for diesel vehicles.

Wide Cruise Range

Across a wide net power range 17-83 kW

S1200 offers users a wide cruise operating range that adjusts power output to meet the drive cycle requirements.

S1200 delivers its industry leading fuel efficiency over a wide operating power range. As a result, S1200 can deliver fuel savings for just about any drive-cycle or operating strategy.

Low Cost Integration

Factory preprogrammed system & flexible packaging

As a complete fuel cell system integrated with cooling system and DC-DC converter, S1200 offers OEMs a fully-integrated ready-to-adopt solution.

Working closely with our customers, S1200 was designed for flexible configuration, to reduce both time and cost in the integration phase for any application.

LOOP™
ENERGY

More Power
To Move You

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EN-NA-230426.1