DG MATRIX
Clean Secure Reliable Power

THE DG MATRIX
POWER ROUTER for VEHICLE ELECTRIFICATION

One Solution, Endless Possibilities

The DG Matrix Power Router for vehicle electrification is designed to accelerate electrification with ultimate flexibility and unparalleled performance. As an all-in-one solution for integrating EV charging with distributed energy and building power, the Power Router brings a new level of versatility, enabling faster, easier, and more cost-effective deployment across various charging applications, from 200 kW to multi-MW.

- **Industry-leading Total Cost of Ownership**
- **Single-unit Integration of Distributed Energy**
- **Dynamic Power Sharing with Ultra-high Granularity**
- **Efficiency Up to 98%**
- **Modular Design with Programmable Ports**
- **Simplified Installation and Commissioning**
- **Ultra-compact Form Factor**
- **High-reliability Design**
- **AI-driven Diagnostics and Reporting**

Experience the future of electrification with DG Matrix.

200-kW / 400-kW Power Router

Specifications			
Mechanical Specifications	**Units**	**200-kW System**	**400-kW System**
Dimensions (L x W x H)	in / mm	40 x 40 x 120 / 1,016 x 1,016 x 3,048	
4 Port Version (Upgradeable to 6 Ports)* *Standard Configuration: 2 Universal Ports, 2 DC Ports			
Weight (estimated)	lbs / kg	3,858 / 1,750	4,299 / 1,950
6 Port Version** **Standard Configuration: 2 Universal Ports, 4 DC Ports			
Weight (estimated)	lbs / kg	4,409 / 2,000	4,850 / 2,200
Electrical Specifications (Max.)	**Units**	**200-kW System**	**400-kW System**
DC Port			
DC Voltage Range	V_{DC}	150 - 920	
DC Current	A_{DC}	350 A at 400 V_{DC} and 250 A at 800 V_{DC}	700 A at 400 V_{DC} and 500 A at 800 V_{DC}
Universal Port			
DC Voltage Range	V_{DC}	150 - 920	
DC Current	A_{DC}	350 A at 400 V_{DC} and 250 A at 800 V_{DC}	700 A at 400 V_{DC} and 500 A at 800 V_{DC}
AC Voltage Range (3-Phase)	V_{AC}	400 - 480	
AC Current	A	270	540
Power Factor		>0.99	
Frequency	Hz	50 / 60	
Current THD	%	<5	
Efficiency	%	96-98%	
General Specifications	**Units**		
Operating Temperature Range	°F / °C	-40 to 131 / -40 to 55	
Relative Humidity	%	5 to 95 (including condensing)	
Noise Level	dBA	<65	
Cooling Method		Liquid Cooled (sealed)	
Enclosure (ingress protection)		IP65/NEMA 3R, IK10	
User Interface		Alphanumeric LCD Display (standard) LCD / OLED Touch Screen (optional) E-Stop Push Button	

The DG Matrix Difference

Flexible, Efficient, Reliable

Industry-leading Total Cost of Ownership

- Up to 98% efficiency
- Up to 50% lower installation costs
- Up to 70% lower utility bills

Fastest and Easiest Deployment

- Single, standardized solution for global deployments
- Cloud-based commissioning in less than 2 hours

Advanced **Dynamic Power Sharing**

- Automatic load balancing with Ultra-high granularity
- Capability to charge up to 8* vehicles simultaneously
- Elimination of stranded charging capacity to maximize revenue and efficiency

*depending on configuration

Ultra-compact Form Factor

- Up to 10-X reduction in footprint and volume
- Easy deployment in space-constrained areas
- Reduced logistics costs and risks

Single-unit Integration of Distributed Energy

- Programmable ports to integrate multiple AC and DC energy sources simultaneously
- Simplification of up to 10+ systems into one unit
- Elimination of external inverters, rectifiers, transformers, and more

Ultra-reliable by Design

- AI-driven diagnostics and real-time monitoring to maximize uptime
- Modular design with low mean time to repair
- Sophisticated reliability testing and reporting approach

Seamless Grid-services Integration

- Integrated energy management software
- Vehicle-2-grid (V2G) compatibility
- Virtual power plant (VPP) and demand response capabilities

Legacy Limitations vs. DG Matrix Innovations

Legacy System:

- Many disparate components
- Larger footprint
- Longer, costlier deployment

DG Matrix System:

- **Single-unit** solution
- **Smaller** footprint
- **Quick** and **cost-effective** deployments

Grid Upgrade Independence and Lower Energy Costs with Vehicle Electrification and Distributed Energy

With conventional EV charging infrastructure, long permitting cycles are common, with many customers waiting as long as 3 to 5 years to secure sufficient power for their sites. These delays lead to longer time-to-revenue, lost value, and increased project costs.

The DG Matrix Power Router provides a faster, more efficient alternative by seamlessly integrating vehicle electrification with distributed energy, enabling greater control over energy management. A single unit can combine multiple AC and DC energy sources with vehicle electrification, helping to avoid lengthy grid upgrades, reduce energy costs, lower emissions, and more.

With programmable ports, the DG Matrix Power Router scales with changing energy needs. The Power Router can be adapted to allow the addition, swapping, or removal of energy sources or loads as requirements evolve. This means that site scaling can be achieved without overhauling existing infrastructure.

Unlock unmatched flexibility and unparalleled performance with the DG Matrix Power Router.

Deploy Faster, Easier, and More Cost-Effectively

Conventional chargers are often complex and expensive to install, leading to long project timelines, challenging installations, and high costs. Additionally, integrating distributed energy with legacy solutions requires dozens of components, a complex design process, and substantial added expenses.

DG Matrix simplifies complex projects with a single-device solution, offering an all-in-one system for vehicle electrification and distributed energy needs. Instead of integrating 10+ systems, a single Power Router unit can power fleets from clean, renewable energy. Additionally, the ultra-compact form factor allows for faster deployment without the need for specialized equipment. After a simplified installation, the site can be operational in no time with cloud-based commissioning, reducing commissioning times from days or weeks to hours or even minutes.

For faster and easier electrification, DG Matrix is the right partner to accelerate your electrification journey.

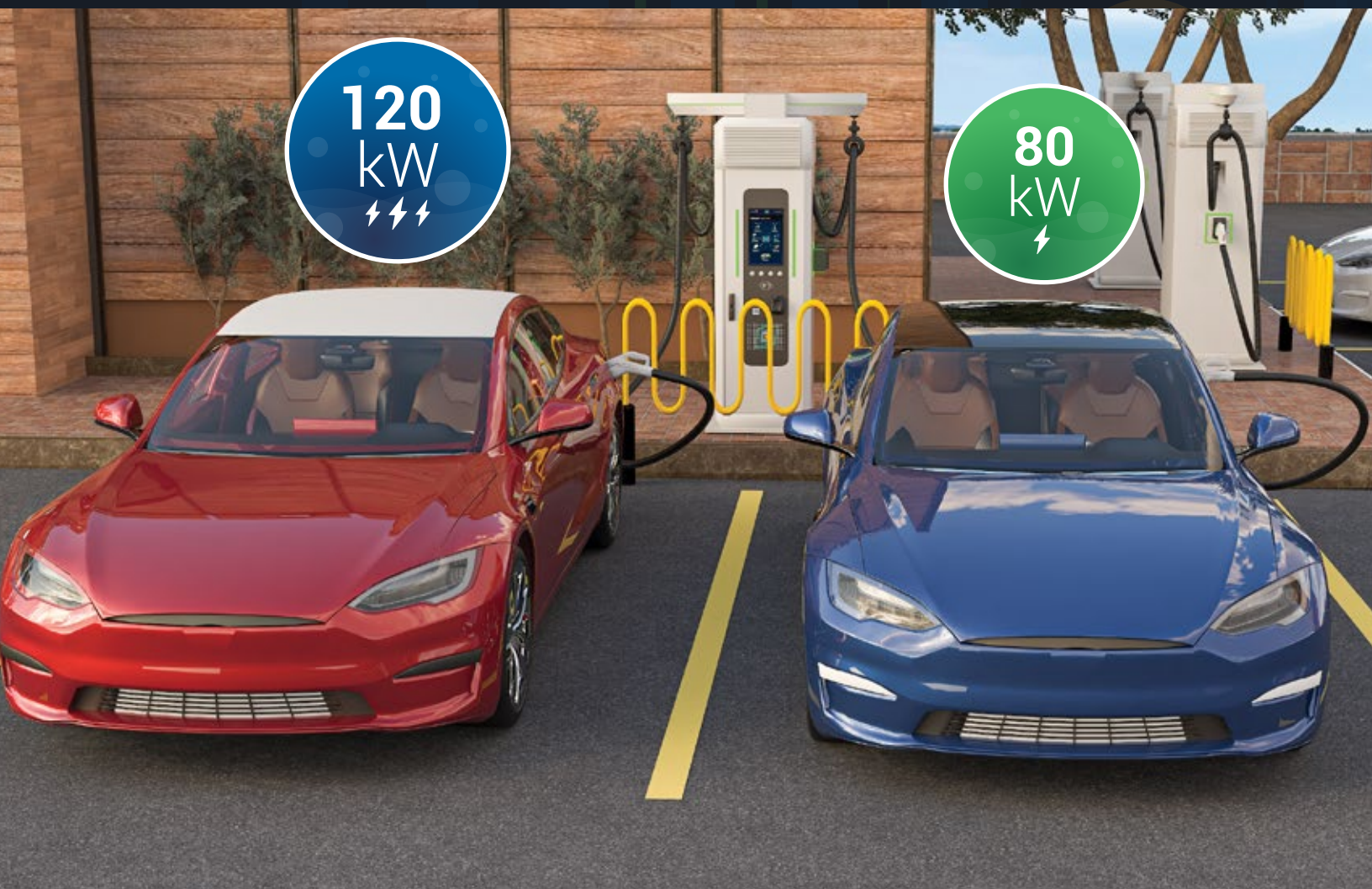
Ultimate Flexibility and Performance with Dynamic Power Sharing

EV charging infrastructure is valuable, and maximizing the performance of the charging system is critical. However, most charging technologies are only capable of power sharing in increments of 20-, 30-, or even 50-kW, leading to underutilization, loss of revenue, and slower charging speeds.

DG Matrix Power Router technology enables power sharing with ultra-high granularity, eliminating stranded capacity and ensuring that every kilowatt of power is fully utilized in the vehicle electrification system.

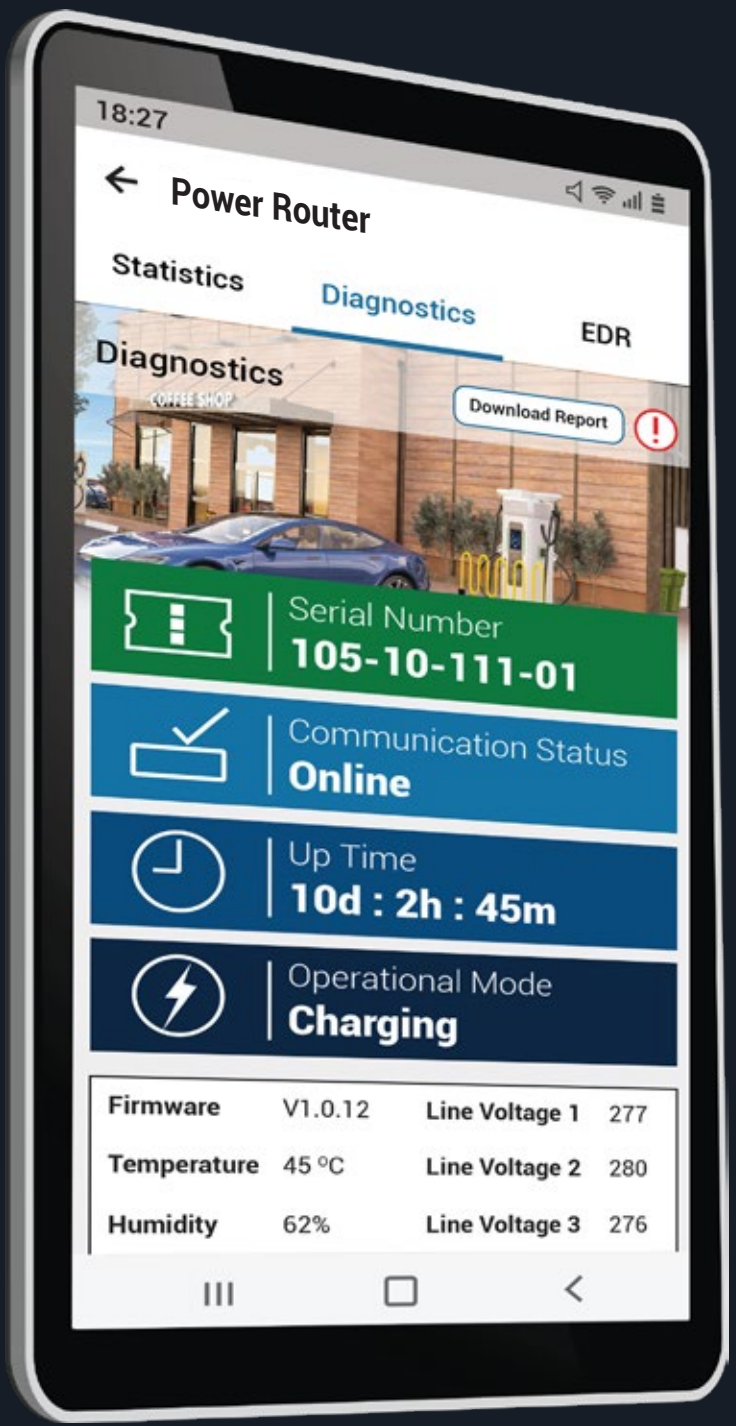
Flexible power sharing allows multiple vehicles to be charged simultaneously, providing each vehicle with the exact amount of power needed at any moment. With powerful energy management software, the ability to prioritize different vehicles is unlocked, enhancing fleet performance and adapting to changing needs.

This capability enables the reduction of average charging time per vehicle by utilizing the full capacity of each charger at any given time, decreasing charging speeds and/or increasing revenue by up to 50%*.



*depending on utilization rate

Designed for Reliability in All Conditions



Many EV charging solutions today experience significant reliability issues, with an estimated up to 30% of EV charging stations inoperational at any given time.

Reliability is a cornerstone of the DG Matrix approach. Power Router solutions are designed from the ground up with best-in-class components and manufacturing processes, augmented by rigorous testing and simulation procedures to ensure maximum uptime and consistent performance.

In the field, AI-driven diagnostics and remote monitoring capabilities offer real-time performance insights and quickly diagnose any issues that may arise.

Additionally, the simplified, modular design of DG Matrix ensures an industry-leading low mean-time-to-repair (MTTR), enabling charging stations to be restored to operation as quickly as possible.

Small Size, Big Impact: Deploy Anywhere and Everywhere with an Ultra-Compact Form Factor

The large size and weight of conventional EV charging solutions make them difficult and costly to transport and deploy. In space-constrained areas such as urban downtowns, convenience stores, and ports, typical EV charging solutions occupy too much valuable real estate.

DG Matrix offers footprint and volume reductions of up to 1/10 compared to competitive solutions. Instead of occupying multiple parking spaces or an entire sidewalk, DG Matrix can be installed in locations previously inaccessible to EV charging infrastructure. The compact size also leads to easier, more cost-effective logistics and enhanced redeployability.

Lower Costs and Reduce Utility Constraints with Advanced Grid Services

Legacy EV charging solutions are simply a load on the grid and remain idle for up to 80% of the time. Without smart energy management and grid interactivity capabilities, site owners incur higher energy costs and miss opportunities for additional revenue.

Through advanced grid services enabled by proprietary Energy Management Software, EV charging station operators can unlock new revenue streams and reduce energy costs while providing value-added support to grid infrastructure.

Capabilities such as vehicle-to-grid (V2G) and virtual power plant (VPP) enable the DG Matrix Power Router to serve as a dynamic link between the grid and the charging site. When utility prices are high, the Power Router can automatically source power from EVs, on-site generation, or energy storage to sell back to the grid at a premium.

Why Choose **DG Matrix**?

Only vehicle electrification solution designed for distributed energy and building power integration

Best total cost of ownership

Unmatched flexibility, efficiency, and scalability

Seasoned team with 500+ years of systems engineering experience

Proven operational excellence and a robust network of global partners

Foundation of reliability and customer support

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Subject to change at the discretion of DG Matrix