

VOLTSTAR[®]

POWER SYSTEMS

MARTIN
Special Technics

Generator Systems
for Mobile Power Supply



VOLTSTAR® POWER SYSTEMS

The Mobile Power Supply



The Brand

VOLTSTAR®

Our core competences, since the foundation of MARTIN Special Technics GmbH, is the mobile power generation through different generator systems.

Special and commercial vehicles often require additional power supply for their special applications and equipments, especially if there is no sufficient external power supply available.

We develop vehicle-specific generator systems, which are available either as belt-driven or as underfloor generator systems, depending on the power requirement. The VOLTSTAR® system is the space- and weight-optimized power system, especially compared to conventional emergency power generators with combustion engines and separate fuel and oil circuits.

VOLTSTAR® Generator Systems at a Glance



Underfloor Generator System Constant USc

High power range up to 100 kW via the switchable power take-off (PTO) with constant speed (c). Power generation only while parked up.



Underfloor Generator System variabel USv

Power generation via the PTO with variable speed (v). Power generation all the time - even driving - as long as the engine runs.



Belt-Driven Generator System AS

The generator is attached directly to the engine with a mounting kit and is driven by a belt. Power generation while parked up or driving.



Asynchronous Power Unit APU

The asynchronous generator is perfect for refrigerated vehicles, as it provides high power even while driving.

More information
on Page 6

More information
on Page 7

More information
on Page 8

More information
on Page 9



Construction Sector



Fire Brigades



Off Road Motorhomes



Sewer Rehabilitation



4 Breakdown Service



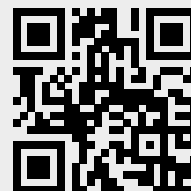
Military Police Use

VOLTSTAR® Systems Field of application

Our power generation systems can be used wherever a reliable power supply is needed and no power from the mains is available. With the VOLTSTAR® Generator Systems, a wide variety of power-intensive work can be carried out on the move, totally independent of the power grid.

Many commercial vehicles have already been equipped with VOLTSTAR® Generator Systems. Whether it's for a construction company, a fire brigade or a sewer rehabilitation company - they have already realised the great advantages of the VOLTSTAR® System. Motorhome manufacturer, breakdown services, police and the military also rely on our space- and weight-saving systems.

You need an independent power supply. Contact us - together we will find the right solution.



Find more application examples at www.martin-st.de

Why a VOLTSTAR® System?

The VOLTSTAR® Generator Systems are state of the art thanks to our R &D department. They offer many advantages compared to other generators especially the conventional generators.

Due to the generators low weight and the space-saving installation, we achieve on the one hand a higher payload and on the other hand more usable space for it. So you gain twice.

Power generator trailers often no longer comply with the current exhaust emission standards and are not allowed to operate in environmental zones. You don't have to worry any longer about expired main or exhaust emission inspections, as the generator is operated by the vehicle engine.

Occupational safety is the top priority for all generators. With a VOLTSTAR® Generator System no additional earthing and earthing measurement through a specialist is required.

Great Payload Gain

Compared to conventional gasoline generators VOLTSTAR® Generator Systems are extremely light. Meaning more payload for your essential equipment and materials.



Great Space Gain

The generators smart mounting under the hood or under the vehicle gives you more usable space. Only the power distribution box / VOLTSTAR® box with the electrical safety technology inside occupies some space.



Time Saving

The VOLTSTAR® generator is always on board. You don't need an additional generator trailer. When ever you need power you have it. No more unnecessary journeys back to the company for the trailer. That gives you more time for the actual work.



Security

Compared to conventional combustion units, VOLTSTAR® systems will be earthed when installed. Therefore you can connect any electrical device without hesitation.



Low Maintenance

Our VOLTSTAR® systems are low-maintenance. Due to high-quality components and a high percentage inhouse production, you can expect very long maintenance intervals. The service can be carried out easily and in short time by trained professionals.



Environmentally friendly

The VOLTSTAR® system is powered by the engine of the vehicle. This ensures the latest exhaust emission standards and an optimised fuel consumption.

VOLTSTAR® Underfloor Generator System constant (USc)

Operated via the switchable power take-off (PTO) with constant speed

The VOLTSTAR® Underfloor Generator System (USc) is installed underneath the vehicle. By engaging the PTO the generator starts. Only the power distribution box with the electrical safety technology will be located in the vehicle.

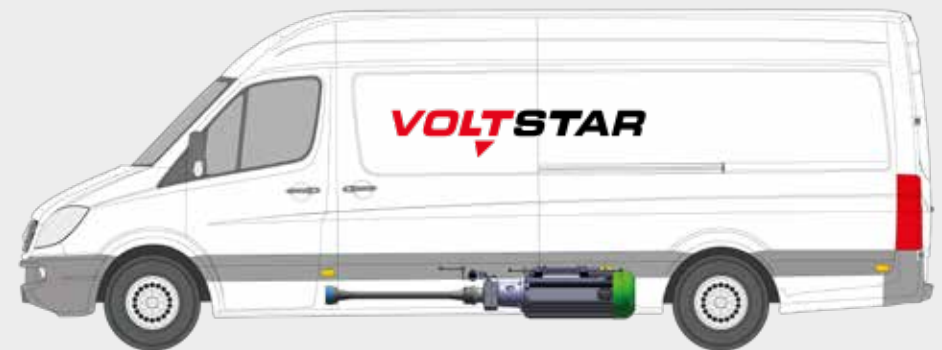
Compared to conventional combustion generators, our VOLTSTAR® Underfloor Generator System (USc) is extremely light and compact. If we take a 30 kW / 400 V generator system, it only weighs approx. 180 kg. A conventional combustion generator with the same output weighs over 500 kg.

Technical Requirements for the Vehicle

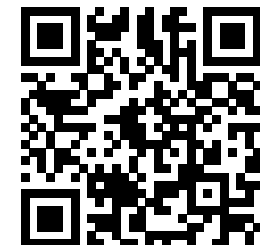
Vehicle Type:	Vans from 2.8 to 7.5 tonnes Light and heavy Trucks from 7.5 tonnes
Special Equipment:	Factory mounted switchable PTO, speed control Can be retrofitted in most cases

Technical data

Drive:	Underfloor via the switchable PTO
Generator Power:	7 kW - 100 kW
Components:	Generator, Cable Connection, Controller Box, Gearbox, Drive Shaft
Voltage:	DC: 380 V AC: 110 V 230 V 400 V (three-phase current)
Weight:	120 kg to 510 kg – depending on generator power



Further information:
www.martin-st.de



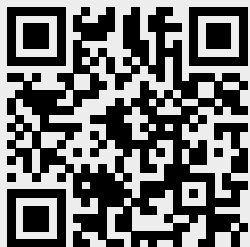
VOLTSTAR® Underfloor Generator System variabel (USv)

Operated via the permanent power take-off (PTO) with variable speed

The VOLTSTAR® Underfloor Generator System (USv) is also installed underneath the vehicle and is engaged all time as long as the engine runs. The generator supplies power even when the vehicle is moving. The variable Underfloor Generator System is mainly used when the switchable PTO already is occupied by other devices, f.e. a water pump, and an installation of a VOLTSTAR® Belt-Driven Generator is not possible. The power range matches that of our VOLTSTAR® Belt-Driven Generator (AS)

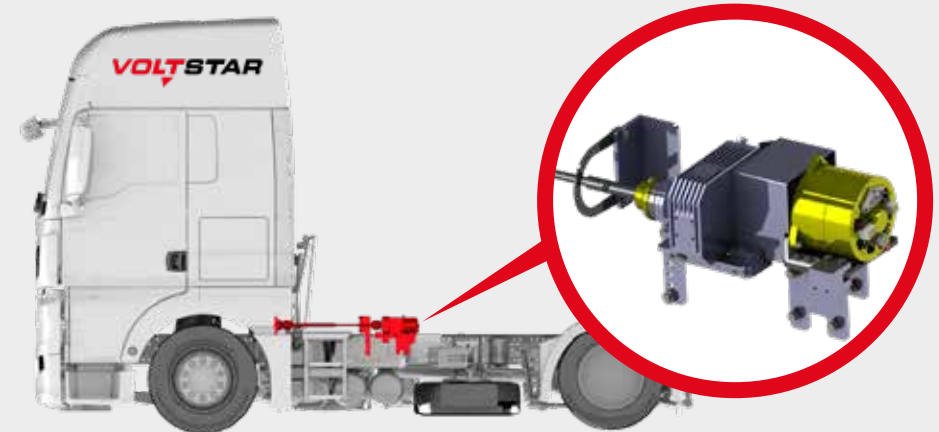
If more power is needed, especially when driving, the VOLTSTAR® Asynchronous Power Unit is the right choice. (p. 9)

Further information:
www.martin-st.de



Technical Data

Drive:	Underfloor via the permanent PTO
Generator Power:	5 kW - 10 kW
Components:	Generator, Cable Connection, VOLTSTAR®-Box Gearbox, Drive Shaft
Voltage:	DC: 14 V 28 V 56 V 380 V AC: 110 V 230 V 400 V (three-phase current)
Weight:	40 kg - 60 kg - depending on generator power



Technical Requirements for the Vehicle

Vehicle Type:	Light and heavy Trucks from 5 tonnes
Special Equipment:	Engine-driven permanent PTO Should already be considered when ordering the vehicle as it cannot be retrofitted to all vehicles.

VOLTSTAR® Belt-Driven Generator (AS)

Operated via the vehicle engine
with variable speed

The VOLTSTAR® Belt-Driven Generator System (AS) is attached to the vehicle engine with a mounting kit and operated by belt. The VOLTSTAR® Box is generating with inverter technology alternating current of 110 V and 230 V or three-phase current of 230V and 400 V.

Over 600 different VOLTSTAR® Belt-Driven Generator Systems for almost every commercial vehicle and engine version are available.

The system is not only space-saving, but also extremely light. At less than 40 kg, it is a lightweight among generators.

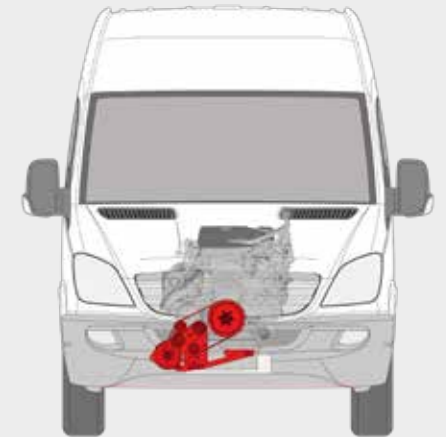
Technical Requirements for the Vehicle

Vehicle Types: All common commercial vehicles regardless of tonnage, transmission and drive concept

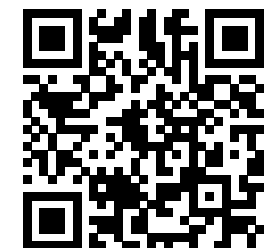
Special Equipment: Non

Technical Data

Drive:	Via vehicle engine by belt
Generator Power:	5 kW - 10 kW
Components:	Mounting Kit, Generator, Cable Connection, VOLTSTAR®-Box
Voltage:	DC: 14 V 28 V 56 V 380 V AC: 110 V 230 V 400 V (three-phase current)
Weight:	20 kg - 40 kg - depending on generator power



For more information,
visit www.martin-st.de



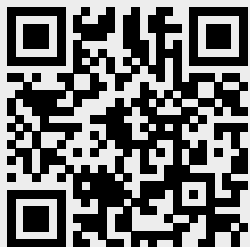
VOLTSTAR® Asynchronous Power Unit (APU)

Operated via the permanent PTO
with variable speed

The VOLTSTAR® Asynchronous Power Unit (APU) is mounted underneath the vehicle, directly to the engine-driven permanent PTO. It supplies power as soon as the engine starts and also while the vehicle is in motion.

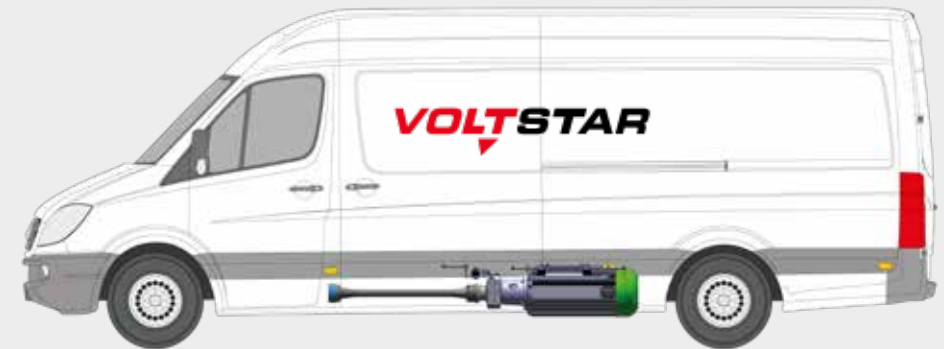
The main advantage compared to the VOLTSTAR® Underfloor Generator System (USv) and the VOLTSTAR® Belt-Driven Generator System (AS) is its higher power range. Therefore, it is particularly suitable for refrigerated vehicles or work trucks whose appliances are operated while the vehicle is in motion and require a lot of power.

For more information,
visit www.martin-st.de



Technical Data

Drive:	Underfloor via permanent engine-driven PTO
Generator Power:	15 - 50 kW
Components:	Generator, Cable Connection, APU-Box, Gearbox, drive shaft
Voltage:	DC: 14 V 28 V 56 V 380 V AC: 110 V 230 V 400 V (three-phase current)
Weight:	120 kg - 250 kg - depending on generator power



Technical Requirements for the Vehicle

Vehicle Types :	Vans from 2.8 to 7.5 tonnes Light and heavy Trucks from 7.5 tonnes
Special Equipment:	Permanent engine-driven PTO Should already be considered when ordering the vehicle as it cannot be retrofitted to all vehicles.

VOLTSTAR® Generator Systems in figures



VOLTSTAR® Systems	Underfloor System (USc)	Underfloor System (USv)	Belt-Driven System (AS)	Asynchron-System (APU)
Drive	Switchable PTO	Permanent engine-driven PTO	Engine mounted by belt	Permanent engine-driven PTO
Power Range	7 - 100 kW	5 - 10 kW	5 - 10 kW	15 - 50 kW
Max. Weight	120 - 550 kg	40 - 60 kg	20 - 40 kg	120 - 250 kg
Voltage	380 V DC 110 V - 400 V AC	14 V - 380 V DC 110 V - 400 V AC	14 V - 380 V DC 110 V - 400 V AC	14 V - 380 V DC 110 V - 400 V AC
Power Generation while in motion	no	yes	yes	yes

MARTIN Special Technics GmbH

Innovative Solutions

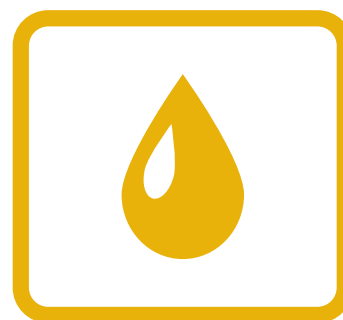
With a total of six technology divisions and our highly qualified R & D department, we offer the whole range of solutions in special vehicle construction. Innovative and result-driven, we develop products to make your work mobile and easier.

Our long term expertise enables us to realize your wishes and requirements with innovative solutions and new approaches. No matter if it is compressed air generation, sophisticated air-conditioning or completely custom made high power transmissions, we make it!



COMPRESSED AIR GENERATION

Our compressor systems provide the pressure and volume flow as required.

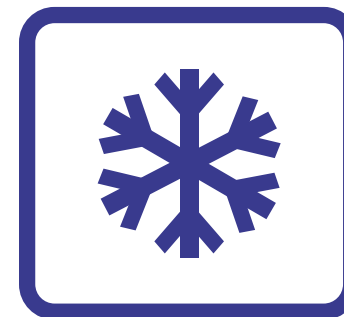


HYDRAULIC- SYSTEMS

Hydraulically operated tools and equipment are useful in many areas. We supply the attachment kit!

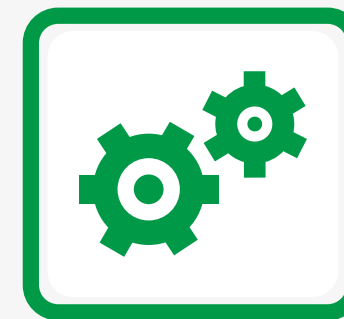
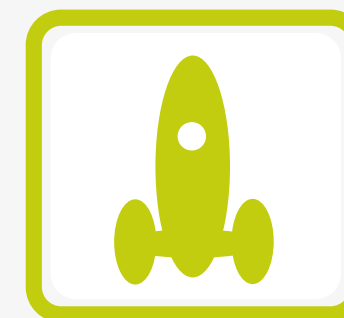
AIR-CONDITIONING TECHNOLOGY

Air conditioning in combination with our power supply for vehicle cases and computer racks for mobile jobs or refrigerated vehicles, we have it.



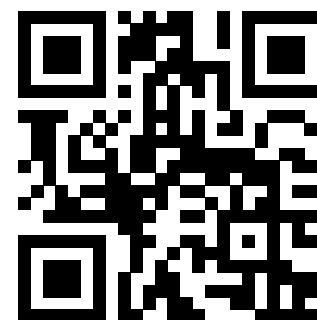
SPECIAL VEHICLE

With our know-how and technology we build in many areas your special work vehicle according to your specifications as a complete solution.



TRANSMISSION SYSTEMS

We develop and produce a wide range of gearboxes with different ratios and power levels, in small quantities or custom made.



For further information:
www.martin-st.de




MARTIN

Special Technics


Contact us!

We are happy to answer any questions!

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