

## PU12 POWER UNIT

[ BEST  
**PERFORMANCE** ]

[ MINIMUM  
**PU-DIMENSIONS** ]

[ MAXIMUM  
**EFFICIENCY** ]

[ **2** ] [ **PU** ]  
CYLINDER

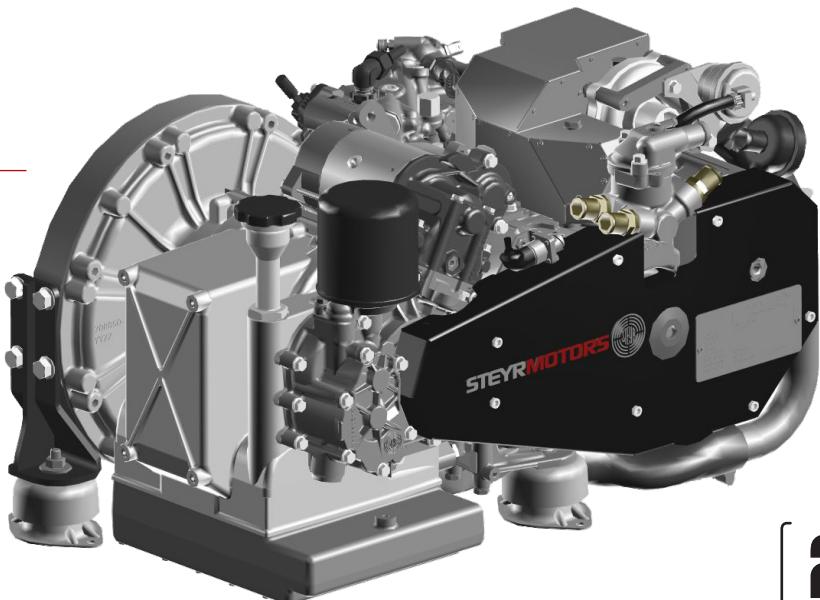


# INDUSTRIAL ENGINES

# M12 2-CYLINDER DIESEL ENGINE

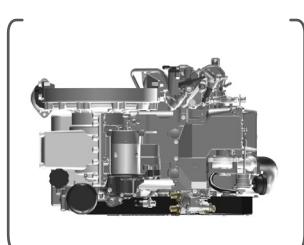
## FACTS

- Power range: 28.5 - 36 kW
- Displacement: 1.06 l
- Dry weight: 135 kg



The M12 is a compact yet powerful 2-cylinder unit injection engine with a horizontal parallel twin piston configuration. Engineered for exceptional performance and extreme environmental requirements, its versatile design allows for customization to meet specific needs and can be seamlessly integrated with different generators or auxiliaries. Experience the perfect blend of power, reliability, and adaptability with the M12.

Find out more about the versatile possibilities of the M12 and discover how our engine perfectly fulfills your requirements.



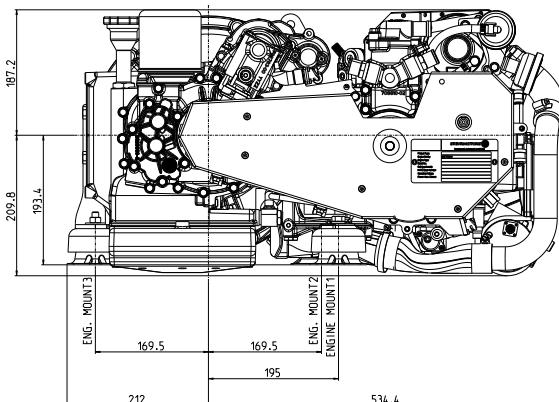
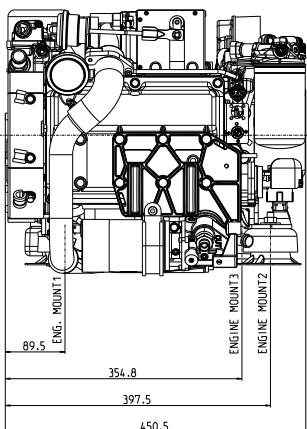
## MAIN FEATURES

- Monoblock design with excellent water cooling
- Turbocharged, intercooled
- Mass balancing system for smooth operation
- Operational temperature range: from -46°C to +49°C
- Multifuel capable: F-34/ F-35 / F-54 / F-63 / F-65 / JP-8 / JET A1/EN 590
- High ICE efficiency for higher range and/or lower fuel consumption
- High robustness and durability
- Outstanding performance
- Tested according to several civilian and military standards

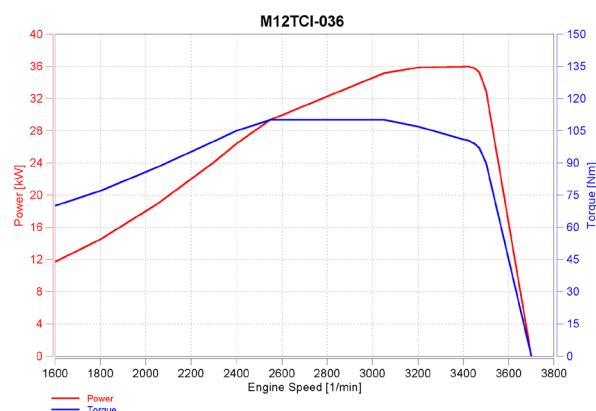
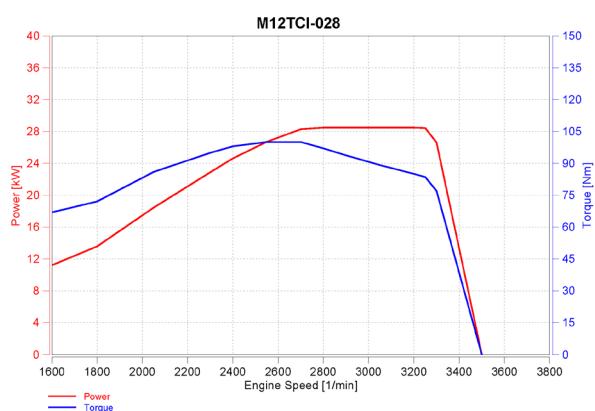
Areas of application: power supply for marine, military, and civilian use: gensets and integrated solutions, special vehicles.



# COMPACT POWER FOR MAXIMUM EFFICIENCY



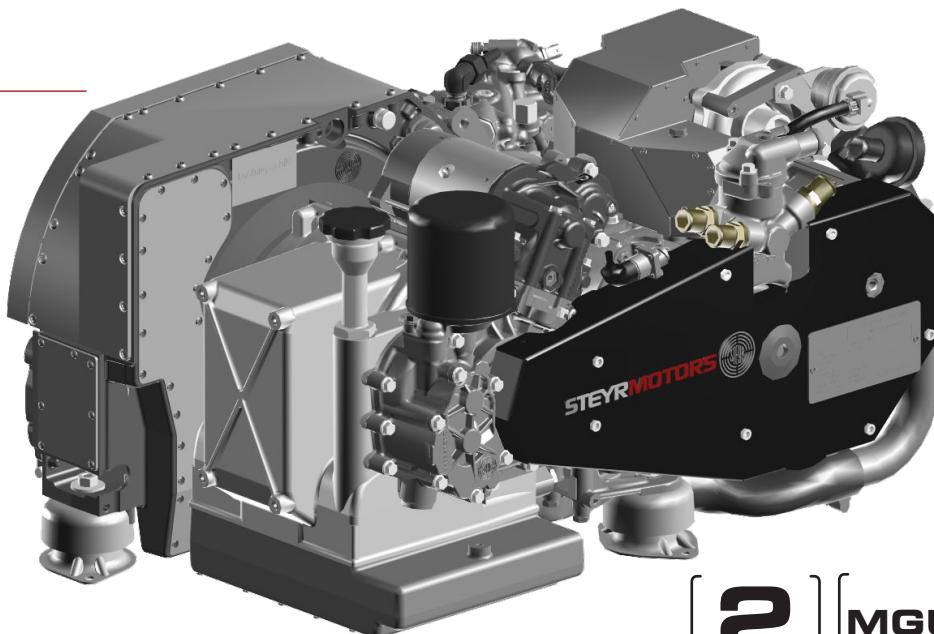
	<b>M12 TCI - 028</b>	<b>M12 TCI - 036</b>
<b>COMBUSTION SYSTEM</b>	Direct Injection Diesel	Direct Injection Diesel
<b>DISPLACEMENT (LT)</b>	1.06	1.06
<b>BORE (MM)</b>	85	85
<b>STROKE (MM)</b>	94	94
<b>CHARGING SYSTEM</b>	turbocharged single stage wastegate intercooled	turbocharged single stage wastegate intercooled
<b>RATED POWER (KW/HP)</b>	28,5/39	36/49
<b>RATED SPEED (RPM)</b>	3200	3400
<b>MAX. TORQUE (NM@RPM)</b>	100 @ 2550-2700	110 @ 2550-3050
<b>MIN. FUEL CONSUMPTION (G/KWH)</b>	240	235
<b>DRY WEIGHT (KG)</b>	135	135
<b>OVERALL CHARACTERISTICS</b>		
→ 4-stroke, turbocharged, intercooled		
→ Perfectly suited for use as auxiliary power unit (PU)		



# THE ENGINE WITH GENERATOR 28V, 400V

## FACTS

- 28V (DC), 29kW
- 400V (AC), 32kVA



**2** [ ] **MGU**  
CYLINDER



### POWER GENERATION FOR EVERY REQUIREMENT

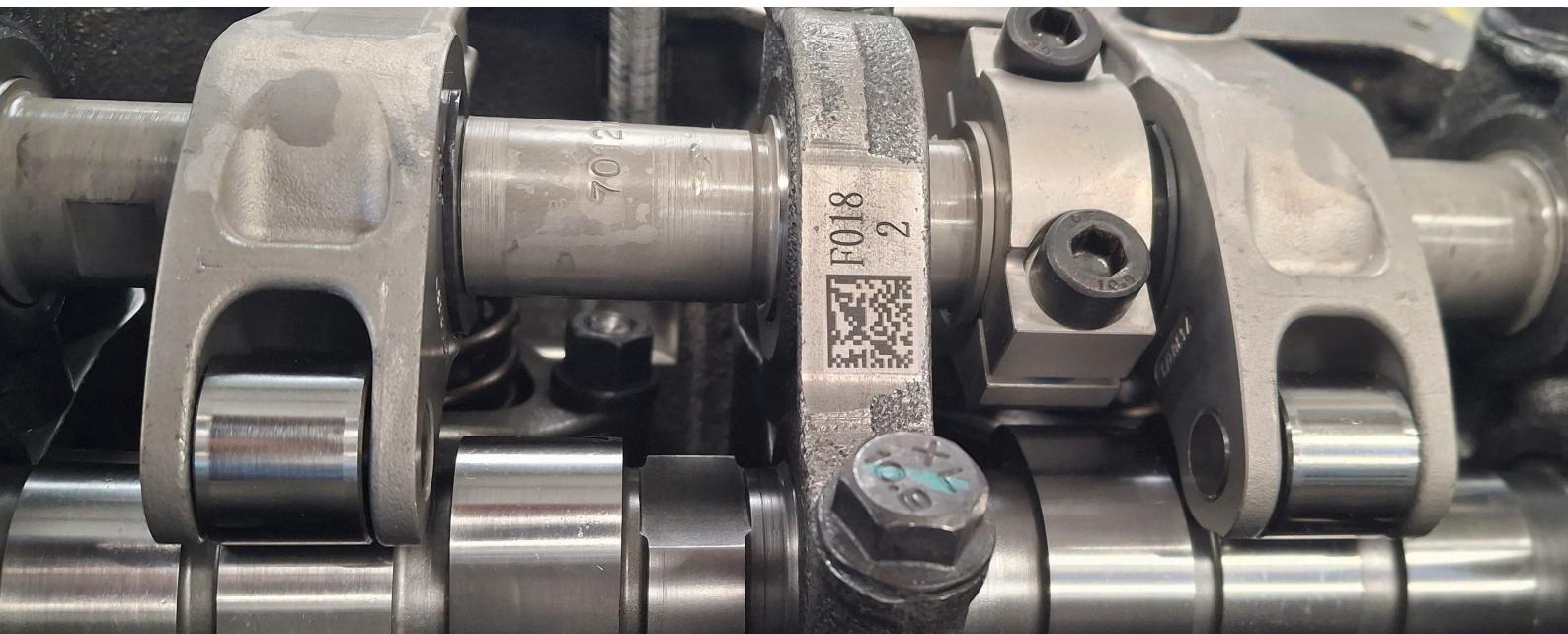
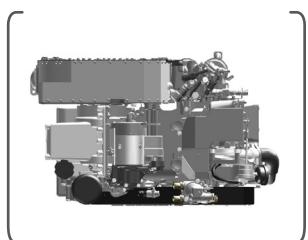
The MGU12 is not only a reliable drive unit, but can also supply electrical energy by integrating a generator. Two variants are available depending on the application:

#### 28V SYSTEM

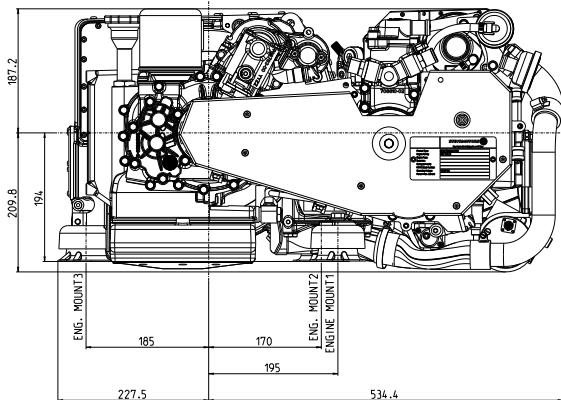
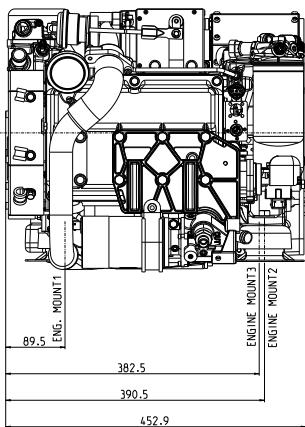
Ideal for applications with high energy requirements of up to 29 kW in combination with minimum packaging requirements.

#### 400V SYSTEM

Suitable for power-grid applications with energy requirements of up to 32 kVA in combination with minimum packaging requirements.



# MGU12-30-28V



## GENERATOR TYPE (V)

28 (DC) / permanent magnet generator

## ELECTRIC POWER (KW)

29

## ENGINE SPEED (RPM)

3400

## RATED CURRENT (A)

2 x 530

## INTEGRATED WATERCOOLED RECTIFIER

YES

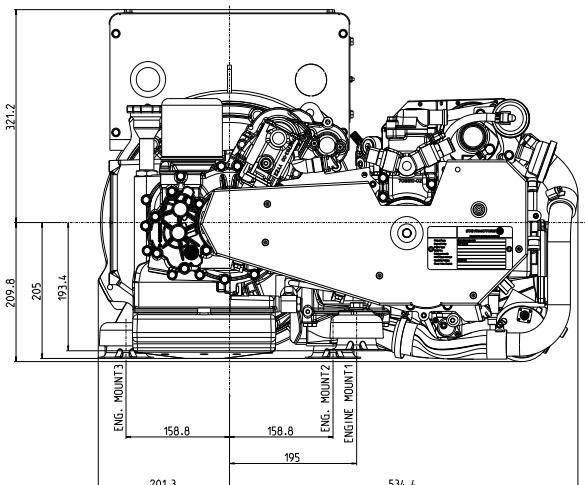
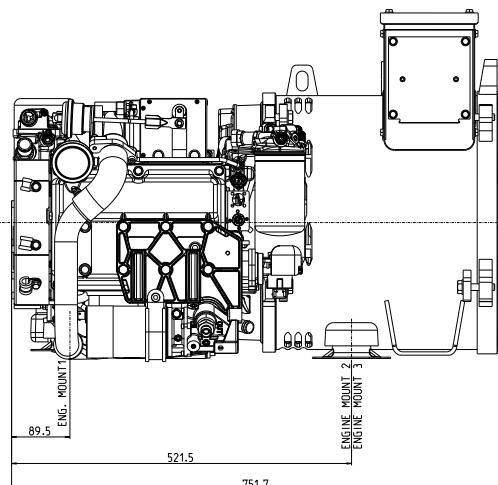
## INTEGRATED CURRENT MEASURING

YES

## DRY WEIGHT (KG)

191

# MGU12-30-400V



## GENERATOR TYPE (V/PHASE)

400 (AC) / 3Phase (0,8p.f.)

## RATED POWER (KVA)

32 (0,8p.f.)

## ENGINE SPEED (RPM)

3000 / 3600

## FREQUENCY (HZ)

50 / 60

## NUMBER OF PHASES

3

## DRY WEIGHT (KG)

275

# MGU12-30-400V

# POWER UNIT 28V, 400V

## FACTS

- 28V (DC), 29 kW
- 400V (AC), 32 kVA
- Dimensions: 1200 x 850 x 915



**2** [PU]  
CYLINDER



FLEXIBLE. MODULAR. PERFECTLY CUSTOMIZED TO YOUR REQUIREMENTS.

The PU12 was developed for maximum efficiency and flexibility. Thanks to its modular design, it is stackable and can be transported in a space-saving manner. Up to 36 units fit into a container, which optimises logistics and storage costs. This compact design enables easy integration into a wide range of applications without compromising on performance and reliability. Designed for sustainability and comfort, it meets Stage IIIA emission standards and operates at a remarkably low noise level of less than 72 dB(A) at 7 meters—often even quieter depending on load.

## THREE SEPARABLE MODULES

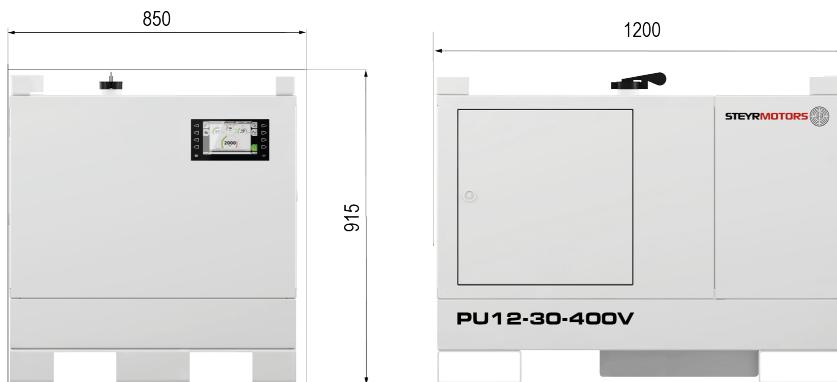
- **Cooling Unit** - Separable Cooling Unit for special demands
- **Engine Generator Unit** - Powerful drive with integrated power generation
- **Baseframe incl. tank** - Robust base with optimized fuel supply

## MAIN FEATURES

- Easy handling: Movable with a forklift from all sides and with a pallet truck from the sides
- Modular baseframe: available with various fuel tank capacities
- Standard version: 60-liter tank for up to 8 hours of full-load operation



This modular design allows easy maintenance, quick adaptation to specific requirements, and efficient integration into existing systems. Maximum flexibility for every application!



## Technical data

PU12-30-28V	
<b>OPERATIONAL TEMPERATURE RANGE</b>	from -46°C to +49°C
<b>MULTIFUEL CAPABLE</b>	F-34 / F-35 / F-54 / F-63 / F-65 / JP-8 / JET A1 / EN 590
<b>RATED VOLTAGE</b>	28V DC
<b>RUNNING TIME (H)</b>	8
<b>ELECTRICAL POWER CONNECTION</b>	VG96917 2 pol, 4 single pole connectors
<b>CONTROL DISPLAY</b>	engine and generator monitoring preheating / start / stop
<b>ELECTRICAL PROTECTION</b>	circuit breaker  emergency stop / engine monitoring overload generator temperature battle switch
<b>SAFETY FEATURES</b>	
<b>DRY WEIGHT (KG)</b>	520

PU12-30-400V	
<b>OPERATIONAL TEMPERATURE RANGE</b>	from -46°C to +49°C
<b>MULTIFUEL CAPABLE</b>	F-34 / F-35 / F-54 / F-63 / F-65 / JP-8 / JET A1 / EN 590
<b>RATED POWER (KVA)</b>	32 (0,8p.f.)
<b>RATED VOLTAGE</b>	400V AC
<b>FREQUENCY (HZ)</b>	50/60
<b>RUNNING TIME (H)</b>	8
<b>ELECTRICAL POWER CONNECTION</b>	CEE 63A plug, CEE 16A, 3P, 400V, 5P, 6H
<b>CONTROL DISPLAY</b>	engine and generator monitoring preheating / start / stop
<b>ELECTRICAL PROTECTION</b>	circuit breaker  emergency stop / engine monitoring overload generator temperature battle switch
<b>SAFETY FEATURES</b>	
<b>DRY WEIGHT (KG)</b>	600

## EXTREME ENVIRONMENTAL CONDITIONS? NO PROBLEM.

Whether blistering heat up to +49°C or icy cold down to -46°C, the power unit of the PU12 is designed for use in extreme environments. Thanks to sophisticated temperature management technologies, performance remains reliable at all times. From hot desert use (A1 hot environment) to demanding cold starts in arctic regions (C2 cold start), the PU12 delivers top performance where others reach their limits.

## PREHEATING FOR ALL OPERATING FLUIDS INCLUDED

The PU12 is optionally available with integrated preheating. This enables start and operation of the PU down to -46°C and ensures reduced wear and fuel consumption.

## OPTIMUM COOLING FOR MAXIMUM EFFICIENCY

In order to minimize the temperature load on the components in the engine compartment, the cooling air is routed within the cooling unit and without any temperature effect on the engine generator unit.

This minimizes the thermal load on components in the engine compartment, which leads to outstanding reliability. In combination with the preheating technology, this system ensures optimum operating conditions - regardless of external temperatures.

## EMC REQUIREMENTS

Our PU12 ensures efficient, reliable, and interference-free operation. Designed to meet stringent EMC requirements, it offers minimal electromagnetic interference, sustainable energy generation, and long-term durability under tough conditions. Additionally, it is simple to install and integrates easily with existing systems.

Choose our PU12 for cutting-edge technology that meets your EMC needs.

