



## Ratings Range

380/220 V - 60 Hz

Standby	kW	350
	kVA	438
Prime	kW	318
	kVA	398



## Benefits and features

### Rehiko premium quality

- Design offices using the latest technical innovations
- Modern fully certified factories
- A cutting edge laboratory
- The generating set, its components and a wide range of options have been fully developed, prototype tested, factory built, and production tested
- Approved for use with HVO (Hydrotreated Vegetable Oil) according to EN15940

### Rehiko premium performances

- Optimized and certified sound levels
- Reliable power, even in extreme conditions
- Optimized fuel consumption
- Compact footprint
- Best quality of electricity, high starting and loading capacity, according to ISO8528-5
- Robust base frames and high-quality enclosures
- Protection of installations and people
- Approved in line with the most stringent standards

### Engines

- Premium level engines, in-house or from strong partners
- High power density, small footprint
- Low temperature starting capability
- Long maintenance interval

### Alternator

- Provide industry leading motor starting capability
- Made in Europe
- Built with a class H insulation and IP23

### Cooling

- A compact and complete solution using a mechanically driven radiator fan
- Designed or optimized by Rehiko
- High temperature and altitude product capacity available

### Base frame and enclosure

- High quality steel with enhanced corrosion resistance
- Highly durable QUALICOAT-certified epoxy paint
- Minimum 1000 hours of resistance to salt spray in accordance with ISO12944
- Ergonomic access to allow easy maintenance and connection of the generator
- Robust design optimized for transportation

## Generator sets ratings

		Standby rating			Prime rating	
	Hz	kWe	kVA	Amps	kWe	kVA
380/220	60	350	438	665	318	398

## General Specifications

Manufacturer

Rehiko

Engine ref.

TAD1342GE-B

Alternator choices

KH01484T

Performance class

G3

Voltage (V)

380/220

Controllers

APM403 M80-D Terminal block

Consumption @ 100% load ESP (L/h)\*

95

Consumption @ 100% load PRP (L/h)\*

86

Emission level

Emission optimization - Stage II  
Compliant

Data Center / Mission Critical Rating

Same as the Prime Rating below

Type of Cooling

Radiator

Factory installed enclosures

M228

M228-DW

"\*\* Volumetric Fuel consumption is up to 4% higher when using HVO than Diesel Fuel"

## Engine Specifications

Engine brand	VOLVO
Engine ref.	TAD1342GE-B*
Air inlet system	Turbo
Cylinder configuration	6 - L
Displacement (l)	12,78
Bore (mm) x Stroke (mm)	131 x 158
Compression ratio	18.5 : 1
Speed (RPM)	1800
Maximum stand-by power at rated RPM 60Hz (kW)	395
Governor type	Electronic
Frequency regulation, steady state (%)	+/- 0.25%

## Lubrication System

Oil Filter Quantity and type****	
Charge Air coolant	Air/Air

\*\*\*\*Rehiko recommends the use of genuine oil and filters.

## Fuel System

Maximum fuel pump flow 60Hz (l/h)	130
Max head on fuel return line (m fuel)	2,4
Fuel Filter Quantity and type	
Fuel	Diesel Fuel/HVO

\* Engine reference may be partially modified depending on genset application, options selected by the customer and lead time required.

## Consumption with cooling system

Fuel consumption @ ESP Max Power 60Hz (l/h)	96,2
Fuel consumption @ PRP Max Power 60Hz (l/h)	87,1
Fuel consumption @ 75% of PRP Power 60Hz (l/h)	64,1
Fuel consumption @ 50% of PRP Power 60Hz (l/h)	44

## Cooling system

Radiator & Engine capacity (l)	44
Fan power 60Hz (kW)	18
Fan air flow w/o restriction (m3/s)	8,2
Available restriction on air flow (mm H2O)	25
Type of coolant	Glycol-Ethylene
Radiated heat to ambient (kW)	23
Heat rejection to coolant HT (kW)	172
Coolant capacity HT, engine only (l)	20
Outlet coolant temperature (°C)	92
Max coolant temperature, Shutdown (°C)	107
Max. pressure at inlet of HT water pump (mbar)	1000
Thermostat begin of opening HT (°C)	82
Thermostat end of opening HT (°C)	92

## Exhaust system

Heat rejection to exhaust (kW)	287
Exhaust gas temperature @ ESP 60Hz (°C)	481
Exhaust gas flow @ ESP 60Hz (l/s)	1158

## Electrical system

Battery voltage (V)	24
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## Air Intake system

Combustion air flow (l/s)	478
Radiated heat to ambient (kW)	23

## Alternator Specifications

Number of pole	4
Technology	Brushless
AVR Regulation	Yes
Insulation class	H
Indication of protection	IP23
Number of bearing	1
Number of wires	12
Coupling	Direct
Overspeed (rpm)	2250
Voltage regulation at established rating (+/- %)	0,5
Unbalanced load acceptance ratio (%)	8

## Alternator standard features

- All models are brushless, rotating-field alternators
- NEMA MG1, IEEE, and ANSI standards compliance for temperature rise and motor starting
- The AVR voltage regulator provides superior short circuit capability
- Self-ventilated and dip proof construction
- Superior voltage waveform

*Note: See Alternator Data Sheets for alternator application data and ratings, efficiency curves, voltage dip with motor starting curves, and short circuit decrement curves.*



## Basic terminal block

It is used as a basic terminal block for connecting a control unit. Offers the following functions:

- emergency stop button
- customer connection terminal block
- CE certified



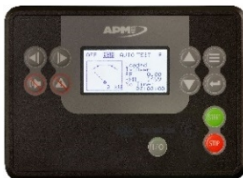
## M80-D controller

The M80-D can be used as a basic terminal block for connecting a control unit and as an instrument panel with a highly intuitive LCD screen giving an overview of your generating set's basic parameters:

- Oil gauge
- Coolant temperature
- Oil temperature
- Engine speed
- Battery voltage
- Charge air temperature
- Fuel consumption, etc.

The engine main functions can be controlled and events are recorded to facilitate diagnostics:

- Starting
- Speed adjustment
- Stopping
- Droop, etc.



## APM403 controller

The APM403 is a versatile control unit which allows operation in manual or automatic mode

- Measurements : voltage and current
- kW/kWh/kVA power meters
- Standard specifications: Voltmeter, Frequency meter.
- Optional : Battery ammeter.
- J1939 CAN ECU engine control
- Alarms and faults: Oil pressure, Coolant temperature, Overspeed, Start-up failure, alternator min/max, Emergency stop button.
- Engine parameters: Fuel level, hour counter, battery voltage.
- Optional (standard at 24V): Oil pressure, water temperature.
- Event log/ Management of the last 300 genset events.
- Mains and genset protection
- Clock management
- USB connections, USB Host and PC,
- Communications : RS485 INTERFACE
- ModBUS protocol /SNMP
- Optional : Ethernet, GPRS, remote control, 3G, 4G
- Websupervisor, SMS, E-mails

## Codes and Standards

Engine-generators set is designed and manufactured in facilities certified to standards ISO9001:2015 & ISO14001:2015. The generator sets and its components are prototype-tested, factory built and production tested and are in compliance with the relevant standards:

- Machinery Directive 2006/42/EC of May 17th 2006
- EMC Directive 2014/30/UE
- Safety objectives set out in the Low Voltage Directive 2014/35/UE
- EN ISO 8528-13, EN 60034-1, EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 55011, EN 1679-1 et EN 60204-1

## Power ratings definition according to ISO8528-1 (2018-02 edition) and ISO-3046-1

**Emergency Standby Power (ESP):** The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. Average load factor per 24 hours of operation is <70%.

**Prime Power (PRP):** At varying load, the number of generator set operating hours is unlimited. A 10% overload capacity is available for one hour within 12 hour of operation. Average load factor per 24 hours of operation is <70%.

## Warranty informations

Standard warranty period:

- for Products in "back-up" service
  - 30 months from the date the Product leaves the plant
  - 24 months from the Product's commissioning date
  - 1,000 running hours

The warranty expires when one of the above conditions is met.

- for Products in "prime" or "continuous" service (continuous supply of electricity, either in the absence of any normal electricity grid or to complement the grid),
  - 18 months from the date the Product leaves the plant
  - 12 months from the Product's commissioning date
  - 2,500 running hours

The warranty expires when one of the above conditions is met.

For more details regarding conditions of application and scope of the warranty please refer to our General "terms & conditions of sales".

## Standard scope of supply

All our gensets are fitted with:

- Industrial water cooled DIESEL engine
- Electric starter & charge alternator
- Standard air filter
- Schneider or ABB electric circuit breaker, adapted to the short-circuit current of the generating set
- Single bearing alternator IP 23 T° rise/ insulation to class H/H
- Welded steel base frame with 85% vibration attenuation mounts
- 4 lifting points on the chassis, lifting bar on the top included from 165 kVA ESP or optional
- highly durable QUALICOAT certified epoxy paint
- frame height optimized to allow it to be moved safely by forklift
- enclosure made of new high-quality European steel with enhanced corrosion resistance
- IP 64 locks, made from stainless materials
- enclosures and base frames tested and analyzed by the French Corrosion Institut
- 100% of tanks tested for permeability
- Personal protection ensured by protective grilles on hot and rotating parts
- Separate 9 dB(A) silencer
- Fuel tank welded inside the genset frame
- Retention bund included for gensets up to 110 kVA ESP
- Charged DC starting battery with electrolyte
- Emergency stop button on the outside
- Flexible fuel lines & lub oil drain cock
- Exhaust outlet with flexible and flanges
- User's manual (1 copy)

- Packing under plastic film
- Delivered with oil and antifreeze liquid

## Dimensions and Weights

### Compact version

Overall Size, max., L x W x H, (mm)	3160 x 1340 x 1805
Dry weight (kg)	3060
Tank capacity (L)	470

### M228 soundproofed version - Not compliant with 2000/14/CE noise emissions Directive\*\*

Overall Size, max., L x W x H, (mm)	4475 x 1410 x 2430
Tank capacity (L)	470
Dry weight (kg)	4170
Guaranteed acoustic power level (Lwa) 60Hz (100% PRP)	105
Acoustic pressure level @1m in dB(A) 60Hz (100% PRP)	86
Acoustic pressure level @7m in dB(A) 60Hz (100% PRP)	76

### M228 DW soundproofed version - Not compliant with 2000/14/CE noise emissions Directive\*\*

Overall Size, max., L x W x H, (mm)	4527 x 1410 x 2700
Tank capacity (L)	1368
Dry weight (kg)	4700
Guaranteed acoustic power level (Lwa) 60Hz (100% PRP)	105
Acoustic pressure level @1m in dB(A) 60Hz (100% PRP)	86
Acoustic pressure level @7m in dB(A) 60Hz (100% PRP)	76

\* dimensions and weight without options



Reference Conditions: 25°C Air Inlet Temperature, 40°C Fuel Inlet Temperature, 100 kPa Barometric Pressure; 10.7 g/kg of dry air Humidity. Intake Restriction set to maximum allowable limit for clean filter; Exhaust Back pressure set to maximum allowable limit; Fuel density at 0.85 kg/L.  
Data was taken from a single engine test according to the test methods, fuel specification and reference conditions stated above and is subjected to instrumentation and engine-to-engine variability. Test conducted with alternate test methods, instrumentation, fuel or reference conditions can yield different results. Data and specifications subject to change without notice.