GEN-PACK
9.5 kVA

The Advantages

- very compact design, no bearing, no clutch
- short in length, compared with standard designs, by a factor 2 shorter.
- excellent handcrank starting capability
- reliable and robust design
- not even one single part affected by mechanical wear
- no rotating coils
- no rotating electronic parts
- no brushes, no slip rings
- no sensitive voltage regulator
- extreme high efficiency above 92 % at 9.5 kVA
- completely closed alternator housing - cooling air circulation taken from engine side

Characteristics

The Electric Power Unit consists of a unique and solid alternator design and the well known HATZ single cylinder engine model 1 D 81 S SUPRA resulting in a very compact and short generator set.

The slots in the stator are of such dimension that additional windings are possible for starter motor purposes.
Adding a mechanical commutator where space is available the unit now acts as a starter motor for the diesel engine on a DC-motor system.
From approx. 400 r.p.m. the commutator is switched off by centrifugal force.

“Starting-in” intoa running engine is simply not possible.

Characteristics of the mech. structure

- synchronous alternator with permanent magnet excitation
- stator with three-phase winding inside the rotor rigidly connected to the engine flywheel housing
- rotor bolted to the blower fan engine flywheel
- no bearing for the alternator at all
- no mechanical contact of rotating parts results in no mechanical wear
- solid and simple mechanical structure

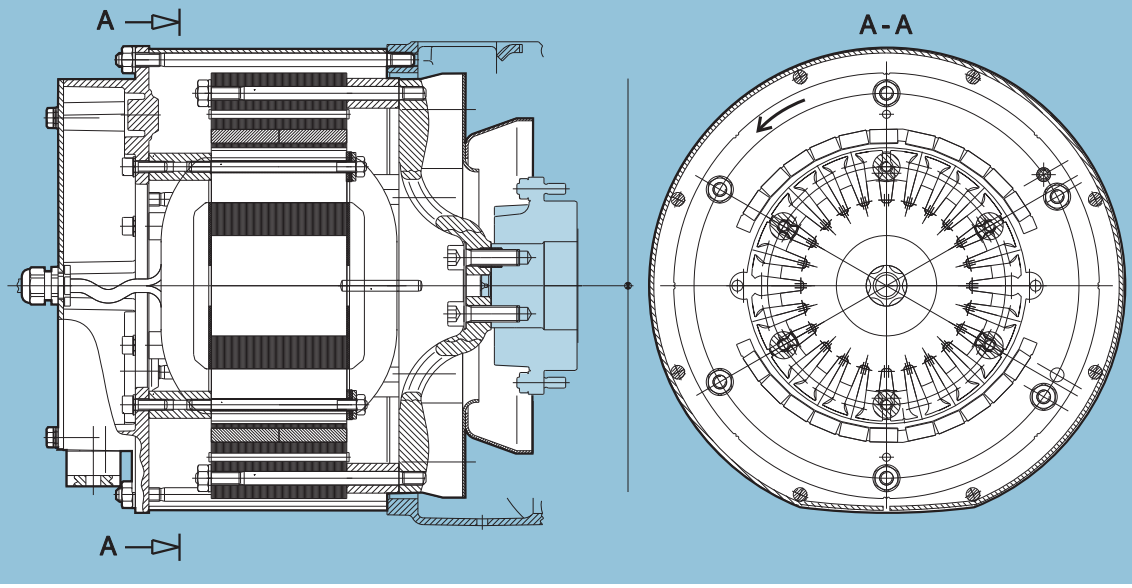
Version with Electric Start

- the magnetic force results in a start up torque which is transmitted directly to the engine crank shaft
- there is neither a ringgear nor a starter motor pinion
- no expensive electric starter motor protection devices are necessary because there is no mechanical contact of rotating parts when engine is running..

Electrical Data

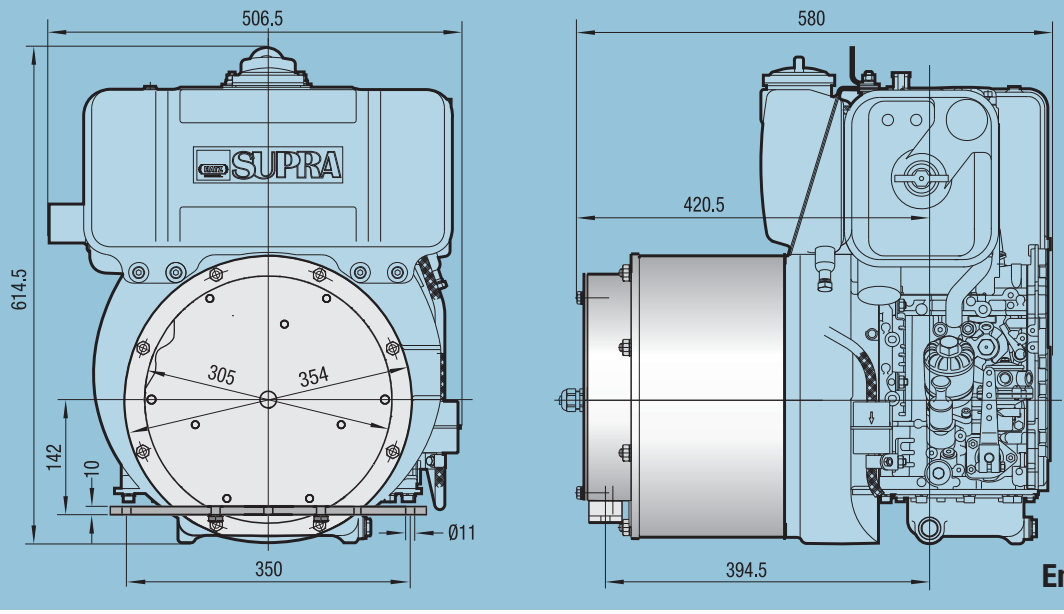
rated voltage	:	400 /231 V; 3~,N; 380 /220 V; 3~,N
rated output	:	9.5 kVA
frequency	:	50 Hz
speed	:	3000 r.p.m.
rated current	:	14,5 A
power factor cos φN	:	0.9 ind
degree of protection	:	min. IP 34
voltage accurancy	:	+ / - 10 % to DIN ISO 8528-5 Class G1
efficiency	:	92 %
isolating class	:	F / H
frequency droop	:	< 8 % according to DIN ISO 8528-5 performance class G1
steady-state frequency band	:	< 2.5 % according to DIN ISO 8528-5 performance class G1

Permanent magnet alternator design



Dimensions

Spread at outlines ± 3 mm due to tolerance



Engine 1D81.

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