



SPECIFICATIONS

	20ESX	20UDM
Rated power(kw)	15kw/18.75kva	15kw/18.75kva
Frequency(Hz)	60	60
Voltage	460V	460V
Noice level for silent type (Db)	74/1M	74/1M
Amps(A)	23.5	23.5
ENGINE	Water-cooled,4-stroke,	Water-cooled,4-stroke,
Model	404D-22G	404D-22G
12 hours rated power(kw)	21.3	21.3
Cylinders	4	4
Bore×stroke(mm)	84×100	84×100
Intake Method	Nature Intake	Nature Intake
Displacement(L)	2.2	2.2
Fuel consumption(L/h)	3.5	3.5
Cooling starting method	Electric start	Electric start
Engine manufacturer	PERKINS	PERKINS
ALTERNATOR	UNIV	UNIV
Rated power(kw/kva)	18/22.5	18/22.5
Rated currency(A)	31.5	31.5
Power factor(cosφ)	0.8lagging	0.8lagging
Phase / Rotary speed	3-phase,1800rpm	3-phase,1800rpm
Excitation	Brushless, Self exciting	Brushless, Self exciting
Voltage regulation	Automatic	Automatic
Net weight(Silent type)(kg)	1100	680
Packing size(silent type)L×W×H(mm)	2368*729*1073	1390*1613*828
Fuel tank capacity(L)	390	180

REEFER GENSET



UNDERSLUNG GENSET

CLIP-ON GENSET

WE GIVE WHAT YOU CARE THE MOST

Long time fuel supply

With super large size fuel tank, can offer at least 80hours operation. It means your fresh foods and drinks etc. will enjoy over 600km transportation journey without stop.



Smart digital temperature control system

There is a temperature monitor for inner part of container, generator will start or stop automatically when temperature reaches setting value. Most economic running way, maximize your interests.

Safety and convenience

Mounting Clip for clip on type and header pin for underslung time both made of high strength steel. Configure one step attach, connecting and disconnecting in minutes. Waterproof design control system and IP65 power output socket, operation under any weather condition



Intelligentize control system

after one button start, leave everything to him.



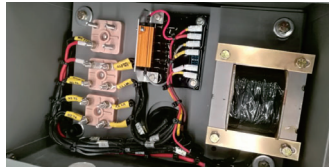
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SPECIFICATIONS

RATED OUTPUT	18KW/22.5KVA
VOLTAGE&PHASE	460V 3PHASE
FREQUENCY	60HZ
CONTROL SYSTEM SER.4	TRANSFORMER SELF EXCITED
VOLTAGE REGULATION	± 5%
SUSTAINED SHORT CIRCUIT	SHORT CIRCUIT CURRENT:450%
INSULATION SYSTEM	CLASS H
PROTECTION	IP22
RATED POWER FACTOR	0.8
STATOR WINDING	DOUBLE LAYER CONCENTRIC
WINDING PITCH	TWO THIRDS
WINDING LEADS	12
STATOR WDG.RESISTANCE	0.305 hms PER PHASE AT22°C SERIES STAR CONNECTED
ROTOR WDG.RESISTANCE	0.64 Ohms at 22°C
R.F.I.SUPPRESSION	BS EN 61000-6-2&BS EN 61000-6-4, VDE 0875G,VDE0875N.refer to factory for others
WAVEFORM DISTORTION	NO LOAD<1.5% NON-DISTORTING BALANCED LINEAR LOAD<5.0%
MAXIMUM OVERSPEED	2250 Rev/Min
BEARING NON-DRIVE END	BALL.6306-2RS.(ISO)

UNIV reefer genset alternator meet with EN 60034 and the relevant section of other international standards such as GB755, NEMA MG1-32, IEC34, CSA C22.2-100.
Other standards and certifications can be considered on request.

FEATURES AND BENEFITS

Voltage regulators

Transformer control
With self excited control system to the main stator , supplies power from transformer to the exciter stator via rectifier.
The exciter rotor output is feed to the main rotor through a three phase full wave bridge rectifier. This rectifier is protected by a surge suppressor against surges caused, for example, by short circuit.

Winding & Electrical Performance

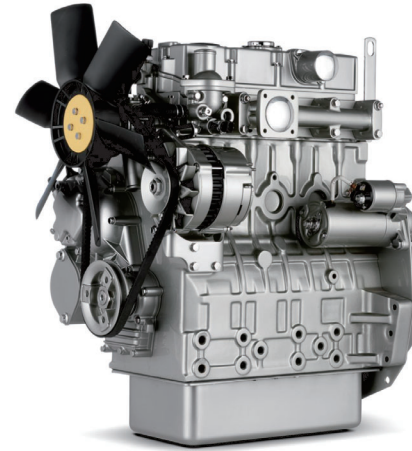
Alternator stators are 2/3 pitch designed. This eliminates triplen (3rd,9th,15th.....) harmonics on the voltage waveform, which is the optimum design for trouble-free supply of non-linear loads. The 2/3 pitch design avoids excessive neutral currents sometimes seen with higher winding pitches, when in parallel with the mains. A fully connected damper winding reduces oscillations during paralleling. This winding, with the 2/3 pitch and optimized pole and tooth designs, ensures very low waveform distortion.

Insulation/Impregnation Process

The insulation system is class 'H'.
All wound components are impregnated with materials and processes designed specifically to provide the high build required for static winding and the high mechanical strength required for rotating components

Quality Assurance

Alternator are manufactured using production procedures having a quality assurance level to ISO9001.



EU Stage IIIA/U.S. EPA Tier 4 interim

404D-22G

Bore	84.0 mm
Stroke	100.0 mm
Displacement	2.2 litres
Aspiration	Naturally aspirated
Rotation (from flywheel end)	Anti-clockwise
Number of cylinders	4 inline
Cycle	4 stroke
Compression ratio	23.3:1
Combustion system	Indirect injection
Cooling system	Liquid
Total coolant capacity	7.0 litres
Total lubricating capacity	10.6 litres
L*W*H	946*497*840 MM
Dry weight	242.0 kg
Mechanical output	18-34 kWm
Electrical output	20-36 kVA (16-29 kWe)
Rated speed	1500/1800/3000 rpm

FEATURES AND BENEFITS

A lifetime of low cost

The 400 Series offers highly competitive performance and fuel economy. Through appropriate use of technology,these engines have been designed to be reliable and to offer low cost of ownership in the wide variety of markets they serve.
Across an extensive power band, the 400 Series range offers you the ability to configure a solution to your specific machine, territory and market requirements.
Overlapping power bands between models and an extensive range of options gives the opportunity to optimise performance and functionality, adding customer value to the application.
We provide one year warranties for constant speed engines and two year warranties for variable speed models as standard.
As a 400 Series end user, you also benefit from Perkins world class product support and service coverage that comes from being a full range power solutions provider.

Compact design

The compact design of these engines makes them suitable for a range of applications, including skid steer loaders, mini excavators, wheel loaders, welders, lift platforms, lighting towers, small tractors, air compressors, turf care machinery and materials handling machinery.
Each of the six core engines in the 400 Series is configured for either Stage IIIA/Tier 4 Interim or Stage IIIB/Tier 4 Final emission standards, giving you flexibility depending on your market.

Performance and refinement

The 400 Series lineup gives you a seamless power range of 8.2-50 kW (11-67 hp) in 2, 3 and 4 cylinder models designed with a family look and feel. The range offers a wide variety of ratings and configurations that can be tailored to meet the most exacting needs.
The selective use of indirect and direct injection fuel systems enables Perkins to offer world-class engine refinement and low noise levels.