ottomotores

Energía que Mueve al Mundo

PERKINS SERIE E15TAG

Definiciónes

Potencia Prime

Estos valores son aplicables para el suministro de energía eléctrica continua (a carga variable)en lugar de la red comercial.

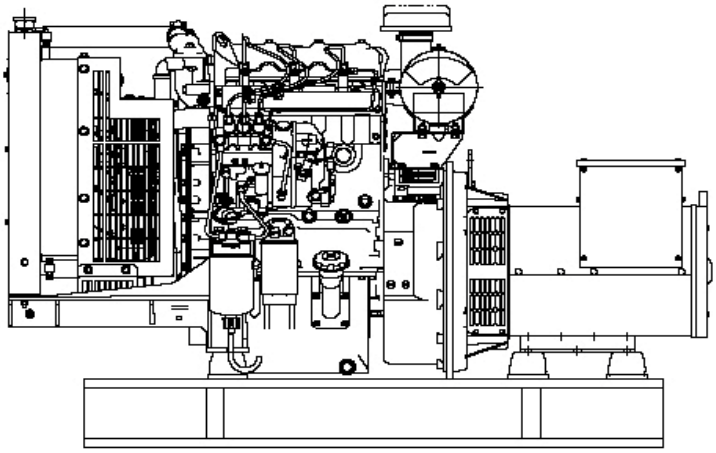
Potencia Stand by

Estos valores son aplicables para el suministro de energía eléctrica continua (a carga variable)en caso de fall a de la red comercial. No se permite sobrecarga sobre estos valores.

Tabla de Potencias

Modelo	Voltaje	Prime kVA	Prime kWe	Stand-by kVA	Stand-by kWe
PNY500	220-440V	569	455	625	500

0.8 Factor de potencia



Información Técnica

Datos Técnicos	PNY500
Frecuencia:	60 Hz
Motor Marca / Modelo	**Perkins** E15TAG4
Generador Marca/Modelo:	Stamford HCI534D
Numero de polos del Generador:	4 polos
Tipo de aislameinto del Generador:	Tipo H
Número de Cilindros del motor:	6
Diametro por Carrera : (mm)	135 x 167
Relación de Compresión:	16.1
Aspiración:	Turbo /Enfriado por aire
Velocidad:	1800 RPM
Potencia del motor: kWm	582
Presion Efectiva: Lbf/in²(kPA)	2574
Velocidad de Piston: ft/s (m/s) :	10
Consumo de combustible : lt / hr - 100%	128
Calor Expulsado en el Sistema de Escape : BTU/min (kW)	332
Calor Expulsado en el Sistema de Enfriamiento: BTU/min (kW)	132
Temperatura de Escape: °F (°C)	511
Flujo de Enfriamiento en el Radiador m³/min	866
Flujo de Escape:m³/min (ft³/min)	105.3
Dimensiones (Largo x Ancho x Alto)cm	350x153x205
Peso Aprox. humedo kg.	3475

Los equipos en foto pudieran incluir accesorios opcionales

Como leer nuestro codigo: Ejem: **PNY30**

P=Motor Perkins
N=Generador Newage Stamford
E=50Hz-1500 RPM
Y=60Hz-1800 RPM
30= Potencia del Equipo.

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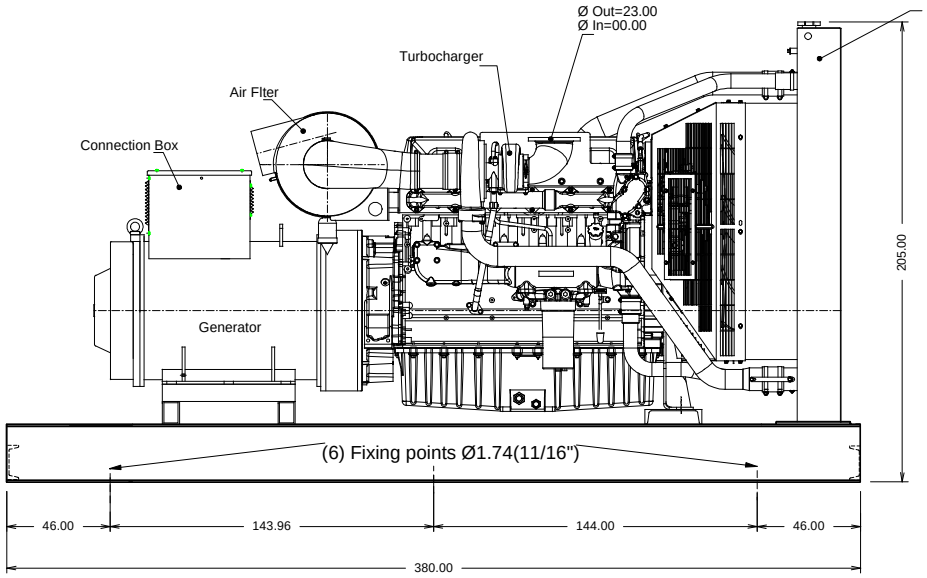
Celebrando 60 años de exitos 1950-2010

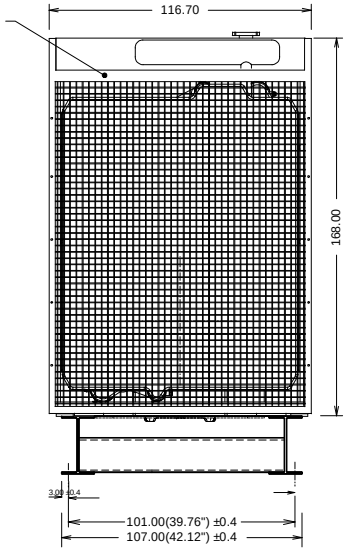
Perkins STAMFORD AC GENERATORS

Ottomotores, S.A de C.V.
Calz. San Lorenzo No.1150
Col. Cerro de la estrella, C.P. 09860
Delg. Iztapalapa México, D.F.
Tels:52-55-5624-5600
Fax: 52-55-5426-5521 / 52-55-5426-5581
ventas@ottomotores.com.mx
www.ottomotores.com.mx

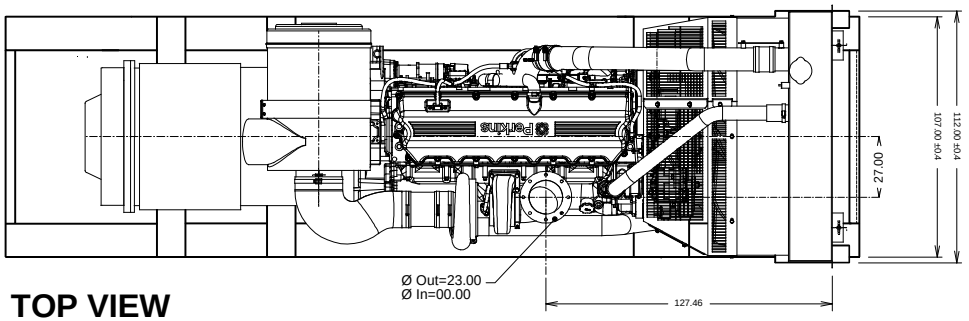
MODELS
PNE 495
PNY 500



SIDE VIEW



FRONT VIEW



TOP VIEW

DESCRIPTION	
RADIATOR :	ELECTROPACK
ENGINE:	2506-AE15TAG4
GENERATOR:	HCI534C
AIR FILTER:	------
BASE FRAME:	BP-PRK16G1-WG
TOTAL WEIGHT:	DRY-3353.00kgs. WET:-3535.00kgs.
AVMS SPRING.	6 PZS

-THE GENSET DIMENSIONS ARE THE SAME BY FAMILY MODEL, THERE COULD BE ONLY DIFFERENCES ON THE ALTERNATOR LENGHT SEE SPECIFIC GENERAL ARRAGEMENT DRAWING OF CERTEIN MODEL

-TOTAL WEIGHT COULD VARY CHECK RATING CHART FOR EACH MODEL

Customer: S/O:

Rev.	Description	Date	Certificated
	Reviews		

Title: ***GENERAL ARRANGEMENT PERKINS ENGINE 2506-AE15TAG4 STAMFORD ALTERNATOR***

Draw: E.A.C.	Revised: R.G.C.	Certificated: ING. V.F.F.	Code: **PNE/Y-05**
Date: JUL 21th 2008	Date: JUL 21th 2008	Date: JUL 21th 2008	Dept.: Engineering

ottomotores

Marks: cms | Scale: s/e | Draw: **N/A** | Of: **N/A**

FRAME HC534D/544D HCK534D/544D

WINDING 311

RATINGS	REFER TO RATINGS BOOK
OVERLOAD	REFER TO RATINGS BOOK
ALTITUDE	REFER TO RATINGS BOOK
AMBIENT TEMP.	REFER TO RATINGS BOOK

CONTROL SYSTEM SER. 3	SEPARATELY EXCITED BY P.M.G. FRAME DESIGNATION HC534		
A.V.R.	MX341	MX321	
VOLTAGE REGULATION	± 1.0%	± 0.5%	WITH 4% ENGINE GOVERNING
SUSTAINED SHORT CIRCUIT	REFER TO SHORT CIRCUIT DECREMENT CURVES OF THIS SECTION		

CONTROL SYSTEM SER. 4	SELF EXCITED FRAME DESIGNATION HC544		
A.V.R.	SX440	SX421	
VOLTAGE REGULATION	± 1.0%	± 0.5%	WITH 4% ENGINE GOVERNING
SUSTAINED SHORT CIRCUIT	SERIES 4 CONTROL DOES NOT SUSTAIN A SHORT CIRCUIT CURRENT		

INSULATION SYSTEM	CLASS H	
PROTECTION	IP22 STANDARD - IP23 OPTIONAL (5% DERATE)	
RATED POWER FACTOR	0.8	
STATOR WINDING	DOUBLE LAYER LAP	
WINDING PITCH	TWO THIRDS	
WINDING LEADS	12	
STATOR WDG. RESISTANCE	0.0057 Ohms PER PHASE AT 22°C SERIES STAR CONNECTED	
ROTOR WDG. RESISTANCE	1.77 Ohms at 22°C	
R.F.I. SUPPRESSION	BS EN 50081/2-1/2 VDE 0875G VDE 0875N For other standards apply to the factory	
WAVEFORM DISTORTION	NO LOAD < 1.5 % NON-DISTORTING BALANCED LINEAR LOAD < 5.0 %	
MAXIMUM OVERSPEED	2250 Rev/Min	
BEARING DRIVE END **HC ONLY**	BALL. 6220 (ISO)	
BEARING NON-DRIVE END	BALL. 6314 (ISO)	
EFFICIENCY	REFER TO EFFICIENCY CURVES OF THIS SECTION	
	1 BEARING	2 BEARING **HC ONLY**
WEIGHT COMP. GENERATOR	1395 kg	1395 kg
WEIGHT WOUND STATOR	657 kg	657 kg
WEIGHT WOUND ROTOR	565 kg	534 kg
WR^2 INERTIA	8.03 kgm^2	7.73 kgm^2

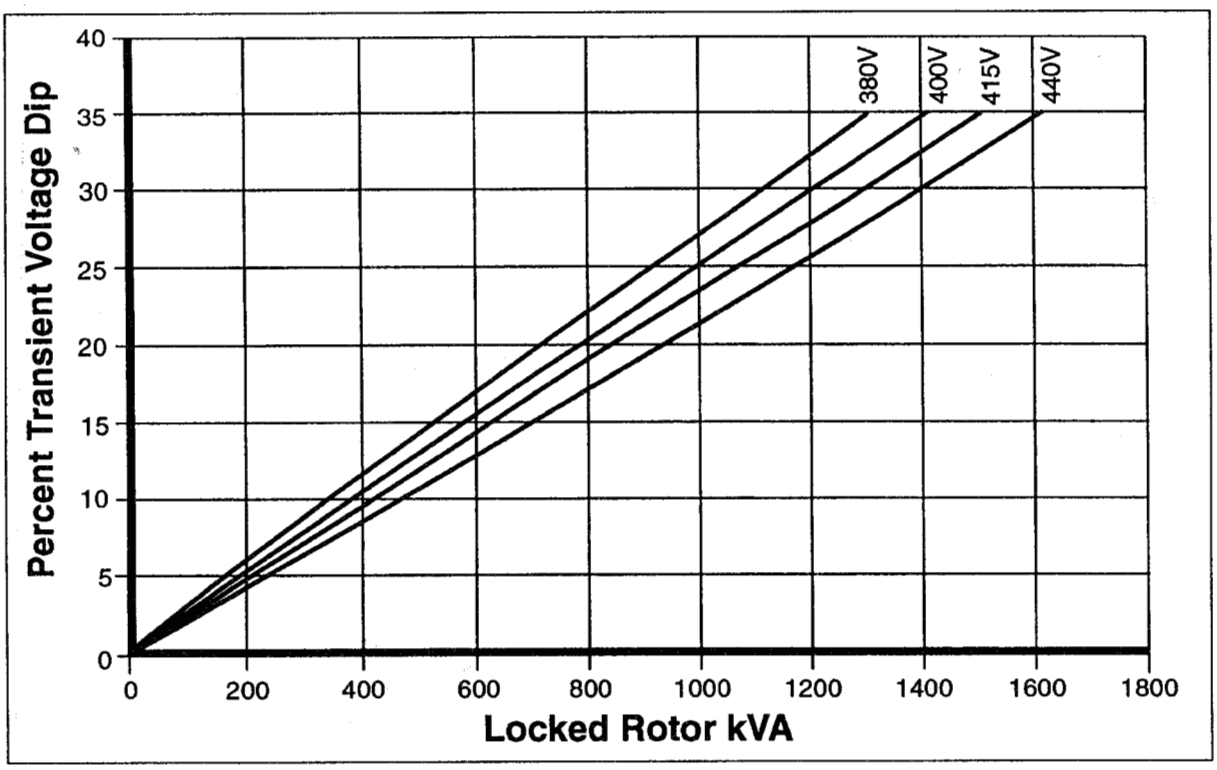
	50 Hz				60 Hz			
TELEPHONE INTERFERENCE	THF< 2%				TIF< 50			
COOLING AIR **FOR HC**	1.035 m^3/sec 2202 cfm				1.312 m^3/sec 2780 cfm			
COOLING AIR **FOR HCK**	1.23 m^3/sec 2615 cfm				1.59 m^3/sec 3366 cfm			
VOLTAGE SERIES STAR (Y)	380/220	400/231	415/240	440/254	416/240	440/254	460/266	480/277
VOLTAGE PARALLEL STAR (Y)	190/110	200/115	208/120	220/127	208/120	220/127	230/133	240/138
VOLTAGE EDISON DELTA (Δ)	220/110	230/115	240/120	250/125	240/120	254/127	266/133	277/138
kVA BASE RATING FOR REACTANCE VALUES	500	500	500	500	575	594	625	644
Xd DIR. AXIS SYNCHRONOUS	3.03	2.73	2.53	2.25	3.52	3.25	3.13	2.96
X'd DIR. AXIS TRANSIENT	0.16	0.14	0.13	0.12	0.17	0.16	0.16	0.14
X"d DIR. AXIS SUBTRANSIENT	0.11	0.10	0.09	0.08	0.12	0.11	0.11	0.10
Xq QUAD. AXIS REACTANCE	2.48	2.16	2.08	1.85	2.87	2.65	2.55	2.41
X"q QUAD. AXIS SUBTRANSIENT	0.27	0.25	0.23	0.20	0.31	0.29	0.28	0.26
X_L LEAKAGE REACTANCE	0.05	0.05	0.04	0.04	0.06	0.06	0.05	0.05
X_2 NEGATIVE SEQUENCE	0.19	0.17	0.16	0.14	0.22	0.20	0.20	0.19
X_0 ZERO SEQUENCE	0.10	0.09	0.08	0.07	0.10	0.10	0.09	0.09
REACTANCES ARE SATURATED	VALUES ARE PER UNIT AT RATING AND VOLTAGE INDICATED							

T'd TRANSIENT TIME CONST.	0.08 sec
T"d SUB-TRANSTIME CONST.	0.012 sec
T'do O.C. FIELD TIME CONST.	2.20 sec
Ta ARMATURE TIME CONST.	0.018 sec
SHORT CIRCUIT RATIO	1/Xd

ISSUE 8

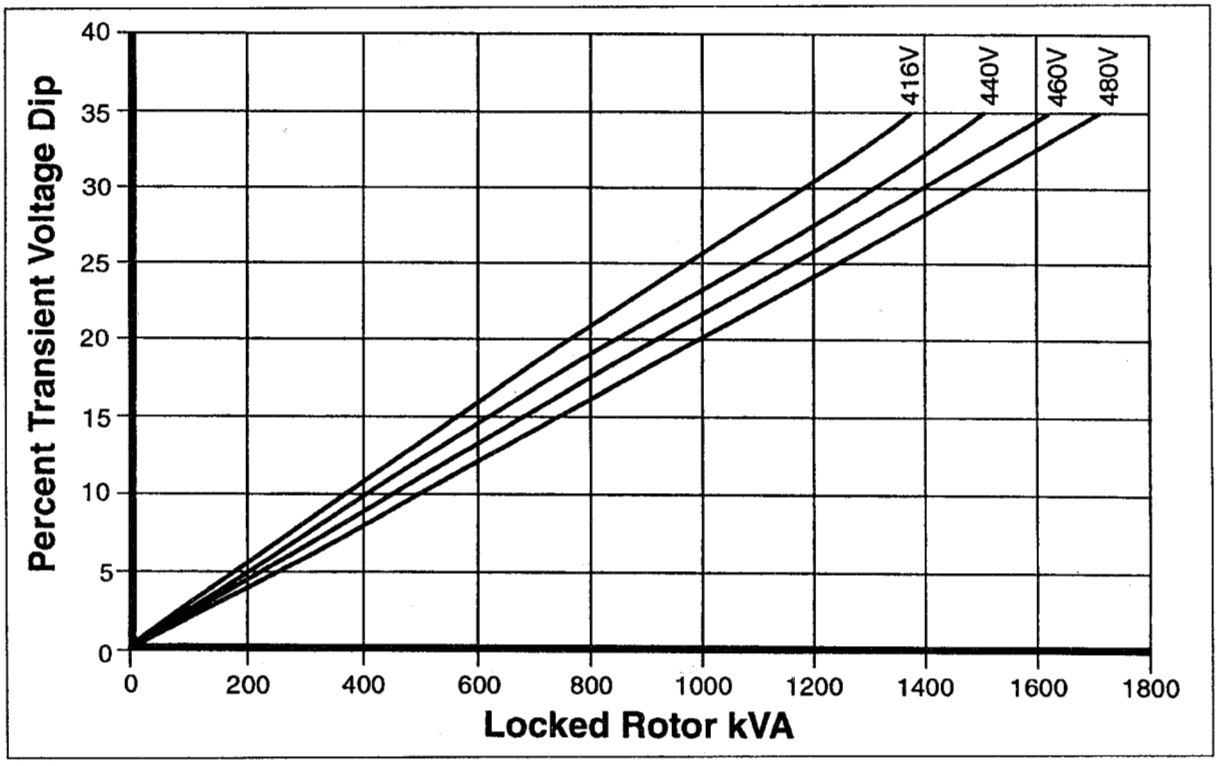
FRAME HC534D HCK534D 50 Hz

SERIES 3 WINDING 311
LOCKED ROTOR MOTOR STARTING CURVE



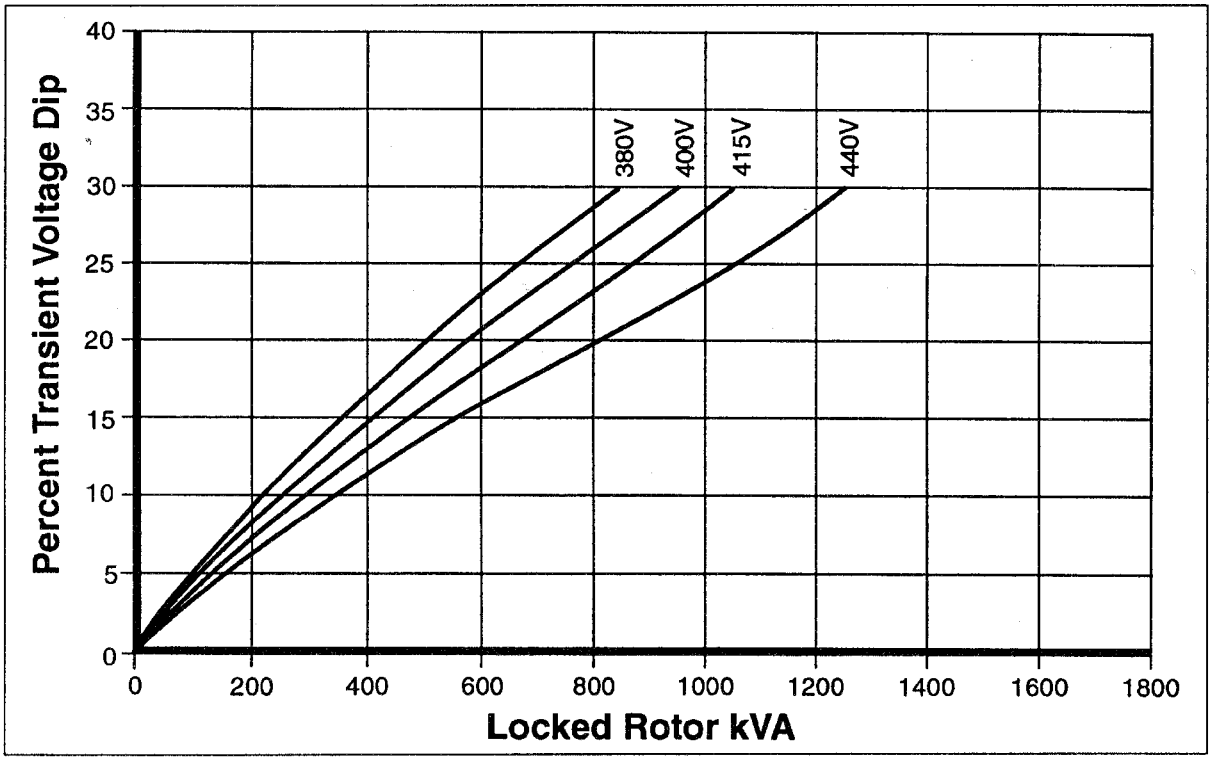
FRAME HC534D HCK534D 60 Hz

SERIES 3 WINDING 311
LOCKED ROTOR MOTOR STARTING CURVE



FRAME HC544D HCK544D 50 Hz

SERIES 4 WINDING 311
LOCKED ROTOR MOTOR STARTING CURVE



FRAME HC544D HCK544D 60 Hz

SERIES 4 WINDING 311
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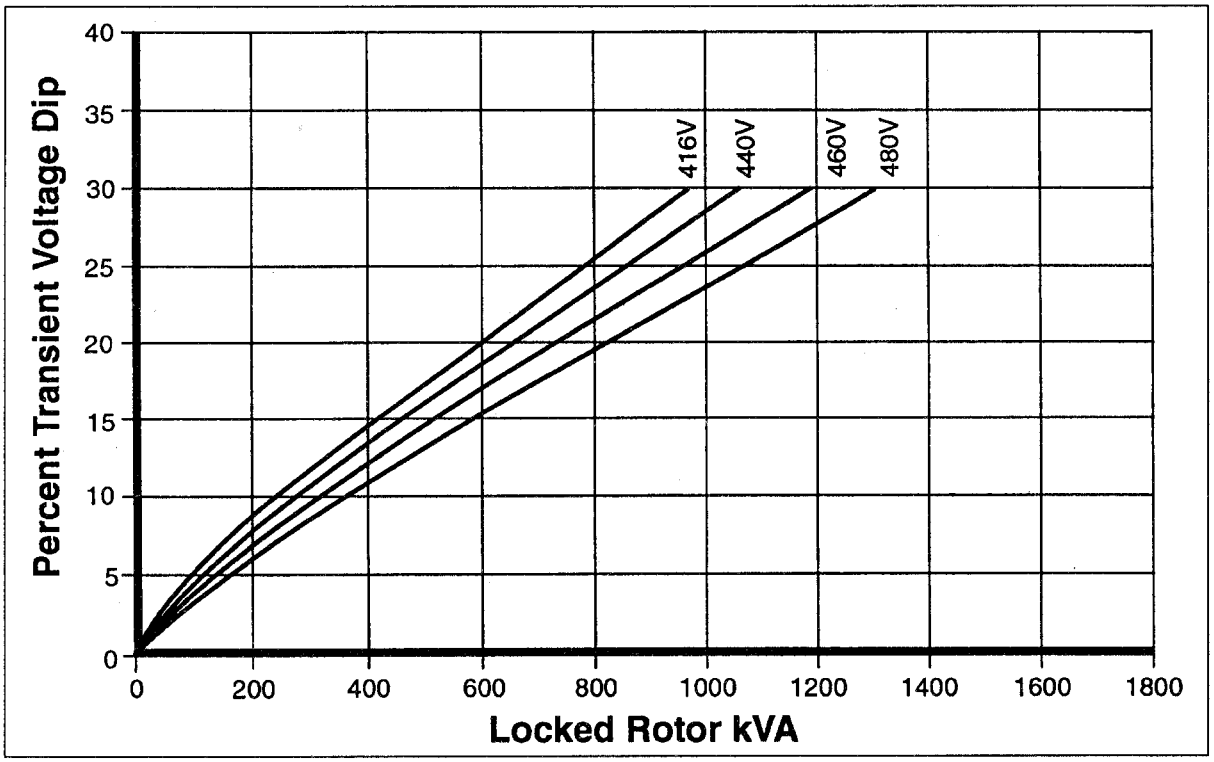
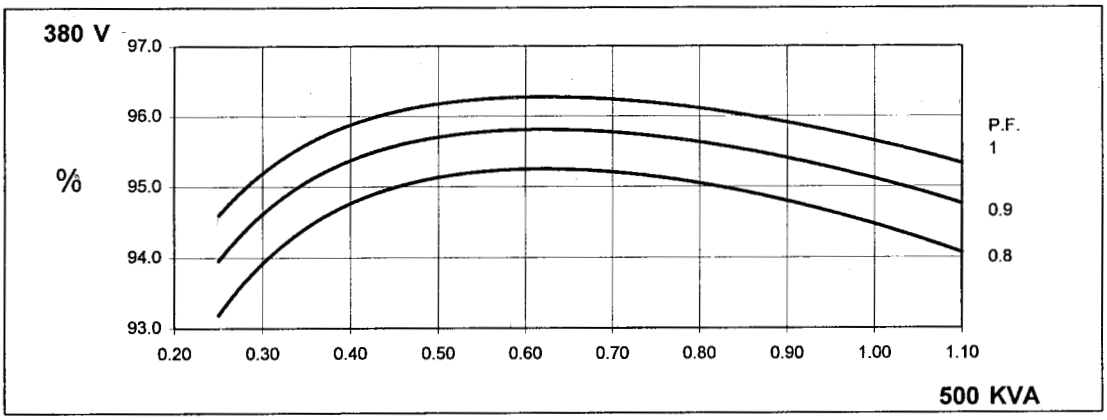
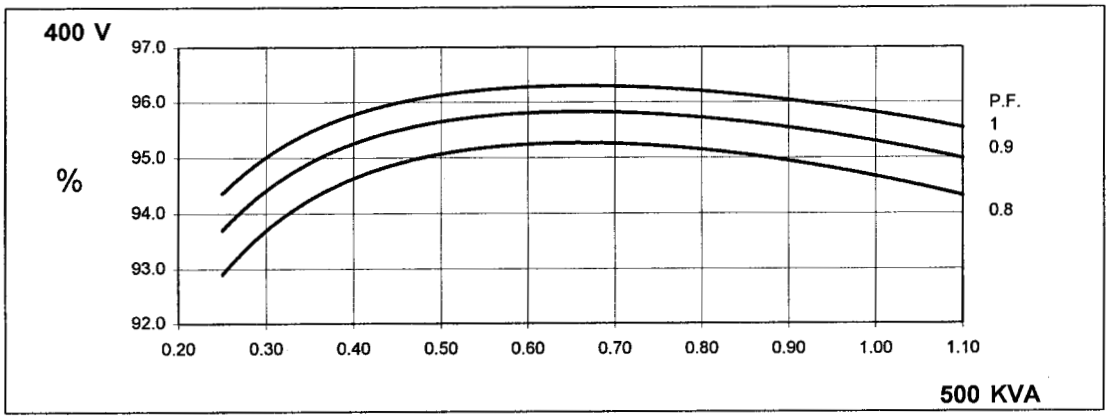
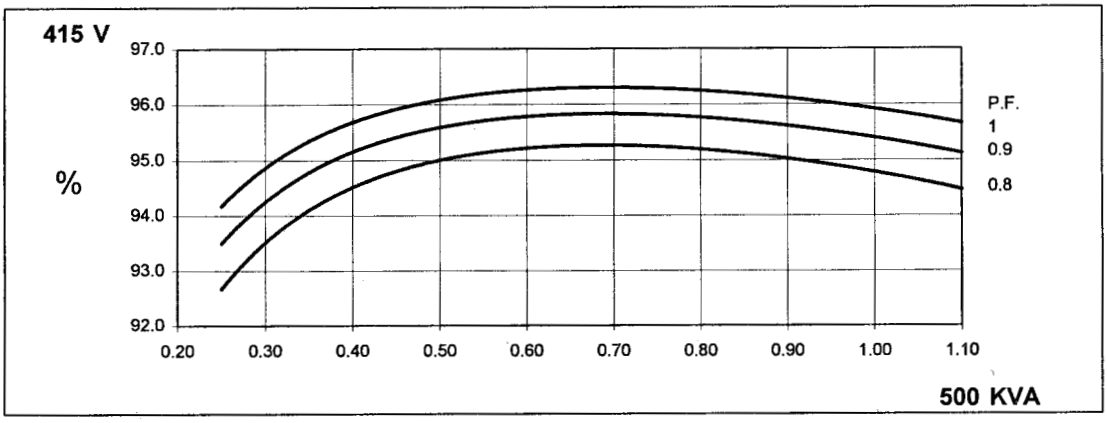
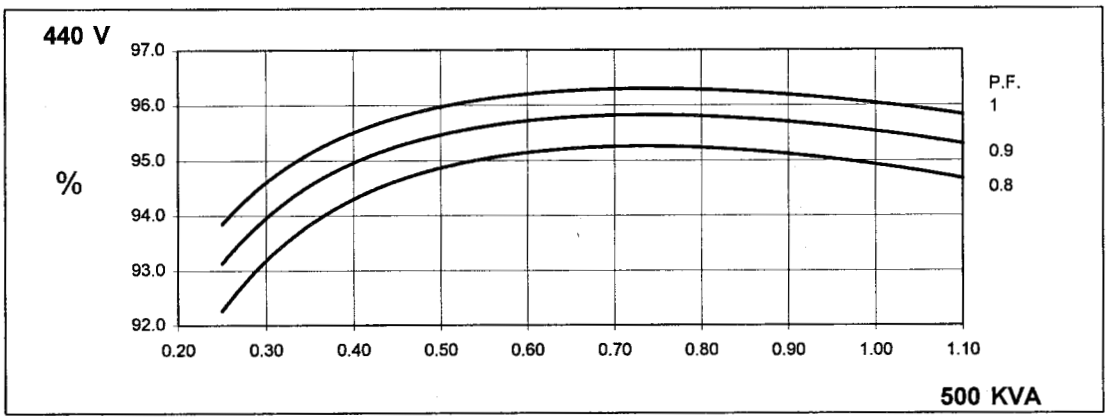


THREE PHASE EFFICIENCY CURVES









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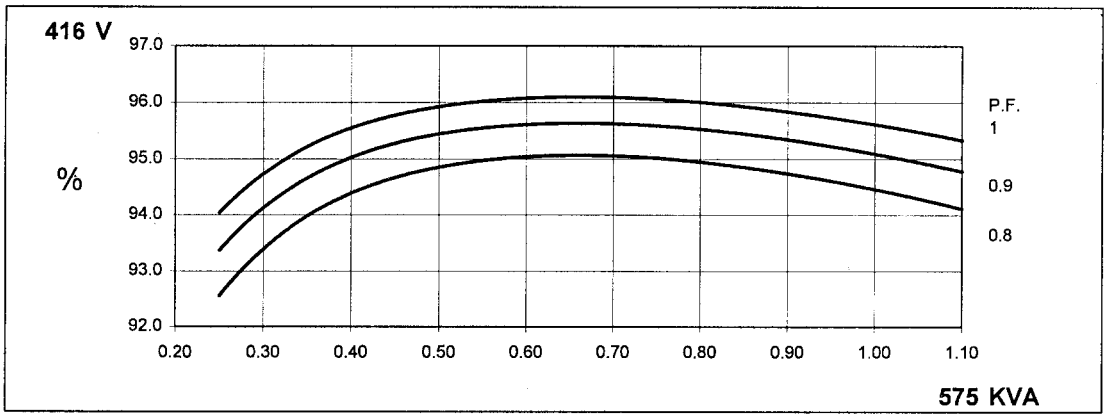
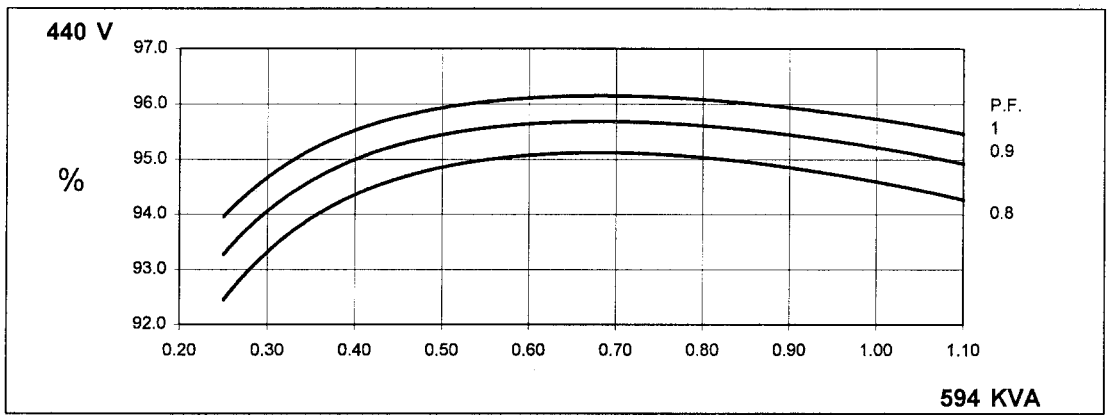
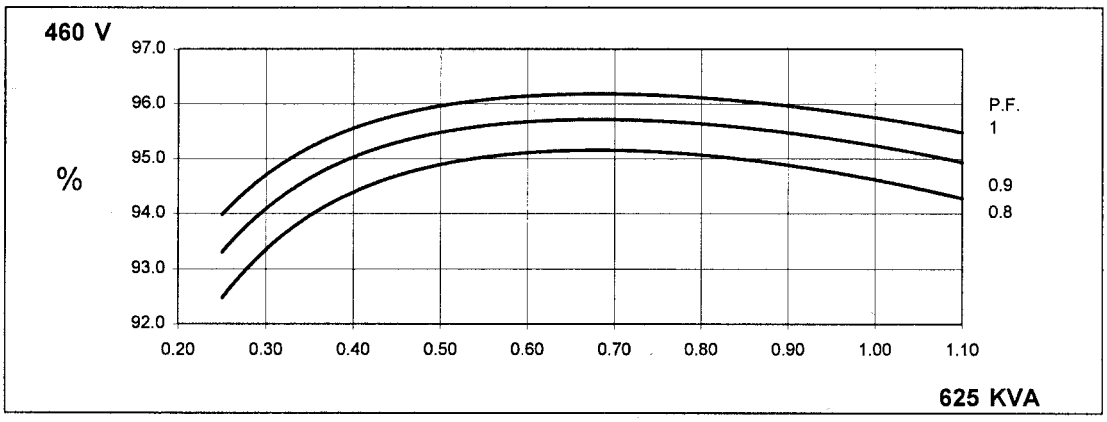
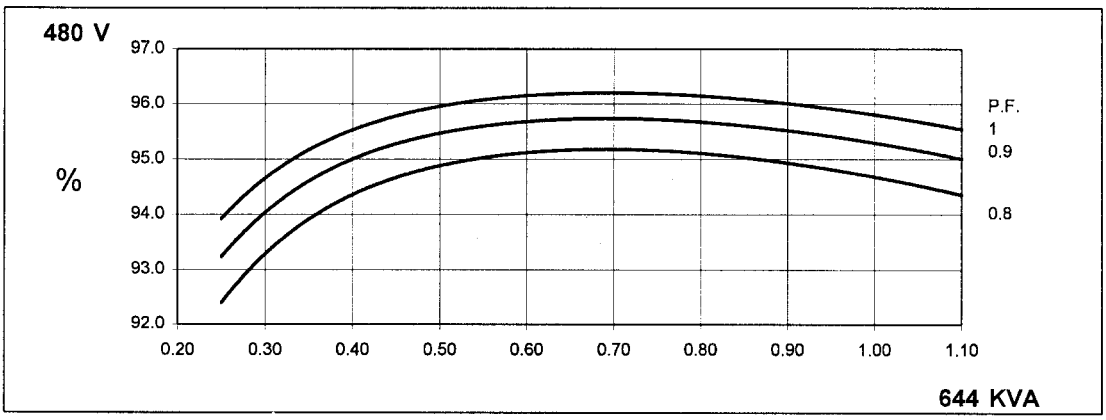




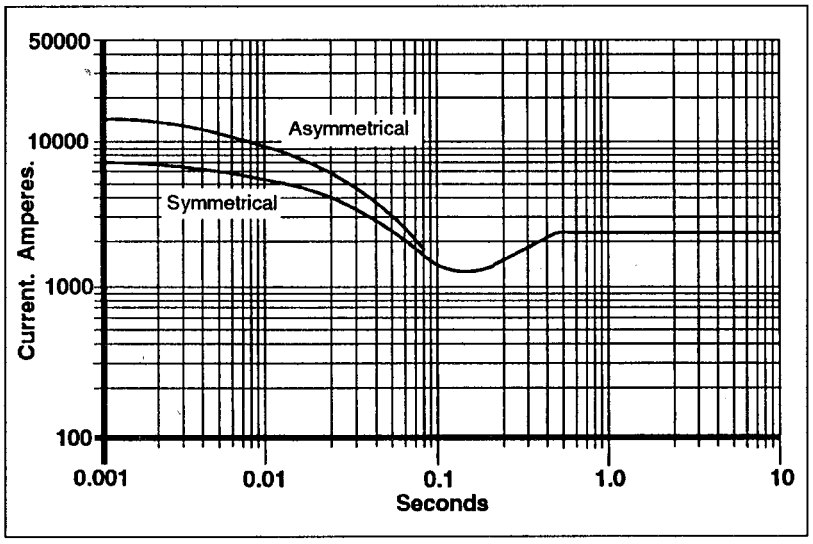




FRAME HC534D HCK534D 50 Hz

SERIES THREE
Three Phase Short Circuit Decrement Curve
No-load Excitation at Rated Speed

Based on series star (wye) connection



Note 1

The following multiplication factors should be used to adjust the values from curve between time 0.001 seconds and the minimum current point in respect of nominal operating voltage :

VOLTAGE	FACTOR
380 V	X 1.0
400 V	X 1.06
415 V	X 1.09
440 V	X 1.12

The sustained current value is constant irrespective of voltage level.

Note 2

The following multiplication factors should be used to convert the values calculated in accordance with NOTE 1 to those applicable to the various types of short circuit :

	3 PHASE	2 PHASE L-L	1 PHASE L-N
Instantaneous	X 1.00	X 0.87	X 1.30
Minimum	X 1.00	X 1.80	X 3.20
Sustained	X 1.00	X 1.50	X 2.50
Max. sustained duration	10 sec.	5 sec.	2 sec.

All other times are unchanged.

Note 3

Curves are drawn for Series Star (Wye) connected machines. For other connections the following multipliers should be applied to current values shown :

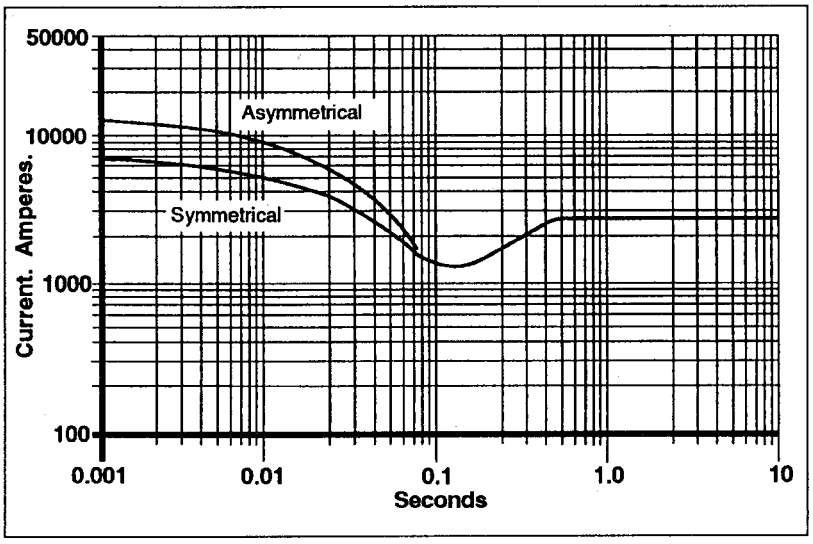
Parallel Star (Wye) Curve current value X 2
Series Delta (Δ) Curve current value X 1.732

Times are unchanged.

FRAME HC534D HCK534D 60 Hz

SERIES THREE
Three Phase Short Circuit Decrement Curve
No-load Excitation at Rated Speed

Based on series star (wye) connection



Note 1

The following multiplication factors should be used to adjust the values from curve between time 0.001 seconds and the minimum current point in respect of nominal operating voltage :

VOLTAGE	FACTOR
416 V	X 1.0
440 V	X 1.06
460 V	X 1.12
480 V	X 1.20

The sustained current value is constant irrespective of voltage level.

Note 2

The following multiplication factors should be used to convert the values calculated in accordance with NOTE 1 to those applicable to the various types of short circuit :

	3 PHASE	2 PHASE L-L	1 PHASE L-N
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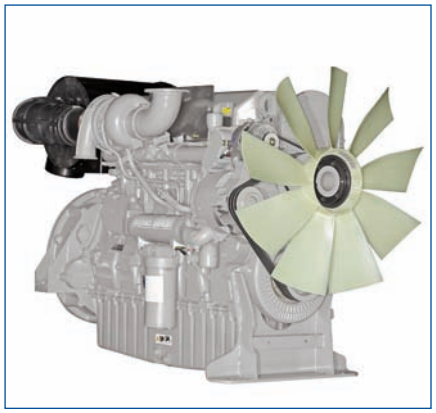
Times are unchanged.

NEWAGE
INTERNATIONAL

NEWAGE INTERNATIONAL LIMITED
PO Box 17, Barnack Road, Stamford, Lincolnshire PE9 2NB, England.
Telephone 44 (0) 1780 484000
Telex 32268 Cables Newage Stamford Fax 44 (0) 1780 484100



The 2500 Series engine has been developed using the latest engineering techniques and builds on the strengths of the already very successful 2000 Series family and addresses today's uncompromising demands within the power generation industry. Developed from a proven heavy-duty industrial base these products offer superior performance and reliability.

The 2506A-E15TAG4 is a turbocharged and air-to-air charge-cooled, 6 cylinder diesel engine. Its premium features provide exceptional power-to-weight ratio resulting in exceptional fuel consumption.

The overall performance and reliability characteristics make this the prime choice for today's power generation industry.

2500 Series

2506A-E15TAG4

Diesel Engine – ElectropaK
Non-Emissions compliant

435 kWm at 1500 rpm
543 kWm at 1800 rpm

Economic Power

- Mechanically operated unit fuel injectors with advanced electronic control, combined with carefully matched turbocharging, give excellent fuel atomisation which leads to exceptional low fuel consumption.

Reliable Power

- Developed and tested using the latest engineering techniques and finite element analysis for high reliability.
- Low oil usage and low wear rates.
- High compression ratio ensures clean rapid starting in all conditions.
- Perkins global product support is designed to enhance the customer experience of owning a Perkins powered machine. We deliver this through the quality of our distribution network, extensive global coverage and a range of Perkins supported OEM partnership options. So whether you are an end-user or an equipment manufacturer our engine expertise is essential to your success.

Compact, Clean and Efficient Power

- Exceptional power to weight ratio and compact size gives optimum power density for ease of installation and more cost effective transportation.
- Designed to provide excellent service access for ease of maintenance.

This engine does not comply with harmonized international regulated emissions limits.

Engine Speed (rev/min)	Type of Operation	Typical Generator Output (Net)		Engine Power			
				Gross		Net	
		kVA	kWe	kWm	bhp	kWm	bhp
1500	Baseload power*	-	-	9	12	0	0
	Prime power	450	360	407	546	391	525
	Standby power	500	400	451	605	435	583
1800	Baseload power*	500	400	458	614	435	583
	Prime power	569	455	519	696	495	664
	Standby power	625	500	568	762	543	729

The above ratings represent the engine performance capabilities to conditions specified in ISO 8528/1, ISO 3046/1:1986, BS 5514/1.
Derating may be required for conditions outside these; consult Perkins Engines Company Limited. Generator powers are typical and are based on an average alternator efficiency and a power factor (cos. θ) of 0.8.
Fuel specification: BS 2869: Part 2 1998 Class A2 or ASTM D975 D2. **Lubricating oil:** 15W40 to API CI4.
Rating Definitions
Baseload Power: Power available for continuous full load operation. Overload of 10% permitted for 1 hour in every 12 hours operation.
Prime Power: Power available at variable load with a load factor not exceeding 80% of the prime power rating. Overload of 10% is permitted for 1 hour in every 12 hours' operation.
Standby Power: Power available in the event of a main power network failure up to a maximum of 500 hours per year of which up to 300 hours may be run continuously. Load factor may be up to 100% of standby power. No overload is permitted.
* Baseload ratings indicated are under development and will be available later.

Publication No. 1844/01/08 Produced in England

2500 Series

2506A-E15TAG4

Standard ElectropaK Specification

Air inlet
- Mounted air filter

Fuel system
- Mechanically actuated electronically controlled unit fuel injectors with full authority electronic control
- Governing to ISO 8528-5 class G3 with isochronous capability
- Replaceable 'Ecoplus' fuel filter elements with primary filter/water separator
- Fuel cooler

Lubrication system
- Wet sump with filler and dipstick
- Full-flow replaceable 'Ecoplus' filter
- Oil cooler integral with filter header

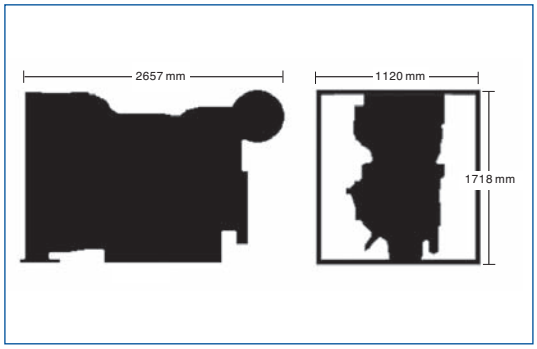
Cooling system
- Gear-driven circulating pump
- Mounted belt-driven fan
- Radiator supplied loose incorporating air-to-air charge cooler
- System designed for ambients up to 50ºC

Electrical equipment
- 24 volt starter motor and 24 volt 70 amp alternator with DC output
- ECM mounted on engine with wiring looms and sensors
- 3 level engine protection system

Flywheel and housing
- High inertia flywheel to SAE J620 size 14
- SAE ½ flywheel housing

Mountings
- Front engine mounting bracket

Optional Equipment
- 110 volt/240 volt immersion heater
- Additional speed sensor
- Temperature and pressure sensors for gauges
- Air filter rain hood
- Twin starters/facility for second starter
- Tool kit
- Additional manuals
- Closed circuit crankcase ventilation system



Fuel Consumption				
Engine Speed	1500 rev/min		1800 rev/min	
	g/kWh	l/hr	g/kWh	l/hr
Standby	198	100	198	125
Prime power	199	90	200	115
75% of prime power	202	69	205	88
50% of prime power	213	48	217	62

General Data

Number of cylinders	6
Cylinder arrangement	Vertical in-line
Cycle	4 stroke
Induction system	Turbocharged and air-to-air charge cooled
Combustion system	Direct injection
Cooling system	Water-cooled
Bore and stroke	137 mm x 171 mm
Displacement	15.2 litres
Compression ratio	16:1
Direction of rotation	Anti-clockwise, viewed on flywheel
Total lubrication system capacity	62 litres
Total coolant capacity	58 litres
Dimensions	Length 2657 mm Width 1120 mm Height 1718 mm
Dry weight (ElectropaK)	1,633 kg

Final weight and dimensions will depend on completed specification

Perkins®

Perkins Engines Company Limited
Peterborough PE1 5NA
United Kingdom
Telephone +44 (0)1733 583000
Fax +44 (0)1733 582240
www.perkins.com

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