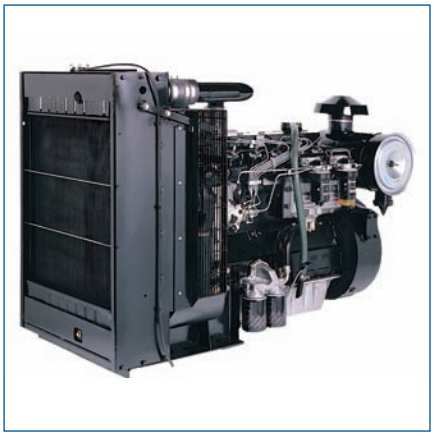
ژنراتور : Mecc Alte

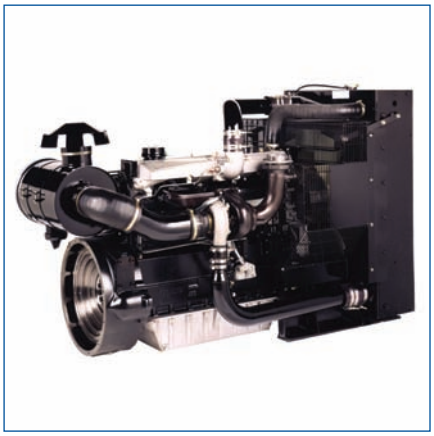
موتور دیزل : Perkins

Standby		Prime		
KW	KVA	KW	KVA	
165	132	150	120	دیزل ژنراتور

موتور دیزل		
Manufacturer	Perkins	تولید کننده
Type	1006TAG2	تیپ
Number of cylinders	6	تعداد سیلندر ها
Cylinder arrangement	Vertical inline	آرایش سیلندر ها
Displacement , Liters	5.99	جا به جایی
Bore × Stroke , mm	100x127	قطر سیلندر × کورس پیستون
Compression Ratio	17,0:1	نسبت تراکم

ژنراتور		
Manufacturer	Mecc Alte	تولید کننده
Type	ECP34-2L	تیپ
Frequency, Hz	50	فرکانس
Speed, Rpm	1500	سرعت
Voltage, V	380	ولتاژ
Excitation	Brushless	سیستم تحریک
Stator windings	12 ends	سیم پیچ استاتور
Rotor	with damping cage	روتور
Over speed, Rpm	2250	حداکثر سرعت مجاز
Insulation class	H	کلاس عایق
Protection class	IP 21	کلاس حفاظتی
Phase	3	فاز





The Perkins 1000 Series family of ElectropaK engines are renowned throughout the power generation industry for their superior performance and reliability.

The 1006TAG2 is a turbocharged, 6 cylinder, 6 litre engine. Its premium design features provide economic and durable operation offering the ideal characteristics for electrical power generation.

1000 Series

1006TAG2

Diesel Engine – ElectropaK

143 kWm 1500 rev/min

Economic power

- Single side servicing for reduced service time and cost.
- Unique Fastram combustion system enables high power output plus low fuel consumption.
- Electronic governor gives close control for 50 Hz (1500 rpm) operation.

Durable power

- Maximum cooling efficiency is provided by a gear driven water pump and independent fan drive.
- Leak free operation is ensured by Viton crankshaft seals and sophisticated controlled swell joints, giving protection in the toughest conditions.
- Inserted valve seats, oil spray cooled pistons and compact plate cooler give enhanced engine life.

Reliable power

- Suitable for operation in ambient temperatures up to 53ºC (46ºC if a canopy is fitted).
- Fuelled starting aid for temperatures down to -20ºC.

Product Support

- Perkins actively pursues product support excellence by ensuring our distribution network invest in their territory - strengthening relationships and providing more value to you, our customer
- Through an experienced global network of distributors and dealers, fully trained engine experts deliver total service support around the clock, 365 days a year. They have a comprehensive suite of web based tools at their fingertips covering technical information, parts identification and ordering systems, all dedicated to maximising the productivity of your engine
- Throughout the entire life of a Perkins engine, we provide access to genuine OE specification parts and service. We give 100% reassurance that you receive the very best in terms of quality for lowest possible cost .. wherever your Perkins powered machine is operating in the world

Engine Speed (rev/min)	Type of Operation	Typical Generator Output (Net)		Engine Power			
				Gross		Net	
		kVA	kWe	kWm	bhp	kWm	bhp
1500	Prime Power Standby Power	150.0 165.0	120.0 132.0	136.8 150.5	183,4 201.7	129.3 143.0	173.3 191.7

All ratings data based on operating under ISO/TR 14396/ISO 8528 conditions using typical fan sizes and drive ratios. For operation outside of these conditions please consult your Perkins contact. Performance tolerance quoted by Perkins is +5%.

Electrical ratings assume a power factor of 0.8 and a generator efficiency of 90%.

Fuel specification: BS 2869 Part 2 1998 Class A2 or ASTM D975 D2
Lubrication oil: A single or multigrade oil to ACEAE1 E2 or API CD/SD

Rating Definitions
Prime Power: Power available at variable load in lieu of main power network. An overload of 10% is permitted for 1 hour in every 12 hours of operation.
Standby Power: Power available at variable load in the event of a main power network failure. No overload is permitted.

Publication No. 1793/11/08 Produced in England

1000 Series
1006TAG2

Standard ElectropaK Specification

Air inlet
- Mounted air filter and turbocharger

Fuel System
- Rotary fuel injection pump
- Electronic governor – speed control to BS 5514 Class A0, ISO 3046-4M3
- Twin spin-on full flow fuel filters and pre-filter

Lubrication system
- Flat bottomed aluminium sump
- Twin spin-on full flow oil filters
- Oil cooler

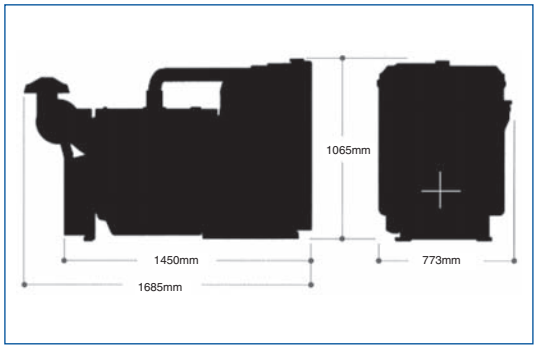
Cooling system
- Thermostat controlled cooling system with gear driven water pump
- 25″ belt-driven pusher fan and guards
- Radiator incorporating air-to-air charge cooler and piping

Electrical system
- 12 volt starter motor and 55 amp alternator with DC output
- 12 volt oil pressure and coolant temperature switches
- 12 volt shut down solenoid – energised to run cold start aid

Flywheel and housing
- Cast iron SAE 3 flywheel housing
- High inertia flywheel to SAE J620 size 10/11½

Mountings
- Front engine mounting bracket

Optional Equipment
- 24 volt alternator
- 24 volt starter motor
- Water temperature gauge and sender
- Heater/Starter switch
- Rear engine mountings
- Workshop manual
- Parts book
- User handbook



General Data

Number of cylinders	6
Cylinder arrangement	Vertical in-line
Cycle	4 stroke
Induction system	Turbocharged, air-to-air aftercooled
Combustion system	Direct injection
Cooling system	Water-cooled
Bore and stroke	100 x 127 mm
Displacement	5.99 litres
Compression ratio	17.0:1
Direction of rotation	Anti-clockwise, viewed on the flywheel
Total lubrication system capacity	19 litres
Coolant capacity (inc. radiator)	41 litres
Length	1685 mm
Width	773 mm
Height	1065 mm
Total weight (dry)	690 kg

Overall dimensions and weight will depend on final specification.§§

Fuel consumption litres/hour (UK gallons/hour)	
Power Rating %	1500 rev/min
110	45.0 (9.9)
100	41.0 (9.0)
75	31.0 (6.8)
50	20.0 (4.4)

Perkins®

mecc alte spa

GENERATOR TYPE ECP 34-2L/4

Document : **DS015A/1**

issue 001 date 14/06/2005

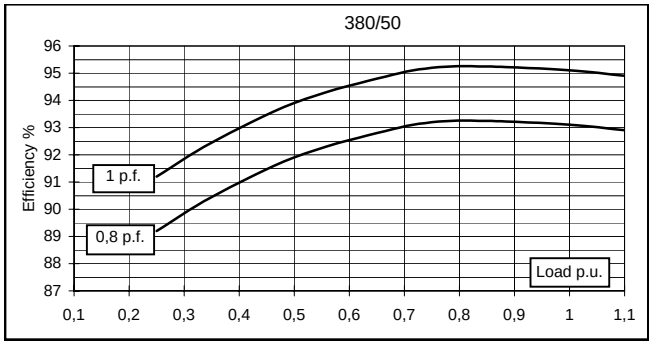
Electrical Characteristics										
Frequency		Hz	50				60			
Voltage (series star)		V	380	400	415	440	415	440	460	480
Rated power class H		kVA	150	150	150	125	150	170	180	180
		kW	120	120	120	100	120	136	144	144
Rated power class F		kVA	136	136	136	113	132	150	163	163
		kW	109	109	109	90,4	106	120	130	130
Regulation with		SR7/2	±1,5 % with any power factor and speed variations between -5% +30%							
Insulation class			H							
Execution			Brushless							
Stator winding			12 ends							
Rotor			with damping cage							
Efficiencies class H	4/4	%	93,1	93,2	92,9	92,7	94,3	94,8	94,9	95
(see graph. for details)	3/4	%	93,2	93,5	93,4	93,1	94,7	94,9	95	95,2
	2/4	%	91,9	92	92	91,8	93,5	93,6	93,7	93,8
	1/4	%	89,2	89	88,8	88,8	90,2	90,2	90,2	90
Reactances (f. l.cl. F)	Xd	%	265,9	240	223,0	165,3	267,6	269,8	261,3	240
	Xd'	%	16,4	14,8	13,7	10,2	16,5	16,6	16,1	14,8
	Xd"	%	6,9	6,2	5,8	4,3	6,9	7,0	6,8	6,2
	Xq	%	135,3	122,1	113,4	84,1	136,1	137,2	132,9	122,1
	Xq'	%	135,3	122,1	113,4	84,1	136,1	137,2	132,9	122,1
	Xq"	%	29,4	26,5	24,6	18,3	29,5	29,8	28,9	26,5
	X_2	%	18,3	16,5	15,3	11,4	18,4	18,5	18,0	16,5
	X_0	%	2,8	2,5	2,3	1,7	2,8	2,8	2,7	2,5
Short Circuit Ratio	Kcc		0,40	0,48	0,55	0,91	0,30	0,35	0,40	0,48
Time Constants	Td'	sec.	0,0401							
	Td"	sec.	0,0095							
	Tdo'	sec.	1,90							
	$T\alpha$	sec.	0,017							
Short Circuit Current Capacity		%	>300				>350			
Excitation at no load		Amp.	0,3	0,4	0,5	0,7	0,2	0,3	0,4	0,5
Excitation at full load		Amp.	2,3	2,4	2,5	2,7	2,1	2,3	2,4	2,6
Overload (long-term)		%	1 hour in a 6 hours period 110% rated load							
Overload per 20 sec.		%	300							
Stator Winding Resistance (20°C)		Ω	0,015							
Rotor Winding Resistance (20°C)		Ω	3,577							
Exciter Resistance (20 °C)		Ω	Rotor : 0,410				Stator : 15,28			
Heat dissipation at f.l.cl.H		W	8894	8755	9171	7875	7253	7460	7739	7579
Telephone Interference			THF < 2%				TIF < 40			
Radio interference			EN50081-1; EN50082-1; VDE0875K. For others standards apply to factory							
Waveform Distors.(THD) at f. load		LL/LN %	1,7 / 1,8							
Waveform Distors.(THD) at no load		LL/LN %	2,3 / 2,4							
Mechanical characteristics										
Protection			IP 21 (other protection on request)							
DE bearing			6314.2RS							
NDE bearing			6311.2RS							
Weight of wound stator assembly		kg	168							
Weight of wound rotor assembly		kg	106							
Weight of complete generator		kg	491							
Maximun overspeed		rpm	2250							
Unbalanced magnetic pull at f.l.cl.F		kN/mm	5,6							
Cooling air requirement		m^3/min	19,3				23			
Inertia Constant (H)		sec.	0,098				0,117			
Noise level at 1m/7m		dB(A)	79 / 65				83 / 69			

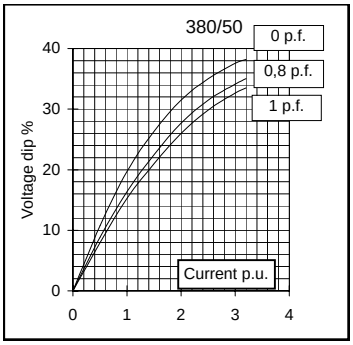
All technical data are to be considered as a reference and they can be modified without any notice

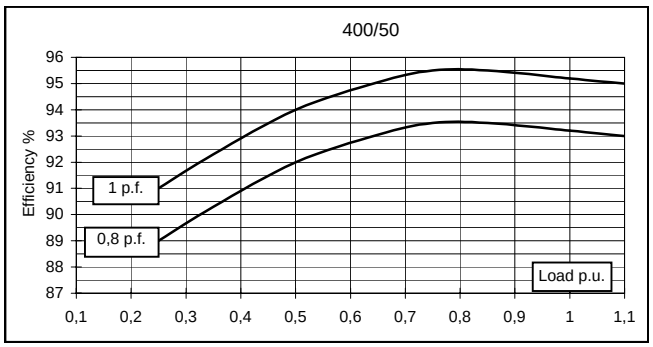
GENERATOR TYPE ECP 34-2L/4

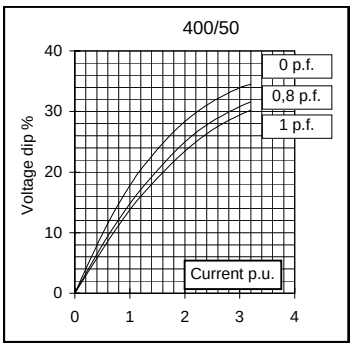
Document : **DS015A/2**
issue 000 date : 14/06/05

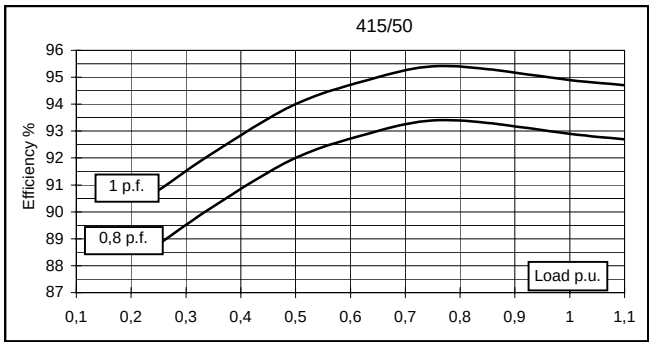
50 Hz

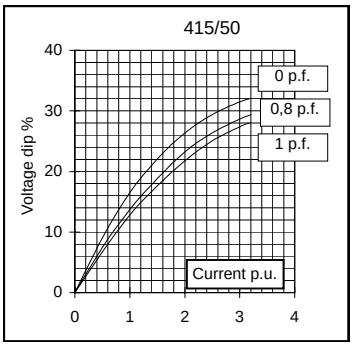


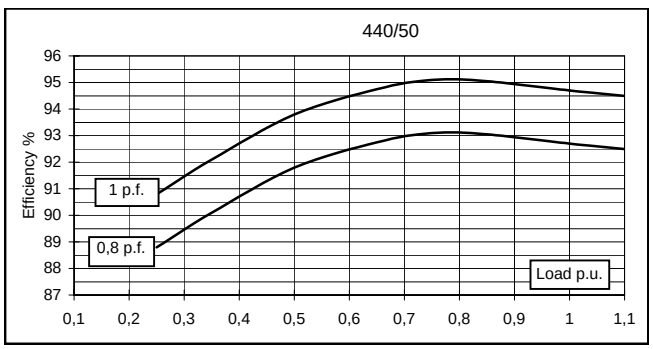


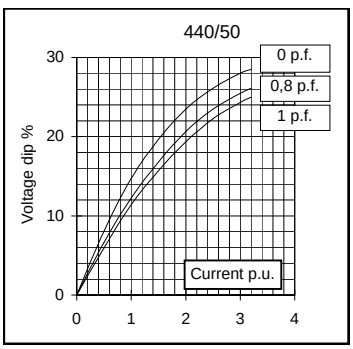


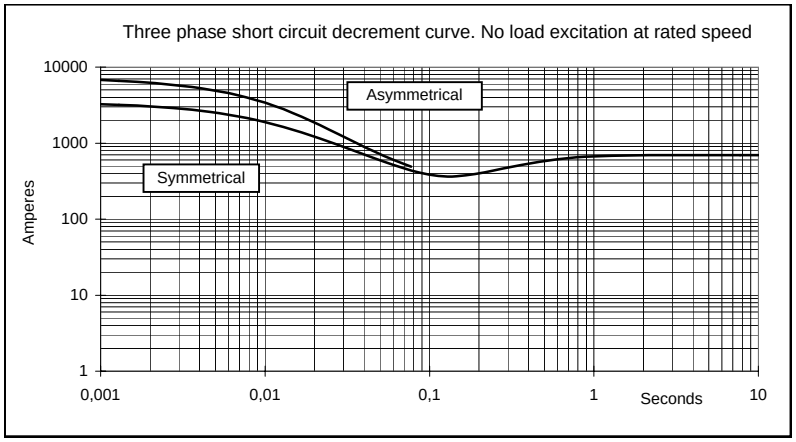








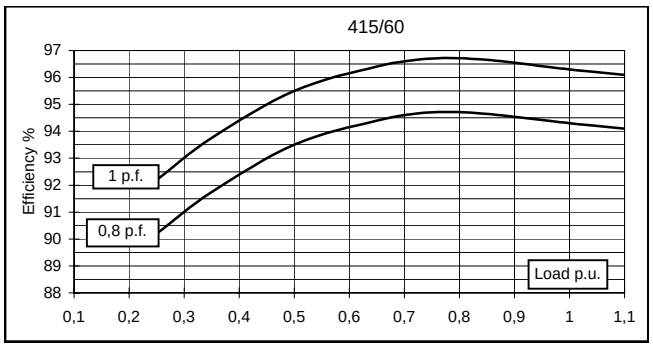


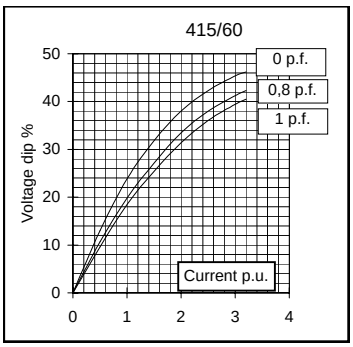


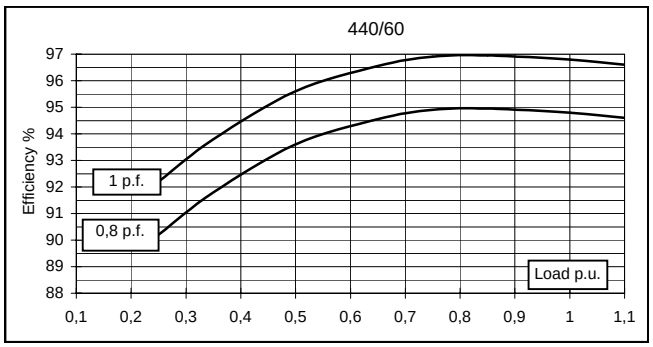
GENERATOR TYPE ECP 34-2L/4

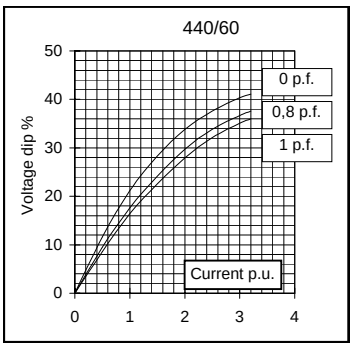
Document : **DS015A/3**
issue 000 date : 14/06/05

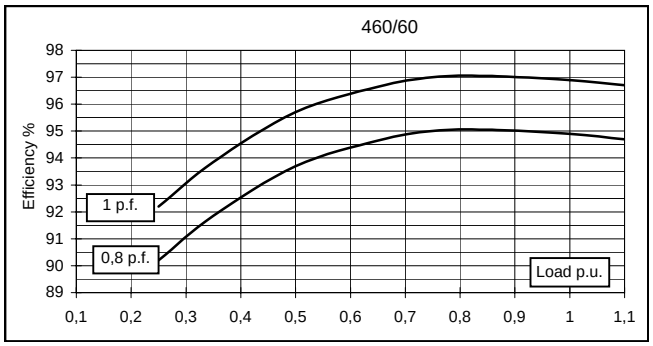
60 Hz

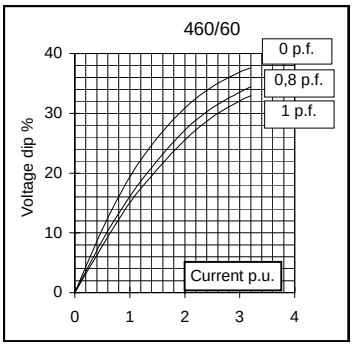


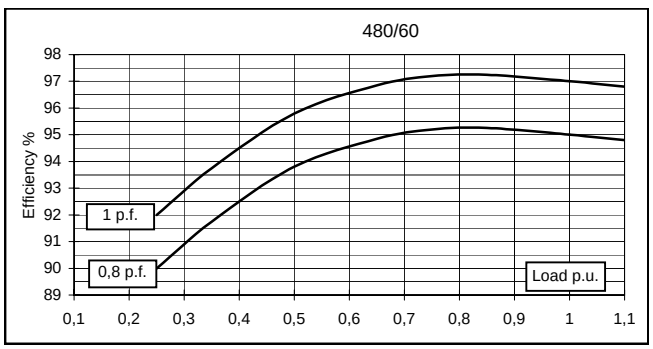


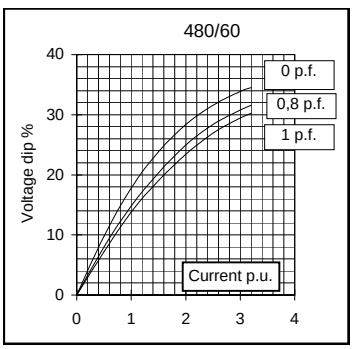


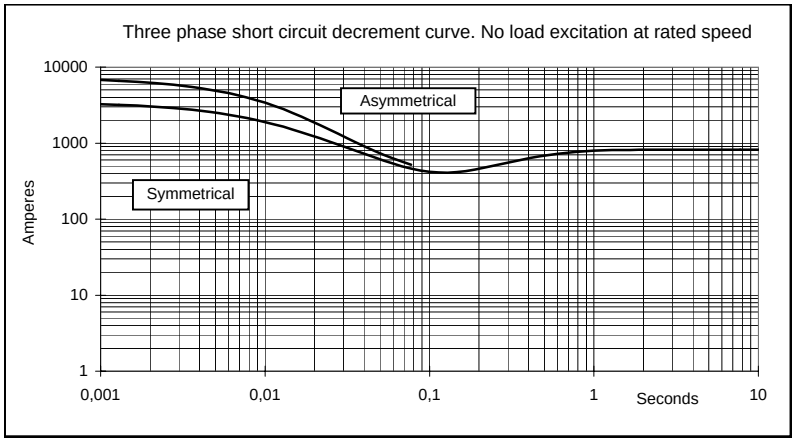




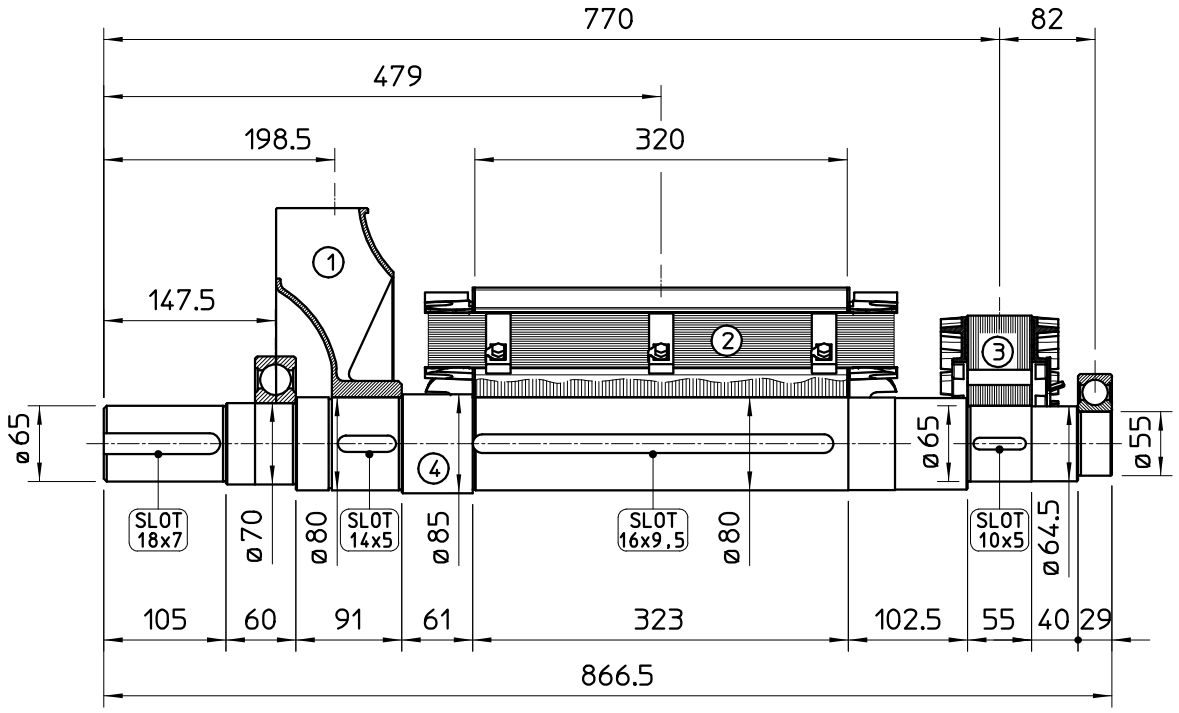






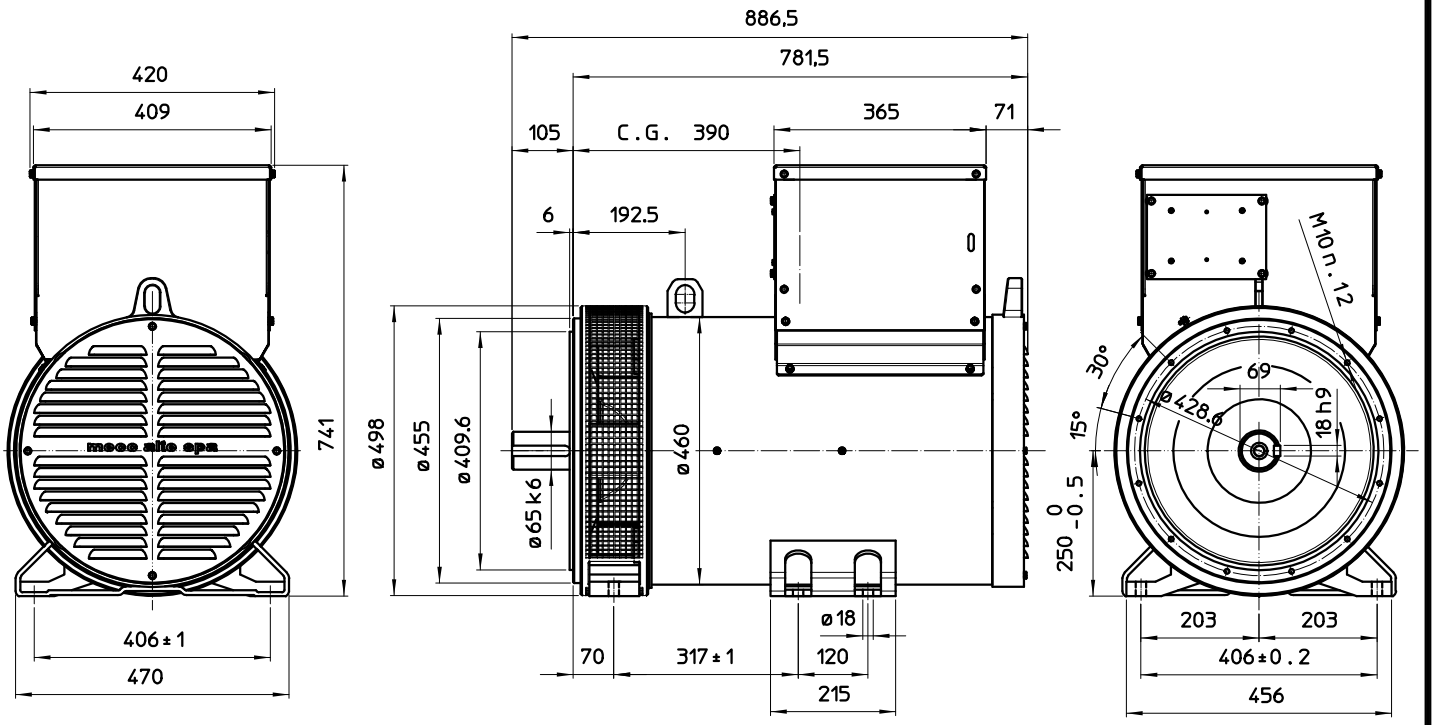


TWO BEARING MOMENTS OF INERTIA



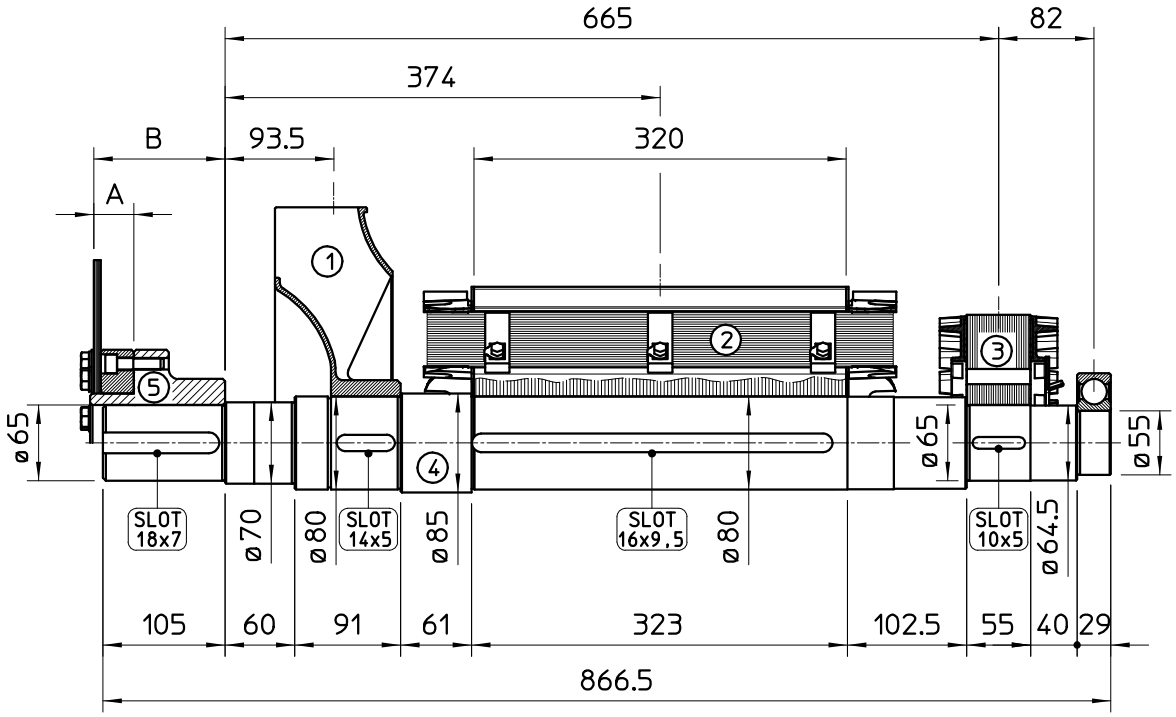
	COMPONENT	WEIGHT kg	J kgm^2
1	FAN	3,3	0,0451
2	MAIN ROTOR	106	1,0320
3	EX. ROTOR	14,5	0,0874
4	SHAFT	29,6	0,0218
	TOTAL	153,4	1,1863

TWO BEARING DIMENSIONS



C.G.= GRAVITY CENTER

SINGLE BEARING MOMENTS OF INERTIA



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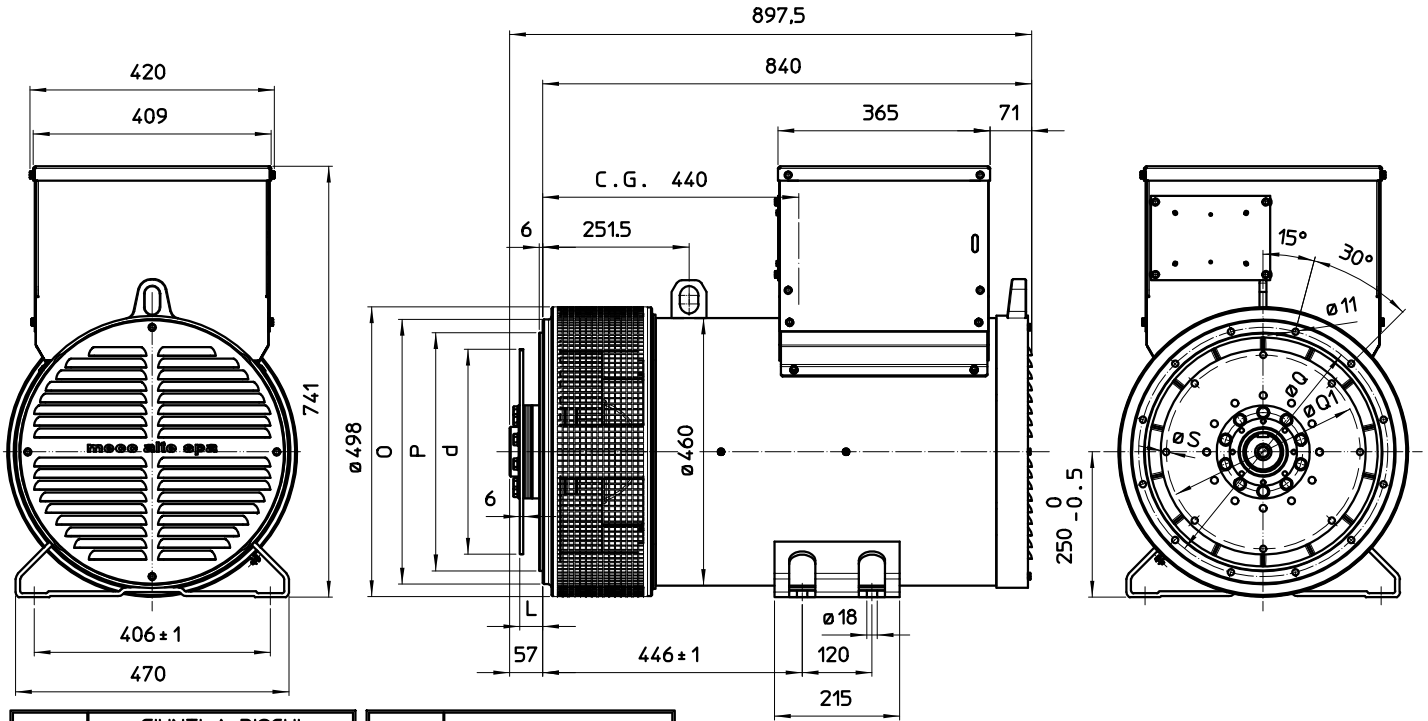
4	SHAFT	29,6	0,0218
	TOTAL	153,4	1,1863

SAE N°	5 SHAFTS COUPLING FLEX PLATE			
	A	B	WEIGHT Kg	J kgm^2
10	34,4	112,8	13,5	0,0770
11,5	20	98,6	12,5	0,0956
14	6	84,4	14,8	0,2360

SINGLE BEARING DIMENSIONS



SAE N.	GIUNTI A DISCHI DISC COUPLING DISQUE DE MONOPALIER SCHEIBENKUPPLUNG				
	L	d	Q1	N. fori	S
10	53,8	314,32	295,27	8	11
11 1/2	39,6	352,42	333,37	8	11
14	25,4	466,72	438,15	8	14

SAE N.	FLANGIA/FLANGE BRIDE/FLANSCH			
	O	P	Q	N. fori
3	451	409,6	428,6	12
2	489	447,7	466,7	12
1	552	511,2	530,2	12

C.G.= GRAVITY CENTER