موتور دیزل : Iveco	ژنراتور : MeccAlte

Standby		Prime		
KVA	KW	KVA	KW	
176	-	160	128	دیزل ژنراتور

N67 TM3A

152 kW@1500 rpm
165 kW@1800 rpm
EU 2002/88/EC

Specifications

Thermodynamic cycle		Diesel 4 stroke	
Air intake		TAA	
Arrangement		6, in line	
Bore x Stroke	mm	104 x 132	
Total displacement	l	6.7	
Valves per cylinder		2	
Injection system		direct	
Speed governor		mechanical	
Cooling system		liquid (water + 50% Paraflu11)	
Flywheel housing/flywheel	type	SAE3 / 11" 1/2	
Flywheel rotation		CCW	
Lube oil specifications		ACEA E3-E5	
Lube oil consumption		<0.1% of fuel consumption	
Fuel specifications		EN 590	
Oil and filters intervals for replacement	hours	600	
Fuel consumption at:	rpm	1500	1800
	100% load l/h (g/kWh)	36.0 (212.7)	40.0 (217.5)
	80% load l/h (g/kWh)	29.0 (213.8)	32.0 (220.4)
	50% load l/h (g/kWh)	18.0 (215.0)	21.0 (224.7)
Coolant capacity: engine only	l	~10.5	
engine+radiator	l	~25.5	
ATB (without canopy)	°C	55	
No remote cooling radiator allowed			
Lube oil total system capacity including pipes, filters etc.	l	~17.2	
Electrical system		12Vcc	
Starting batteries: recommended capacity	Ah	1x100	
Discharge current (EN 50342)	A	650	
Cold starting: without air preheating	°C	-10	
with air preheating	°C	-25	

Performances

Ratings[1]		1500 rpm		1800 rpm	
		PRIME	STAND-BY	PRIME	STAND-BY
Rated Output[2]	kWm	138	152	150	165

1) Ratings in accordance with ISO 8528. For duty at temperature over 40°C and/or altitude over 1000 meters must be considered a power derating factor. Contact the FPT sales organization.
2) Net power at flywheel available after 50 hours running with a ±3% tolerance.

PRIME POWER: The prime power is the maximum power available with varying loads for an unlimited number of hours. The average power output during a 24h period of operation must not exceed 80% of the declared prime power between the prescribed maintenance intervals and at standard environmental conditions. A 10% overload is permissible for 1 hour every 12 hours of operation.

STAND-BY POWER: The stand-by power is the maximum power available for a period of 500 hours/year with a mean load factor of 90% of the declared stand-by power. No kind of overloads is permissible for this use.

CONTINUOUS POWER: Contact the FPT sales organization.

Standard configuration

FPT engine N67 TM3A equipped with:

- Mounted radiator incorporating air-to-air charge cooler
- Mounted belt driven pusher fan
- Fan guard
- Mounted air filter with replaceable cartridges
- Fuel filter
- Primary fuel filter/water separator
- Replaceable oil filter
- Front engine mounting brackets
- Flywheel housing SAE3 and flywheel 11" 1/2
- Re-directable exhaust gas elbow
- Recirculed oil breather system
- Oil dipstick
- HWT and LOP sensors
- 12Vdc electrical system
- User's handbook

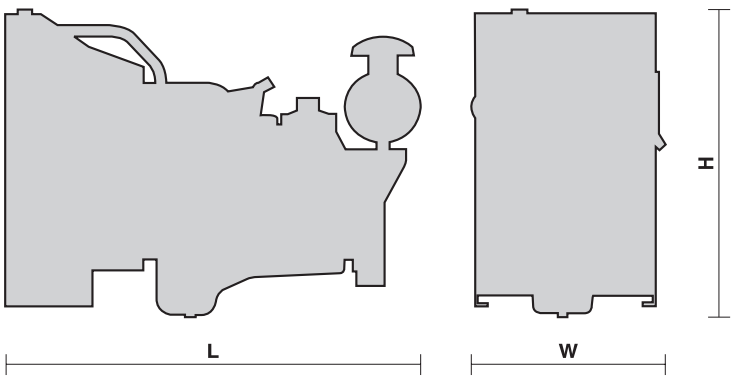
THE ENGINE IS SUPPLIED WITHOUT LIQUIDS

Optional equipment:

On request the engine can be supplied with:

- Oil drain pump
- Oil drain valve
- 120/230 Volt water jacket heater
- WT and OP sensors for gauges
- Low water level sensor
- Turbo and exhaust gas guards
- Exhaust gas flexible joint
- 24Vdc electrical system

Overall dimensions:



L = 1697 mm
W = 789 mm
H = 1318 mm
Dry weight ~ 640 kg

Publication P4A06N010E - 12.09
Specifications subject to change without notice.
Illustrations may include optional equipment.

GENERATOR TYPE ECP 34-3L/4 A

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Electrical Characteristics										
Frequency		Hz	50				60			
Voltage (series star)		V	380	400	415	440	415	440	460	480
Rated power class H		kVA	155	160	160	150	165	185	192	192
		kW	124	128	128	120	132	148	154	154
Rated power class F		kVA	140	145	145	135	150	160	173	173
		kW	112	116	116	108	120	128	138	138
Regulation with		DSR	±1% 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	%	93,4	93,5	93,2	93	94,6	95,1	95,2	95,3
(see graph. for details)	3/4	%	93,4	93,7	93,6	93,3	95	95,2	95,3	95,5
	2/4	%	92,2	92,3	92,3	92,1	93,8	93,9	94	94,1
	1/4	%	89,8	89,6	89,4	89,4	91,2	91,2	91,2	91
Reactances (f. l.cl. F)	Xd	%	225,4	210	195,1	162,7	241,4	240,8	228,7	210
	Xd'	%	18,7	17,4	16,2	13,5	20,0	20,0	18,9	17,4
	Xd"	%	7,8	7,3	6,8	5,7	8,4	8,4	7,9	7,3
	Xq	%	153,5	143	132,8	110,8	164,4	164,0	155,7	143
	Xq'	%	153,5	143	132,8	110,8	164,4	164,0	155,7	143
	Xq"	%	33,4	31,1	28,9	24,1	35,8	35,7	33,9	31,1
	X_2	%	20,7	19,3	17,9	15,0	22,2	22,1	21,0	19,3
	X_0	%	3,2	2,97	2,8	2,3	3,4	3,4	3,2	3,0
Short Circuit Ratio	Kcc		0,44	0,48	0,51	0,61	0,41	0,42	0,44	0,48
Time Constants	Td'	sec.	0,04							
	Td"	sec.	0,0096							
	Tdo'	sec.	1,91							
	Tα	sec.	0,017							
Short Circuit Current Capacity		%	>300				>350			
Excitation at no load		Amp.	0,35	0,45	0,6	0,7	0,2	0,25	0,3	0,4
Excitation at full load		Amp.	2,3	2,5	2,6	2,7	2,2	2,3	2,4	2,5
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	4,35							
Exciter Resistance (20 °C)		Ω	Rotor : 0,410				Stator : 15,28			
Heat dissipation at f.l.cl.H		W	8762	8898	9339	9032	7535	7626	7745	7575
Telephone Interference			THF < 2%				TIF < 40			
Radio interference			EN61000-6-3, EN61000-6-2. 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 %	2,4 / 2,5							
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	111							
Weight of complete generator		kg	485							
Maximun overspeed		rpm	2250							
Unbalanced magnetic pull at f.l.cl.F		kN/mm	5,4							
Cooling air requirement		m³/min	19,3				23			
Inertia Constant (H)		sec.	0,099				0,119			
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 34-3L/4 A

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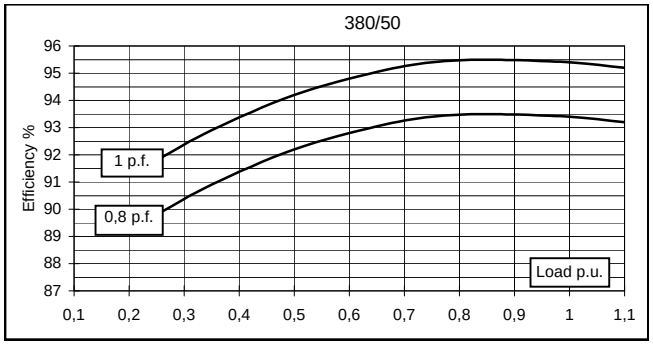
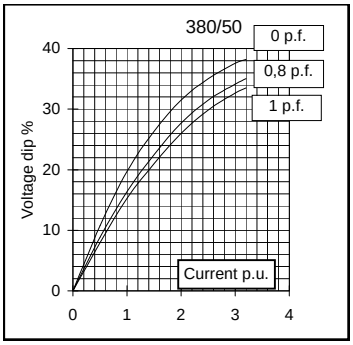
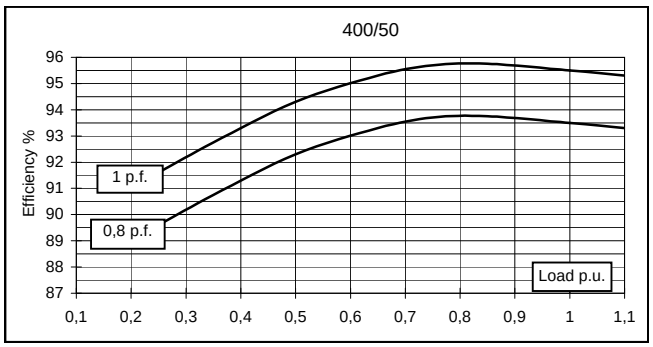
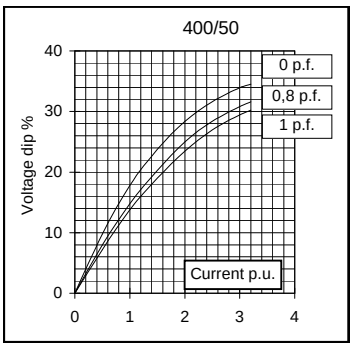
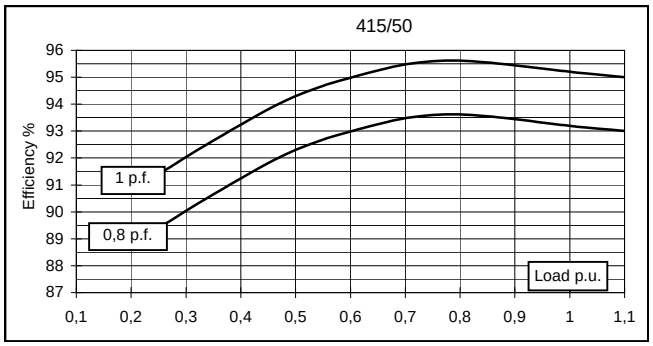
50 Hz

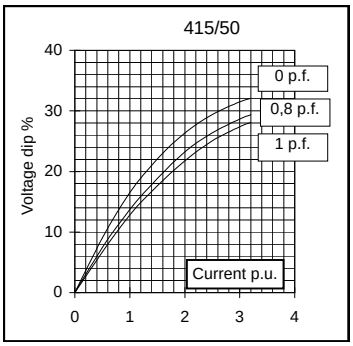


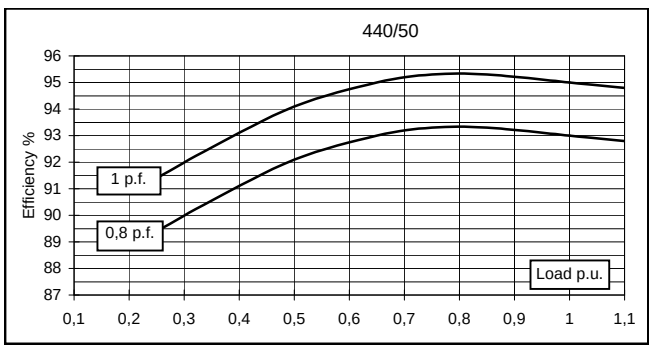


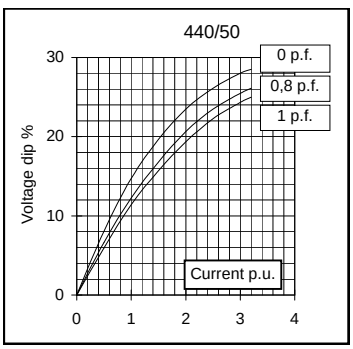


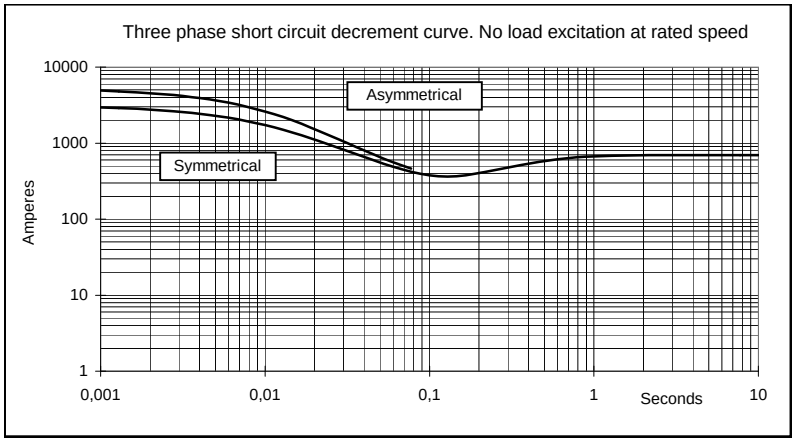








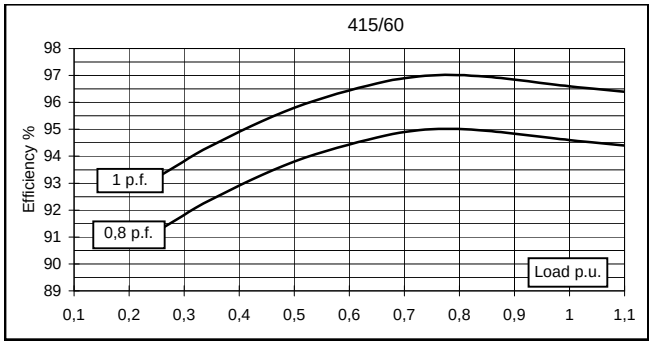


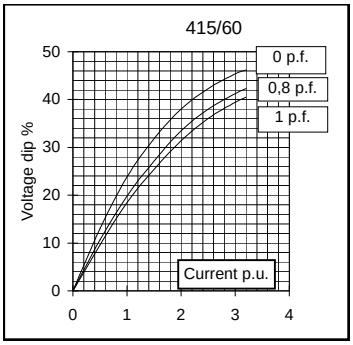


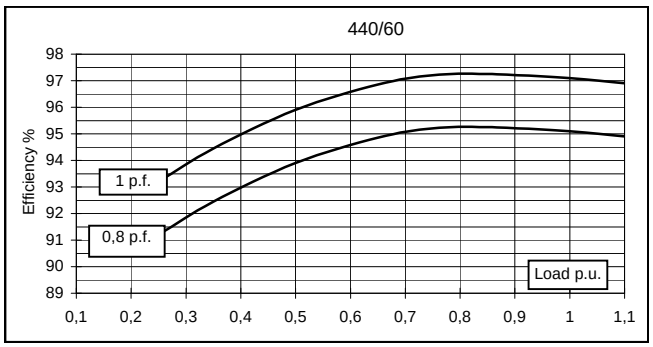
GENERATOR TYPE ECP 34-3L/4 A

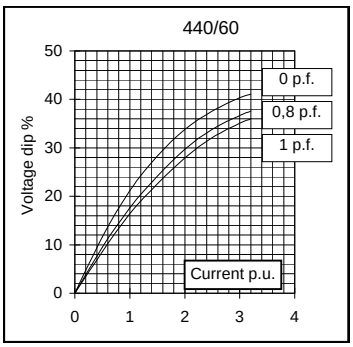
Document : **DS276A/3**
issue 000 date : 11/11/2013

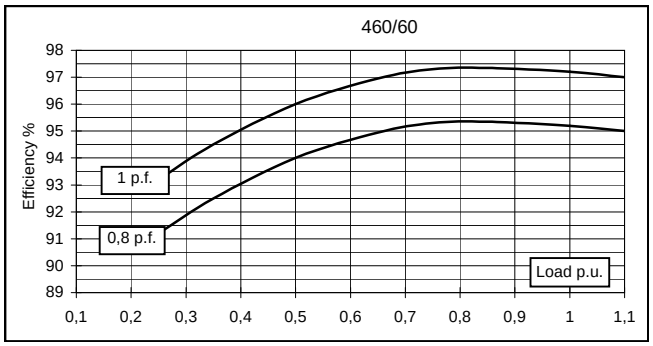
60 Hz

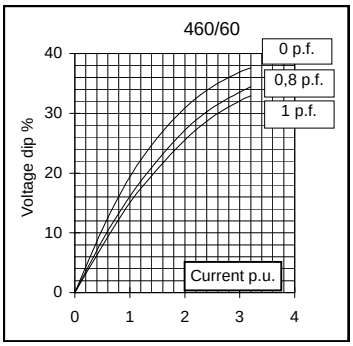


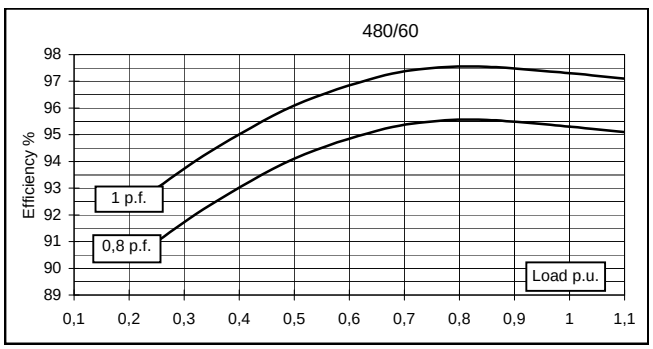


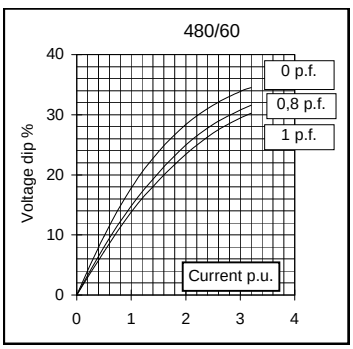


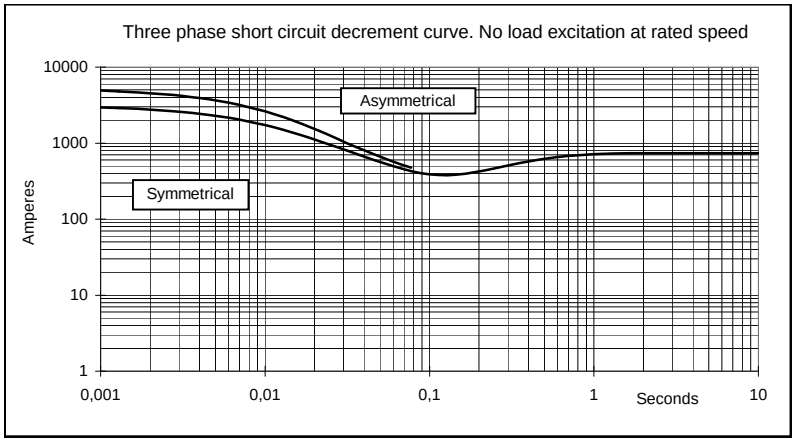




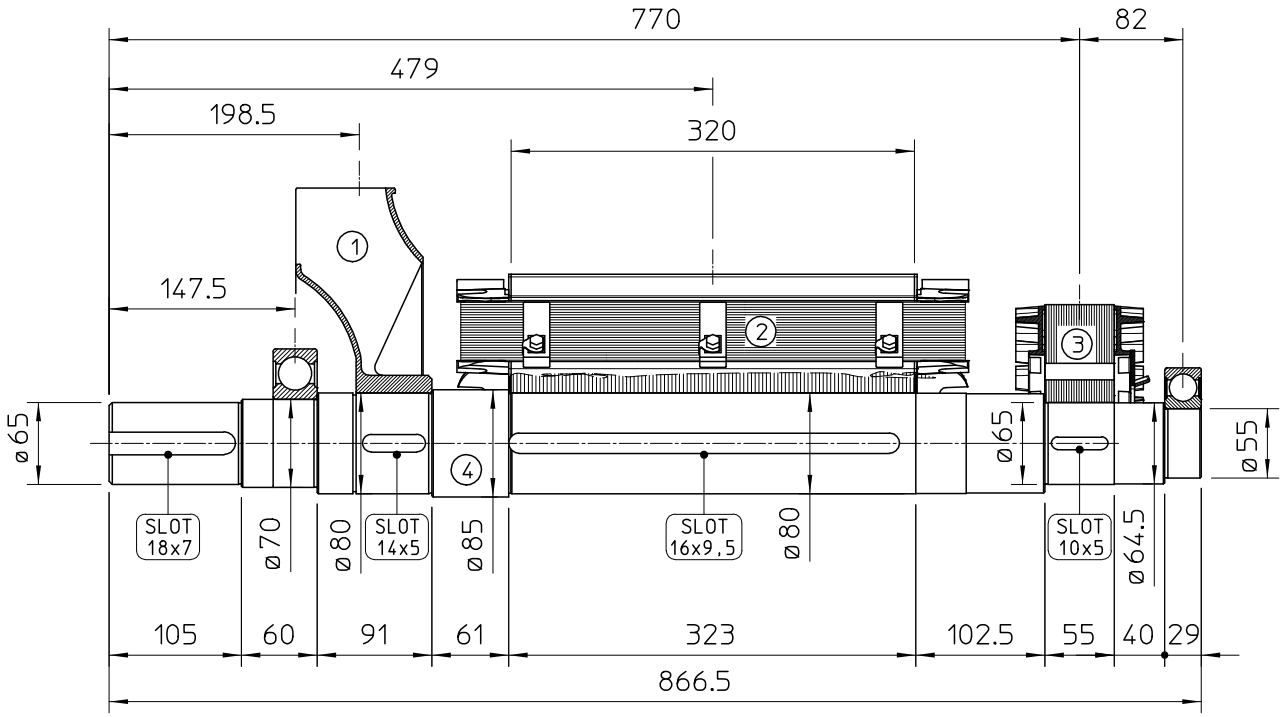






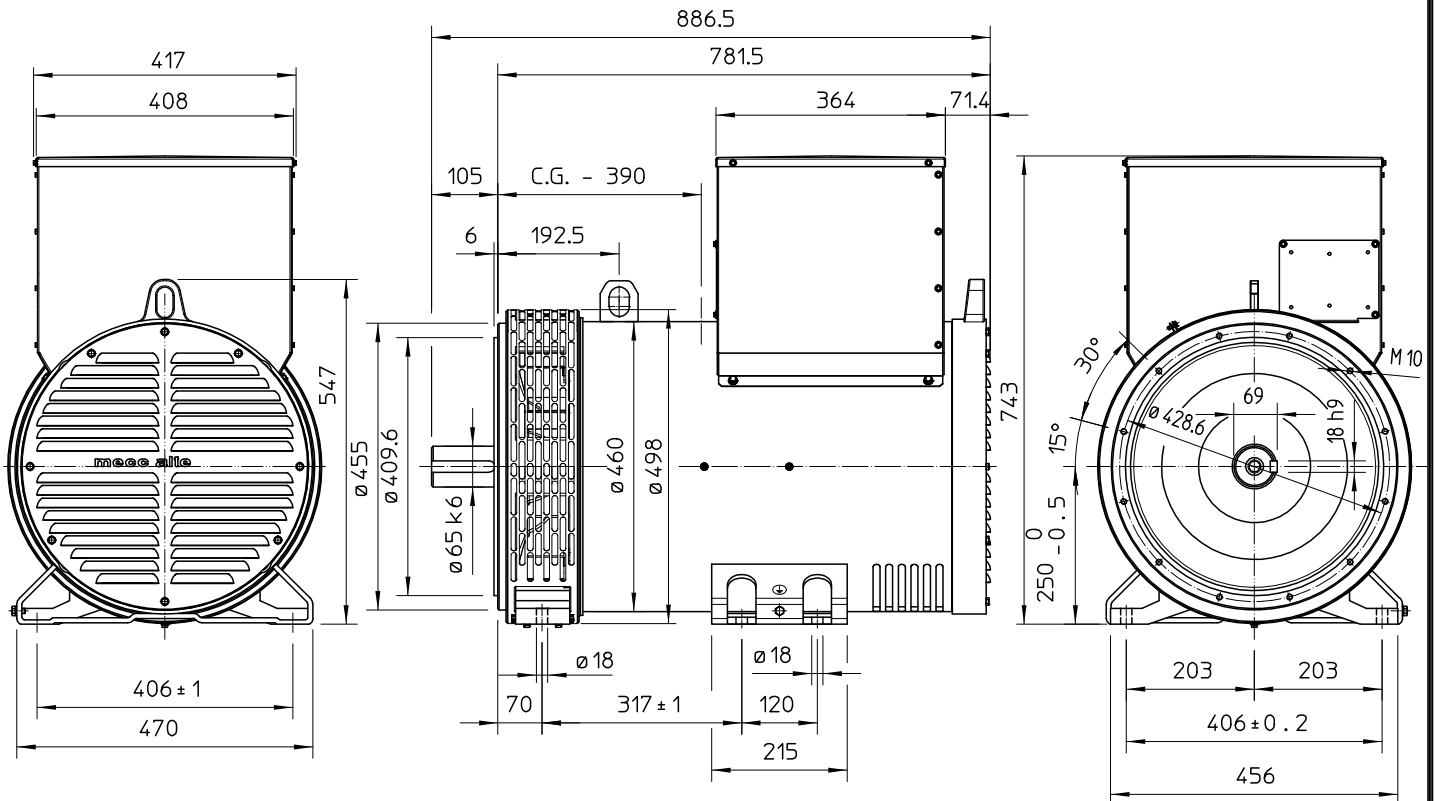


TWO BEARING MOMENTS OF INERTIA



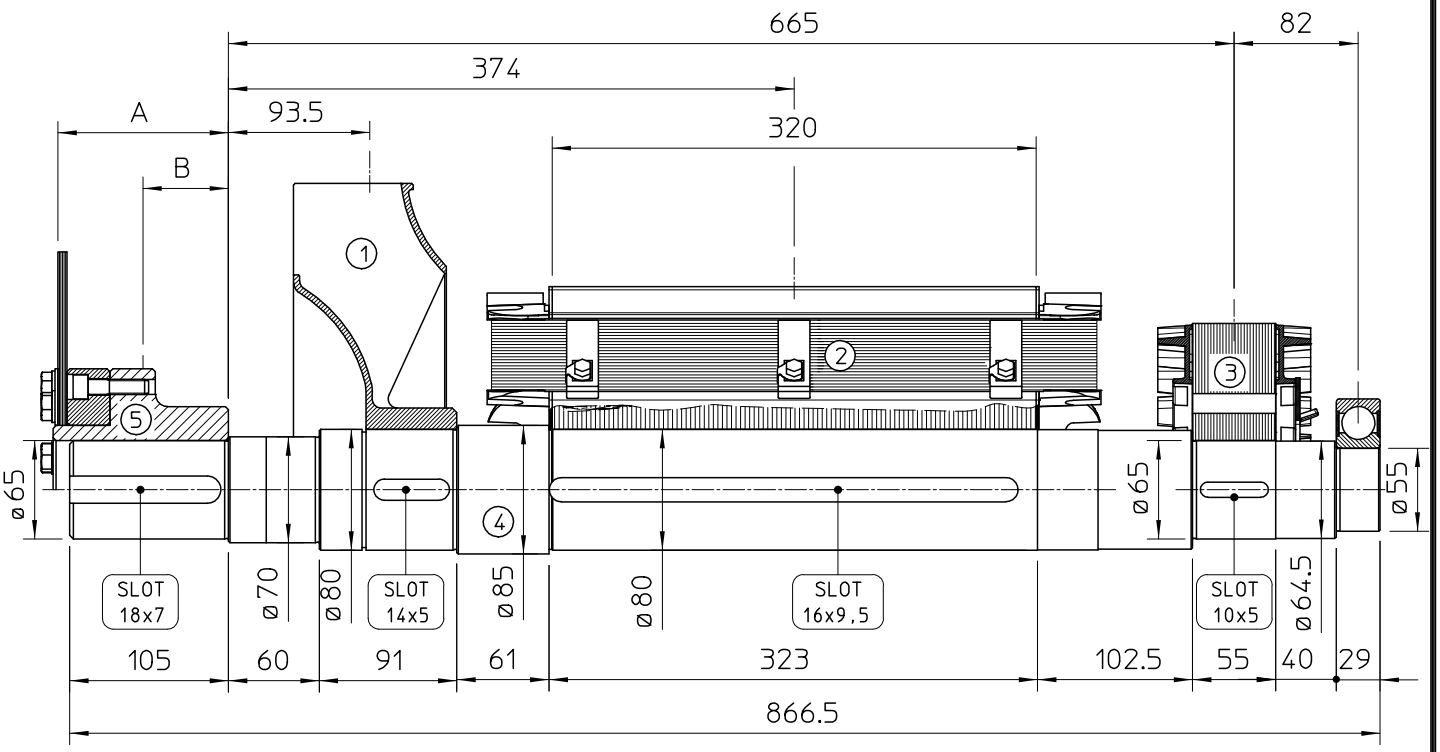
POS.	COMPONENT	WEIGHT (kg)	J (kgm^2)
1	FAN	3.6	0.0451
2	MAIN ROTOR	111.9	1.0123
3	EX. ROTOR	14.5	0.0874
4	SHAFT	29.6	0.0218
TOTAL		159.6	1.1666

TWO BEARING DIMENSIONS



C.G.= GRAVITY CENTER

SINGLE BEARING MOMENTS OF INERTIA



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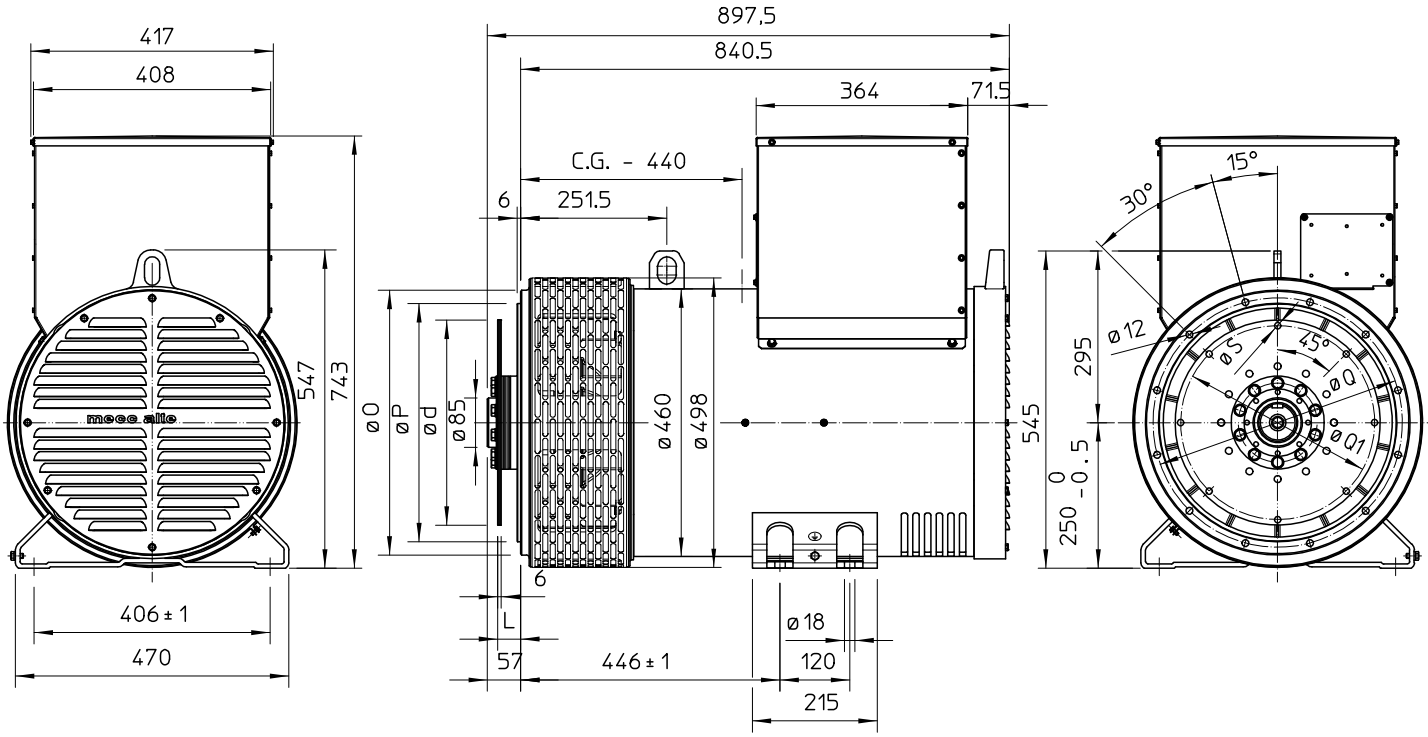
TOTAL		159.6	1.1666

SAE	5	SHAFTS COUPLING FLEX PLATE		
N°	A	B	WEIGHT kg	J kgm^2
10	112.8	35.6	13.5	0.0770
11 1/2	98.6	71.5	12.4	0.0956
14	84.4	68.6	14.8	0.2360

SINGLE BEARING DIMENSIONS



SAE N.	FLANGIA / FLANGE BRIDE / FLANSCH		
	O	P	Q
3	451	409.6	428.6
2	489	447.7	466.7
1	552	511.2	530.2

SAE N.	GIUNTI A DISCHI / DISC COUPLING DISCQUE DE MONOPALIER / SCHEIBENKUPPLUNG			
	L	d	Q1	S
10	53.8	314.32	295.27	11
11 1/2	39.6	352.42	333.37	11
14	25.4	466.72	438.15	14

C.G.= GRAVITY CENTER