

ژنراتور : MeccAlte

موتور دیزل : IVECO

Standby		Prime		دیزل ژنراتور
KW	KVA	KW	KVA	
400	320	350	280	



موتور دیزل

Manufacturer	IVECO	تولید کننده
Type	C13TE2A	تیپ
Number of cylinders	6	تعداد سیلندر ها
Cylinder arrangement	inline	آرایش سیلندر ها
Displacement , Liters	12,9	جا به جایی
Bore × Stroke , mm	135X150	قطر سیلندر × کورس پیستون

ژنراتور

Manufacturer	Mecc Alte	تولید کننده
Type	ECO38-3L	تیپ
Frequency, Hz	50	فرکانس
Speed, Rpm	1500	سرعت
Voltage, V	380	ولتاژ
Excitation	Brushless	سیستم تمریک
Stator windings	12	سیم پیچ استاتور
Rotor	with damping cage	روتور
Over speed, Rpm	2250	مداکثر سرعت مجاز
Insulation class	H	کلاس عایق
Protection class	IP 21	کلاس حفاظتی
Cooling air volume,m ³ / sec	32	دبی هوای فنک کننده

C13 TE2A 330kW 360kW

330 kW @ 1500 rpm

360 kW @ 1800 rpm

Stage II

SPECIFICATIONS

Thermodynamic Cycle	Diesel 4 stroke	
Air Handling	TAA	
Arrangement	6L	
Bore x Stroke (mm)	135 X 150	
Total Displacement (L)	12,9	
Valves per cylinder (n°)	4	
InjectionSystem	EUI	
Speed governor	Electronic	
Cooling System	liquid (water - paraflu 50%)	
Direction of Rotation (viewed facing flywheel)	CCW	
Oil specifications	ACEA E3-E5	
Oil consumption	<0.1% of fuel consumption	
Fuel specifications	EN 590	
Oil and oil filter maintenance interval for replacement [**] (hours)	600	
Specific fuel consumption at:	1500	1800
- Stand-By l/h (g/kWh)	-	-
- 100% load l/h (g/kWh)	70 (187,5)	76,1 (182,6)
- 80% load l/h (g/kWh)	57,3 (191,8)	67,4 (202,2)
- 50% load l/h (g/kWh)	38,8 (207,8)	43,8 (210,2)
ATB (without canopy) (°C)	61,5	-
Coolant capacity: engine + radiator (l)	~ 67	
Coolant capacity: engine only (l)	~ 19,5	
Lube oil total system capacity including pipes, filters etc. (l)	~ 35	
Electric system (isolated return)	24	
Starting batteries: recommended capacity (Ah)	2 x 185	
Discharge Current (EN50342) A	1200	
Cold starting: without preheating (°C)	-10	
Cold starting: with preheating (°C)	-25	

WEIGHT AND DIMENSIONS

Dimensions (LxWxH)	2272 X 1055 X 1468
Dry Weight	Kg 1180

PERFORMANCE

Ratings ¹	1500 rpm		1800 rpm	
	PRIME	STAND-BY	PRIME	STAND-BY
Rated Power kVA (kWe) ²	300	330	327	360

FEATURES	BENEFITS
PERFORMANCE Class G3 of ISO 8528 standard certification of excellent performance related to load acceptance.	EXCELLENT TRANSIENT LOAD RESPONSE FOR SEVERAL POWER GENERATION APPLICATIONS
INJECTION SYSTEM Accurate fuel delivery to achieve top performance terms of load response and top power with the minimum fuel consumption: C87 with very compact 2nd generation Common Rail System C10 & C13 with electronic controlled unit injectors.	HIGH ENGINE THERMODYNAMIC PERFORMANCE WITH LOW FUEL CONSUMPTION
DUAL SPEED MODE Possibility to switch from 1500 rpm to 1800 rpm. User friendly thanks to interface card.	ENGINE ADAPTABLE TO MARKET REQUEST
SPECIFIC FEATURES Minimum cold starting temperature without auxiliaries down to -10°C (with grid heater down to -25°) Tier 3 performance achieved without external EGR or VGT.	HIGH PERFORMANCES GUARANTEED IN ALL CONDITIONS
AIR HANDLING Turbocharged with air-to-air charge cooled air system with 4 valves per cylinder to increase the engine efficiency by the optimization of thermodynamic performance in terms of load response & fuel consumption.	HIGH ENGINE POWER DENSITY AND FAST LOAD RESPONSE TIME WITH THE LOWEST FUEL CONSUMPTION
600h OIL INTERVAL CHANGE CURSOR family engines adopt combustion chambers and high pressure injection system optimized to reduce oil dilution. Optimum engine design in terms of mechanical clearances, piston rings and oil system calculation.	REDUCED MAINTENANCE NEEDS AND OPERATING COST
SERVICEABILITY & MAINTAINABILITY Worldwide service network. Engine ECU (Electronic Control Unit) with CAN-BUS control & monitoring interfaces could be used for advanced real time diagnosis.	QUICK SERVICE SUPPORT AND FAST MAINTENANCE ACTIVITIES
ENGINE DESIGN Multiple injections, balancer counterweights incorporated in crankshaft webs, rear gear train layout, camshaft in crankcase, suspended oil pan, ladder frame cylinder block.	VIBRATION & NOISE REDUCTION
COMPONENTS INTEGRATION Integrated CCV (Closed Crankcase Ventilation) system and engine design oriented to high component integration. Water-oil cooler, oil and water pumps are completely integrated in the engine block.	LEAKAGE PREVENTION

STANDARD CONFIGURATION

FPT engine C13 TE2A equipped with:

- Mounted radiator incorporating air-to-air charge cooler
- Front radiator guard
- Oil drain pump
- Mounted belt driven pusher fan
- Fan guard
- Mounted air filter with replaceable cartridges
- Fuel filter
- Primary fuel filter / water separator
- Replaceable oil filter
- Electronic engine control unit, pump injector unit with wiring loom and sensors
- Box relays
- WT and OP sensors for gauges
- HWT and LOP sensors
- Front engine mounting brackets
- Flywheel housing SAE1 and flywheel 14"
- Re-directable exhaust gas elbow
- Recirculated oil breather system
- Oil dipstick
- 24 Vdc electrical system
- User's handbook

THE ENGINE IS SUPPLIED WITHOUT LIQUIDS

OPTIONAL EQUIPMENT

On request the engine can be supplied with:

- 230 Volt water jacket heater
- Turbo and exhaust gas guards
- Exhaust gas flexible joint
- Low water level sensors



GENERATOR TYPE ECO 38-3LN/4

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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	350	350	350	340	380	420	420	420	
	kW	280	280	280	272	304	336	336	336	
Rated power class F	kVA	320	320	320	310	350	385	385	385	
	kW	256	256	256	248	280	308	308	308	
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	93,6	94,1	94,2	94,3
(see graph. for details)	3/4	%	93,4	93,7	93,6	93,3	93,9	94,1	94,3	94,5
	2/4	%	92,5	92,6	92,6	92,4	93	93,1	93,2	93,3
	1/4	%	90,1	89,9	89,7	89,5	90,6	90,6	90,6	90,4
Reactances (f. l.cl. F)	Xd	%	238,2	215	199,7	172,6	260,2	255,9	234,1	215
	Xd'	%	19,1	17,2	16,0	13,8	20,8	20,5	18,7	17,2
	Xd''	%	10,4	9,4	8,7	7,5	11,4	11,2	10,2	9,4
	Xq	%	139,6	126	117,1	101,2	152,5	150,0	137,2	126
	Xq'	%	139,6	126	117,1	101,2	152,5	150,0	137,2	126
	Xq''	%	22,3	20,1	18,7	16,1	24,3	23,9	21,9	20,1
	X ₂	%	17,4	15,7	14,6	12,6	19,0	18,7	17,1	15,7
	X ₀	%	2,4	2,2	2,0	1,8	2,7	2,6	2,4	2,2
Short Circuit Ratio	Kcc		0,37	0,42	0,57	0,92	0,24	0,32	0,37	0,42
Time Constants	Td'	sec.	0,099							
	Td''	sec.	0,0127							
	Tdo'	sec.	1,50							
	Tα	sec.	0,013							
Short Circuit Current Capacity		%	>300				>350			
Excitation at no load	Amp.		0,55	0,72	0,95	1,2	0,35	0,35	0,6	0,7
Excitation at full load	Amp.		3,5	3,9	4,1	4,3	3,3	3,5	3,7	3,9
Overload (long-term)		%	1 hour in a 6 hours period 110% rated load							
Overload per 20 sec.		%	300							
Stator Winding Resistance (20 °C)		Ω	0,0042							
Rotor Winding Resistance (20 °C)		Ω	6,780							
Exciter Resistance (20 °C)		Ω	Rotor : 0,685				Stator : 15,28			
Heat dissipation at f.l.cl.H	W		19786	19465	20429	20473	20786	21067	20688	20310
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 %		3,1 / 2,9							
Waveform Distors.(THD) at no load	LL/LN %		2,7 / 2,7							
Mechanical characteristics										
Protection			IP 21 (other protection on request)							
DE bearing			6318.2RS							
NDE bearing			6314.2RS							
Weight of wound stator assembly	kg		347							
Weight of wound rotor assembly	kg		230							
Weight of complete generator	kg		905							
Maximun overspeed	rpm		2250							
Unbalanced magnetic pull at f.l.cl.F	kN/mm		6,2							
Cooling air requirement	m ³ /min		32				39			
Inertia Constant (H)	sec.		0,123				0,147			
Noise level at 1m/7m	dB(A)		82 / 69				86 / 73			

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

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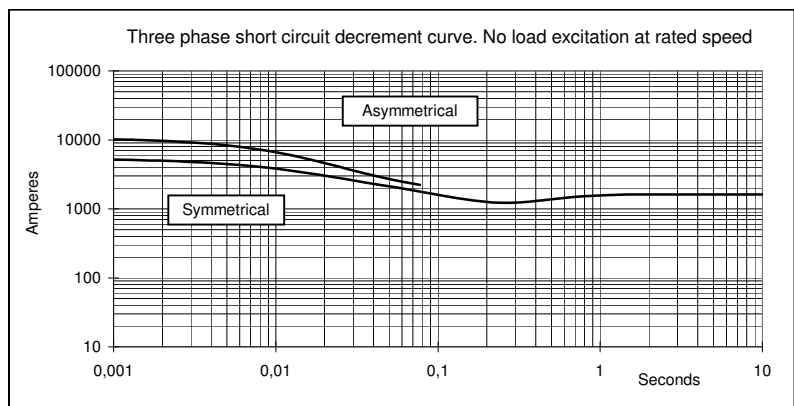
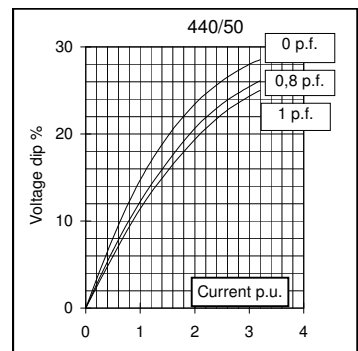
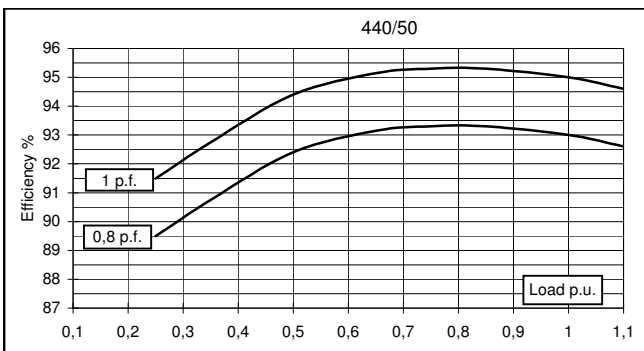
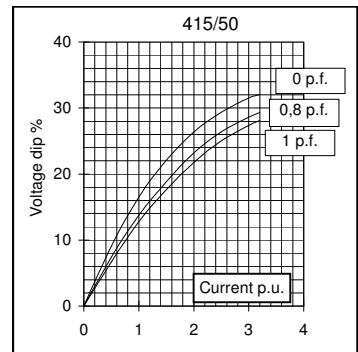
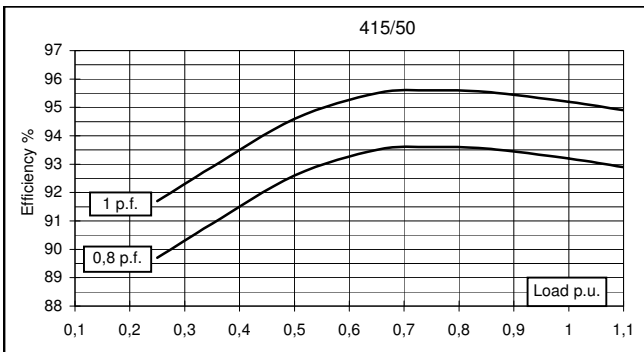
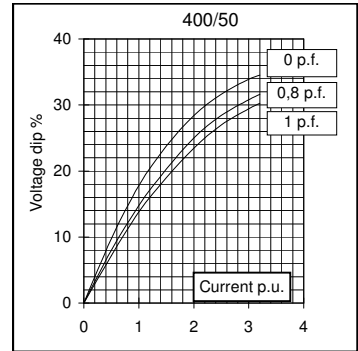
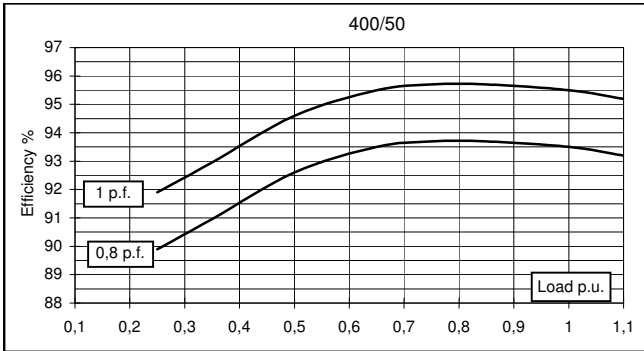
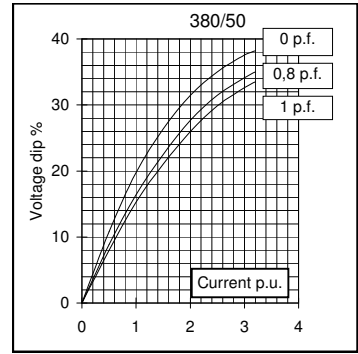
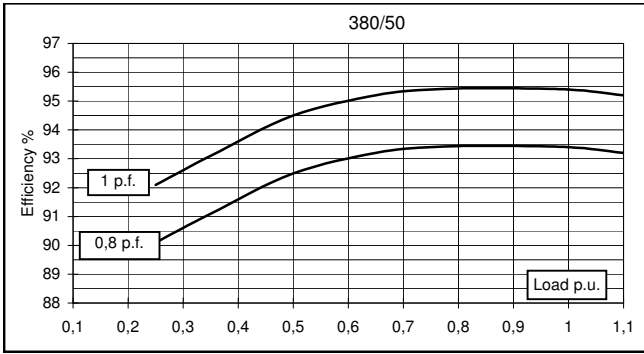


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50 Hz

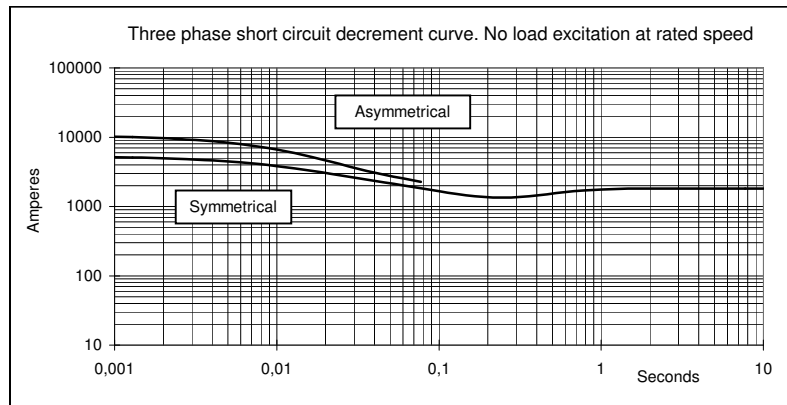
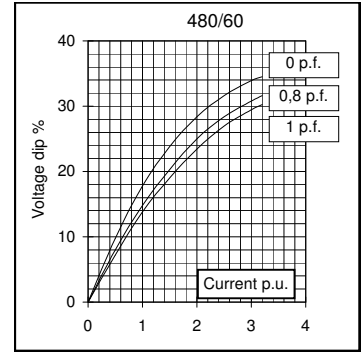
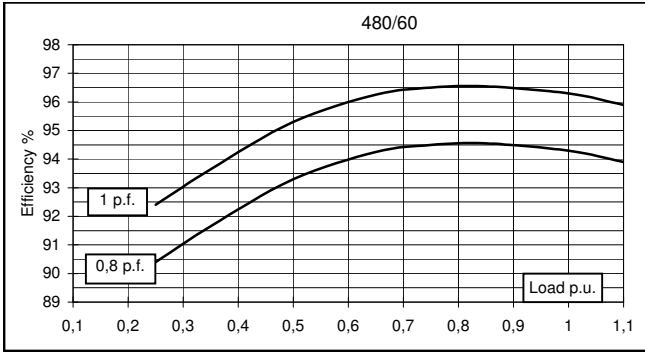
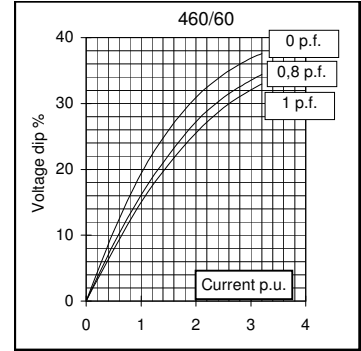
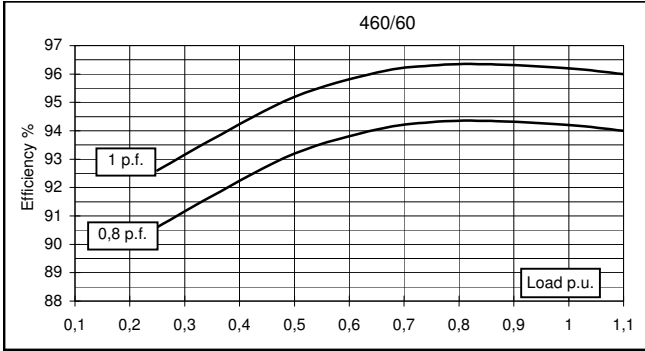
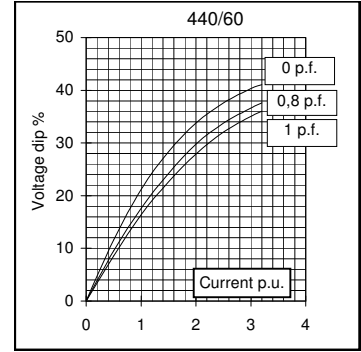
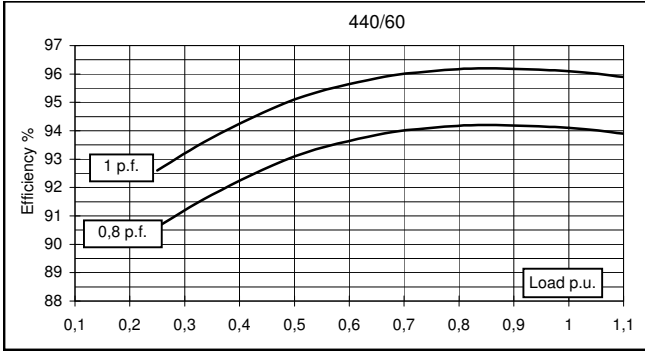
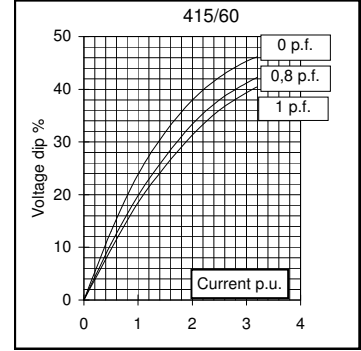
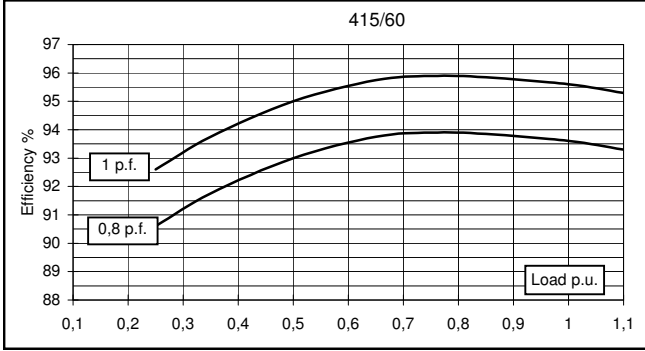




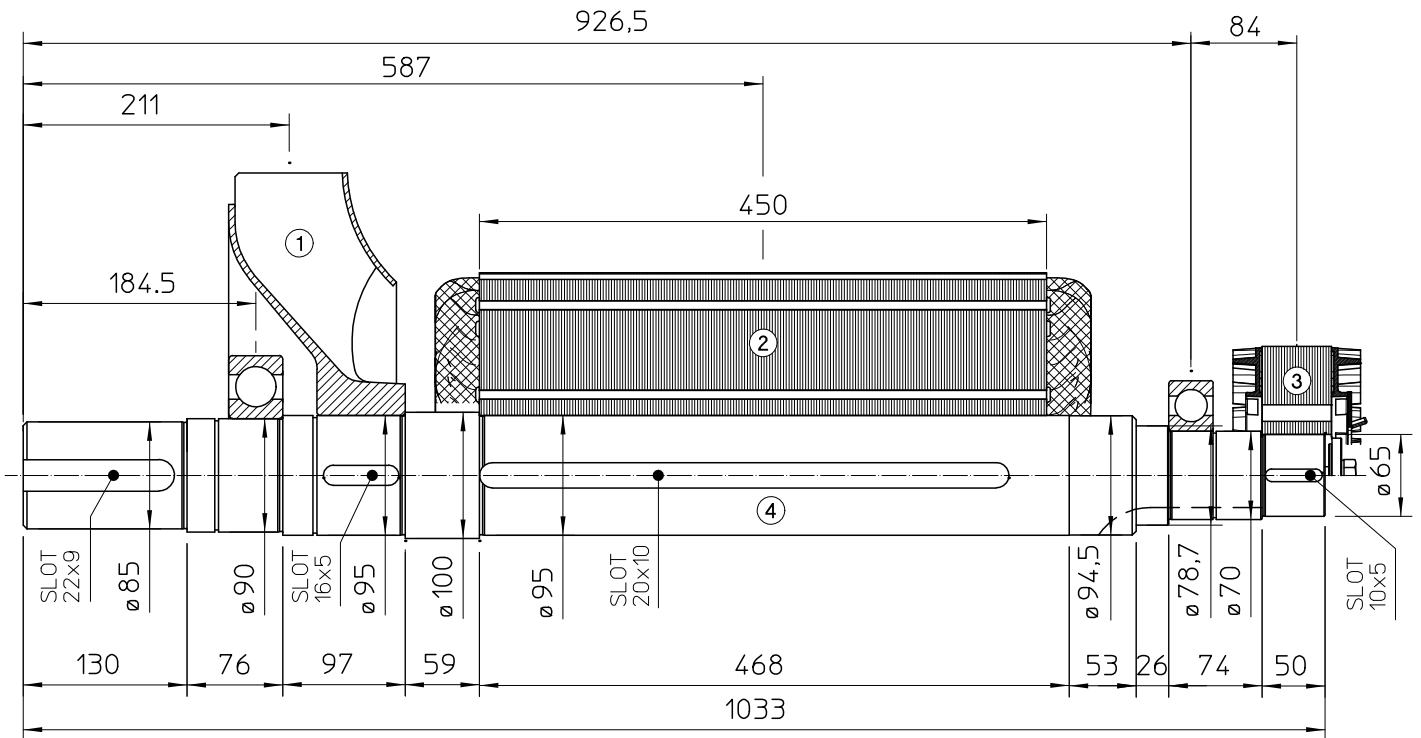
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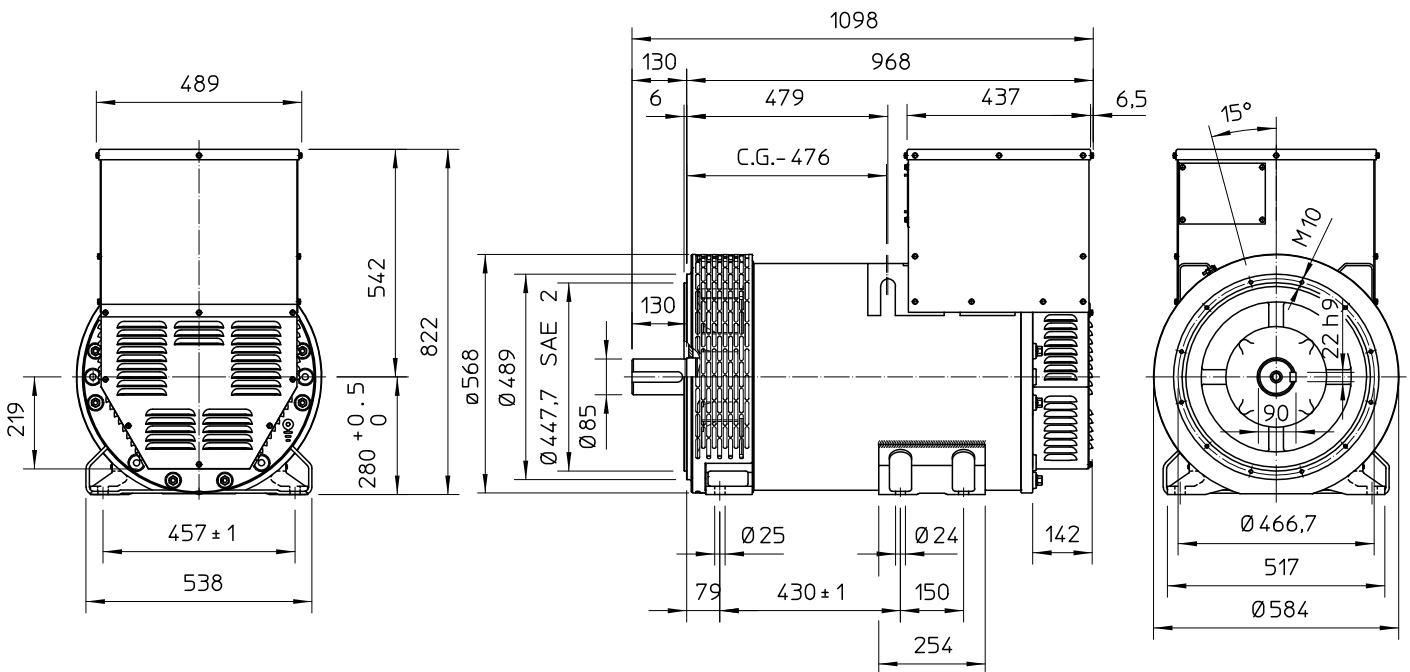
60 Hz



TWO BEARING MOMENTS OF INERTIA

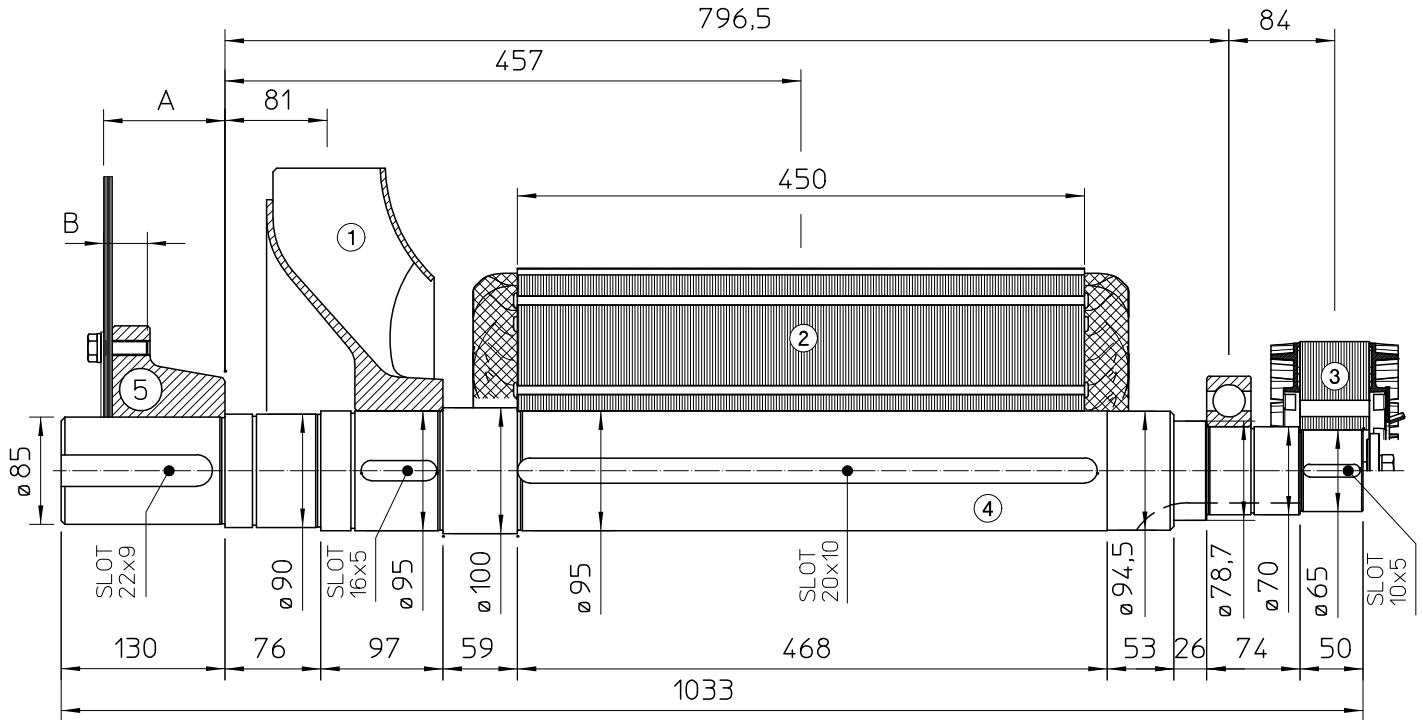


TWO BEARING DIMENSIONS



C.G.= GRAVITY CENTER

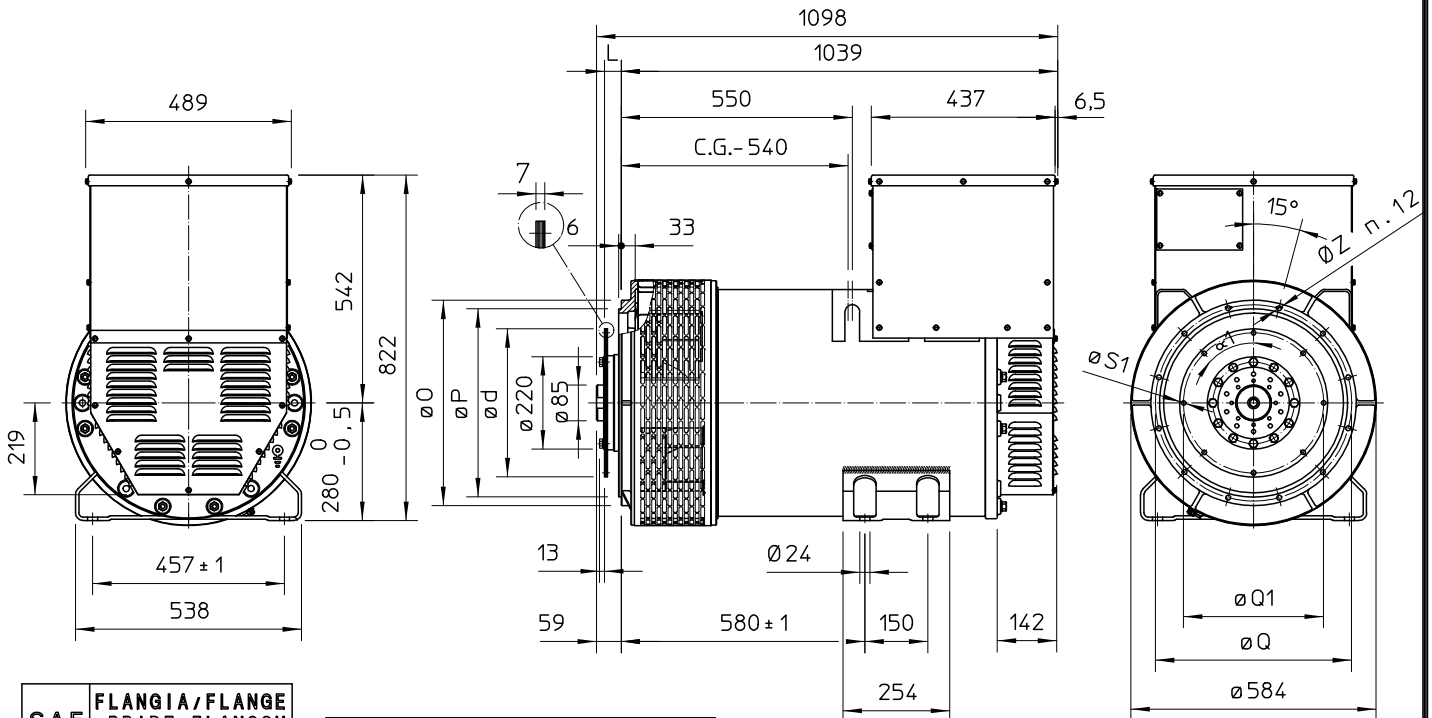
SINGLE BEARING MOMENTS OF INERTIA



POS.	COMPONENT	WEIGHT (kg)	J (kgm ²)
1	FAN	6.1	0.1887
2	MAIN ROTOR	230	3.1461
3	EX. ROTOR	14.5	0.0874
4	SHAFT	49.9	0.0525
TOTAL		300.5	3.4747

SAE N°	5		SHAFTS COUPLING FLEX PLATE	
	A	B	WEIGHT kg	J kgm ²
11.5	110.4	41.1	20.5	0.174
14	96.4	34.7	23.5	0.275

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
1/2	648	584,2	619,1

SAE N.	GIUNTI A DISCHI DISC COUPLING DISQUE DE MONOPALIER SCHEIBENKUPPLUNG				
	L	d	Q1	n _{fori}	S1
11 1/2	39,6	352,42	333,37	8	11 45°
14	25,4	466,72	438,15	8	14 45°

C.G.= GRAVITY CENTER