

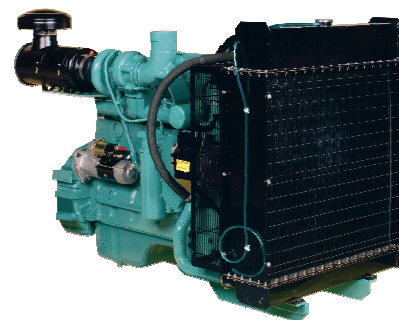
ژنراتور : Meccalte

موتور دیزل : Cummins

Standby		Prime		دیزل ژنراتور
KVA	KW	KVA	KW	
250	200	225	180	



6CTAA8.3-G3



> Specification sheet

Our energy working for you.™



Description

C-Series engines have established an unrivalled reputation for reliability. Engines in the series incorporate features to reduce maintenance and enhance performance in order to meet the most demanding requirements of generator set operation.



This engine has been built to comply with CE certification.



This engine has been designed in facilities certified to ISO9001 and manufactured in facilities certified to ISO9001 or ISO9002.

Features

Single Poly Vee belt drive for fan, alternator and water pump, with self-tensioning idler for minimum maintenance.

Inline-type Bosch P-Series pump operates at high injection pressures for cleaner combustion and lower emissions.

Spin-on fuel filter and full-flow lubricating oil filter.

Top mounted Holset HX40W turbo-charger for increased power, fuel economy, and lower smoke and noise levels.

Coolpac Integrated Design - Products are supplied complete with cooling package and air cleaner kit for a complete power package. Each component has been specifically developed and rigorously tested for G-Drive products, ensuring high performance, durability and reliability.

Service and Support - G-Drive products are backed by an uncompromising level of technical support and after sales service, delivered through a world class service network.

1500 rpm (50 Hz Ratings)

Gross Engine Output			Net Engine Output			Typical Generator Set Output					
Standby	Prime	Base	Standby	Prime	Base	Standby (ESP)		Prime (PRP)		Base (COP)	
kWm/BHP			kWm/BHP			kWe	kVA	kWe	kVA	kWe	kVA
203/272	183/245	149/200	191/256	173/232	139/232	176	220	160	200	120	150

1800 rpm (60 Hz Ratings)

Gross Engine Output			Net Engine Output			Typical Generator Set Output					
Standby	Prime	Base	Standby	Prime	Base	Standby (ESP)		Prime (PRP)		Base (COP)	
kWm/BHP			kWm/BHP			kWe	kVA	kWe	kVA	kWe	kVA
237/316	213/285	175/235	221/296	200/268	162/217	200	250	182	228	144	180

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General Engine Data

Type	4 cycle, in-line, Turbo Charged
Bore mm	114 mm (4.49 in.)
Stroke mm	135 mm (5.32 in.)
Displacement Litre	8.3 litre (505.0 in. ³)
Cylinder Block	Cast iron, 6 cylinder
Battery Charging Alternator	60 amps
Starting Voltage	24 volt, negative ground
Fuel System	Direct injection
Fuel Filter	Spin-on fuel filters with water separator
Lube Oil Filter Type(s)	Spin-on full flow filter
Lube Oil Capacity (l)	23.8
Flywheel Dimensions	2/11.5

Coolpac Performance Data

Cooling System Design	Air-Air Charge Cooled
Coolant Ratio	50% ethylene glycol; 50% water
Coolant Capacity (l)	12.0
Limiting Ambient Temp.**	48.0
Fan Power	1.3
Cooling System Air Flow (m ³ /s)**	48.0
Air Cleaner Type	Dry replaceable element with restriction indicator

** @ 13 mm H₂O

Weight & Dimensions

Length	Width	Height	Weight (dry)
mm	mm	mm	kg
1440	910	1240	794

Fuel Consumption 1500 (50 Hz)

%	kWm	BHP	L/ph	US gal/ph
Standby Power				
100	203	272	51	13.5
Prime Power				
100	183	245	46	12
75	137	184	34	9
50	91	123	23	6
25	46	61	12	3.3
Continuous Power				
100	149	200	36	9.6

Fuel Consumption 1800 (60 Hz)

%	kWm	BHP	L/ph	US gal/ph
Standby Power				
100	237	317	64	16.8
Prime Power				
100	213	285	56	14.8
75	160	214	41	10.9
50	106	143	28	7.3
25	53	71	15	4
Continuous Power				
100	175	235	44	11.6

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Ratings Definitions

Emergency Standby Power (ESP):

Applicable for supplying power to varying electrical load for the duration of power interruption of a reliable utility source. Emergency Standby Power (ESP) is in accordance with ISO 8528. Fuel Stop power in accordance with ISO 3046, AS 2789, DIN 6271 and BS 5514.

Limited-Time Running Power (LTP):

Applicable for supplying power to a constant electrical load for limited hours. Limited-Time Running Power (LTP) is in accordance with ISO 8528.

Prime Power (PRP):

Applicable for supplying power to varying electrical load for unlimited hours. Prime Power (PRP) is in accordance with ISO 8528. Ten percent overload capability is available in accordance with ISO 3046, AS 2789, DIN 6271 and BS 5514.

Base Load (Continuous) Power (COP):

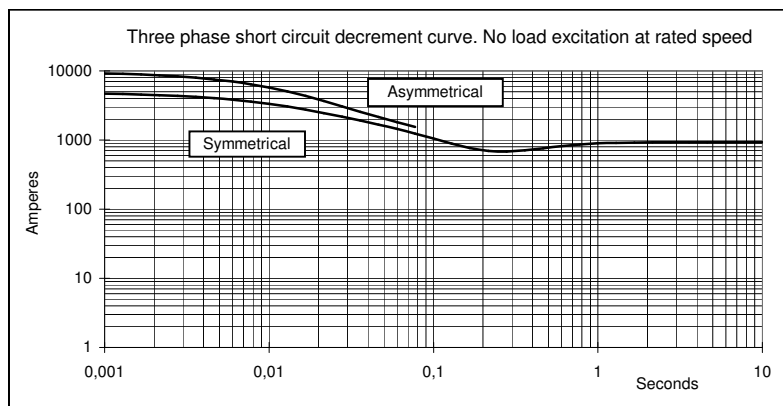
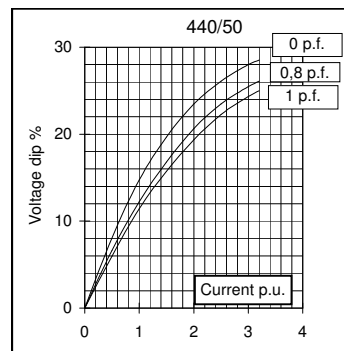
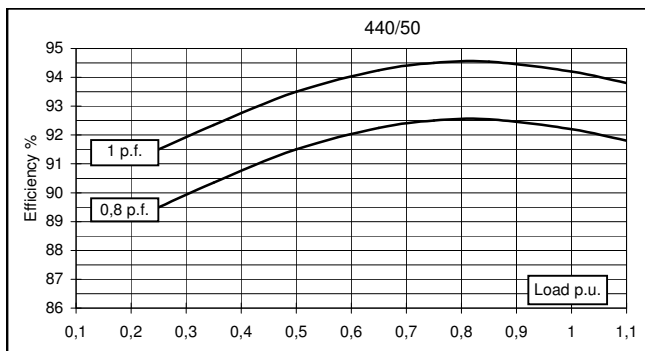
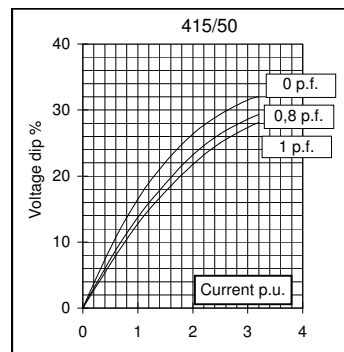
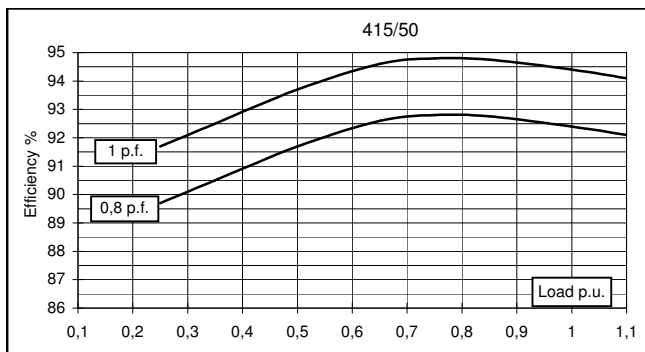
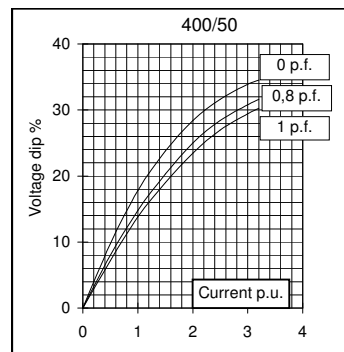
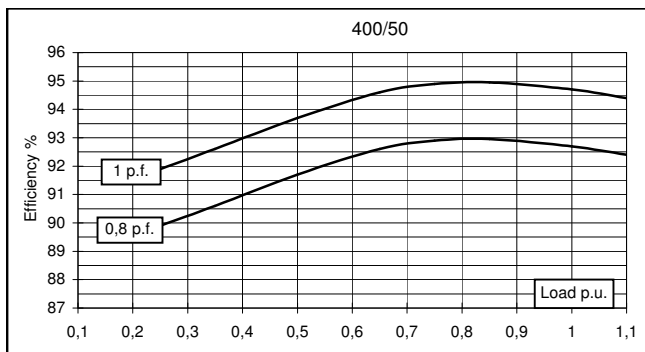
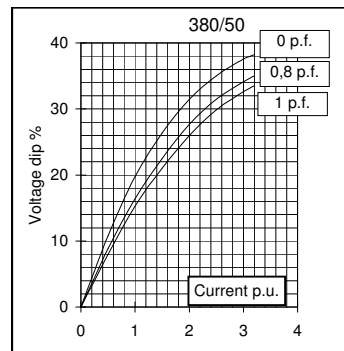
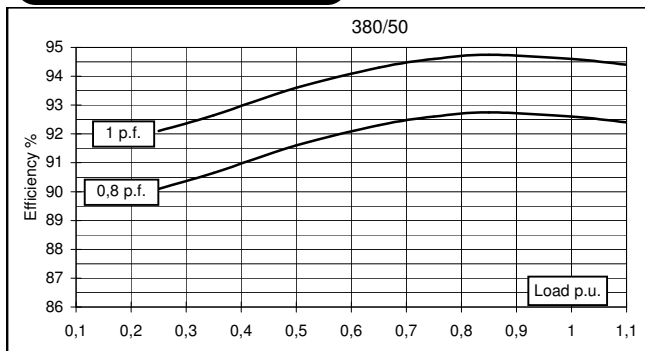
Applicable for supplying power continuously to a constant electrical load for unlimited hours. Continuous Power (COP) in accordance with ISO 8528, ISO 3046, AS 2789, DIN6271 and BS 5514.

Electrical Characteristics										
Frequency		Hz	50				60			
Voltage (series star)		V	380	400	415	440	415	440	460	480
Rated power class H		kVA	200	200	200	190	230	240	240	240
		kW	160	160	160	152	184	192	192	192
Rated power class F		kVA	185	185	185	175	210	220	220	220
		kW	148	148	148	140	168	176	176	176
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	%	92,6	92,7	92,4	92,2	93,1	93,6	93,7	93,8
(see graph. for details)	3/4	%	92,6	92,9	92,8	92,5	93,4	93,6	93,8	94
	2/4	%	91,6	91,7	91,7	91,5	92,5	92,6	92,7	92,8
	1/4	%	90,1	89,9	89,7	89,5	90,6	90,6	90,6	90,4
Reactances (f. l.cl. F)	Xd	%	221,6	200	185,8	157,0	256,4	238,0	217,8	200
	Xd'	%	12,2	11,0	10,2	8,6	14,1	13,1	12,0	11,0
	Xd''	%	6,5	5,9	5,5	4,6	7,6	7,0	6,4	5,9
	Xq	%	121,9	110	102,2	86,4	141,0	130,9	119,8	110
	Xq'	%	121,9	110	102,2	86,4	141,0	130,9	119,8	110
	Xq''	%	23,8	21,5	20,0	16,9	27,6	25,6	23,4	21,5
	X ₂	%	15,8	14,3	13,3	11,2	18,3	17,0	15,6	14,3
	X ₀	%	2,8	2,5	2,3	2,0	3,2	3,0	2,7	2,5
Short Circuit Ratio	Kcc		0,43	0,46	0,64	1,02	0,32	0,39	0,43	0,46
Time Constants	Td'	sec.	0,078							
	Td''	sec.	0,012							
	Tdo'	sec.	0,90							
	Tα	sec.	0,016							
Short Circuit Current Capacity		%	>300				>350			
Excitation at no load	Amp.		0,5	0,7	0,9	1,2	0,3	0,35	0,45	0,65
Excitation at full load	Amp.		2,9	3	3,2	3,4	2,4	2,6	2,8	2,9
Overload (long-term)	%	1 hour in a 6 hours period 110% rated load								
Overload per 20 sec.	%	300								
Stator Winding Resistance (20 °C)	Ω	0,0105								
Rotor Winding Resistance (20 °C)	Ω	4,133								
Exciter Resistance (20 °C)	Ω	Rotor : 0,685				Stator : 15,28				
Heat dissipation at f.l.cl.H	W	12786	12600	13160	12859	13637	13128	12909	12691	
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 %	2,7 / 2,6								
Waveform Distors.(THD) at no load	LL/LN %	3 / 2,9								
Mechanical characteristics										
Protection		IP 21 (other protection on request)								
DE bearing		6318.2RS								
NDE bearing		6314.2RS								
Weight of wound stator assembly	kg	174								
Weight of wound rotor assembly	kg	113								
Weight of complete generator	kg	560								
Maximun overspeed	rpm	2250								
Unbalanced magnetic pull at f.l.cl.F	kN/mm	5,2								
Cooling air requirement	m³/min	32					39			
Inertia Constant (H)	sec.	0,116					0,140			
Noise level at 1m/7m	dB(A)	82 / 69					86 / 73			

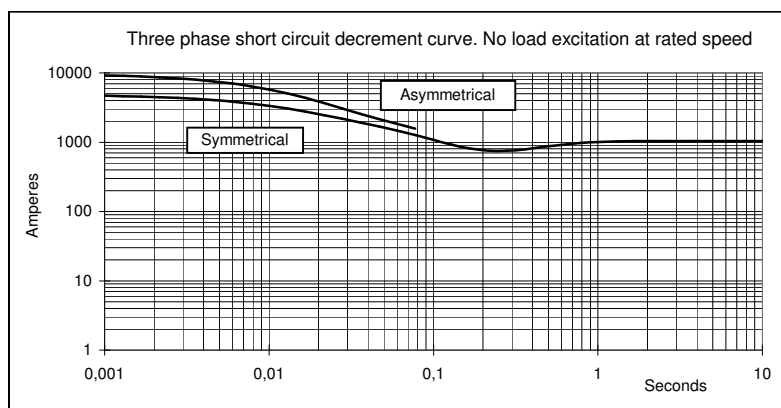
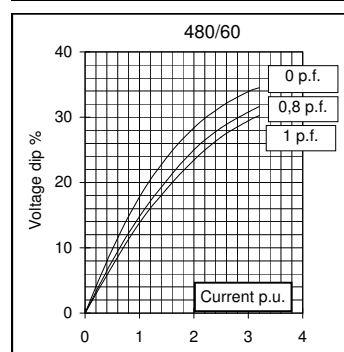
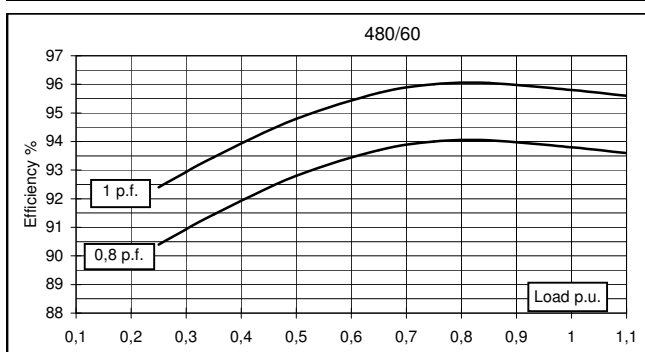
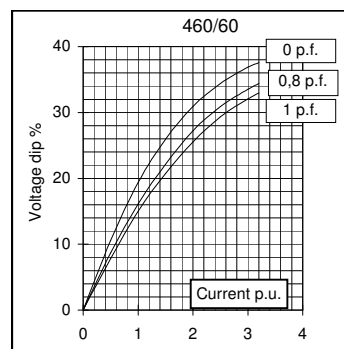
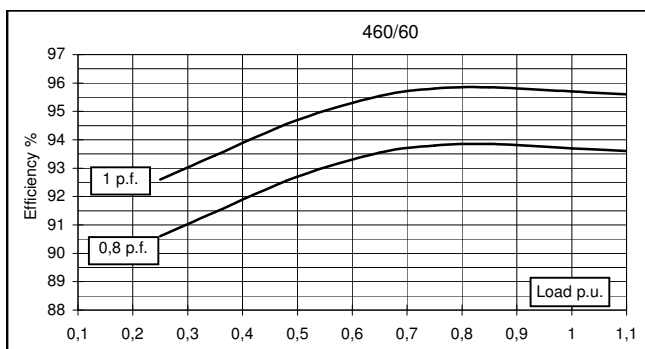
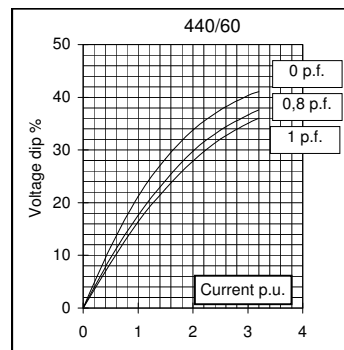
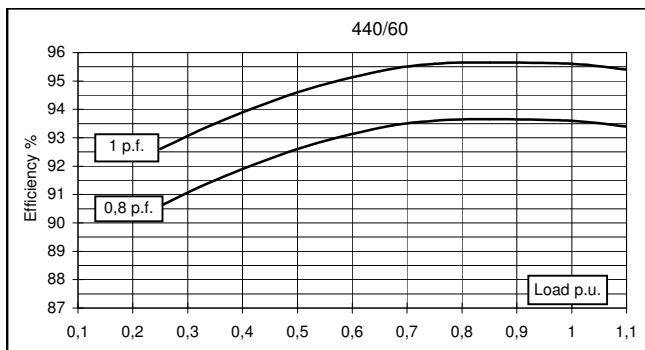
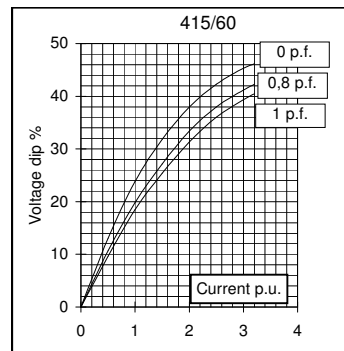
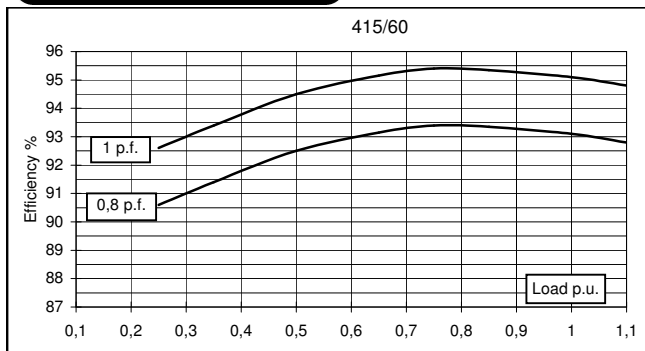
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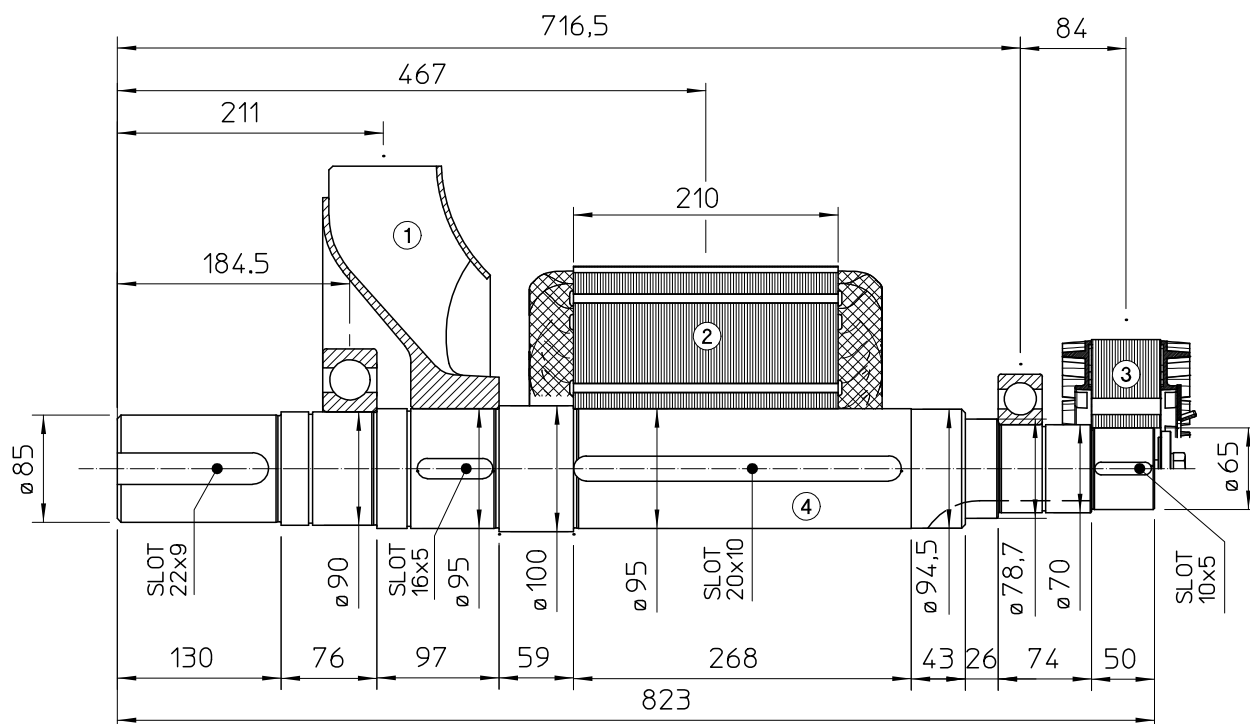
50 Hz



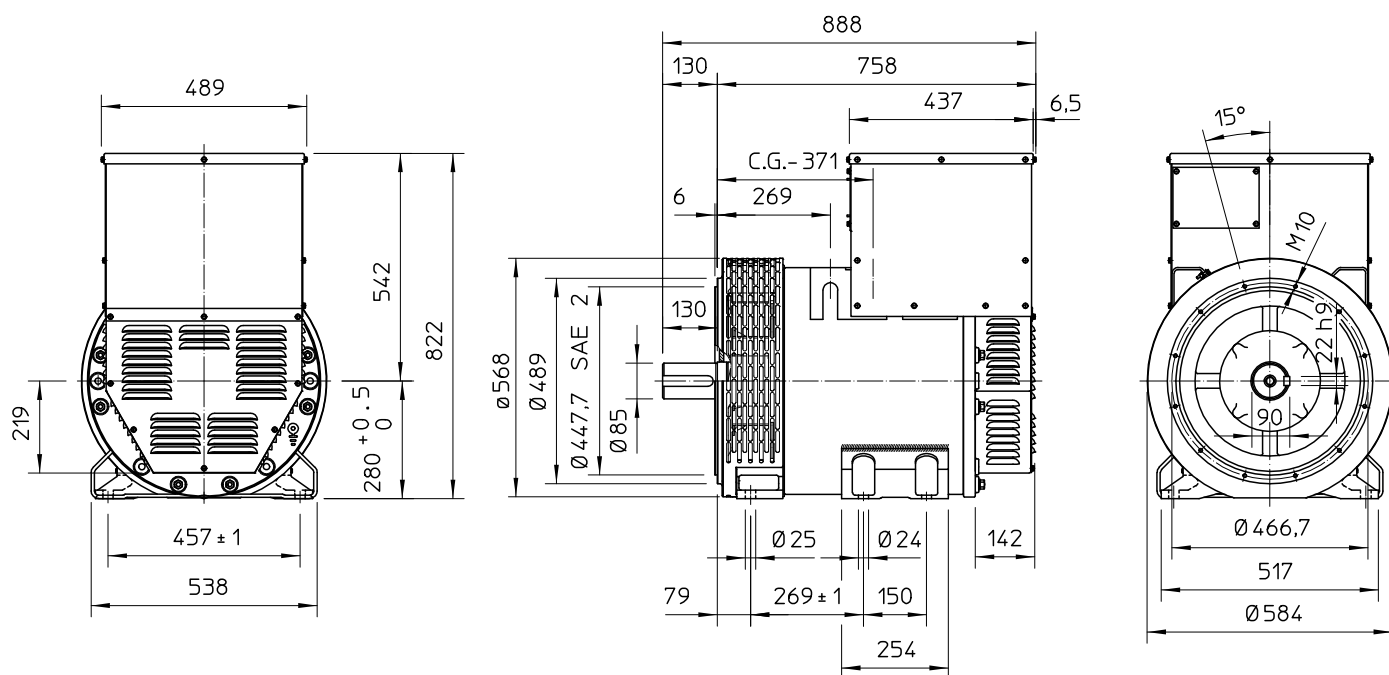
60 Hz



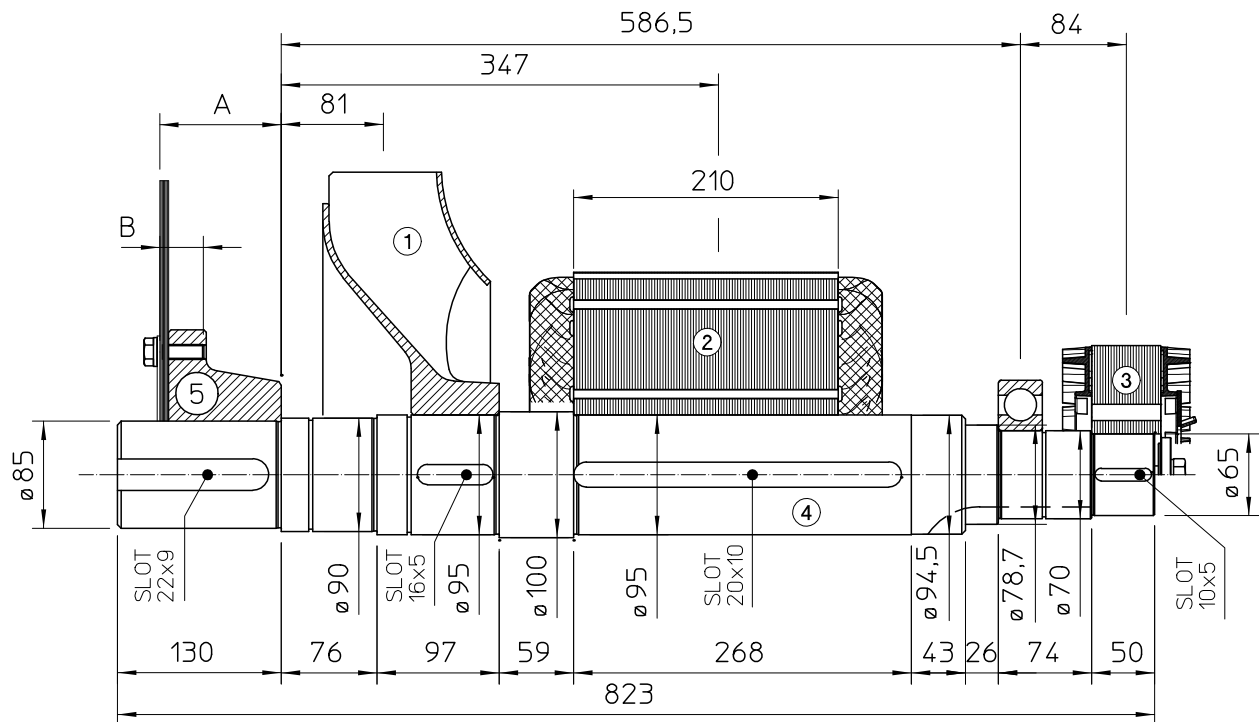
TWO BEARING MOMENTS OF INERTIA



TWO BEARING DIMENSIONS



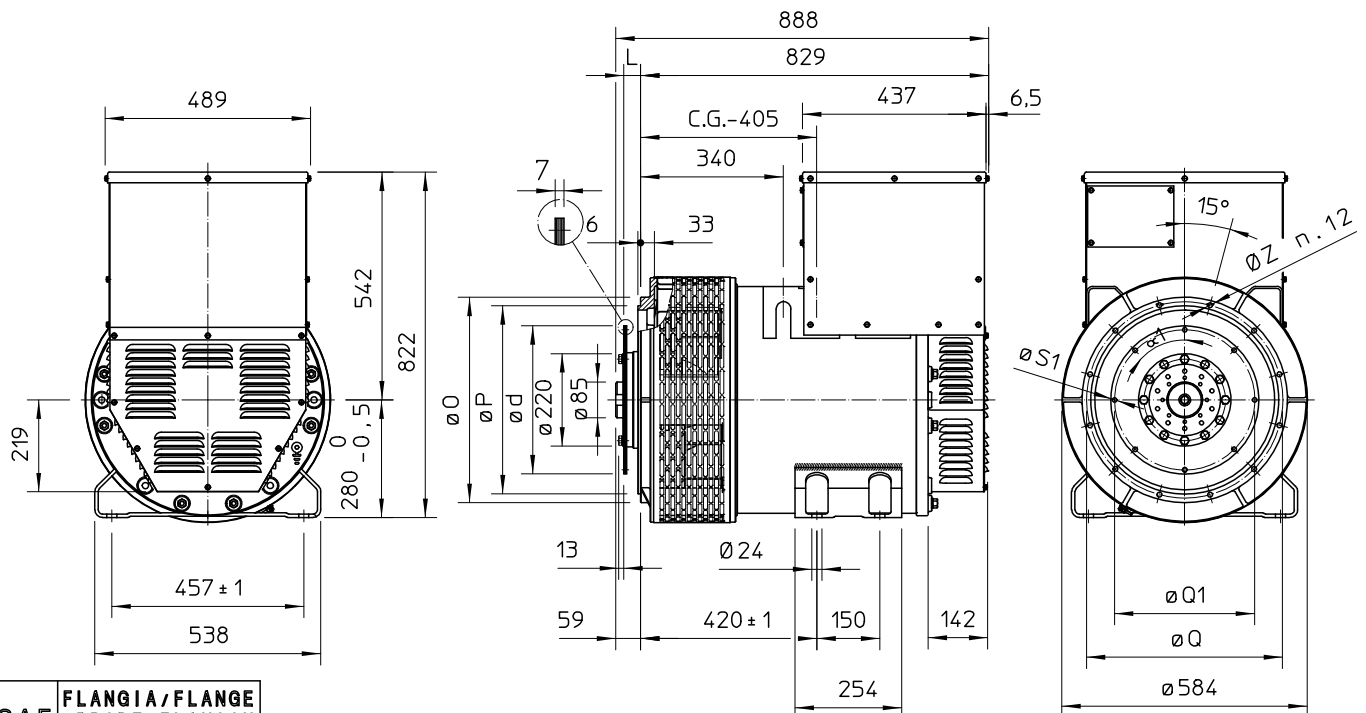
SINGLE BEARING MOMENTS OF INERTIA



POS.	COMPONENT	WEIGHT (kg)	J (kgm ²)
1	FAN	6.1	0.1887
2	MAIN ROTOR	113	1.5641
3	EX. ROTOR	14.5	0.0874
4	SHAFT	38.5	0.0397
TOTAL		172.1	1.8799

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
14	25,4	466,72	438,15	8	14