

PERFORMANCES

RATINGS		50 Hz		60 Hz	
		PRIME	STAND-BY	PRIME	STAND-BY
Rated output	kW	29	32	33	36
Main piston speed	m/s	5.8		6.9	
BMEP	kg/cm ²	8.1	8.9	7.7	8.4

PRIME POWER

Applicable for supplying power in lieu of commercially purchased power. Prime power is the maximum power available at variable load for an unlimited running time.

A 10% overload capacity is available for governing purposes only.

STAND-BY POWER

Applicable for supplying emergency power for the duration of the utility power outage.

No overload capability is available for this rating.

TECHNICAL DATA

Engine model	803li06	Cooling system	liquid (water + 50% Parafllu 11)
Diesel 4 stroke - Injection type	direct	Lube oil specifications	ACEA E2-96 MIL-L-2104E
N° of cylinders	3 in line	Lube oil consumption	~ 0.3% of fuel consumption
Total displacement	L 2.9	Fuel specifications	EN 590
Bore x Stroke	mm 104 x 115	Speed governor	mechanical (G2 class)
Compression ratio	17 : 1	Engine rotating mass moment of inertia	kg.m ² 0.942
Aspiration	natural	Dry weight (standard configuration)	kg ~ 370

TECHNICAL DATA

	RPM	1500	1800
Engine rotation (viewed facing flywheel)		CCW	
Flywheel housing / Flywheel		SAE3 / 11" ½	
Cyclic irregularity - Prime		0.0292	0.0196
Fuel consumption at : 75% load	l/h	4.9	5.6
100% load	l/h	6.5	7.6

AIR INDUCTION SYSTEM

	m ³ /h	120	145
Intake air flow.			
Maximum suggested intake restriction :			
with clean air filter	mmH ₂ O	250	
with dirty air filter	mmH ₂ O	500	

INJECTION

Injection system		mechanical	
Max speed drop steady conditions		4%	
Max fuel feed pump suction head	m	0.8	

EXHAUST SYSTEM

Exhaust gas flow	kg/h	145	175
Max exhaust temperature at full load	°C	530	530
Max allowable backpressure	mmH ₂ O	1500	

COOLING SYSTEM

Coolant capacity : engine only	liters	~ 5	
engine plus std. radiator	liters	~ 12	
Cooling water flow rate	l/min	89	110
Max allowable pressure drop on external water circuit	mmH ₂ O	0.6	1
Max head of cooling radiator	m	3	
Pusher fan air flow	m ³ /s	0.6	1
Pusher fan head (static)	mmH ₂ O	30	
Pusher fan absorbed power	kW	0.37	0.55
Max engine outlet water temperature (Alarm)	°C	100	
ATB (without canopy) - nominal rating	°C	50	

LUBRICATION SYSTEM

Lube oil total system incl. sump, filters etc.	kg (l)	~ 8 (8.8)
Oil capacity of standard sump :		
at min. level	kg (l)	~ 5 (5.5)
at max level	kg (l)	~ 7 (7.7)
Maximum oil temperature	°C	125
Minimum oil pressure at rated speed	kg/cm ²	2

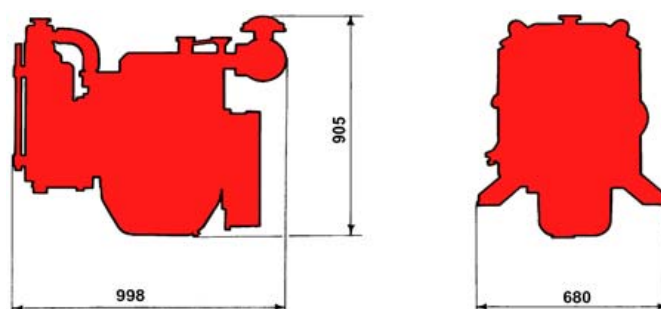
HEAT REJECTION (at full load conditions)

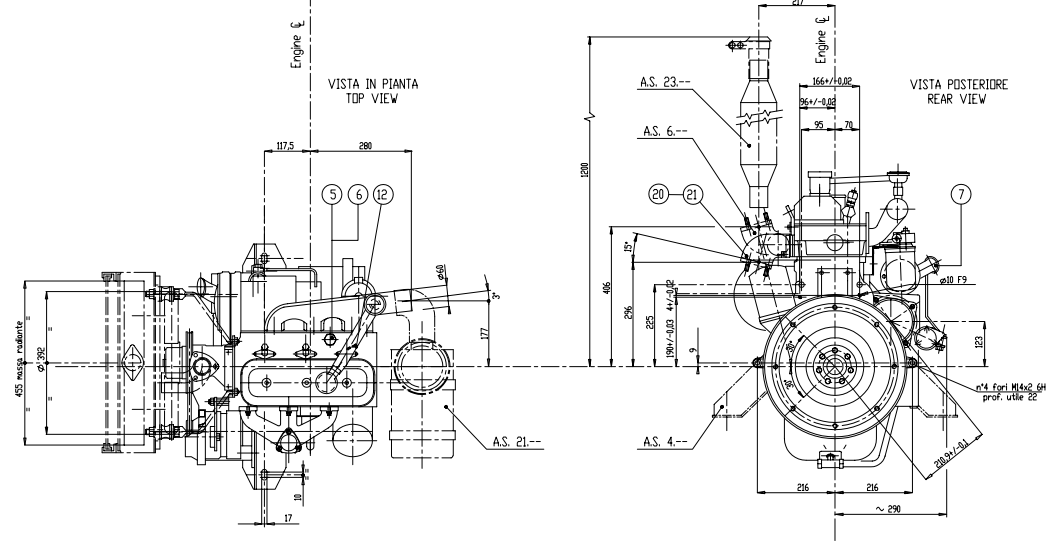
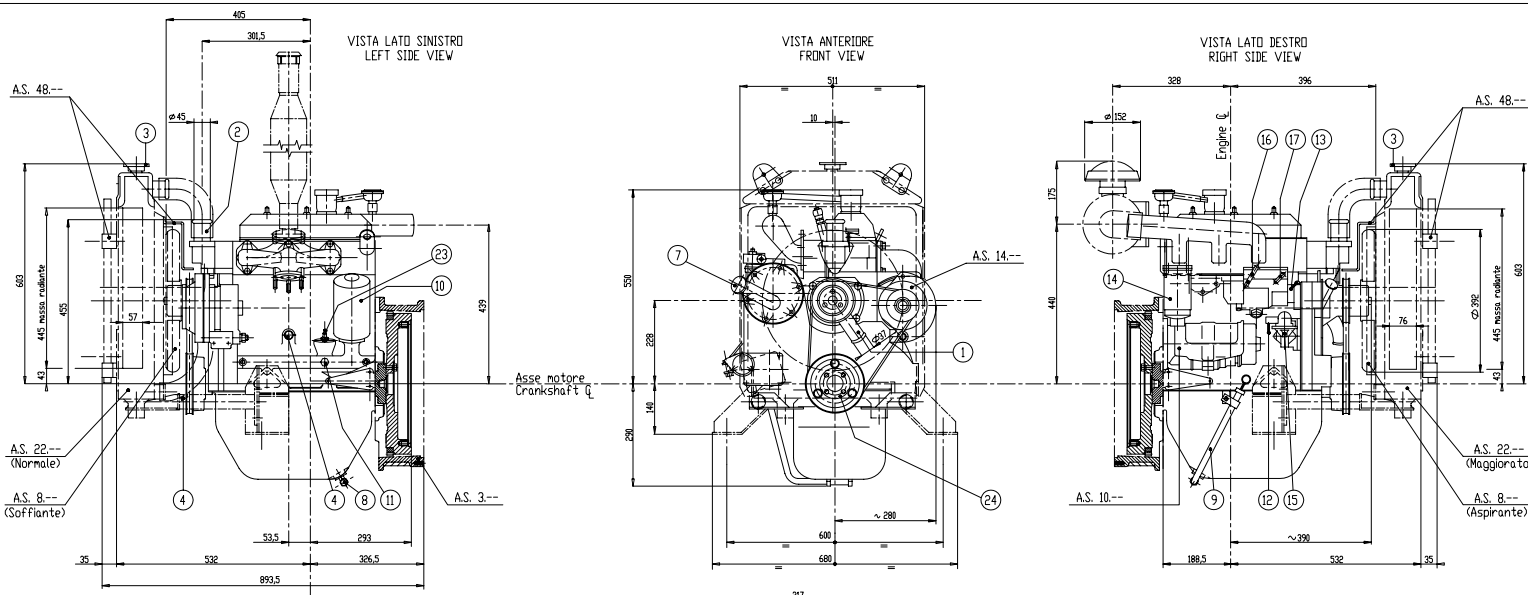
	kcal/kWh	595	615
Engine to coolant (water + oil)			
Engine to exhaust	kcal/kWh	640	635
Radiated to ambient	kcal/kWh	185	160

ELECTRIC STARTING SYSTEM

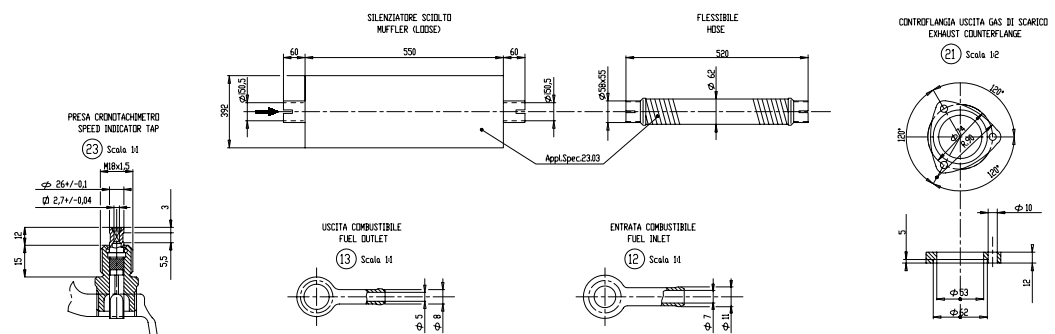
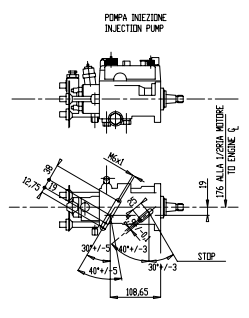
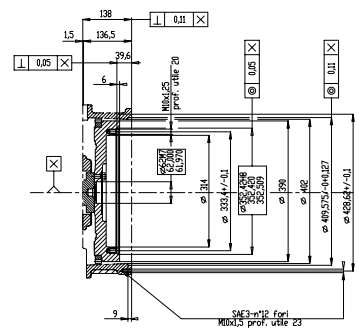
	kW	3
Cranking motor rating		
Auxiliary voltage	Vcc	12
Starting batteries :		
Recommended capacity	Ah	100
Discharge current	A	650

OVERALL DIMENSIONS





N°	DESCRIZIONE	DESCRIPTION
1	ENTRATA ACQUA	WATER INLET
2	USCITA ACQUA	WATER OUTLET
3	TAPPO INTRODUZIONE ACQUA	WATER FILLER CAP
4	SCARICO ACQUA	WATER DRAIN
5	TAPPO SFILATO MANUALE	MANUAL AIR DRAIN PLUG
6	SENE TERMOMETRO ACQUA (0m2x1,5)	WATER TEMPERATURE SENDER TAP(0m2x1,5)
7	TAPPO INTRODUZIONE OLIO	OIL FILLER PLUG CAP
8	TAPPO SCARICO OLIO	OIL DRAIN PLUG
9	ASTA LIVELLO OLIO	OIL DIPSTICK
10	FILTRO OLIO	OIL FILTER
11	SENE SEGNALATURE PRESSIONE OLIO (0m2x1,5)	OIL PRESSURE SENDER TAP (0m2x1,5)
12	ENTRATA COMBUSTIBILE	FUEL INLET
13	USCITA COMBUSTIBILE	FUEL OUTLET
14	FILTRO COMBUSTIBILE	FUEL FILTER
15	LEVA INNESCO POMPA ALIMENTAZIONE	HAND OPERATED FUEL LIFT PUMP LEVER
16	LEVA COMANDO ACCELERATORE	THROTTLE LEVER
17	LEVA COMANDO STOP	STOP LEVER
18		
19		
20	USCITA COLLETTORE GAS DI SCARICO	EXHAUST GAS MANIFOLD OUTLET
21	CONTROFLANGIA USCITA GAS DI SCARICO	EXHAUST COUNTERFLANGE
22		
23	PRESA CRONOTACHMETRO	SPEED INDICATOR TAP
24	ATTACCO PRESA DI FORZA ALBERI MOTORE	FORWARD POWER TAKE-OFF
25		
26		
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A.S. = Optionals
CAD DRAWING
HANDLING ON CAD SYSTEM ONLY

Rev.	Desc.	Aut.	Ver.	Appr.	Del.
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SCHEMA INGIENNERO MOTORE 8031106.05
ENGINE LAYOUT 54-97031A0
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