



Ambito Distrettuale Sarnese Vesuviano
Legge 02/12/2015



"PATTO PER LA CAMPANIA - SETTORE PRIORITARIO 2 AMBIENTALE"
INTERVENTO STRATEGICO
"PIANO DELLA DEPURAZIONE E SERVIZIO IDRICO INTEGRATO"

Delibera Giunta Regionale della Campania n°732 del 13/12/2016

COMUNE DI CASTELLAMMARE DI STABIA

REALIZZAZIONE RETE FOGNARIA BACINO DI VIA FONTANELLE

PROGETTO ESECUTIVO

INGEGNERIA

Il Responsabile
ing. Domenico Cesare

COLLABORATORI

geom. Vincenzo Gaito
geom. Raimondo Nugnes

INT 7261

Elaborato:

E6

Scala:

-/--

Titolo:

STAZIONE DI SOLLEVAMENTO "CASTAGNARO"
Gruppo elettrogeno di emergenza - Particolari costruttivi

Revisione

Data

Redatto

Verificato

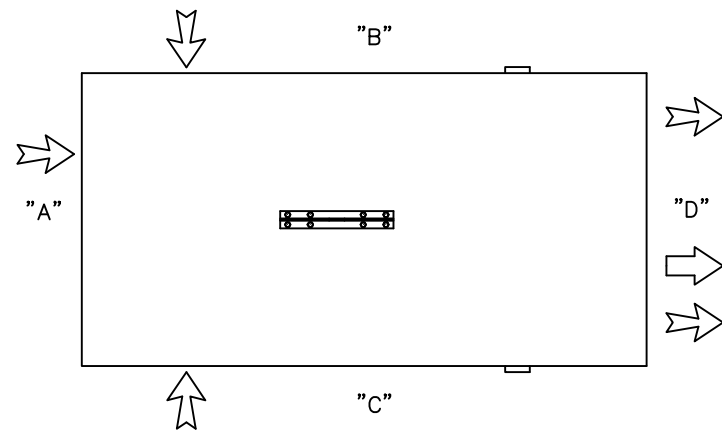
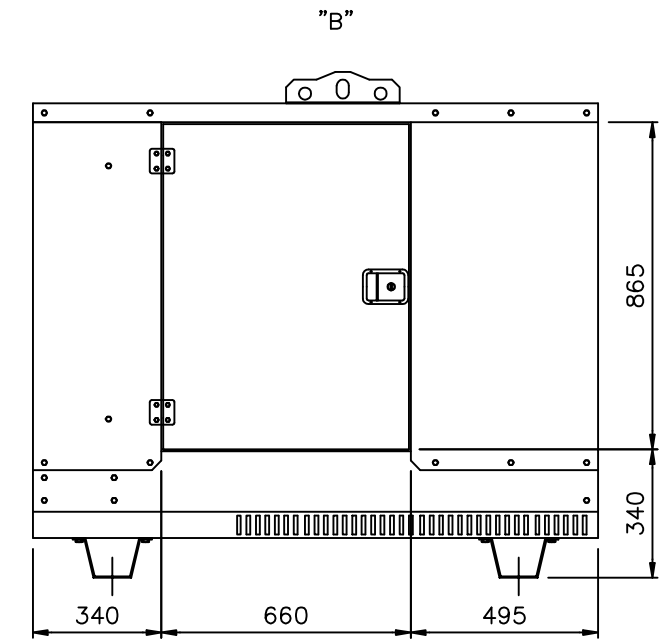
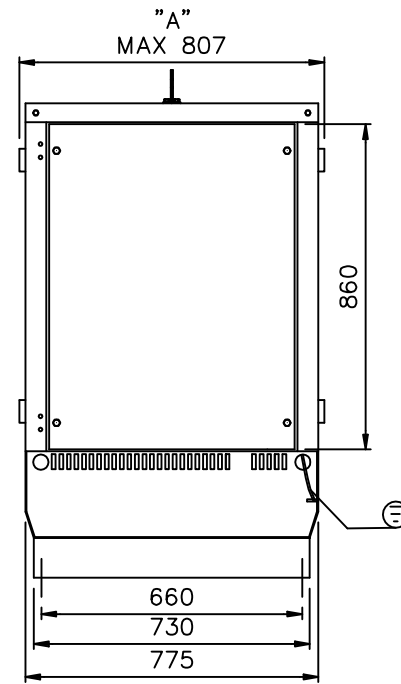
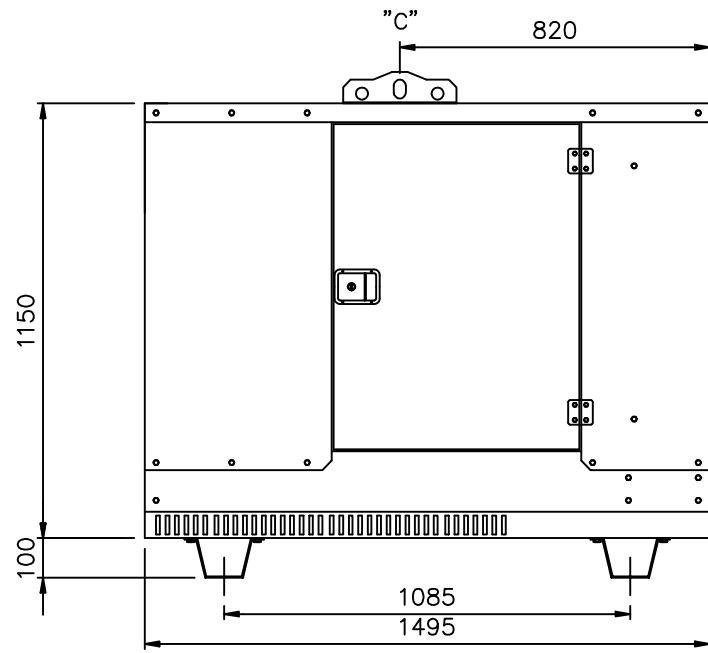
Approvato

IL PROGETTISTA

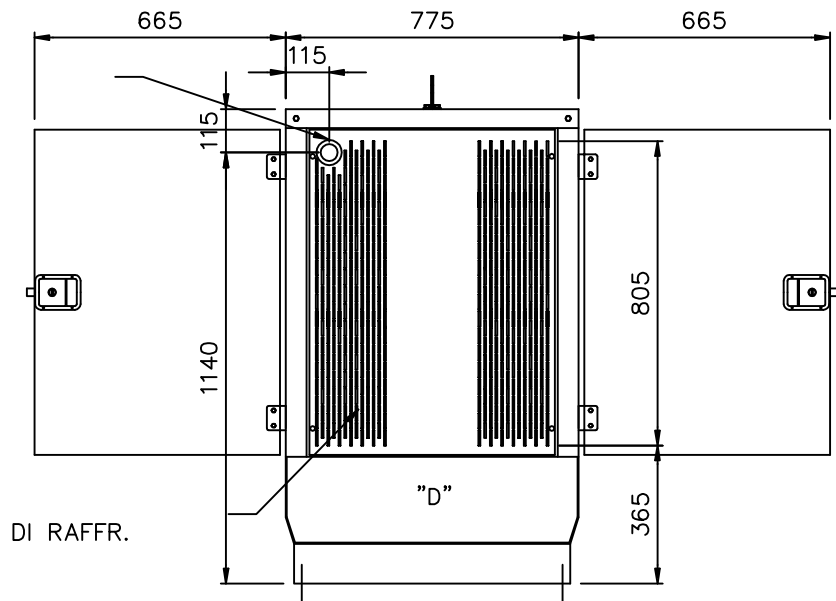
IL R.U.P.

DATA

Apr 2018

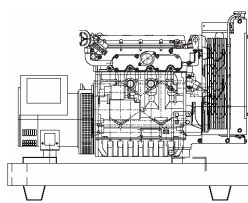
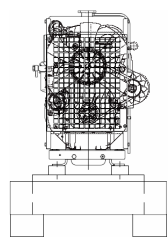
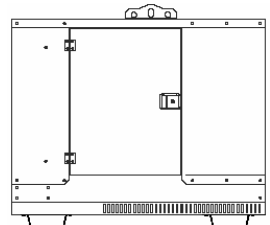
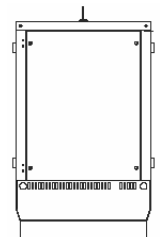





GAS DI SCARICO ϕ 45



USCITA ARIA DI RAFFR.

Cliente:	Material: VARI	Parts N: 1TOT	Sheet N: 1	Sheets N: 1		Rev	Date	Signature
Data:	Disegnato da:	Controllato da:	File name: NOME_FILE	N Fogli:		Scale: 1:30	Rev	Date
ENGINE: LOMBARDINI LDW1603	F: INGRESSO ARIA	TITOLO:	Macchina:	Disegno N.:				
MOTORE:	FLUSSO ARIA							
Kg:	FLUSSO GAS DI SCARICO							

GRUPPO ELETTROGENO GENERATING SET GROUPE ELECTROGENE		50 Hz	60 Hz	G17L		GX17LE	
Tensione Voltage Voltage	Volt	400/231	220/127	Versione aperta Open version Version ouverte		Versione insonorizzata Soundproof version Version insonorisée	
Potenza servizio continuo Continuous power Puissance service continu	kVA	15,3	18,6	 		 	
Potenza servizio emergenza Stand by power Puissance service secours	kVA	16,7	20,5				
Fattore di potenza Power factor Facteur de puissance		cos φ 0,8					
Potenza servizio continuo Continuous power Puissance service continu	kWe	12,2	14,9				
Potenza servizio emergenza Stand-by Power Puissance service secours	kWe	13,4	16,4				
Consumo combustibile carico 70% Fuel consumption 70% load Consommation combustible 70% charge		3,2 l/h	3,8 l/h				
MOTORE ENGINE MOTEUR	giri/min rpm tr/min	1500	1800	ALTERNATORE ALTERNATOR ALTERNATEUR	giri/min rpm tr/min	1500	1800
Modello Model Modèle		 LDW1603		Modello Model Modèle			
Potenza servizio continuo Continuous power Puissance service continu	KWm	14,0	17,0	Potenza servizio continuo Continuous power Puissance service continue		40°C 20 kVA	40°C 26 kVA
Potenza servizio emergenza Standby power Puissance service secours	KWm	15,5	18,7	Efficienza massima Max efficiency Rendement maximal		87,9 %	88,6 %
Aspirazione Aspiration Aspiration		Naturale Natural Naturelle		Excitatrice Exciter Excitatrice pivotante		Senza spazzole – ponte di diodi Brushless – edge of diodes Sans balais – pont de diodes	
Raffreddamento Cooling system Refroidissement		Acqua Water Eau		Morsetti Wires Fils		12	
Regolatore di giri Speed governor Régulateur de vitesse		Meccanico Mechanical Mécanique		Corrente di cortocircuito Short-circuit current Courant de court-circuit		300%: 10 s	
Numero cilindri Cylinders number Nombre des cylindres		3		Poli Poles Pôles	Fasi Phases Phases	4	3+ N
Cilindrata Displacement Déplacement		1.649 cm³		Isolamento Insulation Isolation	Protezione Protection Protection	H	IP 23
Alésaggio x corsa Bore x stroke Alésage x course		88 x 90,4 mm		Regolatore di tensione Voltage regulation Régulation du voltage		± 0,5 %	
INFORMAZIONI LOGISTICHE LOGISTIC INFORMATION INFORMATIONS LOGISTIQUES				QUADRO ELETTRICO CONTROL PANEL COFFRET DE COMMANDE			
	Serbatoio Fuel tank Réservoir	Peso Weight Poids	Dimensioni Dimensions Dimensions			Manuale standard Manual standard Manuel standard	Automatico in opzione Automatic optional Automatique en option
	l	Kg	cm (L x W x H)				
G17L	40	200	122	70	120		
GX17LE	75	550	150	80	133	QM120	QS32ATS

- 3 cylinders
- 1649 cm³
- 29,5 kW/40,1 HP
- 3000 r.p.m.
- Nm 113,0@1600

Available omologation

- EPA Interim TIER IV ◇
- 2004/26/CE Stage 3A ✦
- ECE R 24 ▲

Construction

- 4-stroke diesel engine with cylinders in line
- Fluid-cooled with axial fan.
- Indirect injection.
- Single-shaft distribution with rod, valve levers and hydraulic tappets.
- Geared distribution control.
- Double pto on the crankshaft.
- Two pto on the distribution.
- Counterclockwise, rotation (1° PTO).
- Forced lubrication with vane pump on the crankshaft.
- Total passage external oil filter.
- Positionable fan and water pump.
- Automatic extra fuel starting device.
- Centrifugal governor.
- Torque regulator.
- Cast iron engine block with re-borable integral liners.
- Cast iron cylinder head.



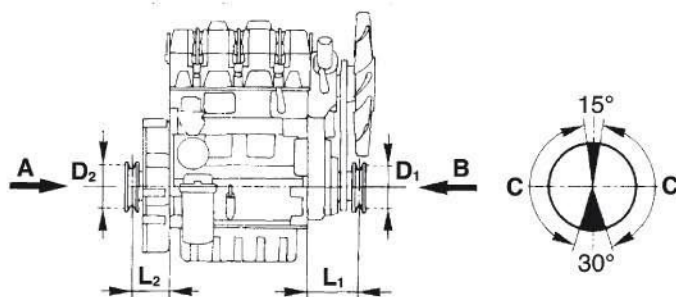
Applications

- Mini excavator
- Fork lift
- Wood chipper
- Dumper
- Gen set
- Aerial platform
- Compressor
- High pressure cleaner
- Sweeper
- Pump
- Tractor

Specifications

Cylinders	N.	3
Displacement	cm ³	1649
Bore	mm	88
Stroke	mm	90,4
Compression ratio		22:1
Rating kW/HP	N (80/1269/CEE) ISO 1585	29,5/40,1
	NB ISO 3046 IFN	27,6/37,5
	NA ISO 3046 ICXN	25,4/34,5
Max. torque	Nm	106,5@1600
Max. torque 3 P.T.O.	Nm	39,2@3000
Min. idling speed		900
Water pump delivery at 3000 r.p.m.	l/min.	75
Oil consumption	kg/h.	0,019
Oil sump capacity	l	3,8
Max. allowable inclination for:		
- short periods of operation (max. time 30 minutes)		25°
- peak values (max. time 1 minute)		35°
Cap. of air required for correct combustion @ 3000 r.p.m.	l/min.	2475
Cap. of air required for correct cooling @ 3000 r.p.m.	m ³ /min.	96
Dry weight	kg	156
Recommended battery	V/Ah	12/88

Minimum pulley diameters for belt drive



V belt	$D_2 \text{ (mm)} \geq 76 [L_2 \text{ (mm)} + 118]$	$\frac{N \text{ (kW)}}{n \text{ (RPM)}}$
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Cogged belt	$D_1 \text{ (mm)} \geq 49 [L_1 \text{ (mm)} + 118]$	$\frac{N \text{ (kW)}}{n \text{ (RPM)}}$
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Max. intermittent axial load in both directions A-B = 300 kg
C - zone in which the radial load acts on the pulley

HOMOLOGATIONS EPA Interim TIER IV e 2004/26/CE Stage 3A ◆ ◆

Rating kW @ 3000 rpm	ISO 14396	29,0
Max. torque	Nm	104,0@1650

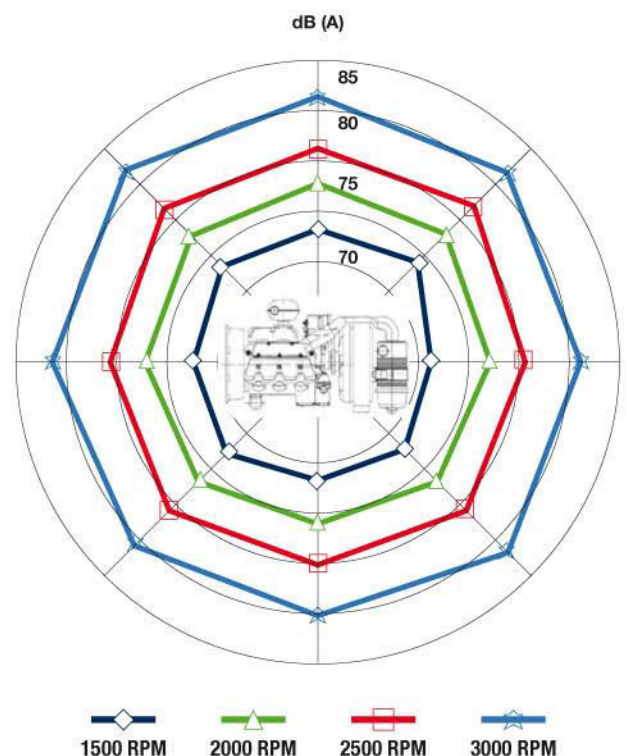
HOMOLOGATION ECE R24 ▲

Rating kW @ 3000 rpm	ISO 14396	27,6
Max. torque	Nm	103,0@1650



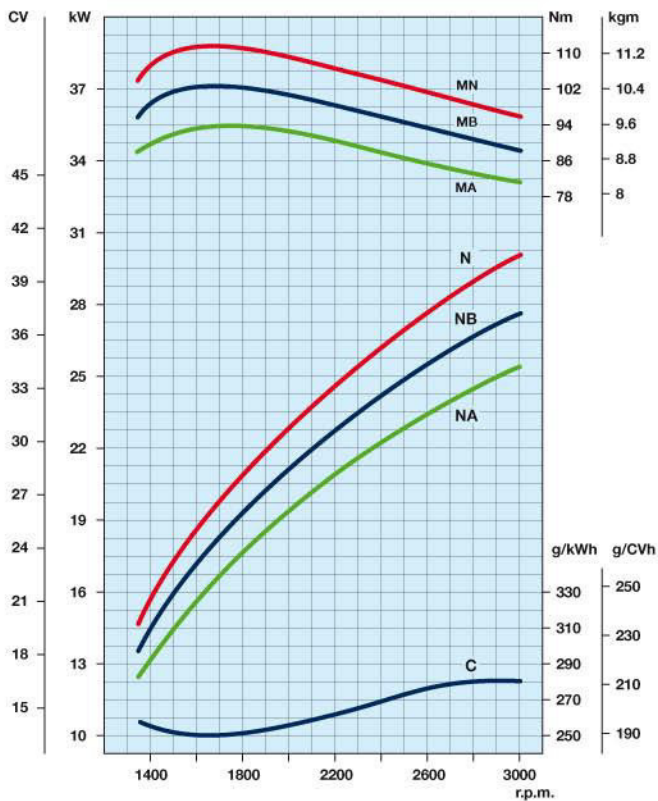
Sound pressure level dB (A)

Sound level polar diagram open field - 7 meters microphone - no load running engine.

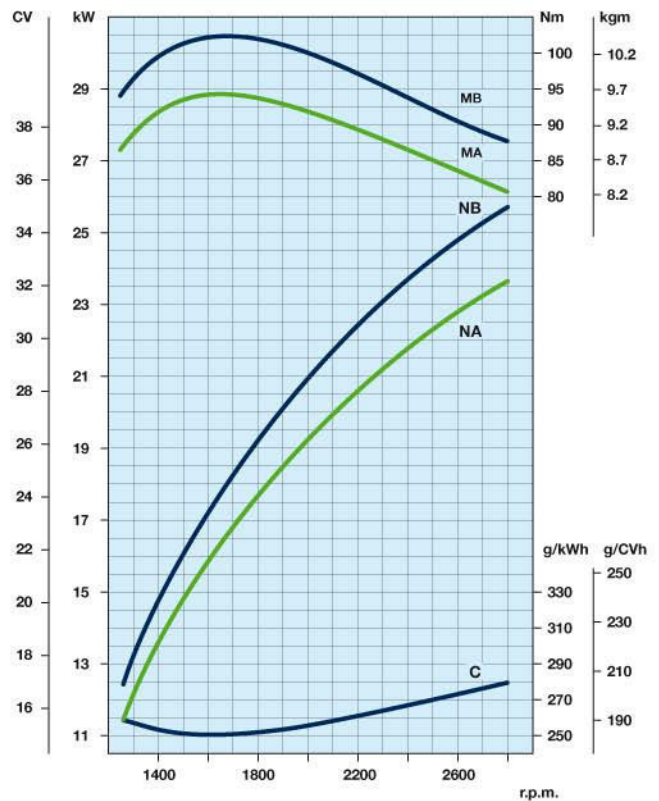


Curves

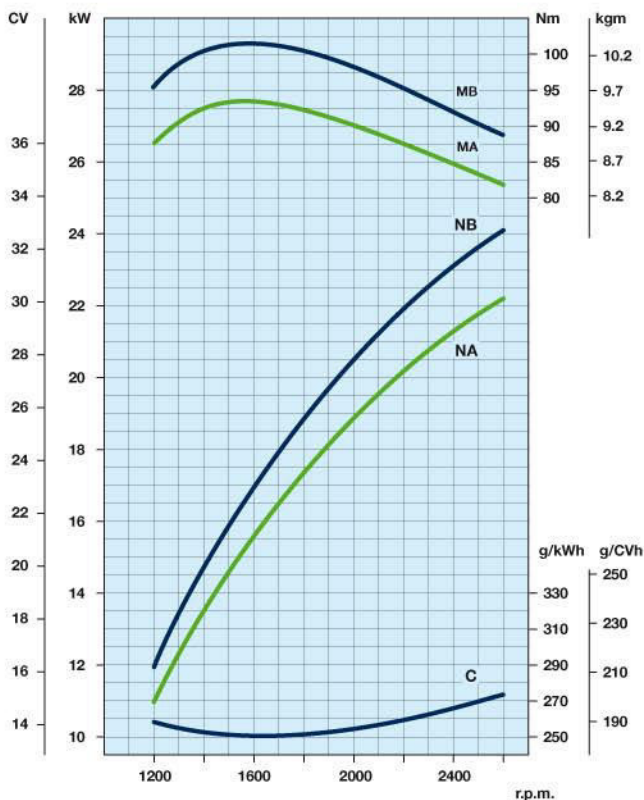
LDW 1603 @ 3000 r.p.m.



LDW 1603 B1 @ 2800 r.p.m. ▲



LDW 1603 B2 @ 2600 r.p.m. ▲



N Power curve - 80/1269/CEE - ISO 1585 -

NB Power curve - ISO 3046 - IFN -

NA Power curve - ISO 3046 - ICXN -

MN Torque curve - (N curve)

MB (NB curve) - MA (NA curve)

C Specific fuel consumption - (NB curve)

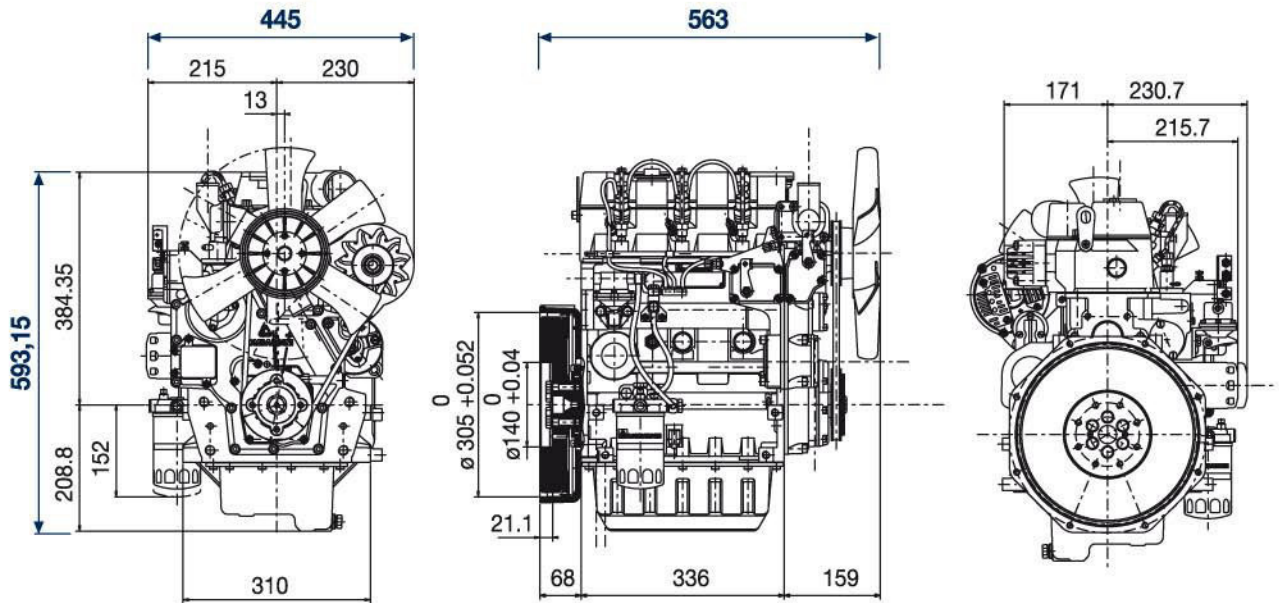
Power ratings refer to engines equipped with air filter, standard muffler, after being run in and in ambient conditions of 20°C and 1 bar. Power levels drop by 1% every 100m altitude and by 2% every 5°C above 20°C.

Output power for fixed speed application (including generating sets)

Engine power kW

r.p.m.	Intermittent (NB)	Continuous (NA)
3000	26,7	24,3
1800	18,5	16,8
1500	15,5	14,0

Technical drawings *



* More specific dimensions are available on www.lombardini.it (see table at the bottom of the page)

Standard equipment

- External oil filter
- Intake manifold
- Exhaust manifold
- Intake fan
- Accelerator control
- Electric starter and 12V alternator
- Thermostatic valve
- Fuel feed diaphragm pump
- Water pump
- Flanging plate
- Flywheel with ring gear
- Use, maintenance and spare parts booklet

Accessories

- Different guards according to use
- Clutches
- Clutch flywheels
- Flanges
- Hydraulic pump adaptors
- Keyswitch panel
- Electric stop
- Electronic plant for plugs
- Alternators
- Radiators
- Blowing fan
- Engine feet
- Fuel tanks
- Mufflers
- Dry air-cleaners mounted and separated
- Cyclonic precleaners
- Fuel filter on engine
- Cab heating system
- High capacity oil sump



ISO 9001 Cert. n. 0446 - 1405
QS. 9000 Cert. n. 2231/0



LOMBARDINI S.r.l. a Socio unico
Cap. Soc. € 44.000.000,00 int. ver. R.E.A. 227083
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Files for this product available on www.lombardini.it

Data sheet	LDW1603DS.PDF
Owner manual	LDW1603OM.PDF
Service manual	LDW1603SM.PDF
Technical drawing	LDW1603TD.DWG
Power curve	LDW1603PC.PDF

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