

# Technical data Diesel Generator Set

# CAT C13 / DE400E0

	Prime	Standby
Feature Code	C13DE1B	C13DE1B
Performance No.	EM0963	EM0964
Power Rating	kVA 350.0	400.0
Power Rating @ 0.8 Power Factor	KW 280.0	320.0
Voltage	V	400
Frequenz	Hz	50
Power Factor		0.8
Radiator		Yes
Combustion Strategy	Emission Low Emission	
ISO	3046 / 8528	



Diesel Engine		
Brand	Caterpillar	
Type	C13	
No. of Cylinders	6	
Cylinders Alignment	L	
Cycle	4-Stroke	
Cooling Method	Water-cooled	
Turbo Configuration	Single	
Turbo Quantity	1	
Fuel	Diesel	
Speed	rpm	1'500.0
Bore	mm	130.0
Stroke	mm	157.0
Displacement	L	12.5
Compression Ratio	16.3:1	
Piston speed	m/s	7.85
Mean effective pressure (PME)	bar	20.23
Aspiration	Air-toAir Aftercooled	
Fuel System	Electronic unit injection	
Base Tank Capacity	827	
Jacket Water heaters	V / kW	230 / 3
Starting Motor	V / kW	24 / 7
Battery Type	115-2421	
Battery Quantity	2	
Capacity Battery	V / Ah	12 / 90
Capacity Battery total	V / Ah	24 / 90

Technical Data	Prime	Standby
<b>Fuel Consumption</b>		
100% load	L/hr 78.9	87.4
75% load	L/hr 62.8	70.2
50% load	L/hr 44.6	50.4
100% load	g/kWh 209.5	202.6
75% load	g/kWh 222.3	216.9
50% load	g/kWh 236.8	233.6
Oil consumption 75% load	L/hr 0.032	0.036
Oil consumption 75% load	g/kWh 0.095	0.095

<b>Cooling System</b>		
Engine coolant Capacity with Radiator / expansion Tank	L	45.2
Engine coolant Capacity	L	14.2
<b>Inlet Air</b>		
Combustion Air inlet flow rate	m³/min	24.1 / 25.0
<b>Exhaust System</b>		
Exhaust stack gas Temperature 100%	°C	516.4 / 533.3
Exhaust gas flow rate 100%	m³/min	66.3 / 70.5
Exhaust System backpressure max.	kPa	10.0
<b>Heat Rejection</b>		
Heat Rejection to coolant (total)	kW	116.0 / 127.0
Heat Rejection to exhaust (total)	kW	302.0 / 326.0
Heat Rejection to after cooler	kW	63.3 / 69.2
Heat Rejection to Atmosphere from Engine	kW	40.6 / 43.7
Heat Rejection to Atmosphere from Generator	kW	19.8 / 23.7
<b>Lube System</b>		
Sump refill with Filter	L	36.0

Generator		
Brand	Caterpillar	
Type / Frame	A2925L4	
Excitation	Permanent Magnet	
Pitch	0.6667	
Number of Poles	4	
Number of Bearings	1	
Number of Leads	12	
Insulation	Class H	
IP Rating	IP23	
Nominal Speed	rpm	1'500.0
Over Speed capability	%	150.0
Wave form Deviation (Line to Line)	%	2.0
Voltage Regulator	3 Phase sensing with selectable volts/Hz	
Voltage regulation	Less than ± ½% (steady state) Less than ± ½% (no load to full load)	
Telephone Influence Factor (TIF)	Less than 50	
Total Harmonic Distortion (THD)	Less than 5	
CBK 3pol manual, fixed mount rear	A	630.0
Typical Cabeling; TN-C (Prime)	2 x 4 x 95 mm² + 1 x 1 x 95 mm²	
Typical Cabeling; TN-C (Standby)	1 x 4 x 240 mm² + 1 x 1 x 120 mm²	

Exhaust Emission (Nominal Data) @ 75% and 50°C ATAAC		
CO	mg/nm³	346.3 / 350.0
HC	mg/nm³	17.6 / 12.6
NOx	mg/nm³	1'073.0 / 1'169.7
HC + Nox	mg/nm³	- / -
Part Matter	mg/nm³	31.3 / 32.8

Generator		
Motor starting capability @30% Voltage Dip	skVA	996.0
Rated Current	A	505.2 / 577.4
Short-Circuit Current	3 x INOM	

Radiator		
Radiator Type	AS13.3CTS	
Design Temperature	°C	58.0
Radiator coolant Capacity	L	25.0
Air Flow @ 120 Pa	m³/min	396.0
Air Flow @ 180 Pa	m³/min	348.0

Package Dimensions (Dry)			
Engine: Length x Width x Height	mm	1'295 x 1'186 x 1'053	
Weight	kg	908	
Generator: Length x Width x Height	mm	1'174 x 710 x 1'055	
Weight	kg	934	
Radiator: Length x Width x Height	mm	822 x 1'100 x 1'697	
Dry Weight	kg	150	
Complete: Length x Width x Height	mm	3'800 x 1'119 x 2'156	
Complete: Weight	kg	2'542	
with Enclosure: Length x Width x Height	mm	4'930 x 1'620 x 2'271	
with Enclosure: Weight	kg	4'980	

Sound pressure Level LPA @ 75% Last @ 7m									
dB	Hz								Overall dBA
	63	125	250	500	1000	2000	4000	8000	
Mechanical [Stby]	88.5	80.7	85.5	85.6	87.5	85.7	81.2	74.0	<b>91.7</b>
Exhaust [Stby]	101.2	97.1	96.8	98.9	100.3	101.5	91.3	79.6	<b>105.5</b>
Mechanical [Prim]	87.7	80.4	85.4	85.4	87.4	85.3	80.7	73.2	<b>91.4</b>
Exhaust [Prim]	100.1	95.4	95.5	98	98.7	100	89.6	77.3	<b>104.1</b>