

Technical data Diesel Generator Set

CAT C2.2 / DE22E3

	Prime	Standby
Feature Code	-	C02DE82
Performance No.	-	P3522A
Power Rating	kVA 20.0	22.0
Power Rating @ 0.8 Power Factor	KW 16.0	17.6
Voltage	V	400
Frequenz	Hz	50
Power Factor		0.8
Radiator		Yes
Combustion Strategy	Emission EU Stage IIIA	
ISO	3046 / 8528	



Diesel Engine		
Brand	Caterpillar	
Type	C2.2	
No. of Cylinders	4	
Cylinders Alignment	L	
Cycle	4 Stroke	
Cooling Method	Water-cooled	
Turbo Configuration	-	
Turbo Quantity	-	
Fuel	Diesel	
Speed	rpm	1'500.0
Bore	mm	84.0
Stroke	mm	100.0
Displacement	L	2.2
Compression Ratio	23.3:1	
Piston speed	m/s	5.00
Mean effective pressure (PME)	bar	6.73
Aspiration	Naturally Aspirated	
Fuel System	Mechanical	
Base Tank Capacity	169	
Jacket Water heaters	V / kW	230 / 1
Starting Motor	V / kW	12 / 1.5
Battery Type	1152421	
Battery Quantity	1	
Capacity Battery	V / Ah	12 / 90
Capacity Battery total	V / Ah	12 / 90

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Fuel Consumption		
100% load	L/hr	5.3
75% load	L/hr	3.9
50% load	L/hr	2.9
100% load	g/kWh	238.6
75% load	g/kWh	234.1
50% load	g/kWh	261.1
Oil consumption 75% load	L/hr	0.002
Oil consumption 75% load	g/kWh	0.098

Cooling System		
Engine coolant Capacity with Radiator / expansion Tank	L	10.6
Engine coolant Capacity	L	6.5
Inlet Air		
Combustion Air inlet flow rate	m³/min	1.5
Exhaust System		
Exhaust stack gas Temperature 100%	°C	445.0
Exhaust gas flow rate 100%	m³/min	3.6
Exhaust System backpressure max.	kPa	10.2
Heat Rejection		
Heat Rejection to coolant (total)	kW	17.0
Heat Rejection to exhaust (total)	kW	
Heat Rejection to after cooler	kW	
Heat Rejection to Atmosphere from Engine	kW	5.7
Heat Rejection to Atmosphere from Generator	kW	2.7
Lube System		
Sump refill with Filter	L	6.5

Generator		
Brand	Caterpillar	
Type / Frame	LC / LC1114M	
Excitation	Self Excited	
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 ± 1% (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	40.0
Typical Cabeling; TN-C (Prime)	x x mm² + x x mm²	
Typical Cabeling; TN-C (Standby)	x x mm² + x x mm²	

Exhaust Emission (Nominal Data) @ 75% and -°C NA		
CO	mg/nm³	-
HC	mg/nm³	-
NOx	mg/nm³	-
HC + Nox	mg/nm³	-
Part Matter	mg/nm³	-

Generator		
Motor starting capability @30% Voltage Dip	skVA	52.0
Rated Current	A	28.9
Short-Circuit Current	3 x INOM	

Radiator		
Radiator Type	1.8CT	
Design Temperature	°C	
Radiator coolant Capacity	L	2.0
Air Flow @ 120 Pa	m³/min	42.0
Air Flow @ 180 Pa	m³/min	40.0

Package Dimensions (Dry)			
Engine: Length x Width x Height	mm	915 x 477 x 840	
Weight	kg	242	
Generator: Length x Width x Height	mm	448 x 388 x 407	
Weight	kg	100	
Radiator: Length x Width x Height	mm	379 x 279 x 791	
Dry Weight	kg	25	
Complete: Length x Width x Height	mm	1'704 x 876 x 1'341	
Complete: Weight	kg	487	
with Enclosure: Length x Width x Height	mm	1'704 x 876 x 1'544	
with Enclosure: Weight	kg	809	

Sound pressure Level LPA @ 75% Last @ 7m										
dB	Hz									Overall dBA
	63	125	250	500	1000	2000	4000	8000		
Mechanical [Stby]	85.7	69.9	67.3	65.4	68.0	64.6	60.5	56.3	71.9	
Exhaust [Stby]	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
Mechanical [Prim]	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
Exhaust [Prim]	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	