

Technical data Diesel Generator Set

CAT C7.1 / DE165E3

	Prime	Standby
Feature Code	-	C07DE97
Performance No.	-	P4392B
Power Rating	kVA 150.0	165.0
Power Rating @ 0.8 Power Factor	KW 120.0	132.0
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	C7.1	
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	105.0
Stroke	mm	135.0
Displacement	L	7.0
Compression Ratio	16.8:1	
Piston speed	m/s	6.75
Mean effective pressure (PME)	bar	15.51
Aspiration	Air-toAir Aftercooled	
Fuel System	Electronic unit injection	
Base Tank Capacity	437	
Jacket Water heaters	V / kW	230 / 3
Starting Motor	V / kW	12 / 7
Battery Type	9X9730	
Battery Quantity	1	
Capacity Battery	V / Ah	12 / 190
Capacity Battery total	V / Ah	12 / 190

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Fuel Consumption		
100% load	L/hr	35.2
75% load	L/hr	28.2
50% load	L/hr	20.0
100% load	g/kWh	217.3
75% load	g/kWh	232.1
50% load	g/kWh	246.9
Oil consumption 75% load	L/hr	0.014
Oil consumption 75% load	g/kWh	0.095

Cooling System		
Engine coolant Capacity with Radiator / expansion Tank	L	21.0
Engine coolant Capacity	L	
Inlet Air		
Combustion Air inlet flow rate	m³/min	10.6
Exhaust System		
Exhaust stack gas Temperature 100%	°C	513.0
Exhaust gas flow rate 100%	m³/min	24.0
Exhaust System backpressure max.	kPa	15.0
Heat Rejection		
Heat Rejection to coolant (total)	kW	64.0
Heat Rejection to exhaust (total)	kW	72.5
Heat Rejection to after cooler	kW	
Heat Rejection to Atmosphere from Engine	kW	27.0
Heat Rejection to Atmosphere from Generator	kW	35.0
Heat Rejection to Atmosphere from Generator	kW	9.0
Lube System		
Sump refill with Filter	L	17.5

Generator		
Brand	Caterpillar	
Type / Frame	R2453L4	
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 ± 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	250.0
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 55°C ATAAC		
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	313.0
Rated Current	A	216.5
Short-Circuit Current		3 x INOM

Radiator		
Radiator Type		
Design Temperature	°C	
Radiator coolant Capacity	L	
Air Flow @ 120 Pa	m³/min	
Air Flow @ 180 Pa	m³/min	

Package Dimensions (Dry)			
Engine: Length x Width x Height	mm	1'161	x 721 x 885
Weight	kg	652	
Generator: Length x Width x Height	mm	767	x 512 x 566
Weight	kg	550	
Radiator: Length x Width x Height	mm	796	x 518 x 1'083
Dry Weight	kg	109	
Complete: Length x Width x Height	mm	2'450	x 1'010 x 1'554
Complete: Weight	kg	1'611	
with Enclosure: Length x Width x Height	mm	3'520	x 1'130 x 1'969
with Enclosure: Weight	kg	2'122	

Sound pressure Level LPA @ 75% Last @ 7m									
dB	Hz								Overall dBA
	63	125	250	500	1000	2000	4000	8000	
Mechanical [Stby]	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
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.