

Technical data Diesel Generator Set

CAT C9 / DE300E3

	Prime	Standby
Feature Code	C09DE5U	C09DE5U
Performance No.	EM1549	EM1548
Power Rating	kVA 275.0	300.0
Power Rating @ 0.8 Power Factor	KW 220.0	240.0
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	C9	
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	112.0
Stroke	mm	149.0
Displacement	L	8.8
Compression Ratio	16.1:1	
Piston speed	m/s	7.45
Mean effective pressure (PME)	bar	23.08
Aspiration	Air-toAir Aftercooled	
Fuel System	Electronic unit injection	
Base Tank Capacity	537	
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

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Fuel Consumption		
100% load	L/hr	60.5
75% load	L/hr	48.8
50% load	L/hr	35.9
100% load	g/kWh	199.8
75% load	g/kWh	214.9
50% load	g/kWh	237.2
Oil consumption 75% load	L/hr	0.025
Oil consumption 75% load	g/kWh	0.097

Cooling System		
Engine coolant Capacity with Radiator / expansion Tank	L	56.9
Engine coolant Capacity	L	13.9
Inlet Air		
Combustion Air inlet flow rate	m³/min	16.0
Exhaust System		
Exhaust stack gas Temperature 100%	°C	487.0
Exhaust gas flow rate 100%	m³/min	43.0
Exhaust System backpressure max.	kPa	10.0
Heat Rejection		
Heat Rejection to coolant (total)	kW	95.0
Heat Rejection to exhaust (total)	kW	209.0
Heat Rejection to after cooler	kW	40.6
Heat Rejection to Atmosphere from Engine	kW	44.0
Heat Rejection to Atmosphere from Generator	kW	15.3
Lube System		
Sump refill with Filter	L	

Generator		
Brand	Caterpillar	
Type / Frame	LC / LC5114J	
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	400.0
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 49°C ATAAC		
CO	mg/nm³	990.4
HC	mg/nm³	31.0
NOx	mg/nm³	1'118.1
HC + Nox	mg/nm³	-
Part Matter	mg/nm³	36.2

Generator		
Motor starting capability @30% Voltage Dip	skVA	636.0
Rated Current	A	396.9
Short-Circuit Current	3 x INOM	

Radiator		
Radiator Type	A9.3CTS	
Design Temperature	°C	51.0
Radiator coolant Capacity	L	17.0
Air Flow @ 120 Pa	m³/min	346.0
Air Flow @ 180 Pa	m³/min	315.0

Package Dimensions (Dry)			
Engine: Length x Width x Height	mm	1'091 x 827 x 1'023	
Weight	kg	864	
Generator: Length x Width x Height	mm	976 x 516 x 757	
Weight	kg	740	
Radiator: Length x Width x Height	mm	1'030 x 606 x 1'169	
Dry Weight	kg	60	
Complete: Length x Width x Height	mm	2'662 x 1'030 x 1'614	
Complete: Weight	kg	2'074	
with Enclosure: Length x Width x Height	mm	4'300 x 1'410 x 2'165	
with Enclosure: Weight	kg	3'404	

Sound pressure Level LPA @ 75% Last @ 7m										
dB	Hz									
	63	125	250	500	1000	2000	4000	8000	Overall	
Mechanical [Stby]	83.5	82.0	84.8	80.2	82.3	80.2	78.1	89.5	90.8	
Exhaust [Stby]	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
Mechanical [Prim]	82.9	81.6	84.7	80.2	82.3	79.9	78.8	89.8	91	
Exhaust [Prim]	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	