

Technical data Diesel Generator Set

CAT C18 / DE715E0

	Prime	Standby
Feature Code	C18DEDP	C18DEDP
Performance No.	EM1391	EM1390
Power Rating	kVA 650.0	715.0
Power Rating @ 0.8 Power Factor	KW 520.0	572.0
Voltage	V	400
Frequenz	Hz	50
Power Factor		0.8
Radiator		Yes
Combustion Strategy	Emission Low BSFC	
ISO	3046 / 8528	



Diesel Engine		
Brand	Caterpillar	
Type	C18	
No. of Cylinders	6	
Cylinders Alignment	L	
Cycle	4-Stroke	
Cooling Method	Water-cooled	
Turbo Configuration	Parallel	
Turbo Quantity	2	
Fuel	Diesel	
Speed	rpm	1'500.0
Bore	mm	145.0
Stroke	mm	183.0
Displacement	L	18.1
Compression Ratio	14.5:1	
Piston speed	m/s	9.15
Mean effective pressure (PME)	bar	24.72
Aspiration	Air-toAir Aftercooled	
Fuel System	Electronic unit injection	
Base Tank Capacity	1082	
Jacket Water heaters	V / kW	230 / 9
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	130.6
75% load	L/hr	96.9
50% load	L/hr	67.0
100% load	g/kWh	195.7
75% load	g/kWh	193.6
50% load	g/kWh	200.8
Oil consumption 75% load	L/hr	0.056
Oil consumption 75% load	g/kWh	0.091

Cooling System		
Engine coolant Capacity with Radiator / expansion Tank	L	54.8
Engine coolant Capacity	L	20.8
Inlet Air		
Combustion Air inlet flow rate	m³/min	35.3
Exhaust System		
Exhaust stack gas Temperature 100%	°C	553.7
Exhaust gas flow rate 100%	m³/min	112.0
Exhaust System backpressure max.	kPa	10.0
Heat Rejection		
Heat Rejection to coolant (total)	kW	167.0
Heat Rejection to exhaust (total)	kW	498.0
Heat Rejection to after cooler	kW	94.6
Heat Rejection to Atmosphere from Engine	kW	83.8
Heat Rejection to Atmosphere from Generator	kW	26.8
Lube System		
Sump refill with Filter	L	76.0

Generator		
Brand	Caterpillar	
Type / Frame	A3355L4	
Excitation	Permanent Magnet or AREP	
Pitch	0.6667	
Number of Poles	4	
Number of Bearings	1	
Number of Leads	6	
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	1'000.0
Typical Cabeling; TN-C (Prime)	2 x 4 x 240 mm² + 1 x 1 x 240 mm²	
Typical Cabeling; TN-C (Standby)	2 x 4 x 240 mm² + 1 x 1 x 240 mm²	

Exhaust Emission (Nominal Data) @ 75% and 49°C ATAAC		
CO	mg/nm³	456.7
HC	mg/nm³	5.0
NOx	mg/nm³	3'932.7
HC + Nox	mg/nm³	-
Part Matter	mg/nm³	12.3

Generator		
Motor starting capability @30% Voltage Dip	skVA	2'064.0
Rated Current	A	938.2
Short-Circuit Current	3 x INOM	

Radiator		
Radiator Type	A16.1 CTS	
Design Temperature	°C	51.0
Radiator coolant Capacity	L	34.0
Air Flow @ 120 Pa	m³/min	374.0
Air Flow @ 180 Pa	m³/min	350.0

Package Dimensions (Dry)			
Engine: Length x Width x Height	mm	1'470 x 917 x 1'611	
Weight	kg	1'633	
Generator: Length x Width x Height	mm	1'812 x 742 x 1'112	
Weight	kg	1'618	
Radiator: Length x Width x Height	mm	1'453 x 804 x 1'761	
Dry Weight	kg	154	
Complete: Length x Width x Height	mm	3'976 x 1'453 x 2'155	
Complete: Weight	kg	4'095	
with Enclosure: Length x Width x Height	mm	5'320 x 1'920 x 2'344	
with Enclosure: Weight	kg	6'194	

Sound pressure Level LPA @ 75% Last @ 7m										
dB	Hz									
	63	125	250	500	1000	2000	4000	8000	Overall dBA	
Mechanical [Stby]	83.4	85.3	85.6	85.9	87.8	85.1	80.6	78.6	91.7	
Exhaust [Stby]	108.5	105.3	101.5	102.6	104.3	99.9	92.0	75.8	107.3	
Mechanical [Prim]	82.5	85.1	85.5	85.5	87.4	84.5	80.4	78.2	91.3	
Exhaust [Prim]	108.5	104.6	100.6	102	103.2	98.6	90.8	74.1	106.3	