

## Technical data Diesel Generator Set

## CAT C175-20 (11'000V)

	Prime	Standby
Feature Code	175DRA7	175DRA8
Performance No.	EM0806	EM1364
Power Rating	kVA 3'500.0	3'900.0
Power Rating @ 0.8 Power Factor	KW 2'800.0	3'120.0
Voltage	V	11000
Frequenz	Hz	50
Power Factor		0.8
Radiator		Yes
Combustion Strategy		Low Emission
ISO		3046 / 8528

Diesel Engine		
Brand	Caterpillar	
Type	C175-20	
No. of Cylinders	20	
Cylinders Alignment	V	
Cycle	4-Stroke	
Cooling Method	Water-cooled	
Turbo Configuration	Parallel	
Turbo Quantity	4	
Fuel	Diesel	
Speed	rpm	1'500.0
Bore	mm	175.0
Stroke	mm	220.0
Displacement	L	105.8
Compression Ratio		15.3:1
Piston speed	m/s	11.00
Mean effective pressure (PME)	bar	23.17
Aspiration	Turbo after cooler	
Fuel System	Common Rail	
Base Tank Capacity	n. a.	
Jacket Water heaters	V / kW	230 / 9
Starting Motor	V / kW	24 / 9
Battery Type	153-5720	
Battery Quantity	4	
Capacity Battery	V / Ah	12 / 210
Capacity Battery total	V / Ah	24 / 420

Generator		
Brand	Caterpillar	
Type / Frame	SR5 / 3055	
Excitation	Permanent Magnet	
Pitch	0.6667	
Number of Poles	4	
Number of Bearings	2	
Number of Leads	6	
Insulation	Class H	
IP Rating	IP23	
Nominal Speed	rpm	1'500.0
Over Speed capability	%	180.0
Wave form Deviation (Line to Line)	%	5.0
Voltage Regulator	3 Phase sensing with selectable volts/Hz Less than ± ½% (steady state)	
Voltage regulation	Less than ± ½% (with 3% speed change)	
Telephone Influence Factor (TIF)	Less than 50	
Total Harmonic Distortion (THD)	Less than 5	
CBK 3pol manual, fixed mount rear	A	6'300.0
Typical Cabeling; TN-C (Prime)	x x mm <sup>2</sup> + x x mm <sup>2</sup>	
Typical Cabeling; TN-C (Standby)	x x mm <sup>2</sup> + x x mm <sup>2</sup>	

Package Dimensions (Dry)				
Engine: Length x Width x Height	mm	4'726	x	2'038 x 2'195
Weight	kg			14'750
Generator: Length x Width x Height	mm	2'217	x	1'783 x 1'895
Weight	kg			7'885
Radiator: Length x Width x Height	mm	n.a.	x	n.a. x n.a.
Dry Weight	kg			5'880
Complete: Length x Width x Height	mm	8'400	x	3'265 x 3'827
Complete: Weight	kg			32'015
with Enclosure: Length x Width x Height	mm	-	x	- x -
with Enclosure: Weight	kg			-



Technical Data		Standby
<b>EN590-Fuel Consumption</b>		
100% load	L/hr	828.6
75% load	L/hr	653.7
50% load	L/hr	439.2
100% load	g/kWh	206.4
75% load	g/kWh	217.1
50% load	g/kWh	218.8
Oil consumption 75% load	L/hr	0.337
Oil consumption 75% load	g/kWh	0.091
<b>Cooling System</b>		
Engine coolant Capacity with Radiator / expansion Tank	L	976.0
Engine coolant Capacity	L	440.0
<b>Inlet Air</b>		
Combustion Air inlet flow rate	m <sup>3</sup> /min	267.0
<b>Exhaust System</b>		
Exhaust stack gas Temperature 100%	°C	460.7
Exhaust gas flow rate 100%	m <sup>3</sup> /min	704.5
Exhaust System backpressure max.	kPa	6.7
<b>Heat Rejection</b>		
Heat Rejection to coolant (total)	kW	1'613.0
Heat Rejection to exhaust (total)	kW	2'762.0
Heat Rejection to after cooler	kW	373.0
Heat Rejection to Atmosphere from Engine	kW	183.0
Heat Rejection to Atmosphere from Generator	kW	164.9
<b>Lube System</b>		
Sump refill with Filter	L	675.0
<b>Exhaust Emission (Nominal Data) @ 75% and 46°C SCAC</b>		
CO	mg/nm <sup>3</sup>	437.9
HC	mg/nm <sup>3</sup>	60.7
NOx	mg/nm <sup>3</sup>	1'627.4
HC + Nox	mg/nm <sup>3</sup>	-
Part Matter	mg/nm <sup>3</sup>	13.5
<b>Generator</b>		
Motor starting capability @30% Voltage Dip	skVA	10'130.0
Rated Current	A	204.7
Short-Circuit Current		3 x INOM

Radiator		
Radiator Type	SF94CVS	
Design Temperature	°C	36.0
Radiator coolant Capacity	L	536.0
Air Flow @ 120 Pa	m <sup>3</sup> /min	3'397.0
Air Flow @ 180 Pa	m <sup>3</sup> /min	3'277.0

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