

ژنراتور : Meccalte

موتور دیزل : Cummins

Standby		Prime		دیزل ژنراتور
KVA	KW	KVA	KW	
11	8.8	10	8	



موتور دیزل		
Manufacturer	Cummins	تولید کننده
Type	X1.3G2	تیپ
Number of cylinders	in-line, 4 cylinder	تعداد سیلندر ها
Cylinder arrangement	In-line	آرایش سیلندر ها
Displacement , Liters	1.29 litre	جا به جایی
Bore × Stroke , mm	95mm× 91mm	قطر سیلندر × کورس پیستون
Compression Ratio	18.5:1	نسبت تراکم
Combustion System	-	سیستم احتراق
Aspiration	Naturally Aspirated	سیستم تنفس
Rotation	-	چرخش
Gross engine power, kWb	11.8 - 10.6	قدرت نافالص موتور
Fan Power, kWm	<1	قدرت فن
Combustion air flow, m ³ /min	11.60	جریان هوای احتراق
Exhaust gas temp.(after turbo) , °C	550	دمای گاز خروجی از اگزوز
Exhaust gas flow (after turbo) , m ³ /min	12.19	جریان هوای خروجی از اگزوز
Mean Piston Speed , m/s	4.55	میانگین سرعت پیستون

ژنراتور

Manufacturer	Meccalte	تولید کننده
Type	ECO 3-2SN/2	تیپ
Standby power at rated voltage ,KVA	11	توان standby در ولتاژ نامی
Efficiency, %	80	راندمان
Power factor	0.8	ضریب قدرت
Phase	3	فاز
Frequency, Hz	50 and 60	فرکانس
Speed, Rpm	1500	سرعت
Voltage, V	380	ولتاژ
Stator windings	6 ends	سیم پیچ استاتور
Regulation	SR7/2	تنظیم ولتاژ
Rotor	with damping cage	روتور
Short circuit current	% >300	جریان اتصال کوتاه
Insulation class	H	کلاس عایق
Protection class	IP 23	کلاس حفاظتی



GENERATOR TYPE ECO 3-2SN/2

Electrical Characteristics										
Frequency		Hz	50				60			
Voltage (star)		V	380	400	415	440	415	440	460	480
Rated power class H		kVA	10	10	10	8,5	10,5	12	12	12
		kW	8	8	8	6,8	8,4	9,6	9,6	9,6
Rated power class F		kVA	9	9	9	7,5	9	10,2	10,8	10,8
		kW	7,2	7,2	7,2	6	7,2	8,2	8,6	8,6
Regulation with		SR7/2	±1,5 % with any power factor and speed variations between -5% +30%							
Insulation class			H							
Execution			Brushless							
Stator winding			6 ends							
Rotor			with damping cage							
Efficiencies class H	4/4	%	80,4	80,5	80,2	80	82,1	82,6	82,7	82,8
(see graph. for details)	3/4	%	80,7	81	80,9	80,6	82,6	82,8	83	83,2
	2/4	%	77,4	77,5	77,5	77,2	79,5	79,6	79,7	79,8
	1/4	%	72,1	72	71,8	71,3	72,8	72,6	72,7	73
Reactances (f. l.cl. F)	Xd	%	346,8	313	290,8	219,9	366,4	372,5	340,8	313
	Xd'	%	35,79	32,3	30,01	22,69	37,81	38,44	35,17	32,3
	Xd''	%	18,50	16,7	15,51	11,73	19,55	19,87	18,18	16,7
	Xq	%	108,0	97,5	90,6	68,5	114,1	116,0	106,2	97,5
	Xq'	%	108,0	97,5	90,6	68,5	114,1	116,0	106,2	97,5
	Xq''	%	41,7	37,6	34,9	26,4	44,0	44,7	40,9	37,6
	X ₂	%	20,72	18,7	17,37	13,14	21,89	22,25	20,36	18,7
	X ₀	%	7,53	6,8	6,32	4,78	7,96	8,09	7,40	6,8
Short Circuit Ratio	Kcc		0,36	0,48	0,69	1,31	0,23	0,31	0,36	0,48
Time Constants	Td'	sec.	0,072							
	Td''	sec.	0,012							
	Tdo'	sec.	0,63							
	T _α	sec.	0,006							
Short Circuit Current Capacity		%	>300				>320			
Excitation at no load	Amp.		0,2	0,25	0,3	0,4	0,16	0,17	0,2	0,23
Excitation at full load	Amp.		1	1,06	1,1	1,2	0,8	0,85	0,9	1
Overload (long-term)	%	1 hour in a 6 hours period 110% rated load								
Overload per 20 sec.	%	300								
Stator Winding Resistance (20°C)	Ω	1,084								
Rotor Winding Resistance (20°C)	Ω	7,364								
Exciter Resistance (20 °C)	Ω	Rotor : 1,453				Stator : 15,71				
Heat dissipation at f.l.cl.H	W	1950	1938	1975	1700	1831	2022	2008	1994	
Telephone Interference		THF < 2%					TIF < 45			
Radio interference		EN60034-1, VDE0875K. For others standards apply to factory.								
Waveform Distors.(THD) at f. load	LL/LN %	4,8 / 4,6								
Waveform Distors.(THD) at no load	LL/LN %	4,1 / 3,9								
Mechanical characteristics										
Protection		IP 23 (other protection on request)								
DE bearing		6308-2RS								
NDE bearing		6305-2RS								
Weight of wound stator assembly	kg	19,4								
Weight of wound rotor assembly	kg	10,5								
Weight of complete generator	kg	63								
Maximun overspeed	rpm	4500								
Unbalanced magnetic pull at f.l.cl.F	kN/mm	2,6								
Cooling air requirement	m³/min	6,3					7,8			
Inertia Constant (H)	sec.	0,195					0,234			
Noise level at 1m/7m	dB(A)	85 / 70					89 / 73			

All technical data are to be considered as a reference and they can be modified without any notice.

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Model: C8D5 (X-Series)
Frequency: 50
Fuel Type: Diesel

» Generator set data sheet



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Spec sheet:	SS23-CPGK
Noise data sheet (Open/enclosed):	ND50-OS550 / ND50-CS550
Airflow data sheet:	AF50-550
Derate data sheet (Open/enclosed):	DD50-OS550 / DD50-CS550
Transient data sheet:	TD50-550

Fuel consumption	Standby				Prime			
	kVA (kW)				kVA (kW)			
Ratings	8.3 (6.6)				7.5 (6)			
Load	1/4	1/2	3/4	Full	1/4	1/2	3/4	Full
gph	0.3	0.4	0.5	0.6	0.3	0.4	0.5	0.6
L/hr	1.54	1.87	2.31	2.86	1.40	1.70	2.10	2.60

Engine	Standby rating		Prime rating
Engine manufacturer	Cummins		
Engine model	X1.3G2		
Configuration	4 Cycle; In-line; 2 Cylinder Diesel		
Aspiration	Naturally Aspirated		
Gross engine power output, kWm	11.8		10.6
BMEP at set rated load, kPa	711		672
Bore, mm	95		
Stroke, mm	91		
Rated speed, rpm	1500		
Piston speed, m/s	4.55		
Compression ratio	18.5:1		
Lube oil capacity, L	4.5		
Overspeed limit, rpm	2050		
Regenerative power, kW	2		
Governor type	Electronic		
Starting voltage	12 Volts DC		

Fuel flow	
Maximum fuel flow, L/hr	40
Maximum fuel inlet restriction, mm Hg	73
Maximum fuel inlet temperature (°C)	60

Air	
Combustion air, m³/min	11.60
Maximum air cleaner restriction, kPa	3.73 (HD clean element)

Exhaust	Standby rating	Prime rating
Exhaust gas flow at set rated load, m ³ /min	12.19	12.19
Exhaust gas temperature, °C	550	530
Maximum exhaust back pressure, kPa	4.133	

Standard set-mounted radiator cooling		
Ambient design, °C	50	
Fan load, KW _m	<1	
Coolant capacity (with radiator), L	4.65	
Cooling system air flow, m3/sec @ 12.7mmH2O	0.388	
Total heat rejection, BTU/min	7.5 (to coolant)	7.5 (to coolant)
Maximum cooling air flow static restriction mmH2O	0.125	

Open set derating factors kVA (kW)

Note: Standard open genset options running at 400V, 150m above sea level. For enclosed product derates, please refer to datasheet - DD50-CS550.

	27 °C	40 °C	45 °C	50 °C	55 °C
Standby	10 (8)	9.6 (7.68)	9.4 (7.52)	9.2 (7.36)	9 (7.2)
Prime	9.4 (8)	9.4 (7.5)	9.4 (7.5)	9.4 (7.5)	8.6 (6.9)

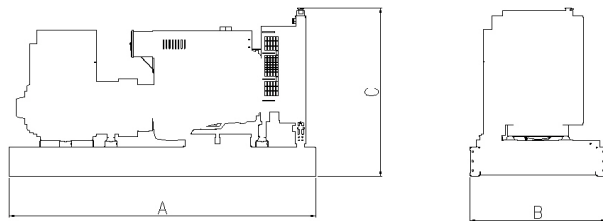
Weights*	Open	Enclosed
Unit dry weight kgs	N/A	RTF
Unit wet weight kgs	N/A	596

* Weights represent a set with standard features. See outline drawing for weights of other configurations

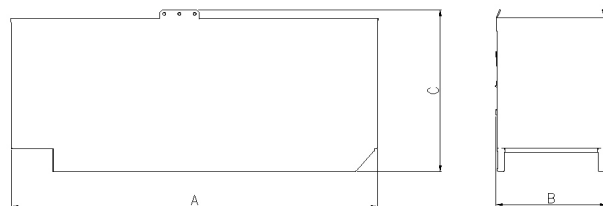
Dimensions	Length	Width	Height
Standard open set dimensions	N/A	N/A	N/A
Enclosed set standard dimensions	1460	850	1130

Genset outline

Open set



Enclosed set



Outlines are for illustrative purposes only. Please refer to the genset outline drawing for an exact representation of this model.