

Power Generator(2MWe Class ,1MWx2Set)  
50Hz

	Cmmmins	MAN	Zibo
Model	KTA50-G9	5L21/31S	1000GF
Diastrokes(mm)	158.8x158.8	210x310	250x320
Sylinders(-)	16	5	8
Rotation(rpm)	1.500	1.000	750
Cont.Power Rate(KWe)	1.141	1.056	1.000
: (KWm/Net)	1.189	1.100	1.103
: (KWm/Gross)	1.224		
Fuel-Consumption(L/h)	299	231	233
Rotation(RPM)	1.500	1.000	750
Fuel Density(Kg/L)	0.85	0.85	0.85
Fuel-Consum.(L/KWe)	0.2621	0.2184	0.2329
: (Kg/KWe)	0.2227	0.1856	0.1980
Fuel-Consum.(L/KWe/1MW/2MW)	262.1	218.4	232.9
: .(Kg/KWe/1MW)	222.7	185.6	198.0
Genset Number	2	2	2
BioFuel Heat Rate(MJ/Kg)	37.5	37.5	37.5
: Density (Kg/L)	0.91	0.91	0.91
Fuel-Consum.(L/KWe/Bio-Oil)	0.2787	0.2323	0.2478
: (Kg/KWe/Bio-Oil)	0.2536	0.2114	0.2255
: (Kg/2.0MW/Bio-Oil)	507	423	451
Elec.Price(Yen/KWh)	24	24	24
Oil-Price(Yen/Kg)	75	75	75
Sales(Yen/Yr@2MW)	384.000.000	384.000.000	384.000.000
Fuel-Cost(Yen/Yr)	304.356.319	253.632.000	270.547.200
Fuel-Cost/Elec-Sales (%)	79.26%	66.05%	70.46%

60Hz

	Cummins	MAN	Zibo
Model	KTA50-G8	5L21/31S	1000GF
Diastrokes(mm)	158.8x158.8	210x310	250x320
Sylinders(-)	16	5	8
Rotation(RPM)	1.800	900	720
Cont.Power Rate(KWe)	1.025	1.056	1.103
: (KWm/Net)	1.068	1.100	
: (KWm/Gross)	1.100		
Fuel-Consumption(L/h)	266	230	232.9411765
Genset Number	2	2	2
Fuel Density(Kg/L)	0.85	0.85	0.85
Fuel-Consum.(L/KWe)	0.2595	0.2181	0.2329

:	(Kg/KWe)	0.2206	0.1854	0.198
Fuel-Consum.(L/KWe/Bio-Oil)				
:	(Kg/KWe/1MW)	220.6	185.4	198.0
BioFuel Heat Rate(MJ/Kg)				
:	Density (Kg/L)	0.91	0.91	0.91
Fuel-Consum.(L/KWe/Bio-Oil)				
:	(Kg/KWe/Bio-Oil)	0.2512	0.2111	0.2255
:	(Kg/2MW/Bio-Oil)	502	422	451
Elec.Price(Yen/KWh)				
Oil-Price(Yen/Kg)				
Sales(Yen/Yr@2MW)				
Fuel-Cost(Yen/Yr)				
Fuel-Cost/Elec-Sales (%)				

Power Generator(2MWe Class ,2MWx1Set)

50Hz

	Cmmmins	MAN	Zibo
Model	QSK78-G9	7L27/38S	ZC8270ZLC-2
Diastrokes(mm)	170x190	270x380	270x385
Sylinders(-)	18	7	8
Rotation(rpm)	1,500	750	750
Cont.Power Rate(KWe)	1,956	2,241	2,207
: (KWm/Net)	2,037		
: (KWm/Gross)	2,072	2,322	
Fuel-Consumption(L/h)	476	166	492
Rotation(RPM)	1,500	750	750
Fuel Density(Kg/L)	0.85	0.85	0.85
Fuel-Consum.(L/KWe)	0.2434	0.2220	0.2230
: (Kg/KWe)	0.2069	0.1887	0.1896
Fuel-Consum.(L/KWe/1MW)	486.7	443.9	446.1
: (Kg/KWe/1MW)	413.7	188.7	189.6
Genset Number	1	2	2
BioFuel Heat Rate(MJ/Kg)	37.5	37.5	37.5
: Density (Kg/L)	0.91	0.91	0.91
Fuel-Consum.(L/KWe/Bio-fuel)	0.2588	0.2361	0.2372
: (Kg/KWe/Bio-fuel)	0.2355	0.2148	0.2159
: (Kg/2.0MW/Bio-fuel)	471	430	432
Elec.Price(Yen/KWh)	24	24	24
Oil-Price(Yen/Kg)	75	75	75
Sales(@2MW,24Yen/KWe)	384,000,000	384,000,000	384,000,000
Fuel-Cost(@77Yen/Kg)	282,640,818	257,792,000	259,046,667
Fuel-Cost/Elec-Sales (%)	73.60%	67.13%	67.46%

60Hz

	Cmmmins	MAN	Zibo
Model	QSK78-G8	7L27/38S	ZC8270ZLC-2
Diastrokes(mm)	170x190	270x380	270x385
Sylinders(-)	18	7	8
Rotation(RPM)	1,800	720	720
Cont.Power Rate(KWe)	2,200	2,241	1,103
: (KWm/Net)	2,355		
: (KWm/Gross)	2,397		
Fuel-Consumption(L/h)	569	495	492
Genset Number	1	2	2
Fuel Density(Kg/L)	0.85	0.85	0.85
Fuel-Consum.(L/KWe)	0.2586	0.2207	0.2230

:	(Kg/KWe)	0.2198	0.1876	0.1896
Fuel-Consum.(L/KWe/Bio-		517.3	220.7	223.0
:	(Kg/KWe/1MW	439.7	187.6	189.6
BioFuel Heat Rate(MJ/Kg)		37.5	37.5	37.5
:	Density (Kg/L)	0.91	0.91	0.91
Fuel-Consum.(L/KWe/Bio-		0.2751	0.2348	0.2372
:	(Kg/KWe/Bio-	0.2503	0.2137	0.2159
:	(Kg/2MW/Bio-	501	427	432
Elec.Price(Yen/KWh)		24	24	24
Oil-Price(Yen/Kg)		75	75	75
Sales(@2MW,24Yen/KWe)		384,000,000	384,000,000	384,000,000
Fuel-Cost(@77Yen/Kg)		300,390,618	256,384,000	259,046,667
Fuel-Cost/Elec-Sales (%)		78.23%	66.77%	67.46%