

Theoretical performance V94.3, Spain



Country: Spain
City: Tarragona

Average conditions:

14.3°C
59.7% RH
1.013 bar

Gas turbine: Siemens V94.3

		No Swirlflash	With Swirlflash
P Compressor injection	Bar (a)	130	130
T Compressor injection	°C	190	190
X Compressor injection	%	0	1
M Compressor injection	Kg/s	0	6.5

M Ambient air	Kg/s	648	649
M Fuel Gas	Kg/s	13.70	14.50

P Outlet compressor	Bar(a)	15.5	15.7
T Outlet compressor	°C	395	363
T Outlet turbine	°C	551	551

Generator Power output	MW	226	243
Relative Power increase	%	-	7.5%
Gas turbine efficiency	%	36.4	36.9
Relative efficiency increase	%	-	1.4%



Theoretical performance Frame 6, United Kingdom

Country: United Kingdom

City: London

Average Conditions:

10°C

77.3% RH

1.013 bar

Gas turbine: GE Frame 6

		No Swirlflash	With Swirlflash	With Swirlflash
P Compressor injection	Bar (a)	130	130	130
T Compressor injection	°C	190	190	190
X Compressor injection	%	0	1	2
M Compressor injection	Kg/s	0	1.4	2.8

M Ambient air	Kg/s	139	139	138
M Fuel Gas	Kg/s	2.5	2.7	2.8

T Outlet turbine	°C	547	546	546
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Generator Power output	MW	42.0	44.2	45.8
Relative Power increase	%	-	5.3%	9.1%
Gas turbine efficiency	%	32.3	32.7	32.7



Theoretical performance Frame 5, Singapore

Country: Singapore

City: Singapore

Average conditions:

30°C

88% RH

1.013 bar

Gas turbine: GE Frame 5

		No Swirlflash	With Swirlflash
P Compressor injection	Bar (a)	130	130
T Compressor injection	°C	190	190
X Compressor injection	%	0	2
M Compressor injection	Kg/s	0	2.4

M Ambient air	Kg/s	112	112
M Fuel Gas	Kg/s		

P Outlet compressor	Bar(a)	9.5	9.7
T Outlet compressor	°C		
T Outlet turbine	°C	495	495

Generator Power output	MW	21.5	23.8
Relative Power increase	%	-	10.7%
Gas turbine efficiency	%	26.5	27.2
Relative efficiency increase	%	-	2.6%