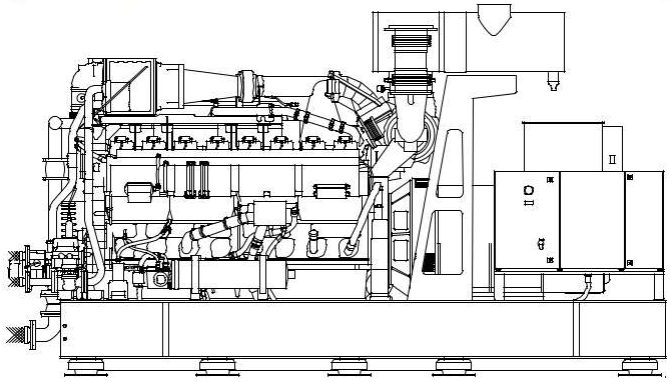
ACG 1540 LNO2



Fuel Consumption (ISO3046/1)	100% of Rated Load	90% of Rated Load	75% of Rated Load	50% of Rated Load
Fuel Consumption (LHV) ISO3046/1, kW (MMBTU/hr) 1,2,3,4	3598 (12.29)	3271 (11.17)	2749 (9.39)	1940 (6.63)
Mechanical Efficiency ISO3046/1, percent 1,2,4	44.1%	43.7%	43.3%	40.8%
Electrical Efficiency ISO3046/1, percent 1,2,3,4	42.8%	42.4%	42.0%	39.7%

Engine Data

Engine Manufacturer	Cummins
Engine Model	QSK60G – V16
Fuel Type	Natural Gas (Pipeline)
Displacement, L (cu.in)	60 (3661)
Aspiration	Turbocharged 1
Gross Engine Power Output, kWm (hp)	1588 (2128)
Compression Ratio	13.5:1
Bore, mm (in)	159 (6.26)
Stroke, mm (in)	190 (7.48)
Rated Speed, rpm	1500
Piston Speed, m/s (ft/min)	9.5 (1870)
Lube Oil Capacity, L (qt)	380 (400)
Overspeed limit, rpm	1875
Full Load Lubricating oil consumption, g/kWe-hr (g/hp-hr)	0.15 (0.11)
Electric starter voltage, volts	24
Min. Battery Capacity@40'C (104'F), AH	720

Fuel System

Gas supply pressure to engine inlet, bar (psi) 4	0.20 (2.9)
Min. Methane Index	70

Methane Number Capability

Load (Percent of Reted)			
100%	90%	75%	50%
70	70	70	70

* Technical drawing has given as a reference, Aksa reserves the right to make change in the model, technical specifications, color, equipment, accessories and images without prior notice.

Genset Dimensions

Genset Length, m (ft) [5]	5.12 (16.8)
Genset Width, m (ft) [5]	2.23 (7.32)
Genset Height, m (ft) [5]	2.84 (9.32)
Genset Weight (wet), kg (lbs) [5]	16976 (37956)

Notes:
1.At ISO3046 reference conditions, altitude 1013 mbar (30 in Hg), air inlet temperature 25°C (77°F).
2.According to ISO 3046/I with fuel consumption tolerance of +5% -0%.
3.With air intake at 25°C (77°F). Tolerance ± 5°F.
4.Tested using pipeline natural gas with LHV of 33.44 mJ/Nm3 (905 BTU/ft3).
5.Weights and set dimensions represent a generator set with its standard features only.

Energy Data	100% of Rated Load	90% of Rated Load	75% of Rated Load	50% of Rated Load
Continuous Generator Electrical Output kWe@1.0pf [1]	1540	1386	1155	770
Continuous Shaft Power, kWm (bhp) [1,2]	TBD	TBD	TBD	TBD
Total Heat Rejected in LT Circuit, kW (MMBTU/h) [3]	118 (0.40)	100 (0.34)	82 (0.28)	57 (0.19)
Total Heat Rejected in HT Circuit, kW (MMBTU/h) [3]	950 (3.24)	835 (2.85)	676 (2.31)	486 (1.66)
Unburnt, kW (MMBTU/h) [4]	97 (0.33)	87 (0.30)	76 (0.26)	51 (0.17)
Heat Radiated to Ambient, kW (MMBTU/h) [4]	234 (0.80)	213 (0.73)	178 (0.61)	125 (0.43)
Available Exhaust heat to 105C, kW (MMBTU/h) [3]	746 (2.54)	713 (2.43)	651 (2.22)	506 (1.73)

Intake Air Flow	100% of Rated Load	90% of Rated Load	75% of Rated Load	50% of Rated Load
Intake Air Flow Mass, kg/s (lb/hr) [5]	2.27 (17980)	2.01 (15920)	1.67 (13230)	1.15 (9110)
Intake Air Flow Volume, m3/s @ 0°C (scfm) [5]	1.76 (3930)	1.55 (3460)	1.29 (2880)	0.89 (1990)

Exhaust Air Flow	100% of Rated Load	90% of Rated Load	75% of Rated Load	50% of Rated Load
Exhaust Gas Flow Mass, kg/s (lb/hr) [5]	2.35 (18610)	2.08 (16470)	1.73 (13700)	1.19 (9420)
Exhaust Gas Flow Volume, m_3/s (cfm) [5]	4.26 (9020)	3.88 (8210)	3.35 (7090)	2.45 (5190)
Exhaust Temperature After Turbine, °C (°F) [6]	367 (693)	386 (728)	411 (771)	452 (846)
Max Exhaust System Back Pressure, mmHG (inH2O) [6,7]	37.3 (20.0)	TBD	TBD	TBD

HT Cooling Circuit	100% of Rated Load	90% of Rated Load	75% of Rated Load	50% of Rated Load
HT Circuit Engine Coolant Volume, l (gal)	181 (48)	181 (48)	181 (48)	181 (48)
HT Coolant Flow @ Max Ext Restriction, m3/h (gal/min)	70 (308)	70 (308)	70 (308)	70 (308)
Max HT Engine Coolant Inlet Temp, °C (°F) Reference [8]	77 (171)	79 (175)	81 (178)	83 (182)
HT Coolant Outlet Temp, °C (°F) [8]	90 (194)	90 (194)	90 (194)	90 (194)
Max Pressure Drop in External HT Circuit, bar (psig)	1.0 (15)	1.0 (15)	1.0 (15)	1.0 (15)
HT Circuit Maximum Pressure, bar (psig)	5.0 (73)	5.0 (73)	5.0 (73)	5.0 (73)
Min Static Head, bar (psig)	0.5 (7)	0.5 (7)	0.5 (7)	0.5 (7)

LT Cooling Circuit	100% of Rated Load	90% of Rated Load	75% of Rated Load	50% of Rated Load
LT Circuit Engine Coolant Volume, l (gal)	34 (9)	34 (9)	34 (9)	34 (9)
LT Coolant Flow @ Max Ext Restriction, m_3/h (gal/min)	23 (100)	23 (100)	23 (100)	23 (100)
Max LT Coolant Inlet Temp, °C (°F) [9]	55 (131)	55 (131)	55 (131)	55 (131)
LT Coolant outlet Temperature, reference only [9]	50 (122)	50 (122)	50 (122)	50 (122)
Max Pressure Drop in External LT Circuit, bar (psig)	1.0 (15)	1.0 (15)	1.0 (15)	1.0 (15)
LT Circuit Max Pressure, bar (psig)	5.0 (73)	5.0 (73)	5.0 (73)	5.0 (73)
Min Static Head, bar (psig)	0.5 (7)	0.5 (7)	0.5 (7)	0.5 (7)

Emissions	100% of Rated Load	90% of Rated Load	75% of Rated Load	50% of Rated Load
NO_x emissions, mg/Nm3 @ 5% O_2 (g/hp-h) [7]	250 (0.40)	250 (0.50)	250 (0.50)	250 (0.50)
CO Emissions, mg/Nm3@5%O_2 (g/hp-h) [8]	800 (1.50)	770 (1.50)	750 (1.50)	690 (1.50)
THC Exhaust Emissions, mg/Nm3@ 5% O, (g/hp-h) [8]	1730 (3.00)	1749 (3.00)	1817 (4.00)	1742 (4.00)

Alternator Data [10]	
Manufacturer	Mecc Alte
Alternator Made and Model	ECO 46-1L/4 A
Frequency (Hz)	50
Power (kVA)	2100
Voltage (V)	400
Phase	3
A.V.R.	DER1
Voltage Regulation	(+/-)0.5%
Insulation System	H
Protection	IP23
Weight comp. Generator (kg)	3810
Cooling Air (m^3/min)	135

Notes:

1. With engine driven coolant pump.
2. At ISO3046 reference conditions, altitude 1013 mbar (30 in Hg), air inlet temperature 25°C (77°F).
3. Production variation/tolerance ±10%.
4. Tolerance +/- 15%.
5. According to ISO 3046/I with fuel consumption tolerance of +5% -0%.
6. With air intake at 25°C (77°F). Tolerance ± 5°F
7. Exhaust system back pressure is a rated load and will decrease at lower loads.
8. Outlet temperature controlled by thermostat, inlet temperature for reference only.
9. Inlet temperature controlled by thermostat, outlet temperature for reference only.
10. Continuous (C)

Continuous rating definition

Applicable for supplying power continuously to a constant load up to the full output rating for unlimited hours. No sustained overload capability is available for this rating. Consult authorized distributor for rating (equivalent to continuous power in accordance with ISO8528, ISO3046, AS2789, DIN6271, and BS5514). This rating is not applicable to all generator set models.