

<b>Review Date:</b>	<b>28-04-2021</b>
<b>Atos Model</b>	<b>ATC2.100</b>

### Technical Specification

Egyptian European Power Technology "ATOS" is specialized in manufacture of power generating units since 1986.

Through years of development, we have formed an integrated chain starting from production, sales, and maintenance to customer service.

To meet the clients' requirements, ATOS has set up and implemented a well- regulated management system target towards competitive prices, excellence in quality and reputable service in long-run plan.

<b>Gen-set :</b>	<b>Model :</b>	<b>ATC2.100</b>			
	<b>Rated power:</b>	<b>Prime Power (PRP )</b>		<b>Standby rating (ESP)</b>	
		<b>KVA</b>	<b>KW</b>	<b>KVA</b>	<b>KW</b>
		<b>100</b>	<b>80</b>	<b>110</b>	<b>88</b>

### Specification

<b>GENERATING SET Frequency</b>	50Hz
<b>VOLTAGE</b>	400 V
<b>PHASES</b>	Three
<b>POWER FACTOR</b>	0.80 PF
<b>Daily fuel tank</b>	sufficient for 8 h operation at prime power
<b>Battery</b>	Chloride Sealed Maintenance Free Batteries ca-ca
<b>Gen-set construction</b>	Gen-set Mounted on a base frame with integral anti-vibration mountings and lifting points. The Gen-Set has standard safety labels

ENGINE :	
<b>Manufacturer</b>	CUMMINS
<b>Model</b>	6BTA5.9-G5
<b>Origin</b>	India
<b>Eng. Rate prime power</b>	125 BHP –93 KWM
<b>Cycle</b>	4 Stroke
<b>Number of cylinders</b>	6 - in line
<b>Speed</b>	1500 RPM
<b>Combustion system</b>	Direct injection
<b>Fuel System</b>	Mechanical
<b>Fuel Consumption</b>	25 L/H @ prime power
<b>Total Lub. Oil (L)</b>	16.5
<b>Electrical System</b>	12 V(Charging alternator, Starter, .)
<b>Aspiration</b>	Turbo Charged
<b>Cooling system</b>	Water Cooled

The engine performance capabilities to conditions specified in ISO 8528/1, ISO 3046/1:1986, BS 5500

## ALTERNATOR :

<b>Manufacturer</b>	Leroy-Somer
<b>Model</b>	TAL 044 D
<b>Origin</b>	France
<b>Prime Rated Power</b>	100 KVA – 80 KW
<b>Insulation Class</b>	Class (H)
<b>Temp. rise Class</b>	Class (H)
<b>Ambient Temperature</b>	40 °C
<b>Degree of Protection</b>	IP 23
<b>Power Factor</b>	0.8 PF
<b>Voltage Output 50 Hz</b>	400 V
<b>No of Phases</b>	3
<b>No of Bearings</b>	Single Bearing
<b>No of Poles</b>	4 Pole
<b>Control System</b>	<b>self excited</b>

Stamford industrial generators meet the requirements of BS EN 60034 and the relevant section of other international standards such as BS5000, VDE 0530, NEMA MG1-32, IEC34, CSA C22.2-100, and AS1359.

## The Control Panel:

### Construction:

- The control panel will be flexibly set mounted with a front opening door with protection equivalent to IP44-55.
- The panel is made of steel sheet with electrostatic paint and totally isolation.
- The panel designed to be manually, automatically operated and also can be at off mode for safety and maintenance.

### Gen set circuit breaker:

Three poles circuit breaker provides thermal and magnetic protection in case of overload or short-circuit conditions

### The panel contains digital control unit DEIF SGC 420

- Auto Start Control Module
- Measure, protect and indicate the following:

Control functions:	
Auto mode	Sleep mode
Off mode	Manual mode
Emergency stop switch	Fault History
Cycle cranking	LED indicating lamp
Time delay Start / stop (cool down)	Digital output voltage regulation
U/O Voltage sensor	U/O Frequency sensor

Engine Monitoring Equipment:	
Oil pressure	Engine temperature
Engine speed	Plant battery volts
Running hours	Intake manifold temperature
Alternator Monitoring Equipment:	
Mains Volts (Ph-Ph/Ph-N)	Generator Ampere (L1, L2, L3)
Generator Volts (L-L / L-N)	Generator kVA, kWh
Generator Frequency (Hz)	Power factor
Generator kW as % of rated kW setting	kVAR

Alarms	
Over and Under Speed	Over Current
Low and High Battery Volt	Under / Over Generator Voltage
Start and Stop Failure	Over Current
Charge fail	Low Oil Pressure
Emergency stop	High engine temperature
kW overload	Unbalanced load