



Review Date:	28-04-2021
Atos Model	ATP1.45

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.

Gen-set :	Model :	ATP1.45			
	Rated power:	Prime Power (PRP)		Standby rating (ESP)	
		KVA	KW	KVA	KW
		45	36	49	39.6

Specification

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

ENGINE :	
Manufacturer	PERKINS
Model	1103A-33TG1
Origin	UK
Eng. Rate prime power	56.6 BHP – 42.2 KWM
Cycle	4 Stroke
Number of cylinders	3 - inline
Speed	1500 RPM
Combustion system	Direct injection
Fuel System	Mechanical
Fuel Consumption	10.8 L/H @ prime power
Total Lub. Oil (L)	8.3
Electrical System	12 V(Charging alternator, Starter, .)
Governor	Mechanical
Aspiration	Turbocharged
Cooling system	Water cooled

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

ALTERNATOR :

Manufacturer	Leroy-Somer
Model	TAL 042 G
Origin	France
Prime Rated Power	45 KVA 36 KW
Insulation Class	Class (H)
Temp. rise Class	Class (H)
Ambient Temperature	40 °C
Degree of Protection	IP 23
Power Factor	0.8 PF
Voltage Output 50 Hz	400 V
No of Phases	3
No of Bearings	Single bearing
No of Poles	4 Pole
Control System	self excited

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 SGC420

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