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| Review Date: | 28-04-2021 |
| Atos Model | ATC2.200 |

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 : | ATC2.200 | | | |
| | Rated power: | Prime Power (PRP) | | Standby rating (ESP) | |
| | | KVA | KW | KVA | KW |
| | | 200 | 160 | 220 | 176 |

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 | CUMMINS |
| Model | QSB7-G5 |
| Origin | India |
| Eng. Rate prime power | 244 BHP –182 KWM |
| Cycle | 4 Stroke |
| Number of cylinders | 6 - in line |
| Speed | 1500 RPM |
| Combustion system | Direct injection |
| Fuel System | High Pressure Common Rail(HPCR) |
| Fuel Consumption | 45 L/H @ prime power |
| Total Lub. Oil (L) | 19 |
| Electrical System | 12 V(Charging alternator, Starter, .) |
| Aspiration | Turbocharged and Air to Air Aftercooled |
| 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 046 C |
| Origin | France |
| Prime Rated Power | 200 KVA – 160 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 DSE 6110

- 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 |