

## Technical Offer

Egyptian European Power Technology "ATOS" is specialized in the manufacture of power generating units since 1988.

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

To meet the clients' diesel generator 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.

### The offer include the following:-

- Gen-set ATC3.1800
- Warranty.
- After Sales Service.

| Gen-set : | Model :      | ATC3.1800           |      |                      |      |
|-----------|--------------|---------------------|------|----------------------|------|
|           | Rated power: | Prime Power ( PRP ) |      | Standby rating (ESP) |      |
|           |              | KVA                 | KW   | KVA                  | KW   |
|           |              | 1875                | 1500 | 2000                 | 1600 |

## Specification

|                                 |                                                                                                                                                                |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>GENERATING SET Frequency</b> | 50Hz                                                                                                                                                           |
| <b>VOLTAGE</b>                  | 380 V                                                                                                                                                          |
| <b>PHASES</b>                   | Three                                                                                                                                                          |
| <b>PRIME RATED POWER</b>        | 1875 KVA                                                                                                                                                       |
| <b>STANDBY RATED POWER</b>      | 2000 KVA                                                                                                                                                       |
| <b>POWER FACTOR</b>             | 0.80 PF                                                                                                                                                        |
| <b>Daily fuel tank</b>          | sufficient for 8 h operation at prime power                                                                                                                    |
| <b>Battery</b>                  | Lead acid                                                                                                                                                      |
| <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 + Battery charger + silencer |

| ENGINE :                     |                       |
|------------------------------|-----------------------|
| <b>Manufacturer</b>          | Cummins               |
| <b>3Model</b>                | QSK60-G3              |
| <b>Origin</b>                | UK                    |
| <b>Eng. Rate prime power</b> | 2165 BHP – 1615 KWM   |
| <b>Cycle</b>                 | Four stroke           |
| <b>Number of cylinders</b>   | 16 cylinder           |
| <b>Governor</b>              | Electronic            |
| <b>Speed</b>                 | 1500 RPM              |
| <b>Combustion system</b>     | Direct injection      |
| <b>Cooling system</b>        | Water Cooled          |
| <b>Fuel Consumption</b>      | 371 L/h @ prime power |
| <b>Electrical System</b>     | 24 V                  |

**Prime Power (PRP) is in accordance with ISO 8528. 10% overload capability is available in accordance with ISO 3046, AS 2789, DIN 6271 and BS 5514.**

## ALTERNATOR :

|                             |                              |
|-----------------------------|------------------------------|
| <b>Manufacturer</b>         | Stamford                     |
| <b>Model</b>                | PI734E                       |
| <b>Origin</b>               | UK                           |
| <b>Prime Rated Power</b>    | 1900 KVA – 1520 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                            |
| <b>Efficiency</b>           | 95.8%                        |
| <b>Control System</b>       | Separately excited by P.M.G. |

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 IP42.
- 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 air circuit breaker (3200 A) provides thermal and magnetic protection in case of overload or short-circuit conditions

### The panel contains DSE 7110 digital control unit

- 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                |

### Warranty:

- The Offered engines and attachments are warranted against faulty of manufacturing for a period of **One year** from delivery date or **1000 working hours** whichever is closer
- Atos 's Warranty obligations hereunder shall exclude all consumable items, including but not limited to oil, grease, fuel, belts and filters, which will be provided by the customer or purchased by the customer

### Warranty shall not cover the following:

- Defects caused or effected by either the materials supplied by the customer or from a design requested by the customer
- Defects caused by lack of care, insufficient inspection or maintenance, handling or operation by un-qualified persons or improper use of the equipment
- Natural disaster such as earthquakes, floods, tempests, hurricanes, lightning or any other natural disaster.

### Liabilities:

- The Customer shall notify ATOS, in writing, of any defects have appeared and shall give Atos every opportunity to inspect and remedy them.
- The Warranty ceases if the customer or third party has, under its own initiative , under taken modifications or repairs on equipment without the written consent of Atos

### After sales service:

- We provide our customers a permanent stock of full units and spare parts to serve all types of equipment.
- Call center provide technical support service **24/7**.
- We continue to offer job qualified and equipped maintenance workshops qualifies them for all acts of reforms in record time and the highest degree of efficiency.
- We concluding maintenance contracts for all generators.