

**IIR-110 - FPT - N 45 TM 2A**

**1.500 R.P.M. | 50 Hz**

## TECHNICAL SPECIFICATIONS



Model:

**IIR-110**

Image for guidance purposes.

| ENGINE | MAKE | MODEL   |
|--------|------|---------|
|        | FPT  | N45TM2A |

| ALTERNATOR | MODEL                   |
|------------|-------------------------|
|            | MECC-ALTE ECP 34-2S / 4 |

**(400 / 230 V)**

CONTINUOUS POWER:  
(PRP "Prime Power" norma ISO 8528-1) **100 kVA**

STAND-BY POWER:  
(LTP "Limited Time Power" norma ISO 8528-1) **110 kVA**

### Amperes in the different voltages:

| VOLTAGE | HZ | PHASE | COS Ø | PRP KVA/KW | LTP KVA/KW | AMPERAGE |
|---------|----|-------|-------|------------|------------|----------|
| 415/240 | 50 | 3     | 0,8   | 100,8/80,7 | 110,9/88,7 | 154,43   |
| 400/230 | 50 | 3     | 0,8   | 100,8/80,7 | 110,9/88,7 | 160,22   |
| 380/220 | 50 | 3     | 0,8   | 100,8/80,7 | 110,9/88,7 | 168,65   |
| 240/139 | 50 | 3     | 0,8   | 100,8/80,7 | 110,9/88,7 | 267,03   |
| 230/133 | 50 | 3     | 0,8   | 100,8/80,7 | 110,9/88,7 | 278,64   |
| 220/127 | 50 | 3     | 0,8   | 100,8/80,7 | 110,9/88,7 | 291,3    |

**ELECTRO EXIM SRL**

**ELECTRO EXIM SRL**  
21 Ialomicioarei St., sector 1, code 011277, BUCHAREST - ROMANIA  
Phone: 0040 21 2231347 - 0040 744 755 390 - FAX: 0040 21 2231201  
E-mail: office@electroexim.com - Web: www.electroexim.ro

**IIR-110 - FPT - N 45 TM 2A**

**1.500 R.P.M. | 50 Hz**

## ENGINE CHARACTERISTICS

| MAKE | MODEL   |
|------|---------|
| FPT  | N45TM2A |

### GENERAL DATA

|                          |            |
|--------------------------|------------|
| Power PRP (kWm)          | 87.50      |
| Power LTP (kWm)          | 96.20      |
| No. cylinders            | 4          |
| Cylinder capacity (L)    | 4.50       |
| Diameter per stroke (mm) | 104 x 132  |
| Compression ratio        | 17.50      |
| Cooling system           | LIQUID     |
| Injection                | DIRECT     |
| Suction                  | TURBO      |
| Series regulator         | MECHANICAL |
| Fly wheel coupling       | 3-11,5"    |

### Lubrication system

|                               |       |
|-------------------------------|-------|
| Oil capacity (L)              | 12.80 |
| Oil consumption (%)           | 0.10  |
| Min. alarm oil pressure (bar) | 0.60  |

### Ventilation system

|                                   |      |
|-----------------------------------|------|
| Air cooling flow (m3/h)           | 7920 |
| Combustion air flow (m3/h)        | 427  |
| Max. back pressure for fan (mbar) | 20   |

### Exhaust system

|                              |      |
|------------------------------|------|
| Exhaust gas flow (m3/h)      | 1184 |
| Exhaust back pressure (mbar) | 50   |
| Temp. exhaust gases (°C)     | 535  |

### Electrical system

|                      |     |
|----------------------|-----|
| VDC (V)              | 12  |
| Battery (Ah)         | 100 |
| Engine start-up (kW) | 3   |

**ELECTRO EXIM SRL**

**ELECTRO EXIM SRL**  
21 Ialomicioarei St., sector 1, code 011277, BUCHAREST - ROMANIA  
Phone: 0040 21 2231347 - 0040 744 755 390 - FAX: 0040 21 2231201  
E-mail: office@electroexim.com - Web: www.electroexim.ro

**IIR-110 - FPT - N 45 TM 2A**

**1.500 R.P.M. | 50 Hz**

## ALTERNATOR CHARACTERISTICS

### MODEL

MECC-ALTE ECP 34-2S / 4 (400 / 230 V)

### GENERAL DATA

|                       |        |
|-----------------------|--------|
| Power PRP (kVA)       | 105    |
| Power LTP (kVA)       | 115.50 |
| Efficiency Alt. 3/4 % | 92.50  |
| Efficiency Alt. 4/4 % | 92.20  |
| No. Poles             | 4      |
| Voltage regulator     | DSR    |
| No. wires             | 12     |
| Insulation            | H      |
| Xd (%)                | 230    |
| X'd (%)               | 17.60  |
| X                     | 7.40   |
| Degree of protection  | IP21   |

## GENERATOR SET CONSUMPTION

| % POWER USED | LITRES/HOUR |
|--------------|-------------|
| 50%          | 11          |
| 75%          | 16.20       |
| 100%         | 24.40       |

## DIMENSIONS, CAPACITIES, APPROXIMATE WEIGHT AND NOISE

| LENGTH               | DIMENSIONS (MM) |             |
|----------------------|-----------------|-------------|
|                      | WIDTH           | HEIGHT      |
| 2990                 | 1140            | 1900        |
| FUEL TANK (LITRES)   |                 | WEIGHT (KG) |
| 480.00               |                 | -           |
| NOISE LEVEL (dB (A)) |                 |             |
| 70 @ 7 m             |                 |             |

**ELECTRO EXIM SRL**

**ELECTRO EXIM SRL**  
21 Ialomicioarei St., sector 1, code 011277, BUCHAREST - ROMANIA  
Phone: 0040 21 2231347 - 0040 744 755 390 - FAX: 0040 21 2231201  
E-mail: office@electroexim.com - Web: www.electroexim.ro

IIR-110 - FPT - N 45 TM 2A

1.500 R.P.M. | 50 Hz

## INMESOL GENERATOR SET

### GENERAL DESCRIPTION

The "INMESOL" generator set is an electrical energy generating machine which is used in places where there **is no mains supply** or when there is a MAINS failure.

The mobile elements, distribution belt, fan, etc., and those parts which reach high temperatures during operation, exhaust manifold, etc, include their corresponding protections, in compliance with the requirements of the Machinery Directive **2006/42**.

### REGULATIONS

The machine holds the "CE" marking, and the corresponding Declaration of Conformity is issued with each of them, in which it specifies that the machine complies with **R.D 842/2002 Low Voltage Regulations and with the European Directives:**

- 2006/42 on Safety in Machinery.
- 2006/95/CE on Electrical Safety.
- 2004/108/CE on Electromagnetic Compatibility.
- 2005/88/CE on NOISE EMISSIONS by equipment for outdoor use (for SOUNDPROOF GENERATOR SETS).

**ELECTRO EXIM SRL**

ELECTRO EXIM SRL  
21 Ialomicioarei St., sector 1, code 011277, BUCHAREST - ROMANIA  
Phone: 0040 21 2231347 - 0040 744 755 390 - FAX: 0040 21 2231201  
E-mail: [office@electroexim.com](mailto:office@electroexim.com) - Web: [www.electroexim.ro](http://www.electroexim.ro)

**IIR-110 - FPT - N 45 TM 2A**

**1.500 R.P.M. | 50 Hz**

## RE RENTAL RANGE / SCOPE OF SUPPLY

|                                                                                                                                                                                                                                                                                                      |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Engine/alternator assembly, coupled and installed on a heavy electric welded steel profile base frame through antivibration pad, then treated with rust removing products for zink layer application and Polyester (QUALICOAT) painting, "special treatment for external and corrosive environment." |  |
| Soundproof canopy treated with rust removing products for zink layer application and Polyester (QUALICOAT) painting, "special treatment for external and corrosive environment." Then lined with rock wool material of high density.                                                                 |  |
| Liquid cooled engine with integrated mechanical radiator and blower fan.                                                                                                                                                                                                                             |  |
| Integrated exhaust residential silencer of -35 db (A) attenuation, with rain cap protection.                                                                                                                                                                                                         |  |
| Lifting hook crane.                                                                                                                                                                                                                                                                                  |  |
| Fork lift pockets for easy lifting from the bottom.                                                                                                                                                                                                                                                  |  |
| Hook for towing.                                                                                                                                                                                                                                                                                     |  |
| Radiator water filling cover register.                                                                                                                                                                                                                                                               |  |
| Easy acces to radiator cleaning, and replacement.                                                                                                                                                                                                                                                    |  |
| Integrated metallic fuel tank of 24 hours autonomy with liquid leakage protection.                                                                                                                                                                                                                   |  |
| Large fuel tank register for cleaning.                                                                                                                                                                                                                                                               |  |
| Fuel draining plug.                                                                                                                                                                                                                                                                                  |  |
| Internal fuel filler cap with security locable key.                                                                                                                                                                                                                                                  |  |
| Kit of 3-way valves for external fuel tank connection (optional).                                                                                                                                                                                                                                    |  |
| Fast fuel plug connection between external and internal fuel tanks. (Optional).                                                                                                                                                                                                                      |  |
| Protection of heat, mobile, and live comoponents.                                                                                                                                                                                                                                                    |  |
| Manual oil sump pump.                                                                                                                                                                                                                                                                                |  |
| Baseframe prepared to be mounted on a trailer.                                                                                                                                                                                                                                                       |  |
| External emergency stop push button.                                                                                                                                                                                                                                                                 |  |
| Engine starting battery "maintenance free" complete with wires connection, terminal protection and on-off switch.                                                                                                                                                                                    |  |
| Alternator battery charger with earth plug.                                                                                                                                                                                                                                                          |  |
| Self excited and auto regulated alternator.                                                                                                                                                                                                                                                          |  |
| Manual control panel with a microprocessor for control , protection and generating set reading parameters as voltage, amperage, working hours, etc.                                                                                                                                                  |  |
| Digital manual/automatic control panel (optional).                                                                                                                                                                                                                                                   |  |
| Circuit breaker, and differential for protection.                                                                                                                                                                                                                                                    |  |
| Prepared for earth stud installation (earth stud not included).                                                                                                                                                                                                                                      |  |
| Voltage and frequency change selector (optional).                                                                                                                                                                                                                                                    |  |
| Electrical power socket kit (optional).                                                                                                                                                                                                                                                              |  |
| Soundproof canopy auxiliary internal lighting (optional).                                                                                                                                                                                                                                            |  |
| Standard electronic speed governor on engines from 220 kVA (LTP) and up.                                                                                                                                                                                                                             |  |
| Vertical outlet for hot air                                                                                                                                                                                                                                                                          |  |

**ELECTRO EXIM SRL**

**ELECTRO EXIM SRL**  
21 Ialomicioarei St., sector 1, code 011277, BUCHAREST - ROMANIA  
Phone: 0040 21 2231347 - 0040 744 755 390 - FAX: 0040 21 2231201  
E-mail: office@electroexim.com - Web: www.electroexim.ro

IIR-110 - FPT - N 45 TM 2A

1.500 R.P.M. | 50 Hz

## RE RENTAL RANGE / OPTIONS

|                                      |  |
|--------------------------------------|-------------------------------------------------------------------------------------|
| Engine preheating system.            | <input checked="" type="checkbox"/>                                                 |
| Battery charger.                     | <input checked="" type="checkbox"/>                                                 |
| Automatic/manual fuel transfer pump. | <input checked="" type="checkbox"/>                                                 |
| Total plus alternator protection.    | <input checked="" type="checkbox"/>                                                 |
| Diferent colour.                     | <input checked="" type="checkbox"/>                                                 |
| External linkbox for armound cables. | <input checked="" type="checkbox"/>                                                 |

**ELECTRO EXIM SRL**

**ELECTRO EXIM SRL**  
 21 Ialomicioarei St., sector 1, code 011277, BUCHAREST - ROMANIA  
 Phone: 0040 21 2231347 - 0040 744 755 390 - FAX: 0040 21 2231201  
 E-mail: [office@electroexim.com](mailto:office@electroexim.com) - Web: [www.electroexim.ro](http://www.electroexim.ro)

IIR-110 - FPT - N 45 TM 2A

1.500 R.P.M. | 50 Hz

## DSE 6010 MKII MANUAL CONTROL PANEL

### DSE 6010 MKII MANUAL CONTROL PANEL

MANUAL CONTROL, PROTECTION AND DISTRIBUTION panel, assembled on the generator set in metal cabinet with a DSE 6010 MKII engine protection unit.



Image for guidance purposes.

It has the following:

**1** EMERGENCY STOP PUSHBUTTON.

**2** PROTECTIONS:

- Magnetothermal Protection.
- Differential Protection
- Protection fuses for control module

IIR-110 - FPT - N 45 TM 2A

1.500 R.P.M. | 50 Hz

## DSE 6010 MKII MANUAL CONTROL PANEL

- 3 DSE 6010 MKII PROTECCION CONTROL MODULE.** It has a digital LCD screen, which provides easy reading of the information regarding the ENGINE, ALTERNATOR and CHARGING.

### READINGS that can be made:

#### ENGINE:

- Coolant temperature
- Oil pressure
- Turning speed (rpm)
- Fuel level
- Battery voltage
- Battery alternator voltage
- Operating hours
- Number of start-ups

#### ALTERNATOR AND CHARGE:

- Voltages between phases and between phases and neutral.
- Intensities
- Frequency

### CONTROL of the set:

- START AND STOP the set MANUALLY.
- Possibility of doing it AUTOMATICALLY via START ON SIGNAL.

### Protection of the engine and alternator, with the ALARMS activated:

#### ENGINE:

- Low oil pressure
- High coolant temperature
- Low and High battery Voltage.
- Failure of the alternator to charge batteries
- Low fuel level..

#### ALTERNATOR:

- Low and High Voltage
- Low and High Frequency
- Overload due to Intensity (A)

IIR-110 - FPT - N 45 TM 2A

1.500 R.P.M. | 50 Hz

## DSE 6010 MKII MANUAL CONTROL PANEL

### OTHER CHARACTERISTICS:

- The real-time clock records the last 50 events.s.
- Configurable inputs and outputs.
- Configurable alarms and timers.
- USB connectivity
- Fully configurable via software and PC.
- Communication via USB cable for remote control
- Programmable clock with multiple maintenance events which can be configured for optimal motor functioning. Weekly and/or monthly programming for up to 8 startups and shutdowns per week.
- ALTERNATIVE CONFIGURATIONS, which open up the working possibilities.

IIR-110 - FPT - N 45 TM 2A

1.500 R.P.M. | 50 Hz

## DSE 6010 MKII MANUAL CONTROL PANEL

### 4 OPTIONAL:

AUTOMATIC PANEL FOR MANUAL GENERATOR: ATS DSE 334

- This panel provides the manual control generator with a reserve operation from the Mains, as the ATS sends the command to start and stop the generator, when it detects a supply failure and when the Mains is restored



Cubicle composed of the electronic control module which is detecting a mains failure and of 2 contactors mechanically and electrically interlocked or a motorized switch controlled by the above electronic controller who are realizing the change of supply from the GEN SET or the MAINS to the load.