

# **IND JP 22 / DIESEL GENERATOR GROUP**

Generator Model	:	IND JP 22	StandBy Power (ESP)	:	22kVA	17.6kW
Engine	:	Perkins	Prime Power (PRP)	:	19.5kVA	15.6kW
Alternator	:	Stamford	Voltage	:	380/220 V	1

#### Ratings And Standard Reference Conditions

**Prime Power (PRP)** These ratings are applicable for supplying continious electrical power (at variable load) in lieu of commercially purchased power. There is no limitation to the annual hours of operation and this model can supply %10 overload power for 1 hour in 12 hours.

**Standby Power (ESP)** is defined as the maximum power available during a variable electrical power sequence, under the stated operating, for which a generating set is capable of delivering in the event of a utility power outage or under test conditions for up to 500 hours of operation per year under average of 70% load. No overload is permitted on these ratings.

Standard Reference Conditions air inlet temperature 25°C , barometric pressure 100kPa [110m altitude] and 30% relative humidity.

	General Features :		
	<ul> <li>Heavy duty water cooled engine</li> <li>Self excited H class alternator</li> <li>Tropcial type radiator with mechanical fan</li> <li>Fully guarded engine-driven fan</li> <li>Static or spare daily fuel tank</li> <li>Fully welded steel baseframe with lifting points</li> <li>Linear vibration isolators between base and engine-generator</li> <li>Starter batteries and connection cables</li> <li>Engine-driven battery charging alternator</li> <li>Industrial exhaust muffler</li> <li>Primary and secondary fuel filters</li> <li>Auto Start control system with digital instrumentation</li> <li>Emergency stop pushbutton</li> <li>Control panel with digital-automatic main control module</li> <li>Indeks Factory load, performance and function tests,</li> <li>Operation &amp; Maintenance Manual</li> </ul>		
Photo may be demonstration or a different size generator	<ul> <li>Block water heater unit</li> </ul>		
	Overall Dimensions & Weights (Without Canopy)		
	<ul> <li>Length (L) 1350 mm</li> <li>Width (W) 800 mm</li> <li>Height (H) 1200 mm</li> <li>Weight 625 kg</li> </ul>		

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TECHN	IICAL SP	<b>ECIFIC</b>	ATIONS

IND JP 22

Units			
General			
Brand		INDEKS	
Model		IND JP 22	
StandBy Power	kVA	22kVA	
Prime Power	kVA	19.5kVA	

Engine			
Manufacturer		Perkins	
Model		404D-22G	
StandBy Power(Net)	kWm	16.8KWm	
Prime Power (Net)	kWm	15.2KWm	
Speed	Rpm	1500 rpm	
Cylinder Number & Arrangement		4 Vertical in-line	
Bore & Stroke	mm	84mm x 100mm	
Displacement	Lt	2.216	
Aspiration & Cooling		Turbo Charged	
Compression Ratio		23.3:1	
Governor Type		Electronic	
Cooling Type		Water Cooled	
Oil System Capacity (Including Filters)	Lt	10	
Fuel System		Direct Injection	
Fuel Consumption (%50 of Prime Power)	Lt/h	258 g/KWh / 2 L/h	
Fuel Consumption (%75 of Prime Power)	Lt/h	238 g/KWh / 2.7 L/h	
Fuel Consumption (%100 of Prime Power)		237 g/KWh / 3.7 L/h	
Exhaust Gas Flow(at Stand-By Power)		3,94	
Exhaust Gas Temperature (at StandBy Power)	°C	505	

Alternator			
Manufacturer		Stamford	
Туре		Brushless, Synchronous, Single Bearing	
Model		PI144D	
Phase/Poles		3 Phase/4 Poles	
Excitation System		Self Exciting	
Frequence	Hz	50	
Voltage	V	380/220 V	
Speed	Rpm	1500	
Excessive Loading Capacity		For 1 Hour % 110, For 2 Minutes %150	
Protection Class		IP23	
Insulation Class		Н	

#### Chassis

- Formed steel base with linear vibration isolators between base and engine-generator
- Base frame design incorporates a fuel tank (fuel gauge and drain plug on the fuel tank)

• Military / Civilian type easy lifting systems

### **Control System**

- Control supervision and protection panel is mounted on the genset base frame.
- Indeks micro processed control unit.
- Standart indicators, alarms, buttons, keys.
- Useful design for Automatic / Manuel working

#### **Optional Equipment**

- Customer designed sound proof canopy
- Automatic syncronization and power sharing systems
- ♦ PMG
- Alternator Heater
- ♦ Trailer
- Residental Type Silencer

Digital AVR

- Remote systems
- ♦ Oil Drain Pump
- ◆ Seismic Sensor
- ◆ Tool kits

• Automatic Fuel Refill System

• Remote Monitoring Systems with SCADA - PLC, Connection to BMS system and extra special solutions in Medium Voltage

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## Automatic load transfer panel

#### **CONTROL SYSTEM**



#### General Features :

The DSE7320 is an Auto Mains (Utility) Failure Control Module suitable for a wide variety of single, diesel or gas, gen-set applications.

Monitoring an extensive number of engine parameters, the module will display warnings, shutdown and engine status information on the back-lit LCD screen, illuminated LEDs, remote PC and via SMS text alerts (with external modem).

The DSE7320 will monitor the mains (utility) supply and includes USB, RS232 and RS485 ports as well as dedicated DSENet® terminals for system expansion.

Key Features	Key Benefits
<ul> <li>◆ 4-Line back-lit LCD text display</li> </ul>	<ul> <li>◆ 132 x 64 pixel ratio display for</li> </ul>
<ul> <li>Five key menu navigation</li> </ul>	<ul> <li>Real-time clock provides accurate event logging</li> </ul>
<ul> <li>Front panel editing with PIN protection</li> </ul>	<ul> <li>Multiple date and time scheduler</li> </ul>
♦ LED and LCD alarm indication	◆ Set maintenance periods can be configured to maintain optimum
<ul> <li>Customisable status screens</li> </ul>	engine performance
<ul> <li>◆ 9 configurable inputs</li> </ul>	◆ Ethernet communications (via DSE860/865 modules), provides
♦ 8 configurable outputs	advanced remote monitoring at low cost
♦ 3 configurable maintenance alarms	<ul> <li>Modules can be integrated into building management</li> </ul>
<ul> <li>♦ Configurable event log (250)</li> </ul>	systems (BMS)
<ul> <li>CAN and Magnetic Pick-up/Alt. Sensing</li> </ul>	◆ Increased input and output expansion capability via DSENet <sup>®</sup>
<ul> <li>Power monitoring (kW h, kV Ar, kV A h, kV Ar h)</li> </ul>	◆ Licence-free PC software
<ul> <li>Load switching (load shedding and dummy load outputs)</li> </ul>	<ul> <li>IP65 rating (with supplied gasket) offers increased resistance</li> </ul>
<ul> <li>Backed up real time clock</li> </ul>	♦ to water ingress
◆ Fully configurable via DSE Config. Suite PC software	
<ul> <li>User selectable RS232 and RS485 communications</li> </ul>	
♦ Power save mode	
◆ Flexible sender inputs	
<ul> <li>Fuel usage monitor and low fuel alarms</li> </ul>	
<ul> <li>Charge alternator failure alarm</li> </ul>	
<ul> <li>Manual speed control (on compatible CAN engines)</li> </ul>	
<ul> <li>Manual fuel pump control</li> </ul>	
◆ Engine exerciser	
<ul> <li>"Protections disabled" feature</li> </ul>	
<ul> <li>kW overload protection</li> </ul>	
<ul> <li>Automatic load transfer</li> </ul>	
◆ Independent Earth Fault trip	
◆ USB connectivity	
<ul> <li>◆ Backed up real time clock</li> </ul>	
<ul> <li>Configurable display languages</li> </ul>	
<ul> <li>SMS Messaging (additional external modem required)</li> </ul>	
◆ Additional display screens to help with modem diagn.	
<ul> <li>DSENet<sup>®</sup> expansion compatible</li> </ul>	