


# IND JP 1650 / DIESEL GENERATOR GROUP

<b>Generator Model</b> : IND JP 1650	<b>StandBy Power (ESP)</b> : 1650kVA 1320kW
<b>Engine</b> : Perkins	<b>Prime Power (PRP)</b> : 1505kVA 1204kW
<b>Alternator</b> : Stamford	<b>Voltage</b> : 380/220 V

Ratings And Standard Reference Conditions
<p><b>Prime Power (PRP)</b> These ratings are applicable for supplying continuous 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.</p> <p><b>Standby Power (ESP)</b> 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.</p> <p><b>Standard Reference Conditions</b> air inlet temperature 25°C , barometric pressure 100kPa [110m altitude] and 30% relative humidity.</p>

 <p style="text-align: center; font-size: small;">Photo may be demonstration or a different size generator</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="background-color: #cccccc;">General Features :</th> </tr> </thead> <tbody> <tr> <td style="width: 20px;">◆</td> <td>Heavy duty water cooled engine</td> </tr> <tr> <td>◆</td> <td>Self excited H class alternator</td> </tr> <tr> <td>◆</td> <td>Tropical type radiator with mechanical fan</td> </tr> <tr> <td>◆</td> <td>Fully guarded engine-driven fan</td> </tr> <tr> <td>◆</td> <td>Static or spare daily fuel tank</td> </tr> <tr> <td>◆</td> <td>Fully welded steel baseframe with lifting points</td> </tr> <tr> <td>◆</td> <td>Linear vibration isolators between base and engine-generator</td> </tr> <tr> <td>◆</td> <td>Starter batteries and connection cables</td> </tr> <tr> <td>◆</td> <td>Engine-driven battery charging alternator</td> </tr> <tr> <td>◆</td> <td>Industrial exhaust muffler</td> </tr> <tr> <td>◆</td> <td>Primary and secondary fuel filters</td> </tr> <tr> <td>◆</td> <td>Auto Start control system with digital instrumentation</td> </tr> <tr> <td>◆</td> <td>Emergency stop pushbutton</td> </tr> <tr> <td>◆</td> <td>Control panel with digital-automatic main control module</td> </tr> <tr> <td>◆</td> <td>Indeks Factory load, performance and function tests,</td> </tr> <tr> <td>◆</td> <td>Operation &amp; Maintenance Manual</td> </tr> <tr> <td>◆</td> <td>Wide range of optional extra features available</td> </tr> <tr> <td>◆</td> <td>Block water heater unit</td> </tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th colspan="3" style="background-color: #cccccc;">Overall Dimensions &amp; Weights (Without Canopy)</th> </tr> </thead> <tbody> <tr> <td style="width: 20px;">◆</td> <td>Length (L)</td> <td>5100 mm</td> </tr> <tr> <td>◆</td> <td>Width (W)</td> <td>2300 mm</td> </tr> <tr> <td>◆</td> <td>Height (H)</td> <td>2600 mm</td> </tr> <tr> <td>◆</td> <td>Weight</td> <td>9200 kg</td> </tr> </tbody> </table>	General Features :		◆	Heavy duty water cooled engine	◆	Self excited H class alternator	◆	Tropical type radiator with mechanical fan	◆	Fully guarded engine-driven fan	◆	Static or spare daily fuel tank	◆	Fully welded steel baseframe with lifting points	◆	Linear vibration isolators between base and engine-generator	◆	Starter batteries and connection cables	◆	Engine-driven battery charging alternator	◆	Industrial exhaust muffler	◆	Primary and secondary fuel filters	◆	Auto Start control system with digital instrumentation	◆	Emergency stop pushbutton	◆	Control panel with digital-automatic main control module	◆	Indeks Factory load, performance and function tests,	◆	Operation & Maintenance Manual	◆	Wide range of optional extra features available	◆	Block water heater unit	Overall Dimensions & Weights (Without Canopy)			◆	Length (L)	5100 mm	◆	Width (W)	2300 mm	◆	Height (H)	2600 mm	◆	Weight	9200 kg
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**Units**

<b>General</b>		
Brand		INDEKS
Model		IND JP 1650
StandBy Power	kVA	1650kVA
Prime Power	kVA	1505kVA

<b>Engine</b>		
Manufacturer		Perkins
Model		4012-46TAG2A
StandBy Power(Net)	kWm	1395 KWm
Prime Power (Net)	kWm	1267 KWm
Speed	Rpm	1500 rpm
Cylinder Number & Arrangement		12 Vertical in-line
Bore & Stroke	mm	160mm x 190mm
Displacement	Lt	45.842
Aspiration & Cooling		Turbo Charged
Compression Ratio		13,6:1
Governor Type		Electronic
Cooling Type		Water Cooled
Oil System Capacity (Including Filters)	Lt	177
Fuel System		Direct Injection
Fuel Consumption (%50 of Prime Power)	Lt/h	195 g/KWh / 156 L/h
Fuel Consumption (%75 of Prime Power)	Lt/h	194 g/KWh / 227 L/h
Fuel Consumption (%100 of Prime Power)	Lt/h	194 g/KWh / 298 L/h
Exhaust Gas Flow(at Stand-By Power)	m <sup>3</sup> /sec	320
Exhaust Gas Temperature (at StandBy Power)	°C	455

<b>Alternator</b>		
Manufacturer		Stamford
Type		Brushless , Synchronous, Single Bearing
Model		PI734C
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		H

<b>Chassis</b>
<ul style="list-style-type: none"> <li>◆ Formed steel base with linear vibration isolators between base and engine-generator</li> <li>◆ Base frame design incorporates a fuel tank (fuel gauge and drain plug on the fuel tank)</li> <li>◆ Military / Civilian type easy lifting systems</li> </ul>

<b>Control System</b>
<ul style="list-style-type: none"> <li>◆ Control supervision and protection panel is mounted on the genset base frame.</li> <li>◆ Indeks micro processed control unit.</li> <li>◆ Standart indicators, alarms, buttons, keys.</li> <li>◆ Useful design for Automatic / Manuel working</li> </ul>

<b>Optional Equipment</b>	
<ul style="list-style-type: none"> <li>◆ Customer designed sound proof canopy</li> <li>◆ Automatic synchronization and power sharing systems</li> <li>◆ PMG</li> <li>◆ Alternator Heater</li> <li>◆ Trailer</li> <li>◆ Residential Type Silencer</li> <li>◆ Automatic Fuel Refill System</li> <li>◆ Remote Monitoring Systems with SCADA - PLC, Connection to BMS system and extra special solutions in Medium Voltage</li> </ul>	<ul style="list-style-type: none"> <li>◆ Automatic load transfer panel</li> <li>◆ Digital AVR</li> <li>◆ Remote systems</li> <li>◆ Oil Drain Pump</li> <li>◆ Seismic Sensor</li> <li>◆ Tool kits</li> </ul>

## CONTROL SYSTEM



Photo may be demonstration or a different size generator

### 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

- ◆ 4-Line back-lit LCD text display
- ◆ Five key menu navigation
- ◆ Front panel editing with PIN protection
- ◆ LED and LCD alarm indication
- ◆ Customisable status screens
- ◆ 9 configurable inputs
- ◆ 8 configurable outputs
- ◆ 3 configurable maintenance alarms
- ◆ Configurable event log (250)
- ◆ CAN and Magnetic Pick-up/Alt. Sensing
- ◆ Power monitoring (kW h, kV Ar, kV A h, kV Ar h)
- ◆ Load switching (load shedding and dummy load outputs)
- ◆ Backed up real time clock
- ◆ Fully configurable via DSE Config. Suite PC software
- ◆ User selectable RS232 and RS485 communications
- ◆ Power save mode
- ◆ Flexible sender inputs
- ◆ Fuel usage monitor and low fuel alarms
- ◆ Charge alternator failure alarm
- ◆ Manual speed control (on compatible CAN engines)
- ◆ Manual fuel pump control
- ◆ Engine exerciser
- ◆ "Protections disabled" feature
- ◆ kW overload protection
- ◆ Automatic load transfer
- ◆ Independent Earth Fault trip
- ◆ USB connectivity
- ◆ Backed up real time clock
- ◆ Configurable display languages
- ◆ SMS Messaging (additional external modem required)
- ◆ Additional display screens to help with modem diagn.
- ◆ DSENet® expansion compatible

### Key Benefits

- ◆ 132 x 64 pixel ratio display for
- ◆ Real-time clock provides accurate event logging
- ◆ Multiple date and time scheduler
- ◆ Set maintenance periods can be configured to maintain optimum engine performance
- ◆ Ethernet communications (via DSE860/865 modules), provides advanced remote monitoring at low cost
- ◆ Modules can be integrated into building management systems (BMS)
- ◆ Increased input and output expansion capability via DSENet®
- ◆ Licence-free PC software
- ◆ IP65 rating (with supplied gasket) offers increased resistance to water ingress

**Factory :** A.O.S.B. 10037 Sk. No:11 35580 Cigli / Izmir / Turkey

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