













Owner:	Client:	<b>GENERAL AUTHORITY OF HORMOZGAN PERSIAN GULF PORT PAYA OIL PRODUCT TERMINAL</b>				Consultant:	Supervisor:
							
<b>DOC. TITLE</b>		<b>DATA SHEET FOR DIESEL GENRATOR</b>				<b>Behin Tarh Paydar</b>	
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<h1>DATA SHEET FOR DIESEL GENERATOR</h1>							
00	1404.01.30	First Issued	BTP	A.Madhian	A.Madhian	R.Razmi	
Rev.	Issue Date	Purpose of Issue	ORG.	Prepared	Checked	Approved	

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<b>NO.</b>	<b>DESCRIPTION</b>	<b>REQUIRMENT</b>			<b>VENDOR</b>	
<b>APPLICABLE SPECIFICATIONS</b>						
1_01	REQUIRED QUANTITY	1				
1_02	DIESEL GENERATOR TAG	EE-DG-01				
1_03	DIESEL GENERATOR CONTROL PANEL	DP-DG-01				
1_04	INSTALLATION LOCATION	BANDAR ABBAS				
1_05	INDDOOR/OUTDOOR	INDOOR				
<b>RATING</b>						
2_01	OUTPUT POWER	1000 ✓ <del>650</del> KW				
2_02	OUPUT VOLTAGE	0.4 KV				
2_03	DUTY TYPE(CONTINUOUS/PRIME/STAND BY)	STAND BY				
2_04	NUMBER OF PHASES	3				
2_05	FREQUENCY	50 Hz				
2_06	FREQUENCY VARIATION	± 1%				
2_07	OUTPUT VOLTAGE THD	<3%				
2_08	NUETRAL SYSTEM	SOLIDLY GROUNDED				
2_09	ADJUSTABLE VOLTAGE REGULATOR (AVR)	REQUIRED				
2_10	GOVERNER	REQUIRED				
2_11	SUSTAINED OVER LOAD	110% OF RATED CURRENT FOR 1h				
2_12	OVERLOAD MOMENTARY	150% OF RATED CURRENT FOR 1 min				
<b>ALTERNATOR DATA</b>						
<b>ELECTRICAL DATA</b>						
3_01	MANUFACTURER	BY SUPPLIER				
3_02	MODEL	BY SUPPLIER				
3_03	OUTPUT POWER	650 KW@ SITE CONDITION				
3_04	OUTPUT VOLTAGE	0.4 KV				
3_05	EFFICIENCY (25/50/75/100%)	BY SUPPLIER				
3_06	STATOR CONNECTION	STAR CONNECTION				
3_07	TEMPERETURE RISE CLASS	CLASS F				
3_08	EXCITER TYPE	SELF-EXCITING BRUSHLESS				
3_09	SYNCHRONOUS SPEED	1500 RPM				
3_10	DIRECT AXIS SYNCHRONOUS REACTANCE UN-SATURATED X <sub>ud</sub> %	BY SUPPLIER				
3_11	DIRECT AXIS SYNCHRONOUS REACTANCE SATURATED X <sub>sd</sub> %	BY SUPPLIER				
3_12	DIRECT AXIS TRANSIANT REACTANCE UN-SATURATED X' <sub>ud</sub> %	BY SUPPLIER				
3_13	DIRECT AXIS TRANSIANT REACTANCESATURATED X' <sub>sd</sub> %	BY SUPPLIER				

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3_14	DIRECT AXIS SUB-TRANSIANT REACTANCE UN-SATURATED X''ud %			BY SUPPLIER							
3_15	DIRECT AXIS SUB-TRANSIANT REACTANCE SATURATED X''sd %			BY SUPPLIER							
3_16	QUADRANT AXIS SYNCHRONOUS REACTANCE Xq %			BY SUPPLIER							
3_17	QUADRANT AXIS TRANSIANT REACTANCE X'q %			BY SUPPLIER							
3_18	QUADRANT AXIS SUB-TRANSIANT REACTANCE X''q %			BY SUPPLIER							
3_19	ARMATURE SHORT CIRCUIT TIME CONSTANT Ta secs			BY SUPPLIER							
3_20	DIRECT AXIS TRANSIANT OPEN CIRCUIT TIME CONSTANT T'd0 secs			BY SUPPLIER							
3_21	DIRECT AXIS SUB-TRANSIANT OPEN CIRCUIT TIME CONSTANT T'd0 secs			BY SUPPLIER							
3_22	EXCITATION SYSTEM RESPONSE RECOVERY TIMES secs			BY SUPPLIER							
3_23	DAMPING FACTOR (%kW change due to & Hz speed change)			BY SUPPLIER							
3_24	GENERATOR PERFOEMANCE MAXIMUM VOLTAGE DROP			BY SUPPLIER							
3_25	STATOR WINDING RESISTANCE @20°C			BY SUPPLIER							
3_26	ROTOR WINDING RESISTANCE @20°C			BY SUPPLIER							
3_27	EXCITATION AT NO LOAD			BY SUPPLIER							
3_28	EXCITATION @ FULL LOAD			BY SUPPLIER							
MECHANICAL DATA											
4_01	INGRESS PROTECTION			IP 42							
4_02	WEIGHT OF STATOR (kg)			BY SUPPLIER							
4_03	WEIGHT OF ROTOR (kg)			BY SUPPLIER							
4_04	WEIGHT OF COMPLETE GENERATOR (kg)			BY SUPPLIER							
4_05	MAXIMUM OVER SPEED			BY SUPPLIER							
4_06	NOISE LEVEL AT (1m/7m)			FOR 7 M LESS THAN 80 Db							
4_07	INTERIA CONSTANT(H)			BY SUPPLIER							
4_08	COOLING AIR REQUIREMNETS			BY SUPPLIER							
CONTROL PANEL											
5_01	MANUFACTURER			BY SUPPLIER							
5_02	MODEL			BY SUPPLIER							
5_03	METERING UNIT			KW,Kvar,V,I,F							

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5_04	GENERATOR (VOLTAGE + SELECTOR SWITCH)	REQUIRED					
5_05	AMMETER (3 NO.ANALOUGE 96*96)	REQUIRED					
5_06	LOCAL START AND STOP PUSH BUTTONS	REQUIRED					
5_07	INTERNAL LIGHT AND ANTI CONDENSATION HEATER	REQUIRED					
5_08	AUTO & MANUAL SHUTDOWN	REQUIRED					
5_09	CIRCUIT BREAKER RATING	1500 A					
5_10	CIRCUIT BREAKER MANUFACTURER	ABB/SCHNIDER					
5_11	RUNNING STATUS	REQUIRED					
5_12	CABLE GALND	REQUIRED					
5_13	EARTHING CONNECTION	REQUIRED					
5_14	CABLE INCOMING/OUTGOING TYPE	CU/XLPE/PVC					
5_15	OUTLINE DRAWINGS	REQUIRED					
5_16	SCHEMATIC DIAGRAM	REQUIRED					
5_17	INSTALLATION AND START UP MANUAL	REQUIRED					
5_18	ABILITY TO TURN ON DG, IN OUTAGE AND CONNECT TO FACTORY GRID	REQUIRED					
5_19	CAPABILITY TO CORDINATE WITH LV MCC AND ATS PANEL	REQUIRED					
5_20							
<b>ELECTRICAL PROTECTION</b>							
6_01	IDMT PHASE OVERCURRENT PROTECTION (50,51)	REQUIRED					
6_02	EARTH FAULT PROTECTION (50N,51N)	REQUIRED					
6_03	UNDER VOLTAGE PROTECTION (27)	REQUIRED					
6_04	OVER VOLTAGE PROTECTION (59)	REQUIRED					
6_05	FREQUENCY RELAY (81)	REQUIRED					
6_06	OVERLOAD PROTECTION (49)	REQUIRED					
6_07	RESTRICTED EARTH FAULT RELAY (64)	REQUIRED					
6_08	WINDING TEMPERATURE MONITOR PROTECTION (49T)	REQUIRED					
6_09	UNBALANCE PHASE CURRENT RELAY(46)	REQUIRED					
6_10	LOCK OUT RELAY	REQUIRED					
6_11							
<b>ENGINE</b>							
7_01	ENGINE MANUFACTURER	BY SUPPLIER					
7_02	ENGINE MODEL	BY SUPPLIER					
7_03	GROSS ENGINE POWER OUTPUT	BY SUPPLIER					
7_04	CONFIGURATION	BY SUPPLIER					
7_05	ASPIRATION	BY SUPPLIER					
7_06	BORE (mm)	BY SUPPLIER					

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7_07	STORKE (mm)		BY SUPPLIER				
7_08	RATED SPEED (rpm)		BY SUPPLIER				
7_09	PISTON SPEED m/s (ft/min)		BY SUPPLIER				
7_10	COMPRESSION RATIO		BY SUPPLIER				
7_11	LUBE OIL CAPACITY L (qt)		BY SUPPLIER				
7_12	SPEED LIMIT, rpm		BY SUPPLIER				
7_13	MEAN EFFECTIVE PRESSURE		BY SUPPLIER				
7_14	ONE HOUR OVERLOAD		BY SUPPLIER				
7_15							
<b>FUEL AND OIL CONSUMPTION</b>							
8_01	AT 25% NOMINAL POWER		BY SUPPLIER				
8_02	AT 50% NOMINAL POWER		BY SUPPLIER				
8_03	AT 75% NOMINAL POWER		BY SUPPLIER				
8_04	AT 100% NOMINAL POWER		BY SUPPLIER				
8_05	ENGINE LUBE OIL CAPACITY		BY SUPPLIER				
8_06	ENGINE COOLANT CAPACITY		BY SUPPLIER				
8_07	INLET AIR MAX. DELTAP		BY SUPPLIER				
8_08	MAX. EXHAUST BACK PRESSURE		BY SUPPLIER				
8_09	EXHAUST GAS TEMPERATURE		BY SUPPLIER				
<b>ELECTRIC STARTER</b>							
9_01	CAPACITY		BY SUPPLIER				
9_02	MANUFACTURER		BY SUPPLIER				
9_03	NUMBER OF CONSECUTIVE STARTS		BY SUPPLIER				
9_04	NUMBER OF BATTERY		BY SUPPLIER				
9_05	TYPE OF BATTERY		LEAD ACID (CHARGER REQUIRED)				
9_06	BATTERY BACK UP TIME		6 MONTHS WITHOUT NEED TO TURN ON THE GENERATOR				
<b>AIR INTAKE SYSTEM</b>							
10_01	AIR FILTER TYPE		BY SUPPLIER				
10_02	CLOGGING INDICATOR ON FILTER		BY SUPPLIER				
10_03	INLET DUCT		BY SUPPLIER				
10_04	AIR FLAP ON AIR INLET		BY SUPPLIER				
10_05	AIR INTAKE MANIFOLD		BY SUPPLIER				
<b>EXHAUST SYSTEM</b>							
11_01	EXHAUST MANIFOLD		CAST IRON				
11_02	FLEXIBLE CONNECTOR		BY SUPPLIER				
11_03	EXHAUST PIPE		BY SUPPLIER				
11_04	SILENCER		REQUIRED				
11_05	FLAME/ SPARK ARRESTER		BY SUPPLIER				

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<b>ENGINE COOLING SYSTEM</b>						
12_01	ENGINE COOLING SYSTEM	CLOSED WATER SYSTEM				
12_02	COOLING UNIT	RADIATOR TYPE AIR COOLED EXCHANGER REQUIRED				
12_03	FAN DRIVE TYPE	BY SUPPLIER				
12_04	WATER THERMOSTAT	BY SUPPLIER				
12_05	COOLING WATER PUMP DRIVEN	REQUIRED				
<b>STORAGE TANK FOR DAILY USE</b>						
13_01	TANK	REQUIRED				
13_02	TANK VOLUME	BY SUPPLIER				
13_03	MIN. OPERATION CAPACITY	8 Hr				
<b>TEST</b>						
14_01	HYDROSATIC	REQUIRED				
14_02	PERFORMANCE	REQUIRED				
14_03	FULL LOAD TEST	REQUIRED				
14_04	OVER SPEED WITHOUT SHUTDOWN	REQUIRED				
14_05	OVERLOAD MOMENTARY %150 FOR 1MIN	REQUIRED				