



## Kriel Power Station

December 2021

Rev. 0

Pages 5

# Motor Repair & Rewind Price List

1 off 10 000 kW EFP motor repair and rewind  
Motor serial nr.: D005032  
Strip & Assess job nr.: HV2021 - 8219

**Stock number: 141271**

**Plant System: MV Motors**

**Compiled by:**

A handwritten signature in black ink, appearing to read "DJ Dreyer".

05/12/2021

DJ Dreyer  
Engineer

## **Technical Evaluation criteria:**

<b>Eskom Request:</b>	<b>Supplier Response:</b>	<b>Score %</b>
Proof of qualified winder & fitter (Certificates attached)? (Yes/No)		Gatekeeper
Lead time to complete Works (Weeks)?		35
Proof of workshop facility with 36 Ton crane to handle this motor (Submit photos / load test certificates attached)? (Yes/No)		25
Proof of workshop facility with Testbay which can test up to 11kV no-load 10MW motor – Submit test certificate for similar or bigger motor tested		20
Submission of a valid SABS certificate in terms of ISO 9001:2008 – Quality Management Systems (Attached) (Yes/No)		10
Warranty period (Supply signed confirmation letter) – Minimum warranty of 12 Months		10
<b><i>*Note: A YES on the gatekeeper AND a minimum score of 75% is required to pass the technical evaluation criteria</i></b>		

## ITEM 1: REPAIR & REWIND 10 000KW GEC MOTOR

	Motor description EFP motor	Output Power (kW) 10000	Voltage (V) 11000	Current (A) 601	Speed (rpm) 1492	Weight 25 Ton
	<i>Description</i>		<i>Rate</i>	<i>Quantity</i>	<i>Amount</i>	
1.	COLLECT MOTOR FROM TOMCO ARMATURE WINDERS			1		
2.	BURN OUT STATOR WINDINGS, REMOVE OLD WINDINGS, CLEAN & PREPARE CORE FOR REWIND			1		
3.	TEST CORE AFTER BURN OUT - HOT SPOTS AT 98° C - REPAIR IF NECESSARY			1		
4.	MANUFACTURE NEW COIL & INSULATION KIT			1		
5.	REWIND STATOR, VPI & BAKE (FIT NEW PT100'S & LEADS)			1		
6.	POLISH STATOR FEET			1		
7.	RE-TAP ALL MOUNTING HOLES			1		
8.	OVERHAUL ROTOR & SPRAY WITH INSULATING VARNISH			1		
9.	LIGHT MACHINE NDE VACUUM SEAL LANDING			1		
10.	POLISH ALL BEARING JOURNALS & SEAL LANDINGS			1		
11.	CLEAN & OVERHAUL HEAT EXCHANGER			1		
12.	REMETAL & MACHINE DE & NDE BEARINGS 250mm NEW TYPE GLACIERS			1		
13.	SUPPLY ONE (1) OFF SPARE BEARING			1		
14.	MANUFACTURE NEW 250mm FLOATING LAB SEALS 4 OFF			1		
15.	RE-INSULATE BEARING HOUSINGS (2 OFF)			1		
16.	FIT NEW VACUUM FELT SEALS (2 OFF)			1		
17.	FIT NEW BREATHER PIPES & CLAMPS			1		
18.	REPLACE STRIPPED BOLTS & PLUGS			1		
19.	REPAIR OVER SIZE BEARING HOUSING NIPS			1		
20.	FIT NEW OIL SIGHT GLASSES 4 OFF			1		
21.	SHOT BLAST, CLEAN & PAINT DE & NDE BEARING HOUSINGS			1		
22.	SUPPLY & FIT 3 OFF INSULATORS INCLUDING CONNECTION STUDS AND MATCHING CONNECTION CLAMPS (FLAGS)			1		
23.	SANDBLAST, CLEAN, PAINT AND REPAIR TERMINAL BOX INCLUDING BLOWOUT PANELS			1		
24.	MANUFACTURE NEW SUPPLY TERMINAL BOX COVER			1		
25.	SUPPLY & FIT 2 OFF NEW DESICATORS			1		
26.	SUPPLY & FIT NEW ZORC			1		
27.	FIT NEW EARTH LUGS			1		
28.	SUPPLY & FIT 3 OFF NEW CTS (750:1 ; 30mA; Class PX; V <sub>kp</sub> = 300; Secondary resistance should not exceed 10Ω)			1		
29.	SUPPLY & FIT 4 OFF NEW ANTI-CONDENSATION HEATERS			1		

30.	SEAL OFF STARPOINT TERMINAL BOX COMPLETELY FROM THE MOTOR INTERNAL TO PREVENT ANY HOT AIR ENTERING INTO THE STAR POINT TERMINAL BOX		1	
31.	SUPPLY FOR FLOOD LUBE OIL SUPPLY TO MOTOR BEARINGS: - SUPPLY 2 X NEW OIL INLET PIPES TO BEARINGS WITH FLANGES (SEE FLANGE DRAWING ON LAST PAGE) - SUPPLY 2 X NEW OIL FLOW METERS (0-30L/MIN) - SUPPLY 2 X NEW OIL REGULATING VALVES - SUPPLY 4 SPARE FLANGES (SEE FLANGE DRAWING ON LAST PAGE)		1	
32.	DYNAMICALLY BALANCE THE ROTOR AT OPERATING SPEED ACCORDING TO ISO 1940/1 BALANCING GRADE G6.3 (BALANCING CERTIFICATE TO BE INCLUDED IN TEST REPORT).		1	
33.	REPLACE RUBBER SEALS & GASKETS		1	
34.	ASSEMBLE MOTOR COMPLETE		1	
35.	TEST MOTOR INTERNAL		1	
36.	CLEAN & PAINT THE MOTOR (LIGHT GREY GLOSS ENAMEL G29) & PREPARE FOR DELIVERY		1	
37.	CONDUCT CUSTOMER WITNESS TEST - NO LOAD TEST AT FULL VOLTAGE - FULL BEARING RUN WITH TEMPERATURE & VIBRATION READINGS		1	
38.	SUPPLY DATA PACK		1	
39.	FINAL INSPECTION & DELIVERY BACK TO SITE (KRIEL POWER STATION) WITH SHAFT LOCKING DEVICE - 32 000KG		1	
			Total	

# Scope of Work

## DESCRIPTION OF THE WORKS

### Refurbishment and Repair EFP motors

#### TECHNICAL SPECIFICATIONS OF MOTOR

<u>MAKE</u>	1 x ACTOM	<u>SERIAL NO.</u>	DOO5232
<u>KILOWATTS</u>	10 000 kW	<u>VOLTAGE</u>	11 000 V
<u>AMPS</u>	620 A	<u>SPEED</u>	1492 rpm
<u>FRAME SIZE</u>	1120	<u>WEIGHT</u>	32 TONS
<u>MOTOR POSITION IN PLANT</u>	Electric Feedpump motor		
<u>CAUSE OF FAILURE</u>	WINDING FAILURE		

#### Oil Inlet Flange:

