

Bharat Heavy Electricals Limited
Ramachandrapuram : : Hyderabad – 502032
M&S – DIVISION
SCOPE OF WORK (ANNEXURE-I)

Tender No.: M&S/P&S/2021/27, Dt.: 13.08.2021

Name of Work: Repair/Rewinding of AC Induction Motors, Fans, Transformers, Coils etc.

DESCRIPTION OF WORK: Repair/rewinding of AC Induction Motors, etc. in 10RS for the year 2021-22.

- Induction motors of ranges from 1HP to 120 HP – about 80 Nos.
- Slip Ring Induction Motors (rotor/stator winding) – around 35 Nos.
- Power Control Transformers/solenoids/toroidal clutches/magnetic clutches around 35 Nos.
- Single phase/3 phase/high frequency portable hand tools – about 75 Nos.

REWINDING procedure

Includes rewinding stator complete and following activities. All materials involved are in the scope of BHEL supply on free of charge.

1. Check for continuity, if found unbalancing following procedures should be followed.
2. Complete cleaning of motor.
3. Dismantling of motor.
4. Service/repairs of all mechanical parts including rotor.
5. Replacing of spare parts wherever necessary.
6. Rewinding/repairs and servicing of stators as per data/as per plate details.
7. Complete varnishing and baking of stator in drying oven (10RS).
8. Complete cleaning of motor.
9. Testing of motor on no load by applying rated/full voltage.

For other items: Portable hand tools/Welding equipment etc.

Identify the problem, clean thoroughly, repair if possible. Replace the required spare parts as per the manufactures instructions.

Note:

1. The party shall undertake repair and rewinding of electrical motors, fan winding, portable electrical hand tool repairs, other miscellaneous items like transformers, welding generators, rectifiers, solenoid coils etc. in 10RS Rewinding Section.
2. Technicians should have sound knowledge and skills capable in rewinding of electrical motors and electrical equipment.
3. The party shall have knowledge/experience in winding works. Those who are having establishment in motor winding can also take part.
4. The party should provide one set of required hand tools like screw drivers, mallet, chisels, hammers, spanners (DE/Ring)/instruments- vernier caliper/digital multimeter/ line testers etc. for day to day work on returnable basis.

SIGNATURE AND SEAL OF CONTRACTOR

TIMELINE FOR REWINDING OF MOTORS (2021-22)

S.NO	Description of work	Time required for rewinding in days for each motor
1	Rewinding of 3PH Squirrelcage IM ,<1hp	3 days
2	Rewinding of 3PHSquirrelcage IM,1hp-<3hp	3 days
3	Rewinding of 3PHSquirrelcage IM,3hp-<5hp	3 days
4	Rewinding of 3PHSquirrelcageIM,5hp-<10hp	5 days
5	Rewinding of 3PHSquirrelcageIM,10hp-<15hp	6 days
6	Rewinding of 3PHSquirrelcageIM,15hp-<20hp	5 days
7	Rewinding of 3PHSquirrelcageIM,20hp-<40hp	10 days
8	Rewinding of 3PHSquirrelcageIM,40hp-50hp	14 days
9	Rotor Rewinding of 3PHSlipringIM,1hp-5hp	3 days
10	Stator Rewinding of 3PHSlipringIM,1hp-5hp	3 days
11	Rotor&Stator Rewinding of 3PhSRIM,1hp-5hp	3 days
12	Rotor Rewinding of 3PHSlipringIM,6 -16hp	6 days
13	Stator Rewinding of 3PHSlipringIM,6 -16hp	6 days
14	Rotor&Stator Rewinding of 3PhSRIM,6 -16hp	6 days
15	Rotor Rewinding of 3PhSRIM,16 - 40hp	10 days
16	Stator Rewinding of 3PhSRIM,16 - 40hp	10 days
17	Rotor&Stator Rewinding of 3PhSRIM,16-40hp	15 days
18	Rewinding of Solenoid valve,brake upto8A	5 days
19	Rewinding of Magnetic coil,clutch upto18A	6 days
20	Rewinding of 1ph control transformer<1KVA	10 days
21	Rewinding of 1ph Cont.transformer1-3.5KVA	10 days
22	Rewinding of 3ph control transformer<1KVA	15 days
23	Rewinding of 1ph fans	3 days
24	Rewinding of Portable hand Tools	3 days
25	Rewinding of welding generator 14KW 360A	15 days
26	Repair of welding generator 14KW DC side	15 days
27	Welding rectifiers, 600A, Repair/rectification of defects, replacement of defective coils, and testing.	15 days
28	Squirrel Cage Induction Motor (3Phase capacity 70 to 90 hp)	20 days
29	Squirrel Cage Induction Motor (3Phase capacity 90 to 120 hp)	20 days

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