

**Pre-Qualification requirements (PQR) for the procurement of 3 phase 5.5kW 6 pole S3 duty RC Motor as per specification (or) applicable TDC through Open Tender.**

**PR No: 146422447, Dt: 27.01.2026**

**A: Organizational Capability & Technical Competence:**

Sl. No.	Pre – Qualification Criteria	Bidder acceptance / Bidder remarks
1.	Vendor shall be provided with documents related to “Capability to supply 3 phase 5.5kW 6 pole S3 duty RC Motor ”.	
2.	The OEM (or) Authorised channel partner of OEM can only participate this tender. In case OEM Authorised channel partner is participating this tender, authorisation letter along with their current valid channel partnership shall be submitted along with the offer.	
3.	Only makes of Siemens, ABB, CG, Bharat Bijlee, Hindustan and WEG are acceptable. Vendor is requested to mention the make of the motor.	

**B: Past Experience/ Performance:**

Sl. No.	Pre – Qualification Criteria	Bidder acceptance / Bidder remarks
1.	Vendor must have executed and be in the business of Supply of the 3 phase 5.5kW 6 pole S3 duty RC Motors. Vendor shall submit documentary evidence like Purchase order executed and Work completion certificate or Customer satisfaction certificate (or) GeM CRAC document as an evidence of supply and acceptance of the material as supporting document, along with the offer.	
2.	Warranty period of the supplied products shall be 12 months or more from the date of receipt of items at BHEL/SSTP Stores. OEM warranty certificates must be submitted by successful bidder at the time of delivery of Goods. The bidder should guarantee the replacement of goods incase of any failure during the warranty period.	

**Necessary supporting documents shall be submitted for meeting each of the above Pre-Qualification Criteria for technical evaluation of the offers.**

**PARIMI NAGA VENKATA  
SAI SURYATEJA**

Digitally signed by PARIMI NAGA  
VENKATA SAI SURYATEJA  
Date: 2026.01.27 16:31:45 +05'30'

**Part - B: Technical Delivery Conditions (TDC) for supply of 3 phase 5.5kW 6 pole S3 duty RC Motor**  
**PR No: 146422447, Dt: 27.01.2026**

**Technical Specification for 3 phase 5.5kW, 6 pole, S3 duty RC Motor**

<b>0</b>	<b>General Conditions</b>		
0.1	Typical required values are listed below. Any deviations with respect to the values shall be mentioned against the requirement.		
0.2	All the equipment, material and systems shall, in general, conform to the latest edition of relevant National and international Codes & Standards, especially the Indian Statutory Regulations.		
0.3	For the purpose of design of equipment/systems, an ambient temperature of 50 deg. Centigrade and relative humidity of 95% (at 45 deg C) shall be considered. The equipment shall operate in a highly polluted environment.		
0.4	Motor data sheet & dimensional drawing are to be submitted to BHEL for approval before manufacturing of motor.		
0.5	Only makes of Siemens, ABB, CG, Bharat Bijlee, Hindustan and WEG are acceptable.		
<b>Sl.No</b>	<b>Description</b>	<b>Requirement</b>	<b>Vendor Confirmation/Response in case of deviation</b>
<b>1</b>	<b>Core Performance Parameters</b>		
1.1	Output	5.5kW	
1.2	Efficiency Class	IE3 - confirming to IS 12615, or IEC:60034-30	
1.3	Number of poles	6	
1.4	Sync. Speed(RPM)	1000	
1.5	Full Load Speed(RPM)	960 to 975	
1.6	Rated torque(Nm)	54±2%	
1.7	Locked Rotor torque/ Rated torque	>= 3	
1.8	Breakdown torque/Rated torque	>=3.5	
1.9	Duty	S3 - 30%	
<b>2</b>	<b>Electrical Specifications</b>		
2.1	Phase	3 Phase	
2.2	Rated Voltage	415V ± 10%	
2.3	Rated Current	12A	
2.4	Frequency	50 ± 5%	
2.5	V&F Combined variation	±10%	
2.6	Starting method	VFD or DOL	
2.7	Winding Connection	Delta	
2.8	No of terminals	6	

<b>3</b>	<b>Mechanical &amp; Construction</b>		
3.1	Frame Size	132M	
3.2	Frame Material	Cast Iron	
3.3	Type of Construction(Mounting)	B5	
3.4	Direction of rotation	Bi Directional	
3.5	Type	Squirrel Cage	
3.6	Vibration Limit	Vibration shall be limited within the limits prescribed in IS:12075 / IEC 60034-14	
3.7	Noise Limit	Noise level shall be limited to 85dB(A)	
<b>4</b>	<b>Environmental &amp; Thermal Limits</b>		
4.1	Protection	IP55	
4.2	Cooling	IC411 - Self Ventilated, Surface Cooled	
4.3	Ambient Temperature	50 °C	
4.4	Locked Rotor Time-Cold	16 to 22s	
4.5	Locked Rotor Time-Hot	8 to 12s	
4.6	Insulation Class	F	
4.7	Temp. rise limited to	B	
4.8	PTC thermistors	Without	
<b>5</b>	<b>Terminal box &amp; Connection details</b>		
5.1	Terminal box Location	Top	
5.2	Material of Terminal box	Sheet Metal/Cast Iron	
5.3	Contact screw thread	M4	
5.4	Max. cross-sectional area	6 mm <sup>2</sup>	
5.5	Cable diameter range	9mm to 17mm	
5.6	Cable entry	2XM32X1.5	
5.7	Cable gland	2 Plugs	
<b>6</b>	<b>Maintenance and Finish</b>		
6.1	Lubricants	Esso Unirex N3 or equivalent	
6.2	Bearing DE   NDE	6208 2ZC3   6208 2ZC3 or equivalent	
6.3	Sealing	V-Ring	
6.4	Regreasing Device	-/-	
6.5	Grease nipple	-/-	

PARIMI NAGA VENKATA SAI  
SURYATEJA

Digitally signed by PARIMI NAGA VENKATA SAI  
SURYATEJA  
Date: 2026.01.27 16:32:19 +05'30'

6.6	Relubrication interval/quantity DE   NDE	-/- g   -/- g -/- h	
6.7	External Earthing Terminal	With (Double Earthing Provision)	
6.8	Condensate drainage holes	With	
6.9	Coating	Standard Paint Finish	
6.10	Colour	RAL7030/RAL6011	
6.11	Applicable codes and standards	IS 12615 / IEC 60034-1	

PARIMI NAGA VENKATA  
SAI SURYATEJA

Digitally signed by PARIMI NAGA  
VENKATA SAI SURYATEJA  
Date: 2026.01.27 16:32:35 +05'30'