## CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY (A), HYDERABAD-75 Department of Electrical and Electronics Engineering

Procurement of Special Electrical Machines
Technical Compliance Sheet/Bid. (Ref. No: <u>EEE/SEM-2019-20/102</u>)

V/F Control of 3-Ф Induction motor	2 HP / 415 V / 3 Phase / TEFC / IE2 Eff. Class / Sq. Cage Induction Motor with Mechanical loading arrangement having round dial scales and friction belt for torque measurement  2 Ft. Heighted elevated-base with anti-vibration pad if required  Control panel consisting TPM MCB, with Industrial VFD Drive, AC Voltmeter, AC Ammeter and required indicators.  5 HP / 220 V / 1500 RPM / Shunt Wound DC Motor coupled to 3 KVA / 415 V / 3 Phase / 1500 RPM / 50 Hz. / Four Pole / Rotor Wound / Stator Excited / Separately excited / Manually Regulated Salient Pole Alternator with base and couplings  2 Ft. Heighted elevated-base with anti-vibration pad if required  Control Panel consisting following components. DC MCB 1 no., 3 point Starter 1 no., 25 A DC	
Induction motor	Control panel consisting TPM MCB, with Industrial VFD Drive, AC Voltmeter, AC Ammeter and required indicators.  5 HP / 220 V / 1500 RPM / Shunt Wound DC Motor coupled to 3 KVA / 415 V / 3 Phase / 1500 RPM / 50 Hz. / Four Pole / Rotor Wound / Stator Excited / Separately excited / Manually Regulated Salient Pole Alternator with base and couplings  2 Ft. Heighted elevated-base with anti-vibration pad if required	
	required indicators.  5 HP / 220 V / 1500 RPM / Shunt Wound DC Motor coupled to 3 KVA / 415 V / 3 Phase / 1500 RPM / 50 Hz. / Four Pole / Rotor Wound / Stator Excited / Separately excited / Manually Regulated Salient Pole Alternator with base and couplings  2 Ft. Heighted elevated-base with anti-vibration pad if required	
	/ 50 Hz. / Four Pole / Rotor Wound / Stator Excited / Separately excited / Manually Regulated Salient Pole Alternator with base and couplings  2 Ft. Heighted elevated-base with anti-vibration pad if required	
	Control Banal consisting following commonants DC MCD 1 no. 2 noint Starton 1 no. 25 A DC	
Salient pole 3-Φ Sync. Generator	Ammeter 1 no., 2A DC Ammeter 1 no., 300 V DC Voltmeter 1 no., 500 V AC Voltmeter 1 no., 2 A Separate excitation unit for Alternator 1 no., other required indicators & terminals.	
	$3\ Phase\ /\ 415\ V\ /\ 5\ A\ /\ wire\ wound\ /\ resistive\ load\ bank\ controlled\ by\ rotary\ switches\ in\ about\ 6\ steps.$	
	Cont. variable / 415 V / 4.2 A / 50 Hz. / 3 Phase / Inductive Load (for lagging PF Loading)	
	3 Phase / 415 V / 5 A / 50 Hz. / Capacitive load bank controlled by rotary switches in 5 to 6 steps. Complete with Charging – discharging Bulb mounting holders (without bulbs. 60 W bulbs to be arranged locally) (for leading PF Loading)	
	Synchronizing Panel for synchronizations of two Alternator set or Alternator with Mains. Consisting of voltmeter – 1 No., Frequency meter– 1 No., lamp Board bank for Lamp Method, Phase Sequence Meter – 1 No., Synchroscope – 1 No, necessary switches, fuses & indicators.	
3 DC Series Motor	1.5 HP / 220 V / 1500 RPM / Duty S2 / DC Series Traction Motor with Mechanical Loading arrangement having Round dial scales and Friction Belt for Torque Measurement. (capable to take load up to 200-250 %)	
	2 Ft. Heighted elevated-base with anti-vibration pad if required	
	Control Panel consisting DC MCB, 2-point Starter, 2 Nos. DC Ammeter, 1 No. DC Voltmeter, 1 No. Field Diverter (Rheostat type - External) all other indicators & terminals required.	
Double Fed Induction Generator	3~HP/220~V/1500~RPM/ DC Shunt Motor coupled with 3.0 HP $/415~V$ stator $/$ approx. 210 V rotor $/3$ Ph. Slipring Induction Motor as DFIG.	
5 Permanent Magnet Synchronous Motor	1 HP / PMSM Motor with Mechanical loading arrangement having 2 No. round dial scales and friction belt for torque measurement.	
	Control panel consisting TPM MCB, with Industrial VFD Drive, AC Voltmeter, AC Ammeter and required indicators.	
Switched Reluctance Motor	1 HP SRM Motor with Mechanical loading arrangement having 2 No. round dial scales and friction belt for torque measurement. With Elaborate Drive to study with following drives: FPGA Module, IGBT Module.	
BLDC Motor	1 HP / 200 V DC / 3000 RPM BLDC Motor with Mechanical loading arrangement having 2 No. round dial scales and friction, belt for torque measurement. With Elaborate Drive to study with following modules: FPGA Module, IGBT Module.	
	DC Series Motor  Double Fed Induction Generator  Permanent Magnet Synchronous Motor  Switched Reluctance Motor  BLDC Motor	3 Phase / 415 V / 5 A / wire wound / resistive load bank controlled by rotary switches in about 6 steps.  Cont. variable / 415 V / 4.2 A / 50 Hz. / 3 Phase / Inductive Load (for lagging PF Loading)  3 Phase / 415 V / 5 A / 50 Hz. / Capacitive load bank controlled by rotary switches in 5 to 6 steps.  Complete with Charging – discharging Bulb mounting holders (without bulbs. 60 W bulbs to be arranged locally) (for leading PF Loading)  Synchronizing Panel for synchronizations of two Alternator set or Alternator with Mains. Consisting of voltmeter – 1 No., Frequency meter – 1 No., lamp Board bank for Lamp Method, Phase Sequence Meter – 1 No., Synchroscope – 1 No, necessary switches, fuses & indicators.  1.5 HP / 220 V / 1500 RPM / Duty S2 / DC Series Traction Motor with Mechanical Loading arrangement having Round dial scales and Friction Belt for Torque Measurement. (capable to take load up to 200-250 %)  2 Ft. Heighted elevated-base with anti-vibration pad if required  Control Panel consisting DC MCB, 2-point Starter, 2 Nos. DC Ammeter, 1 No. DC Voltmeter, 1 No. Field Diverter (Rheostat type – External) all other indicators & terminals required.  3 HP / 220 V / 1500 RPM / DC Shunt Motor coupled with 3.0 HP / 415 V stator / approx. 210 V rotor / 3 Ph. Slipring Induction Motor as DFIG.  1 HP / PMSM Motor with Mechanical loading arrangement having 2 No. round dial scales and friction belt for torque measurement.  Control panel consisting TPM MCB, with Industrial VFD Drive, AC Voltmeter, AC Ammeter and required indicators.  1 HP SRM Motor with Mechanical loading arrangement having 2 No. round dial scales and friction belt for torque measurement. With Elaborate Drive to study with following drives: FPGA Module, IGBT Module.  1 HP / 200 V DC / 3000 RPM BLDC Motor with Mechanical loading arrangement having 2 No. round dial scales and friction, belt for torque measurement. With Elaborate Drive to study with

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**Signature:** 

**Stamp of the Vendor:**