

To,
M/s -----

Enquiry no:-NaMPET/EE/SRM/2015-2016

Dated: 01/03/2016

Enquiry for 5kW Switched Reluctance Motor coupled with DC Motor

The NaMPET Laboratory requires 5kW Switched Reluctance Motor coupled with DC motor must having following specifications –

A. Technical Specification of Switched Reluctance Motor

1. Motor type : Switched Reluctance Motor
2. Power : 5kW (S1 duty i.e. continuous duty)
3. Number of Poles : 6/4 (6 Poles for stator & 4 Poles for Rotor)
4. Rated Voltage : 270V DC.
5. Rated Speed : 12000 rpm.
6. Material for Rotor & Stator : At least Silicon steel (Grade: M-45 or higher grade).
7. Material for Coil : Copper conductors with F class insulation.
8. Cooling : Forced air cooling.
9. Number of Position Sensors : 1. Absolute position encoder (optical type), required minimum resolution is 1024 pulses per Revolution.
2. Three (03) numbers of optical interrupters, (mounting arrangements are explained in appendix-1).
 - a) Optical interrupters must be mounted on stator.
 - b) Maximum error is +/- 0.75° permitted for angle between optical interrupters.
 - c) Disc is mounted on shaft such as the disc poles and rotor poles are in same axis.
10. Horizontal Foot mounting (iron) upon which the SRM & DC motor must be coupled.

B. Technical Specification of Dc Motor

1. Motor type : DC shunt Motor Separately Excited
2. Power : 5kW (S1 duty i.e. continuous duty)
3. Rated Voltage : 270V DC
4. Rated Speed : 12000 rpm
5. Material for Rotor & Stator : At least Silicon steel (Grade: M-45) or higher grade.
6. Material for Coil : Copper conductors with F class insulation
7. Cooling : Forced air cooling
8. Coupling : Flexible tyre type with removable safety net.

C. Scope: Scope of tender includes Supplying, Delivery, Installation & Commissioning at WL-110, EE, IIT Kanpur.

D. Warranty: -03 Years post installation.

Valid quotation in sealed cover are invited for Switched Reluctance Motor with aforesaid specifications on or before **April 04, 2016** with marking the tender number at top of envelope & which should be in favour of “**Dr. P. Sensarma, Department of Electrical Engineering IIT Kanpur 208016**”. The Indenter has right to accept or reject the tender without assigning any reason thereof. Also the indenter reserves the right to reject or accept all or any of the offers made above.

Note:-The last date of submission is extended till April 18, 2016.

akbasu

(Amit Kumar Basu)

In-charge

Email- akbasu@iitk.ac.in

National Mission for Power Electronics Technology (NaMPET) Laboratory

WL-110

Department of Electrical Engineering

Indian Institute of Technology Kanpur

Kanpur-208 016, Uttar Pradesh

Appendix-1

Mounting arrangements for optical interrupter

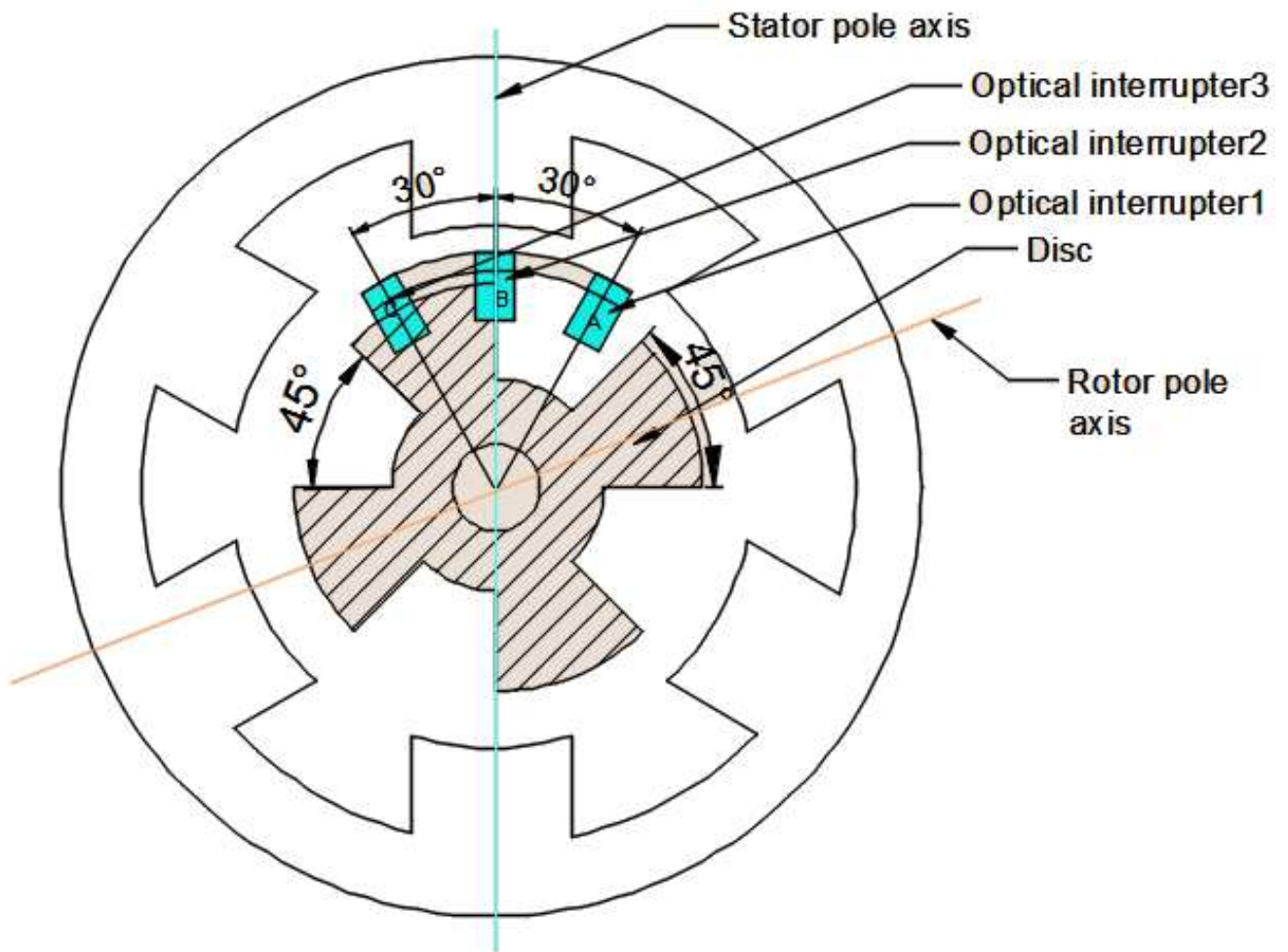


Fig.1: Positions of the optical interrupters

Mounting must have:

- Optical interrupters must be mounted on stator.
- Maximum error is $\pm 0.75^\circ$ permitted for angle between optical interrupters.
- Disc is mounted on shaft such as the disc poles and rotor poles are in same axis.