Date of experiment: 30.10.2018

Experiment no.: 01

Experiment name: Observation of different types of electrical machines along with their specifications in electrical machine laboratory.

Total machine-16-2 per table

DC machine-8-1 per table

DC machine can be used as both motor and generator, difference is input.

Induction motor-4

3-phase circuit-4-controller-4

Synchronous machine-4

DC motor

Image

Description

DC generator

Image

Description

Specification

|  |  |
| --- | --- |
|  | Volts=250 |
| 1450 RPM | Amp=18 |
| FLD Amps=1.0 AS SH GEN | MOD=5CD256G317 |
| Duty=Cont. 60 Crise | |
| Suit as 5HP 1500/3000 RPM 240V | |
| FLD Ohms 25C 152.8 | WOUND=Comp |
| ENCL DP SERV Fact 1.15 | |
| SER XY1-1068 | |

Induction motor

Image

Description

Induction generator

Image

Description

Specification

|  |  |
| --- | --- |
| Model 5M4254A22Y26 | SER NO. 6454098 |
| HP 3 SERVICE FACTOR 1.15 | FL RPM 1420 |
| VOLTS 220/440 Phase 3 | |
| FL AMPS 9.1/4.55 Cycles 50 | |
| TYPE M FRAME 254V | |
| CRISE 40 TIME RATING CONT | |
| SEC VOLTS 145 | |
| SEC AMPS 10.0 | |
| 40BC03 | |
|  | |

Synchronous motor

Image

Description

Synchronous generator

Image

Description

Specification

|  |  |
| --- | --- |
| MODEL – 5SJ4254A2Y12 | SERIAL – WY 7400B30 |
| TYPE – 5J | FRAME – 254Z |
| 1500 RPM 50 Cycles 50C rise | |
| Generator 4kVA 0.8 PF 120/240 Volts 3PH 19.2/9.8 FL AMP | |
| MOTOR 6 HP 1.0 PF 120/240 Volts 3PH 22/11 FL AMP | |
| FIELD AMP MAX 2.1 FIELD VOLT S125 | |