

ARMADA

INDUSTRIAL AUTOMATION

ENDLESS POSSIBILITIES



HIG: 47, New Housing Unit, Thanjavur-5

Ph: 04362 227725, +91-99431 20025, E-mail-armadaautomation@yahoo.in.

Date: 08/2/2023

To
The Principal,
Sri Bharathi Engineering College for Women,
Kaikkurichi,
Pudukkottai – 622 303.

HOD / EEE

for receiving admin
please

08/2/23

Respected Sir/Madam,

Up on receiving the Institutional Brochure and the subsequent inquiry –
Regarding.

Having received the Institutional consultancy brochure, we are interested in investigating the feasibility of supplying “High Power Rating Three Phase Change over System” in collaboration with your consultancy team. We would like to inquire about the corresponding costs involved.

For Armada Industrial Automation



Dr. S. THILAGAVATHI M.E., Ph.D.,
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurichi - 622 303, Pudukkottai Dt.



SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai)

Pudukkottai - Aranthangi Road,
Kaikkurichi, Pudukkottai - 622 303.

Date : ...18/02/2023

To

Armada Industrial Automation,
HIG-47, New Housing Unit,
Thanjavur -5.

Greetings – Sri Bharathi Engineering College for Women- Kaikkurichi,
Pudukkottai.

In response to your letter dated 8.02.2023, regarding the supply of “High Power Rating Three Phase Change over System” and following our detailed discussions. We are pleased to present the official quotation for your review and response.

Thanking you

Quotation

S.No.	Particulars	Quantity	Rate per unit	Total Amount
01.	High Power Rating Three Phase Change over System	30	3500	1,05,000


PROJECT INVESTIGATOR

[P. PARTHIBAN, AP/EEE]


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Ph: 04322 - 242768
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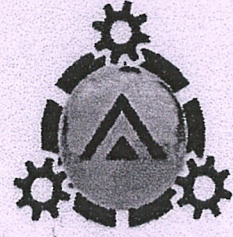
Mobile: 99422 28029, 97509 28029

e-mail : sribharathiengcollege@gmail.com

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HIG: 47, New Housing Unit, Thanjavur-5

Ph: 04362 227725, +91-99431 20025, E-mail-armadaautomation@yahoo.in.

Date: 24/2/2023

To
The Principal,
Sri Bharathi Engineering College for Women,
Kaikkurichi,
Pudukkottai – 622 303.

Forwarded to
HOD/EEE
24/2/23

Respected Madam,

We have approved the institution proposal for the supply of the “High power rating Three Phase Change over System” as specified in the quotation. We have allocated a total budget of Rs. 1, 05,000 (One Lakh and five thousand only). It is crucial that the completion of this project adheres to the agreed upon time frame of 80 to 90 days.

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For Armada Industrial Automation



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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

PRODUCT DEVELOPMENT CONSULTANCY WORK

REPORT

High Power Rating Three Phase Change over System

SUBMITTED

TO

Armada Industrial Automation

Thanjavur – 5

REPORT DATE: 12.05.2023

Dr. S. THILAGAVATHI M.E., Ph.D.,

PRINCIPAL

**SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN**

Kaikkurichi - 622 303, Pudukkottai Dt.

High Power Rating Three Phase Change Over System

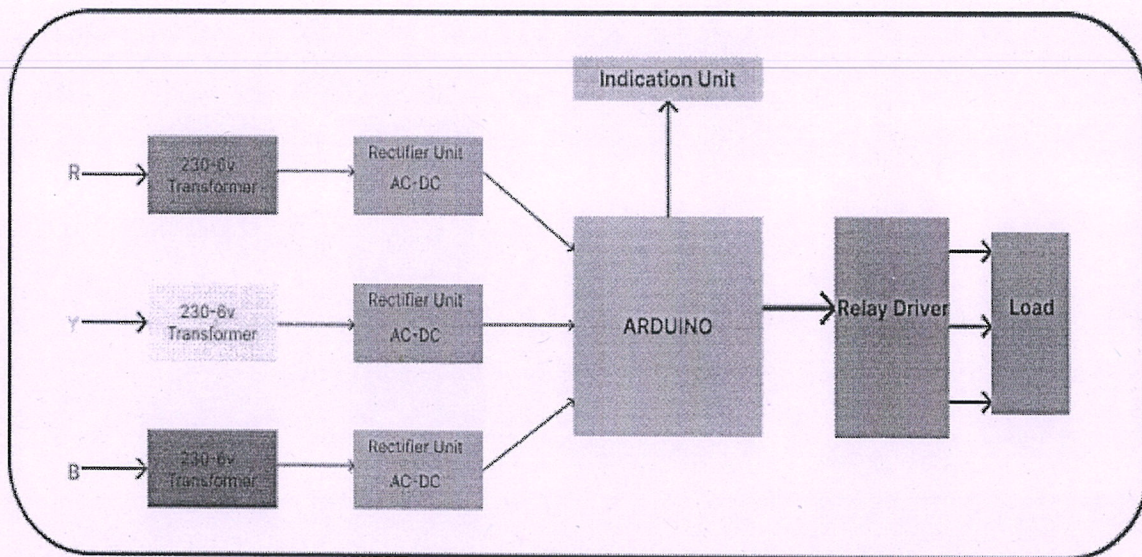
Aim:

The proposed work aims to design and develop an automatic RYB phase changer circuit that can change the phase sequence from one configuration to another while also providing neutral and earth disconnect indication.

The main objectives of this work are:

- To design a phase changer circuit that is capable of changing the phase sequence from RYB to other configurations while ensuring safe and reliable operation.
- To develop a circuit that can detect the absence of neutral and provide indication to the user.
- To develop a circuit that can detect the presence of earth and provide indication to the user.

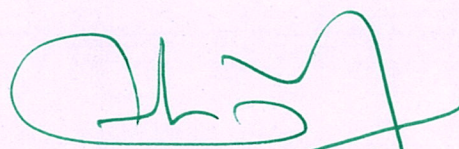
Block Diagram:



Software Requirement: Arduino Uno IDE

Hardware Requirement:

1. Arduino Uno
2. Bridge Rectifier
4. Step Down Transformer


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5. IC LM 7805

6. Four Channel Relay Module.

7. Pilot Lamps, Capacitors.

Description:

An automated fault detection system has been developed to actively identify and pinpoint electrical line faults in real-time, enabling swift user notifications for necessary repairs or corrective actions through indicator lamps. The system's core functionality relies on a programmed microcontroller, which employs sophisticated software processes to detect and categorize line faults.

In the event of a fault occurring in the R line, the Y line steps in to supply power to the R line through software-based interventions, with an accompanying indication lamp signalling the fault. If both the R and Y lines experience issues, the B line takes charge, supplying power to both lines while activating indication lamps 2 and 3 to denote the faults.

Furthermore, the system is equipped to respond to deviations in voltage levels. When any one of the phases registers an under-voltage condition, it can seamlessly switch to a healthy phase. Conversely, if higher voltage is detected, the system can shift to a phase with normal voltage levels. In case of a neutral disconnection in any phase, the entire system disconnects from the power supply. Additionally, if the earth conductor become disconnected or fail to provide an adequate return path, an indicator lamp promptly informs the user of this issue.

Cost Estimation:

Sl. No	Description	Quantity	Cost
1.	Arduino Uno – Microcontroller ATMEGA 328p	01	750
2.	IC LM 7805	01	80
3.	Step Down transformer	03	300
4.	Rectifier	03	45
5.	4- Channel Relay	01	250

6.	PCB design and Cabinet Cost	01	1375
7.	Miscellaneous	-	200
	Design Cost	-	500
	Total		3500

Cost Per Product: Rs. 3500 -/.

Number of Products Delivered: 30

Total Cost of the Project: Rs. 1, 05,000 -/.

Sanctioned Grant: Rs. 1, 05,000 -/.


PROJECT INVESTIGATOR

[T. PARTHIBAN, AP/EEE]


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Kaikkurichi, Pudukkottai - 622 303.



Date : 12.05.23

Utilization Certificate

Certified that the amount of rupees Rs.1, 05,000 (One Lakh and Five Thousand only) was sanctioned by Armada Industrial Automation, Thanjavur during the academic year (2022-2023), in favour of Department of Electrical and Electronics Engineering Sri Bharathi Engineering College for Women, Kaikkurichi, Pudukkottai has been fully utilized for product supply of High Power Rating Three phase Change Over System. The purpose of amount sanctioned has been fulfilled and delivered as per conditions of grant were satisfied.

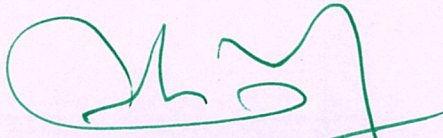

PROJECT INVESTIGATOR

[T. PARVATHI BANU, AP/REE]


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12/05/23
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