

MDP : FEEDER BREAKER 3-POLE, 400AT, 400AF; FEEDER CONDUCTOR 3 - 250.0mm² THW & 30.0mm² THW in 110mmØ PVC

CIRCUIT NUMBER	LOAD DESCRIPTION	VA LOAD	AB	CA	BC	CIRCUIT BREAKER			CONDUCTOR		CONDUIT	
						POLE	AF	AT	SIZE	TYPE	DIAMETER	TYPE
1	Panel Board 1	15,086	19.53	21.96	24.15	3	250	60	3 - 14.0mm ² & 1 - 8.0mm ²	THHN	32mm	PVC PIPE
2	Panel Board 2	14,736	23.68	19.77	20.62	3	250	60	3 - 14.0mm ² & 1 - 8.0mm ²	THHN	32mm	PVC PIPE
3	Panel Board 3 Tissue Culture	27,400	42.39	42.39	34.35	3	250	80	3 - 22.0mm ² & 1 - 8.0mm ²	THHN	40mm	PVC PIPE
4	Panel Board 4 Laboratory 1	27,400	42.39	42.39	34.35	3	250	80	3 - 22.0mm ² & 1 - 8.0mm ²	THHN	40mm	PVC PIPE
5	Panel Board 5 Analytical Laboratory	25,260	35.91	36.96	36.96	3	250	80	3 - 22.0mm ² & 1 - 8.0mm ²	THHN	40mm	PVC PIPE
6	Panel Board 6 ACU	30,237	45.41	42.20	45.48	3	250	125	3 - 38.0mm ² & 1 - 14.0mm ²	THHN	50mm	PVC PIPE
TOTAL		140,120	209.31	205.67	195.91							

SIZING OF CONDUCTOR:

$$I_{TOTAL} = \sqrt{3} (209.31) = 362.54 \text{ AMP}$$

USE: 3 - 250.0mm² THW & 30.0mm² THW in 110mmØ PVC

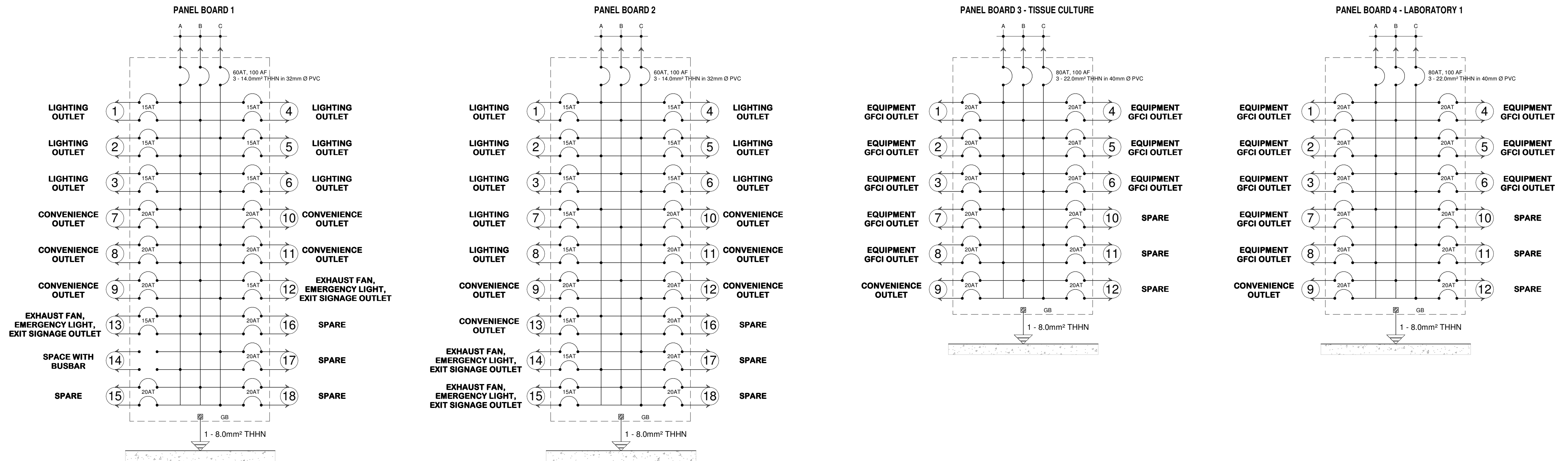
$$P_{TOTAL} = \sqrt{3} \times 230V \times 362.54A = 144,425.67 \text{ VA}$$

$$\text{KVA RATING} = 144,425.67VA / 3 @ 80\% \text{ DEMAND FACTOR} = 38,513.51 \text{ VA}$$

MAIN OVERCURRENT PROTECTION:

USE: 3POLE, 400AT, 400AF CIRCUIT BREAKER, 50KAIC @ 240V

1 SCHEDULE OF LOADS



2 SINGLE LINE DIAGRAM

 <p>PHYSICAL PLANNING AND DEVELOPMENT OFFICE 2/F ADMINISTRATION BLDG. MARIANO MARCOS STATE UNIVERSITY CITY OF BATAK, 2906 ILOCOS NORTE TELEFAX: +63 (77)792-3191</p>	FROM THE OFFICE:	DRAWN BY: BJAYA A. DAYANG DRAFTSMAN I	SIGNED & SEALED BY: _____ PROFESSIONAL ELECTRICAL ENGINEER	PROJECT TITLE: CONSTRUCTION OF RDE BUILDING PHASE III	CONFORME: BJORN S. SANTOS DIRECTOR, RESEARCH	APPROVED BY:	SHEET CONTENTS: SCHEDULE OF LOADS SINGLE LINE DIAGRAM	SHEET NO: E-12 12 14
	PREPARED BY: LEMUEL JOSHUA P. BAGAYAS ENGINEER I	PRC NO.: PTR: PLACE ISSUED: DATE: TIN:	LOCATION: MMSU CRL-CITY OF BATAK, ILOCOS NORTE	RECOMMENDING APPROVAL: ROMEO R. DULDULO DIRECTOR, PPDO	SHIRLEY C. AGRUPIS UNIVERSITY PRESIDENT	<small>Drawings and specifications and other contract documents duly signed, stamped or sealed, as instruments of service, are the intellectual property and documents of the architect, whether the object for which they are made is executed or not. It shall be unlawful for any person to duplicate or to make copies of said documents for use in the repetition of and for other project or building, whether executed party or in whole, without the written consent of architect or author of said document. Art. IV-sec. 33RA9266</small>		