

CAPACITIVE LOAD UNIT

EM-30-07-03 (300VAR)

EDU-LABS



This series of capacitive Loads is designed to be used with all AC/DC Generators, Machines and Three Phase Transformer in a training environment. For this purpose the units are enclosed in metal housings and provided with Educational Terminal Boards with 4 mm safety terminals socket and clear synoptic showing the feasible connections. The units are also provided with a reference manual which illustrates their use and typical experiments.



Single & Three phase Capacitive Load 7 steps variable per phase

- Max Power : 3x100 VAR
- Voltage : 240/415 Volt
- Frequency : 50Hz
- Protection : Fuse

MAIN CHARACTERISTICS

- Can be connected in Series, Parallel, Star and Delta configurations.
- Can be connected to AC Single and 3 Phase sources.
- Controlled by 3 x 3 circuit breaker switches for 7 steps selection.

TEST DATA TABLE

At Voltage 240 Volt / Phase, 300 VARs (Max Power 3 x 100 VARs)

No	Positions			Capacitance, X_C (Ω) S1	Capacitance, X_C (Ω) S2	Capacitance, X_C (Ω) S3	Power Absorbed (VARs)
	SW1	SW2	SW3				
0	OFF	OFF	OFF	-	-	-	-
1	OFF	OFF	ON	3183.1	3182.3	3182.6	18.1
2	OFF	ON	OFF	1591.5	1592	1591.2	36.2
3	OFF	ON	ON	1061	1062	1061.3	54.3
4	ON	OFF	OFF	795.8	794.5	796.8	72.4
5	ON	OFF	ON	636.6	636.1	635.6	90.5
6	ON	ON	OFF	530.5	530.2	531.5	108.6
7	ON	ON	ON	457.7	456.5	458.2	126.7

No	Positions			Current (A) S1	Current (A) S2	Current (A) S3	Power Absorbed (VARs)
	SW1	SW2	SW3				
0	OFF	OFF	OFF	-	-	-	-
1	OFF	OFF	ON	0.08	0.08	0.08	18.1
2	OFF	ON	OFF	0.15	0.15	0.15	36.2
3	OFF	ON	ON	0.23	0.23	0.23	54.3
4	ON	OFF	OFF	0.32	0.31	0.32	72.4
5	ON	OFF	ON	0.40	0.39	0.40	90.5
6	ON	ON	OFF	0.47	0.47	0.47	108.6
7	ON	ON	ON	0.55	0.54	0.55	126.7

EXPERIMENTS COVER

EXPERIMENT 1: BALANCED THREE-PHASE LOADS

Experiment 1.1: Star connection with balance resistive load

Experiment 1.2: Delta connection with balance resistive load

EXPERIMENT 2: UNBALANCED THREE-PHASE LOADS

Experiment 2.1: Star connection with unbalance three-wire resistive load

Experiment 2.2: Star connection with unbalance four-wire resistive load

Experiment 2.3: Delta connection with unbalance resistive load

EXPERIMENT 3: BALANCED THREE-PHASE RL LOADS

Experiment 3.1: Star-Connected with series R-L Load

Experiment 3.2: Delta-Connected with series R-L Load

EXPERIMENT 4: BALANCED THREE-PHASE RC LOADS

Experiment 4.1: Star-Connected with series R-C Load

Experiment 4.2: Delta-Connected with series R-C Load

EXPERIMENT 5: BALANCED THREE-PHASE RLC (SERIES) LOADS

Experiment 5.1: Star-Connected with series R-L-C Load

Experiment 5.2: Delta-Connected with series R-L-C Load

EXPERIMENT 6: BALANCED THREE-PHASE RLC (PARALLEL) LOADS

Experiment 6.1: Star-Connected with parallel R-L-C Load

Experiment 6.2: Delta-Connected with parallel R-L-C Load

Note: Specification May Change Without Prior Notice For Products Continuous Development Process.