



ELECTRICAL POWER SYSTEMS

A29 A26



This laboratory simulates a real life generation, transmission and utilization system based on standard electrical machines, instruments and a simulated transmission line.

The simulator reproduces the conditions of a 30kV, 30Km long overhead line.

The modularity and integration capabilities of this trainer allow maximum flexibility in implementing the desired configuration.

With the proposed mix of products, additional experiments may be designed to reproduce the many different situations that in a power generation, transmission and utilization system may be encountered both in normal and abnormal/failure conditions.

Typical experiences that can be executed are meant to provide a base to be expanded by teachers and students who may wish to design new ones to cover additional training requirements.

Equipment List

LAB N°	Item N°	TITLE	CODE	Tot al Qty	Stud WS 1	Stud WS 2	Stud WS 3	Stud WS 4	Stud WS 5	Stud WS 6	Stud WS 7	Stud WS 8	Teach WS	LAB
4 ELECTRICAL POWER SYSTEM LABORATORY Teacher demonstration system.														
4	1	ELECTRICAL POWER SYSTEM TRAINER (BASIC CONFIGURATION)	A29B											
4	1	1 UNIVERSAL POWER SUPPLY	A0245	1									1	
4	1	2 DC SHUNT EXCITATION MOTOR-GENERATOR	A42445	1									1	
4	1	3 SYNCHRONOUS MACHINE	A42235	1									1	
4	1	4 COUPLING BASE	A48405	1									1	
4	1	5 PARALLELING BOARD	A4810 SYNC1	1									1	
4	1	6 DISTRIBUTION SIMULATOR	A29 IDLE/3	1									1	
4	1	7 RESISTIVE LOAD	A45105	1									1	
4	1	8 CAPACITIVE LOAD	A45205	1									1	
4	1	9 INDUCTIVE LOAD	A45305	1									1	
4	1	10 SQUIRREL CAGE MOTOR	A42205	1									1	
4	1	11 SLIP RING MOTOR	A42225	1									1	
4	1	12 CAPACITOR MOTOR	A42325	1									1	
4	1	13 3 PHASE SWITCH	A4852 A21 M021	1									1	
4	1	14 STAR/DELTA STARTER	A4820 A21 M216	1									1	
4	1	15 DIGITAL ELECTRIC POWER MEASURING MODULE	A4750D	2									2	
4	1	16 ANALOGUE METERS SET	A29AM	1									1	
4	1	17 FRAMEWORK FOR PANELS	B4195	1									1	
4														
4	2	REACTIVE POWER CONTROL	A268											
4	2	1 REACTIVE POWER CONTROLLER	A2680	1									1	
4	2	2 CAPACITOR BANK	A2685	1									1	
4														
4	3	DIGITAL RELAYS	A266											
4	3	1 UNDER-OVER CURRENT RELAY (DIGITAL)	A2661	1									1	
4	3	2 UNDER-OVER VOLTAGE RELAY (DIGITAL)	A2662	1									1	
4	3	3 EARTH FAULT RELAY (DIGITAL)	A2663	1									1	
4	3	4 CABLES SET	A4890	1									1	
4														
4														
4	4	ELECTRICAL POWER SYSTEM TRAINER (UPGRADE)	A29U											
4	4	1 PRODUCTION SIMULATOR	A29 CE-PE	1									1	
4	4	2 TRANSMISSION SIMULATOR	A29 SLE/2	1									1	
4	4	3 UNIVERSAL POWER SUPPLY	A0245	1									1	
4	4	4 DC COMPOUND EXCITATION MOTOR-GENERATOR	A42405	1									1	
4	4	5 SYNCHRONOUS MACHINE	A42235	1									1	
4	4	6 COUPLING BASE	A48405	1									1	
4	4	7 PHASE SEQUENCE INDICATOR	A12 SFT 3546	1									1	
4	4	8 SINGLE TAPPING KEY	A12 ST/1B	1									1	
4	4	9 REVERSING SWITCH	A12 CI/2B	1									1	
4	4	10 SINGLE PHASE TRANSFORMER	A41105	1									1	
4	4	11 THREE PHASE TRANSFORMER	A41155	1									1	
4	4	12 THREE PHASE VARIABLE AUTOTRANSFORMER	A41215	1									1	
4	4	13 CABLES SUPPORT	A4890 CS	1									1	
4	4	14 DIGITAL ELECTRIC POWER MEASURING MODULE	A4750D	2									2	
4	4	15 DC MOTOR CONTROL WITH THYRISTORS	B3607 C3607	1									1	
4	4	16 DC MOTOR CONTROL TRAINER (PWM)	B3610G	1									1	
4	4	17 CABLES SET	A4890	1									1	
4														
4	5	PROGRAMMABLE RELAYS	A267											
4	5	1 OVER CURRENT RELAY (PROGRAMMABLE)	A2671	1									1	
4	5	2 UNDER-OVER VOLTAGE & FREQUENCY RELAY (PROGRAMMABLE)	A2672	1									1	
4	5	3 DIRECTIONAL OVER CURRENT & EARTH FAULT RELAY (PROGRAMMABLE)	A2673	1									1	
4	5	4 3PH TRANSFORMER DIFFERENTIAL PROTECTION RELAY	A2674	1									1	
4	5	5 CABLES SET	A4890	1									1	
4	5	6 FRAMEWORK FOR PANELS	B4195	1									1	
1														
FURNITURE														
1	1	1 WORK TABLE	F1110A	1									1	
1	1	2 MOBILE LOWER CABINET	F11 4146	1									1	
1	1	3 STUDENT STOOL	F11 1718	3									3	
1	1	4 TEACHER'S DESK	F11 2126	1									1	
1	1	5 TEACHER'S CHAIR	F11 5000	1									1	
1	1	6 CABINET FOR TOOLS & INSTRUMENTS	F11 3310	4									4	
1	1	7 TROLLEY	F1151 R1	4									4	
1														
GENERAL USE MEASURING INSTRUMENTS, POWER SUPPLIES & ACCESSORIES														
1	2	1 ANALOGUE MULTIMETER	AM 7080	4									4	
1	2	2 DIGITAL MULTIMETER	DM Y68	4									4	
1	2	3 ANALOGUE ELECTRICAL METERS SET	A11 AM	1									1	

Other products available for individual needs: please ask for complete price list.