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LAB-ACO Thyristor Regulated High Power DC Source

Description

The LAB-ACO range is a rugged thyristor regulated DC Source for high power applications. Output currents up to 50kA at powers of up to 1MW are possible. The standard range covers the most common output requirements. Different voltage and current ranges are available on request if one of the standard units is not ideal. The LAB-ACO has front panel control and display with 0-100% adjustment of both voltage and current limit. If remote control is required then analogue interfaces and computer interfaces such as RS232, RS485, CAN, USB and IEEE 488.2 are available for control and measurement. A Remote Control Unit can also be provided with up to 20 meters of cable. Extra filtering can be specified to reduce the standard ripple of 5% down to 1%. The LAB-ACO is an air cooled design ensuring that troublesome water cooling systems need not be installed. The unit benefits from a comprehensive range of safety and protection features including super fast fuses, over current limit, over voltage limit, over power limit and thermal protection.



- Constant voltage & current mode
- Analogue, RS232 & IEEE488.2
- Voltages up to 500VDC
- True thyristor regulated
- Currents up to 50,000A

Technical Data

Input Voltage.....	3 x 400VAC
Isolation (input to output).....	3000VAC
Safety.....	EN60950
Emission.....	EN61000-6-4
Immunity.....	EN61000-6-2
Response Time.....	typically 100ms
Ripple.....	<5% (1% option)
Stability.....	<1%
Display.....	3.5 digits for V & I
Protection.....	OC/OT/OP
Analogue Interface.....	0 - 5V (10V option /AI-10)
Isolated Analogue Interface.....	0 - 5V (10V option /ATI-10)
Interface RS232.....	option /LTRS232
Interface IEE488.2.....	option /LT
Operating Temperature.....	-10 °C to +40 °C
Operating Humidity.....	0 - 90% (non condensing)



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Selection Table

Part Number	Power (kW)	Voltage (V _{OUT})	Current (I _{OUT})	Part Number	Power (kW)	Voltage (V _{OUT})	Current (I _{OUT})
LAB-ACO 10-1000	10	0 - 10	0 - 1000	LAB-ACO 10-20000	200	0 - 10	0 - 20000
LAB-ACO 50-200	10	0 - 50	0 - 200	LAB-ACO 50-4000	200	0 - 50	0 - 4000
LAB-ACO 80-125	10	0 - 80	0 - 125	LAB-ACO 80-2500	200	0 - 80	0 - 2500
LAB-ACO 125-80	10	0 - 125	0 - 80	LAB-ACO 125-1600	200	0 - 125	0 - 1600
LAB-ACO 250-40	10	0 - 250	0 - 40	LAB-ACO 250-800	200	0 - 250	0 - 800
LAB-ACO 400-25	10	0 - 400	0 - 25	LAB-ACO 400-500	200	0 - 400	0 - 500
LAB-ACO 500-20	10	0 - 500	0 - 20	LAB-ACO 500-400	200	0 - 500	0 - 400
LAB-ACO 10-2500	25	0 - 10	0 - 2500	LAB-ACO 10-30000	300	0 - 10	0 - 30000
LAB-ACO 50-500	25	0 - 50	0 - 500	LAB-ACO 50-6000	300	0 - 50	0 - 6000
LAB-ACO 80-312	25	0 - 80	0 - 312	LAB-ACO 80-3750	300	0 - 80	0 - 3750
LAB-ACO 125-200	25	0 - 125	0 - 200	LAB-ACO 125-2400	300	0 - 125	0 - 2400
LAB-ACO 250-100	25	0 - 250	0 - 100	LAB-ACO 250-1200	300	0 - 250	0 - 1200
LAB-ACO 400-62	25	0 - 400	0 - 62	LAB-ACO 400-750	300	0 - 400	0 - 750
LAB-ACO 500-50	25	0 - 500	0 - 50	LAB-ACO 500-600	300	0 - 500	0 - 600
LAB-ACO 10-5000	50	0 - 10	0 - 5000	LAB-ACO 10-40000	400	0 - 10	0 - 40000
LAB-ACO 50-500	50	0 - 50	0 - 1000	LAB-ACO 50-8000	400	0 - 50	0 - 8000
LAB-ACO 80-625	50	0 - 80	0 - 625	LAB-ACO 80-5000	400	0 - 80	0 - 5000
LAB-ACO 125-400	50	0 - 125	0 - 400	LAB-ACO 125-3200	400	0 - 125	0 - 3200
LAB-ACO 250-200	50	0 - 250	0 - 200	LAB-ACO 250-1600	400	0 - 250	0 - 1600
LAB-ACO 400-125	50	0 - 400	0 - 125	LAB-ACO 400-1000	400	0 - 400	0 - 1000
LAB-ACO 500-100	50	0 - 500	0 - 100	LAB-ACO 500-800	400	0 - 500	0 - 800
LAB-ACO 10-7500	75	0 - 10	0 - 7500	LAB-ACO 10-50000	500	0 - 10	0 - 50000
LAB-ACO 50-1500	75	0 - 50	0 - 1500	LAB-ACO 50-10000	500	0 - 50	0 - 10000
LAB-ACO 80-938	75	0 - 80	0 - 938	LAB-ACO 80-6250	500	0 - 80	0 - 6250
LAB-ACO 125-600	75	0 - 125	0 - 600	LAB-ACO 125-4000	500	0 - 125	0 - 4000
LAB-ACO 250-300	75	0 - 250	0 - 300	LAB-ACO 250-2000	500	0 - 250	0 - 2000
LAB-ACO 400-188	75	0 - 400	0 - 188	LAB-ACO 400-1250	500	0 - 400	0 - 1250
LAB-ACO 500-150	75	0 - 500	0 - 150	LAB-ACO 500-1000	500	0 - 500	0 - 1000
LAB-ACO 10-10000	100	0 - 10	0 - 10000	LAB-ACO 15-50000	750	0 - 15	0 - 50000
LAB-ACO 50-2000	100	0 - 50	0 - 2000	LAB-ACO 50-15000	750	0 - 50	0 - 15000
LAB-ACO 80-1250	100	0 - 80	0 - 1250	LAB-ACO 80-9375	750	0 - 80	0 - 9375
LAB-ACO 125-800	100	0 - 125	0 - 800	LAB-ACO 125-6000	750	0 - 125	0 - 6000
LAB-ACO 250-400	100	0 - 250	0 - 400	LAB-ACO 250-3000	750	0 - 250	0 - 3000
LAB-ACO 400-250	100	0 - 400	0 - 250	LAB-ACO 400-1875	750	0 - 400	0 - 1875
LAB-ACO 500-200	100	0 - 500	0 - 200	LAB-ACO 500-1500	750	0 - 500	0 - 1500
LAB-ACO 10-15000	150	0 - 10	0 - 15000	LAB-ACO 20-50000	1000	0 - 20	0 - 50000
LAB-ACO 50-3000	150	0 - 50	0 - 3000	LAB-ACO 60-16666	1000	0 - 60	0 - 16666
LAB-ACO 80-1875	150	0 - 80	0 - 1875	LAB-ACO 80-1250	1000	0 - 80	0 - 1250
LAB-ACO 125-1200	150	0 - 125	0 - 1200	LAB-ACO 125-8000	1000	0 - 125	0 - 8000
LAB-ACO 250-600	150	0 - 250	0 - 600	LAB-ACO 250-4000	1000	0 - 250	0 - 4000
LAB-ACO 400-375	150	0 - 400	0 - 375	LAB-ACO 400-2500	1000	0 - 400	0 - 2500
LAB-ACO 500-300	150	0 - 500	0 - 300	LAB-ACO 500-2000	1000	0 - 500	0 - 2000

Different output ranges and application/user specific options are possible. Please contact ET to discuss your requirements.

Options Table

Code	Description
/ATE.....	No front panel control or display. Analogue Interface provided as standard
/AI-5.....	0-5V Analogue Interface for all control and measurement functions
/AI-10.....	0-10V Analogue Interface for all control and measurement functions
/ATI-5.....	Isolated 0-5V Analogue Interface for all control and measurement functions
/ATI-10.....	Isolated 0-10V Analogue Interface for all control and measurement functions
/LT.....	IEEE 488.2 Interface with listener and talker functions
/LTRS232.....	RS232 Interface with listener and talker functions
/LTRS485.....	RS485 Interface with listener and talker functions
/LT+LTRS232.....	IEEE 488.2 and RS232 Interfaces with listener and talker functionality
/LT+LTRS485.....	IEEE 488.2 and RS485 Interfaces with listener and talker functionality
/CAN.....	CAN Interface with listener and talker functions
/USB.....	USB Interface with listener and talker functions
/ETH.....	Ethernet interface with listener and talker functions over a LAN
/LR.....	Ripple improved to 1% of full scale value
/RCU.....	Remote control unit with 20 metre cable
/4-20.....	4 - 20mA isolated interface for control and monitoring