

LAB-IGBT

HIGH POWER DC SOURCE CABINETS



POSITIVE PROBLEM SOLVING **+ =**

The LAB-IGBT is a robust range of switch mode power sources based on IGBT technology. Front panel control and display is provided as standard.

These units are ideal for medium to high power applications where full adjustability of voltage and current limit is required. For remote control your chosen unit can be built with either standard or isolated analogue interfaces. A wide range of computer interfaces are also optionally available. On request additional filtering can be built into the unit to significantly reduce the output ripple to <1%.

- + Constant Voltage & Current Operation**
- + Series & Parallel Operation**
- + Currents to Over 8,000A**
- + Voltages up to 400Vdc**
- + Optional Interfaces**
- + Low Ripple Option**



FURTHER DETAILS

Forced air cooling is standard although convection cooling and liquid cooling can be specified. Series and parallel operation is possible ensuring your organisation's investment is safeguarded should your power requirements change. A host of safety features are provided including V, I & W limits along with overtemperature and fast acting fuses.

The LAB-IGBT is ideal for applications that require bulk DC power such as electrolysis, water treatment and electroplating. If a unit from the standard range is not ideal then please let us know your requirement. Almost any output of up to 400Vdc, 8,000A is possible with this platform. Higher nominals to powers above 240kW are available on request, contact ETPS today with your requirement.

SELECTION TABLE

Part Number	Max. Power	Voltage Range	Current Range	Part Number	Max. Power	Voltage Range	Current Range
LAB-IGBT 8-5000	40kW	0 - 8V	0 - 5000A	LAB-IGBT 15-8000	120kW	0 - 15V	0 - 8000A
LAB-IGBT 30-1333	40kW	0 - 30V	0 - 1333A	LAB-IGBT 30-4000	120kW	0 - 30V	0 - 4000A
LAB-IGBT 60-666	40kW	0 - 60V	0 - 666A	LAB-IGBT 60-2000	120kW	0 - 60V	0 - 2000A
LAB-IGBT 80-500	40kW	0 - 80V	0 - 500A	LAB-IGBT 80-1500	120kW	0 - 80V	0 - 1500A
LAB-IGBT 125-320	40kW	0 - 125V	0 - 320A	LAB-IGBT 125-960	120kW	0 - 125V	0 - 960A
LAB-IGBT 200-200	40kW	0 - 200V	0 - 200A	LAB-IGBT 200-600	120kW	0 - 200V	0 - 600A
LAB-IGBT 300-133	40kW	0 - 300V	0 - 133A	LAB-IGBT 300-400	120kW	0 - 300V	0 - 400A
LAB-IGBT 400-100	40kW	0 - 400V	0 - 100A	LAB-IGBT 400-300	120kW	0 - 400V	0 - 300A
LAB-IGBT 10-6000	60kW	0 - 10V	0 - 6000A	LAB-IGBT 20-8000	160kW	0 - 20V	0 - 8000A
LAB-IGBT 30-2000	60kW	0 - 30V	0 - 2000A	LAB-IGBT 30-5333	160kW	0 - 30V	0 - 5333A
LAB-IGBT 60-1000	60kW	0 - 60V	0 - 1000A	LAB-IGBT 60-2666	160kW	0 - 60V	0 - 2666A
LAB-IGBT 80-750	60kW	0 - 80V	0 - 750A	LAB-IGBT 80-2000	160kW	0 - 80V	0 - 2000A
LAB-IGBT 125-480	60kW	0 - 125V	0 - 480A	LAB-IGBT 125-1280	160kW	0 - 125V	0 - 1280A
LAB-IGBT 200-300	60kW	0 - 200V	0 - 300A	LAB-IGBT 200-800	160kW	0 - 200V	0 - 800A
LAB-IGBT 300-200	60kW	0 - 300V	0 - 200A	LAB-IGBT 300-533	160kW	0 - 300V	0 - 533A
LAB-IGBT 400-150	60kW	0 - 400V	0 - 150A	LAB-IGBT 400-400	160kW	0 - 400V	0 - 400A
LAB-IGBT 10-8000	80kW	0 - 10V	0 - 8000A	LAB-IGBT 25-8000	200kW	0 - 25V	0 - 8000A
LAB-IGBT 30-2666	80kW	0 - 30V	0 - 2666A	LAB-IGBT 40-5000	200kW	0 - 40V	0 - 5000A
LAB-IGBT 60-1333	80kW	0 - 60V	0 - 1333A	LAB-IGBT 60-3333	200kW	0 - 60V	0 - 3333A
LAB-IGBT 80-1000	80kW	0 - 80V	0 - 1000A	LAB-IGBT 80-2500	200kW	0 - 80V	0 - 2500A
LAB-IGBT 125-640	80kW	0 - 125V	0 - 640A	LAB-IGBT 125-1600	200kW	0 - 125V	0 - 1600A
LAB-IGBT 200-400	80kW	0 - 200V	0 - 400A	LAB-IGBT 200-1000	200kW	0 - 200V	0 - 1000A
LAB-IGBT 300-266	80kW	0 - 300V	0 - 266A	LAB-IGBT 300-666	200kW	0 - 300V	0 - 666A
LAB-IGBT 400-200	80kW	0 - 400V	0 - 200A	LAB-IGBT 400-500	200kW	0 - 400V	0 - 500A
LAB-IGBT 12-8000	100kW	0 - 12.5V	0 - 8000A	LAB-IGBT 30-8000	240kW	0 - 30V	0 - 8000A
LAB-IGBT 30-3333	100kW	0 - 30V	0 - 3333A	LAB-IGBT 40-6000	240kW	0 - 40V	0 - 6000A
LAB-IGBT 60-1666	100kW	0 - 60V	0 - 1666A	LAB-IGBT 60-4000	240kW	0 - 60V	0 - 4000A
LAB-IGBT 80-1250	100kW	0 - 80V	0 - 1250A	LAB-IGBT 80-3000	240kW	0 - 80V	0 - 3000A
LAB-IGBT 125-800	100kW	0 - 125V	0 - 800A	LAB-IGBT 125-1920	240kW	0 - 125V	0 - 1920A
LAB-IGBT 200-500	100kW	0 - 200V	0 - 500A	LAB-IGBT 200-1200	240kW	0 - 200V	0 - 1200A
LAB-IGBT 300-333	100kW	0 - 300V	0 - 333A	LAB-IGBT 300-800	240kW	0 - 300V	0 - 800A
LAB-IGBT 400-250	100kW	0 - 400V	0 - 250A	LAB-IGBT 400-600	240kW	0 - 400V	0 - 600A



TECHNICAL DATA

GENERAL	
Input Voltage	3 × 400Vac [50/60Hz]
Isolation [Input to Output]	2000Vdc
Isolation [Output to PE]	2000Vdc
Switching Frequency	10 to 15kHz
Relevant Standards	EN 55011 EN 61000-4-2 EN 61000-4-4 EN 50178
Response Time	<20ms [for a load step between 10-90% of V_{NOM}]
Ripple	<5% [1% option]
Stability	<1%
Display	HMI with voltage and current setting
Protection	OC / OT / OP
Optional Interfaces	0 - 5V or 0-10V analogue, 0 - 5V or 0-10V isolated analogue, USB, Ethernet, RS-232, RS-485, Modbus, PROFINET, IEEE 488.2
Operating Temperature	-10°C to +40°C
Storage Temperature	-40°C to +60°C
Operating Humidity	<80% [non condensing]
Efficiency	86% to 98% [depending on model and V/I operating point]
Cooling	Forced air [convection cooling or liquid cooling optionally available]
Ingress Protection	Air inlet: IP 34, air outlet: IP 21

OPTIONS

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
/LTRS232	RS-232 interface
/LTRS485	RS-485 interface
/LT+LTRS232	IEEE 488.2 and RS-232
/LT+LTRS485	IEEE 488.2 and RS-485
/MODBUS	Modbus interface
/PROFINET	PROFINET interface
/USB	USB Interface
/ETH	Ethernet interface over a LAN
/LR	Ripple improved to 1% of full scale value
/CK	Convection cooling
/LC	Liquid cooling

Every effort is made to ensure that the information provided within this technical summary is accurate. However, ETPS Ltd must reserve the right to make changes to the published specifications without prior notice. Where certain operating parameters are critical for your application we advise that they be confirmed at the time of order. ETPS Ltd specialises in modifying its proven platforms to suit your needs. Please contact our office if your requirement is non-standard. Please note that your actual unit may differ from those shown.



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