

RESISTIVE TEST LOAD BANKS



LBO 1000



TLB 500 V

GENERAL DESCRIPTION

Thomson Technology **resistive test load banks** utilize coiled chromium alloy load elements supported with cool cast ceramic insulators. 4.5" maximum continuous spacing is provided between each support point. All load resistor ends are fitted with silver soldered stainless steel connection studs. T.T.I.'s "**cool load™**" resistor design guarantees lower operating temperatures and extended life in the most adverse environments.

Each "**cool load™**" resistor is mounted in removable load resistor frames. Load resistor frames are designed for dual pass "**cool load™**" resistors. Removable racks and dual pass "**cool load™**" resistors provide superior serviceability and reliability.

Five standard load resistor frames are used in a single or stacked configuration for load banks from 20kW to 1000kW.

Integral, direct or belt drive, single or three phase cooling fans provide up to 25,000 CFM per load bank. Adjustable temperature and air flow sensors are provided to guarantee safety shutdown in case of airflow failure. Auto load drop on remote signal.

Load bank control compartments are located in a heat resistant compartment. Control components include load stepping contactors, load step selector switches, fault indicators, and remote control panel (LBO only). Optional features include AC metering, integral overcurrent protection, automatic load step control, built-in breaker, discharge louvres and load bank stand.

Models available include:

- **TLB 150H - TLB 600H** Horizontal air discharge, selectable voltage, integral control and fan power.
- **TLB 400V - TLB 550V** Vertical air discharge, selectable voltage, integral control and fan power.
32" (813mm) width, ultra light weight.
- **LBO 20 - LBO 1000** Horizontal air discharge, outdoor fixed mount, internal or external control and fan power, remote load step control panel.

THOMSON TECHNOLOGY INC. resistive test **load banks** are utilized in testing the following power sources:

- Engine Generators
- Turbine Generators
- Battery Systems
- Wind Generators
- UPS Systems

QUALITY ASSURANCE

- ISO 9001
- CSA Z299.3 (optional)
- DND AQAP-4 (optional)
- Certified to CSA & UL standards



LOAD BANK SELECTION TABLE

		TLB 50H	TLB 150H	TLB 250-300H	TLB 500H	TLB 650H	TLB 500V
CAPACITY (@SPECIFIED VOLTAGE)							
CANADIAN	208/240V	50kW @ 3 Ø 50kW @ 1 Ø	75kW @ 3 Ø 26kW @ 1 Ø	125kW @ 3 Ø 44kW @ 1 Ø	240kW @ 3 Ø 84kW @ 1 Ø	320kW @ 3 Ø	240kW @ 3 Ø 84kW @ 1 Ø
	480V		100kW @ 3 Ø	170kW-200kW @ 3 Ø	330kW @ 3 Ø	430kW @ 3 Ø	330kW @ 3 Ø
	600V		150kW @ 3 Ø	250kW-300kW @ 3 Ø	500kW @ 3 Ø	650kW @ 3 Ø	500kW @ 3 Ø
U.S.	208V	50kW @ 3 Ø 50kW @ 1 Ø		65kW-200kW @ 3 Ø 45kW-130kW @ 1 Ø	100kW-400kW @ 3 Ø 65kW-260kW @ 1Ø	480kW @ 3 Ø	100kW-400kW @ 3 Ø 66kW-264kW @ 1 Ø
	480V			250kW @ 3 Ø	500kW @ 3 Ø	670kW @ 3 Ø	500kW @ 3 Ø
INT'L	380V			85kW @ 1 Ø 250kW @ 3 Ø	170kW @ 1 Ø 500kW @ 3 Ø		
FREQUENCY		50Hz/60Hz	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz
TYPICAL LOAD STEP RESOLUTION		1kW @ 1 Ø 3kW @ 3 Ø	2kW @ 208V 7kW @ 480V 11kW @ 600V	2kW @ 208V 7kW @ 480V 11kW @ 600V 13kW @ 380V 50Hz	2kW @ 208V 7kW @ 480V 11kW @ 600V 13kW @ 380V 50Hz	2kW @ 208V 7kW @ 480V 10kW @ 600V	2kW @ 208V 7kW @ 480V 11kW @ 600V
AIR FLOW		3,300 CFM	6,000 CFM	8,000 CFM	9,500 CFM	15,000 CFM	9,500 CFM
TEMPERATURE							
MAX AMBIENT		120°F/50°C	120°F/50°C	120°F/50°C	120°F/50°C	120°F/50°C	120°F/50°C
MAX RISE		100°F/40°C	158°F/70°C	195°F/90°C	250°F/120°C	250°F/120°C	250°F/120°C
OPERATION MODE		MANUAL					
NOM. DIMENSIONS W x H x D		21" x 32" x 42"	33.5" x 40" x 52"	35" x 36" x 56.5"	35" x 38" x 68.75"	43" x 40.5" x 76.25"	31" x 72" x 45"
WEIGHT (POUNDS)		160	440	490	700	950	560-590
CONTROL		LOCAL				LOCAL (REMOTE OPTIONAL)	
ENCLOSURE							
TYPE		PORTABLE					PORTABLE
ENCLOSURE CLASS		NEMA 1 INDOOR					NEMA 1 INDOOR
AIR FLOW DISCHARGE		HORIZONTAL					VERTICAL
HANDLING		PHENOLIC CASTERS					PHENOLIC CASTERS
STANDARD FEATURES							
LOAD BANK PROTECTION		OVERTEMP & AIR FAIL					

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LBO 80 20 - 80kW	LBO 150 80 - 200kW	LBO 300 150 - 400kW	LBO 500 300 - 600kW	LBO 700 500 - 800kW	LBO 1000 700 - 1000kW
80kW	150kW	280kW	(Consult factory)	(Consult factory)	(Consult factory)
80kW	150kW	280kW	500kW	700kW	1000kW
80kW	150kW	350kW	500kW	700kW	1000kW
80kW	150kW	280kW	500kW	700kW	1000kW
50Hz/60Hz	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz

APPROXIMATELY 10% OF LOADBANK RATING

3,300 CFM	4,500 CFM	8,000 CFM	9,000 - 13,000 CFM	15,000 CFM	25,000 CFM
120°F/50°C	120°F/50°C	120°F/50°C	120°F/50°C	120°F/50°C	120°F/50°C
158°F/70°C	195°F/90°C	212°F/100°C	250°F/120°C	250°F/120°C	212°F/100°C

MANUAL OR AUTOMATIC

27" x 28" x 68.5"	32" x 33" X 72"	36" x 39" x 76"	36" x 39" x 86.5"	42" x 40" x 102"	36" x 63" x 86"
240	290	550	900	1200	1700

LOCAL OR REMOTE

STATIONARY	STATIONARY	STATIONARY
NEMA 3 OUTDOOR	NEMA 3 OUTDOOR	NEMA 3 OUTDOOR
HORIZONTAL	HORIZONTAL	HORIZONTAL
LIFTING EYES	LIFTING EYES	LIFTING EYES

OVERTEMP & AIR FAIL

* Dimensions are reference only. Consult factory.

MODEL DESCRIPTION

Thomson Technology Inc. offers two models of portable, multi-voltage resistive test load banks: **TLB-H and TLB-V**.

TLB-H models from 50 kW to 650 kW. The cooling air moves horizontally across the “cool load™” elements. The enclosure is constructed of 16 gauge galvanized steel, rests on four 6" phenolic castors and is complete with a steel push handle. Local control and instrumentation is conveniently positioned at the top right side of the load bank. A weather sealed lockable cover protects all instrumentation and control.

TLB-V models from 450kW to 550kW. The cooling air moves vertically across the “cool load™” elements. The enclosure is constructed of 10 gauge aluminum, rests on four 6" neoprene castors and is complete with a steel push handle. The load bank width of 32" permits passage through typical access doors and elevators.

Both the **TLB-H & TLB-V** models utilize test power for fan motor and control. Provisions for connections to an external source are provided. When testing is confined to an area with restricted air discharge or ceiling equipped with heat sensors, the TLB-V load bank is designed to operate on its side with horizontal air discharge.

Thomson Technology Inc. offers two models of fixed mounted resistive test load banks: **LBI and LBO**.

The **LBI and LBO series** load banks are fixed mount indoor or outdoor single voltage units and the cooling air moves horizontally. A remote load step control panel is provided as standard equipment for the LBI and LBO models. Auto load step control is optional.

OPTIONS

- Automatic load control automatic load sensing controller maintains a constant load on the power source. There are up to 12 adjustable setpoints and a kW load transducer. When the load decreases below preset limits the load bank automatically adds load steps to the source. When the load increases above the preset limits, the load steps will automatically drop off. To satisfy typical generator loading requirements, the load bank is normally sized between 75% and 100% of maximum generator capacity. The automatic load control incorporates a Man-Off-Auto mode selector. When the manual position is selected all load steps can be switched on and off (LBI and LBO only).
- 3 1/2", 2% accuracy analog voltmeter, ammeter and frequency meter
- Digital metering system
- Analog kilowatt meter
- Elevated mounting stand (maximum of 36" high) (LBO series only)
- Load circuit breaker with enclosure for remote installation at the generator
- Integrally mounted molded case circuit breaker or molded case switch (LBO & LBI series only)
- Special paint
- Overvoltage protection
- Snow guards
- Intake air filters
- Single phase control (up to 300kW maximum)
- Custom load steps
- Exhaust louvres (replaces standard hoods)
- Fused steps

For optional features not listed, contact TTI.

ORDERING INFORMATION

EXAMPLE 1: **TLB—500—V**
MODEL TYPE _____
MAXIMUM KW RATING AT FULL LOAD _____
AIRFLOW DIRECTION (V=VERTICAL, H=HORIZONTAL) _____

EXAMPLE 2: **LBO—500—600—3**
MODEL TYPE _____
MAXIMUM KW RATING AT FULL LOAD _____
VOLTS _____
PHASE _____

Note: Specifications subject to change without notice.
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