General Electric 531X307LTBAKG1

Technical Reference | exact-model engineering dossier

GE 531X307LTBAKG1 is a LAN I/O terminal board for the DC2000 drive control family, providing labeled field-input and output terminations through the 531X307LTB board design.

Exact offered identity	531X307LTBAKG1
Engineering role	LAN I/O Terminal Board
Installed-system reference	GE DC2000 drive LAN I/O

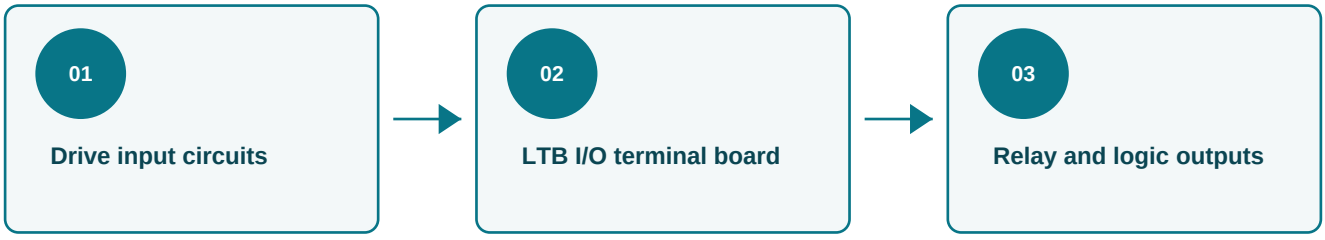
Functional identity

GEH-6005 describes the 531X307LTB G1 board family, including eight inputs and seven relay outputs. The supplied KG1 revision is identified by its complete board marking; verify its installed wiring and revision before applying family-level ratings.

Engineering decision points

Match the complete marking	Include 531X307LTBAKG1 and every visible revision or serial identity in your enquiry. Keep the same complete reference on the quotation.
Check the offered item before ordering	Request available label and connector photos. Have your maintenance team compare the offered 531X307LTBAKG1 with the installed equipment and applicable GE documentation.

Engineering path



Source basis

GE DC2000 Digital Adjustable Speed Drive Instruction Manual, GEH-6005; original GE text copy

02 System position and boundaries

Operator and interlock inputs

Land documented pushbutton, limit and permissive contacts on the assigned IN points, preserving the drive's input logic and voltage scheme.

Contactor and alarm outputs

Use the seven relay-output positions for specified drive commands or indications within the connected load and external protection limits.

Pilot-relay interface

Connect the LTB pilot circuits to the intended higher-current relay board only when the cabinet design includes that arrangement.

Drive-service replacement

Exchange the board against the complete KG1 marking and as-built terminal map, then prove each used input and output from field device to controller.

Installed system

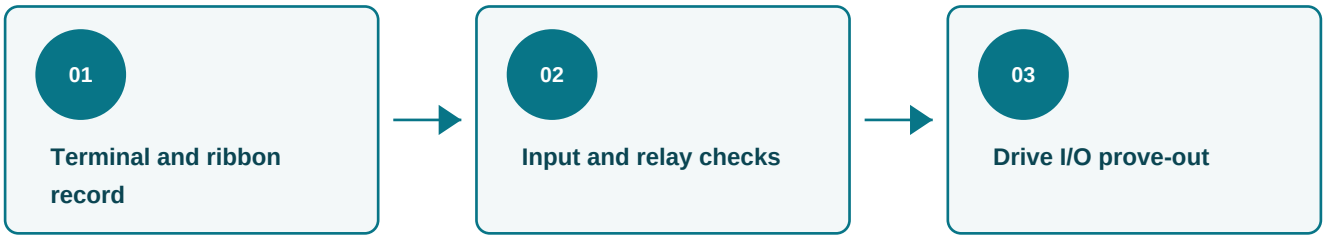
Confirm the terminal board and any mating ribbon connectors in the quotation; field cables, external relays and the drive controller are separate unless listed.

The 531X307LTB G1 design interfaces DC2000 control electronics with field switches, pilot devices and relay circuits. Match the observed IN1-IN8 and OT1-OT7 terminals to the original wiring drawing.

03 Verified technical data

Board design	531X307LTB LAN I/O terminal board
Board group	G1 family; complete KG1 revision marking
Control inputs	Eight labeled IN1-IN8 on the observed board
Relay outputs	Seven labeled OT1-OT7 on the observed board
Output contacts	Form C, non-fused, in the G1 family manual
Output rating, family	0.6 A at 125 V AC / 110 V DC; 2 A at 30 V DC
Input AC range, family	24-230 V AC, 60 Hz; 115-230 V AC, 50 Hz
Input DC range, family	24-250 V DC
Terminal wire, family	28-14 AWG
Interconnection, family	26-conductor ribbon, 20 ft maximum
Drive interface	External contactors, indicators, pushbuttons and interlocks

Review sequence



04 Integration and diagnostic review

I/O relationship

The 531X307LTB G1 design interfaces DC2000 control electronics with field switches, pilot devices and relay circuits. Match the observed IN1-IN8 and OT1-OT7 terminals to the original wiring drawing.

Circuit limits

The family manual specifies non-fused Form C outputs and input/terminal limits. Confirm the exact KG1 board revision and connected load before applying the family ratings; protect external circuits separately.

Isolate every field source

De-energize drive and separately supplied field circuits. Confirm safe voltage at input and output terminal rows before handling the board.

Preserve terminal identity

Label conductors at IN1-IN8 and OT1-OT7; record polarity, commons and external protection before disconnecting any wire.

Acceptance sequence

STEP	ACTION	ACCEPTANCE
01	Match the KG1 board	Compare full board marking, connector orientation and revision with the installed hardware. Do not assume another LTB suffix is drop-in compatible.
02	Prove inputs and outputs	After reconnection, stimulate each used field input and command each assigned output in a safe test state, recording controller indication and actuator response.
03	Record the functional result	Verify ribbon connections and every used IN/OT terminal. Under a safe drive state, prove the external device, terminal point, controller indication and commanded output path one by one.

05 Engineering questions and source record

How should a field signal be traced through 531X307LTBAKG1 during fault isolation?	Trace the external contact or device to its terminal, then through the board's ribbon interconnect to the DC2000 controller indication or output command. Use the cabinet drawing for the actual assignment; the board is the field-wiring boundary rather than the source of drive logic.

How should unused and used field points on 531X307LTBAKG1 be documented?	Record the observed IN1-IN8 and OT1-OT7 terminal labels against the cabinet wire schedule and identify which points are actually populated. Do not infer a live signal from the physical point count; prove each used path under a safe drive state.
What protection is required around the relay outputs of 531X307LTBAKG1?	The G1 family manual describes non-fused Form C relay contacts. Review the external circuit protection, load category and connected device current before energizing the KG1 installation; the board does not supply a fuse for each output.
How should a proposed load be checked against the outputs of 531X307LTBAKG1?	Compare the actual device load and switching duty with the family limits of 0.6 A at 125 V AC or 110 V DC and 2 A at 30 V DC. Confirm the fitted KG1 board and cabinet protection before applying these family values to a specific circuit.
How should input voltage be checked for 531X307LTBAKG1?	The LTB family manual provides AC and DC input ranges, but the actual field voltage must be taken from the cabinet schematic. Verify every input source and common before reconnecting the KG1 terminals.
Why should ribbon wiring for 531X307LTBAKG1 be separated from power cables?	The GE manual warns that capacitive coupling and leakage can make an I/O input remain ON. Preserve the 26-conductor interconnect route, keep it away from power wiring and investigate any input that does not drop out.

Document identity

Apter Power technical reference based on GE DC2000 Digital Adjustable Speed Drive Instruction Manual, GEH-6005; original GE text copy. The exact offered code and installed revision govern applicability.

Discuss the complete model and fitted revision with Apter Power.
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Other General Electric references

Catalog navigation only; confirm each complete model for its own installation.

General Electric DS200FSAAG1A	View product reference
General Electric DS200FSAAG1ABA	View product reference
General Electric DS200FSAAG2ABA	View product reference