GE IC697MDL750

01 Assess DC load demand before wiring

1 Build a group current schedule

List each connected load and its steady-state current under the actual DC supply. Add simultaneous currents within each group of eight outputs. The 0.5 A point rating and 2 A group rating apply together; a valid individual load does not make an overloaded group acceptable.

2 Evaluate turn-on demand and duty

Check the load inrush magnitude, duration and repetition. The module permits a maximum 10 A transient for 20 ms, not continuous operation at that current. Compare repetitive operation with the manufacturer load/duty guidance and retain the worst-case simultaneous load condition in the design record.

3 Decide the required fallback state

Record whether the configured operating or fault conditions must hold outputs in their last state or turn them off. Consider the connected equipment and process before choosing the response. Agree a controlled test that demonstrates the result without causing an unintended actuator movement.

Steady-state assessment	0.5 A per point; 2 A per group
Transient assessment	Inrush magnitude, duration and repetition
Fault assessment	Approved hold or off behavior

IC697MDL750 / Isolate loads and inspect external protection

02 Isolate loads and inspect external protection

1 Remove field and rack energy

Place the process in its approved maintenance state and isolate each DC group as well as rack power before disconnecting the module. Some field groups may have independent supplies. Identify stored energy in the connected devices and verify the actual circuit state rather than relying on an off command from the PLC.

2 Inspect the external protection design

The IC697MDL750 has no internal fuses. Check the external point protection where required and compare the installed fuse characteristics with the circuit design and manufacturer guidance. A blown external fuse must prompt investigation of the load and wiring before it is replaced and the circuit re-energized.

3 Preserve the terminal board and key

Label the field circuits and retain the terminal-board strap and keyed rack position. Release the jackscrew and remove the board using its body, not the hinged door. Inspect the replacement module type and contact condition before reconnecting a previously wired board.

Isolation	Every group and the PLC rack
Protection	External point protection inspected
Identity	Correct board, slot and mechanical key

IC697MDL750 / Restore polarity, groups and load connections

03 Restore polarity, groups and load connections

1 Connect each group to its own supply

Trace the four group supply connections independently, following the module wiring diagram and approved circuit drawing. The group power terminals are not internally connected. Check polarity at the actual module terminals before reconnecting loads and do not bridge groups unless the approved design explicitly calls for it.

2 Allow for output voltage drop

Measure the load supply against the 20–60 VDC operating range. Allow up to 1 V drop across an energized output in addition to conductor losses. A supply measurement made without the load connected does not establish that the actuator will receive enough voltage under its worst-case operating current.

3 Secure terminal and cable retention

Use the supported 22–14 AWG conductor range and only place two equal-size wires under a terminal when permitted. Secure the bundle and terminal-board strap, and keep wiring away from the ventilation openings. Inspect that the board is fastened and the door closes without pressing on the conductors.

Group supplies	Independent connections and correct polarity
Load headroom	Supply minus output and cable drops
Retention	Board, bundle and identification strap secured

IC697MDL750 / Test commanded output and fault response

04 Test commanded output and fault response

1 Prove each output with the correct load

Under the approved test conditions, operate one point at a time and compare the PLC command, logic-side LED and actual load response. Record the loaded voltage and current where necessary. An illuminated LED alone does not show that field power, the external fuse and the connected device are all functioning.

2 Check release and leakage sensitivity

Confirm that each device returns to its intended off state. The module off-state leakage can reach 1 mA, which may affect sensitive loads. Investigate a device that remains partially energized rather than assuming that a zero command guarantees zero current in the circuit.

3 Prove group loading and configured fallback

Exercise the approved simultaneous load combination without exceeding the group limit. Then test the configured hold or turn-off behavior under the intended operating condition. Restore normal operation only after both the individual circuits and the overall output response have been accepted.

Point test	Command, LED and load agree
Off-state test	Load releases with leakage considered
System test	Group demand and fallback behavior accepted

IC697MDL750 / Close the DC output commissioning record

05 Close the DC output commissioning record

1 Retain the load and protection schedule

Archive the final point allocation, group currents, DC supply settings and external protection details. Keep the inrush/duty assessment for devices that draw a large startup current. Record the configured fallback choice and the observed result, including any circuits that require particular sequencing.

2 Restore the approved process state

Remove test commands, temporary wiring and overrides through the authorized return-to-service procedure. Reconfirm the normal group supplies and load indications after the maintenance state is released. Unexplained fuse operation, intermittent loads or incomplete off-state release remain unresolved faults and must not be hidden by a parameter change.

Technical basis: GE Fanuc 24/48 VDC Output Module, GFK-0085G, in GFK-0600F.

Related product navigation

- GE IC693CMM321
- GE IC693PWR331
- GE IC693ALG392

These are related references, not confirmed substitutes or an automatically approved assembly.