

GD390L

LIFT-DEDICATED VFD

Goodrive 390L Series Lift-Dedicated VFD

GD390L monitors the power supply, inverter and motor conditions and provides multiple protections to ensure safe and reliable operation in lift applications.



Overcurrent
Protection



Overvoltage /
Undervoltage
Protection



Motor Overload
Protection



Phase Loss
Protection



Short Circuit /
Ground Fault
Protection



Overheating
Protection



STO Function
(Safe Torque Off)



SERIES
GOODRIVE 390L



APPLICATION
LIFT



TYPE
VFD

GOODRIVE 390L SERIES
LIFT-DEDICATED VFD

CONTROL & INTERFACE

An intuitive keypad and clear digital display enable easy monitoring, parameter setting and reliable control of the drive in elevator applications.



Clear Display

Shows frequency, current, voltage, parameters and fault codes.



Easy Operation

Intuitive keypad for parameter setting and function control.



Status Indicators

Run/Tune, FWD/REV, Local/Remote and Trip indication.



Quick Access

Dedicated keys for programming, jog, shift and run/stop.

PROTECTION SYSTEM

The GD390L series is equipped with comprehensive protection functions to monitor the power supply, inverter, motor and operating conditions. These protections ensure stable and reliable operation in elevator applications and help prevent unexpected downtime.



Overcurrent Protection

Prevents damage due to excessive current.



Overvoltage / Undervoltage Protection

Monitors DC bus voltage for stable operation.



Motor Overload Protection

Protects the motor from thermal overload.



Phase Loss Protection

Detects input phase loss and abnormal phase sequence.



Short Circuit / Ground Fault Protection

Ensures safe operation in fault conditions.



Overheating Protection

Monitors temperature of key components.



KEY PROTECTION PARAMETERS

Parameter	Function	Description	Setting Range / Default
P11.00	Phase Loss Protection	Enables or disables input phase loss protection.	0: Disable 1: Enable (Default)
P11.05	Current Limit Selection	Selects the current limiting mode during operation.	0: Disabled 1: Enabled (Default)
P11.06	Automatic Current Limit Threshold	Sets the threshold for automatic current limitation to avoid overcurrent trips.	100% ~ 200% (Default: 160%)
P11.07	Frequency Decrease Ratio in Current Limiting	Sets the frequency reduction ratio when current limiting is activated.	10% ~ 100% (Default: 50%)
P11.08	OL/UL Pre-alarm Selection	Enables or disables pre-alarm for overload or undervoltage/overvoltage conditions.	0: Disable 1: Enable (Default)

PROTECTION WORKING LOGIC



1. Detect

Monitor current, voltage, temperature, phase and other operating conditions.



2. Compare

Compare with set thresholds (e.g. P11.xx).



3. Response

Trigger alarm, limit frequency or stop output to protect the system.



4. Ensure Safety

Maintain safe and reliable operation of the drive, motor and elevator system

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FAULT CODES & TROUBLESHOOTING

Fast identification of faults for higher system reliability and shorter downtime.



E6		Overcurrent During constant speed running
E7		Overvoltage During acceleration
E8		Overvoltage During deceleration
E9		Overvoltage During constant speed running
E10		Bus undervoltage Fault
E11		Motor overload Mechanical or thermal overload
E12		VFD overload High temperature or poor ventilation
E13		Input phase loss On input side

TROUBLESHOOTING PROCESS



01

**IDENTIFY
FAULT CODE**

Read the fault code on the keypad display.



02

CHECK CAUSES

Refer to the fault code table to find possible causes.



03

TAKE ACTION

Apply the appropriate solution to resolve the fault.

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INSIDE THE RELIABILITY

High-quality components and optimized design ensure stable operation and long service life.



Control Board

Reliable control circuit with high accuracy



I/O Terminals

Flexible input and output connections



Power Section

Robust design for high performance



High-Quality Components

Long service life with excellent stability



Optimized Circuit Design

Enhanced anti-interference and reliable performance



Standard Terminals

Easy installation and maintenance



Efficient Cooling

Optimized airflow design for stable operation