

Top 100
Global
Innovator
for 10 years

Open-loop
Elevator Drive

S100L

3-Phase 200V 5.5~15kW (7.5~20HP)
3-Phase 400V 5.5~15kW (7.5~20HP)



LS *ELECTRIC*

Contents

- 04 Features
- 10 Wiring
- 11 Terminal Description



Optimized Drive
with High Performance

Open-loop Elevator Drive S100L



S100L series, the optimal solution for open-loop elevator applications

LS ELECTRIC offers its own competitive solutions into variable and various application area. Flexibility-Standardization and Easy to use-Diversity are the inherent qualities of LS ELECTRIC Drives. As an one-stop drive solution provider, LS ELECTRIC is ready to provide total solution to operate open-loop elevator system.



The Best Optimization for Open-loop Elevator

The S100L series is a special and optimized product for open-loop elevator system, satisfying both strong and high performance.
More than decades of experience to supply drive solutions, our standard and customized products are optimized exactly to elevator industry.

The World's Best Compact Size

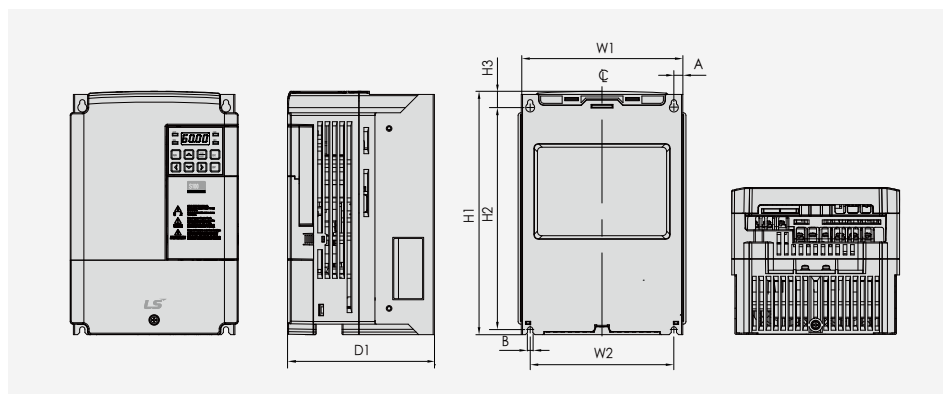


5.5/7.5kW-2/4



11/15kW-2/4

- Advantages to combine small machine room or elevator panel
- Easy to replace one to one high performance like S100 standard



Line-up

mm

Drive Capacity	W1	W2	H1	H2	H3	D1	A	B	Weight
LSLV0055S100-2 LSLV0075S100-2	160(6.30)	137(5.39)	232(9.13)	216.5(8.52)	10.5(0.41)	140(5.51)	5(0.20)	5(0.20)	3.3
LSLV0055S100-4 LSLV0075S100-4	160(6.30)	137(5.39)	232(9.13)	216.5(8.52)	10.5(0.41)	140(5.51)	5(0.20)	5(0.20)	3.3 / 3.4
LSLV0110S100-2 LSLV0110S100-4	180(7.09)	157(6.18)	290(11.4)	273.7(10.8)	11.3(0.44)	163(6.42)	5(0.20)	5(0.20)	4.6
LSLV0150S100-2 LSLV0150S100-4	220(8.66)	193.8(7.63)	350(13.8)	331(13.0)	13(0.51)	187(7.36)	6(0.24)	6(0.24)	4.6 / 4.8
LSLV0150S100-2	220(8.66)	193.8(7.63)	350(13.8)	331(13.0)	13(0.51)	187(7.36)	6(0.24)	6(0.24)	4.6

Optimal Multiple EL I/O Board



Multiple EL I/O

The Multiple EL I/O for open-loop elevator not only improves work efficiency also reduce the cost of implement upper-level system. To realize open-loop elevator operating, **extended 4 digital outputs, 2Relays and 2 open-collector terminal** are provided.

Control Terminals		Terminal	Descriptions
Input	Digital	P1 ~ P7	Multi-functional Input 1~7
		CM	Common
	Safety	SC, SA, SB	Safety terminals
Output	Digital	Q1	Multi-functional output (Open-collector) : RUN
		EG	Common (For Q1)
		Q2	Multi-functional output (Open-collector) : Drive steady
		EG2	Common (For Q2)
		24	External 24V
		A1, C1, B1	Relay signal (N.O./N.C.) : Brake Control
		A2, C2	Relay signal (N.O.) : ALLS
		S+, S-, SG	RS-485 (Modbus-RTU)

Easy-set & High Performance

S100L provides easy setup procedure to maximize user's convenience. Specialized multiple I/O option improves operation efficiency. Also strong performance of sensorless control provides high quality to realize open-loop elevator system.

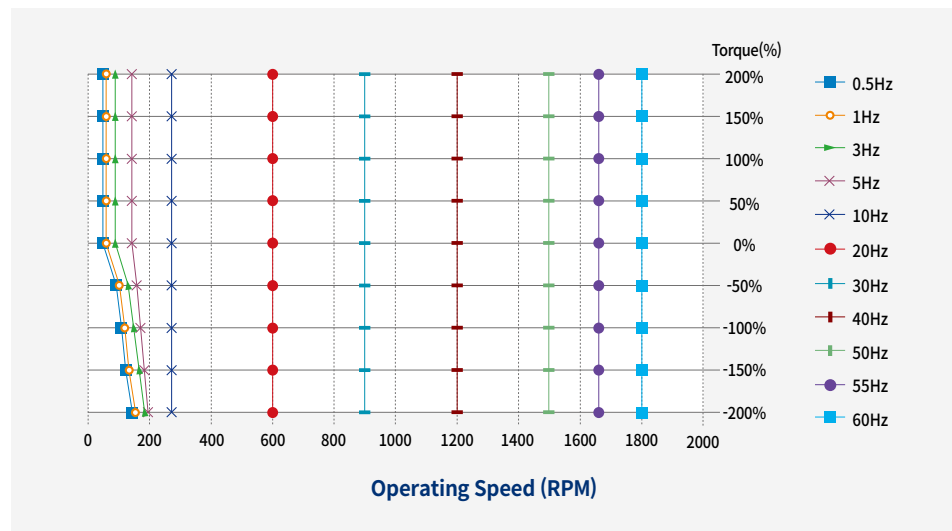
Selectable Auto-tuning

S100L provides both Static auto-tuning and Rotational auto-tuning. Users are available to choose a method which is suitable for each condition.

bA.20 – Auto Tuning	
1: All	Rotational Auto-tuning Option can be Used When the Rope is not Equipped to the Motor Sheave.
2: All (Stdsl)	Static Auto-tuning Option can be Used When the Rope is on the Motor Sheave.

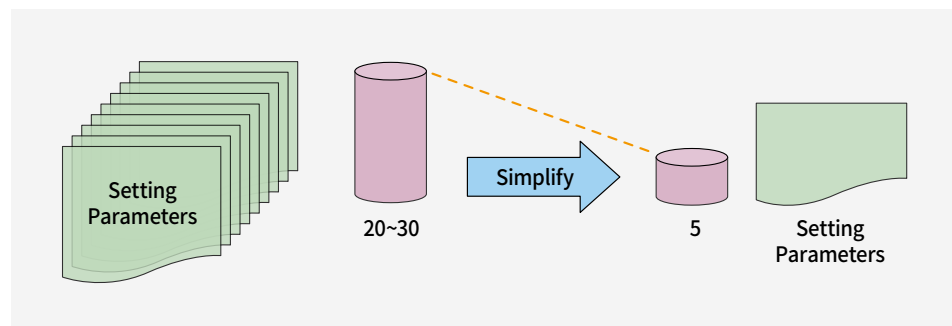
Powerful Sensorless Control

Starting torque of 200%/0.5Hz is produced and provides robust power in the low speed region.



Simplifying Parameters Setting

For easy installation, user only can set elevator-specific parameters.

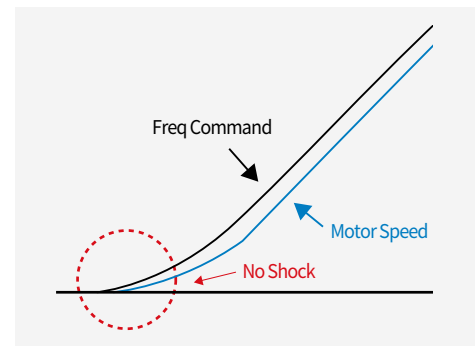
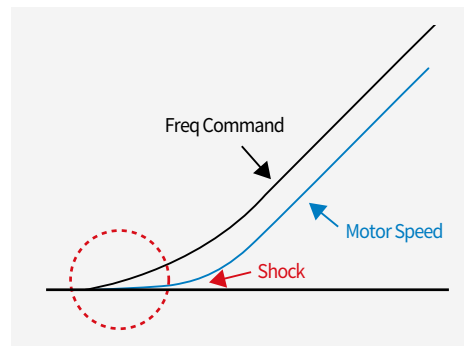


Soft & Accurate Operation

S100L realizes soft & accurate operation through vibration suppression .
Smooth and stable operating can maximize passenger's ride comfort.

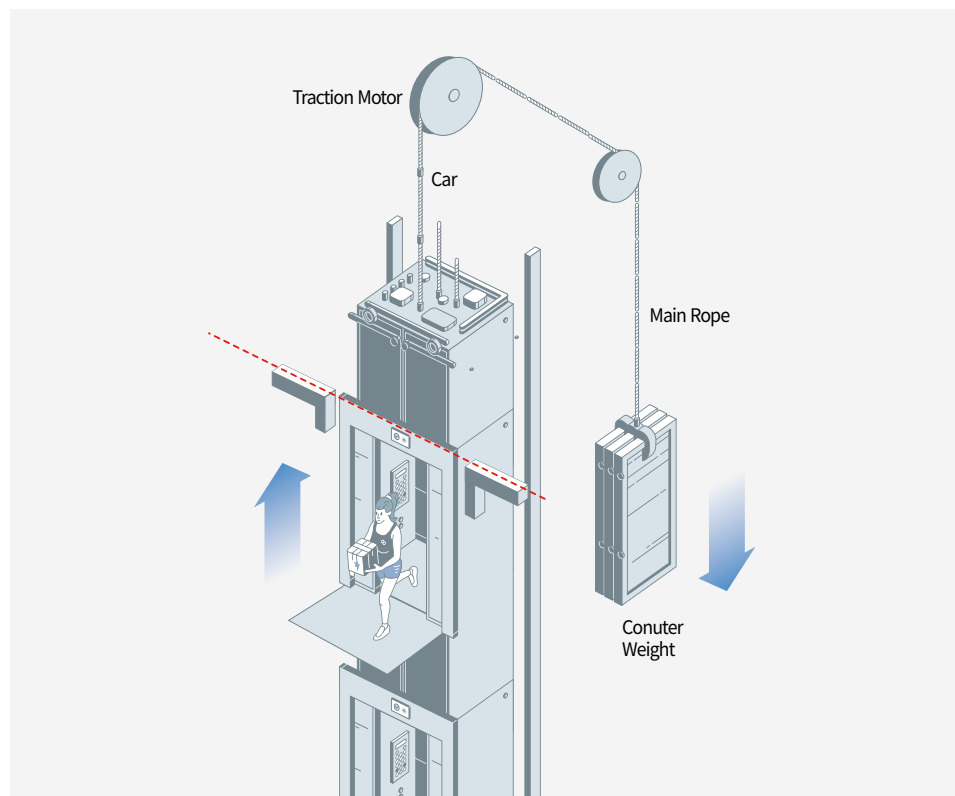
Soft Starting

Modulating DC-start and ATB to reduce starting shock.
Break release makes break open early to reduce roll-back.



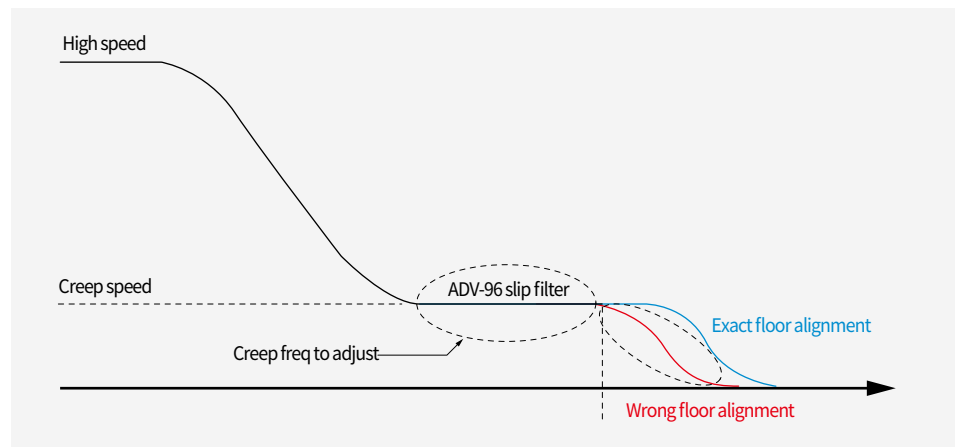
Making Exact Floor Alignment

Along the sequence of elevator operating, S100L provides optimal drive function not only to realize soft & smooth ride also increase passenger's riding comfort.
Also, S100L provides accurate alignment to improve the completeness of elevator system.

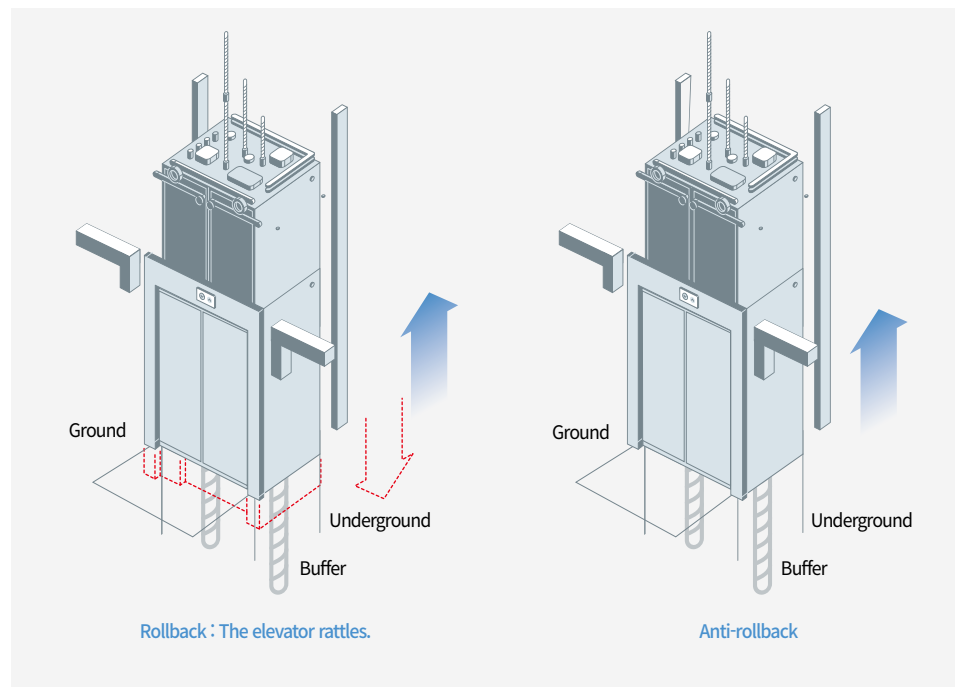


Smooth & Comfortable Ride

To secure passenger's comfort ride, S100L use slip filter to reduces vibration at acceleration and high speed operation.



Creep frequency is related to floor alignment.
By setting parameters, exact floor alignment will be performed.



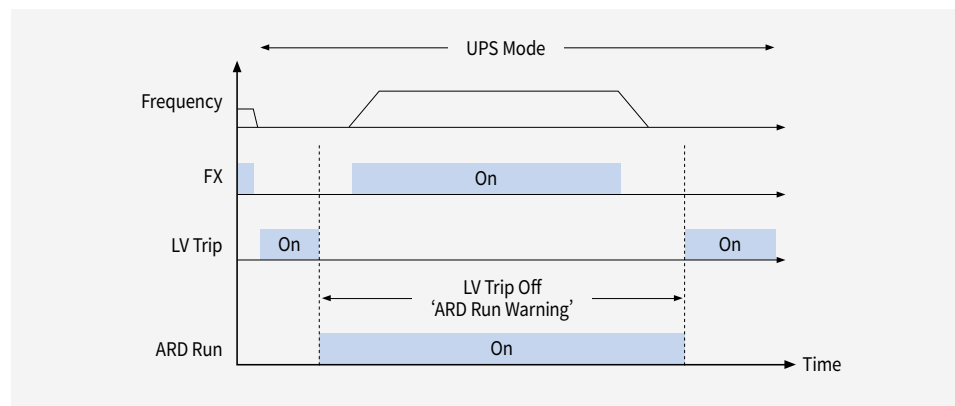
When the elevator is accelerating or decelerating, Rollback may occur due to the operation delay of the mechanical brake.
To adjust creep operation time, S100L performs the Anti-rollback operation.

Safe & Stable

In emergency, S100L secures passenger's safety with several safety functions. Even if power supply is not stable, S100L provides special features to help passengers get off safely.

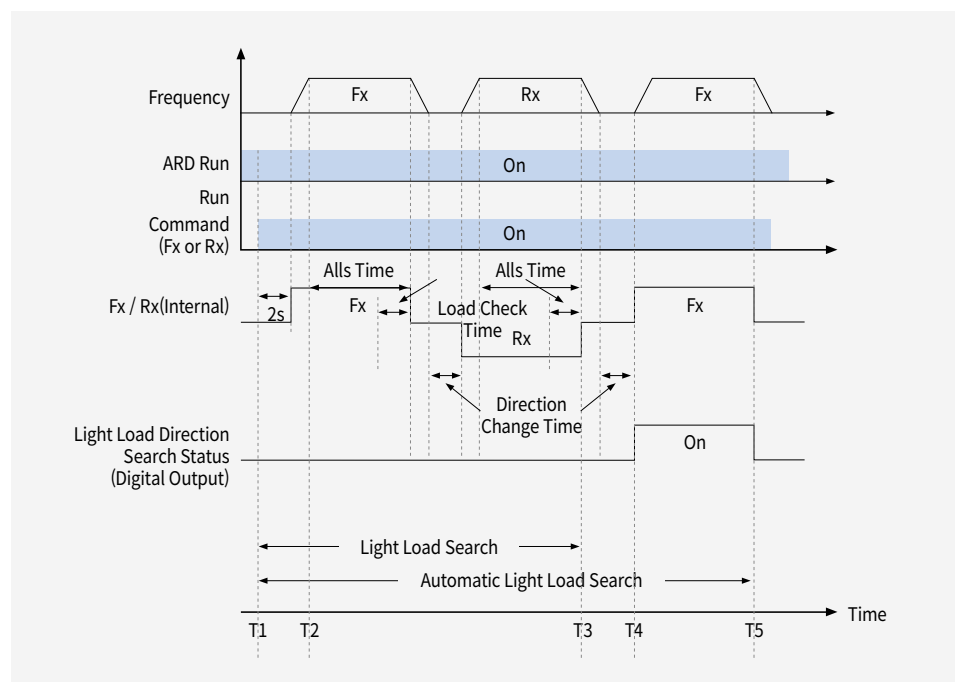
ARD(Auto Rescue Device) Function

When the elevator system stops because of power failure, ARD function makes elevator move to nearest floor by switching to emergency power such as UPS. When the ARD operation signal is given from the external controller, operation is possible without a low voltage trip at 220Vac power according to the Fx/Rx command.



ALLS(Automatic Light Load Search) Function

When the ALLS function is activated, the S100L compares the magnitude of the output current by operating the elevator in the forward and reverse directions. After then, S100L performs the elevator operation in the direction where the current is small.



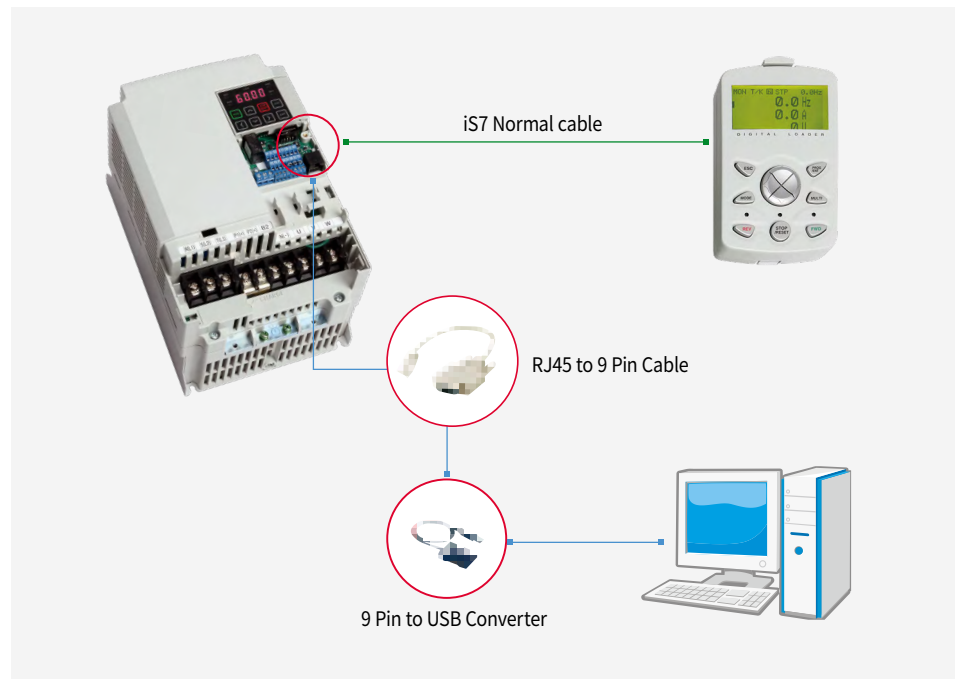
User Friendly

S100L considers not only passengers also workers
to install open-loop elevator system.

Compatibility with Drive View9

Protocol : Modbus-TCP, Modbus-RTU, LS485

Functions : Drive monitoring, report Function, parameter display and change function

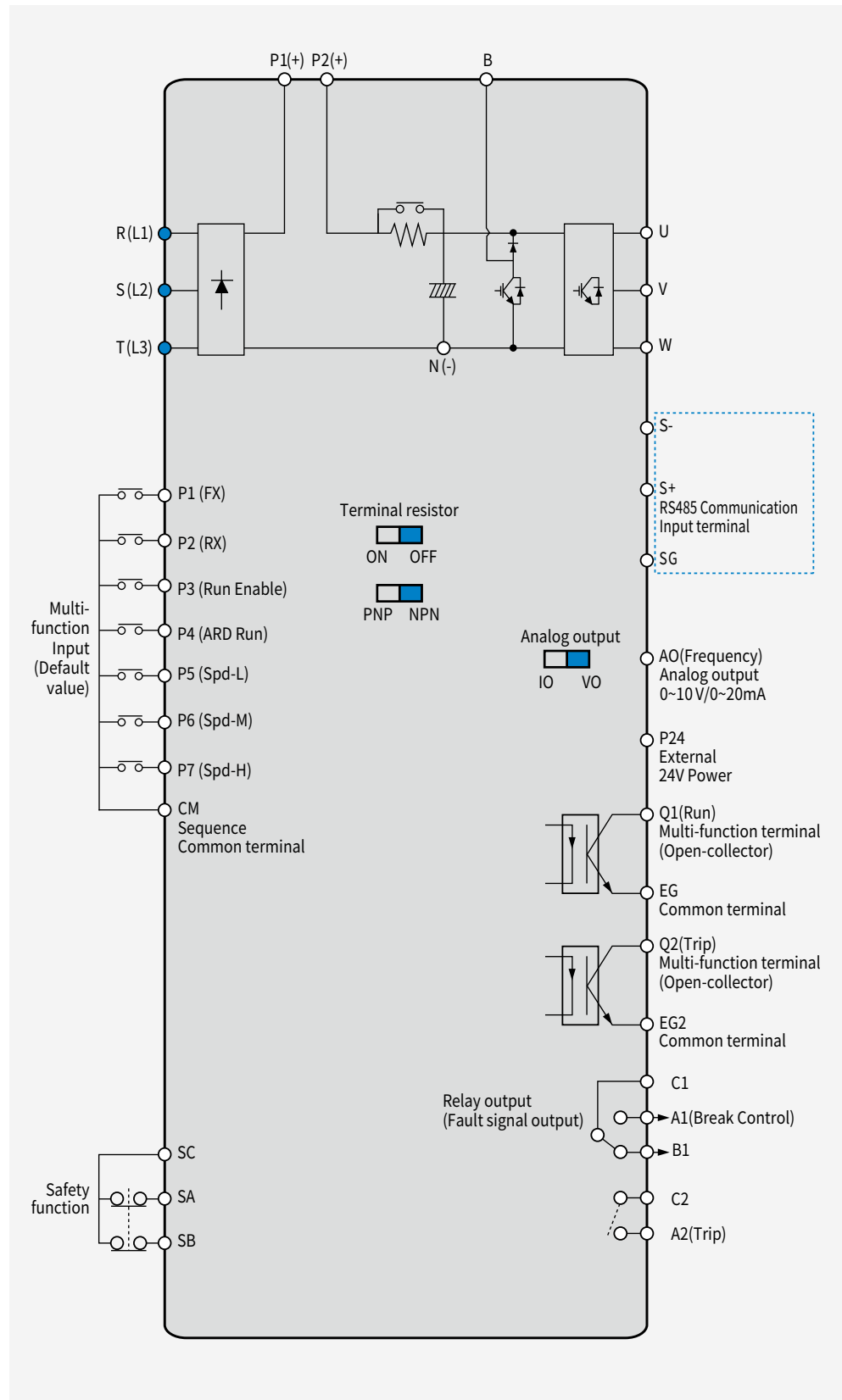


Parameter Copy

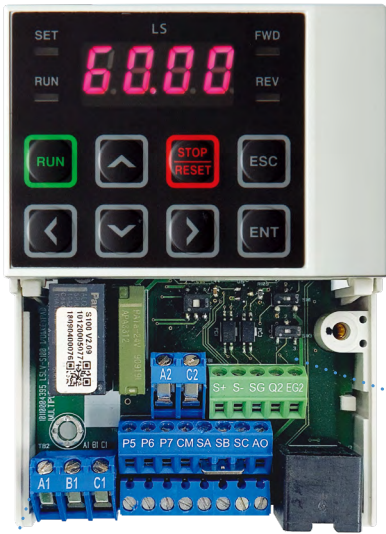
S100L provides parameter copy function by keypad to keypad.
Also, smart copier device can be used for parameter copy.



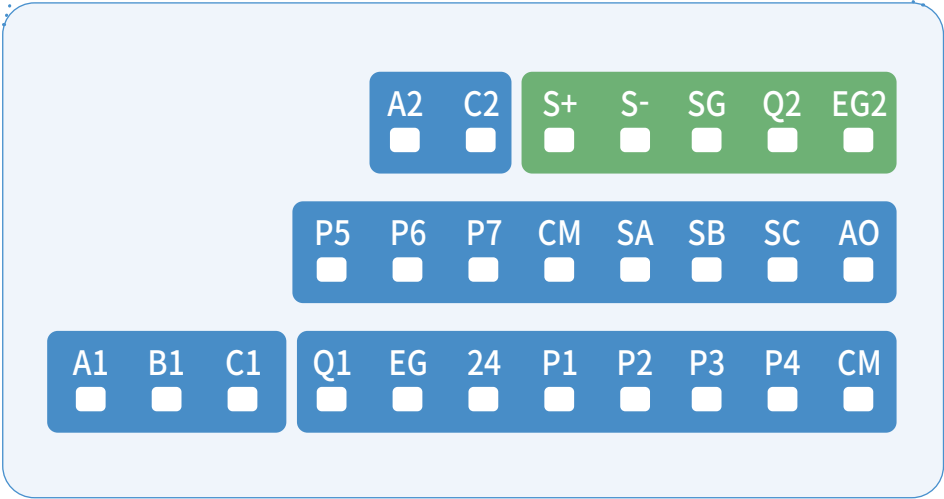
Multiple EL I/O



Configuration



S100 EL I/O provides extended
4 digital outputs, 3 Relays
and 1 open-collector terminal.



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Input	Digital	P1 ~ P7	Multi-functional Input 1~7
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	Safety	SC, SA, SB	Safety terminals
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		Q2	Multi-functional output (Open-collector) : Drive steady
		EG2	Common (For Q2)
		24	Extemal 24V
		A1, C1, B1	Relay signal (N.O./N.C.) : Brake control
		A2, C2	Relay signal (N.O.) : ALLS
		S+, S-, SG	RS-485 (Modbus-RTU)



Safety Instructions

- For your safety, please read user's manual thoroughly before operating.
- Contact the nearest authorized service facility for examination, repair, or adjustment.
- Please contact qualified service technician when you need maintenance.
Do not disassemble or repair by yourself!
- Any maintenance and inspection shall be performed by the personnel having expertise concerned.



- According to The WEEE Directive, please do not discard the device with your household waste.



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