Derwent
Top 100
Global
Innovator
2020

General AC Drive

G100

3-phase 200~240V 0.4~22kW (0.5~30HP)
3-phase 380~480V 0.4~22kW (0.5~30HP)

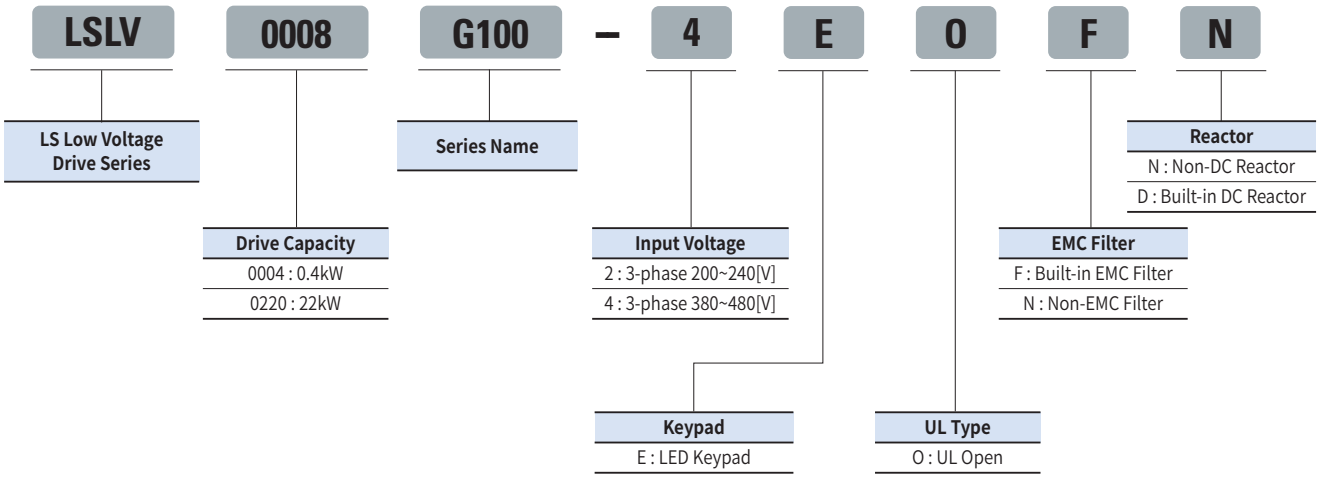
LS ELECTRIC

Model name and description

Drive Capacity	3-Phase 200V	3-Phase 400V
0.4 kW	LSLV0004G100-2EONN	LSLV0004G100-4EO(F)N
0.75 kW	LSLV0008G100-2EONN	LSLV0008G100-4EO(F)N
1.5 kW	LSLV0015G100-2EONN	LSLV0015G100-4EO(F)N
2.2 kW	LSLV0022G100-2EONN	LSLV0022G100-4EO(F)N
4.0 kW	LSLV0040G100-2EONN	LSLV0040G100-4EO(F)N
5.5 kW	LSLV0055G100-2EONN	LSLV0055G100-4EO(F)N
7.5 kW	LSLV0075G100-2EONN	LSLV0075G100-4EO(F)N
11 kW		
15 kW		
18.5 kW		
22 kW		

※ (F): Built-in EMC or Non-EMC type
※ 200V/400V 11~22kW TBA

Model Name



3-Phase 200V Class (0.4~7.5kW)

□□□□ G100-2			0004	0008	0015	0022	0040	0055	0075
Motor Rating	Heavy Duty [HD]	[kW]	0.4	0.75	1.5	2.2	4.0	5.5	7.5
		[HP]	0.5	1.0	2.0	3.0	5.4	7.5	10
	Normal Duty [ND]	[kW]	0.75	1.5	2.2	4.0	5.5	7.5	11
		[HP]	1.0	2.0	3.0	5.4	7.5	10	15
Output Rating	Capacity [kVA]	Heavy Duty (HD)	1.0	1.9	3.0	4.2	6.5	9.1	12.2
		Normal Duty (ND)	1.2	2.3	3.8	4.6	6.9	11.4	15.2
	Rated Current [A]	Heavy Duty (HD)	2.5	5.0	8.0	11.0	17.0	24.0	32.0
		Normal Duty (ND)	3.1	6.0	9.6	12.0	18.0	30.0	40.0
	Rated Current [A] (1-Phase Power Input)	Heavy Duty (HD)	1.5	2.8	4.6	6.1	9.3	12.8	17.4
		Normal Duty (ND)	2.0	3.6	5.9	6.7	9.8	16.3	22.0
	Frequency [Hz]		0~400Hz (IM sensorless: 0~120Hz)						
	Voltage [V]		3-Phase 200~240V						
Input Rating	Voltage [V]		3-Phase 200~240VAC (-15%~+10%)						
	Frequency [Hz]		50~60Hz (±5%)						
	Rated Current [A]	Heavy Duty [HD]	2.2	4.9	8.4	11.8	18.5	25.8	34.9
		Normal Duty [ND]	3.0	6.3	10.8	13.1	19.4	32.7	44.2
Weight [kg]			1.04	1.06	1.36	1.4	1.89	3.08	3.21

3-Phase 400V Class (0.4~7.5kW)

□□□□ G100-4			0004	0008	0015	0022	0040	0055	0075
Motor Rating	Heavy Duty [HD]	[kW]	0.4	0.75	1.5	2.2	4.0	5.5	7.5
		[HP]	0.5	1.0	2.0	3.0	5.4	7.5	10
	Normal Duty [ND]	[kW]	0.75	1.5	2.2	4.0	5.5	7.5	11
		[HP]	1.0	2.0	3.0	5.4	7.5	10	15
Output Rating	Capacity [kVA]	Heavy Duty (HD)	1.0	1.9	3.0	4.2	6.5	9.1	12.2
		Normal Duty (ND)	1.5	2.4	3.9	5.3	7.6	12.2	17.5
	Rated Current [A]	Heavy Duty (HD)	1.3	2.5	4.0	5.5	9.0	12.0	16.0
		Normal Duty (ND)	2.0	3.1	5.1	6.9	10.0	16.0	23.0
	Rated Current [A] (1-Phase Power Input)	Heavy Duty (HD)	0.7	1.4	2.1	2.8	4.9	6.4	8.7
		Normal Duty (ND)	1.3	1.9	2.8	3.6	5.4	8.7	12.6
	Frequency [Hz]		0~400Hz (IM sensorless: 0~120Hz)						
	Voltage [V]		3-Phase 380~480V						
Input Rating	Voltage [V]		3-Phase 380~480VAC (-15%~+10%)						
	Frequency [Hz]		50~60Hz (±5%)						
	Rated Current [A]	Heavy Duty [HD]	1.1	2.4	4.2	5.9	9.8	12.9	17.5
		Normal Duty [ND]	2.0	3.3	5.5	7.5	10.8	17.5	25.4
Weight [kg]			1.02 (1.04)	1.06 (1.08)	1.4 (1.44)	1.42 (1.46)	1.92 (1.98)	3.08 (3.24)	3.12 (3.28)

• Maximum applicable capacity is indicated in case of using a 4-pole standard motor
• For the rated capacity, 200 and 400V class input capacities are based on 220 and 440V, respectively.
• The rated output current is limited based on the carrier frequency set at Cn.04.
• The output voltage becomes 20-40 % lower during no-load operations to protect the inverter from the impact of the motor closing and opening (0.4-4.0 kW models only).

Specifications

Control

Control Method	V/F, Slip Compensation, Sensorless Vector
Frequency Setting Resolution	Digital command: 0.01Hz Analog command: 0.06Hz(maximum frequency: 60 Hz)
Frequency Accuracy	1% of the maximum output frequency
V/F Pattern	Linear, squared, user V/F
Overload Capacity	HD: 150% 1 minute, ND: 120% 1minute
Torque Boost	Manual/Automatic torque boost

Operation

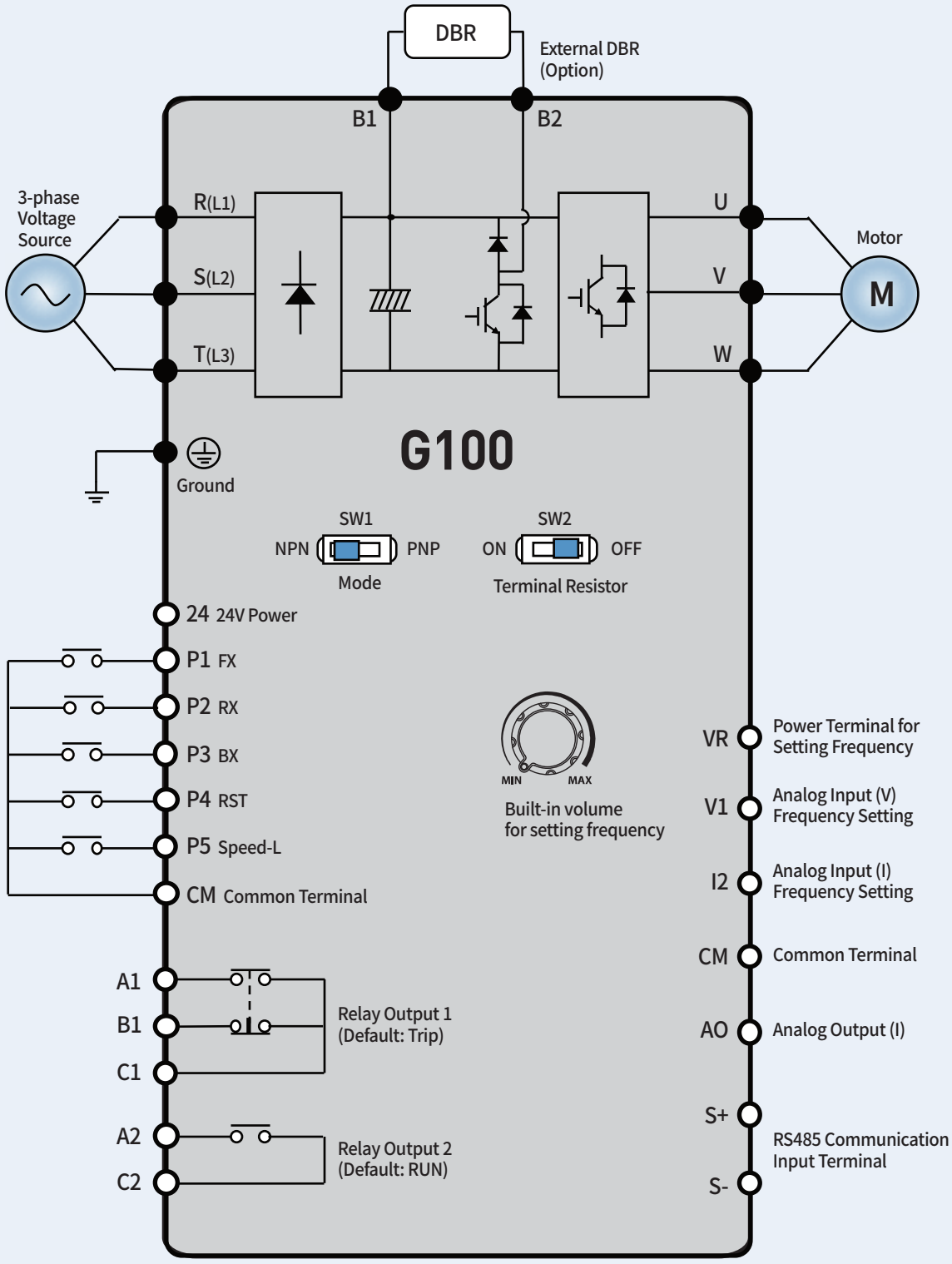
Operation Mode		Select key pad, terminal strip, or communication operation	
Frequency Setting		Analog: -10~10[V], 0~10[V], 4~20[mA] Digital: Keypad	
Operation Function		PID control, 3-wire operation, Frequency limit, Second function, Anti-forward and reverse direction rotation, Commercial transition, Speed search, Power braking, Leakage reduction, Up-down operation, DC braking, Frequency jump, Slip compensation, Automatic restart, Automatic tuning, Energy buffering, Flux braking, Fire mode	
Input	Multi-Function Terminal (5 Points)	NPN (Sink) / PNP (Source) Selectable	
		Function: Forward run, Reverse run, Reset, External trip, Emergency stop, Jog operation, Multi-step frequency-high, middle, low, Multi-step acceleration/ deceleration-high, middle, low, DC braking at stop, 2nd motor select, Frequency up/down, 3-wire operation, Change into normal operation during PID operation, Change into main body operation during option operation, Analog command frequency fixing, Acceleration/deceleration stop etc. Selectable	
	Analog Input	V1: -10~10V, I2 4~20mA	
Output	Multi-function Relay Terminal	Fault output and drive operation status output	(N.O., N.C.) less than AC 250V 1A, less than DC 30V 1A
	Analog Output	0~12Vdc: Frequency, Output current, Output voltage, DC stage voltage etc. selectable	

Protective Function

Trip	Over current trip, external signal trip, ARM short current fault trip, over heat trip, input imaging trip, ground trip, motor over heat trip, I/O board link trip, no motor trip, parameter writing trip, emergency stop trip, command loss trip, external memory error, CPU watchdog trip, motor light load trip	Over voltage trip, temperature sensor trip, inverter over heat, option trip, output image trip, inverter overload trip, fan trip, pre-PID operation failure external brake trip, low voltage trip during operation, low voltage trip, analog input error, motor overload trip, over torque trip, under torque trip
Alarm	Command loss trip warning, overload warning, light load warning, inverter overload warning, fan operation warning, braking resistance braking rate warning, rotor time constant tuning error, inverter pre-overheat warning, over torque warning, under torque warning	
Momentary Power Loss	HD below 15ms (ND below 8ms): Continuous operation (To be within rated input voltage, rated output) HD above 15ms (ND above 8ms): Automatic restart operation enable	

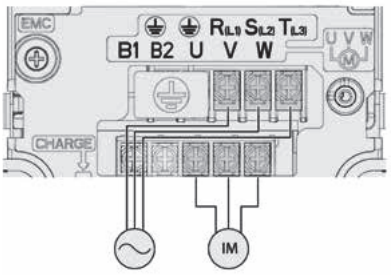
Environment

Cooling Type	Forced fan cooling structure
Protection Degree	IP20/UL Open (Default), UL Enclosed type 1 (Option)
Ambient Temperature	Ambient temperature under the condition of no ice or frost. HD: -10~50°C(14~122°F) / ND: -10~40°C(14~104°F) [However, recommended to use load below 80% when using at 50°C under light load]
Humidity	Relative humidity below 95% RH (no dew formation)
Storage Temperature	-20~65°C(-4~149°F)
Location	No corrosive gas, flammable gas, oil mist and dust etc. indoors (Pollution degree 2 environment)
Altitude, Vibration	Below 1,000m (From 1000 to 4000m, the rated input voltage and rated output current of the drive must be derated by 1% for every 100m.), below 9.8m/sec2 (1G)
Pressure	70~106kPa

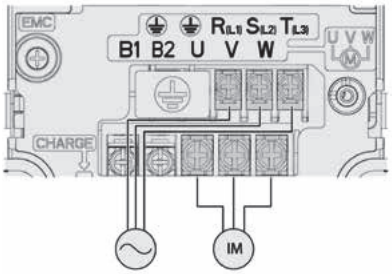

DBR
External DBR
(Option)
B1
B2
3-phase
Voltage
Source
R(L1)
S(L2)
T(L3)
U
V
W
Motor
M
G100
Ground
SW1
NPN
PNP
Mode
SW2
ON
OFF
Terminal Resistor
24 24V Power
P1 FX
P2 RX
P3 BX
P4 RST
P5 Speed-L
CM Common Terminal
MIN
MAX
Built-in volume
for setting frequency
VR
Power Terminal for
Setting Frequency
V1
Analog Input (V)
Frequency Setting
I2
Analog Input (I)
Frequency Setting
CM
Common Terminal
AO
Analog Output (I)
A1
B1
C1
Relay Output 1
(Default: Trip)
A2
C2
Relay Output 2
(Default: RUN)
S+
S-
RS485 Communication
Input Terminal

Power Terminal

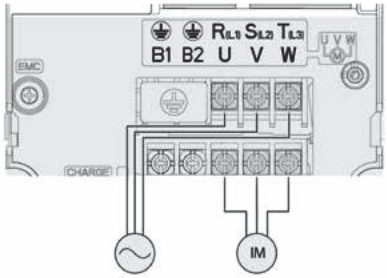
0.4/0.75kW



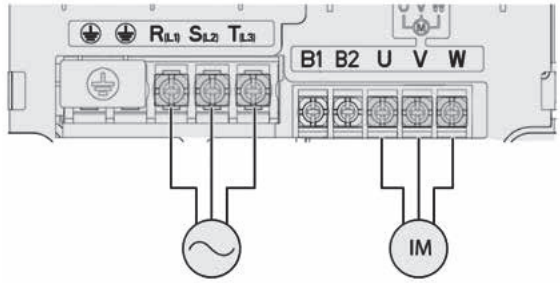
1.5/2.2kW



4kW



5.5/7.5kW



Terminal Labels	Name	Description
⏚	Ground terminal	Connect earth grounding.
R(L1)/S(L2)/T(L3)	AC power input terminal	Mains supply AC power connections.
B1/B2	Brake resistor terminals	Brake resistor wiring connection.
U/V/W	Motor output terminals	3-phase induction motor wiring connections.

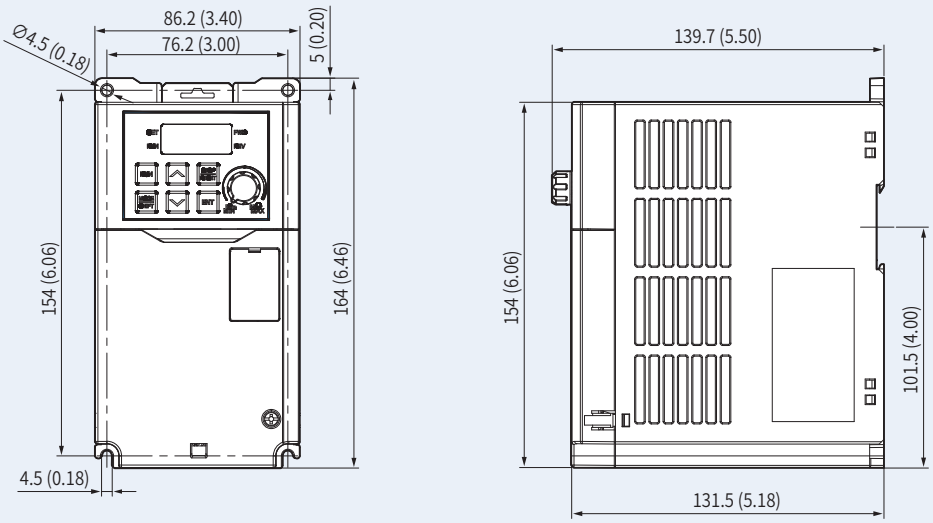
Capacity (kW)		Terminal Screw Size	Rated Screw Torque (Kgf·cm/Nm)
3-Phase 200V Class	0.4	R/S/T, U/V/W : M3	R/S/T, U/V/W : 5.1/0.5
	0.75		
	1.5	R/S/T, U/V/W : M4	R/S/T, U/V/W : 12.1/1.2
	2.2		
	4	R/S/T, U/V/W : M4	R/S/T, U/V/W : 18.4/1.8
	5.5	R/S/T, U/V/W : M4	R/S/T : 24.0/2.4 U/V/W : 15.0/1.5
	7.5		
3-Phase 400V Class	0.4	R/S/T, U/V/W : M3.5	R/S/T, U/V/W : 10.3/1.0
	0.75		
	1.5		
	2.2		
	4	R/S/T, U/V/W : M4	R/S/T, U/V/W : 18.4/1.8
	5.5	R/S/T, U/V/W : M4	R/S/T : 14.3/1.4 U/V/W : 18.4/1.8
	7.5		

• Only use the specified torque on the screw heads otherwise damage could occur. Loose screws can cause overheating and damage.
• Use copper wires with 600V, 75°C specification.

Dimensions

0.4~0.75kW (0004G100-2, 0008G100-2, 0004G100-4, 0008G100-4)

Units: mm(Inches)



1.5~2.2kW (0015G100-2, 0022G100-2, 0015G100-4, 0022G100-4)

Units: mm(Inches)