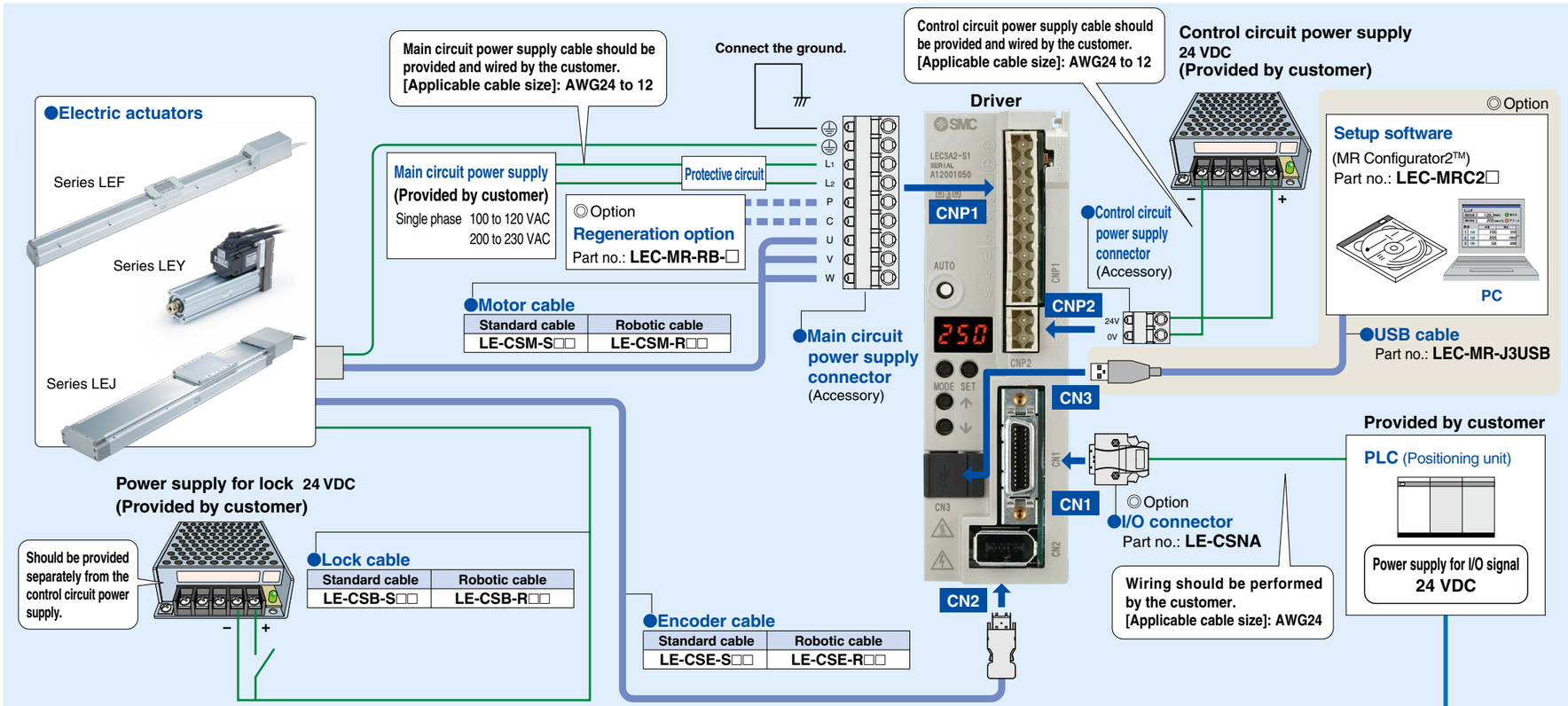
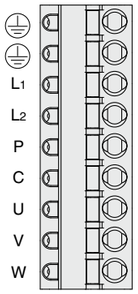
Wiring Method for LECSA

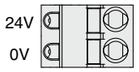


Main Circuit Power Supply Connector (Accessory): CNP1



Terminal name	Function	
⏚	Protective earth (PE)	Should be grounded by connecting the servo motor's earth terminal and the control panel's protective earth (PE).
L1, L2	Main circuit power supply	Connect the main circuit power supply. LECSA1: Single phase 100 to 120 VAC, 50/60 Hz LECSA2: Single phase 200 to 230 VAC, 50/60 Hz
P, C	Regeneration option	Terminal to connect regeneration option LECSA□-S1: Not connected at time of shipping. LECSA□-S3, S4: Connected at time of shipping. ∗ When regeneration option is used for the LECSA□-S3/S4, remove the built-in regenerative resistor and its wirings.
U	Servo motor power (U)	Connect to motor cable (U (Red), V (White), W (Black)).
V	Servo motor power (V)	
W	Servo motor power (W)	

Control Circuit Power Supply Connector (Accessory): CNP2



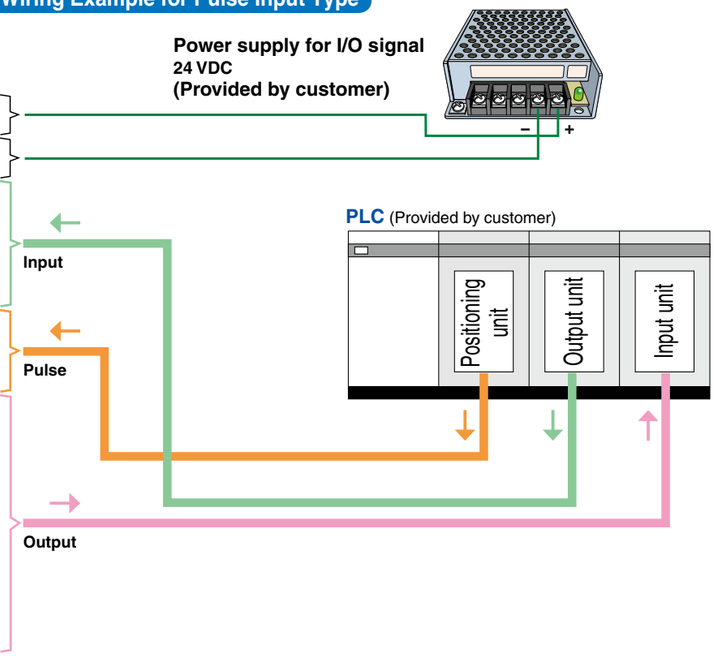
Terminal name	Function	
24V	Control circuit power supply (24V)	24V side of the control circuit power supply (24V) supplied to the driver
0V	Control circuit power supply (0V)	0V side of the control circuit power supply (24V) supplied to the driver

I/O Signal Wiring Example for Pulse Input Type

I/O connector (Option): CN1

Connector pin no.	Terminal name	Function
1	DICOM	Digital I/F power supply input
2	OPC	Open collector power input
13	DOCOM	Digital I/F common
14	LG	Control common
3	RES	Reset
4	SON	Servo ON
8	∗EM1	Forced stop
6	LSP	Forward rotation stroke end
7	LSN	Reverse rotation stroke end
5	CR	Clear
22	PG	Forward/reverse rotation pulse train
23	PP	
24	NG	
25	NP	
9	∗ALM	Failure
10	INP	In position
11	RD	Ready
12	MBR	Electromagnetic brake interlock
15	LA	A-phase pulse encoder (Differential line driver)
16	LAR	
17	LB	B-phase pulse encoder (Differential line driver)
18	LBR	
19	LZ	Z-phase pulse encoder (Differential line driver)
20	LZR	
21	OP	Z-phase pulse encoder (Open collector)

The "∗EM1" and "∗ALM" are the negative-true logic output.
Signal assignments are those in the initial setting status.

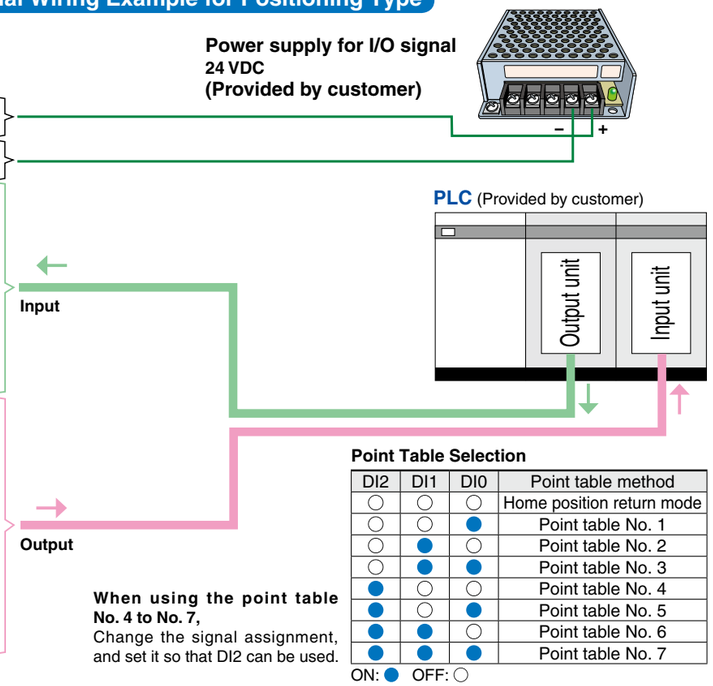


I/O Signal Wiring Example for Positioning Type

I/O connector (Option): CN1

Connector pin no.	Terminal name	Function
1	DICOM	Digital I/F power supply input
2	OPC	Open collector power input
13	DOCOM	Digital I/F common
14	LG	Control common
3	MDO	Automatic/Manual selection
4	SON	Servo ON
8	∗EM1	Forced stop
6	ST1	Forward rotation start
7	ST2	Reverse rotation start
25 Note)	DOG	Proximity dog
5	DI0	Point table No.
22		
23 Note)	DI1	Point table No.
24		
9	∗ALM	Failure
10	INP	In position
11	RD	Ready
12	MBR	Electromagnetic brake interlock
15	LA	A-phase pulse encoder (Differential line driver)
16	LAR	
17	LB	B-phase pulse encoder (Differential line driver)
18	LBR	
19	LZ	Z-phase pulse encoder (Differential line driver)
20	LZR	
21	OP	Z-phase pulse encoder (Open collector)

The "∗EM1" and "∗ALM" are the negative-true logic output.
Signal assignments are those in the initial setting status.



When using the point table No. 4 to No. 7,
Change the signal assignment, and set it so that DI2 can be used.

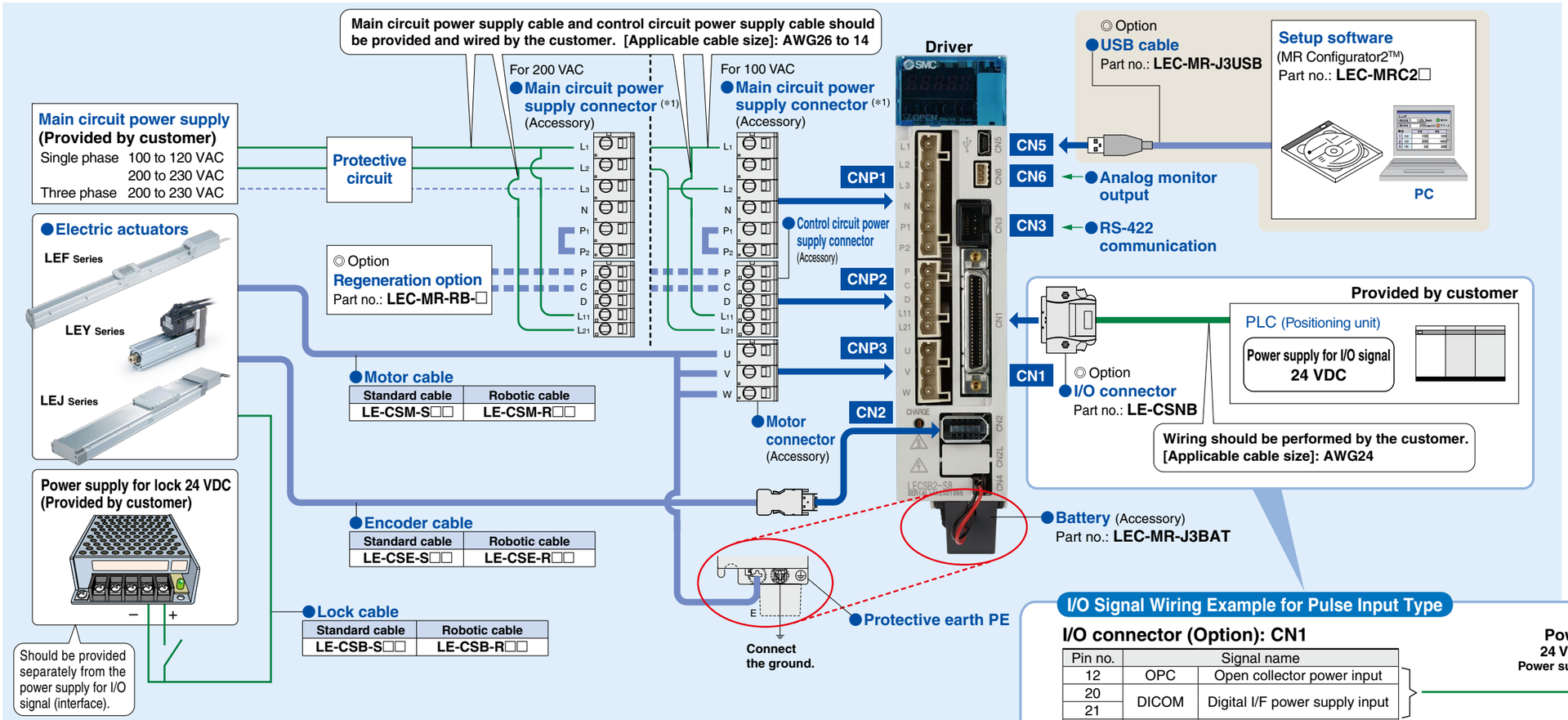
Point Table Selection

DI2	DI1	DI0	Point table method
○	○	○	Home position return mode
○	○	●	Point table No. 1
○	●	○	Point table No. 2
○	●	●	Point table No. 3
●	○	○	Point table No. 4
●	○	●	Point table No. 5
●	●	○	Point table No. 6
●	●	●	Point table No. 7

ON: ● OFF: ○

Note) For PNP (source), the signal cannot be assigned to the pin 23 or 25. Ⓐ
Note) ——: Provided by customer.

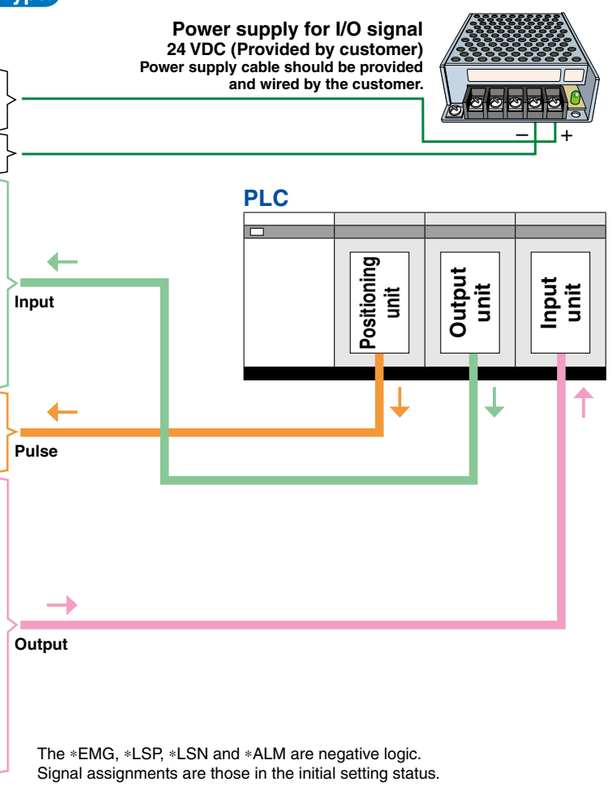
Wiring Method for LECSB



I/O Signal Wiring Example for Pulse Input Type

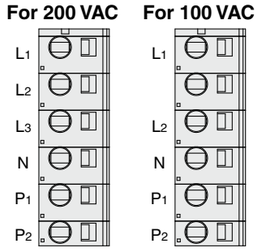
I/O connector (Option): CN1

Pin no.	Signal name	
12	OPC	Open collector power input
20	DICOM	Digital I/F power supply input
21		
46	DOCOM	Digital I/F common
47		
15	SON	Servo ON
17	PC	Proportion control
18	TL	External torque limit selection
19	RES	Reset
27	TLA	Analog torque limit
41	CR	Clear
42	EMG	∗ Emergency stop
43	LSP	∗ Forward rotation stroke end
44	LSN	∗ Reverse rotation stroke end
45	LOP	Control change
10	PP	Forward/reverse rotation pulse train
11	PG	
35	NP	
36	NG	
4	LA	A-phase pulse encoder (Differential line driver)
5	LAR	
6	LB	B-phase pulse encoder (Differential line driver)
7	LBR	
8	LZ	Z-phase pulse encoder (Differential line driver)
9	LZR	
22	INP	In position
23	ZSP	Zero speed detection
24	INP	In position
25	TLC	Torque limiting
33	OP	Z-phase pulse encoder (Open collector)
48	ALM	∗ Failure
49	RD	Ready



The ∗EMG, ∗LSP, ∗LSN and ∗ALM are negative logic.
Signal assignments are those in the initial setting status.

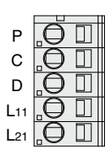
For 200 VAC / For 100 VAC



Main Circuit Power Supply Connector (Accessory): CNP1

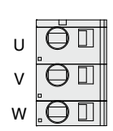
Terminal name	Function	Details
L1 L2 L3	Main circuit power supply (*1)	Connect the main circuit power supply. LECSB1: Single phase 100 to 120 VAC, 50/60 Hz Connection terminal: L1, L2 LECSB2: Single phase 200 to 230 VAC, 50/60 Hz Connection terminal: L1, L2 LECSB2: Three phase 200 to 230 VAC, 50/60 Hz Connection terminal: L1, L2, L3
N	Do not connect.	
P1, P2	Connect between P1 and P2. (Connected at time of shipping.)	

(∗1) The position of the connection terminal L2 is different between the LECSB1 and LECSB2.



Control Circuit Power Supply Connector (Accessory): CNP2

Terminal name	Function	Details
P, C, D	Regeneration option	Terminal to connect regeneration option. When the built-in regenerative resistor of the driver is used, connect between P and D. (Connected at time of shipping.) When regeneration option is connected, remove the wiring between P and D, and connect the regeneration option to P and C.
L11, L21	Control circuit power supply	Connect the control circuit power supply. LECSB1: Single phase 100 to 120 VAC, 50/60 Hz Connection terminal: L11, L21 LECSB2: Single phase 200 to 230 VAC, 50/60 Hz Connection terminal: L11, L21 LECSB2: Three phase 200 to 230 VAC, 50/60 Hz Connection terminal: L11, L21

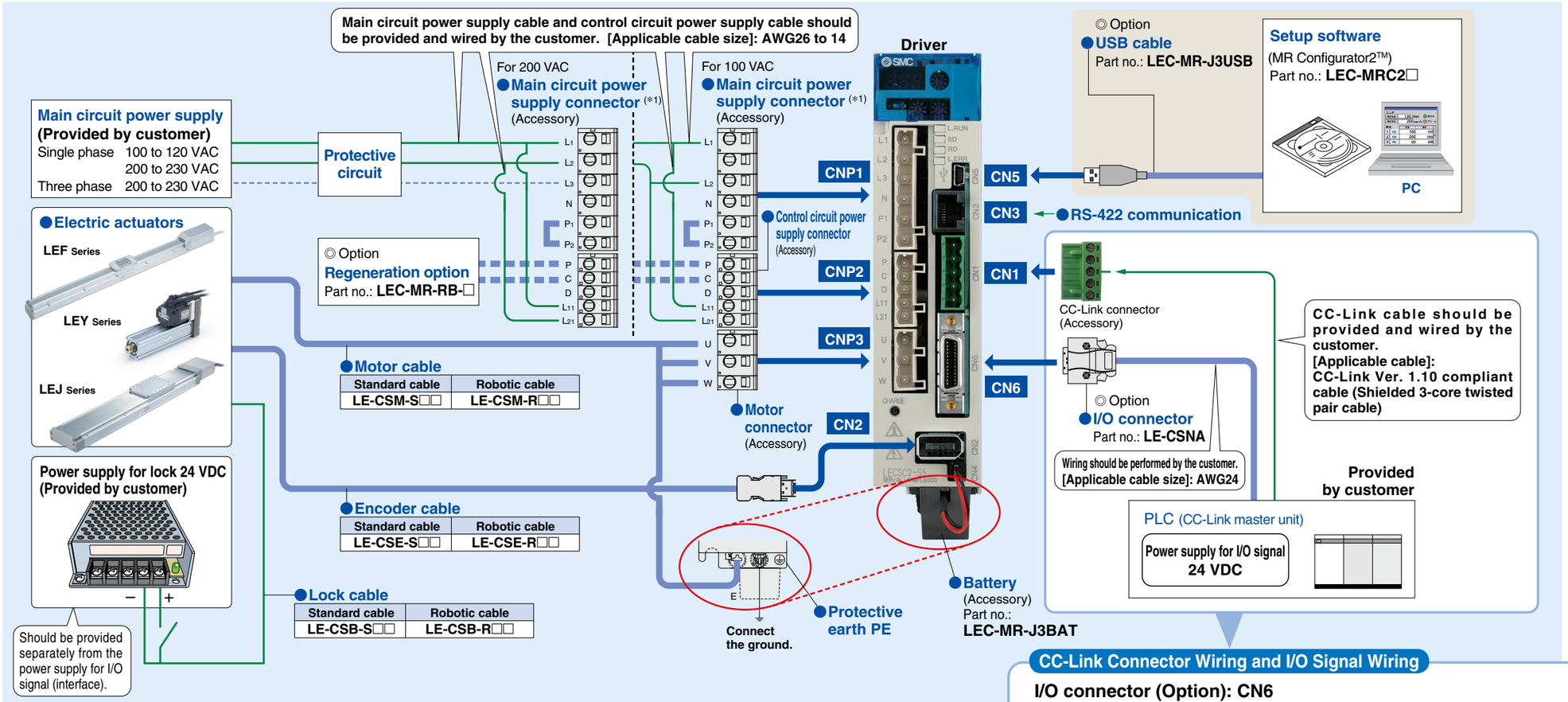


Motor Connector (Accessory): CNP3

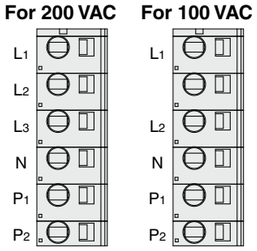
Terminal name	Function	Details
U	Servo motor power (U)	Connect to motor cable (U (Red), V (White), W (Black)).
V	Servo motor power (V)	
W	Servo motor power (W)	

Note) ——: Provided by customer.

Wiring Method for LECSC



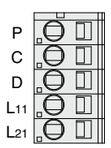
Main Circuit Power Supply Connector (Accessory): CNP1



Terminal name	Function	Details
L_1 L_2 L_3	Main circuit power supply (*1)	Connect the main circuit power supply. LECSC1: Single phase 100 to 120 VAC, 50/60 Hz Connection terminal: L_1, L_2 LECSC2: Single phase 200 to 230 VAC, 50/60 Hz Connection terminal: L_1, L_2 LECSC2: Three phase 200 to 230 VAC, 50/60 Hz Connection terminal: L_1, L_2, L_3
N	Do not connect.	
P_1, P_2	Connect between P_1 and P_2. (Connected at time of shipping.)	

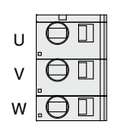
(*1) The position of the connection terminal L_2 is different between the LECSC1 and LECSC2.

Control Circuit Power Supply Connector (Accessory): CNP2



Terminal name	Function	Details
P, C, D	Regeneration option	Terminal to connect regeneration option. When the built-in regenerative resistor of the driver is used, connect between P and D. (Connected at time of shipping.) When regeneration option is connected, remove the wiring between P and D, and connect the regeneration option to P and C.
L_{11}, L_{21}	Control circuit power supply	Connect the control circuit power supply. LECSC1: Single phase 100 to 120 VAC, 50/60 Hz Connection terminal: L_{11}, L_{21} LECSC2: Single phase 200 to 230 VAC, 50/60 Hz Connection terminal: L_{11}, L_{21} LECSC2: Three phase 200 to 230 VAC, 50/60 Hz Connection terminal: L_{11}, L_{21}

Motor Connector (Accessory): CNP3



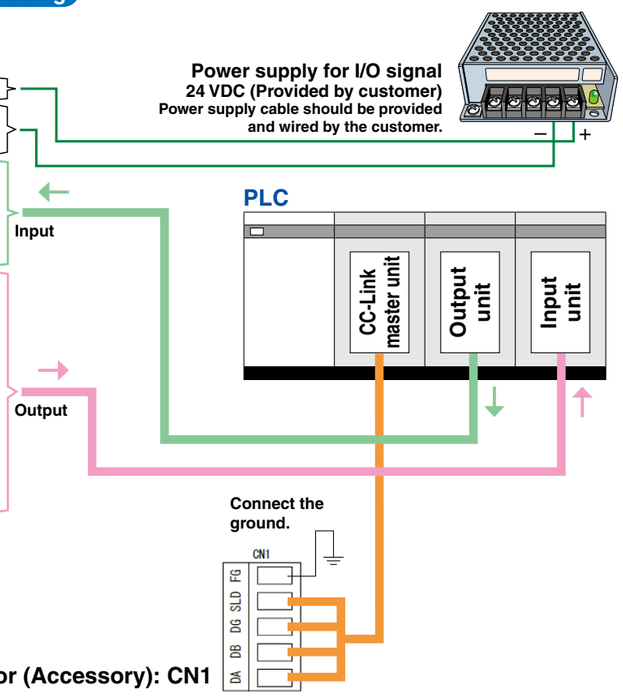
Terminal name	Function	Details
U	Servo motor power (U)	Connect to motor cable (U (Red), V (White), W (Black)).
V	Servo motor power (V)	
W	Servo motor power (W)	

CC-Link Connector Wiring and I/O Signal Wiring

I/O connector (Option): CN6

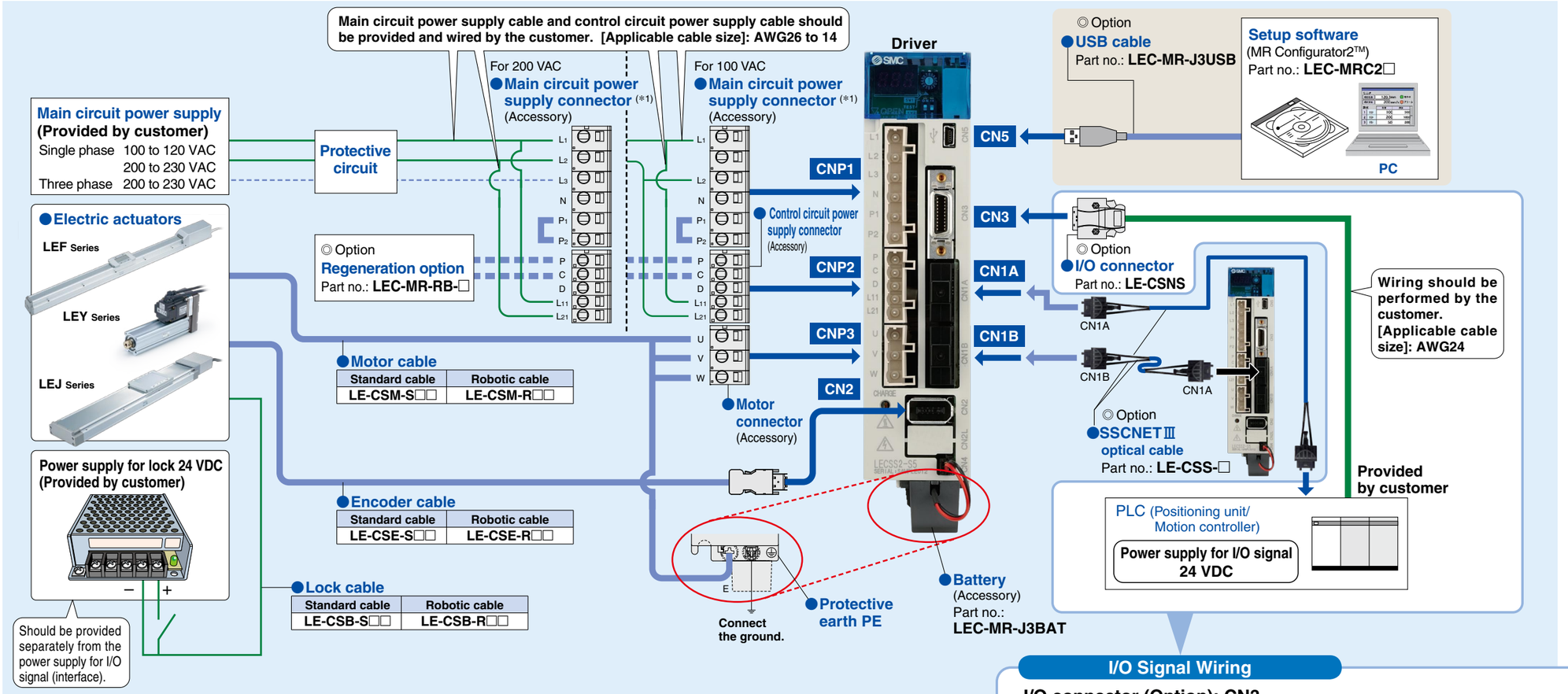
Pin no.	Signal name	
5	DICOM	Digital I/F power supply input
17	DOCOM	Digital I/F common
23	LG	Control common
1	EMG	∗ Forced stop
2	DOG	Proximity dog
3	LSP	∗ Forward rotation stroke end
4	LSN	∗ Reverse rotation stroke end
14	RD	Ready
15	ALM	∗ Failure
16	ZP	Return to origin completion
11	LA	A-phase pulse encoder (Differential line driver)
24	LAR	
12	LB	B-phase pulse encoder (Differential line driver)
25	LBR	
13	LZ	Z-phase pulse encoder (Differential line driver)
26	LZR	

The ∗EMG, ∗LSP, ∗LSN and ∗ALM are negative logic.
Signal assignments are those in the initial setting status.



Note) ——: Provided by customer.

Wiring Method for LECSS

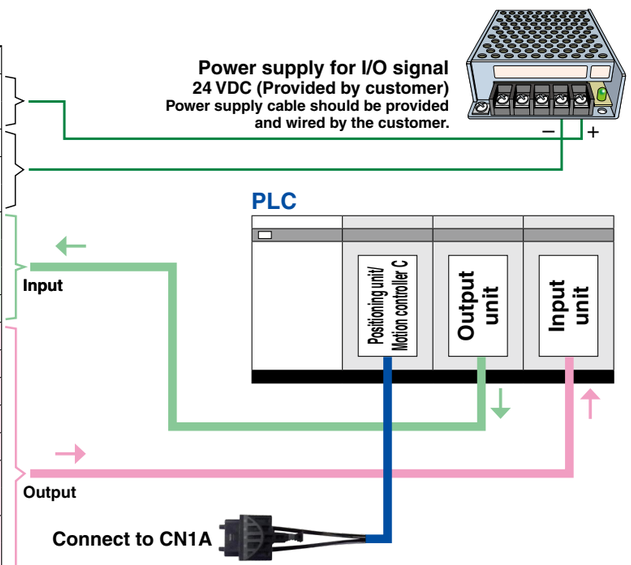


I/O Signal Wiring

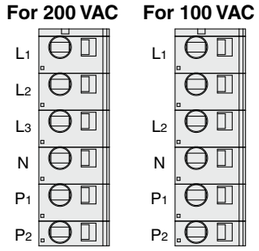
I/O connector (Option): CN3

Pin no.	Signal name	
5	DICOM	Digital I/F power supply input
10		
3	DOCOM	Digital I/F common
1	LG	Control common
11		
2	DI1	(Set by PLC.)
12	DI2	
19	DI3	
20	EM1	∗ Forced stop
9	INP	In position
13	MBR	Electromagnetic brake interlock
15	ALM	∗ Failure Note 1)
3	MO1	Analog monitor 1
14	MO2	Analog monitor 2
6	LA	A-phase pulse encoder (Differential line driver)
16	LAR	
7	LB	B-phase pulse encoder (Differential line driver)
17	LBR	
8	LZ	Z-phase pulse encoder (Differential line driver)
18	LZR	

The ∗EM1 and ∗ALM are negative logic.
Signal assignments are those in the initial setting status.



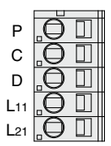
For 200 VAC / For 100 VAC



Main Circuit Power Supply Connector (Accessory): CNP1

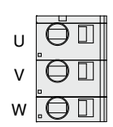
Terminal name	Function	Details
L1 L2 L3	Main circuit power supply (*1)	Connect the main circuit power supply. LECSS1: Single phase 100 to 120 VAC, 50/60 Hz Connection terminal: L1, L2 LECSS2: Single phase 200 to 230 VAC, 50/60 Hz Connection terminal: L1, L2 LECSS2: Three phase 200 to 230 VAC, 50/60 Hz Connection terminal: L1, L2, L3
N	Do not connect.	
P1, P2	Connect between P1 and P2. (Connected at time of shipping.)	

(∗1) The position of the connection terminal L2 is different between the LECSS1 and LECSS2.



Control Circuit Power Supply Connector (Accessory): CNP2

Terminal name	Function	Details
P, C, D	Regeneration option	Terminal to connect regeneration option. When the built-in regenerative resistor of the driver is used, connect between P and D. (Connected at time of shipping.) When regeneration option is connected, remove the wiring between P and D, and connect the regeneration option to P and C.
L11, L21	Control circuit power supply	Connect the control circuit power supply. LECSS1: Single phase 100 to 120 VAC, 50/60 Hz Connection terminal: L11, L21 LECSS2: Single phase 200 to 230 VAC, 50/60 Hz Connection terminal: L11, L21 LECSS2: Three phase 200 to 230 VAC, 50/60 Hz Connection terminal: L11, L21

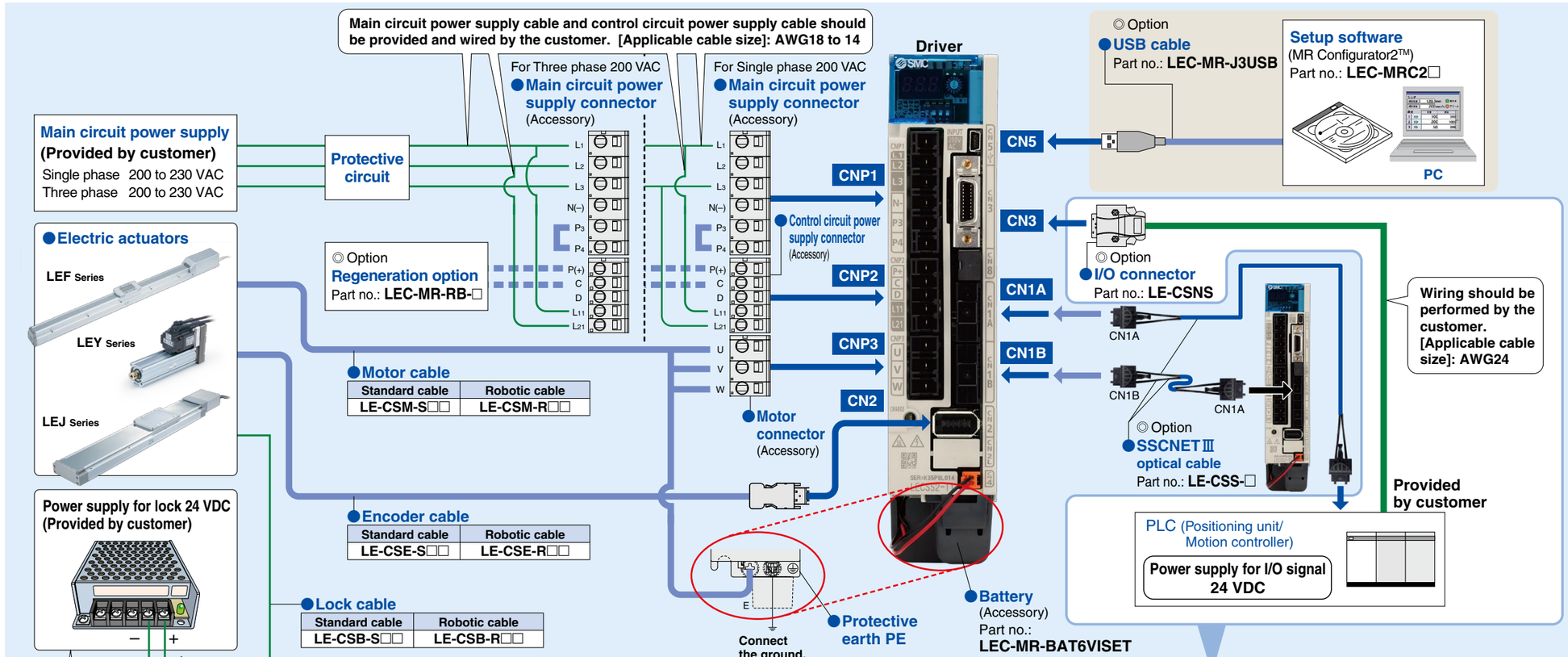


Motor Connector (Accessory): CNP3

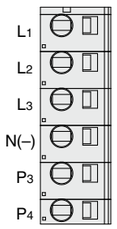
Terminal name	Function	Details
U	Servo motor power (U)	Connect to motor cable (U (Red), V (White), W (Black)).
V	Servo motor power (V)	
W	Servo motor power (W)	

Note) ——: Provided by customer. Ⓐ

Wiring Method for LECSS-T

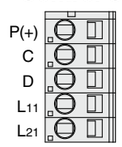


Main Circuit Power Supply Connector (Accessory): CNP1



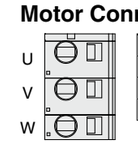
Terminal name	Function	Details
L1 L2 L3	Main circuit power supply	Connect the main circuit power supply. LECSS2-T: Single phase 200 to 230 VAC, 50/60 Hz Connection terminal: L1, L3 LECSS2-T: Three phase 200 to 230 VAC, 50/60 Hz Connection terminal: L1, L2, L3
N(–)	Do not connect.	
P3, P4	Connect between P3 and P4. (Connected at time of shipping.)	

Control Circuit Power Supply Connector (Accessory): CNP2



Terminal name	Function	Details
P, C, D	Regeneration option	Terminal to connect regeneration option. When the built-in regenerative resistor of the driver is used, connect between P and D. (Connected at time of shipping.) When regeneration option is connected, remove the wiring between P and D, and connect the regeneration option to P and C.
L11, L21	Control circuit power supply	Connect the control circuit power supply. LECSS2-T: Single phase 200 to 230 VAC, 50/60 Hz Connection terminal: L11, L21 LECSS2-T: Three phase 200 to 230 VAC, 50/60 Hz Connection terminal: L11, L21

Motor Connector (Accessory): CNP3



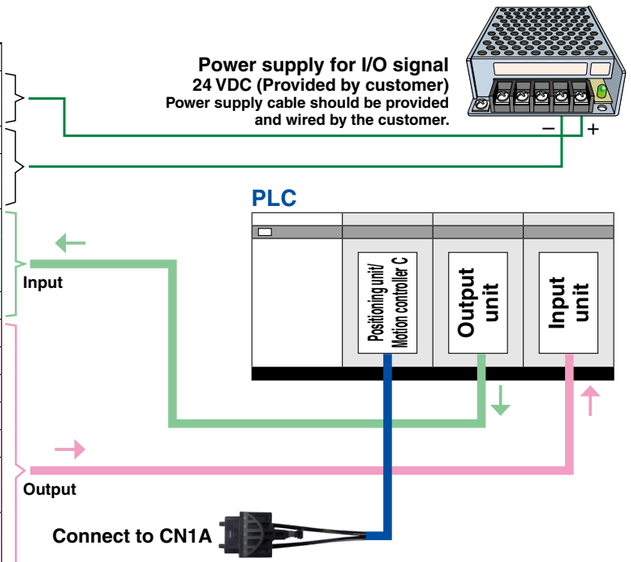
Terminal name	Function	Details
U	Servo motor power (U)	Connect to motor cable (U (Red), V (White), W (Black)).
V	Servo motor power (V)	
W	Servo motor power (W)	

I/O Signal Wiring

I/O connector (Option): CN3

Pin no.	Signal name	
5 10	DICOM	Digital I/F power supply input
3	DOCOM	Digital I/F common
1 11	LG	Control common
2	DI1	(Set by PLC.)
12	DI2	
19	DI3	
20	EM2	∗ Forced stop 2
9	INP	In position
13	MBR	Electromagnetic brake interlock
15	ALM	∗ Failure
3	MO1	Analog monitor 1
14	MO2	Analog monitor 2
6	LA	A-phase pulse encoder (Differential line driver)
16	LAR	
7	LB	B-phase pulse encoder (Differential line driver)
17	LBR	
8	LZ	Z-phase pulse encoder (Differential line driver)
18	LZR	

The ∗EM2 and ∗ALM are negative logic.
Signal assignments are those in the initial setting status.



Note) ——: Provided by customer. Ⓐ