EC3000E-UPS-(EPM)
Elevator Inatelligent Integrated Machine

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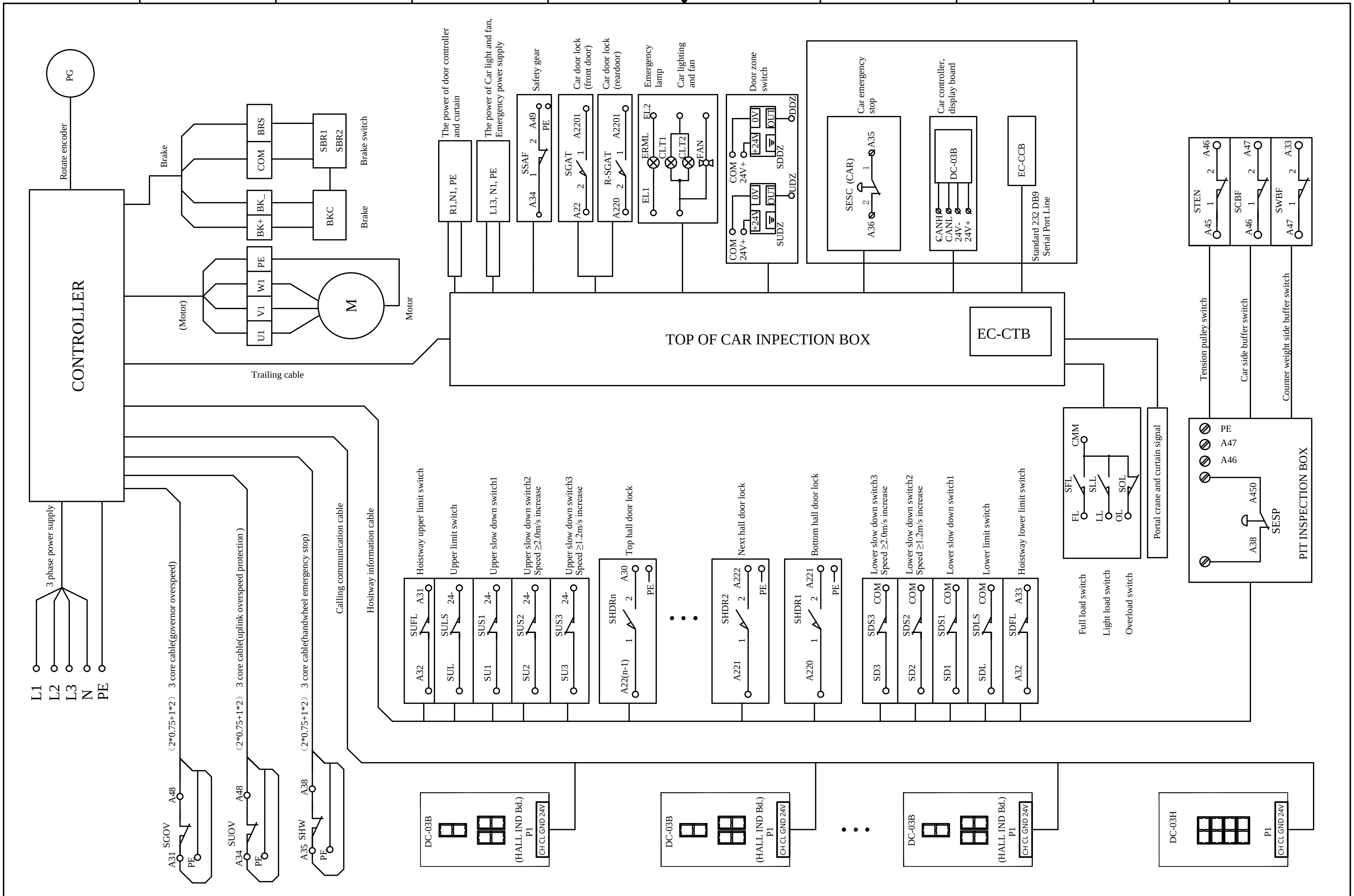
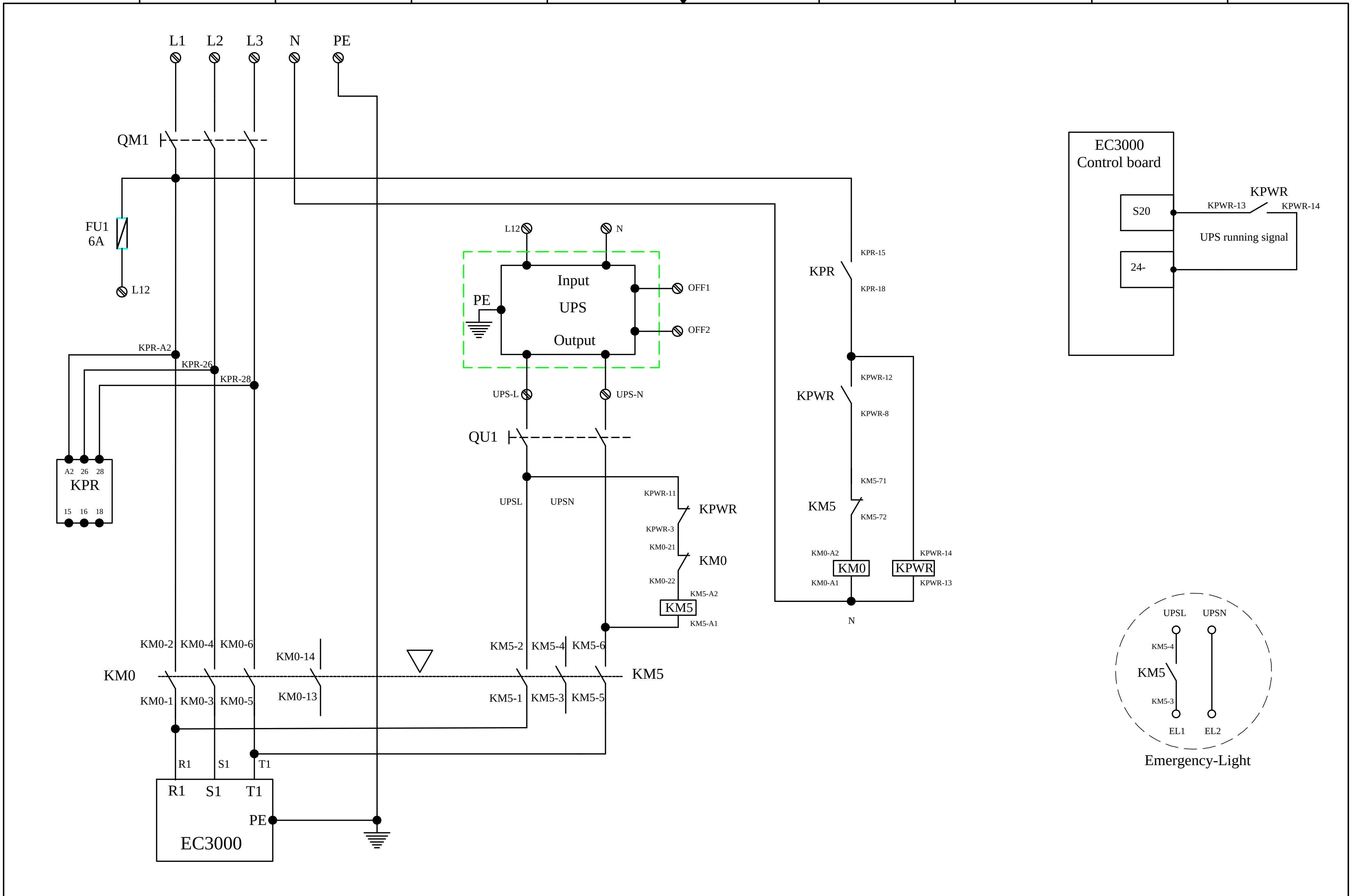
DRAWING NO:	DATE:	CUSTOMER:	TITLE: EC3000E System Control Diagram
DRAWED:	CHECKED:	MACHINE:	PAGE: System drawing
APPROVAL:			NEXT: 01
			TOTAL: 22

Symbol	Item	Location	Remark
BKC	Motor brake coil	Machine room	
BR	Brake resistor	Control cabinet	
SMTR	Overheat of motor protection	Control cabinet	May not use
BRS	Brake travel switch	Control cabinet	May not use
CHM	Arrival gong	Car	
FJ-DC-03B	Vertical calling & display board	Hall & car	
FJ-DC-03H	Horizontal calling & display board	Hall & car	
DOB	Door open button	Car	
DCB	Door close button	Car	
DO	Front door open control	Car	
DC	Front door close control	Car	
DOL	Front door open feedback signal	Car	
DCL	Front door close feedback signal	Car	
DOWN. CABINET	Down button	Control cabinet	
DOWN. CARTOP	Down button	Car	
UP CABINET	Up button	Control cabinet	
UP CARTOP	Up button	Car	
FJ-EC-CCB	Car top operation board	Car	
FJ-EC-CTB	Car top control board	Car	
FIRE/SW	Fire switch button	Hall	
INSP. CABINET	Inspection switch	Control cabinet	
INSP. CARTOP	Maintenance switch	Car	
KBK	Brake contactor	Control cabinet	
KDL	Hall door lock relay	Control cabinet	
KLS	Energy saving relay	Control cabinet	
KM0	Power contactor	Control cabinet	
KM2	Running contactor	Control cabinet	
KM5	UPS contactor	Control cabinet	
KOP	Door open delay button	Control cabinet	
KPR	Phase sequence relay	Control cabinet	
KPWR	Power test relay	Control cabinet	
KSAF	Safety relay	Control cabinet	
KBK1	Brake contactor control 2	Control cabinet	
PS24V	24VDC Power supply	Control cabinet	

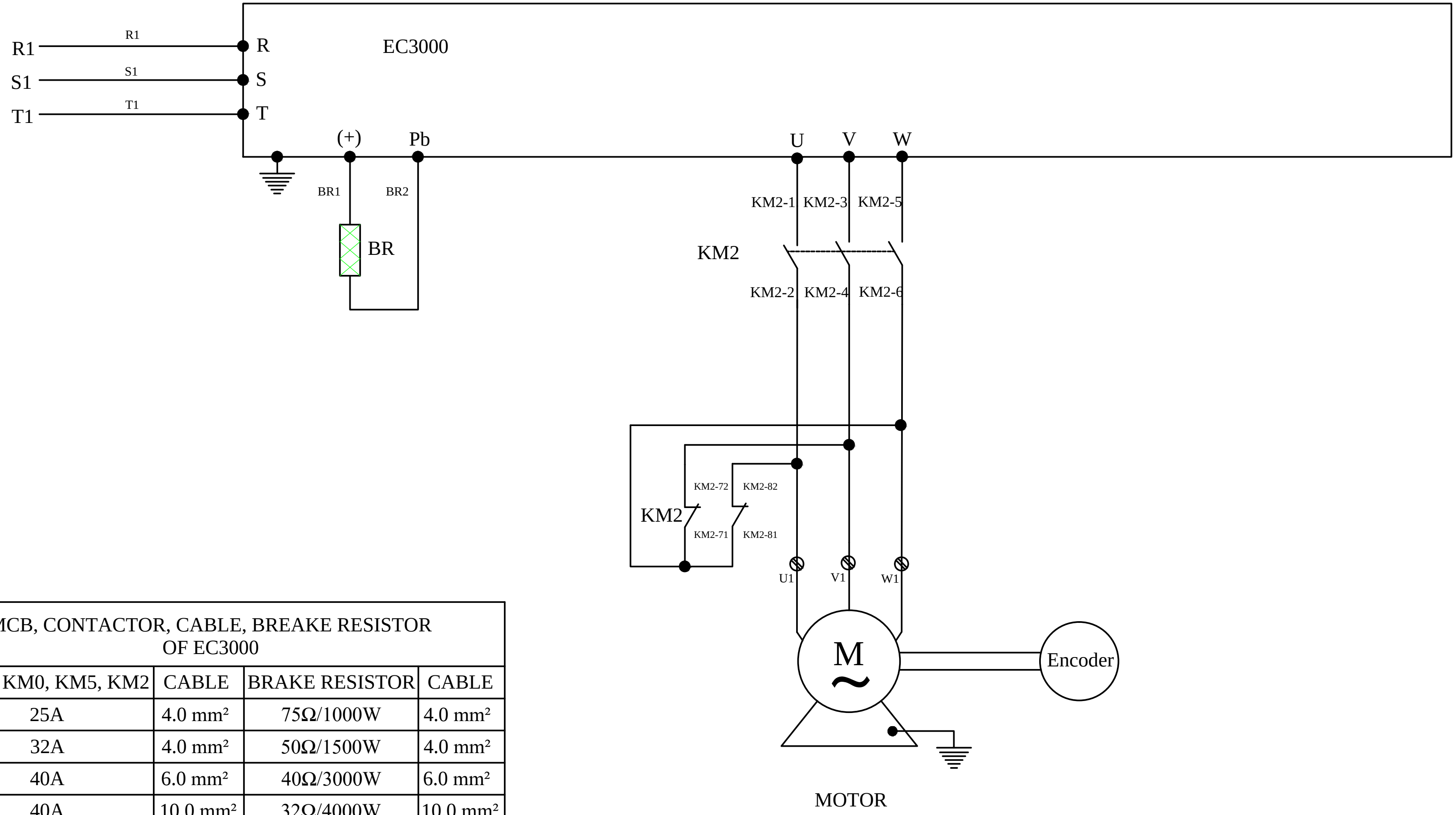
Symbol	Item	Location	Remark
QM1	Main circuit breaker	Control cabinet	
QU1	UPS circuit breaker	Control cabinet	
FU1	Fuse	Control cabinet	
RDO	Rear door open control	Car	
RDC	Rear door close control	Car	
RDOL	Rear door open feedback signal	Car	
RDCL	Rear door close feedback signal	Car	
RSE	Rear door curtain	Car	
R-SGAT	Car door lock switch	Car	
SDS1	Low speed down forced switch	Hoistway	
SDS2	Medium speed down forced switch	Hoistway	
SDSL	Lower limit switch	Hoistway	
SUS1	Low speed up forced switch	Hoistway	
SUS2	Medium speed up forced switch	Hoistway	
SUSL	Upper limit switch	Hoistway	
SMDZ	Middle door area	Car	
SGOV	Speed governor switch	Machine room	
SESP	Pit emergency stop button	Pit	
STEN	Governor tension sheave switch	Pit	
SCBF	Car buffer switch	Pit	
SWBF	Weight buffer switch	Pit	
SDFL	Well lower limit switch	Hoistway	
SUFL	Well upper limit switch	Hoistway	
SWH	Handwheel switch	Traction machine	
SUOV	Uplink overspeed protection switch	Traction machine	
SSAF	Safe gear switch	Car	
SEST	Top car emergency stop button	Cartop	
SESC	Car emergency stop button	Car	
SESR	Control cabinet emergency button	Control cabinet	
SHDR	Hall door lock	Landing door	
TR1	Power supply transformer	Control cabinet	
TR2	Inverter transformer	Control cabinet	
SFR	Fireman switch	Machine room	
SIG	Analog weghting signal	Car	
FL	Full load signal	Car	
OL	Over load signal	Car	
LL	Light load signal	Car	



DRAWING NO:	DATE:	CUSTOMER:	TITLE: EC3000 System Control Diagram	PAGE: EC3000-02
DRAWED:	CHECKED:	MACHINE:		NEXT: 03 / TOTAL: 22
APPROVAL:				



DRAWING NO:	DATE:	CUSTOMER:	TITLE: EC3000 System Control Diagram	PAGE: EC3000-03
DRAWED:	CHECKED:	MACHINE:		NEXT: 04
APPROVAL:				TOTAL: 22



MCB, CONTACTOR, CABLE, BREAKE RESISTOR OF EC3000				
POWER	QL1, KM0, KM5, KM2	CABLE	BRAKE RESISTOR	CABLE
5.5kW	25A	4.0 mm²	75Ω/1000W	4.0 mm²
7.5kW	32A	4.0 mm²	50Ω/1500W	4.0 mm²
11kW	40A	6.0 mm²	40Ω/3000W	6.0 mm²
15kW	40A	10.0 mm²	32Ω/4000W	10.0 mm²
18kW	63A	16.0 mm²	26Ω/6000W	10.0 mm²
22kW	63A	16.0 mm²	22Ω/7000W	16.0 mm²
30kW	100A	25.0 mm²	20Ω/10000W	16.0 mm²
37kW	100A	25.0 mm²	14Ω/12000W	16.0 mm²

DRAWING NO:	DATE:	CUSTOMER:	TITLE: Main driver circuit	PAGE: EC3000-04
DRAWED:	CHECKED:	MACHINE:		NEXT: 05 / TOTAL: 22
APPROVAL:				

For The Synchronous Motor (Gearless)

EC3000
CN10

DP15

EC3000 CN10	DP15 pin	Encoder connector	Pin	Wire color
B-	1	B-	5a	Red/Black
R+	3	R+	4b	Red
R-	4	R-	4a	Black
A+	5	A+	6b	Green/Black
A-	6	A-	2a	Yellow/Black
0V	7	0V	5b	White/Green
B+	8	B+	3b	Blue/Black
5V	9	5V	1b	Brown/Green
C-	10	C+	7b	Gray
C+	11	C-	1a	Pink
D+	12	D+	2b	Yellow
D-	13	D-	6a	Violet

ERN 1387

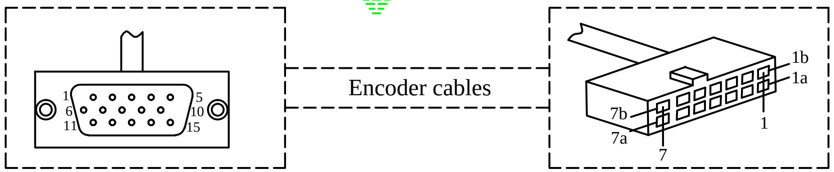
EC3000
CN11

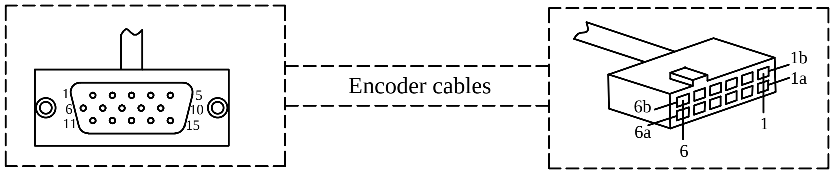
PG Card ECN 1313
(ASY02_PA1209_PG106)

DP15

PG Card	DP15 pin	Encoder connector	Pin	Wire color
A+	1	A+	2a	Green/Black
A-	2	A-	5b	Yellow/Black
B+	3	B+	4a	Blue/Black
B-	4	B-	3b	Red/Black
DATA +	5	DATA	6b	Gray
DATA-	6	$\overline{\text{DATA}}$	1a	Pink
CLOCK+	11	CLOCK	2b	Violet
CLOCK-	12	$\overline{\text{CLOCK}}$	5a	Yellow
5V	13	5V	1b	Brown/Green
0V	14	0V	4b	White/Green

ECN 1313





For The Asynchronous Motor (Gear)

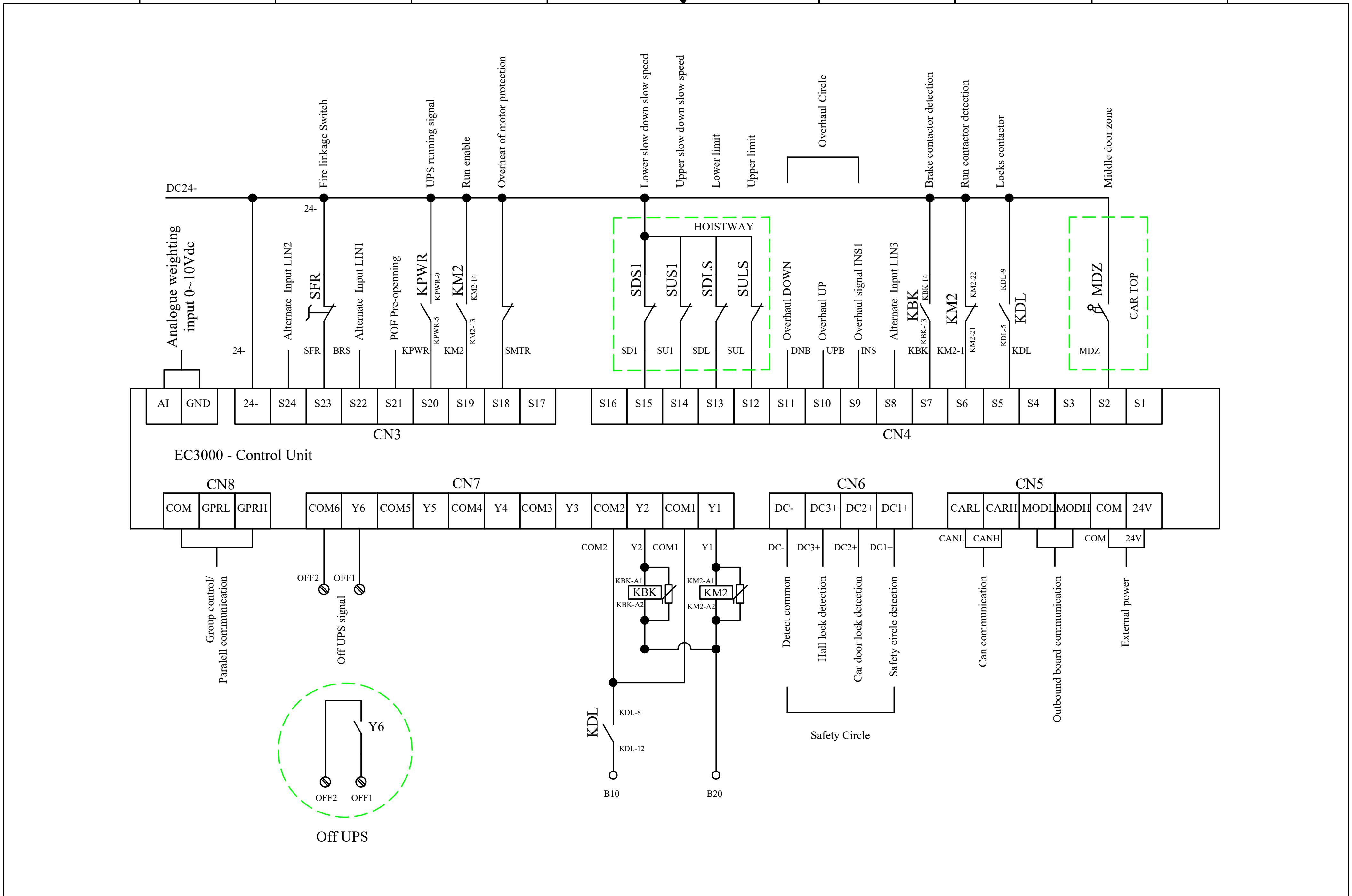
EC3000
CN9

		Signal
PE	PE	
0V	PGM	
B	PGB	B
A	PGA	A
0V	PGM	0V
12V	12V	12V

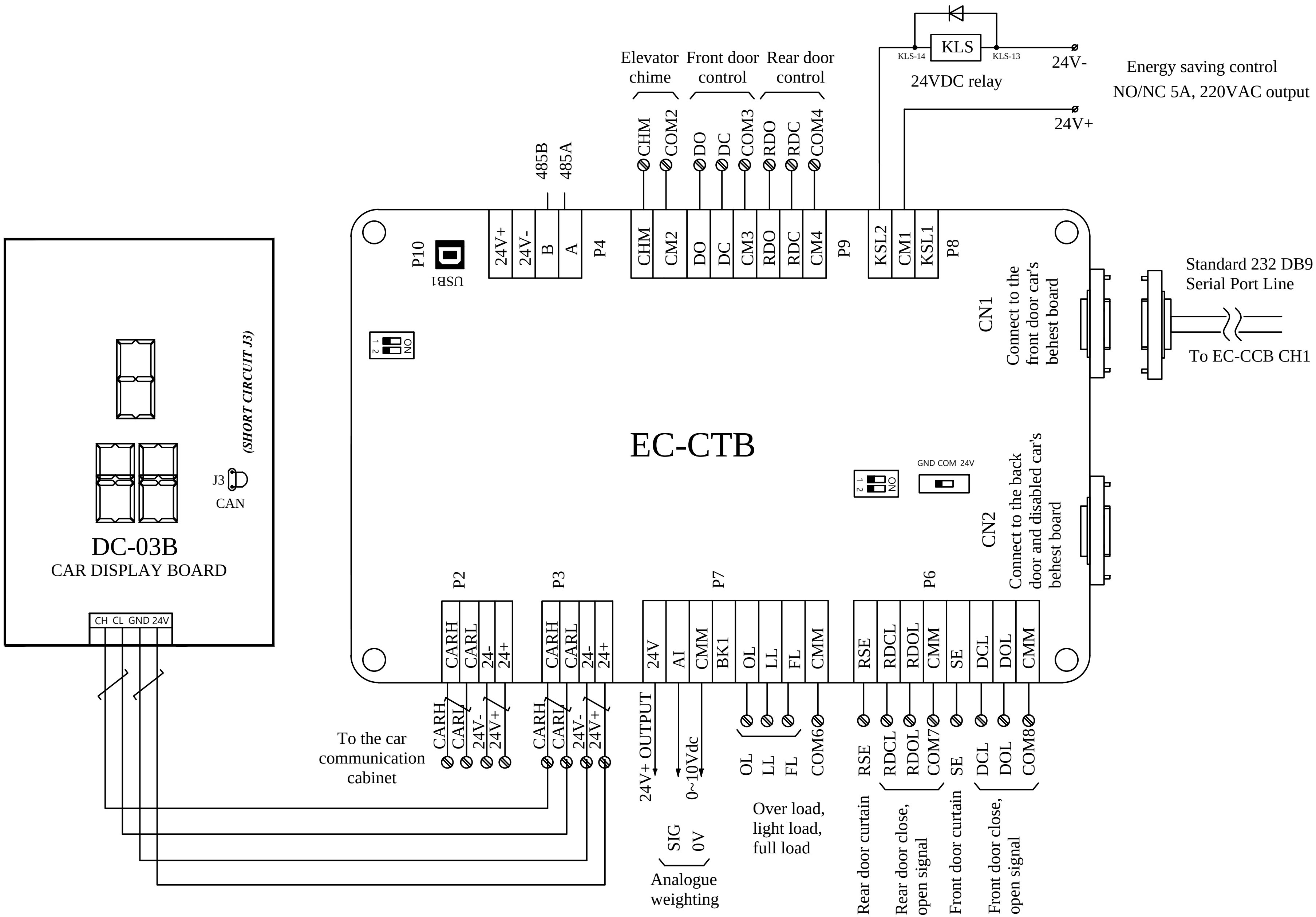
Encoder

Encoder pulses A, B
source 12Vdc

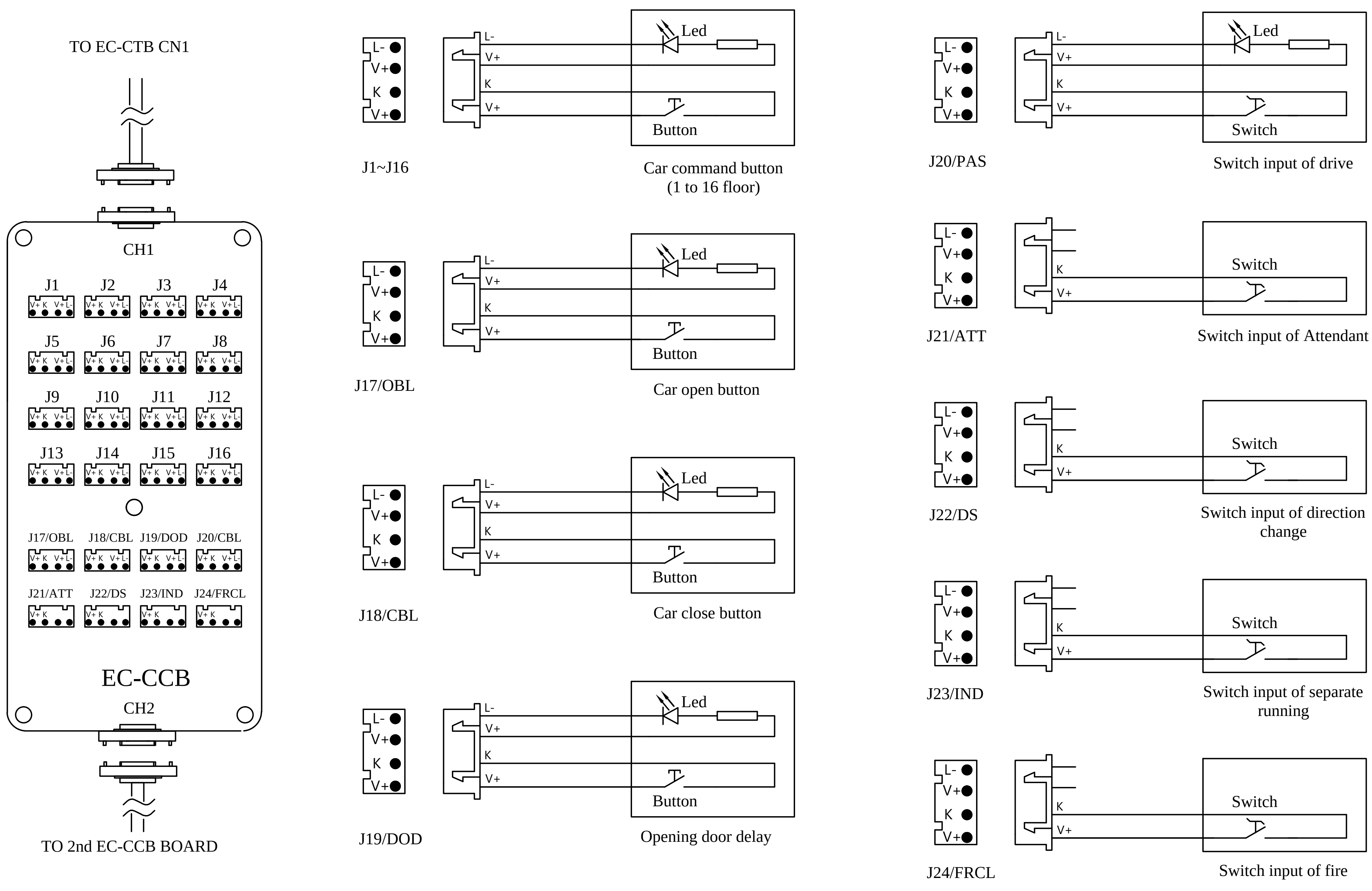
DRAWING NO:	DATE:	CUSTOMER:	TITLE: Encoder	PAGE: EC3000-05
DRAWED:	CHECKED:	MACHINE:		NEXT: 06
APPROVAL:				TOTAL: 22



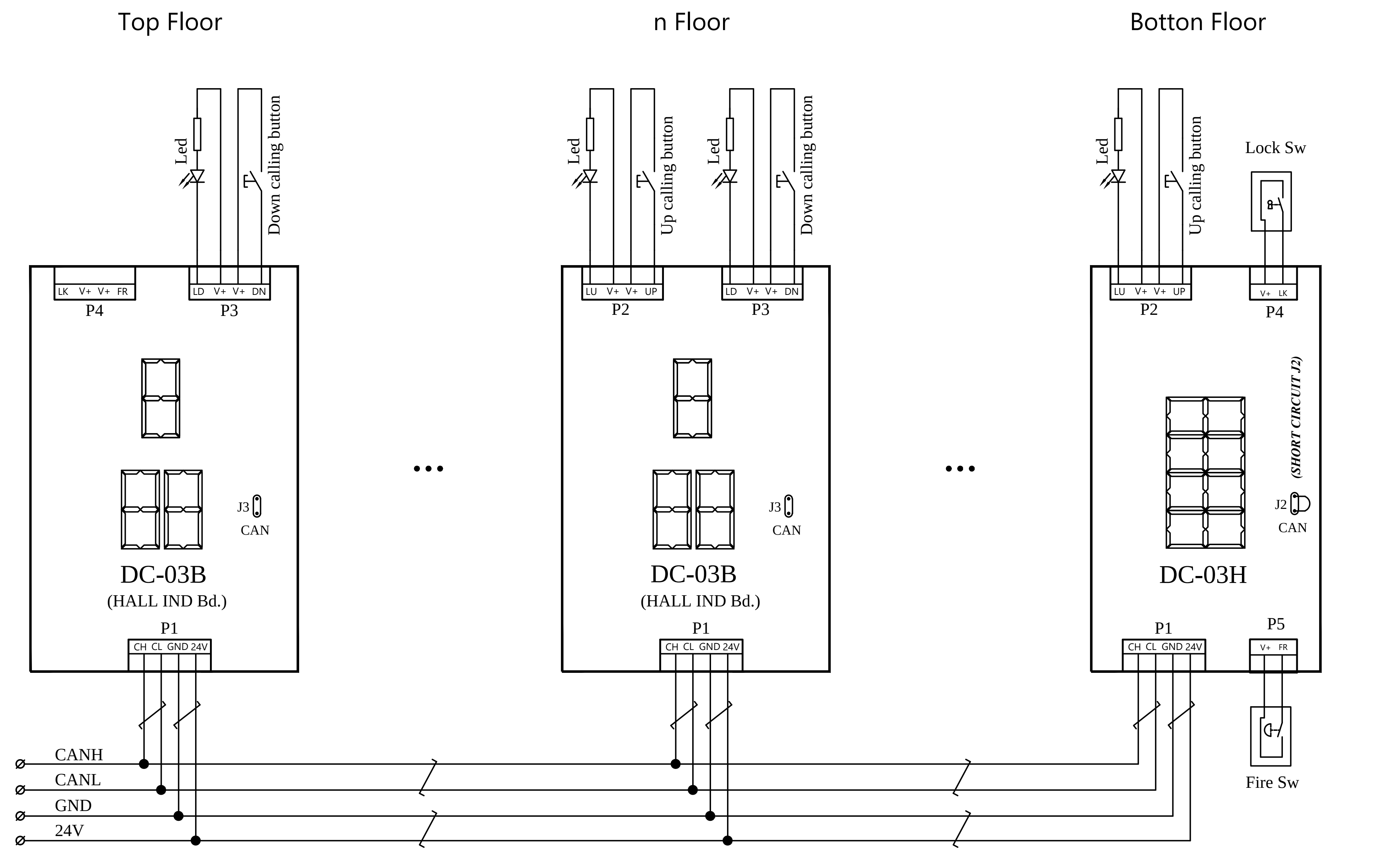
DRAWING NO:	DATE:	CUSTOMER:	TITLE: I/O input circuit
DRAWED:	CHECKED:	MACHINE:	PAGE: EC3000E-06
APPROVAL:			NEXT: 07 TOTAL: 22



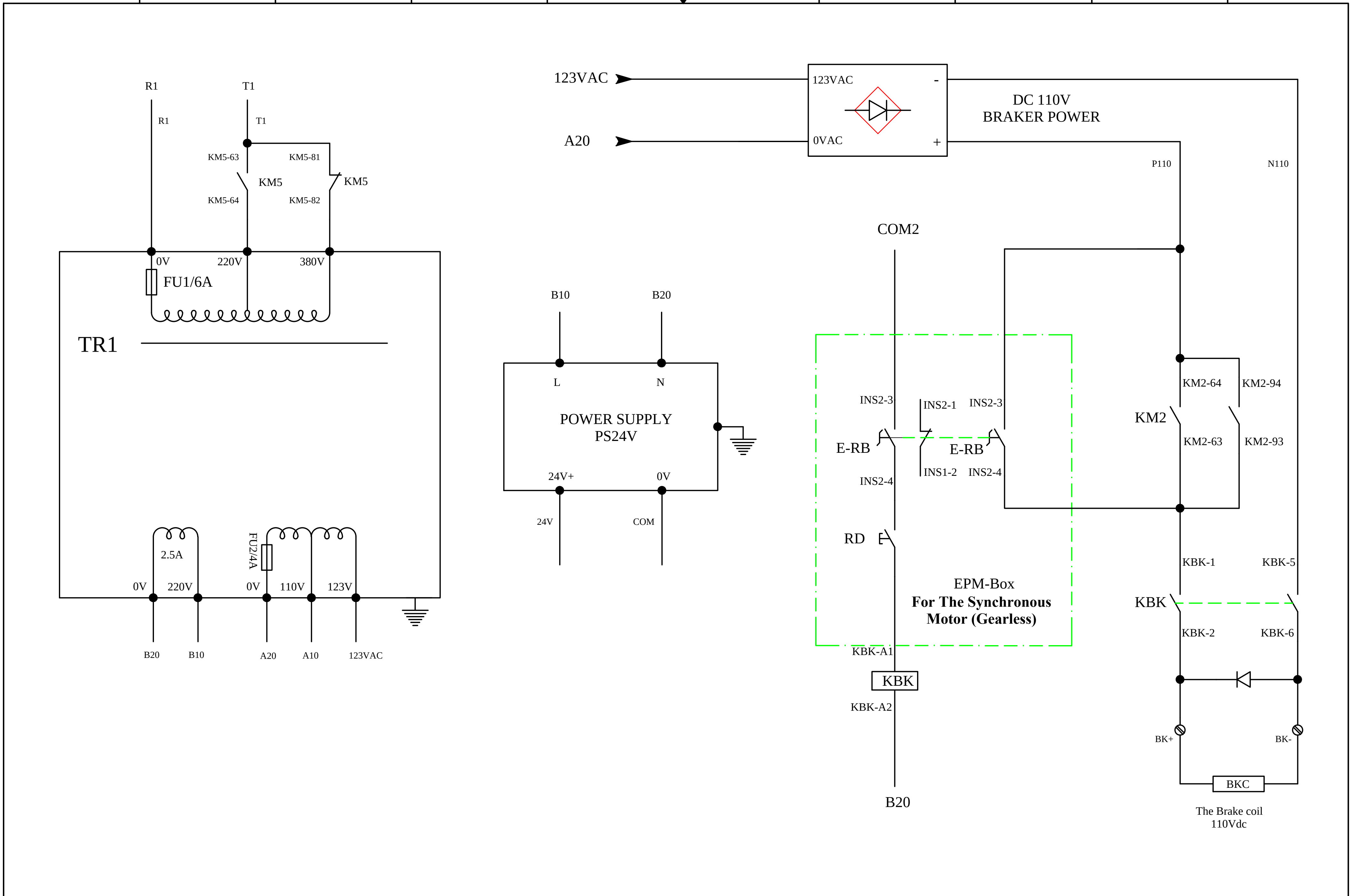
DRAWING NO:	DATE:	CUSTOMER:	TITLE: Cartop control board	PAGE: EC3000-07
DRAWED:	CHECKED:	MACHINE:		NEXT: 08 / TOTAL: 22
APPROVAL:				



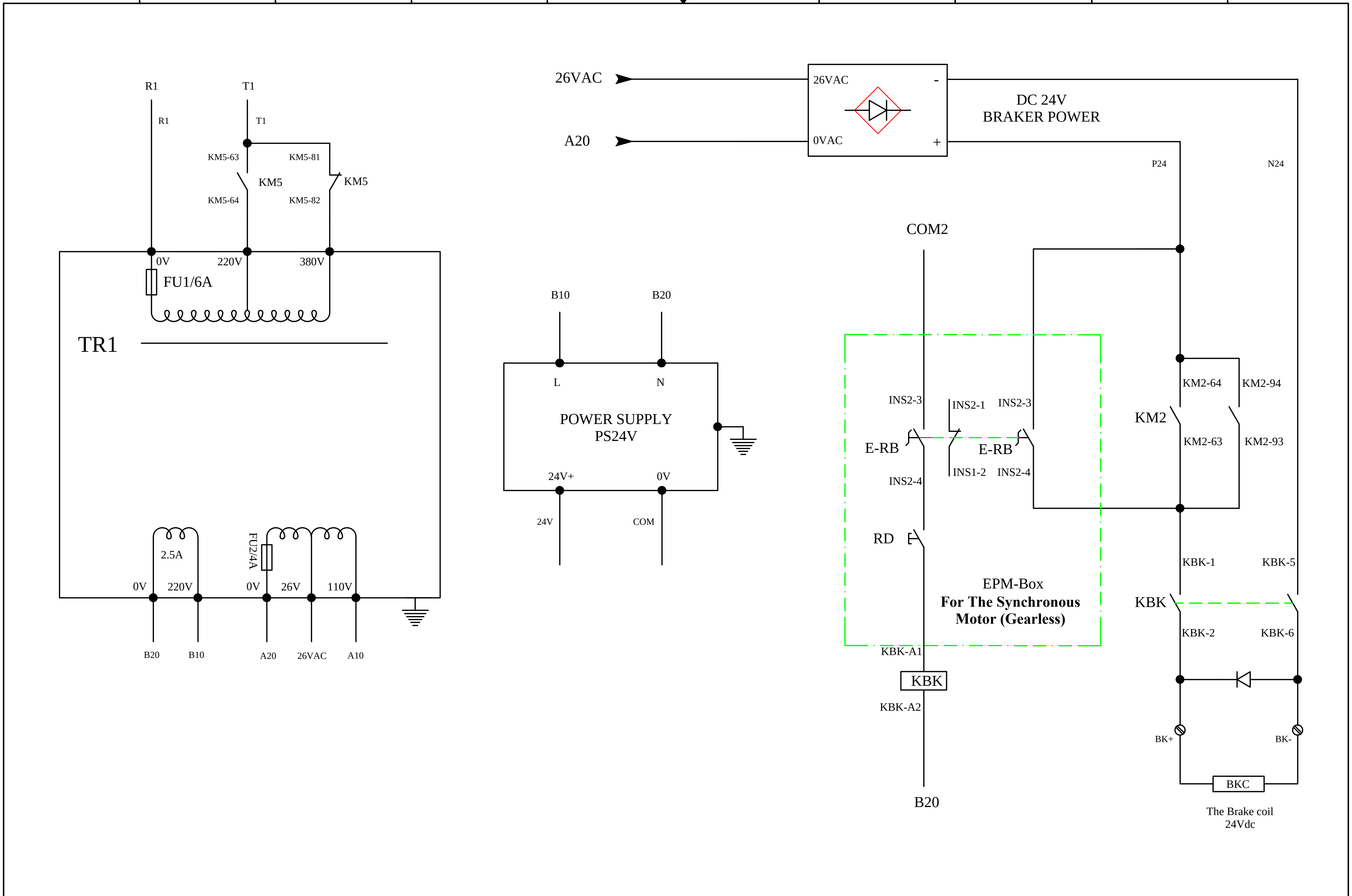
DRAWING NO:	DATE: \	CUSTOMER:	TITLE: Manipulate box	PAGE: EC3000-08
DRAWED:	CHECKED:	MACHINE:		NEXT: 09 / TOTAL: 22
APPROVAL:				



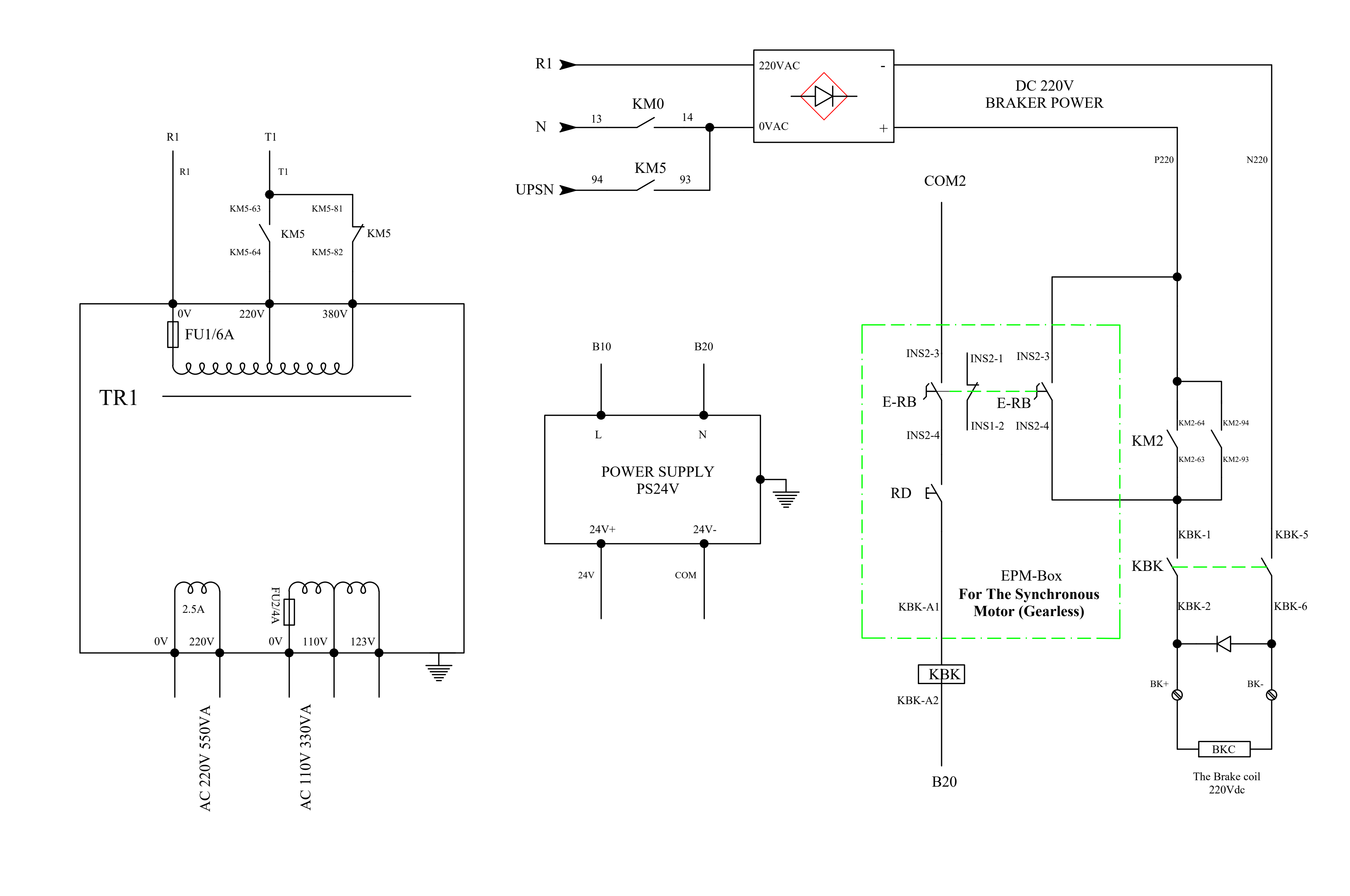
DRAWING NO:	DATE:	CUSTOMER:	TITLE: Calling wiring diagram	PAGE: EC3000-09
DRAWED:	CHECKED:	MACHINE:		NEXT: 10 / TOTAL: 22
APPROVAL:				



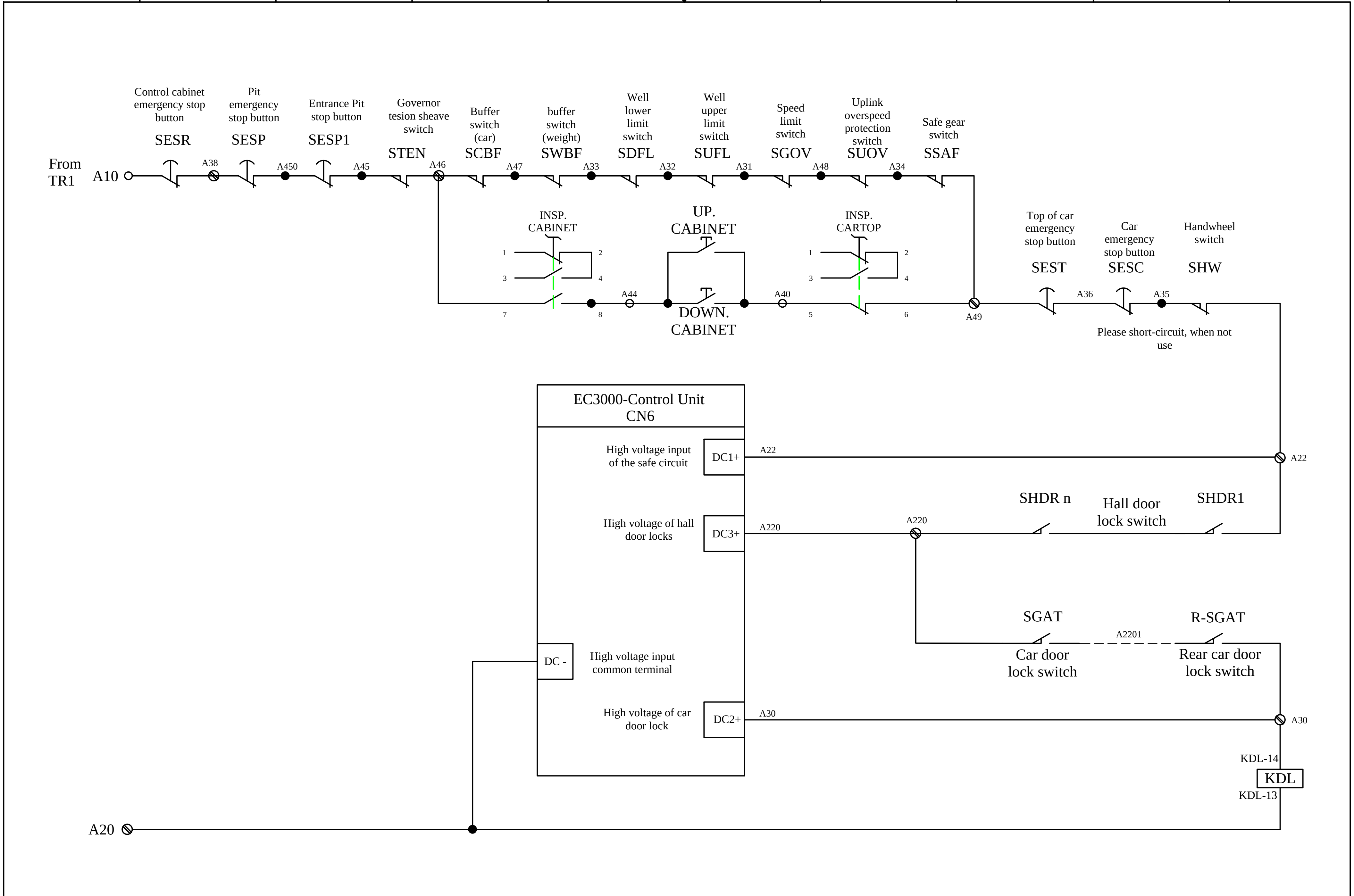
DRAWING NO:	DATE:	CUSTOMER:	TITLE: Control power supply	PAGE: EC3000-10
DRAWED:	CHECKED:	MACHINE:		NEXT: 11 / TOTAL: 22
APPROVAL:				



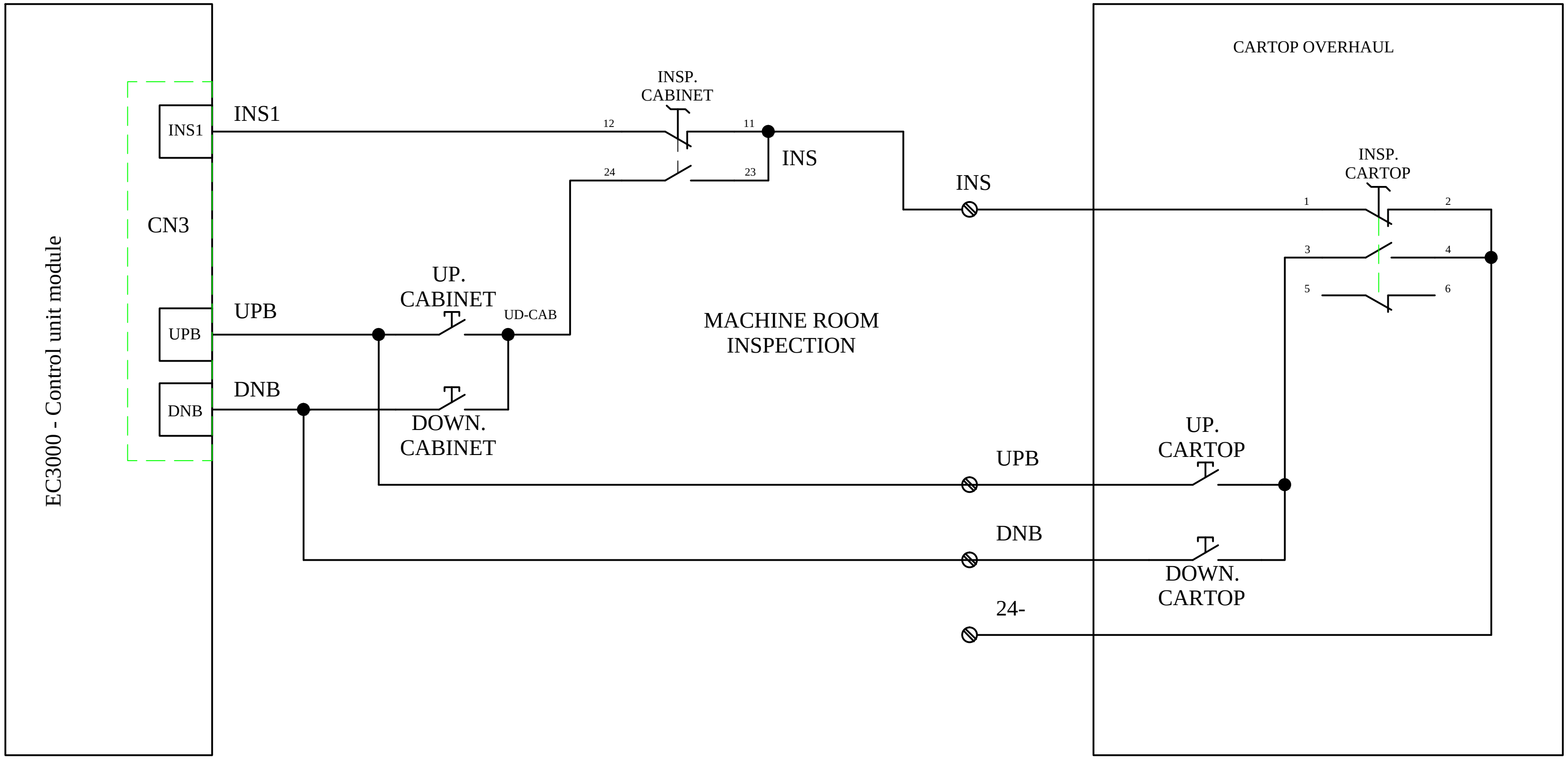
DRAWING NO:	DATE:	CUSTOMER:	TITLE: Control power supply	PAGE: EC3000-11
DRAWED:	CHECKED:	MACHINE:		NEXT: 12
APPROVAL:				TOTAL: 22



DRAWING NO:	DATE:	CUSTOMER:	TITLE: Control power supply	PAGE: EC3000E-12
DRAWED:	CHECKED:	MACHINE:		NEXT: 13 · TOTAL: 22
APPROVAL:				



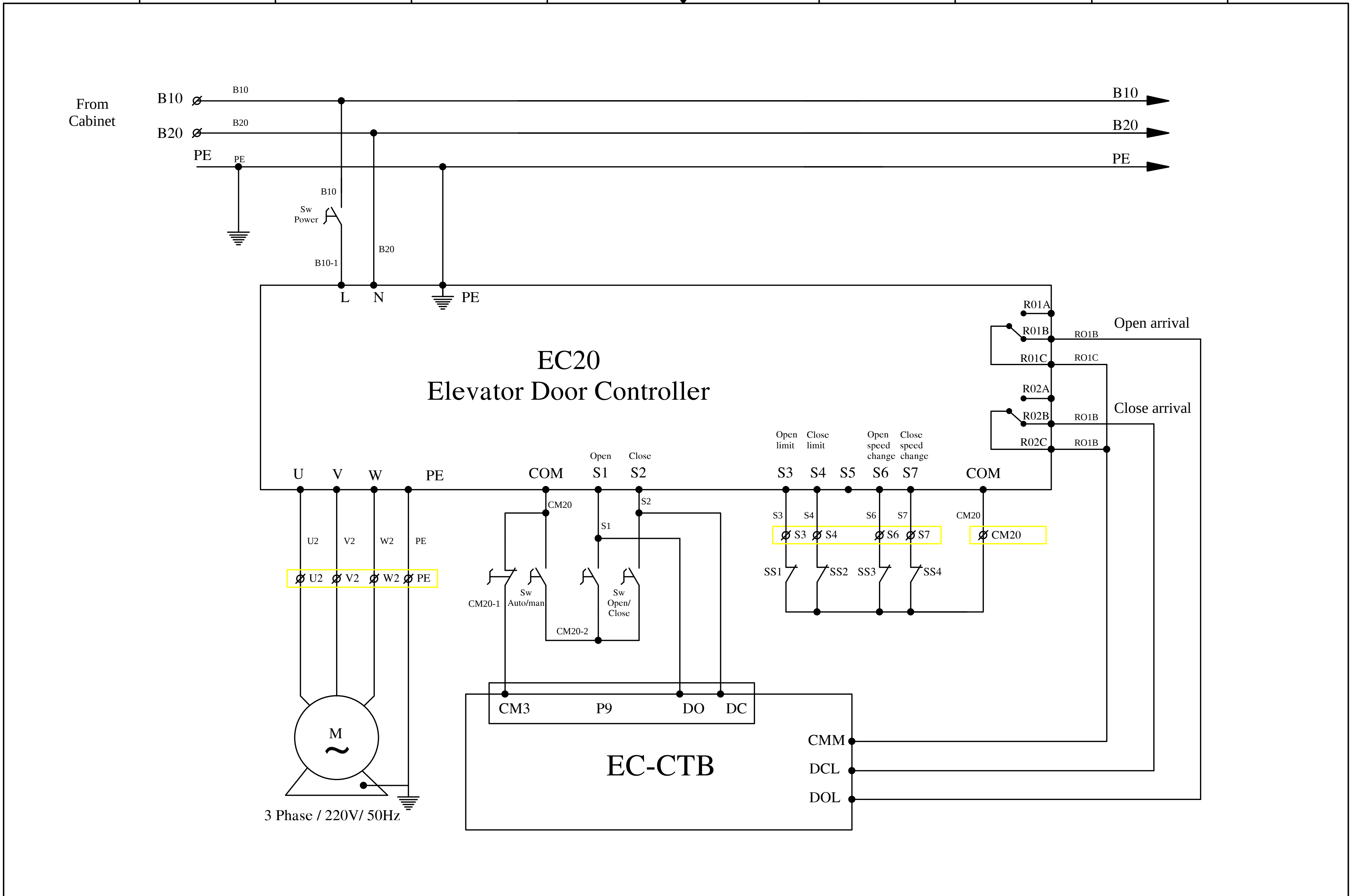
DRAWING NO:	DATE:	CUSTOMER:	TITLE: EC3000 Safety Circle
DRAWED:	CHECKED:	MACHINE:	PAGE: EC3000-13
APPROVAL:			NEXT: 14 TOTAL: 22



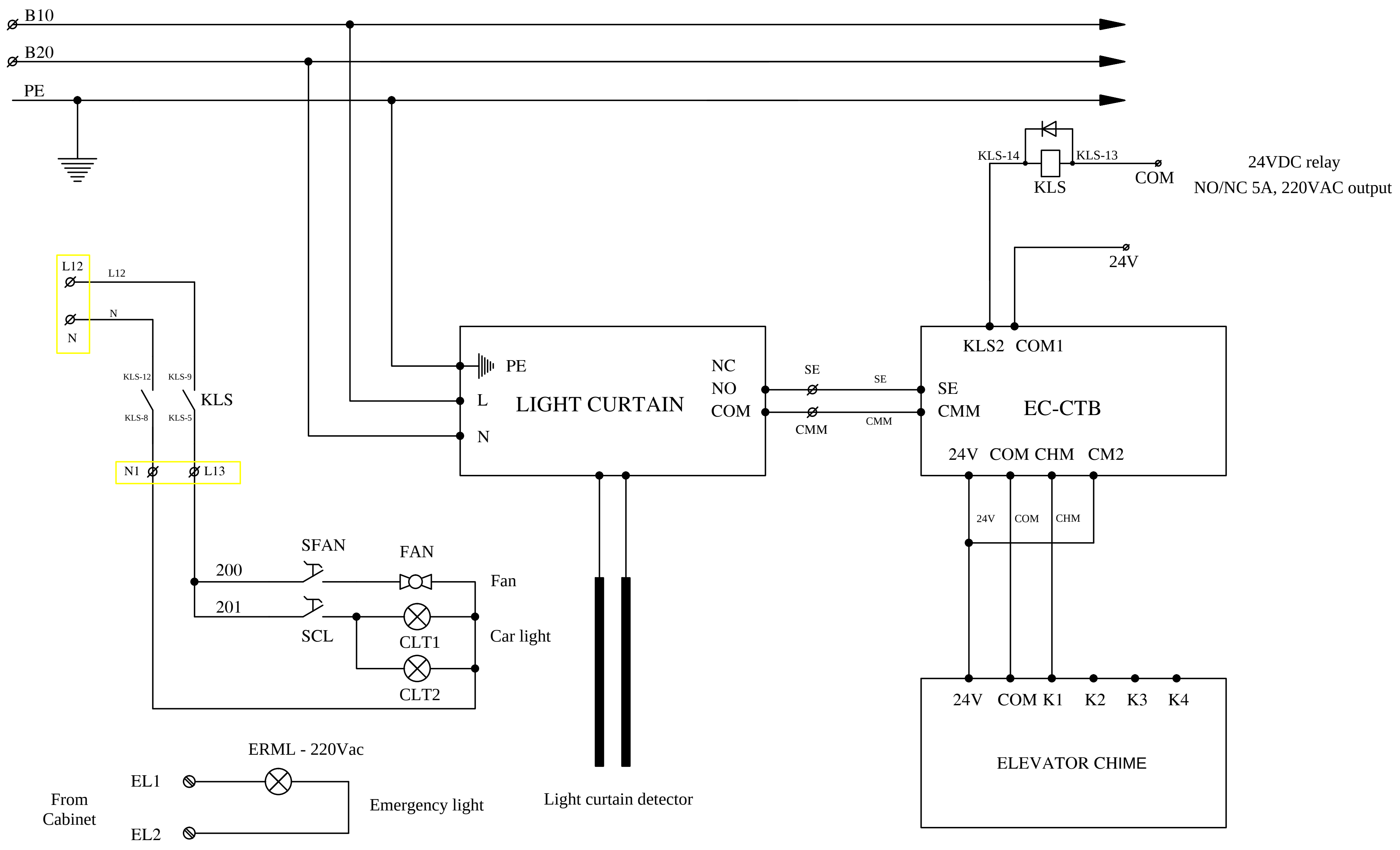
A

DRAWING NO:	DATE:	CUSTOMER:	TITLE: Inspection	PAGE: EC3000-14
DRAWED:	CHECKED:	MACHINE:		NEXT: 15
APPROVAL:				TOTAL: 22

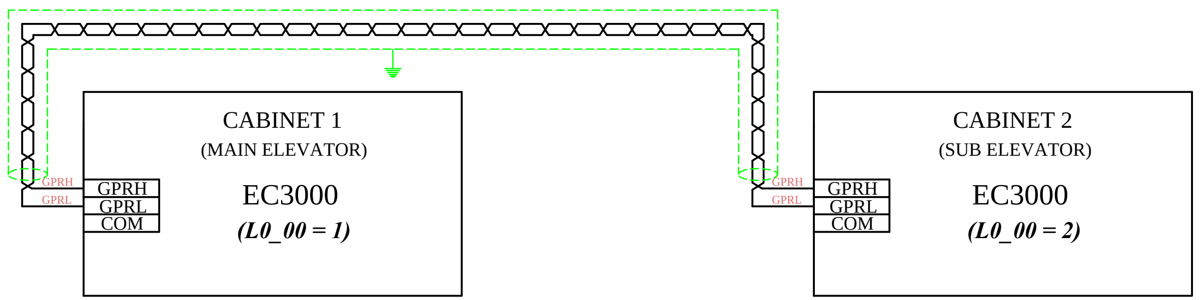
A



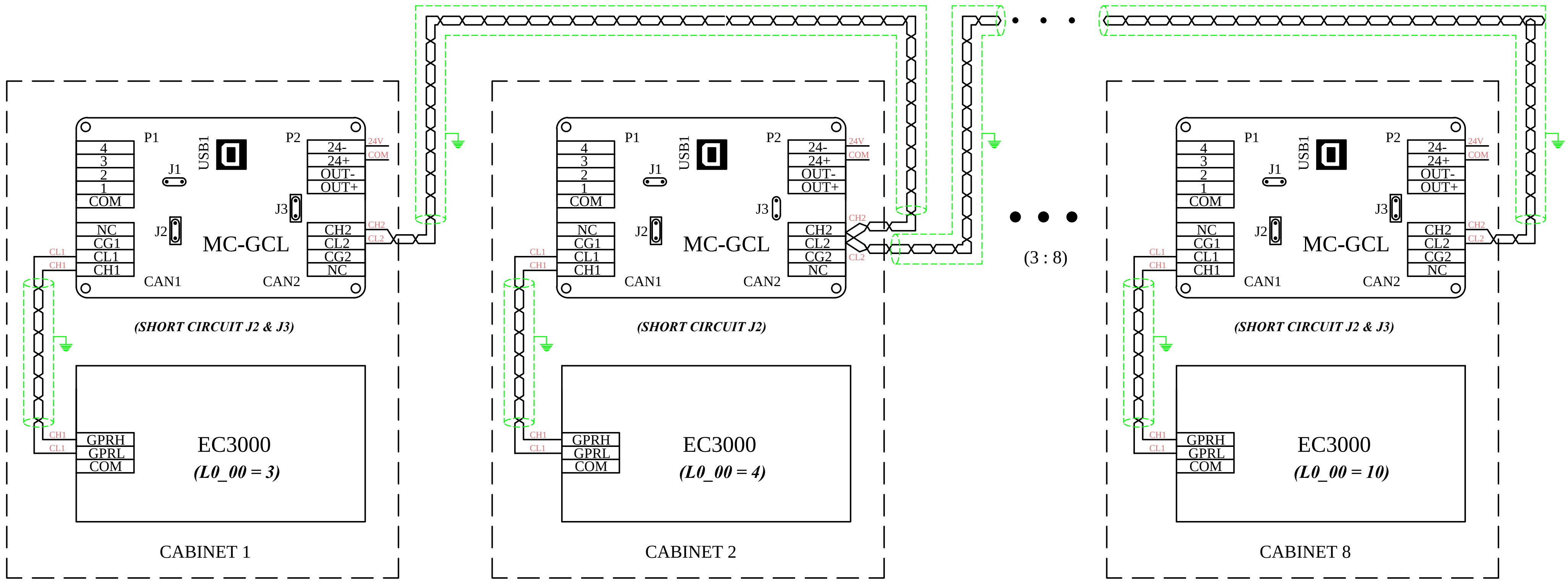
DRAWING NO:	DATE:	CUSTOMER:	TITLE: Door control	PAGE: EC3000-15	
DRAWED:	CHECKED:	MACHINE:		NEXT: 16	TOTAL: 22
APPROVAL:					



DRAWING NO:	DATE:	CUSTOMER:	TITLE: Cabine circuit
DRAWED:	CHECKED:	MACHINE:	PAGE: EC3000-16
APPROVAL:			NEXT: 17 / TOTAL: 22



DUPLEX CONTROL



GROUP CONTROL

DRAWING NO:	DATE:	CUSTOMER:
DRAWED:	CHECKED:	MACHINE:
APPROVAL:		

TITLE: Duplex and Group control

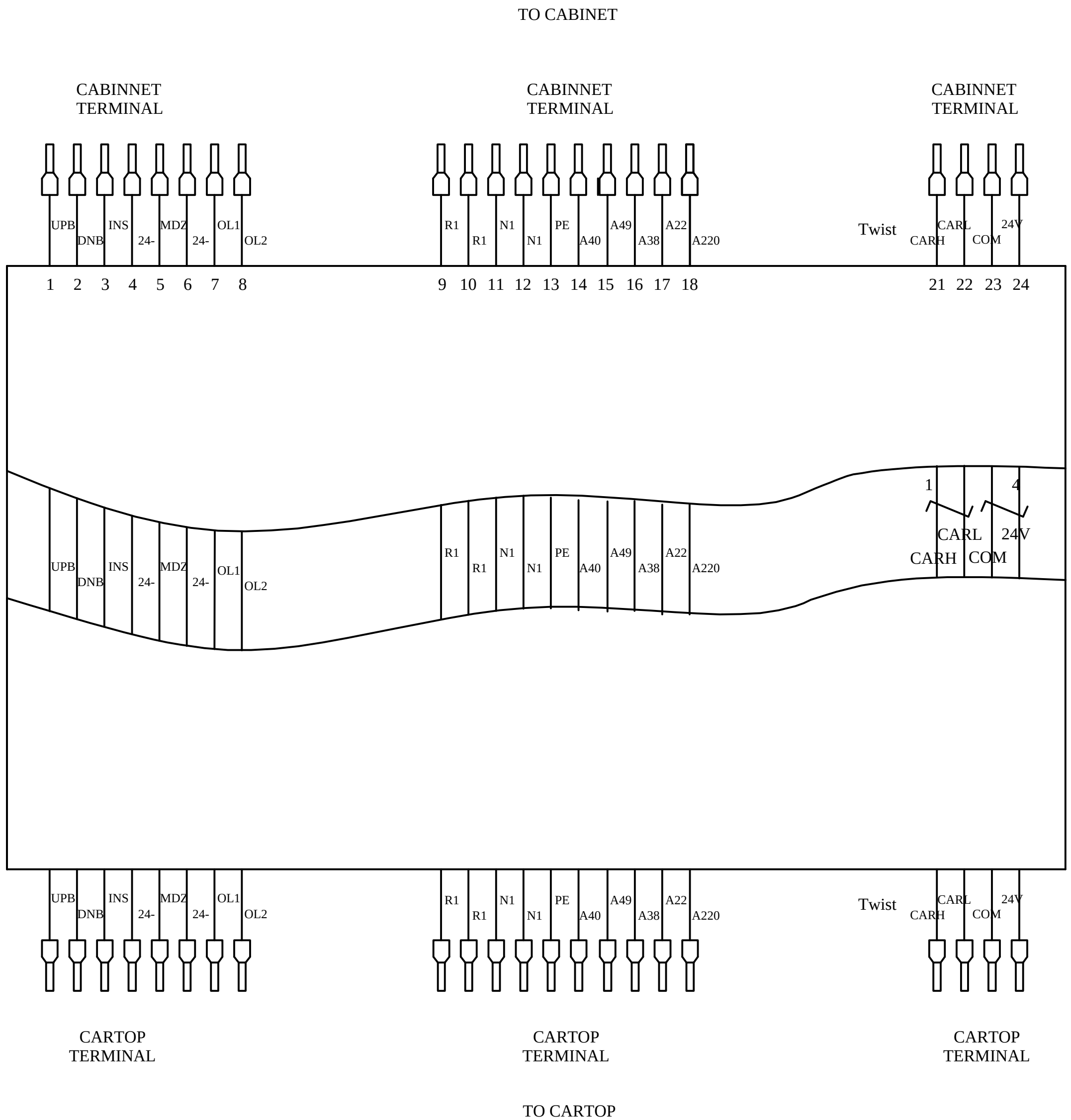
PAGE: EC3000-17

NEXT: 18

TOTAL: 22

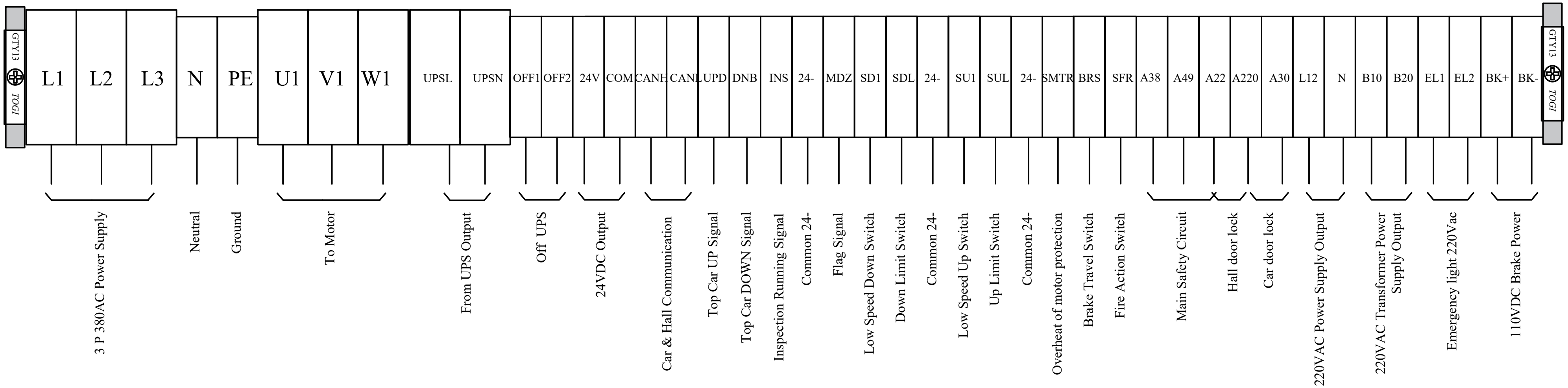
Traveling cable				
Control cabinet			Car top inspection box	
Terminal Connect	Cable. NO	Line Name	Terminal connect	Cable. NO
CABINNET TERMINAL	1	UPB	CARTOP TERMINAL	
	2	DNB		
	3	INS		3
	4	COM		4
	5	MDZ		5
	6	COM		6
CABINNET TERMINAL	8	R1	CARTOP TERMINAL	8
	9	R1		9
	10	N1		10
	11	N1		11
	12	PE		12
	13	A40		13
	14	A49		14
	15	A38		15
	16	A22		16
	17	A220		17
CABINNET TERMINAL	21	CARH	CARTOP TERMINAL	21
	22	CARL		22
	23	COM		23
	24	24V		24

Traveling cable length = Total height of the hoistway
+ Control cabinet to the hoistway entrance distance
+ Hoistway entrance to the trough distance + 8m



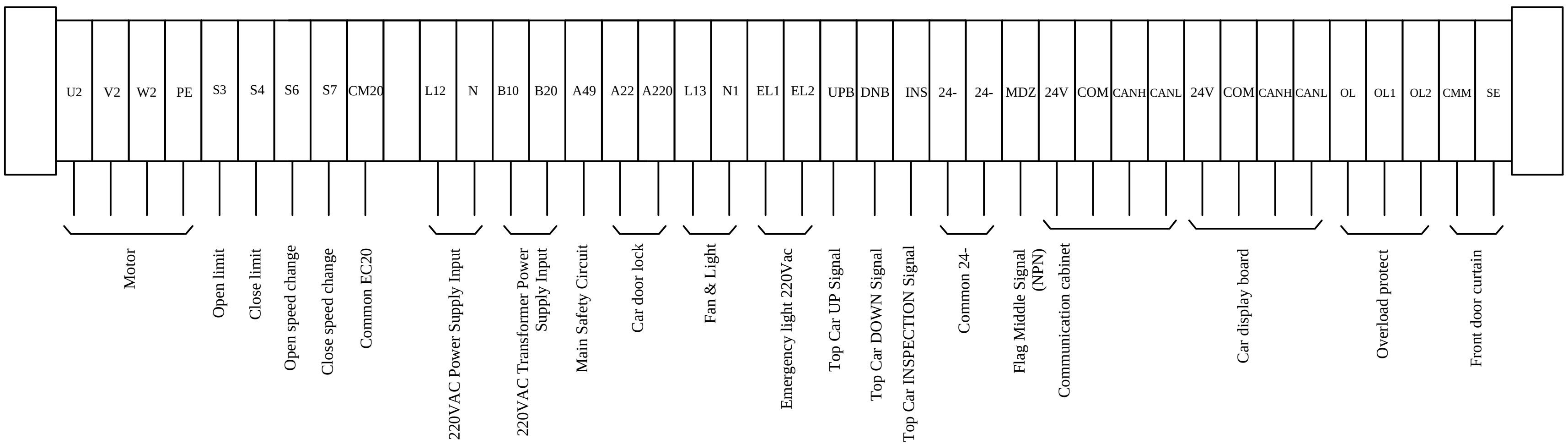
DRAWING NO:
DATE:
CUSTOMER:
TITLE: Traveling cable
PAGE: EC3000-18
DRAWED:
CHECKED:
MACHINE:
NEXT: 19
TOTAL: 22
APPROVAL:

CABINNET TERMINAL

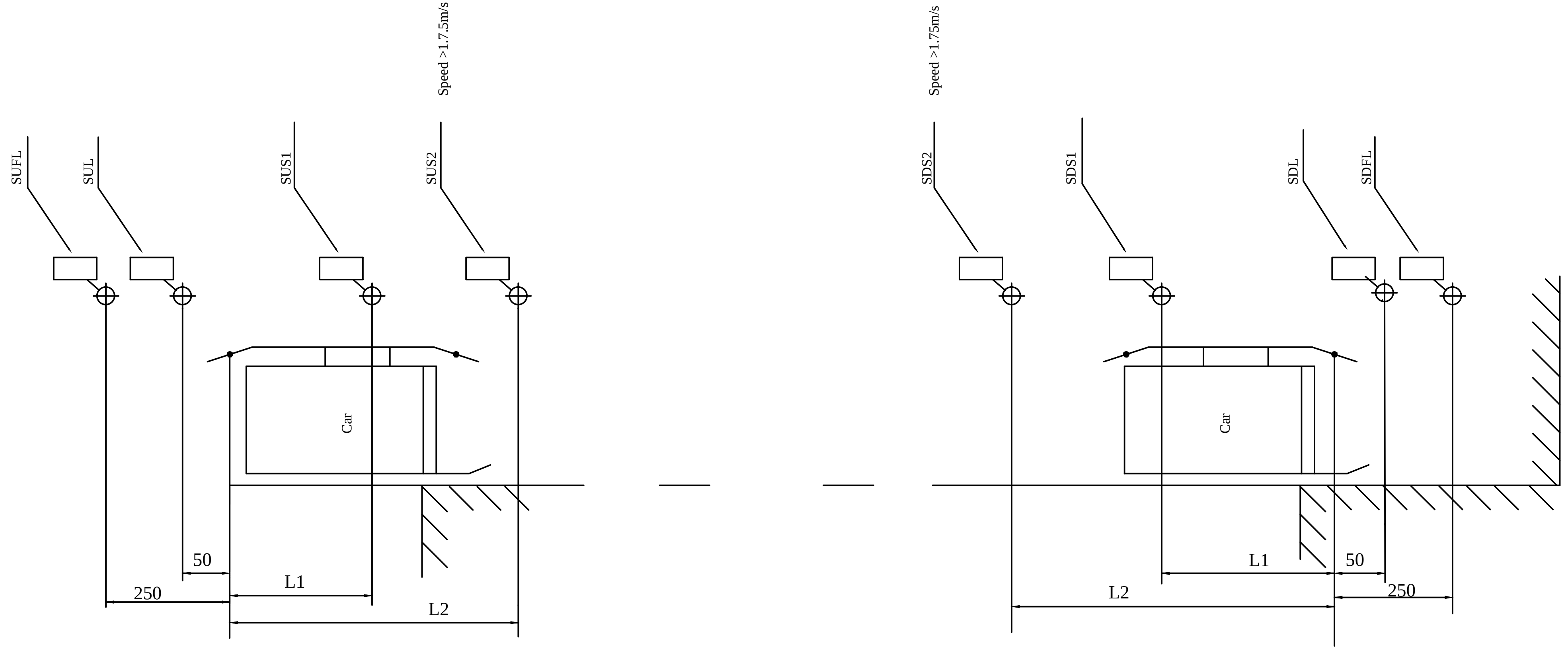


DRAWING NO:	DATE:	CUSTOMER:	TITLE: Cabinet Terminal	PAGE: EC3000E-19
DRAWED:	CHECKED:	MACHINE:		NEXT: 20 / TOTAL: 22
APPROVAL:				

CARTOP TERMINAL



DRAWING NO:
DATE:
CUSTOMER:
TITLE: Cartop Terminal
PAGE: EC3000-20
DRAWED:
CHECKED:
MACHINE:
NEXT: 21
TOTAL: 22
APPROVAL:



Speed / Distance (mm)	0.7m/s	1.0m/s	1.5m/s	1.75m/s	2.0m/s	2.5m/s	3.0m/s
L1	0.5m	1.2m	1.5m	2.0m	1.2m	1.9m	1.9m
L2			-	-	2.6m	4.2m	5.8m

DRAWING NO:	DATE:	CUSTOMER:	TITLE: Shaft components	PAGE: EC3000-21
DRAWED:	CHECKED:	MACHINE:		NEXT:
APPROVAL:				TOTAL: 22