NICE3000new
User Manual

NICE3000new
Electrical Drawing

Version NO. V3.01

Elevator control system electric appliance schematic drawing

NICE3000new

Drawing: Check: Date:

DENGKE

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Standard of NICE3000new electric wiring diagram :

1. Power level naming rules:

380V power supply in front of the main air switch three-phase five-wire named L1, L2, L3, N, PE, in the main air switch after the three-phase five-wire naming according to R, S, T, N, PE principle.

220V Illumination Power supply is named L1, N in front of the air switch of the power cabinet, and named 501,502 in the rear stage of the air switch. After that, the named fire line is graded according to 501 rule, and the range is between 503-510.

The primary control transformer is based on the R,S,T rule. The secondary naming rules of the control transformer are AC 220V:101, 102, AC110V: 02,01and DC110V: 22,21.

The input terminals of 24V switching power supply are 101 and 102, and the output terminals are 301 and 302.

2. Line number naming rules:

The controller 24V input signal correlation line uses the code corresponding to the signal as the line number, 01-18,107-112 as AC110V correlation line; and 101-102 as AC220V related circuit for control, 501-510 as AC220V lighting circuit related circuit,

3. Switch and contact rules:

All switches, contactor contacts in accordance with the upper closed and down open, left open and right closed habit.

Drawing List

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3	Power supply circuit	
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5	Safety and braker circuit	
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7	Main controller circuit	
8	Inspection circuit	
9	Car top interface board circle	
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Design		Standard		Standard and drawing list	
Collate		Drawing NO.			
Check		Versions	V3.01	Page 1	NICE3000new
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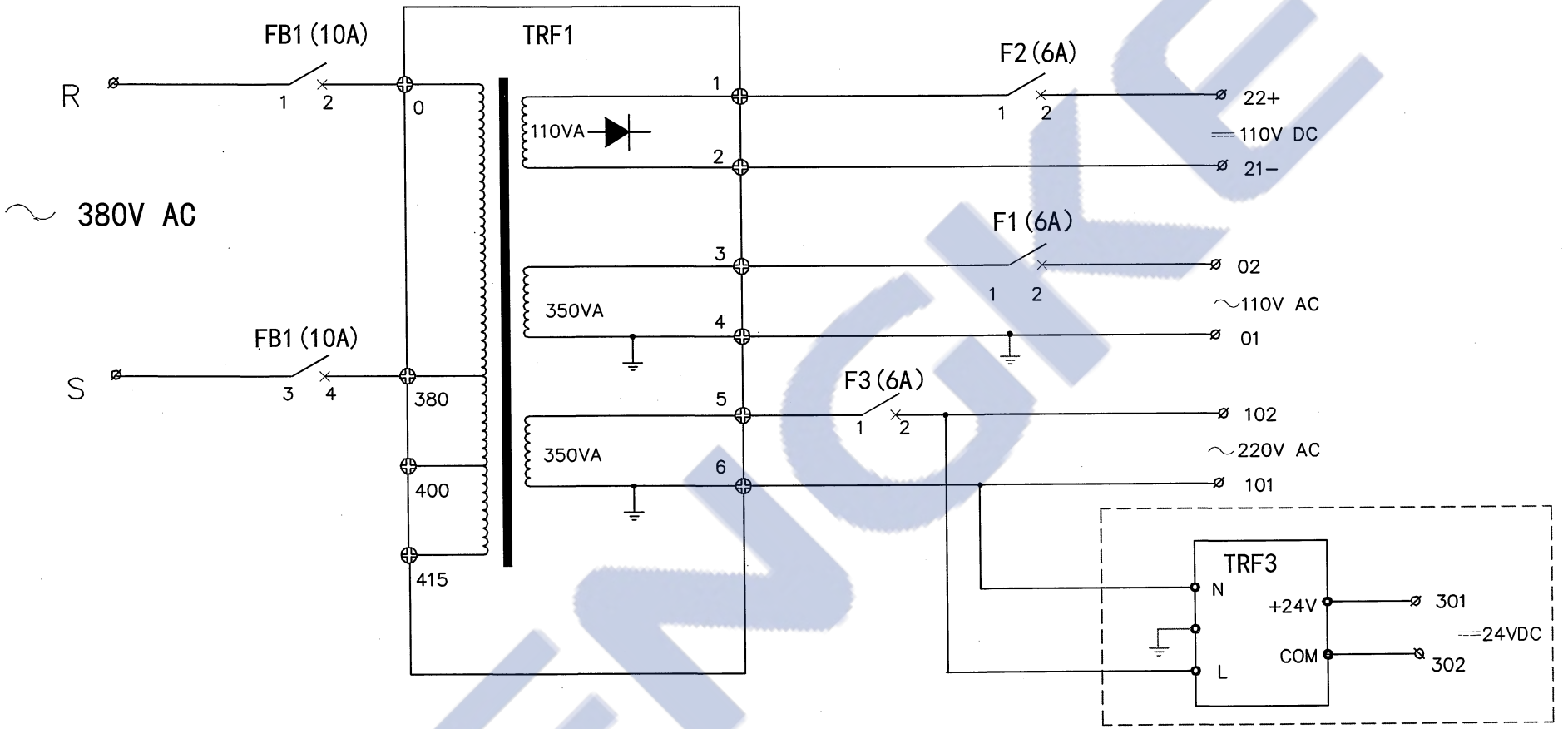
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Code	Location	Name	Code	Location	Name	Code	Location	Name	Code	Location	Name
1BFS	HTW	Counterweight buffer switch	DLS2	HTW	2nd down running slowdown switch	LSD	HTW	Down limit switch			
2BFS	HTW	Car buffer switch	DLS3	HTW	3rd down running slowdown switch	LSU	HTW	Up limit switch	TDJ	CTR	Blackout emergency relay
AB	CAR	Alarm bell	DM	CAR	Door motor	LWD	CAR	Weighing device	TA	CTR	Terminal row A
ACB	CAR	Attendant commutation button	DOB1	CAR	Door open button(front door)	LWO	CAR	Over load switch	TB	CTR	Terminal row B
AP	CAR	Light curtain for front door	DOB2	CAR	Door open button(rear door)	LWX	CAR	Full load switch	TCI	CAR	Top of car inspection switch
AP1	CAR	Light curtain for back door	DS	HTW	Door lock switch	MCB	CTR	Main control board	TCIB	CAR	Top of car inspection common button
ARD	CTR	Blackout emergency flat layer devices	EEC	CAR	Emergency exit contact	MES	CTR	Machine room emergency stop button	TCID	CAR	Top of car inspection down button
ALB	CAR	Alarm bell button	EIS	CTR	Emergency inspection switch	MES-2	MR	Machine room emergency stop switch	TCIU	CAR	Top of car inspection up button
ATS	CAR	Attendant key switch	F2	CTR	DC110V power switch	MT	MR	Motor overheat protect switch	TES	CAR	Top of car emergency stop switch
BRM	CTR	Brake resistance	F1	CTR	AC110V power switch	M	MR	Motor	TOCL	CAR	Top of car inspection light
			F3	CTR	AC220V power switch	NSB	CAR	Nonstop switch	TOCLS	CAR	Top of car inspection light switch
BUZ	CAR	Buzzer	F9	CTR	UPS power switch	OS	HTW	Over speed governor switch	TRF1	CTR	Transformer NO.1
BM	MR	Brake	F	CAR	Car fan	PES1	HTW	Pit emergency switch 1	TRF2	CTR	Transformer NO.2
BRD	HTW	Governor remote action	FIR	CTR	Fire monitoring	PES2	HTW	Pit emergency switch 2	TRF3	CTR	Transformer NO.3
BTD	HTW	Governor remote release	FIRS1	HTW	Fir switch (packing floor)	PS	CAR	Up levelling switch	TUR1	CAR	Top of car unility receptacle AC220V
			FIRS2	CAR	Fir switch (COP)	PX	CAR	Down levelling switch	TUR2	CAR	Top of car unility receptacle AC36V
CZA	CTR	Loose brake button	FLSD	HTW	Down final limit switch	PG	MR	Machine encoder			
CBn	CAR	Car button n	FLSU	HTW	Up final limit switch				UDB	CTR	Up direction inspection button
CCB	CAR	Car contontrol board	FS	CAR	Car fan switch	PLB	CTR	Door lock control board	ULS1	HTW	1st top safety clearance limit switch
CES	CAR	Car emergency switch	FX	CAR	Shorting motor stator contactor	PLI	HTW	Pit light	ULS2	HTW	2nd top safety clearance limit switch
CFL	CAR	Car fluorescence light	GS	CAR	Gate switch	PLS1	HTW	Pit light switch 1	ULS3	HTW	3rd top safety clearance limit switch
CIS	CTR	Controller inspection switch	GTS	HTW	Governor tension switch	PLS2	HTW	Pit light switch 2	UPC	CTR	Uninterruptible power supply
CLI	CAR	Car light	HCB	HTW	Hall call and display board	PUR1	HTW	Pit socket AC220V			
CLIS	CAR	Car light switch	INTB	CAR	Interphone button	PUR2	HTW	Pit socket AC36V	XPX	HTW	Down re-level switch
CHM	CAR	Electric broadcaster	ISS	CAR	Independent running				XF	CTR	Fir switch signal
CTB	CAR	Car top board	IPS	CAR	Emergency power supply DC12V	Q1	CTR	Main power switch for machine room-less	XSQ	CTR	Governor test switch
CIU	CAR	Car inspection up button	KK	CTR	Running contactor	RGS	MR	Rope gripper switch	ZHKG	CTR	Turning switch
CID	CAR	Car inspection down button	KB	CTR	Brake contactor				ZL4	CTR	Rectifier
CINS	CAR	Car inspection switch	KD	CTR	Controller light	SDG	HTW	Levelling safety switch			
DBR	CTR	Brake resistance	KZG	CTR	Controller power socket	SPS	HTW	Up re-level switch			
DCB1	CAR	Door close button (front door)				SOS	CTR	Safety operated switch			
DCB2	CAR	Door close button (rear door)	LIHn	HTW	Hoistway lighting	SK	HTW	Door open limit(front door)	CAR	NULL	Car
DDB	CTR	Down direction inspection button	LIHS	HTW	Hoistway lighting power switch	1SK	HTW	Door open limit(rear door)	CTR	NULL	Controller
DDCB	CAR	Door delay close button	LPS	CTR	Lighting power switch	SG	CAR	Door close limit(front door)	MR	NULL	Motor
DLS1	HTW	1st down running slowdown switch	LPT	CAR	Arrival gong	1SG	CAR	Door close limit(rear door)	HTW	NULL	Hoistway

Design		Standard		Electrical code description	
Collate		Drawing NO.			
Check		Versions	V3.01	Page 2	NICE3000new
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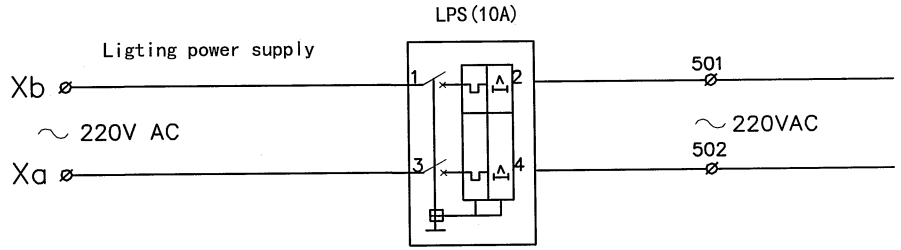
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Note:

1, Choose the transformer TFR3 output current is 5A when the totality floors <=10, and it's 10A when totality floor >10 .

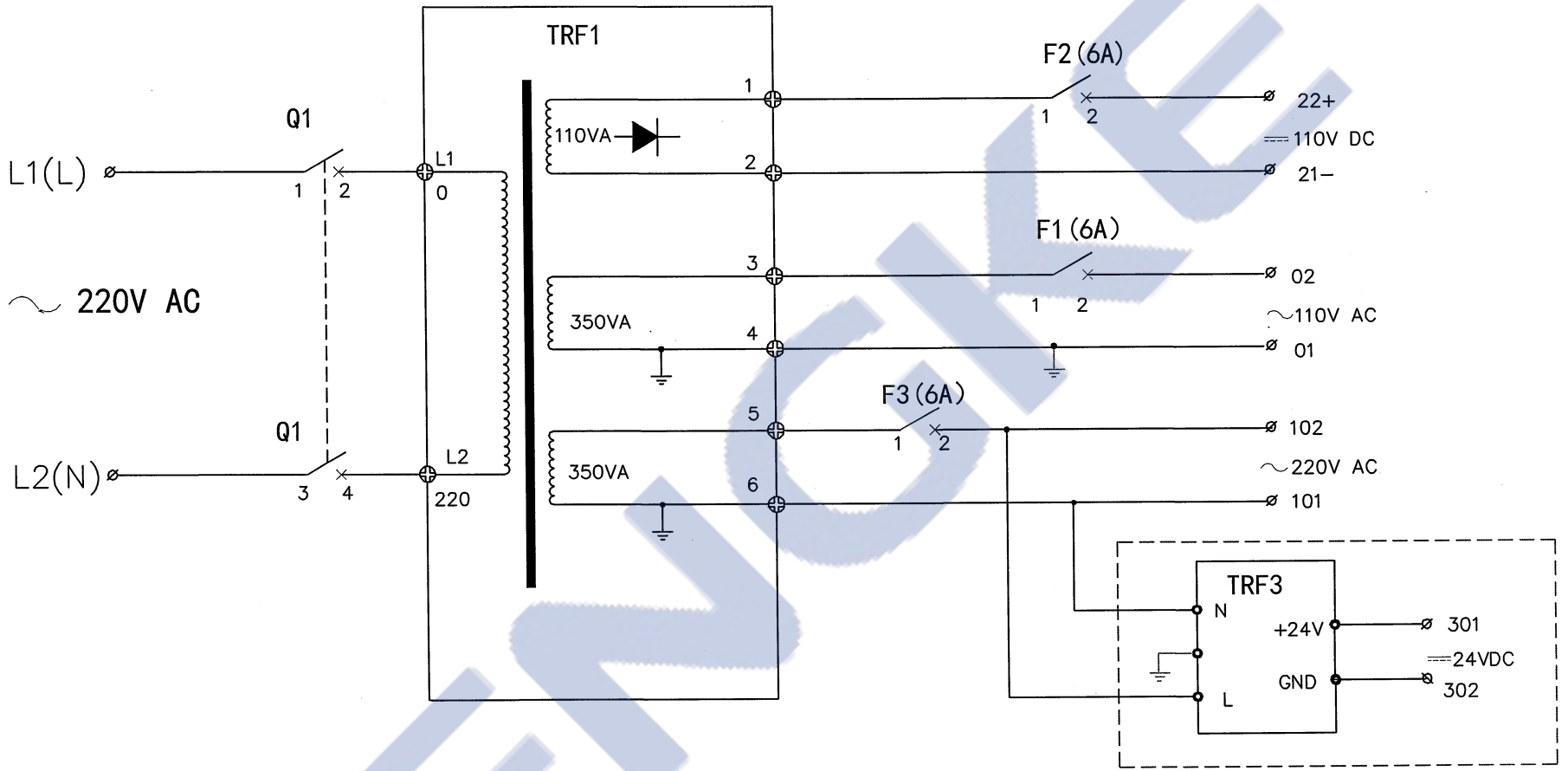
2, This power supply circuit can be used when have UPS .



Design		Standard		Power supply circuit AC380V	
Collate		Drawing NO.			
Check		Versions	V3.01	Page 3A	NICE3000new
Craft		Date		Total 20	

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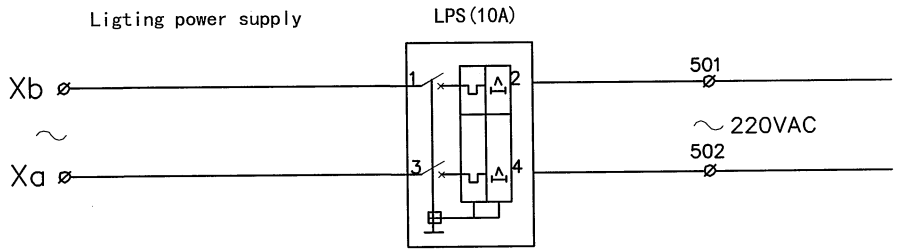


Note:

1, Choose the transformer TFR3 output current is 5A when the totality floors <=10, and it's 10A when totality floor >10 .

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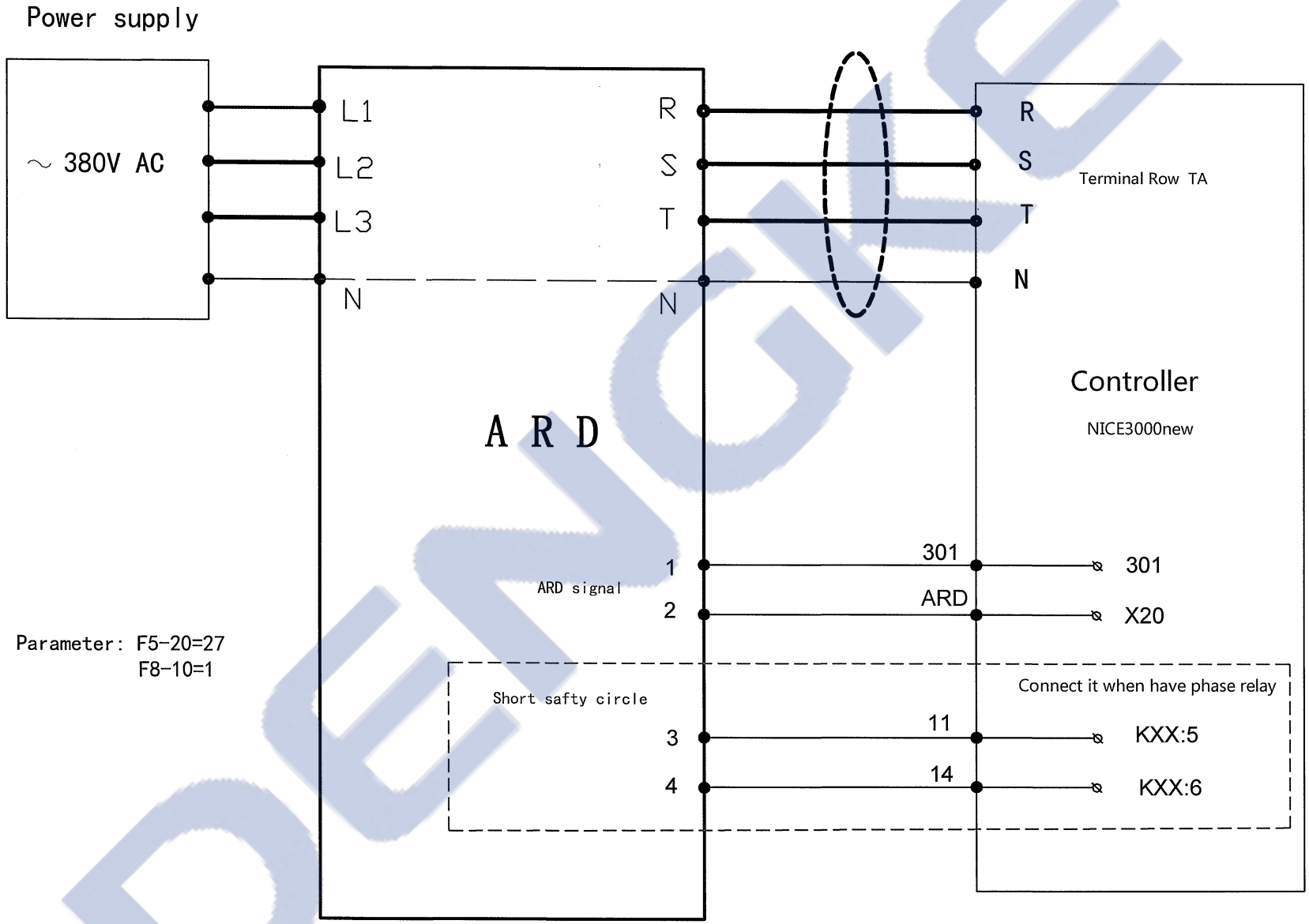
3, When imput power 3 phase AC220V connect L1、L2、L3 , When imput power 2 phase AC220V connect L、N.



Design		Standard		Power supply circuit AC220V	
Collate		Drawing NO.			
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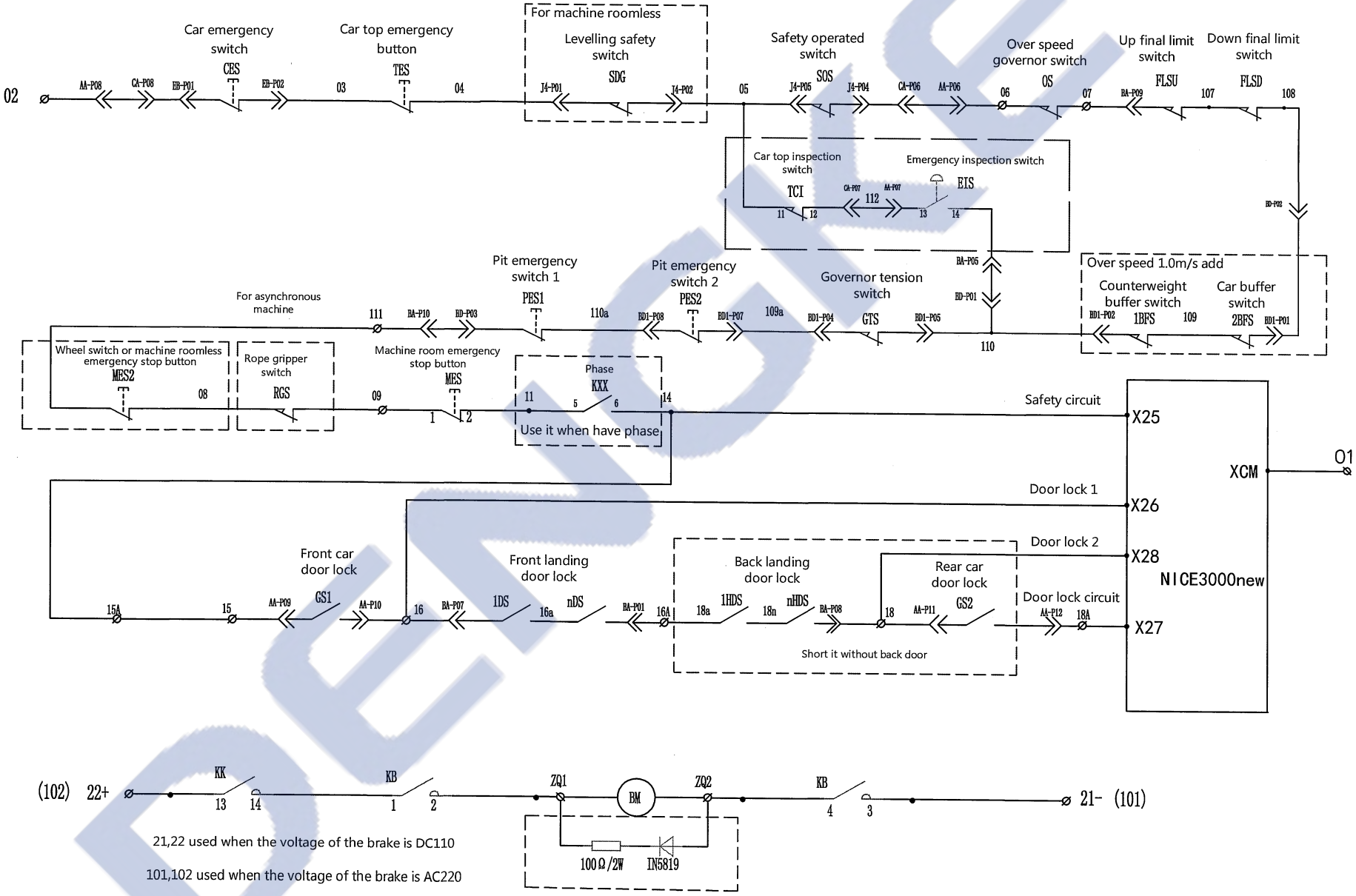
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Design		Standard		ARD circuit	
Collate		Drawing NO.			
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Craft		Date		Total 20	

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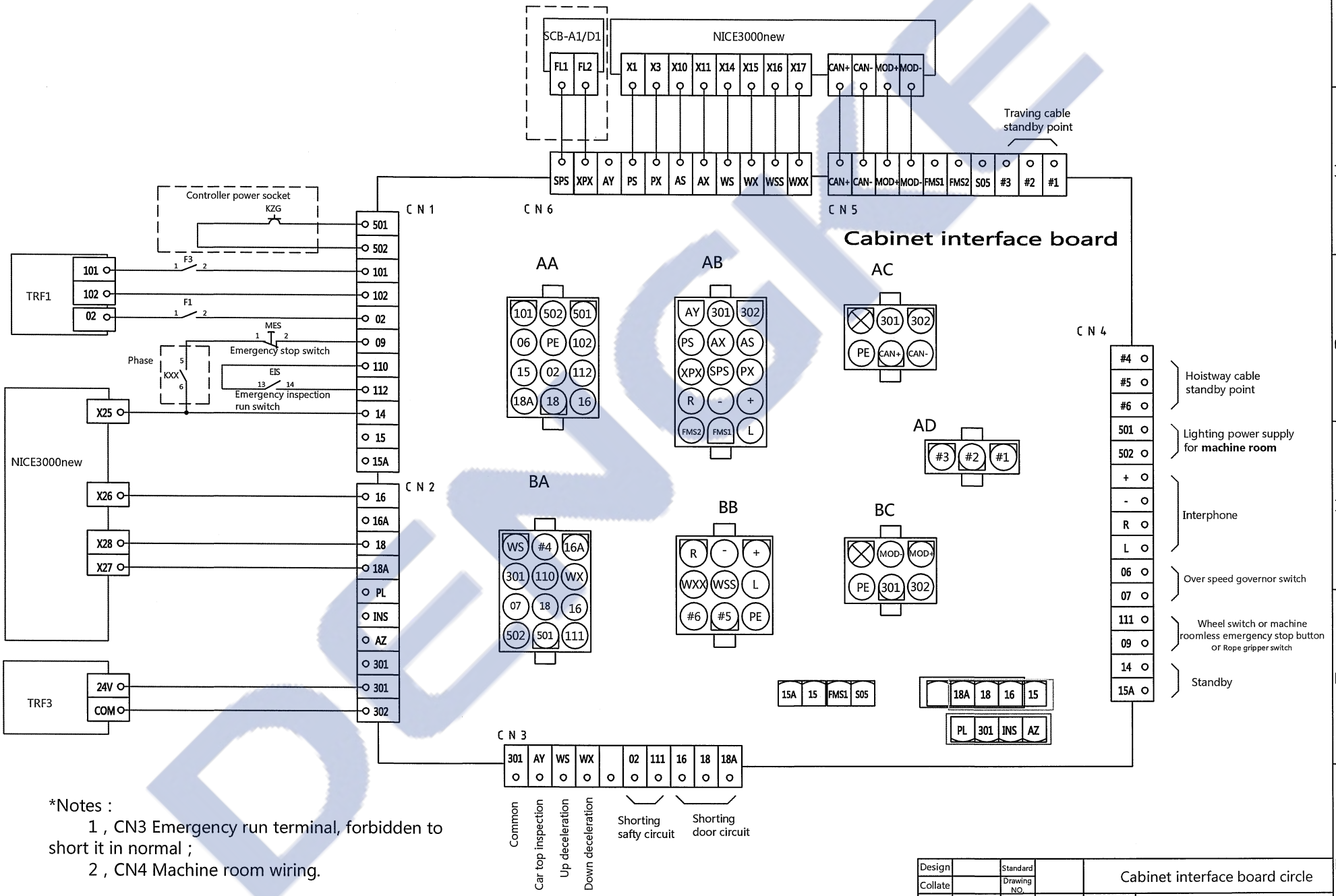
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Design		Standard		Safety and braker circuit	
Collate		Drawing NO.			
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*Notes :

1 , CN3 Emergency run terminal, forbidden to short it in normal ;

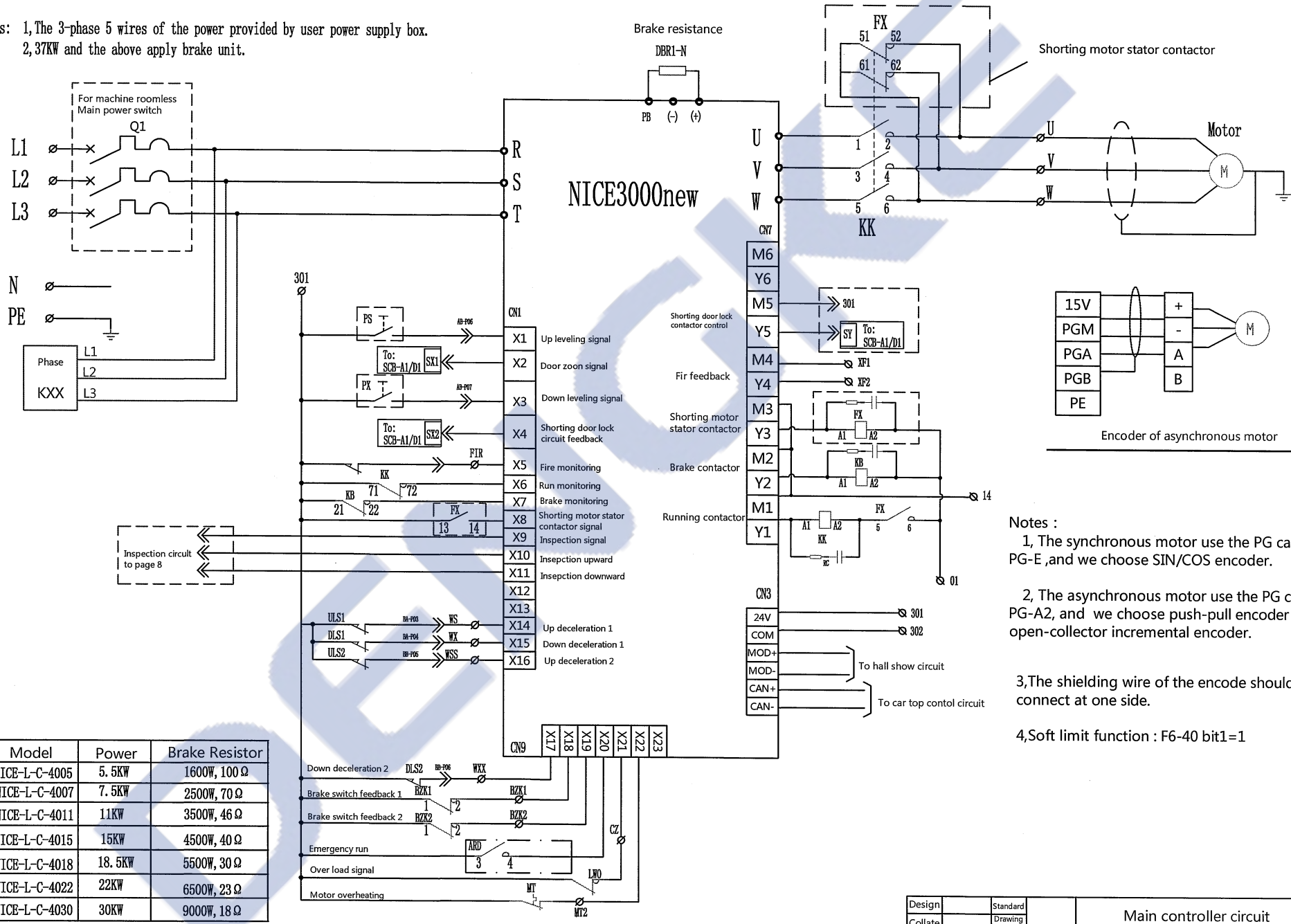
2 , CN4 Machine room wiring.

Design		Standard		Cabinet interface board circle	
Collate		Drawing NO.			
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Notes: 1, The 3-phase 5 wires of the power provided by user power supply box.
2, 37KW and the above apply brake unit.



Model	Power	Brake Resistor
NICE-L-C-4005	5.5KW	1600W, 100Ω
NICE-L-C-4007	7.5KW	2500W, 70Ω
NICE-L-C-4011	11KW	3500W, 46Ω
NICE-L-C-4015	15KW	4500W, 40Ω
NICE-L-C-4018	18.5KW	5500W, 30Ω
NICE-L-C-4022	22KW	6500W, 23Ω
NICE-L-C-4030	30KW	9000W, 18Ω

Notes :

1, The synchronous motor use the PG card PG-E ,and we choose SIN/COS encoder.

2, The asynchronous motor use the PG card PG-A2, and we choose push-pull encoder or open-collector incremental encoder.

3,The shielding wire of the encode should connect at one side.

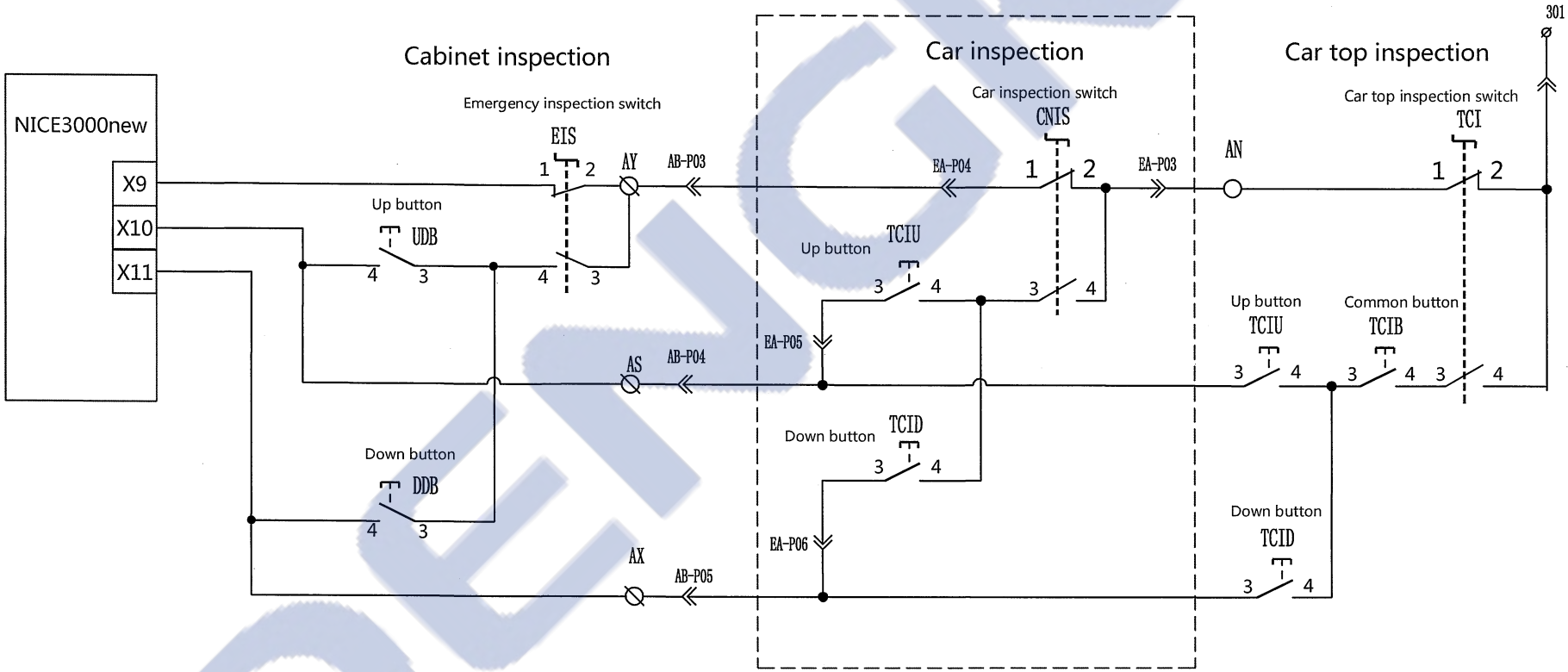
4,Soft limit function : F6-40 bit1=1

Design		Standard		Main controller circuit
Collate		Drawing NO.		
Check		Versions	V3.01	Page 7
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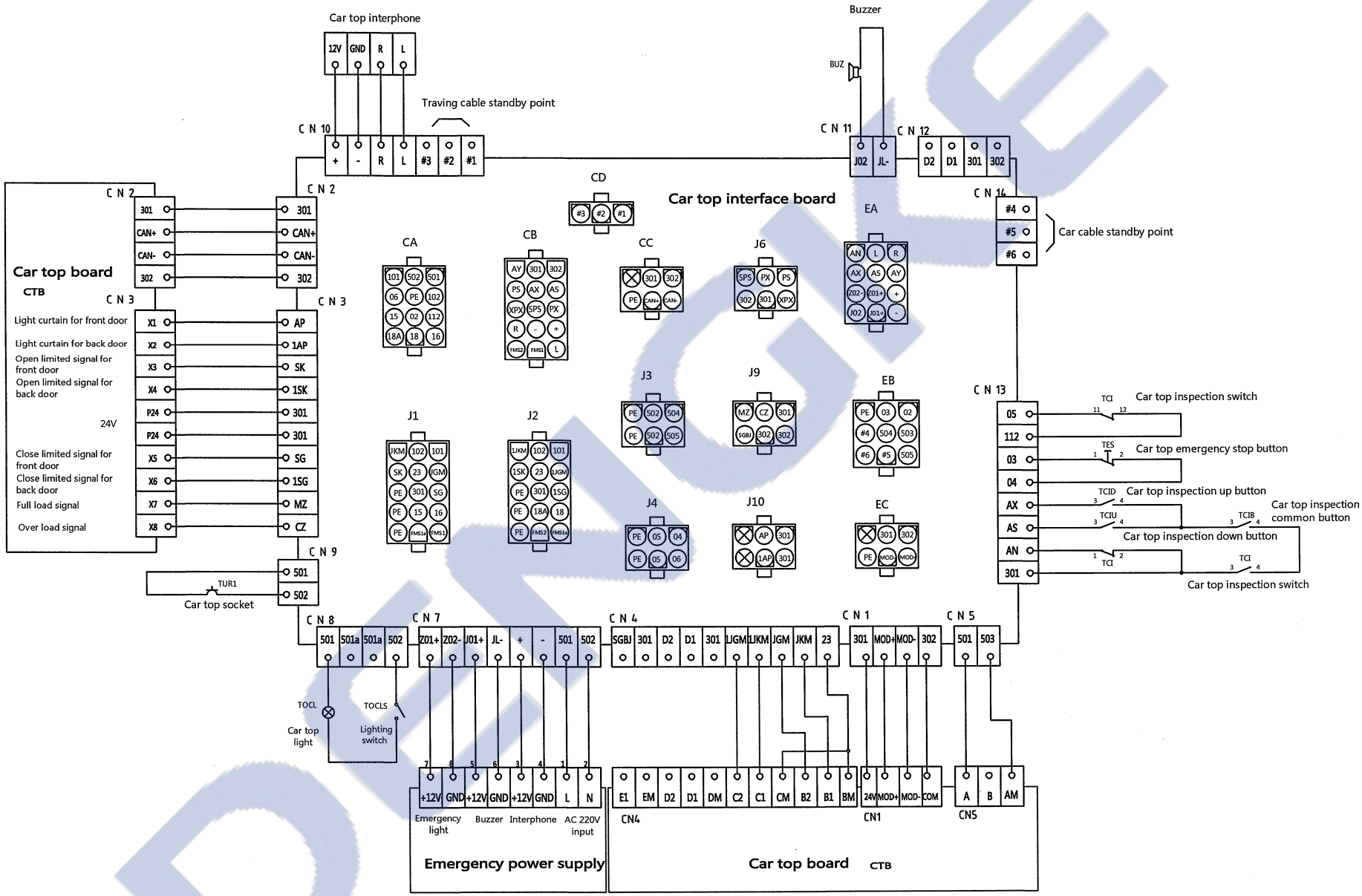
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Design		Standard		Inspection circuit	
Collate		Drawing NO.			
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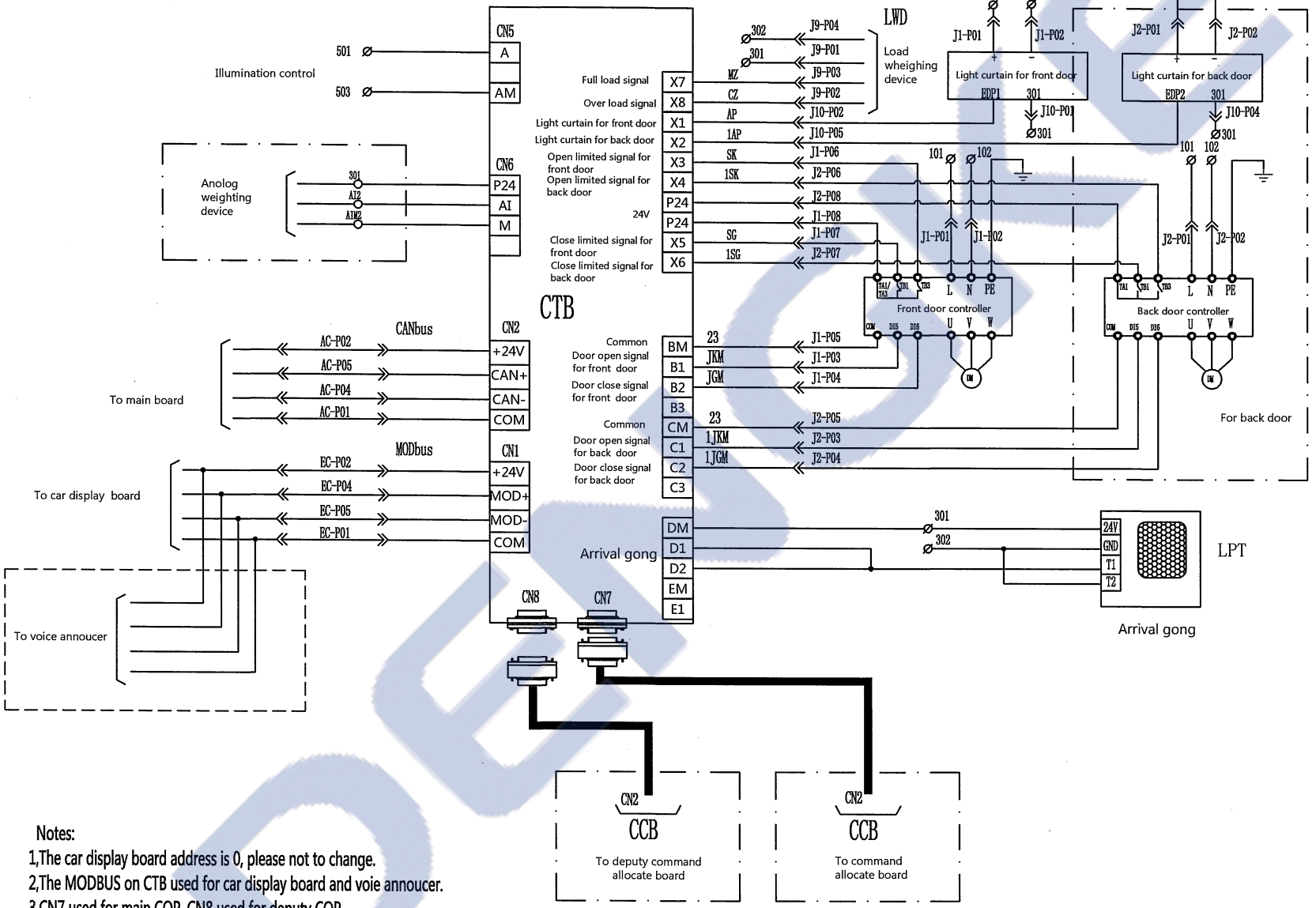
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Design		Standard		Car top interface board circuit	
Collate		Drawing NO.			
Check		Versions	V3.0	Page 9	NICE3000new
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Different door controller	
NICE 9000	JKM:DI5 JGM:DI6 23:COM SK:TB3 SG:TB1 P24 : TA1,TA3
Pana sonic	JKM: 1 JGM: 2 23: 8 SK:B2 SG:B3 P24 : C2,C3

Notes:

1,The car display board address is 0, please not to change.

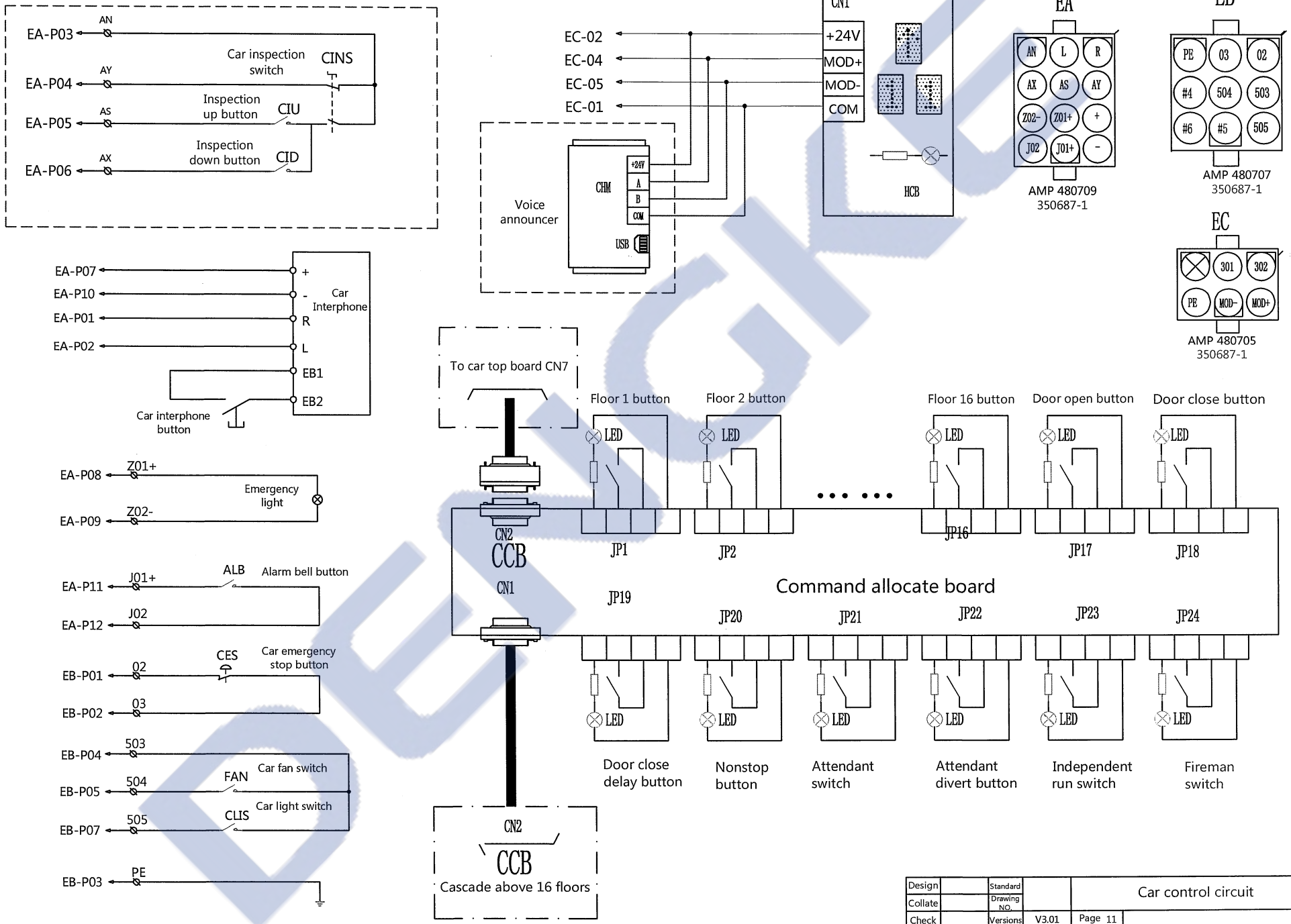
2,The MODBUS on CTB used for car display board and voie annoucer.

3,CN7 used for main COP, CN8 used for deputy COP.

Design		Standard		Car top control circuit	
Collate		Drawing NO.			
Check		Versions	V3.01	Page 10	NICE3000new
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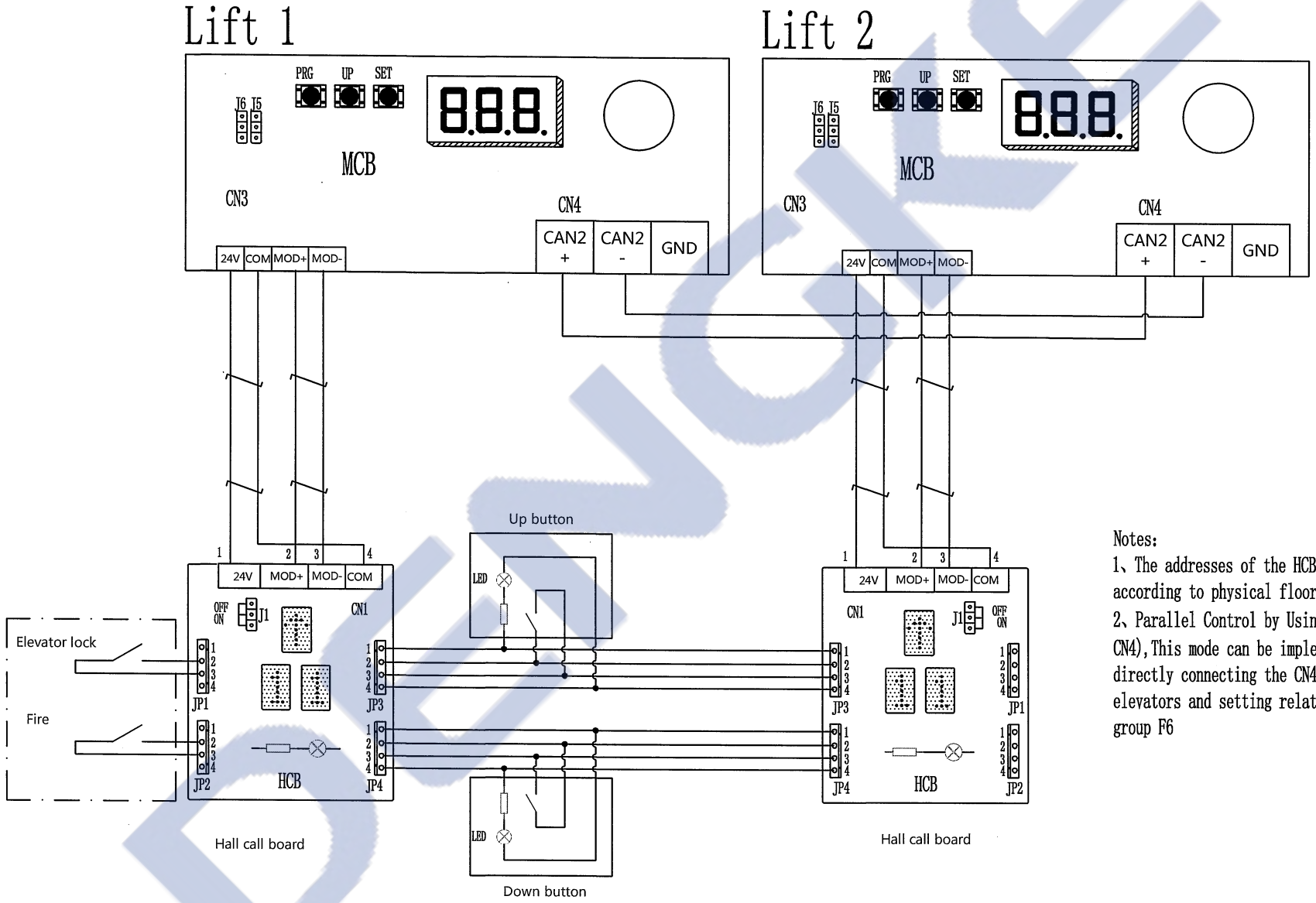
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Design		Standard		Car control circuit	
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Notes:

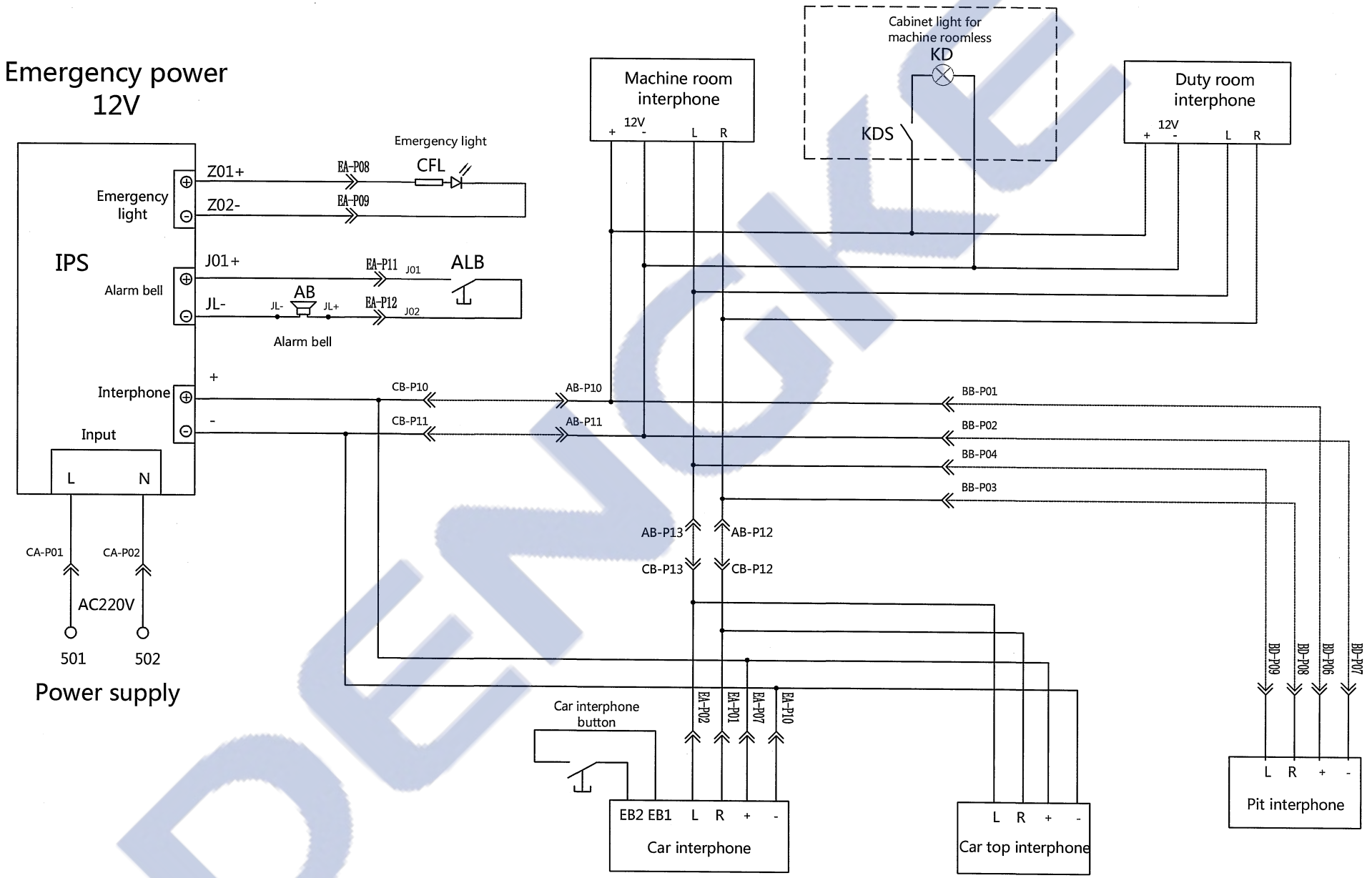
1、The addresses of the HCBs should be set according to physical floors.

2、Parallel Control by Using CAN2 (Terminal CN4),This mode can be implemented by directly connecting the CN4 terminals of two elevators and setting related parameters of group F6

Design		Standard		Parallel and hall show circuit	
Collate		Drawing NO.			
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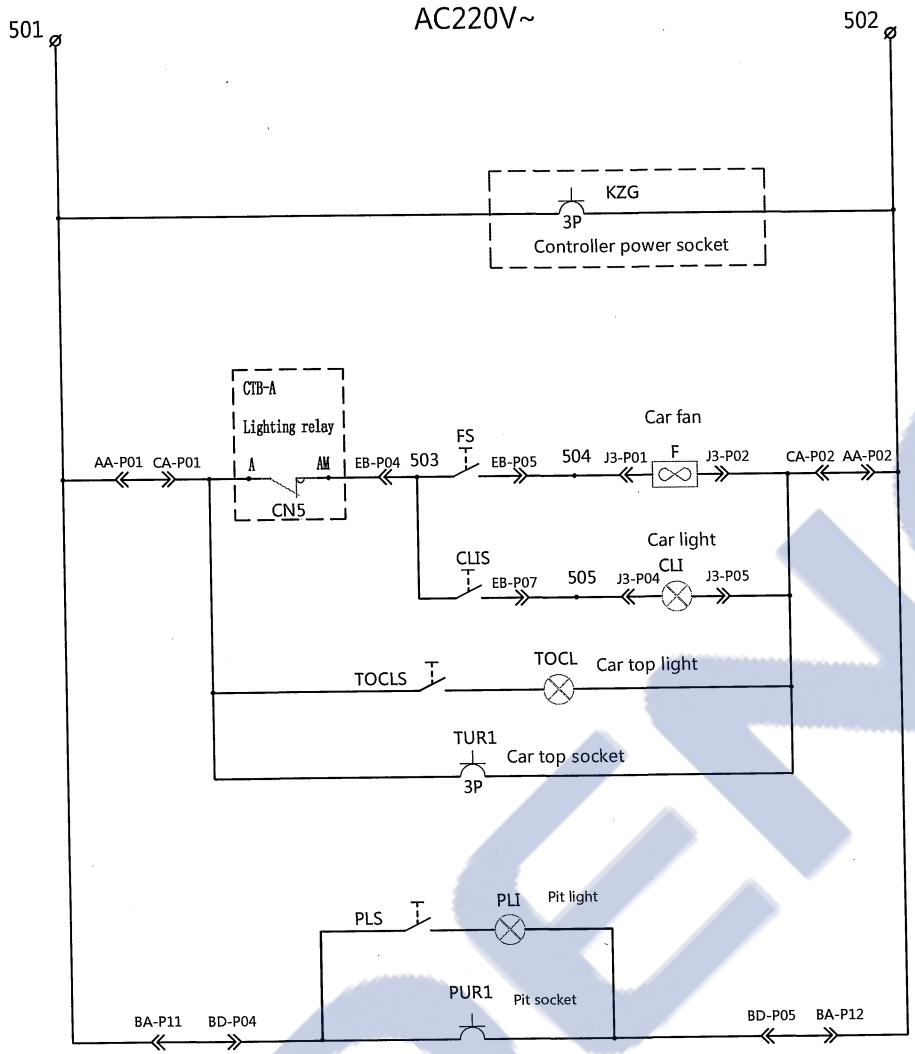
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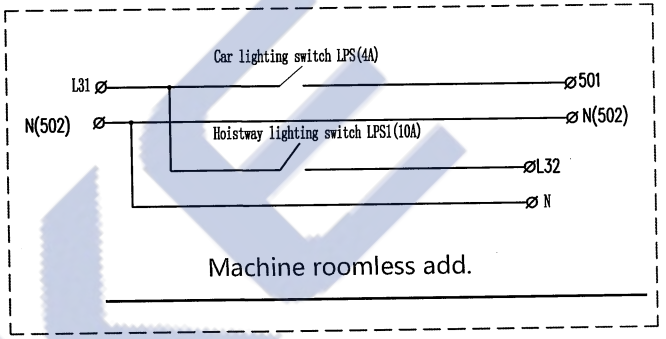
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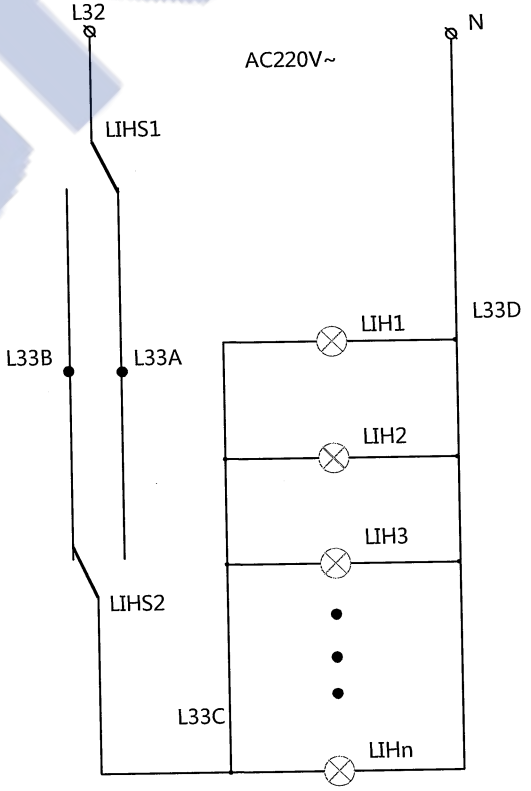
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Cabinet, cartop and pit light circuit

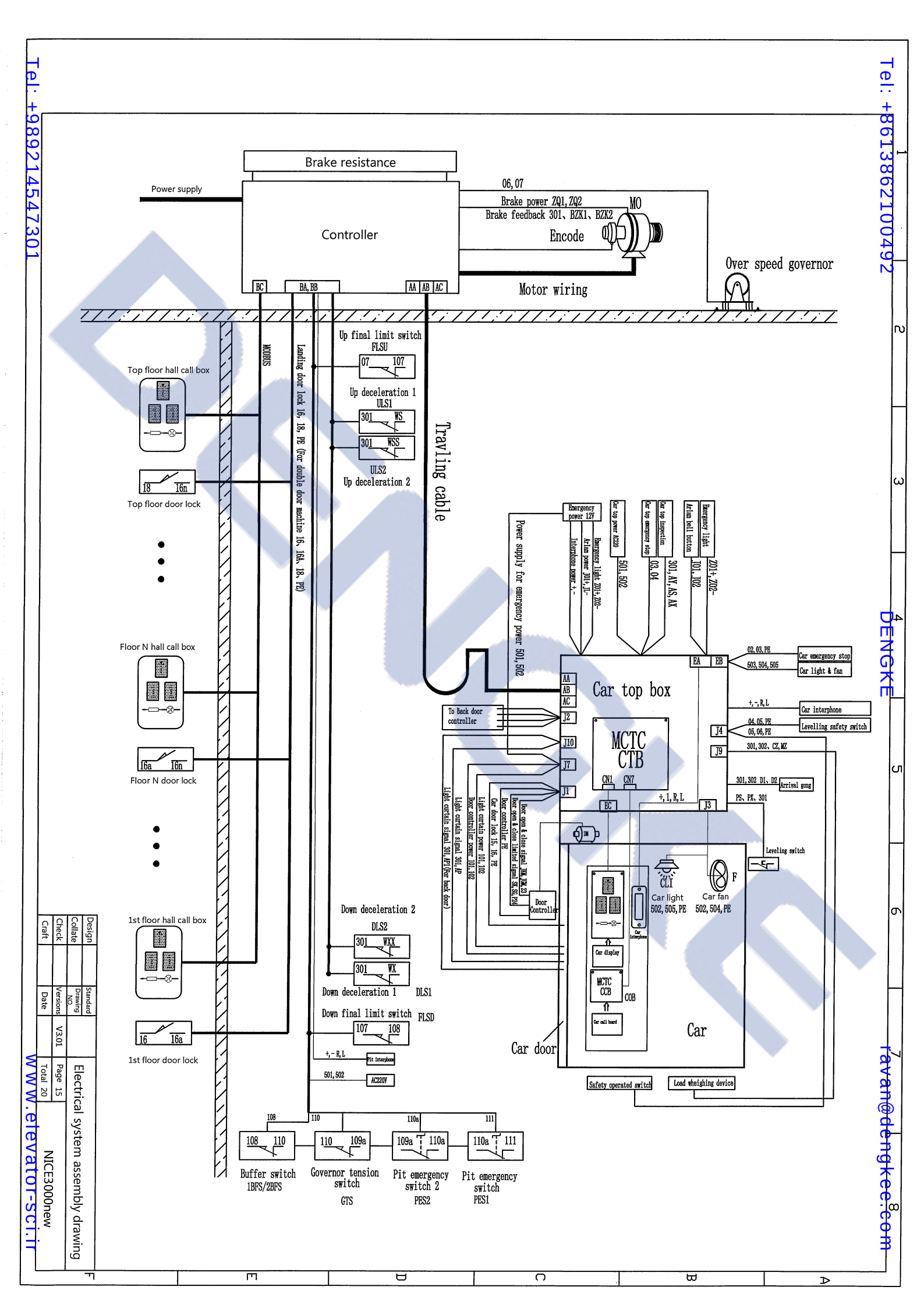




Shaft lighting circuit

Design		Standard		Illumination circuit	
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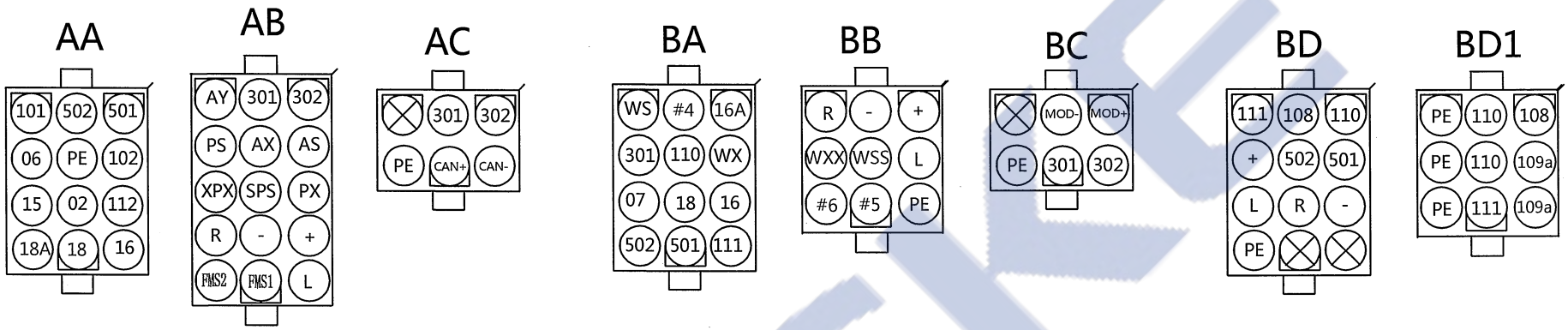
Design			
Collate		Standard	
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			Total 20

Electrical system assembly drawing

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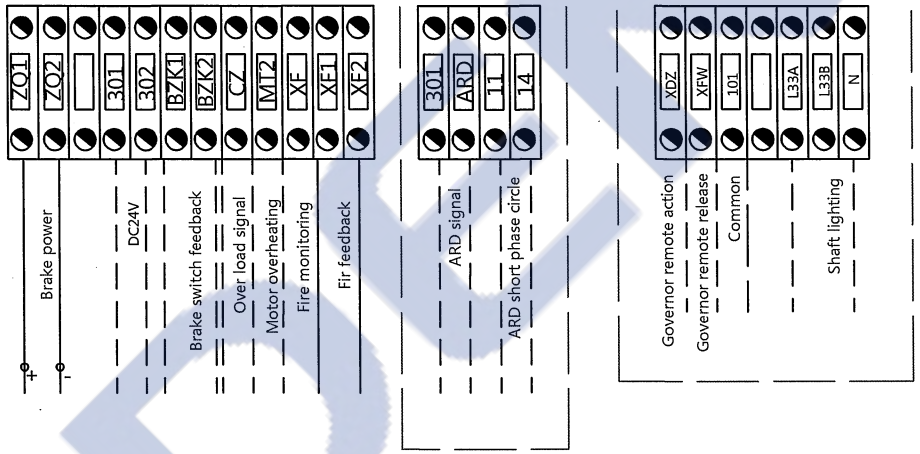


Connector of control cabinet traveling cable

Connector of hoistway cable

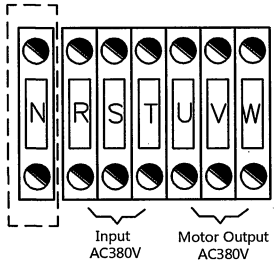
Pit of hoistway cable

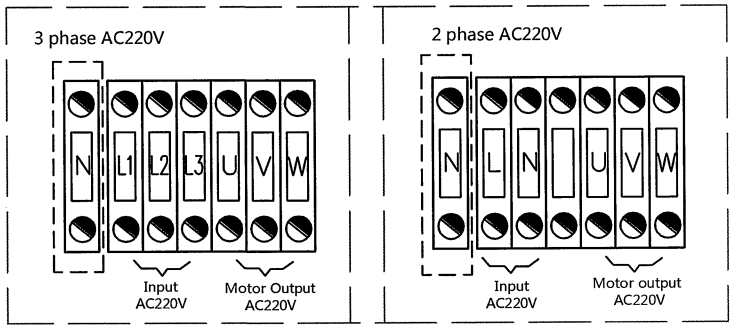
Terminal row TB



Machine room wiring

Terminal row TA



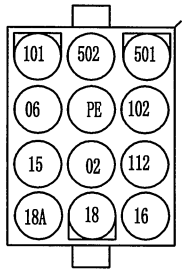


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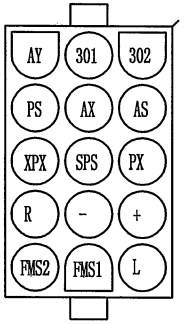
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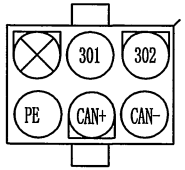
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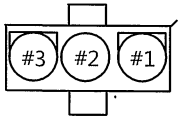
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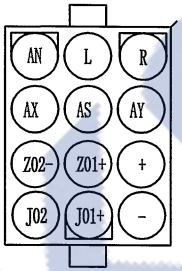


CD

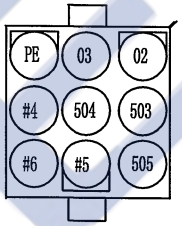


Connector of control cabinet traveling cable

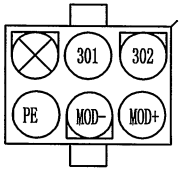
EA



EB

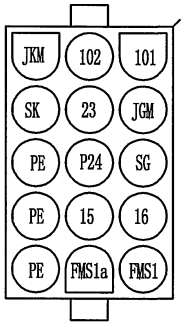


EC

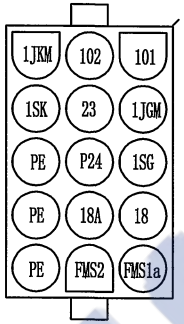


Connector of car operation box cable

J1



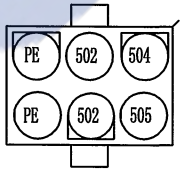
J2



Note: For back door

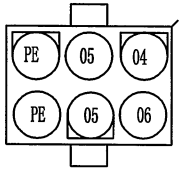
Connector of door machine

J3



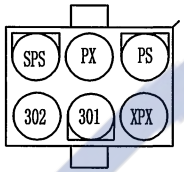
Connector of Car top fan and light

J4



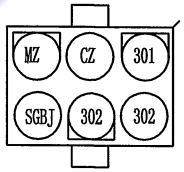
Levelling safety and safety operated switch

J6



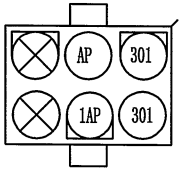
Leveling and re-level switch

J9



Load wheighing device

J10

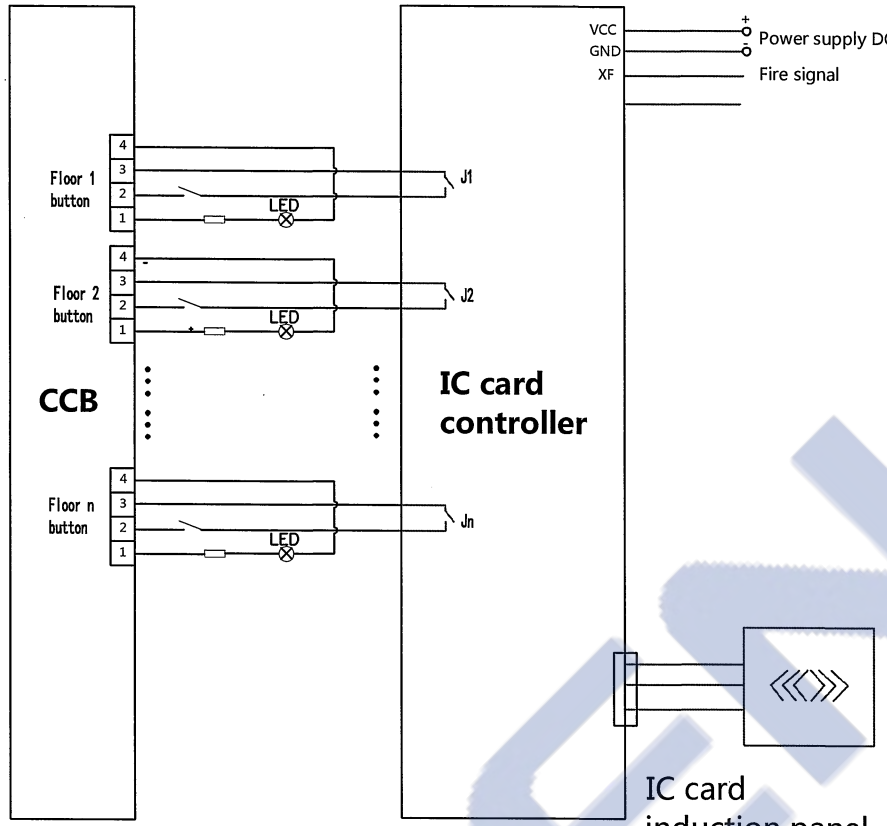


Light curtain

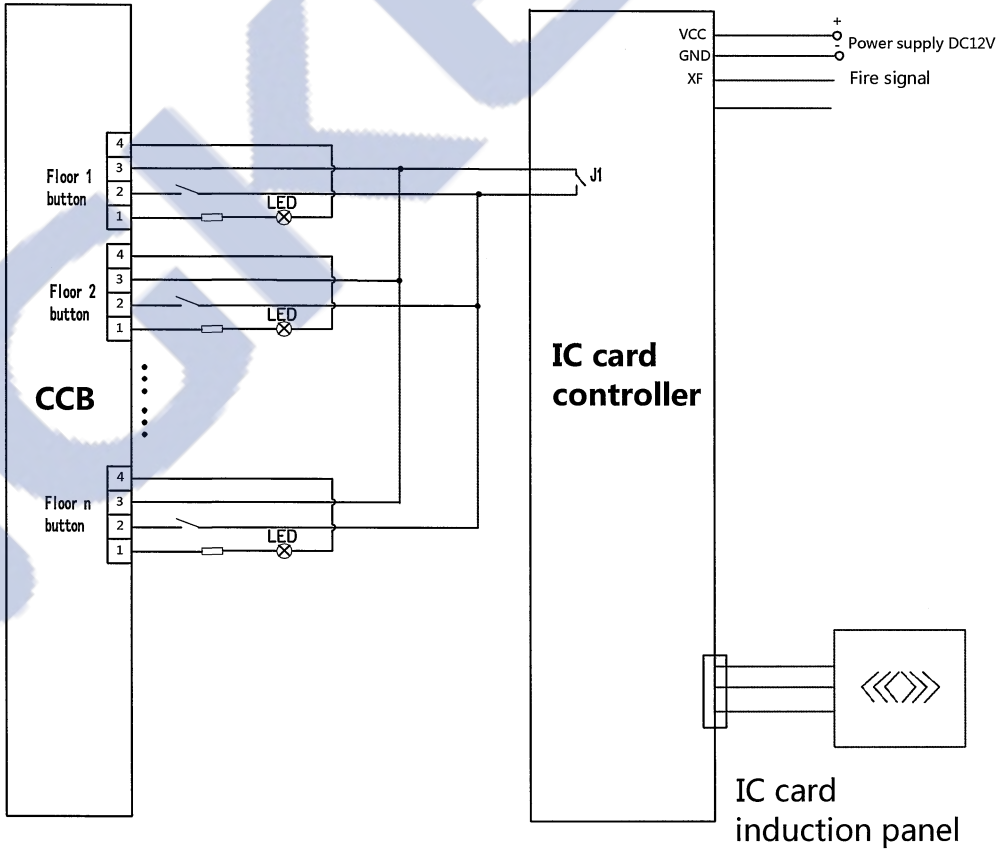
Design		Standard		Car top plug-in diagram	
Collate		Drawing NO.			
Check		Versions	V3.01	Page 17	NICE3000new
Craft		Date		Total 20	

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For each floor



For all floor

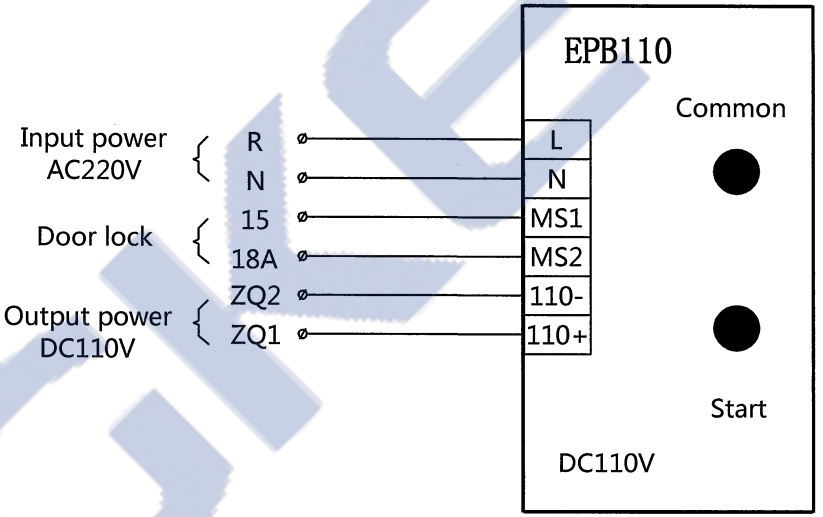
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Collate		Drawing NO.			
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Craft		Date		Total 20	

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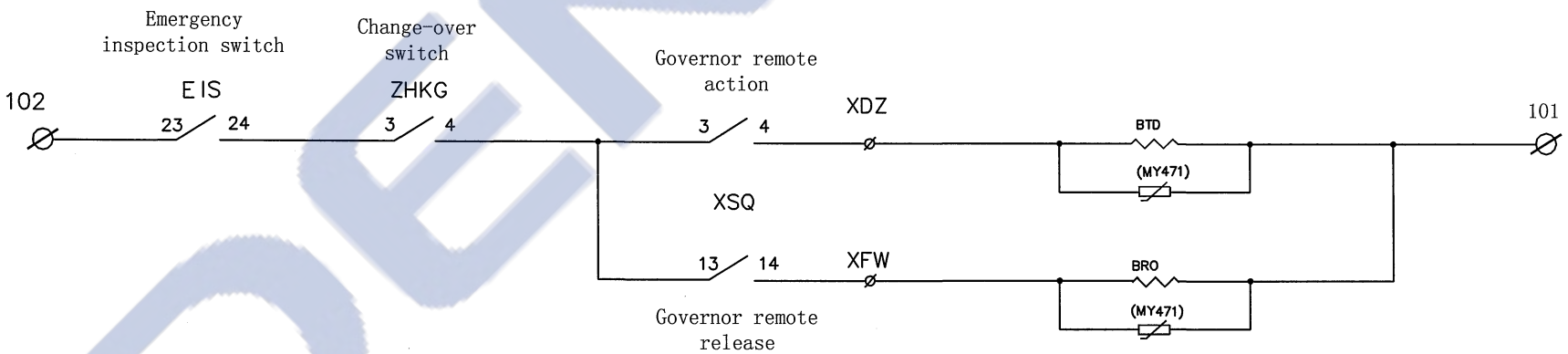
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Emergency brake-off instructions:

1, According to the diagram wiring, input AC220V, output DC110V;
2, The imput power outage delay of 30 seconds before the loose operation;
3, Disconnect the total power supply of the control cabinet, confirm the car position, confirm that the car door lock and hall door lock are closed;
4, At the same time press and hold the "Common", "Start" button, DC110V output, the brake open, and the elevator car moves upward;
5, Observe the car move to the door area, release the brake button, the loose brake operation is completed.



Backup power supply for brake

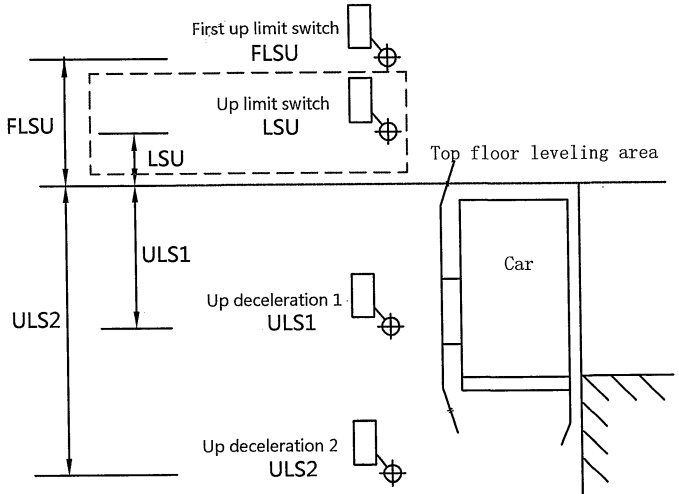


Note: Governor electromagnet power AC220V use 101, 102
Governor electromagnet power DC24v use 301, 302。

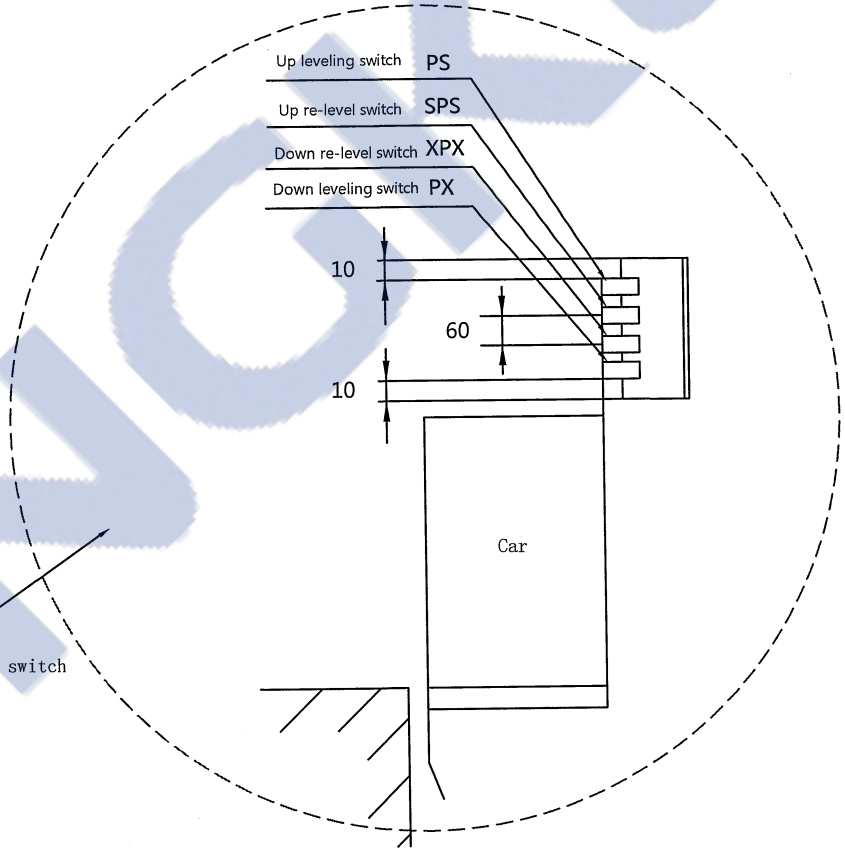
Design		Standard		Machine roomless governor circuit	
Collate		Drawing NO.			
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Craft		Date		Total 20	

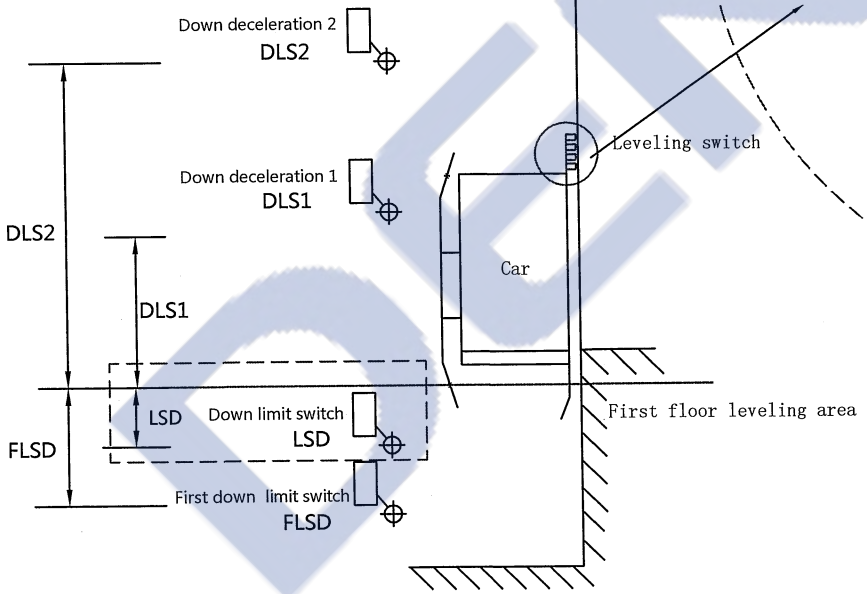
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Switch \ Distance \ Speed		0.4m/s	0.5m/s	1.0m/s	1.5m/s	1.6m/s	1.75m/s	2.0m/s	2.5m/s
First limit switch	FLSU,FLSD	0.15	0.15	0.15	0.15	0.15	0.15	0.18	0.18
Limit switch	LSU,LSD	0.03~0.05	0.03~0.05	0.03~0.05	0.03~0.05	0.03~0.05	0.03~0.05	0.03~0.05	0.03~0.05
Deceleration 1 switch	ULS1,DLS1	0.4	0.4	0.7	1.5	1.7	2.0	2.0	2.0
Deceleration 2 switch	ULS2,DLS2							2.5	4.0





Notes:
1, Soft limit function : F6-40 bit1=1,
2, When have UCMP function or Re-leveling fuction or door pre-open fuction, use re-level switch.

Design		Standard		Shaft position information	
Collate		Drawing NO.			
Check		Versions	V3.01	Page 20	NICE3000new
Craft		Date		Total 20	

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