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NICE 1000+ Electrical Drawing for Auto Door

Standard of NICE1000 electric wiring diagram

1.Name designation rule of power supply level.
The 3-phase 5 wires of the 415 VAC powers which located on the preamp of the main air circuit breaker are named R',S',T',N,PE. The 3-phase 5wires which located on the backward stage of the main air breaker are named in accordance with the rule of R,S,T,N,PE.
230VAC lighting power which located on the preamp of the power cabinet air breaker is located in TB and named 501,502., for the live wire that behind these named with the rule of 501, the range is 503~510.
The control transfer primary named with the R', S', T' rule, the secondary name designation of the control transfer: AC 230 V is 201, 202, AC 110V is 101,102 and DC 110V is D01, D02.
The input SMPS power supply connect to 201,202; the output side named 301, 302 for 24VDC

2.Name designation rule of wire number.
The input signal relevant circuit of controller 24V power adopts the corresponding code as the wire number.
101-199 relevant circuit of AC 110V
201-299 relevant circuit of the control AC 230V
501-510 relevant circuit of the AC 230V lighting power

3.switch and contact rules
All the switches, relays, and contacts are subject to the rule of UP- ON, DOWN-OFF, LEFT-ON and RIGHT-OFF.

4.The wiring regulation of traveling cable:
Please refer to the Shanghai BST TVVB 60x0.75 elevator control cable.
The white, orange, light green and pink 1~12 should be 24v

5. The relay and contactor in this diagram all apply Schneider product series

6. This diagram is the matching diagram for the standard 8 floors/8 stops/2 doors.

Content

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3B	Main circuit (Asynchronous)
4A	Control Circuit Diagram MCTC-MCB-H (Synchronous)
4B	Control Circuit Diagram MCTC-MCB-H (Asynchronous)
5	Extension Board Circuit MCTC-KZ-D
6	Control Transformer Wiring (Standard)
7	Circuit Diagram for ARD
8	Control Transformer wiring (support UPS)
9	Safety Circuit Diagram
10	Inspection & Brake circuit diagram
11	Circuit diagram Door Drive Interface
12	Connection Terminal for Power Circuit
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14	Controller Terminal for Field wires-2
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Ver	0.0	SDD		Suzhou Monarch Control Technology Co.,Ltd	
Design	KSB	AUTH			
CHK		Door	Auto	Page 1	Diagram specification and content
APPD		Date	09.03.15		

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Code	Position	Meaning	Code	Position	Meaning	Code	Position	Meaning	Code	Position	Meaning
1BFS	HTW	Buffer switch 1	DLS	HTW	Down slowdown switch	LSU	HTW	Up limit switch	SC	CTR	Safety contactor
2BFS	HTW	Buffer switch 2	DM	CAR	Door machine motor	LWO	CAR	Overload switch	SOS	CTR	Safety gear switch
A	CAR	Display signal A	DOB1	CAR	Door 1 open button	MCB	CTR	Main control board	SW	CTR	Run contactor
AB	CAR	Alarm	DOWN	CAR	Down indicator signal	MES	CTR	Emergency stop button of control	T01	CTR	Intercom power supply +
ACB	CAR	ATT diver button	DZI	CTR	Door-zone signal	MES-2	MR	Jigger switch	T02	CAR	Alarm
ALB	CAR	Alarm bottom	DZL	CAR	Arrival gong	MOTOR	MR	Motor	TA	CTR	Big terminal
ATS	CAR	ATT/Auto switch	EDP1	CAR	Door 1 light curtain	MQH	CAR	Door 2/1 switch button	TB	CTR	Small terminal
B	CAR	Display signal B	EDP2	CAR	Door 2 light curtain	nDS	HTW	Floor gate lock switch	TCI	CAR	Car top insp. shift button
B01	CTR	Intercom power -	EEC	CAR	Electric switch of safety window	NEG	CAR	Display "-"	TCIB	CAR	Car top insp. common button
BM	MR	Brake coil	EIS	CTR	Emergency run switch	OD1	CAR	Door 1 open output	TCID	CAR	Car top insp. down button
BRD	CTR	Governor remote release switch	F	CAR	Fan	OD2	CAR	Door 1 open output	TCIU	CAR	Car top insp. up button
BRM	CTR	Brake unit	FCBn	CAR	Floor command button	OLT1	HTW	Door 1 open limit	TES	CAR	Car top emergency stop button
BTD	CTR	Governor remote action switch	FDBn	CAR	Down call button	OLT2	HTW	Door 2 open limit	TOCL	CAR	Car top safety light
BUZ	CAR	Buzzer	FIRS	CTR	Fire feedback output	OS	HTW	Speed-limiter switch	TOCLS	CAR	Car top light switch
BY	HTW	Brake contactor coil	FLSD	HTW	Down ultimate switch	OVL	CAR	Overload display	TRF1	CTR	Control transfer
BZK1	MR	Brake feedback switch 1	FLSU	HTW	Up ultimate switch	PES1	HTW	Pit emergency stop button1	TRF2	CTR	Lighting tansfer
BZK2	MR	Brake feedback switch 2	FS	CAR	Fan switch	PES2	HTW	Pit emergency stop button 2	TRF3	CTR	Switch mode power supply
C	CAR	Dispaly signal C	FUBn	CAR	Up call button	PFR	CTR	PFR	TUR1	CAR	Car top insp. AC220 socket
C01	CAR	Intercom signal	GSn	CAR	Car lock switch	PG	MR	Encoder(motor)	TUR2	CAR	Car top insp. AC36 socket
C02	CAR	Intercom signal	GTS	HTW	Tensioner switch	PKS	HTW	Lift-lock switch	UDB	CTR	Control cabinet up button
CD1	CAR	Close door output 1	INS	CTR	Insp. indicate signal	PLI	HTW	Pit safety light	ULS	HTW	Up slowdown switch
CD2	CAR	Close door output 2	INTB	CAR	Intercom button	PLS1	HTW	Pit safety light switch 1	UP	CAR	Up indicate signal
CES	CAR	Car emergency stop switch	IPS	CAR	Emergency power	PLS2	HTW	Pit safety light switch 2	UPC	CTR	Emergency power contactor
CFL	CAR	Car emergency light	J01	CAR	Alarm signal	PUR1	HTW	Pit socket AC220V	ARD	CTR	Automatic Rescue Device
CLI	CAR	Car lighting	J02	CAR	Alarm	PUR2	HTW	Pit socket AC36V	DRC	CTR	Door Retiring Cam
CLIS	CAR	Car light switch	JJN	CTR	Lighting power-saving relay	QF1	CTR	AC415/220V Air breaker			
CLT1	CAR	Door 1 close limit	JT	CTR	Safety circuit relay	QF2	CTR	DC110V Air breaker			
CLT2	CAR	Door 2 close limit	JUP	CTR	Emergency power supply relay	QF3	CTR	AC110V Air breaker			
DBR	CTR	Brake resistor	LIHn	HTW	Shaft lighting	QF4	CTR	AC220V Air breaker	HTW	NULL	Hoistway
DCB1	CAR	Door 1 close button	LIHSn	HTW	Hoistway lighting	QF5	CTR	AC36V Air breaker	MR	NULL	Motor
DDB	CTR	Control cabinet insp. down button	LPS	CTR	Hoistway lighting switch	RGS	MR	Rope gripper switch	CTR	NULL	Control cabinet
DLC	CTR	Door lock relay	LSD	HTW	Down limit switch	RS	CTR	Forced insp. relay	CAR	NULL	Car

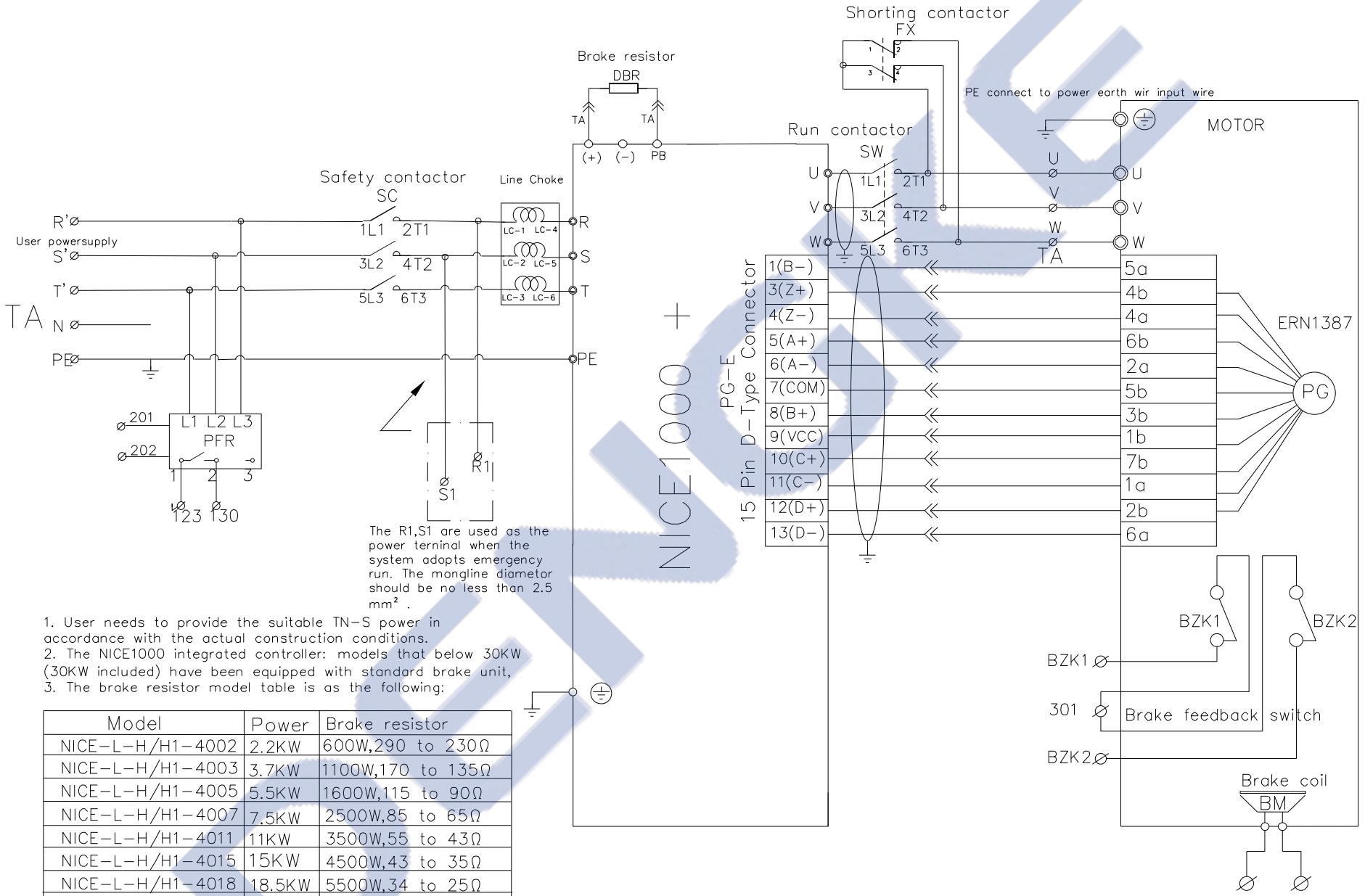
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CHK		Door	Auto	Page 2
APPD		Date	09.03.15	Electric codes

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FOR SYNCHRONOUS MACHINE



The R1,S1 are used as the power terninal when the system adopts emergency run. The mongline diametor should be no less than 2.5 mm² .

1. User needs to provide the suitable TN-S power in accordance with the actual construction conditions.
2. The NICE1000 integrated controller: models that below 30KW (30KW included) have been equipped with standard brake unit,
3. The brake resistor model table is as the following:

Model	Power	Brake resistor	
NICE-L-H/H1-4002	2.2KW	600W,290 to 230Ω	
NICE-L-H/H1-4003	3.7KW	1100W,170 to 135Ω	
NICE-L-H/H1-4005	5.5KW	1600W,115 to 90Ω	
NICE-L-H/H1-4007	7.5KW	2500W,85 to 65Ω	
NICE-L-H/H1-4011	11KW	3500W,55 to 43Ω	
NICE-L-H/H1-4015	15KW	4500W,43 to 35Ω	
NICE-L-H/H1-4018	18.5KW	5500W,34 to 25Ω	
NICE-L-H/H1-4022	22KW	6500W,24 to 22Ω	
NICE-L-H/H1-4030	30KW	9000W,20 to 16Ω	
NICE-L-H/H1-4037	37KW	11000W,16 to 13Ω	MDBUN-60-T
NICE-L-H/H1-4045	45KW	13500W,14 to 11Ω	MDBUN-60-T

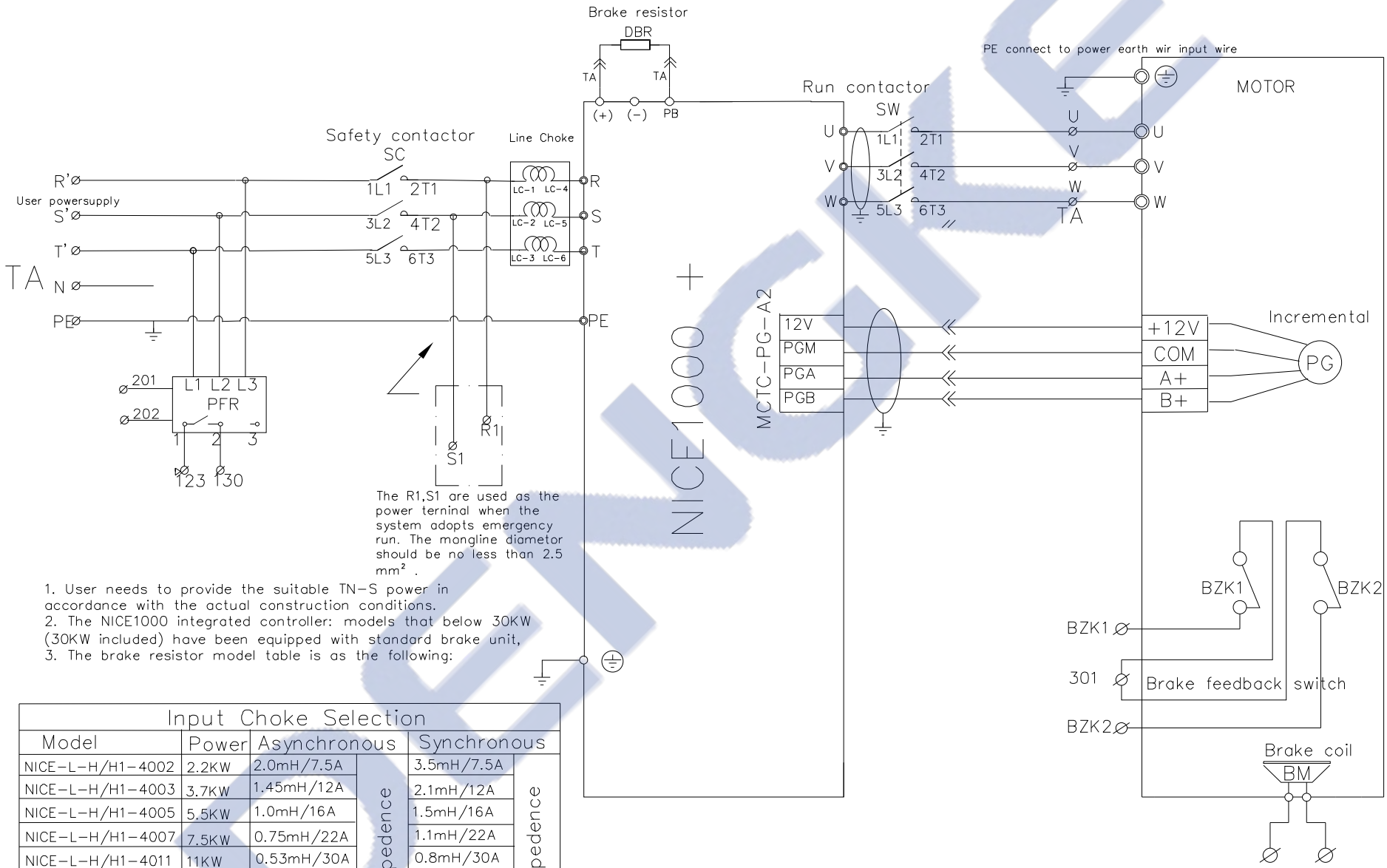
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CHK		Door	Auto	Page 3	Main circuit(Sync)
APPD		Date	09.03.15		

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FOR ASYNCHRONOUS MACHINE



The R1,S1 are used as the power terninal when the system adopts emergency run. The mongline diametor should be no less than 2.5 mm² .

1. User needs to provide the suitable TN-S power in accordance with the actual construction conditions.
2. The NICE1000 integrated controller: models that below 30KW (30KW included) have been equipped with standard brake unit,
3. The brake resistor model table is as the following:

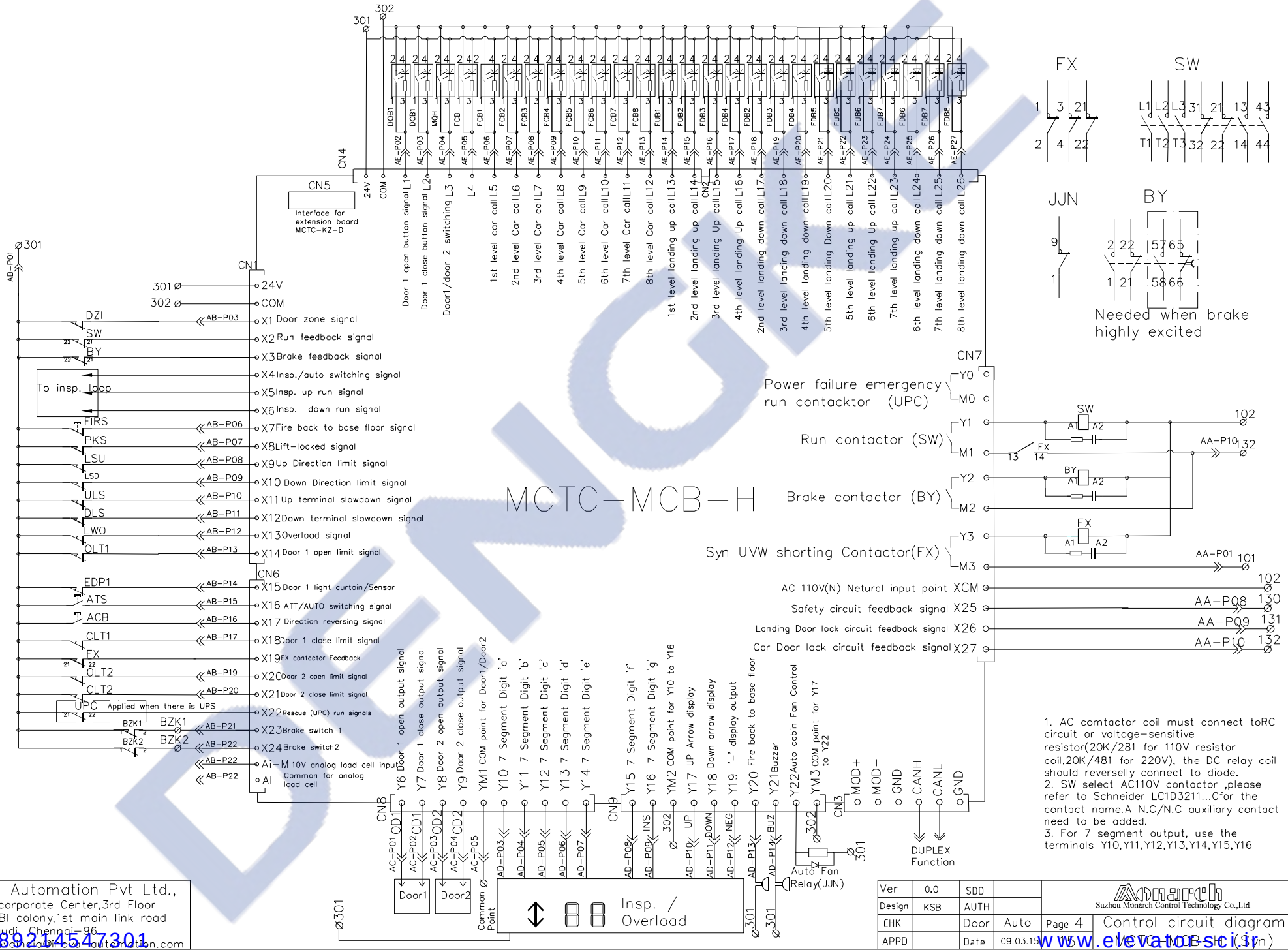
Input Choke Selection					
Model	Power	Asynchronous		Synchronous	
NICE-L-H/H1-4002	2.2KW	2.0mH/7.5A	2% Impedence	3.5mH/7.5A	3% Impedence
NICE-L-H/H1-4003	3.7KW	1.45mH/12A		2.1mH/12A	
NICE-L-H/H1-4005	5.5KW	1.0mH/16A		1.5mH/16A	
NICE-L-H/H1-4007	7.5KW	0.75mH/22A		1.1mH/22A	
NICE-L-H/H1-4011	11KW	0.53mH/30A		0.8mH/30A	
NICE-L-H/H1-4015	15KW	0.42mH/36A		0.63mH/36A	
NICE-L-H/H1-4018	18.5KW	0.37mH/42A		0.55mH/42A	
NICE-L-H/H1-4022	22KW	0.3mH/50A		0.46mH/50A	
NICE-L-H/H1-4030	30KW	0.25mH/62A		0.36mH/62A	

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CHK		Door	Auto	Page 3	Main circuit(Async)
APPD		Date	09.03.15		

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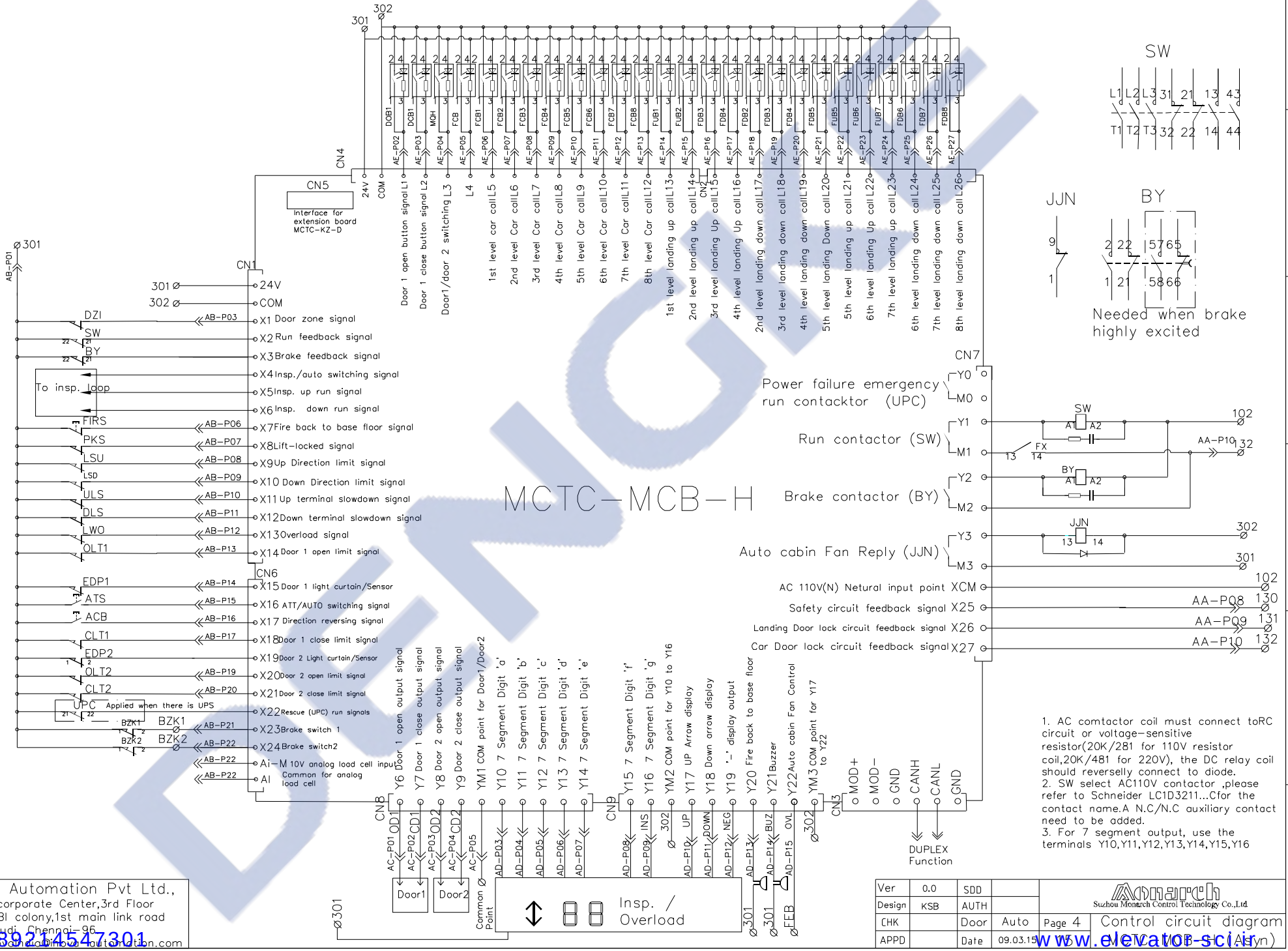
1. AC comtactor coil must connect toRC circuit or voltage-sensitive resistor(20K/2W for 110V resistor coil,20K/4W for 220V), the DC relay coil should reversely connect to diode.
2. SW select AC110V contactor ,please refer to Schneider LC1D3211...Cfor the contact name.A N.C/N.C auxiliary contact need to be added.
3. For 7 segment output, use the terminals Y10,Y11,Y12,Y13,Y14,Y15,Y16

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Design	KSB	AUTH			
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APPD		Date	09.03.15	MCTC-MCB-H(3in)	

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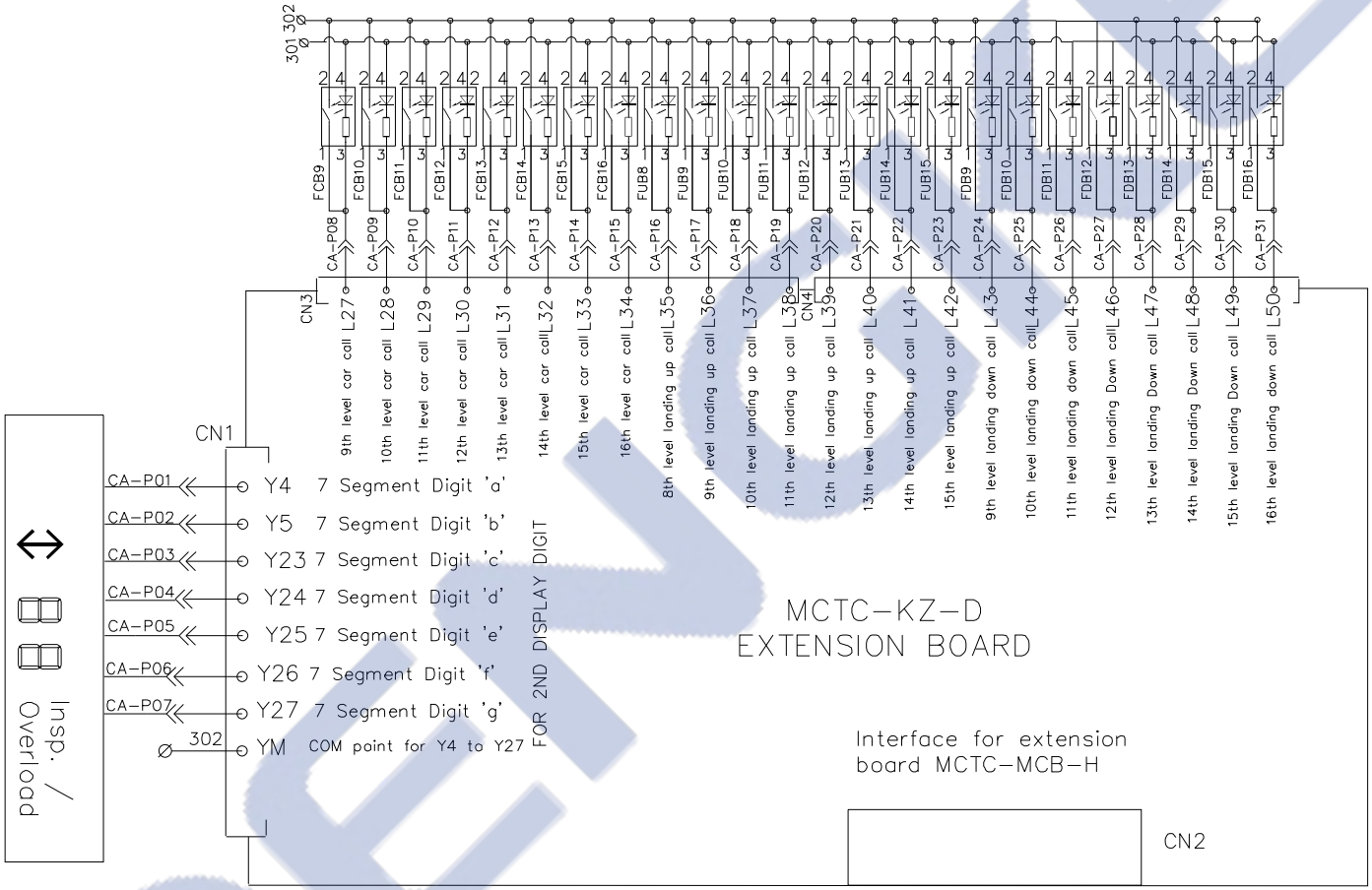
1. AC comtactor coil must connect toRC circuit or voltage-sensitive resistor(20K/2Ø1 for 110V resistor coil,20K/4Ø1 for 220V), the DC relay coil should reversely connect to diode.
2. SW select AC110V contactor ,please refer to Schneider LC1D3211...Cfor the contact name.A N.C/N.C auxiliary contact need to be added.
3. For 7 segment output, use the terminals Y10,Y11,Y12,Y13,Y14,Y15,Y16

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Design	KSB	AUTH			
CHK		Door	Auto	Page 4	Control circuit diagram
APPD		Date	09.03.15	MCTC-MCB-H (Alsyn)	

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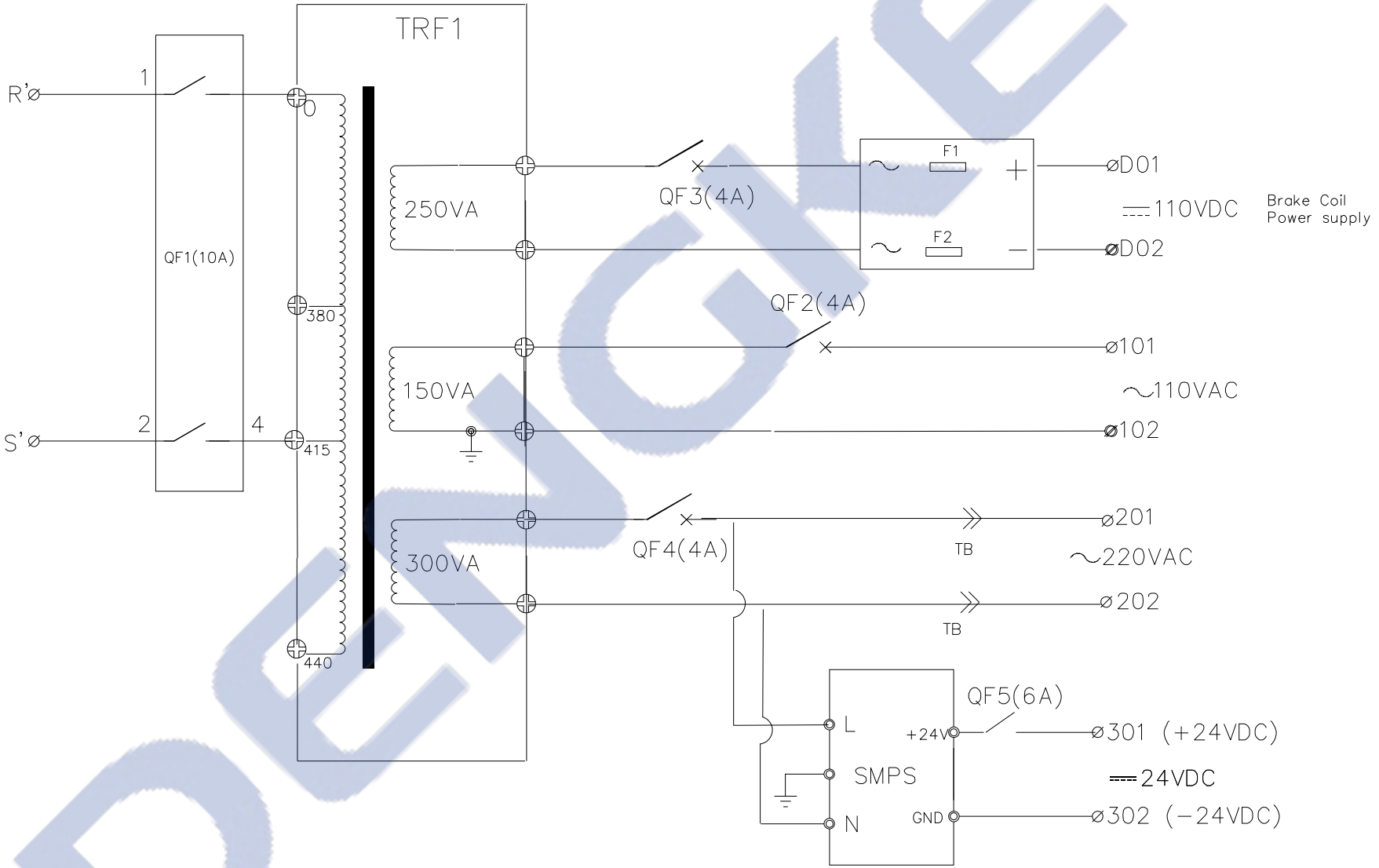
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	Design	KSB	AUTH		
	CHK		Door	Auto	Page 5 / Extension Board Circuit
	APPD		Date	09.03.15	MCTC-KZ-D

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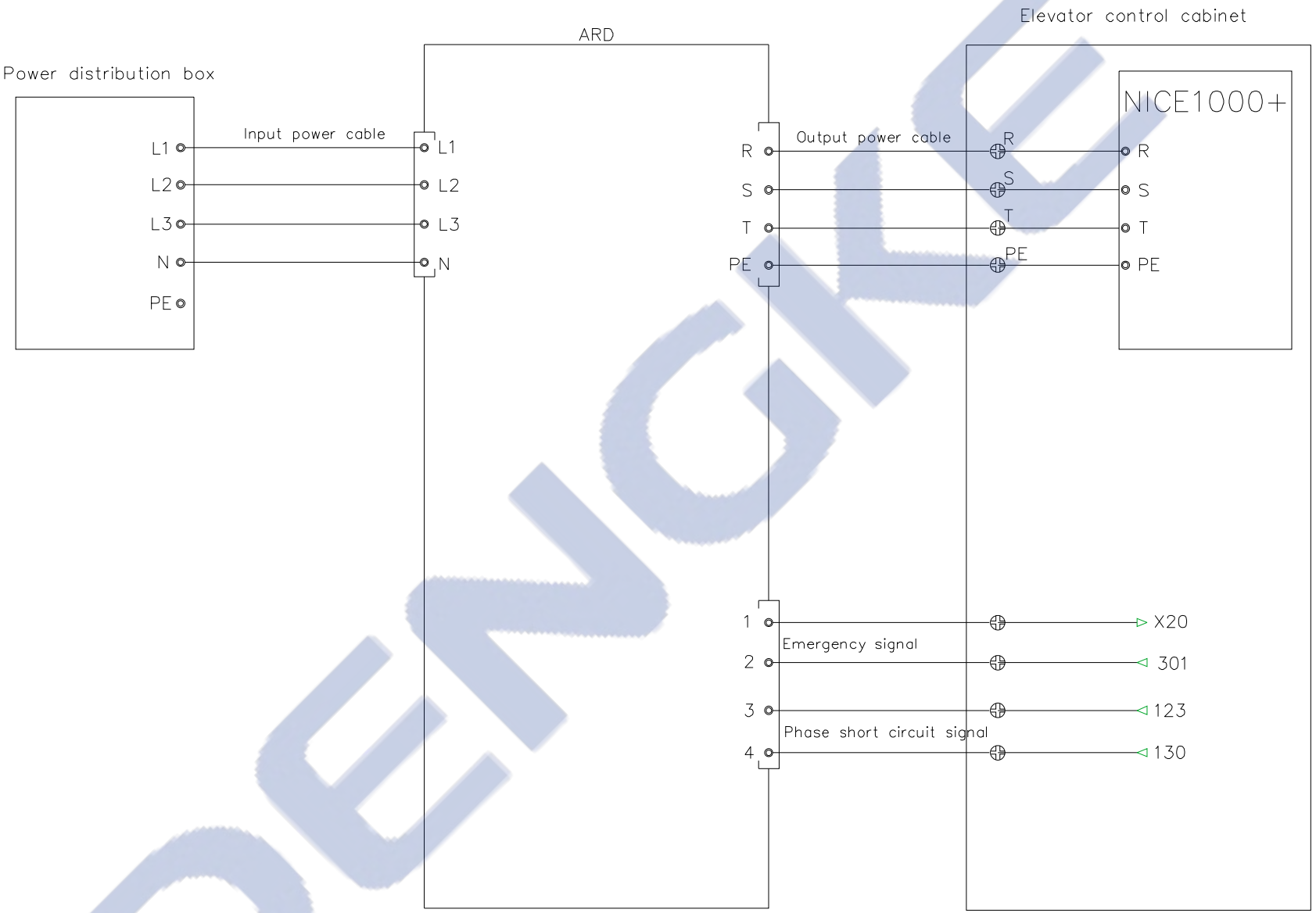
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	Design	KSB	AUTH			
	CHK		Door	Auto	Page 6	Control Transformer
	APPD		Date	09.03.15	Drawing Scale	Drawing Scale

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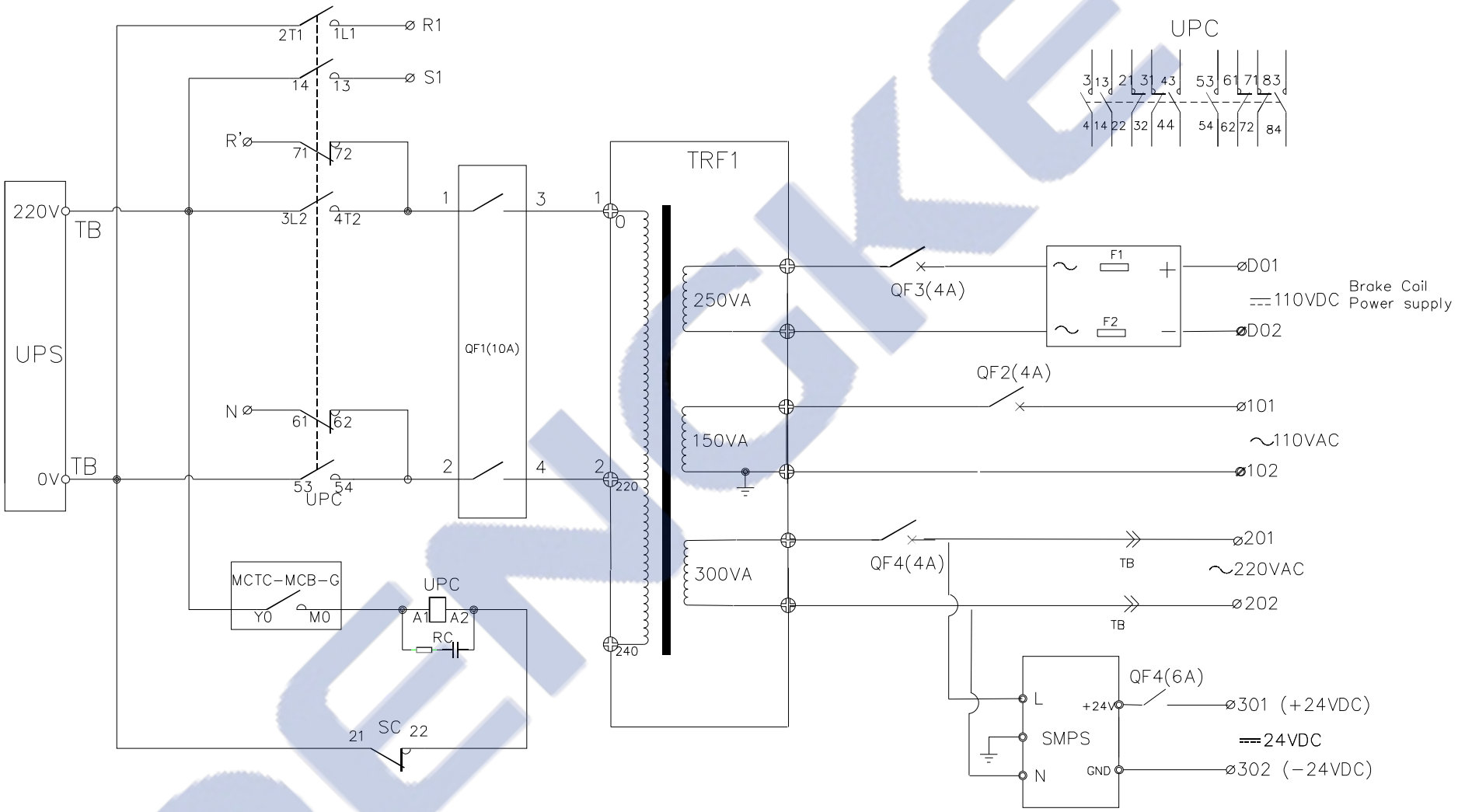
Remark 1: The power supply circuit applies to configure the ARD emergency Relevelling device control cabinet;

Remark 2: When power failure emergency, ARD emergency power leveling device output R, S two-phase 380V emergency power supply, to control cabinet power supply converter and transformer TRF.

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	Design	KSB	AUTH		
	CHK		Door	Auto	Page 7 ARD circuit diagram
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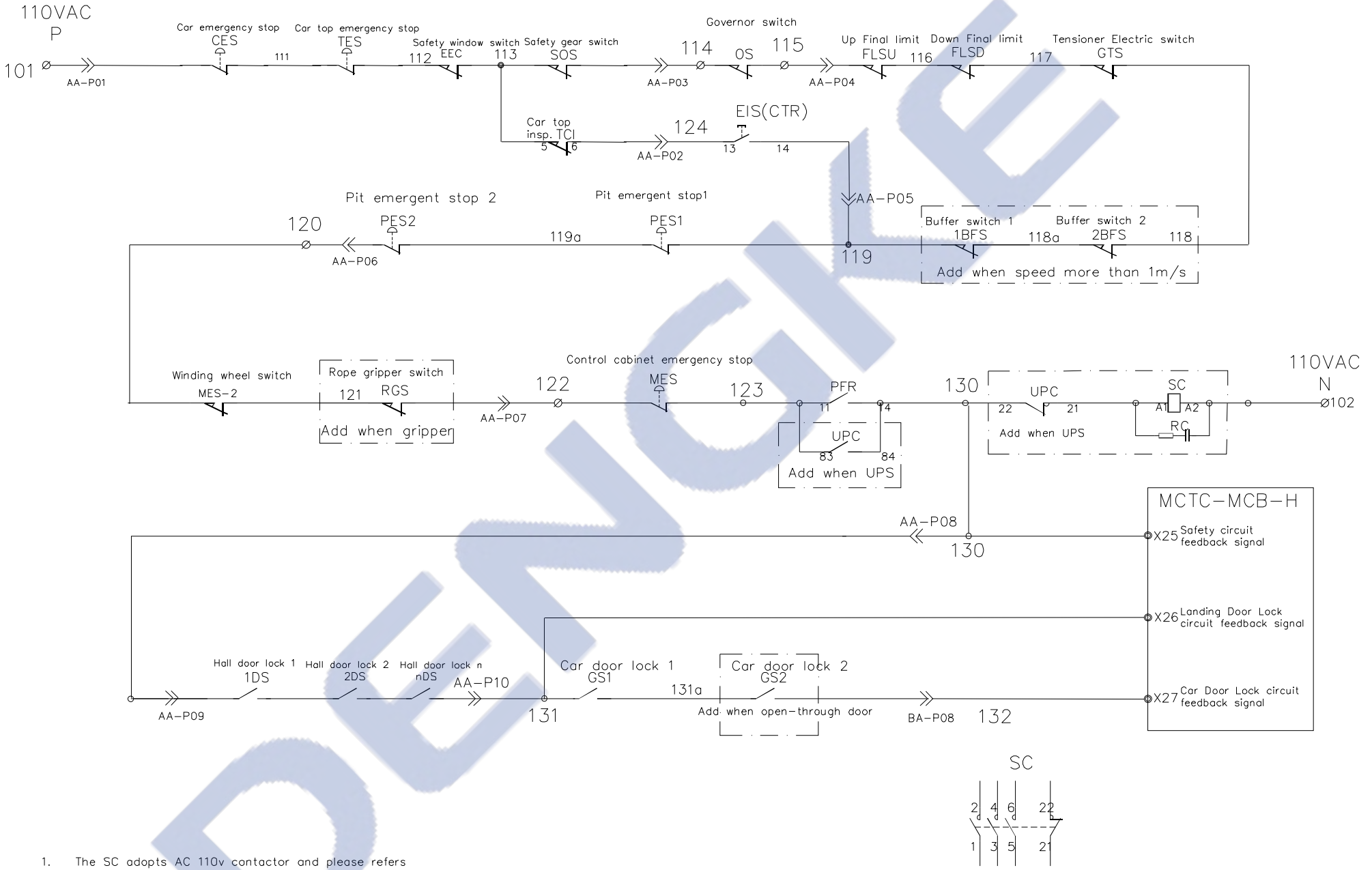


1. 5A is used as the output ability for the SMPS
2. UPC adopts AC 220v contactor; please refer to the Schneider CAD 32...C for the contact name.
3. PFR adopts 3PH AC protection relay.
4. This diagram applies to the emergent case with UPS.
5. The AC contactor coil and AC relay coil must connect to RC circuit voltage-sensitive resistor, diode for the DC relay.

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	Design	KSB	AUTH		
	CHK		Door	Auto	Page 8 / 15 — Control Transformer wiring (380V/110V)
	APPD		Date	09.03.15	

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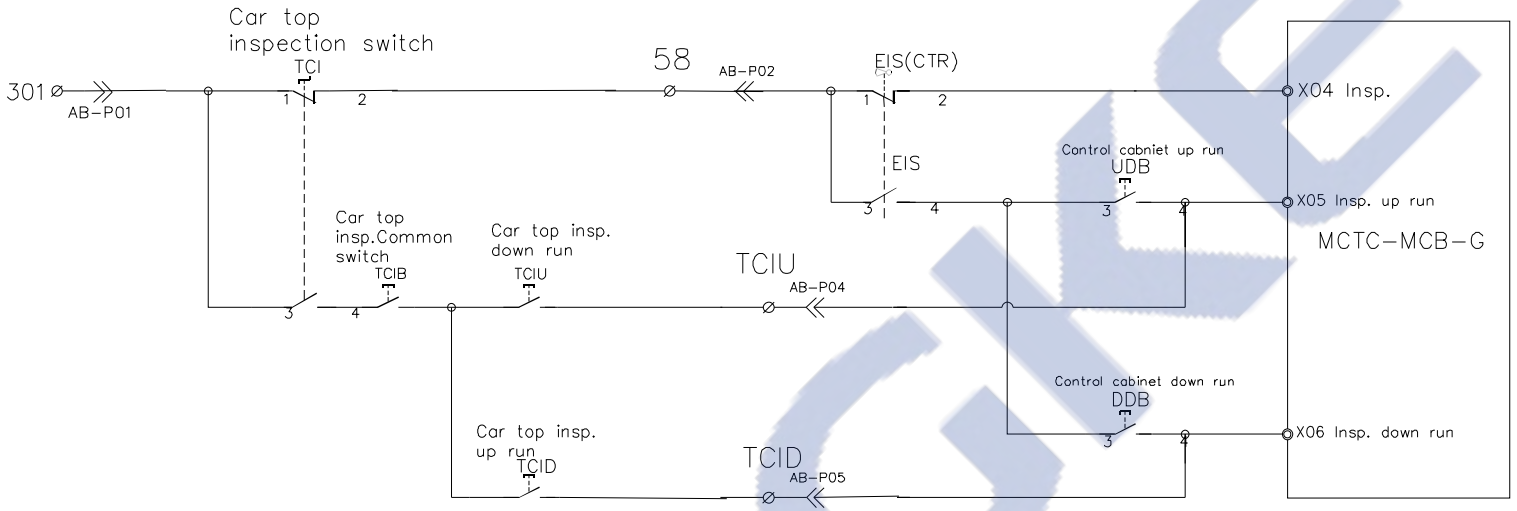


1. The SC adopts AC 110v contactor and please refers to the Schneider LC1 D3211.....C for the contact's name.
2. JT, and DLC adopts AC 110v relay, refer to Schneider for contact name.
3. The AC contactor coil and AC relay coil must connect to RC circuit or voltage-sensitive resistor (the 20k/281 and 20k/481 are recommended respectively for 110v coil and 220v coil).

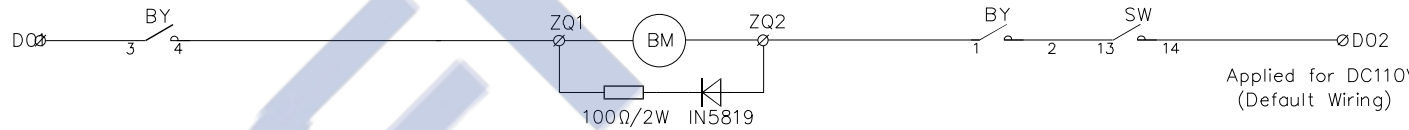
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	Design	KSB	AUTH		
	CHK		Door	Auto	Page 9
	APPD		Date	09.03.15	Safety circuit diagram

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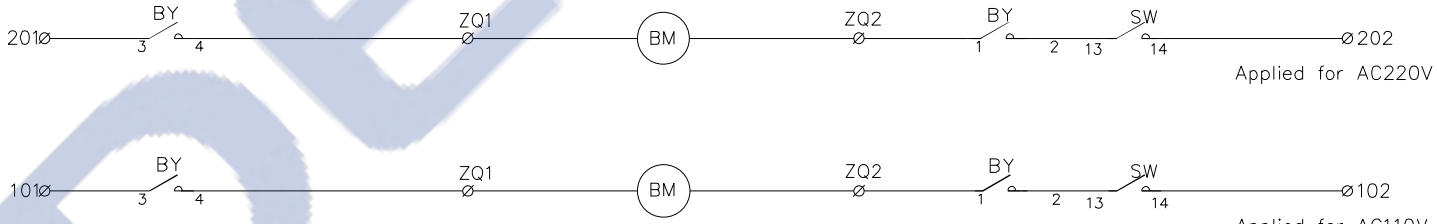


Brake Circuit



Applied for DC110V
(Default Wiring)

Optional Circuit



Applied for AC220V

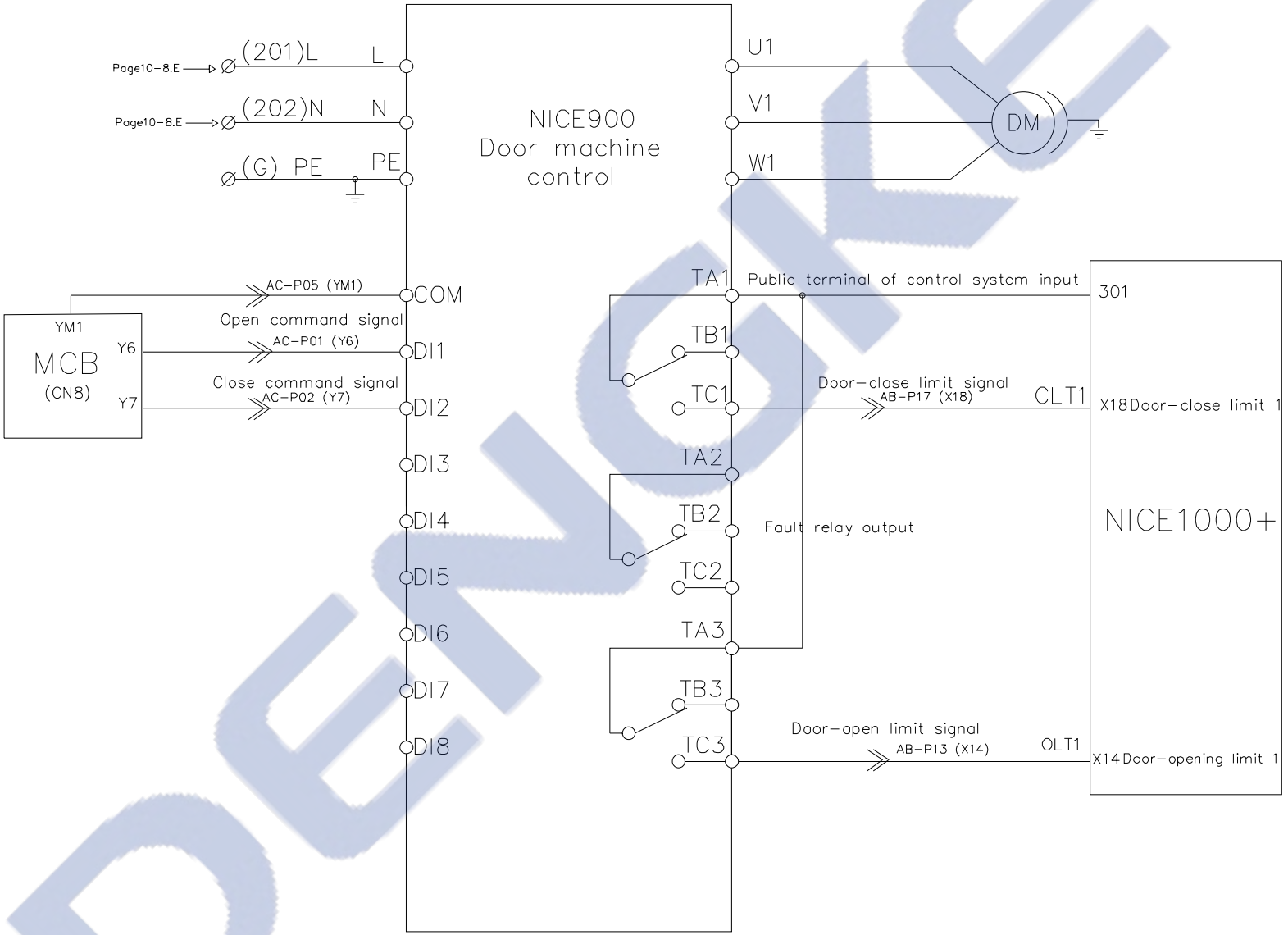
Applied for AC110V

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	Design	KSB	AUTH		
	CHK		Door	Auto	Page 10
	APPD		Date	09.03.15	Inspection brake circuit diagram

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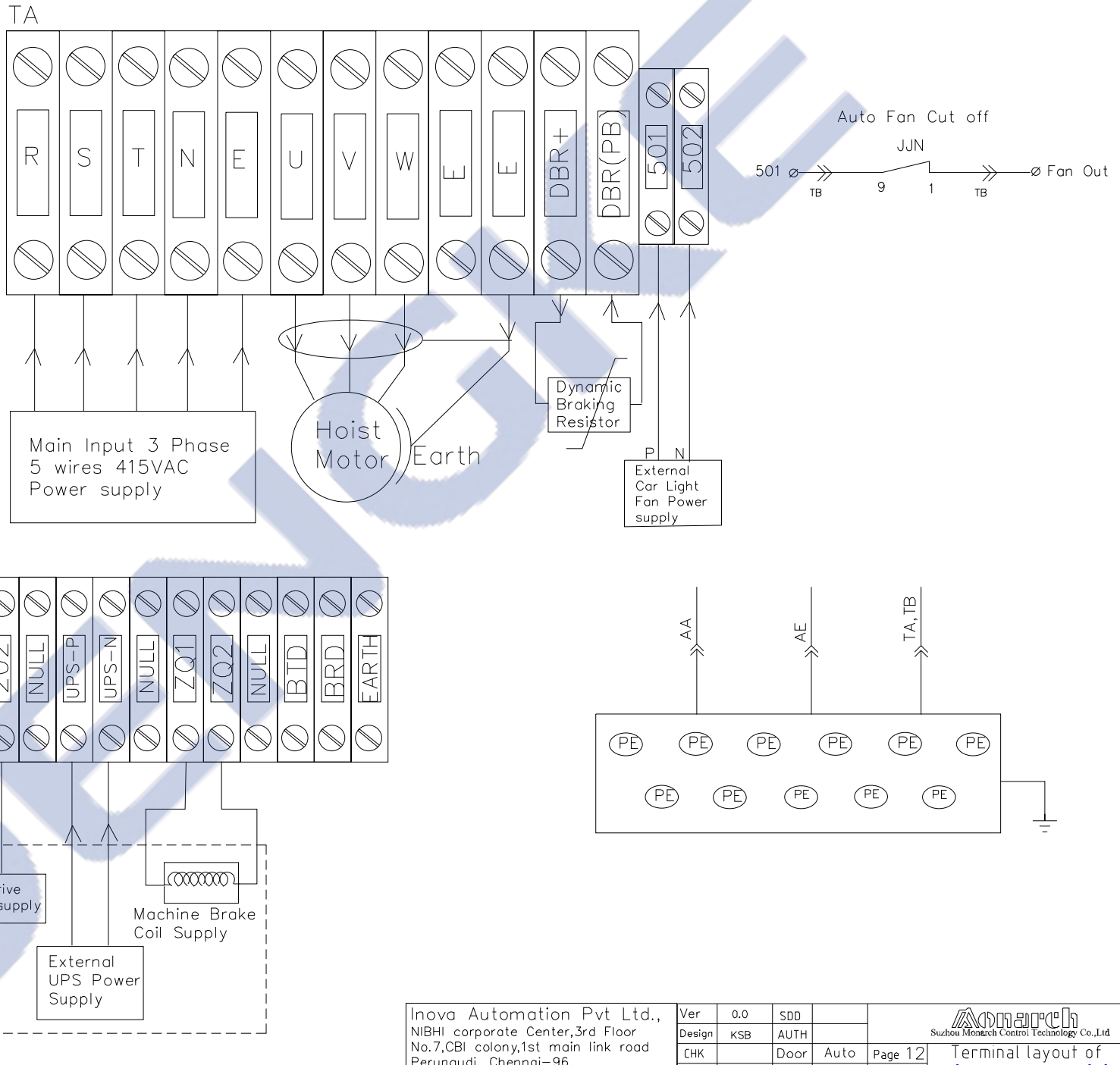
For Reference purpose only (Door Drive Interface)



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	Design	KSB	AUTH		
	CHK		Door	Auto	Page 11 — Circuit diagram of Door Drive
	APPD		Date	09.03.15	

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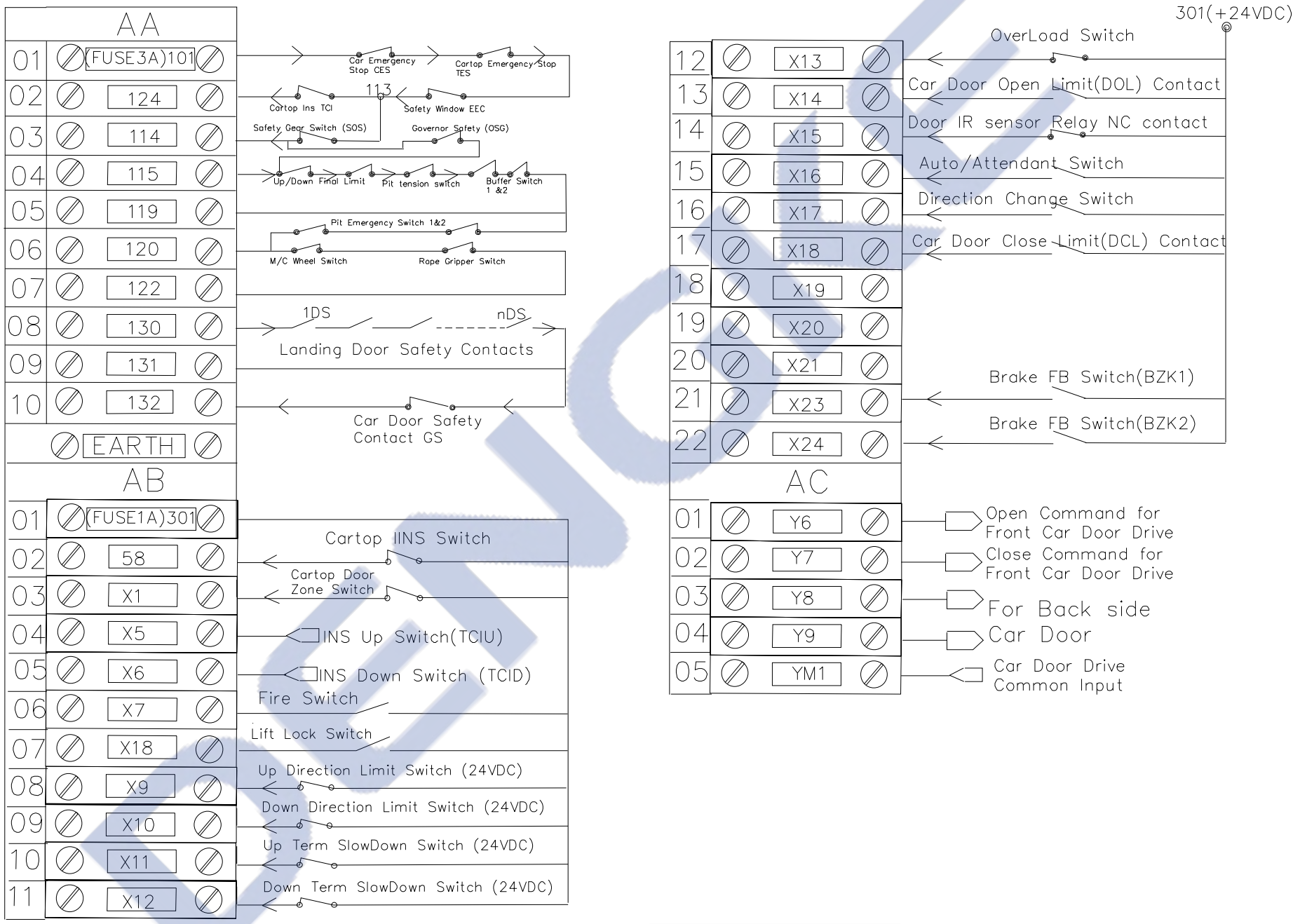
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	CHK		Door	Auto	Page 12 Terminal layout of
	APPD		Date	09.03.15	

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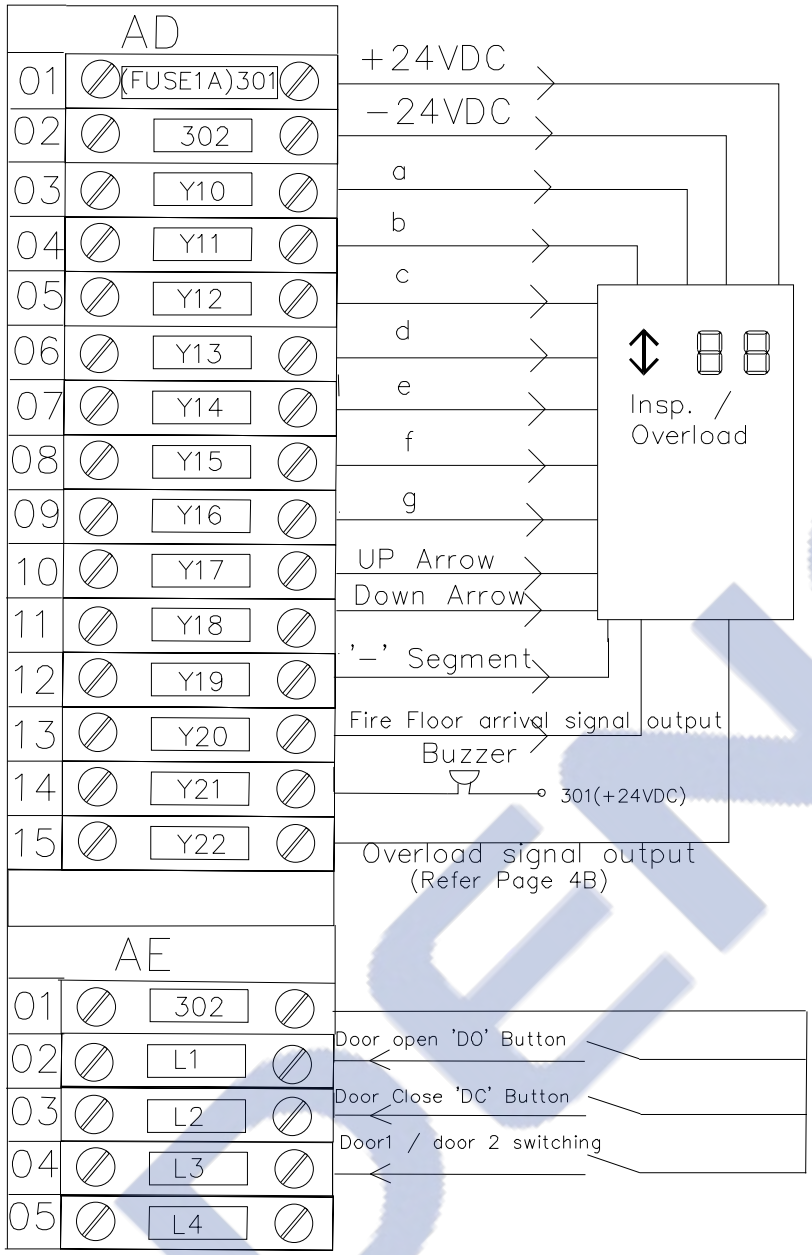
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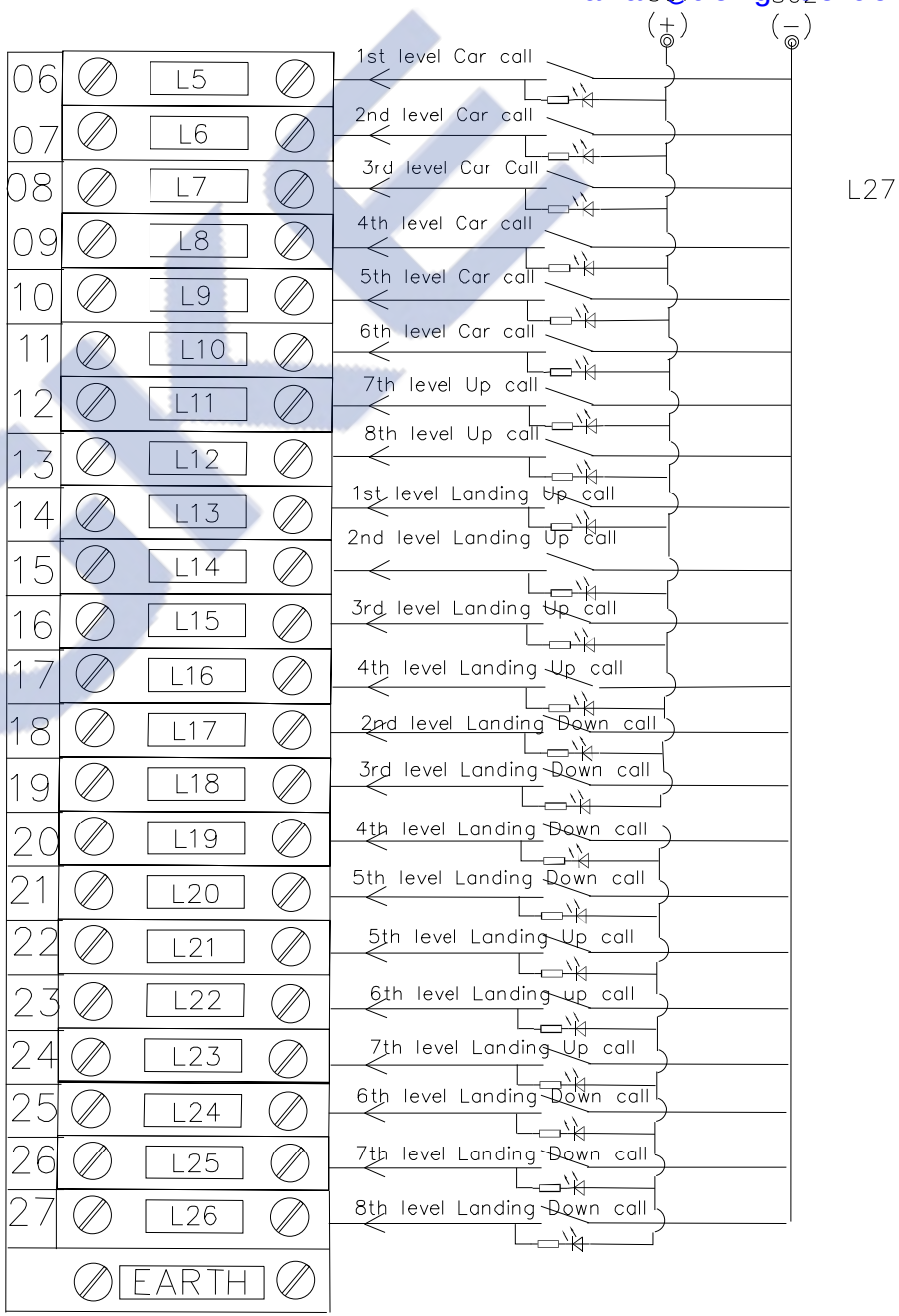


Inova Automation Pvt Ltd., NIBHI corporate Center,3rd Floor No.7,CBI colony,1st main link road Perungudi, Chennai-96. info.inovaindia@inova-automation.com	Ver	0.0	SDD		Amarch Suzhou Monarch Control Technology Co.,Ltd
	Design	KSB	AUTH		
	CHK		Door	Auto	Page 13 Controller Terminal for Hall Wires
	APPD		Date	09.03.15	

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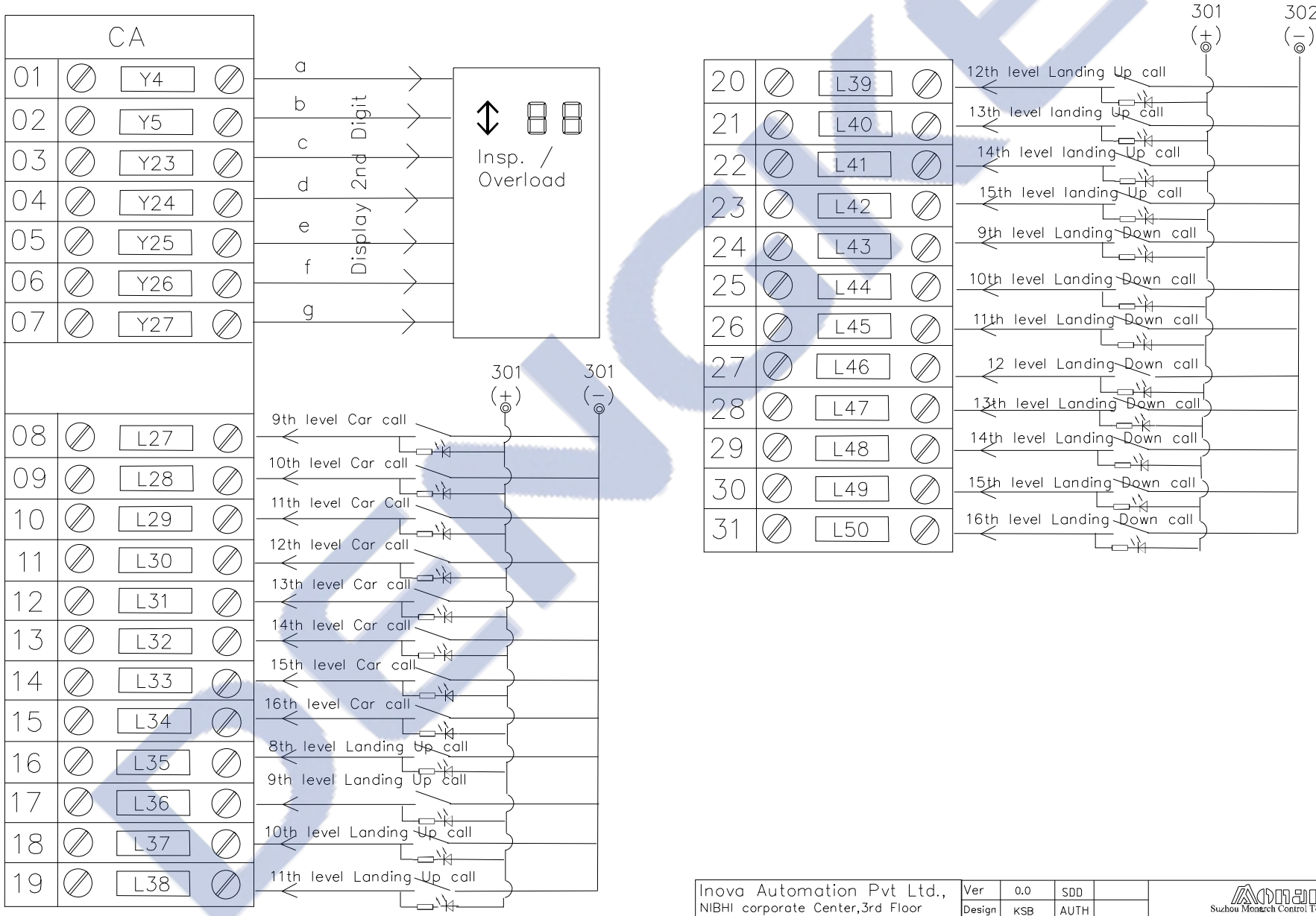
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Design	KSB	AUTH			
CHK		Door	Auto	Page 14	Controller Terminal for
APPD		Date	09.03.15	Total Pages 27	

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	Design	KSB	AUTH		
	CHK		Door	Auto	Page 15 Controller Terminal for
	APPD		Date	09.03.15	Model: MCB-16×16-C(Bottom)

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