

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
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NORWEGIAN STATE RAILWAYS BA
ELECTRIC MULTIPLE UNITS – Class 72
HIGH VOLTAGE AND AUXILIARY
CIRCUITS

A termine di legge è rigorosamente
vieta riprodurre o comunicare a terzi
il contenuto del presente disegno

INDICE	MODIFICHE		VISTO	DATA	INDICE	MODIFICHE		VISTO	DATA
12	UPDATED		12.09.07	06	UPDATED			21.03.00	
13	UPDATED		18.09.07	07	UPDATED			04/01	
								03/02	
					08	UPDATED		06/03	
					09	UPDATED		04/05	
					10	UPDATED		05/07	
					11	UPDATED			

ANSALDO
Ansaldo Trasporti s.p.a.

AREA
MILANO
ENTE
ING/PEV

DIS. P. GAL
PROG.
CONTR.
RESP. UFF.

FRONT PAGE

237VE05680C01

MOD.
13

SOSTITUISCE F. 01
SOSTITUITO DA SEGU F. 02

FUNCTION	TITLE	SHEET	REV.	TITLE	SHEET	REV.
A	FRONT PAGE	01	13	LOADS 230Vac-16 ^{2/3} Hz (MOTOR-CAR BMb)	25	09 A
	TITLE SHEETS	02	13	LOADS 230Vac-16 ^{2/3} Hz (MOTOR-CAR BMb)	26	09
B	REVISION LOG	03	13	AUXILIARY SUPPLY 230 Vac-50Hz	27	08 B
C	H.V. POWER SUPPLY-MAIN TRANSFORMERS	04	07	AIR CONDIT. PASSENGERS SYSTEM (BMa-BP)	28	07 c
	POWER CIRCUIT MAIN CONVERTER 1	05	07	AIR CONDIT. PASSENGERS SYSTEM (BC-BMb)	29	07
D	POWER CIRCUIT MAIN CONVERTER 2	06	07	APPARATUS LIST	30	07 D
E	POWER CIRCUIT MAIN CONVERTER 3	07	07	APPARATUS LIST	31	07 E
	POWER CIRCUIT MAIN CONVERTER 4	08	07	APPARATUS LIST	32	07
F	LOADS 1000Vac(MOTOR CAR BMa/TRAILER BP)	09	08	APPARATUS LIST	33	07 F
G	LOADS 1000Vac(MOTOR CAR BMb/TRAILER BC)	10	08	APPARATUS LIST	34	07 G
	SPARE	11	07	APPARATUS LIST	35	07 H
H	M.V. POWER SUPPLY (3X400Vac-50Hz)	12	08	APPARATUS LIST	36	07
I	LOADS 3X400Vac-50Hz (MOTOR-CAR BMa)	13	08	APPARATUS LIST	37	08 I
	LOADS 3X400Vac-50Hz (MOTOR-CAR BMa)	14	09	APPARATUS LIST	38	09
K	LOADS 3X400Vac-50Hz (TRAILER-CAR BP)	15	08	APPARATUS LIST	39	09 K
J	LOADS 3X400Vac-50Hz (TRAILER-CAR BC)	16	08	APPARATUS LIST	40	07 J
	LOADS 3X400Vac-50Hz (MOTOR-CAR BMb)	17	08	APPARATUS LIST	41	07 L
L	LOADS 3X400Vac-50Hz (MOTOR-CAR BMb)	18	09	APPARATUS LIST	42	08 L
M	POWER SUPPLY (230Vac-16 ^{2/3} Hz)	19	08	APPARATUS LIST	43	07 M
	LOADS 230Vac-16 ^{2/3} Hz (MOTOR-CAR BMa)	20	09	APPARATUS LIST	44	07 N
N	LOADS 230Vac-16 ^{2/3} Hz (MOTOR-CAR BMa)	21	09	APPARATUS LIST	45	07
O	LOADS 230Vac-16 ^{2/3} Hz (TRAILER-CAR BP)	22	09	APPARATUS LIST	46	07 o
	LOADS 230Vac-16 ^{2/3} Hz (TRAILER-CAR BC)	23	09	APPARATUS LIST	47	07 P
P	LOADS 230Vac-16 ^{2/3} Hz (TRAILER-CAR BC)	24	09	APPARATUS LIST	48	07

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
INDICE	MODIFICHE			VISTO	DATA	INDICE	MODIFICHE			VISTO	DATA														
12	UPDATE			N.Y.	12.09.07	06	UPDATED					21.03.00													
13	UPDATE				18.09.07	07	UPDATED					04/01													
						08	UPDATED					03/02													
						09	UPDATED					06/03													
						10	UPDATED					04/03													
						11	UPDATED					05/07													
DIST.	ANSALDO												TITLE SHEET												
	Ansaldo Trasporti s.p.a.												237VE05680C01												
													MOD. 13												
													SOSTITUISCE F. 02												
													SOSTITUITO DA SEQUE F. 03												

01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25

A	REV.	DESCRIPTION	DATE	SIGN.	ESP.	DESCRIPTION	DATE	SIGN.
B	00	EMISSION	20.10.98					
C	01	REDRAWING	30.06.99					
D	02	MODIFICATION SHEETS 01,02,03,04,12,14,15,16, 17,18,20,21,22,23,24,25,26,27,36,37,38,39,40						
E		41,42,43,44,45,46,47.	30.07.99					
F	03	MODIFICATION SHEETS 01,02,03,05,06,07,08,22,						
G		37,38,39,41,42,45.	31.08.99					
H	04	MODIFICATION SHEETS 01,02,03,04,05,06,07,08, 12,14,15,16,18,19,20,22,23,25,33,36,41,47.						
I		INTRODUCED SHEETS 09,10,28,29,48.	28.10.99					
K	05	MODIFICATION SHEETS 01,02,03,04,09,10,14,18, 20,25,28,29,33,38,39.	15.12.99					
J	06	MODIFICATION SHEETS 01÷48	21.03.00					
L	07	MODIFICATION SHEETS 01-48	04/01					
M	08	MODIFICATION SHEETS 01-48	03/02					
N	09	MODIFICATION SHEETS 01,02,03,14,16,18,37,38	06/03					
O	10	MODIFICATION	04/05					
P	11	MODIFICATION SHEETS 01,02,03,20,21,22,23,24, 25,26,38,39,42	05/07					
P	12	MODIFICATION SHEETS 01,02,03,20,21,22,23,24,						
P	13	25,26,38,39,42	05/07					
P	14	MODIFICATION SHEETS 01,02,03,42	09/07					

01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25

INDICE	MODIFICHE			VISTO	DATA	INDICE	MODIFICHE			VISTO	DATA	AREA	DIS.	P. GAL											
12	UPDATE	N.Y.	12.09.07	06	UPDATED		P.G.	21.03.00				MILANO													
13	UPDATE		18.09.07	07	UPDATED			04/01				ENTE													
				08	UPDATED			03/02				ING/PEV													
				09	UPDATED			04/03				RESP. UFF.													
				10	UPDATED			04/05																	
				11	UPDATED			05/07																	

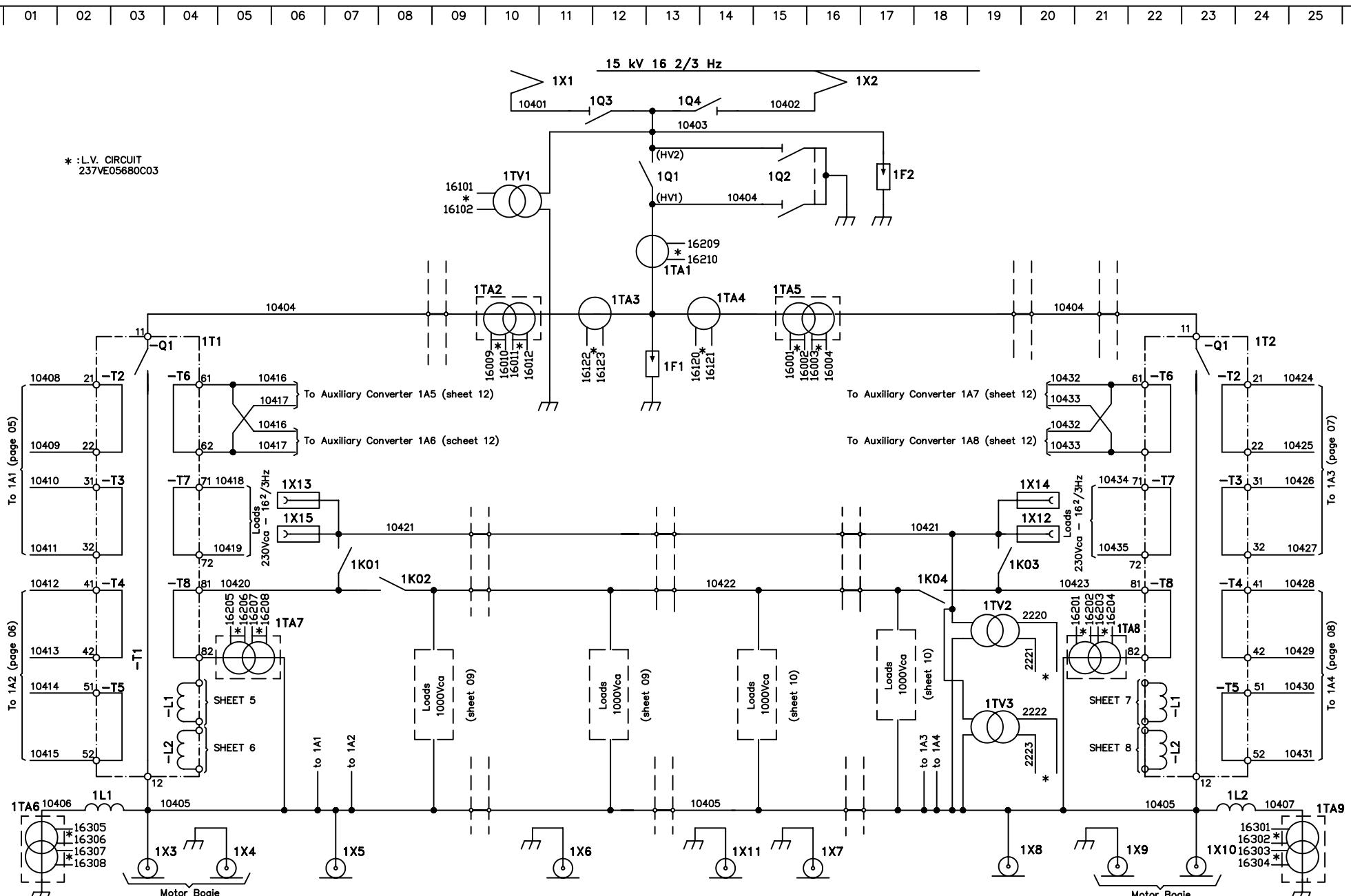
ANSALDO

Ansaldo Trasporti s.p.a.

REVISION LOG

237VE05680C01
MOD. 13
SOSTITUISCE
SOSTITUITO DA
F. 03
SEGU F. 04

* : L.V. CIRCUIT
237VE05680C03



DIST.

INDICE	MODIFICHE	VISTO	DATA	INDICE	MODIFICHE	VISTO	DATA
00	EMISSION	N.V.	20.10.98				
04	Introduced 2K50-2K51						
	Redrawn 1TA2-1TA5-1TA6						
	17A7-1TA8-1TA9 devices	P.G.	15.12.99				
05	REDROW	P.G.	21.03.00				
07	REDROW		04/01				

ANSALDO
Ansaldo Trasporti s.p.a.

AREA
MILANO
ENTE
ING/PEV
DIS.
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PROG.
CONTR.
RESP. UFF.

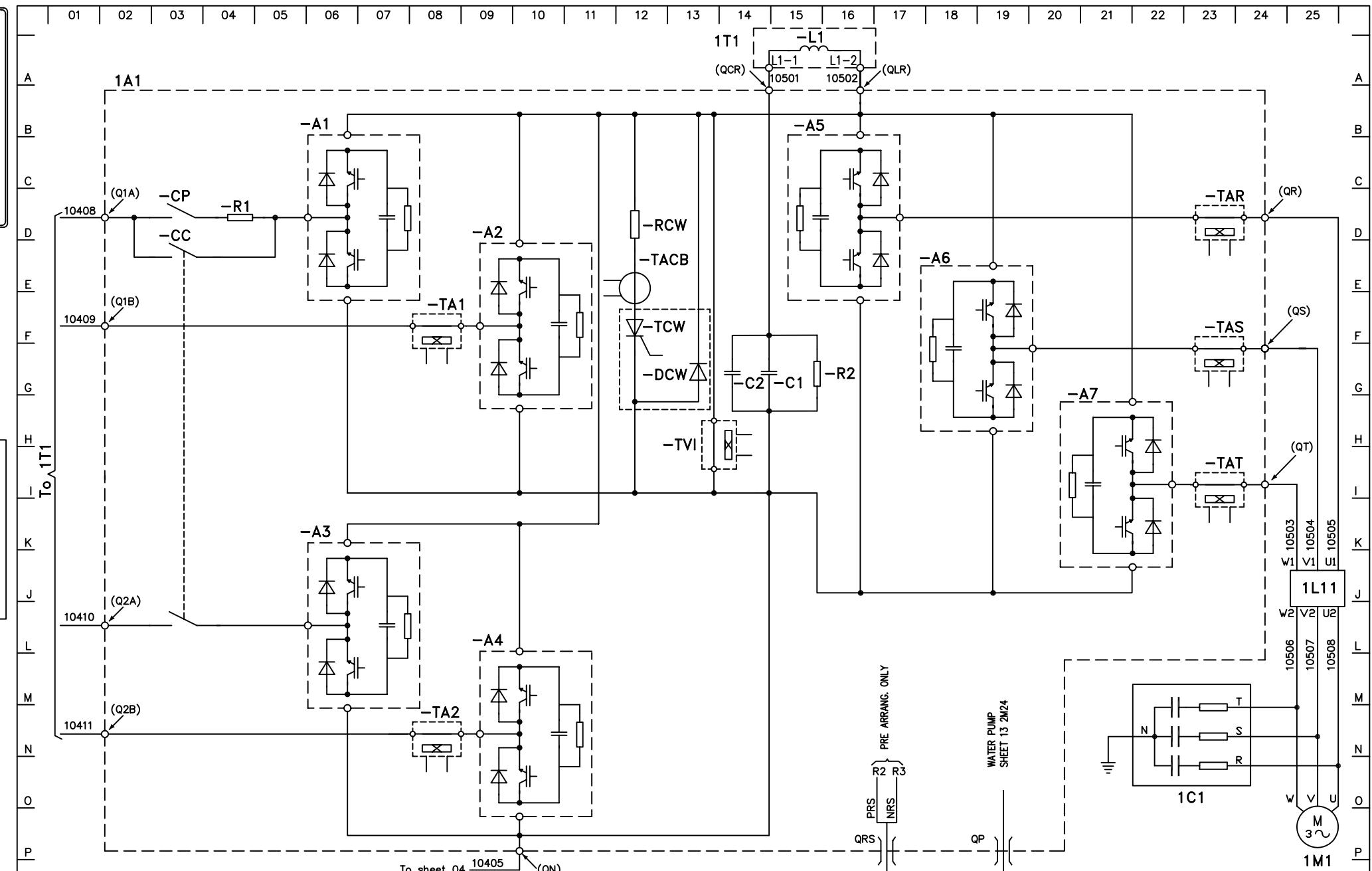
H.V. POWER SUPPLY
MAIN TRANSFORMERS

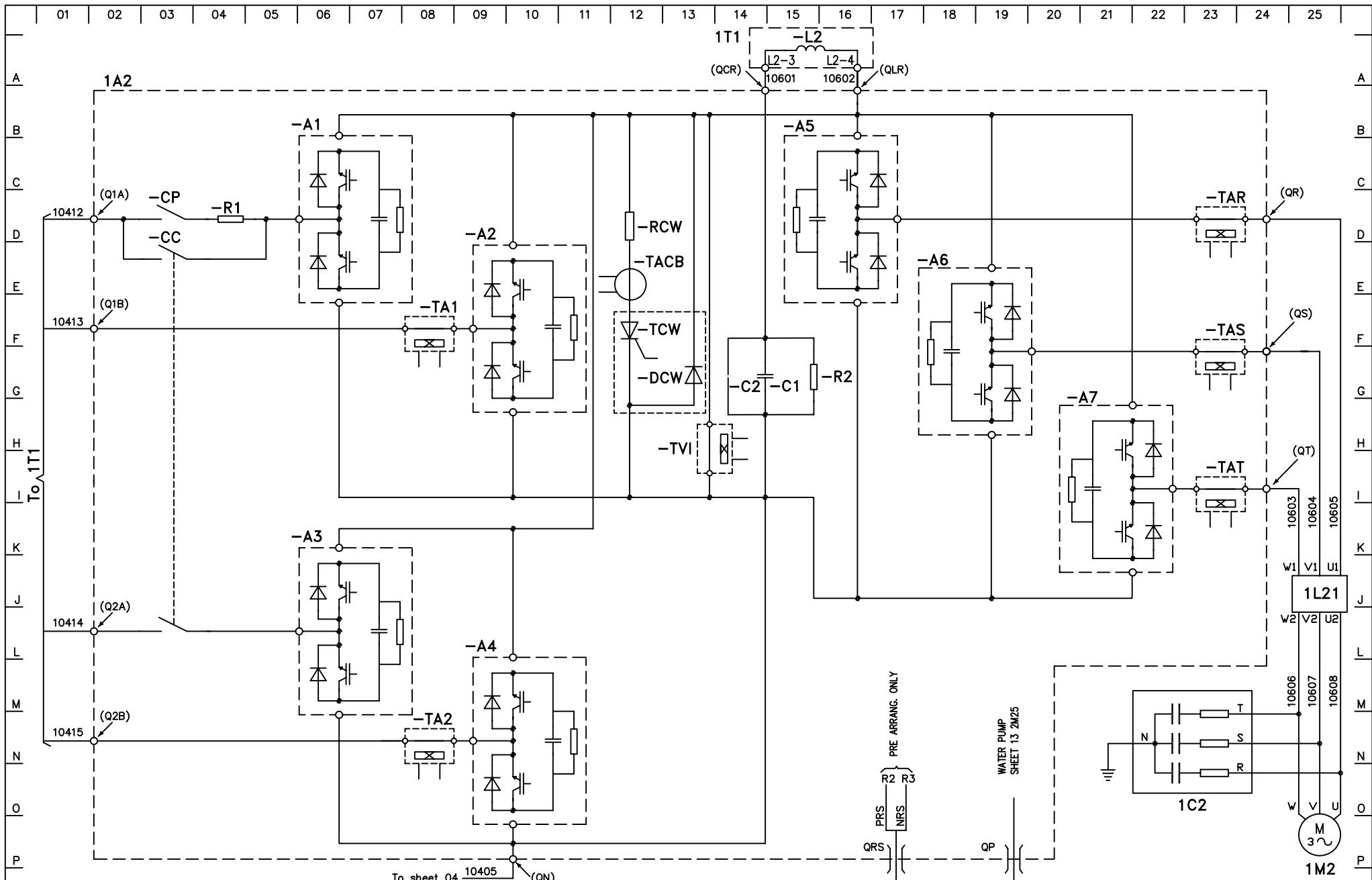
237VE05680C01
MOD.
07
SOSTITUISCE
F. 04
SOSTITUITO DA
SEGUO F. 05



DIS
Nor

A termini di legge e' rigorosamente vietato riprodurre o comunicare a terzi il contenuto del presente disegno





01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
INDICE	MODIFICHE			VISTO	DATA	INDICE	MODIFICHE			VISTO	DATA													
00	EMISSION			N.V.	20.10.98																			
03	REDRAWN CONNECTIONS																							
04	TO 1C2 DEVICE			P.G.	28.10.99																			
07	REDRAW			P.G.	21.03.00																			
DIST.	04/01																							

ANASALDO

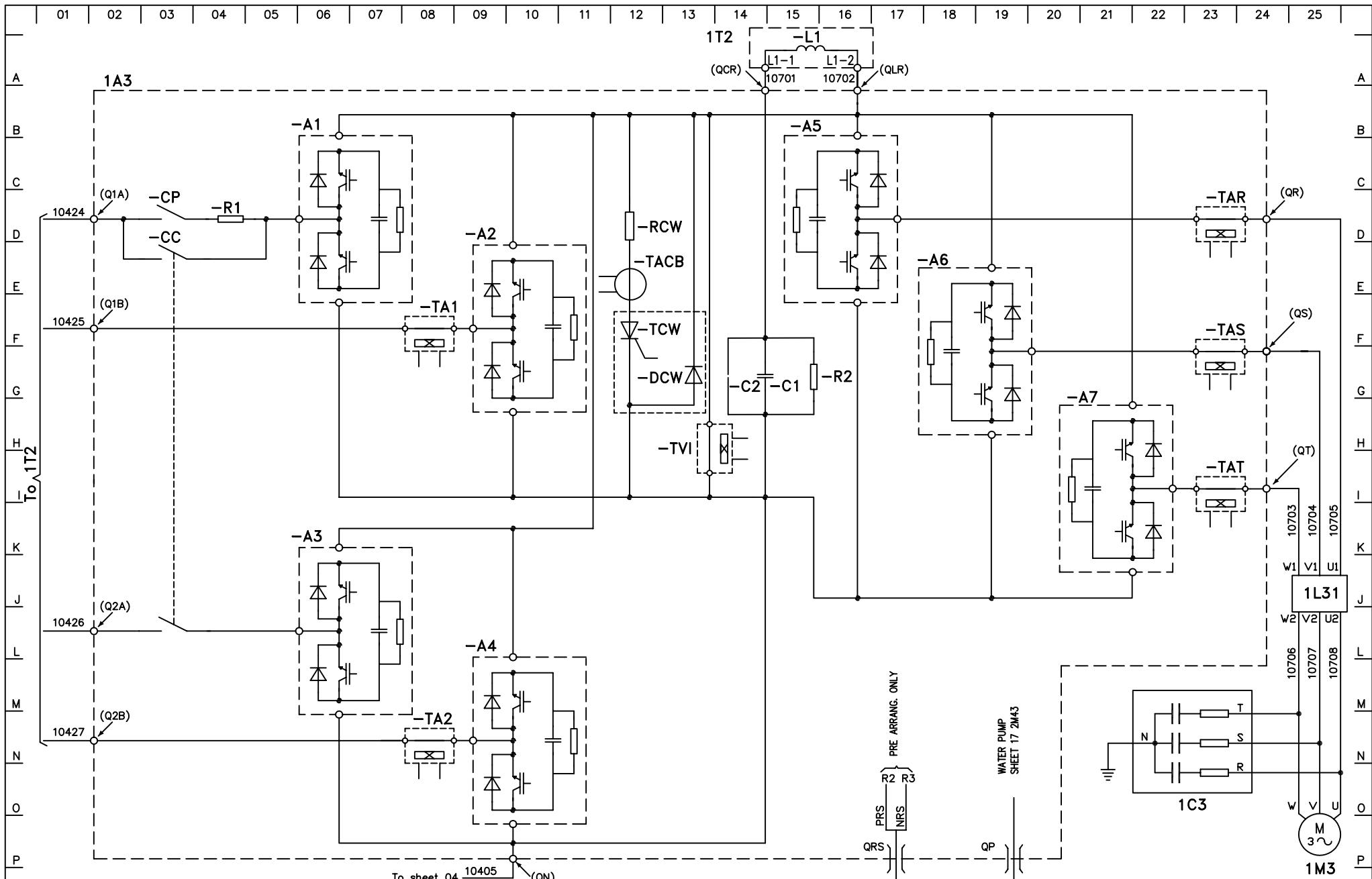
Ansaldo Trasporti s.p.a.

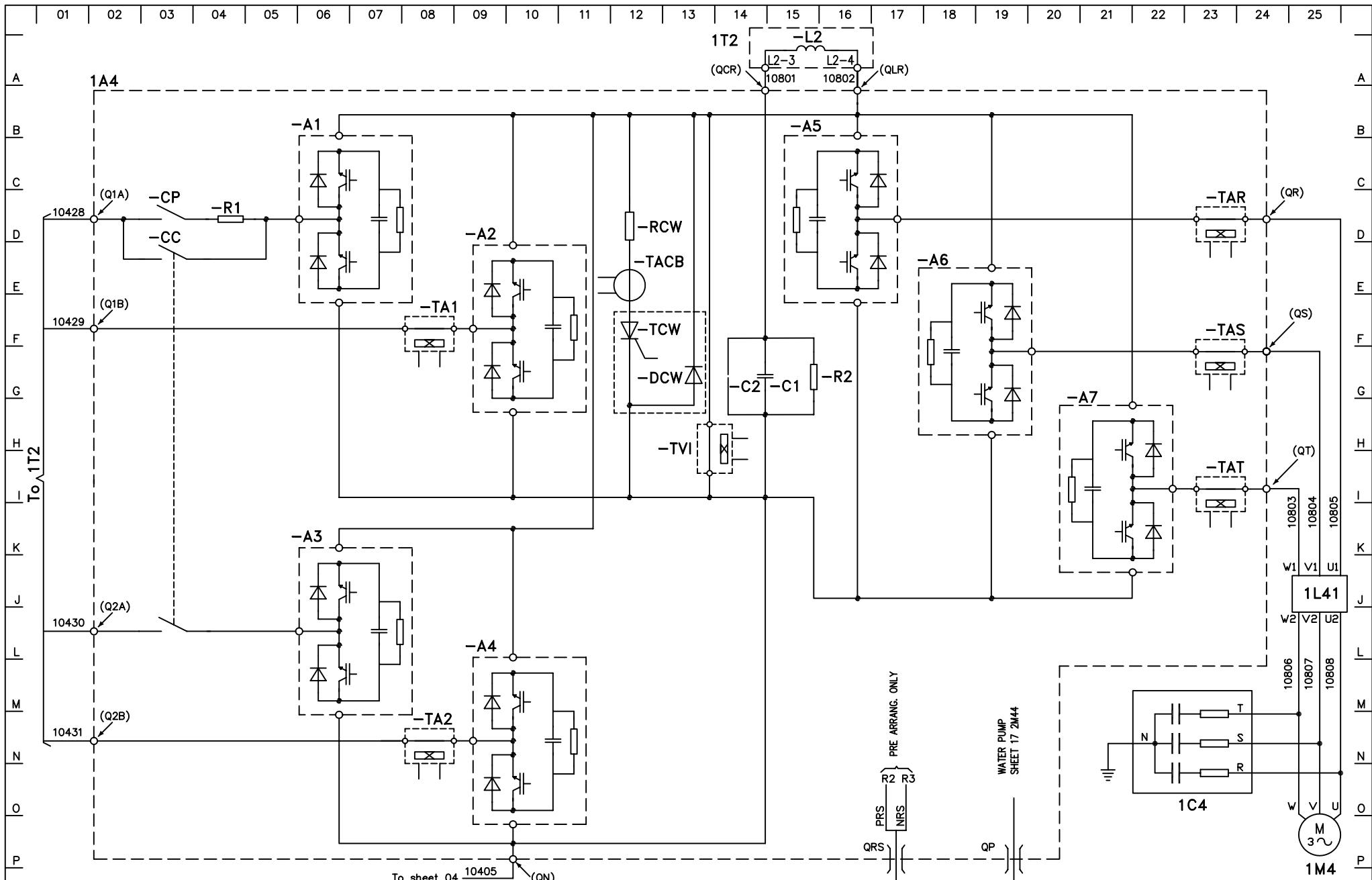
AREA
MILANO
ENTE
ING/PEV
DIS. NESCI
PROG.
CONTR.
RESP. UFF.

POWER CIRCUIT
MAIN CONVERTER 2

237VE05680C01

MOD.
07
SOSTITUISCE F. 06
SOSTITUITO DA SEQUE F. 07





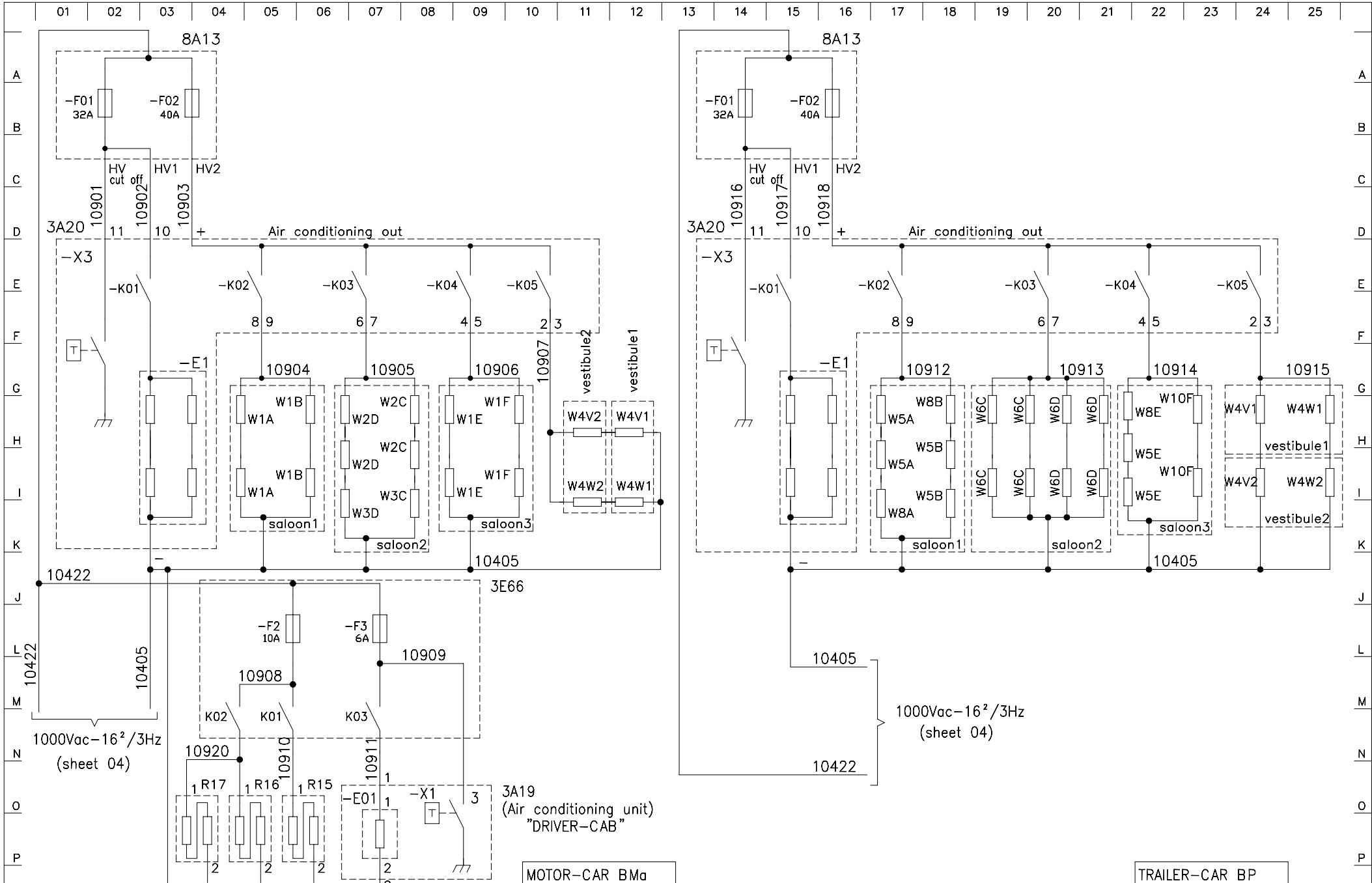
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
INDICE	MODIFICHE			VISTO	DATA	INDICE	MODIFICHE			VISTO	DATA														
00	EMISSION			N.V.	20.10.98																				
03	REDRAWN CONNECTIONS																								
04	TO 1C4 DEVICE			P.G.	28.10.99																				
05	REDRAW			P.G.	21.03.00																				
DIST.	04/01																								

ANASALDO
Ansaldo Trasporti s.p.a.

AREA
MILANO
ENTE
ING/PEV
DIS. NESCI
PROG.
CONTR.
RESP. UFF.

POWER CIRCUIT
MAIN CONVERTER 4

237VE05680C01
MOD. 07
SOSTITUISCE F. 08
SOSTITUITO DA SEQUE F. 09



DIST.

Mod. ATR 0354

INDICE	MODIFICHE	VISTO	DATA	INDICE	MODIFICHE	VISTO	DATA
00	EMISSION	N.Y.	20.10.98	08	Modif. 3A20-3E66		15/03/02
01	REDRAWN 8A04-R1+R5 8A06-R1+R5, INTRODUCED CROW-BAR INTO 8A01	P.G.	15.12.99				
02	REDRAW	P.G.	21.03.00				
07	DRAW		04/07				

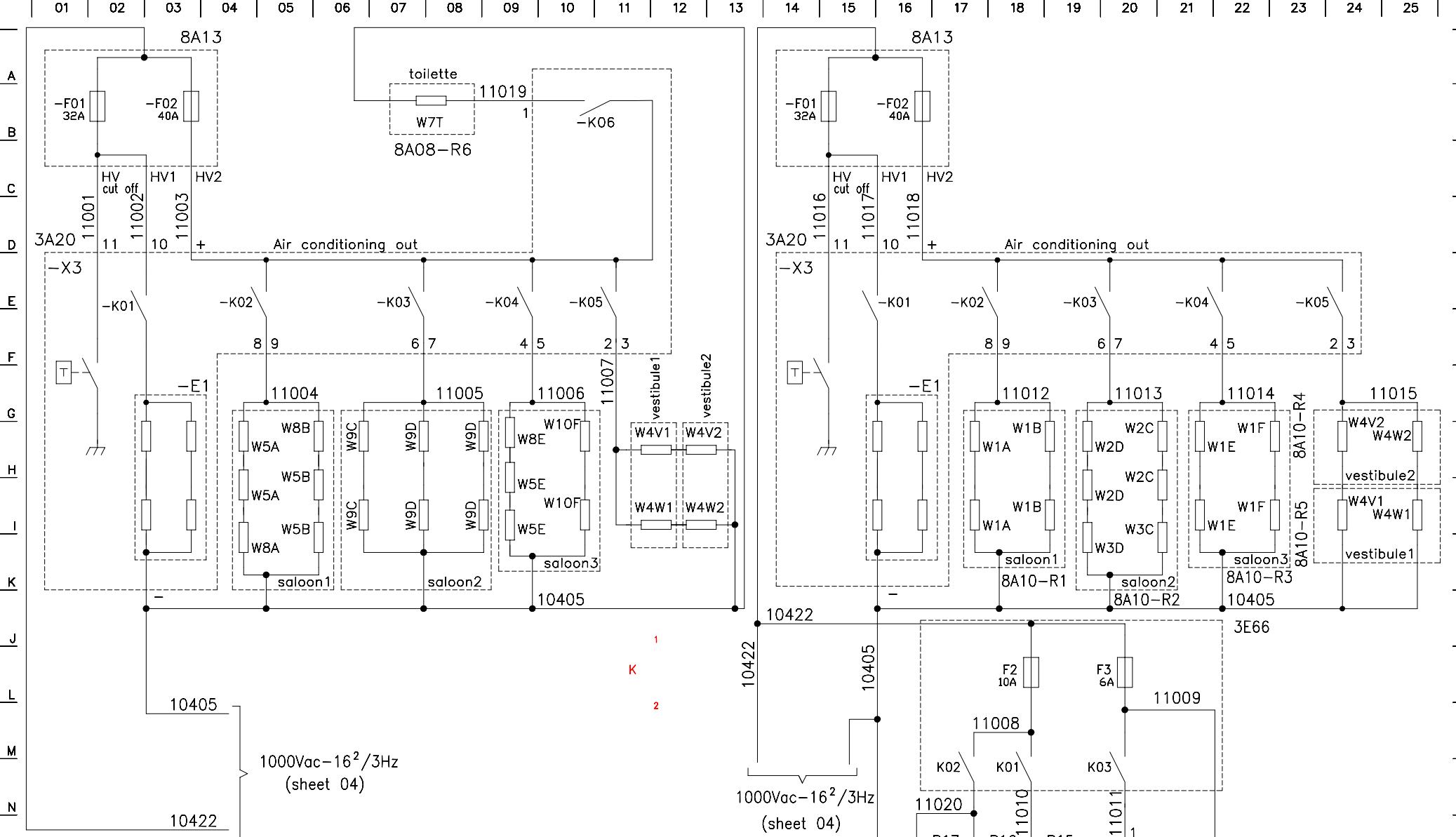
ANSALDO

Ansaldo Trasporti s.p.a.

AREA	DIS. P. GAL			
MILANO	PROG.			
ENTE	CONTR.			
ING/PEV	RESP. UFF.			

MOTOR-CAR BMa 237VE05680C01
TRAILER-CAR BP
LOADS 1000Vac-16²/3Hz

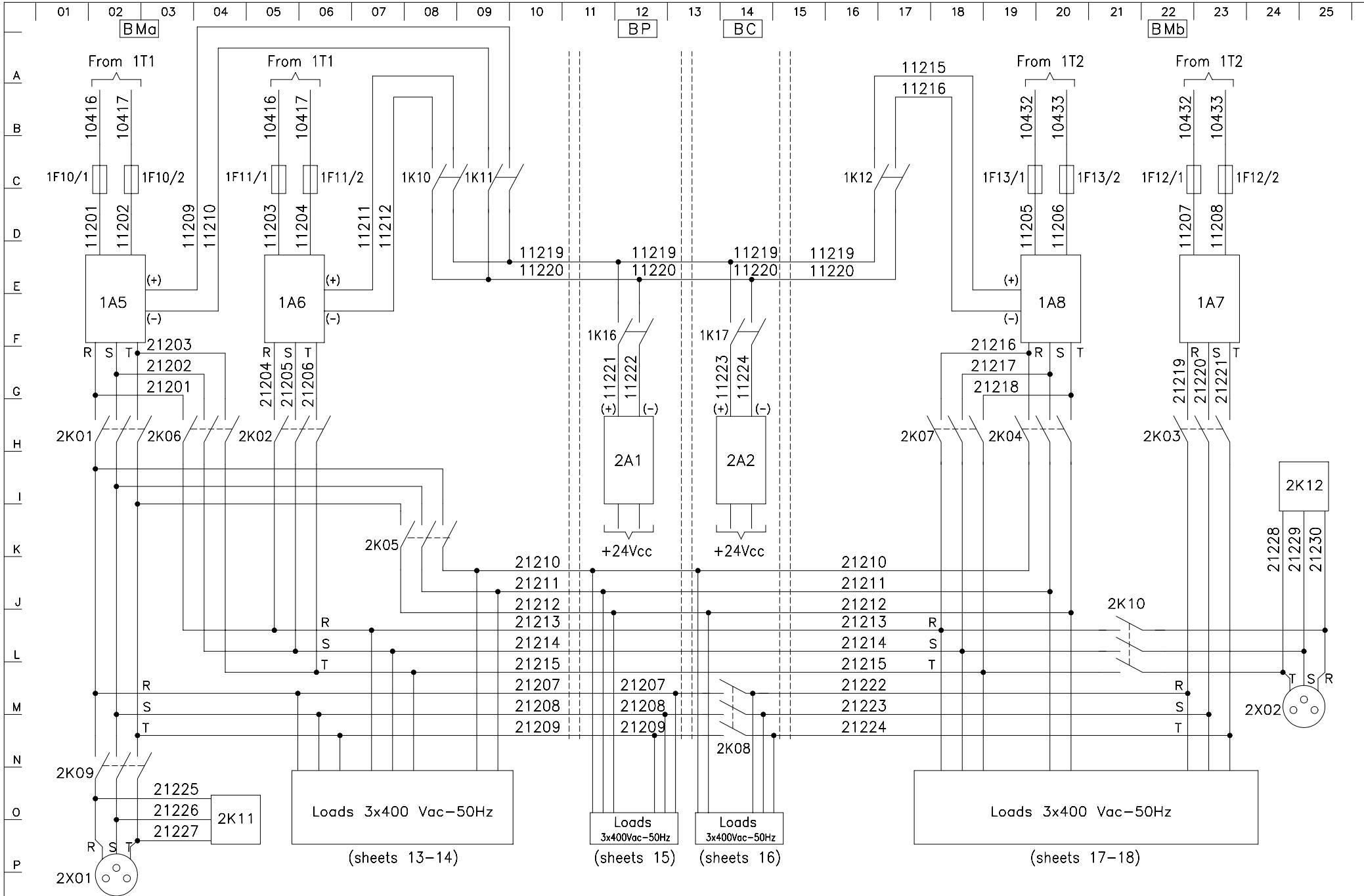
SOSTITUISCE F. 09
SOSTITUITO DA SEQUE F. 10
MOD. 08



TRAILER-CAR BC

AREA	SCALA	TECH. FABR.	CENTRE DIST.	ENTE	PRINC.	CENTRE INDUS.	CAR. DUMATY	RESP. UFF.
DIST.								

INDICE	MODIFICHE	VISTO	DATA	INDICE	MODIFICHE	VISTO	DATA	ROTABILE	AREA	DIS. FS	P. CAL	MODIFICHE	MOTOR-CAR BMb	237VE05680C01	MOD.
00	EMISSION	N.Y.	20.10.98	08	Modif. 8A10-3E66		15.03.02		UGUAGLIANZE SERIE				TRAILER-CAR BC		
01	REDRAW 8A08-R1+R6								ANSALDO						
	8A10-R1+R5, INTRODUCED								ROTABILE						
	CROW-BAR INTO 8A02	P.G.	15.12.99						MILANO						
02	REDRAW	P.G.	21.03.00						ING/						
07	REDRAW		04/01						MARK.P.E. RESP. UFF.						
									PRG.DIST.						



DIST.

INDICE	MODIFICHE	VISTO	DATA	INDICE	MODIFICHE	VISTO	DATA
00	EMISSIONE	N.Y.	20.10.98	08	Modif. label 1A5		15.03.02
03	Eliminated 1F14,1F15,1F16,1F17 Charge 1F10,1F11,1F12,1F13						
	type. Introduced 1K16-1K17	P.G.	28.10.99				
04	REDRAW	P.G.	21.03.00	04/01			
07	REDRAW						

ANSALDO

Ansaldo Trasporti s.p.a.

AREA	DIS. P. GAL
MILANO	PROG.
ENTE	CONTR.
ING/PEV	RESP. UFF.

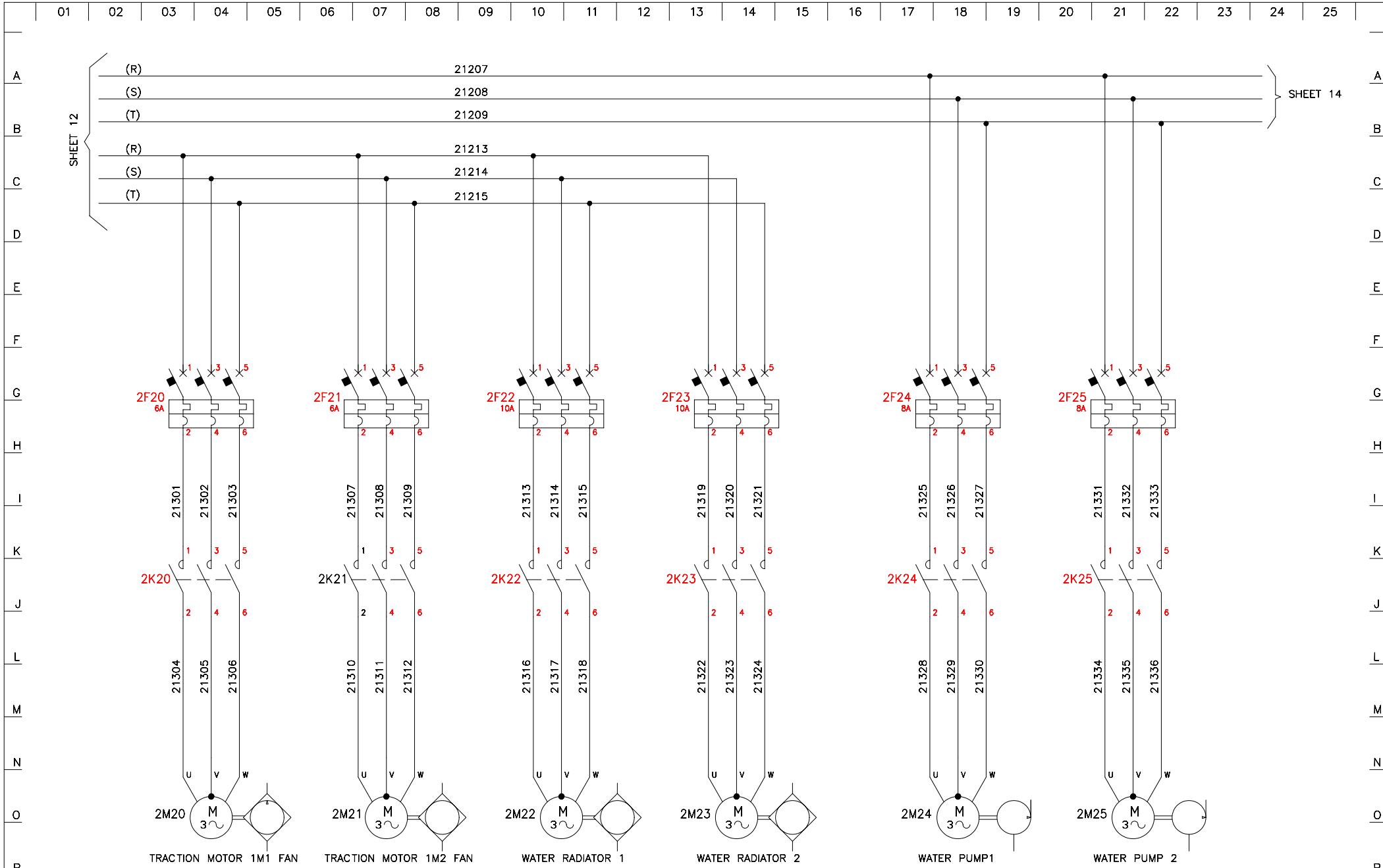
M.V. POWER SUPPLY
(3 X 400Vac-50 Hz)

237VE05680C01	MOD. 08
SOSTITUISCE	F. 12
SOSTITUITO DA	SEGU. F. 13



DISEGNO ESEGUITO CON
Non sono ammesse modifiche o variazioni manuali.

A termine di legge è rigorosamente
vieta riprodurre o comunicare a terzi
il contenuto del presente disegno



DIST.

INDICE	MODIFICHE		VISTO	DATA	INDICE	MODIFICHE		VISTO	DATA
00	DRAFT ISSUE					D.F.	13.12.96		
01	REVIEW					D.F.	30.01.97		
02	REVIEW					P.G.	21.03.00		
07	REVIEW							04/01	
08	Introd. label stoz							04/01	

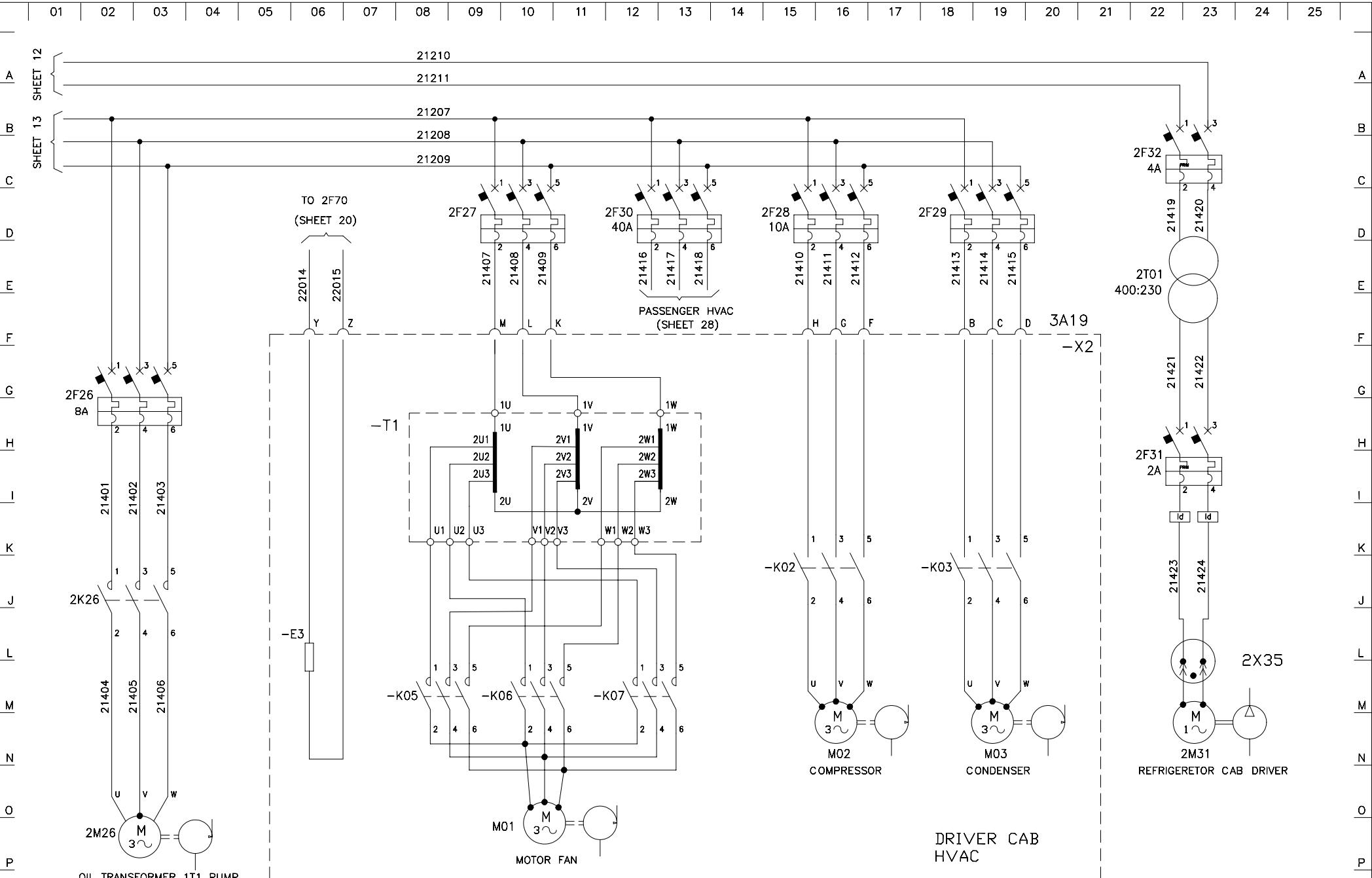
ANSALDO

Ansaldo Trasporti s.p.a.

AREA	DIS. P. GALAFFU	13.12.96	MOTOR CAR BMa	237VE05680C01	MOD. 08
MI	PRDG.				
ENTE	CONTR.				
ISV/PQI	RESP. UFF.		LOADS 3X400Vac - 50Hz		

SOSTITUISCE
SOSTITUITO DA
F. 13
SEGU F. 14

A termini di legge e' rigorosamente vietato riprodurre o comunicare a terzi il contenuto del presente disegno



	01	02	03	04	05	06	07	08	09		
INDICE	M O D I F I C H E			VISTO	DATA	INDICE	M O D I F I C H E			VISTO	DATA
00	DRAFT	ISSUE		D.F.	13.12.96	07	REVIEW				04/01
01	REVIEW			D.F.	30.01.97	08	MODIF. LABEL STOZ				03/02
02	REVIEW			D.F.	28.03.97	09	Aggiunto 2F32				06/03
03	REVIEW			D.F.	01.10.97						
04	REVIEW			D.F.	01.10.99						
05	REVIEW			D.C.	01.10.99						

ANSALDO

Ansaldo Trasporti s.p.a.

AREA MI	DIS. D. FERRARI	13.12.96	MOTOR CAR BMa	237VE05680C01	MOD. 09
	PROG.				
ENTE ISV/PQI	CONTR.		LOADS 3x400 Vac - 50 Hz	SOSTITUISE SOSTITUISE DA F. 14	MOD. 09
	RESP. UFF.				



DISEGNO ESEGUITO CON
Non sono ammesse modifiche o variazioni manuali.

A termine di legge e' rigorosamente
vietato riprodurre o comunicare a terzi
il contenuto del presente disegno

01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25

A

A

B

B

C

C

D

D

E

E

F

F

G

G

H

H

I

I

K

K

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L

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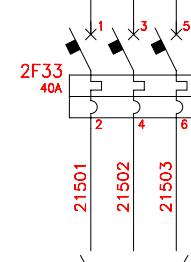
P

P

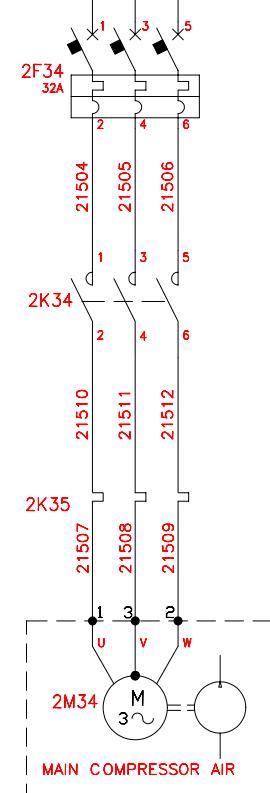
SHEET 12

(R) 21210
(S) 21211
(T) 21212

(R) 21207
(S) 21208
(T) 21209



Passengers HVAC
(SHEET 28)



01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25

INDICE

MODIFICHE

VISTO DATA INDICE

MODIFICHE

VISTO DATA

ANSALDO

AREA

DIS. D. FERRARI

13.12.96

TRAILER CAR BP

237VE05680C01

MOD. 08

00 DRAFT ISSUE

D.F. 13.12.96 08

Modif. label stoz

15.03.02

01 REVIEW

D.F. 30.01.97

02 REVIEW

D.F. 28.03.97

03 REVIEW

D.F. 01.10.97

04 REVIEW

P.G. 21.03.00

07 MOD 2M34

04/01

Ansaldo Trasporti s.p.a.

ENTE

ISV/PQI

RESP. UFF.

LOADS 3x400 Vac - 50 Hz

SOSTITUISCE

F. 15

SOSTITUITO DA

SEGU. F. 16

A termini di legge e' rigorosamente vietato riprodurre o comunicare a terzi il contenuto del presente disegno

(R) 21210
(T) 21211

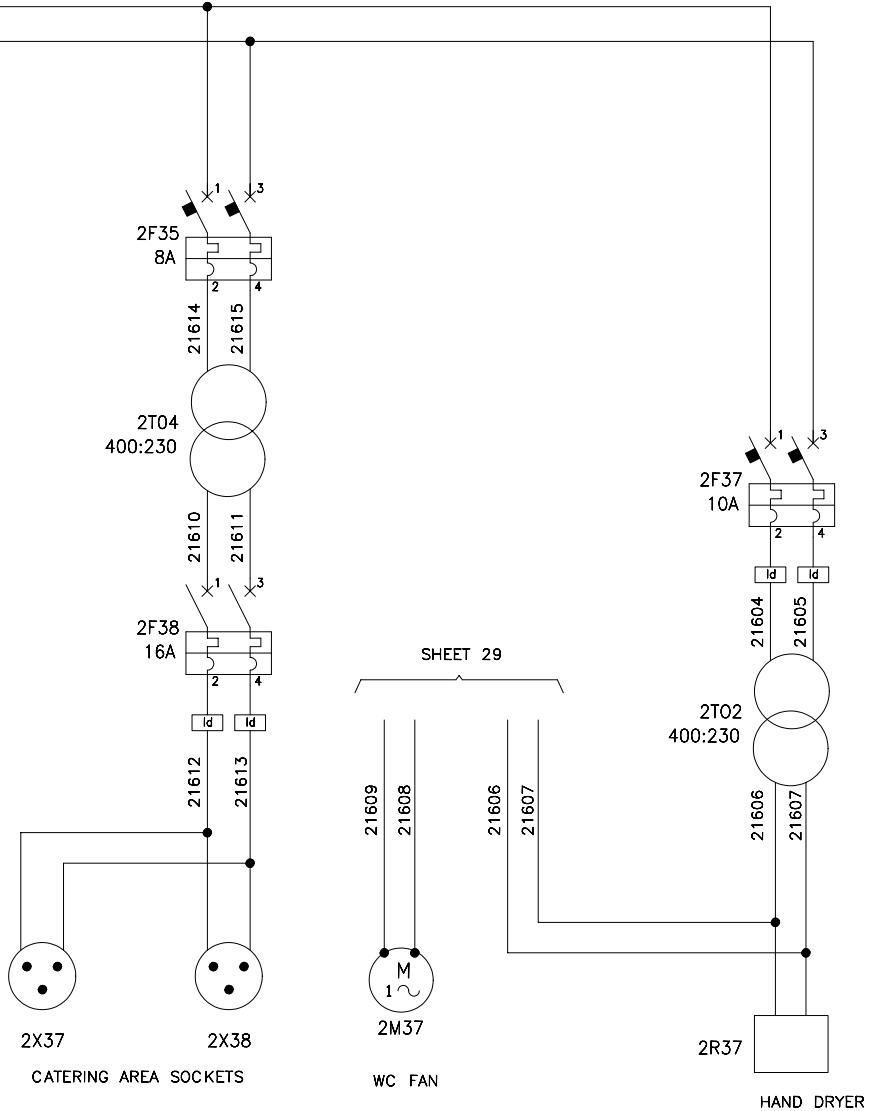
SHI (R) 2122

(S) 2122

(T) 2122

The diagram illustrates a 2F36 40A relay. It features a central rectangular core with two vertical legs. On each leg, there are two sets of contacts: one set labeled '1' and '3' at the top, and another set labeled '2' and '4' below it. At the bottom of each leg, there is a set of contacts labeled '5' and '6'. To the left of the relay, the coil terminals are labeled 21601, 21602, and 21603. The entire assembly is mounted on a base plate.

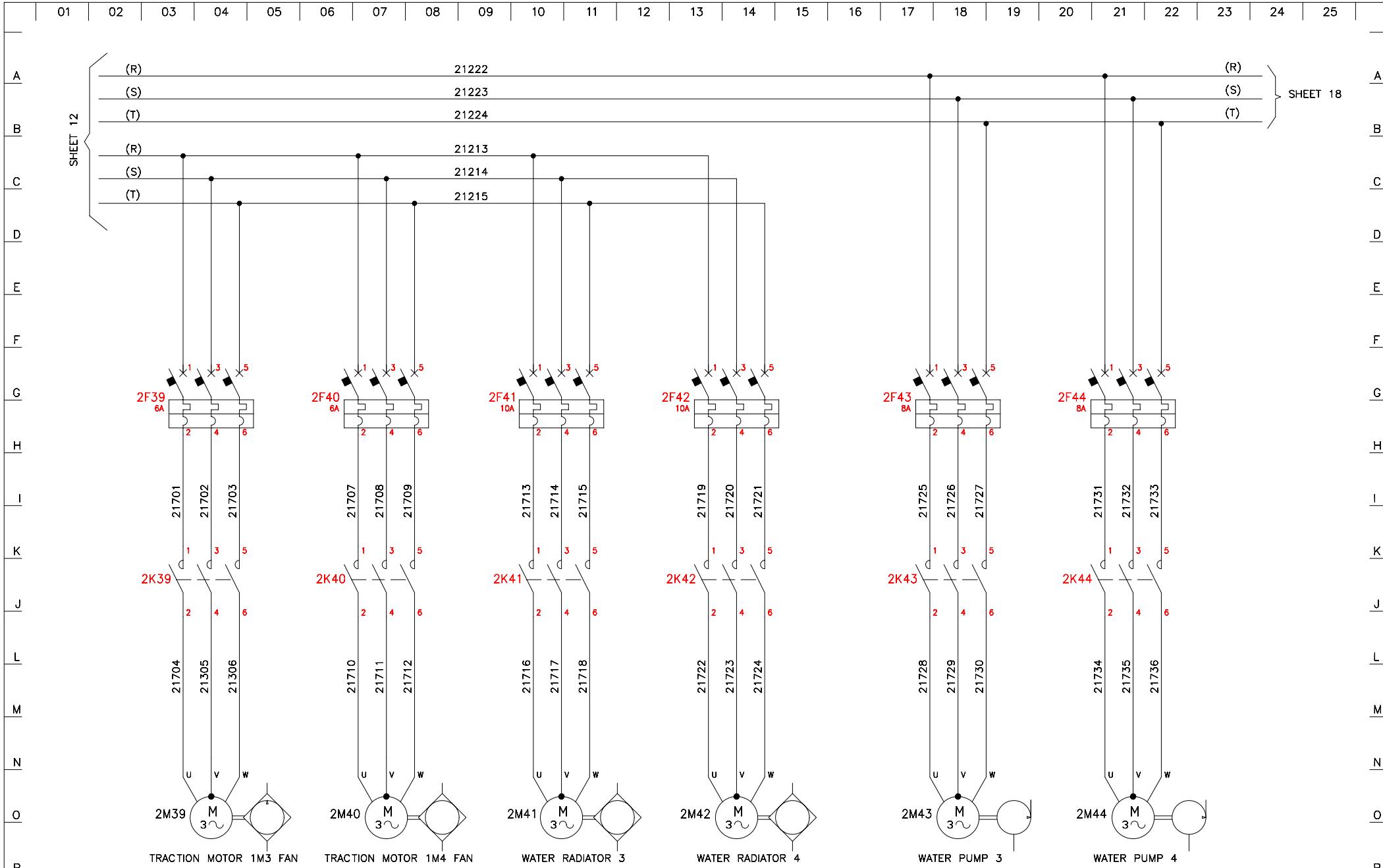
Passengers HVAC
(SHEET 29)





DISEGNO ESEGUITO CON
Non sono ammesse modifiche o variazioni manu.

A termine di legge è rigorosamente
vieta riprodurre o comunicare a terzi
il contenuto del presente disegno



DIST.

INDICE	MODIFICHE		VISTO	DATA	INDICE	MODIFICHE		VISTO	DATA
00	DRAFT ISSUE			D.F.	13.12.96				
01	REVIEW			D.F.	30.01.97				
02	REVIEW			P.G.	10.02.00				
03	REVIEW			P.G.	21.03.00				
07	REVIEW				04/01				
08	MODIF. LABEL STOZ				03/02				

ANSALDO

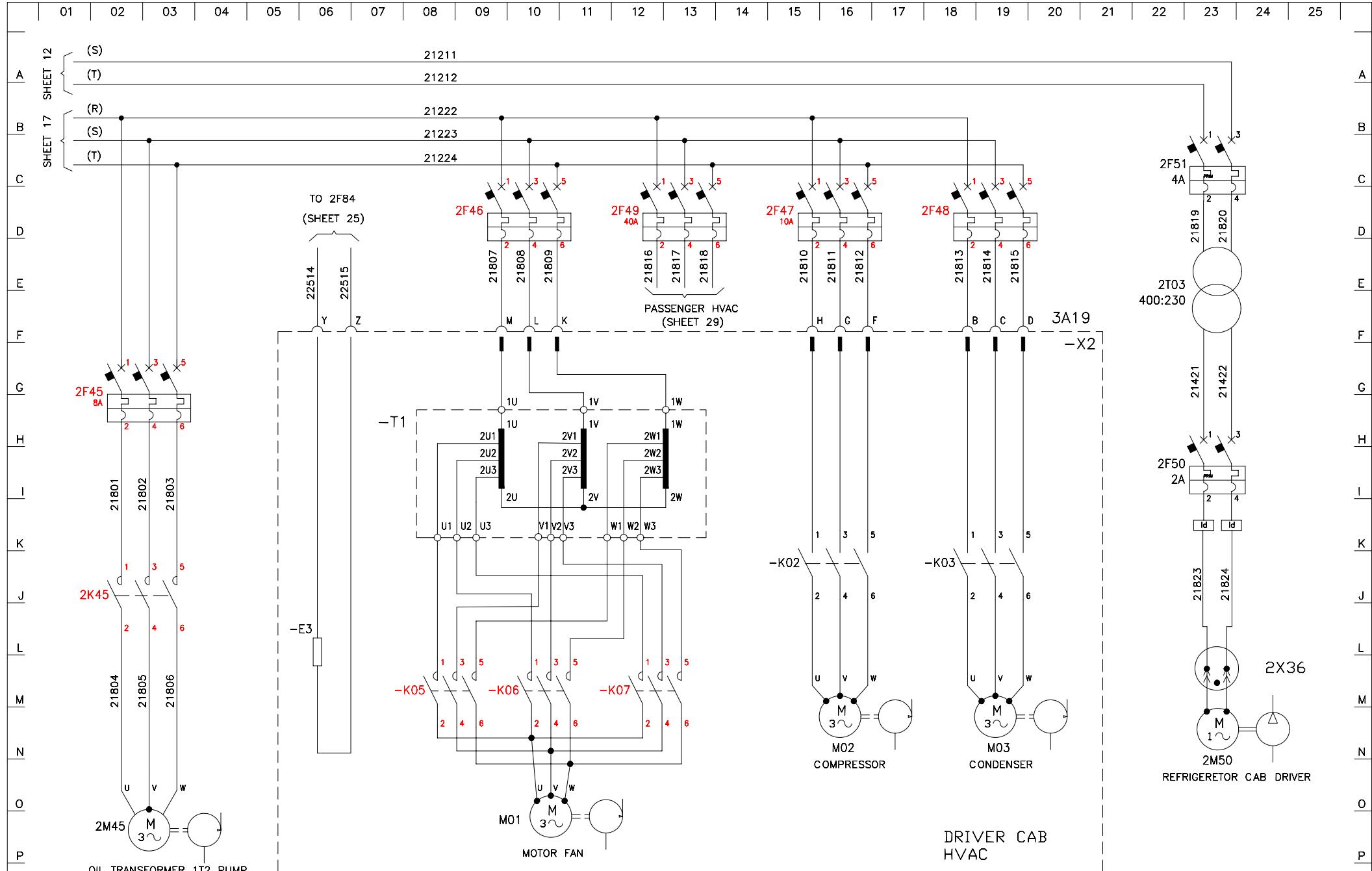
Ansaldo Trasporti s.p.a.

AREA	DIS. P. GALAFFU	13.12.96
MI	PRDG.	
ENTE	CONTR.	
ISV/PQI	RESP. UFF.	

MOTOR CAR BMb
LOADS 3X400Vac - 50Hz

237VE05680C01	MOD. 08
SOSTITUISCE	F. 17
SOSTITUITO DA	SEGU. F. 18

A termini di legge e' rigorosamente vietato riprodurre o comunicare a terzi il contenuto del presente disegno



01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25

A

A

B

B

C

C

D

D

E

E

F

F

G

G

H

H

I

I

K

K

J

J

L

L

M

M

N

N

O

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P

P

01

02

03

04

05

06

07

08

09

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13

14

15

16

17

18

19

20

21

22

23

24

DIST.

25

INDICE	MODIFICHE		VISTO	DATA	INDICE	MODIFICHE		VISTO	DATA
--------	-----------	--	-------	------	--------	-----------	--	-------	------

00	DRAFT ISSUE		D.F.	13.12.96					
----	-------------	--	------	----------	--	--	--	--	--

01	REVIEW		D.F.	30.01.97					
----	--------	--	------	----------	--	--	--	--	--

02	REVIEW		D.F.	28.03.97					
----	--------	--	------	----------	--	--	--	--	--

03	REVIEW		P.G.	21.03.00					
----	--------	--	------	----------	--	--	--	--	--

07	REVIEW			04/01					
----	--------	--	--	-------	--	--	--	--	--

08	MODIF. LABEL STOZ			03/02					
----	-------------------	--	--	-------	--	--	--	--	--

ANSALDO

Ansaldo Trasporti s.p.a.

AREA	DIS. D. FERRARI	13.12.96
------	-----------------	----------

MI	PRDG.	
----	-------	--

ENTE	CONTR.	
------	--------	--

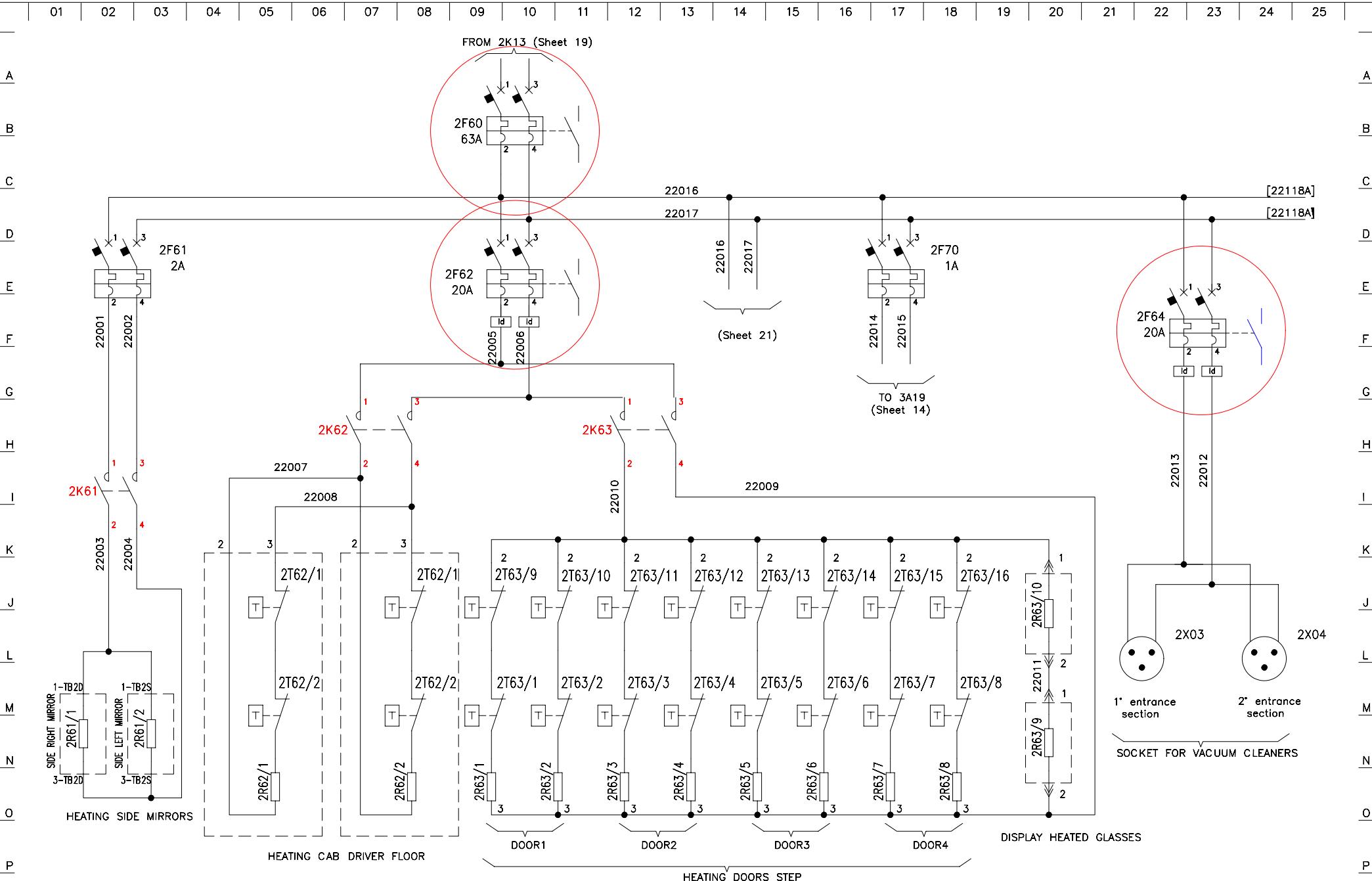
ISV/PQI	RESP. UFF.	
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POWER SUPPLY		237VE05680C01	MOD.
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230 Vac - 16 2/3 Hz			08
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SOSTITUISCE	F.	19
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SOSTITUITO DA	SEGU. F. 20
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	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
DIST.	INDICE	MODIFICHE	VISTO	DATA	INDICE	MODIFICHE	VISTO	DATA		AREA	DIS. D. FERRARI	13.12.96														
00	DRAFT ISSUE		D.F.	13.12.96	07	REVIEW		04/01																		
01	REVIEW		D.F.	30.01.97	08	MODIF. LABEL STOZ		03/02																		
02	REVIEW		D.F.	26.03.97	089	MODIF. STOZ 2F60-2F62-2F64		05/07																		
03	REVIEW		D.F.	01.10.97																						
04	REVIEW		D.F.	01.10.99																						
05	REVIEW		P.G.	21.03.00																						

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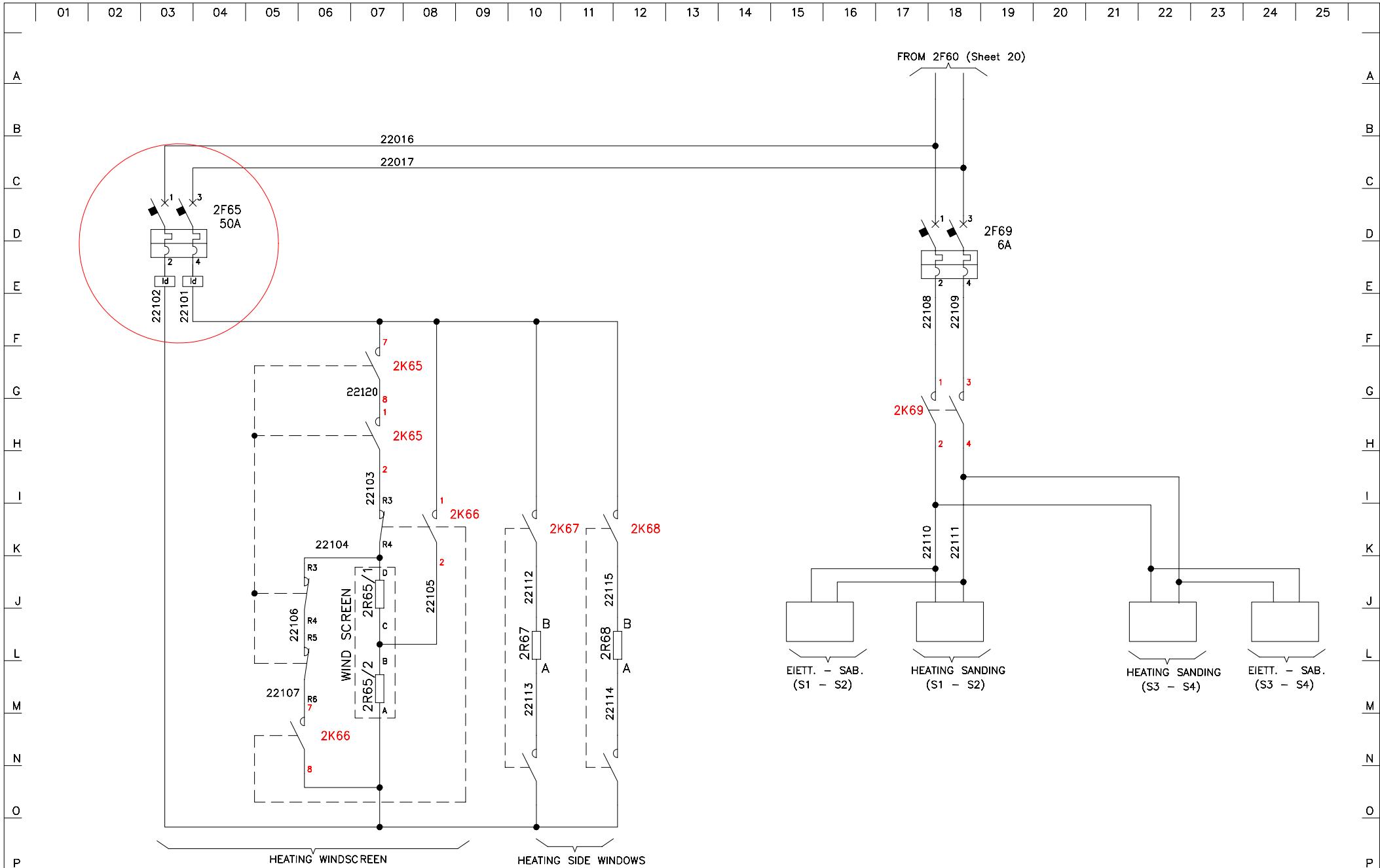
MOTOR CAR BMa
LOADS 230Vac-16 2/3 Hz

237VE05680C01	MOD. 09
SOSTITUISCE	F. 20
SOSTITUITO DA	SEGU. F. 21



DISEGNO ESEGUITO CON
Non sono ammesse modifiche o variazioni non autorizzate.

A termine di legge è rigorosamente
vieta riprodurre o comunicare a terzi
il contenuto del presente disegno



DIST.

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
INDICE	MODIFICHE			VISTO	DATA	INDICE	MODIFICHE			VISTO	DATA														
00	DRAFT ISSUE			D.F.	13.12.96	09	MODIF. STOZ 2F65																		
01	REVIEW			D.F.	30.01.97																				
02	REVIEW			D.F.	26.03.97																				
03	REVIEW			P.G.	21.03.00																				
07	REVIEW				04/01																				
08	MODIF. LABEL STOZ				03/02																				

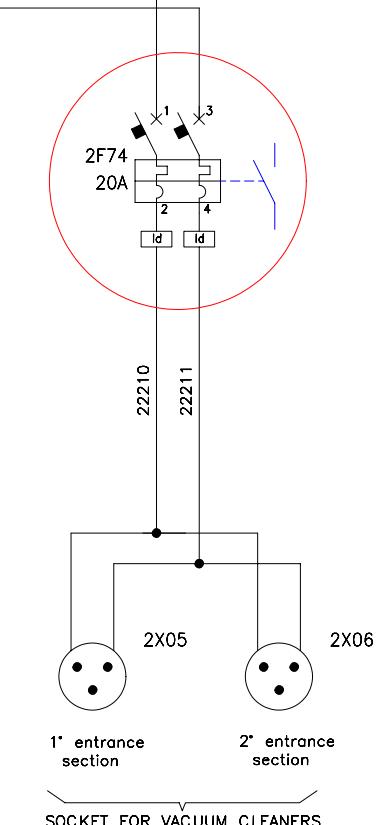
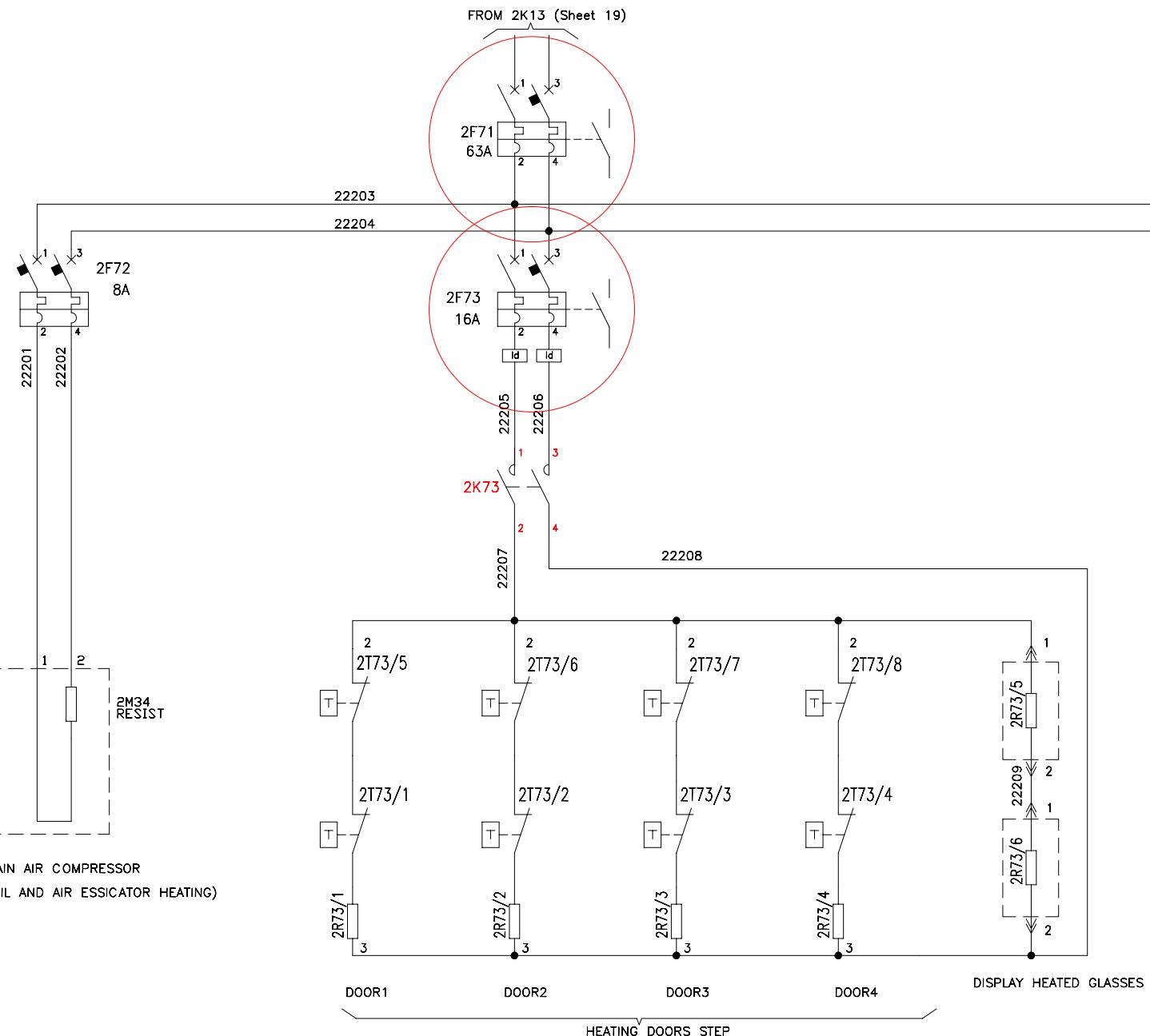
ANSALDO
Ansaldo Trasporti s.p.a.

AREA	DIS. D. FERRARI	13.12.96
M1	PROG.	
ENTE	CONTR.	
ISV/PQI	RESP. UFF.	

MOTOR CAR BMa
LOADS 230Vac-16 2/3 Hz

237VE05680C01	MOD. 09
SOSTITUISCE	F. 21
SOSTITUITO DA	SEGU. F. 22

01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

A termini di legge è rigorosamente
vieta riprodurre o comunicare a terzi
il contenuto del presente disegnoINDICE
DIST.

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
INDICE	MODIFICHE			VISTO	DATA	INDICE	MODIFICHE			VISTO	DATA														
00	DRAFT ISSUE			D.F.	13.12.96	07	REVIEW				04/01														
01	REVIEW			D.F.	30.01.97	08	MODIF. LABEL STOZ				03/02														
02	REVIEW			D.F.	28.03.97	09	MODIF. STOZ 2F71-2F73-2F74				05/07														
03	REVIEW			D.F.	01.10.97																				
04	REVIEW			D.F.	01.10.99																				
05	REVIEW			P.G.	21.03.00																				

ANSALDO

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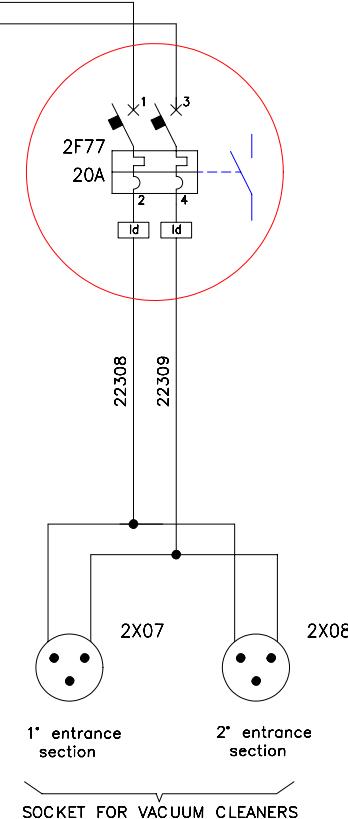
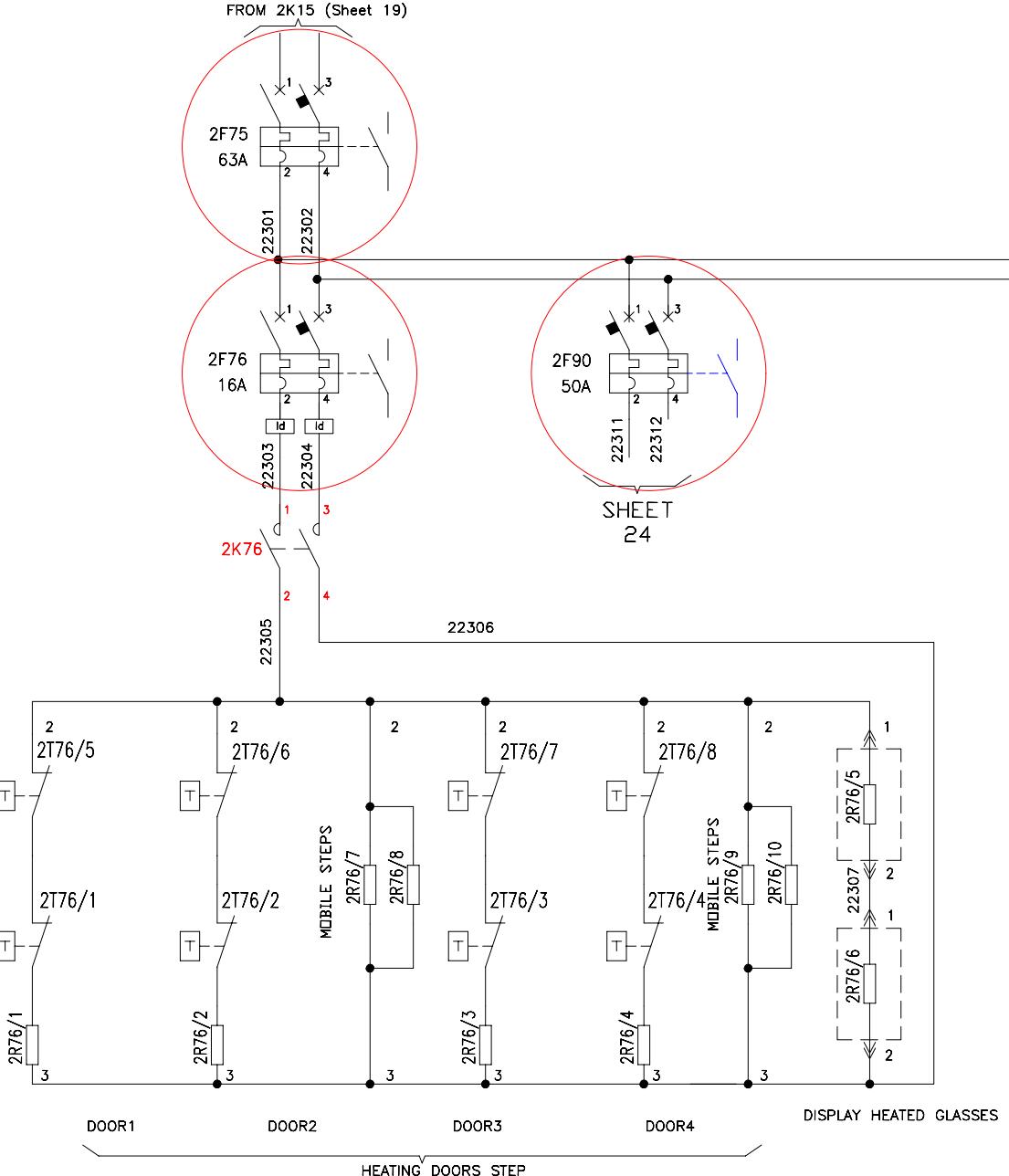
AREA	DIS. D. FERRARI	13.12.96
M1	PROG.	
ENTE	CONTR.	
ISV/PQI	RESP. UFF.	

TRAILER-CAR BP
•
LOADS 230Vac-16 2/3 Hz

237VE05680C01	MOD. 09
SOSTITUISCE SOSTITUITO DA F. 22 SEGUO F. 23	

01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25

FROM 2K15 (Sheet 19)



DIST.

01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25

INDICE MODIFICHE VISTO DATA INDICE MODIFICHE VISTO DATA

00 DRAFT ISSUE D.F. 13.12.96 08 MODIF. LABEL STOZ 15.03.02

01 REVIEW D.F. 30.01.97 09 MODIF. 2F75-2F76-2F77-2F90 29.05.07

02 REVIEW D.F. 28.03.97

03 REVIEW D.F. 01.10.97

04 REVIEW P.G. 21.03.00

07 REVIEW 04/01

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AREA MI	DIS. D. FERRARI	13.12.96	TRAILER-CAR BC	237VE05680C01	MOD. 09
ENTE ISV/PQI	PROG. CONTR. RESP. UFF.		LOADS 230Vac-16 2/3 Hz	SOSTITUISCE SOSTITUITO DA	F. 23 SEGU. F. 24

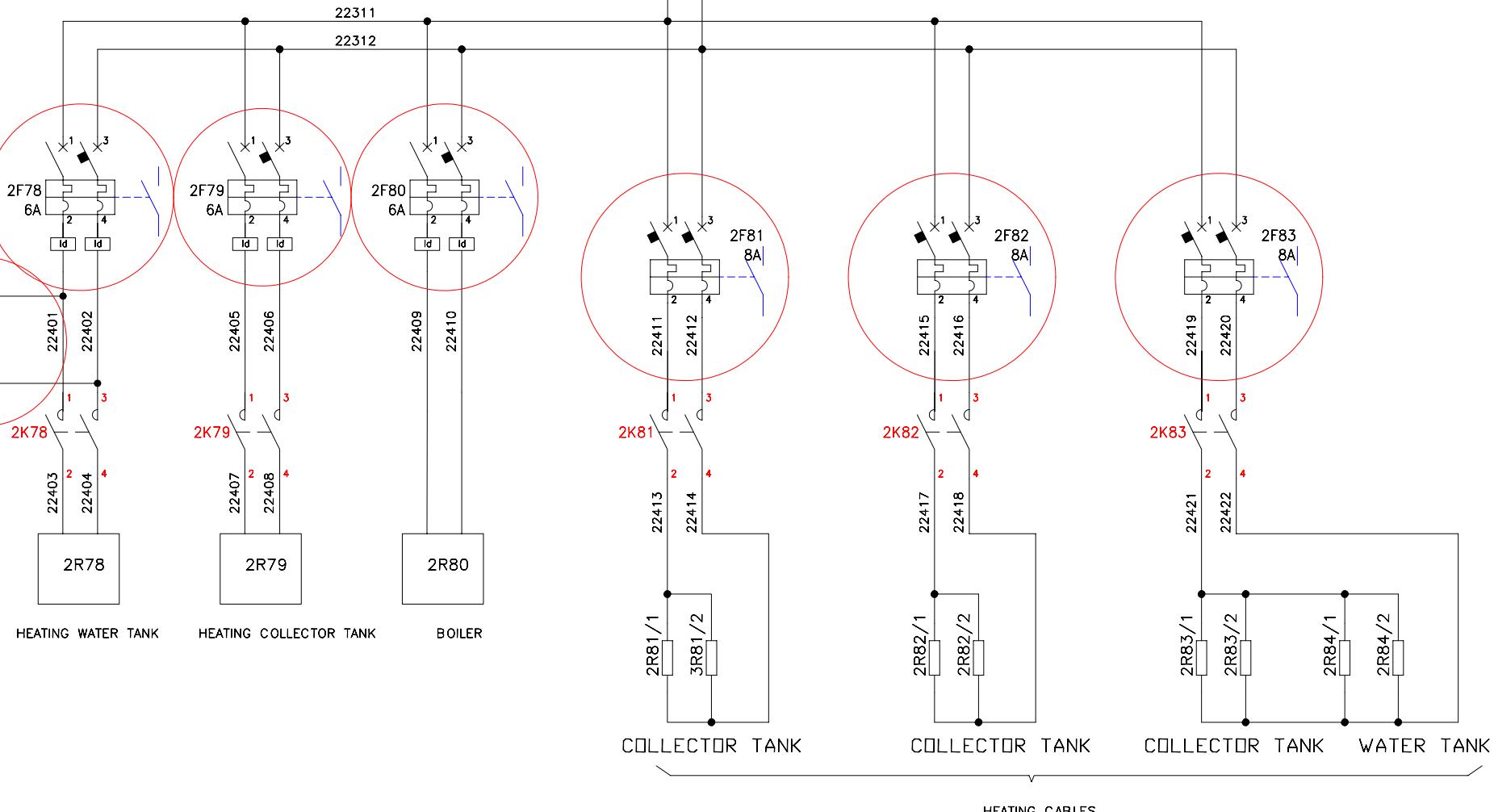


DISEGNO ESEGUITO CON
Non sono ammesse modifiche o variazioni manuali.

A termine di legge è rigorosamente
vieta riprodurre o comunicare a terzi
il contenuto del presente disegno

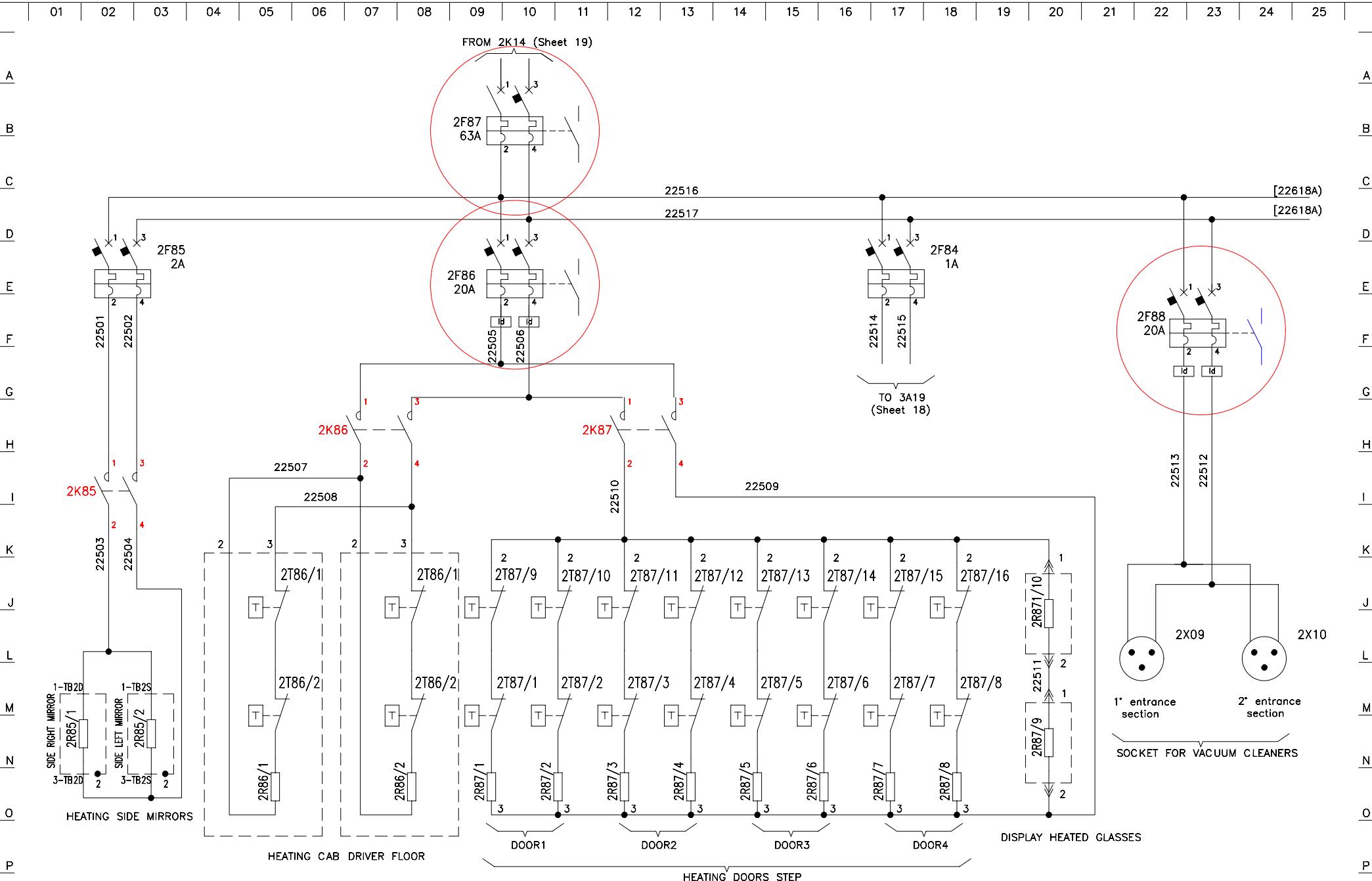
01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25

FROM 2F90 (Sheet 23)

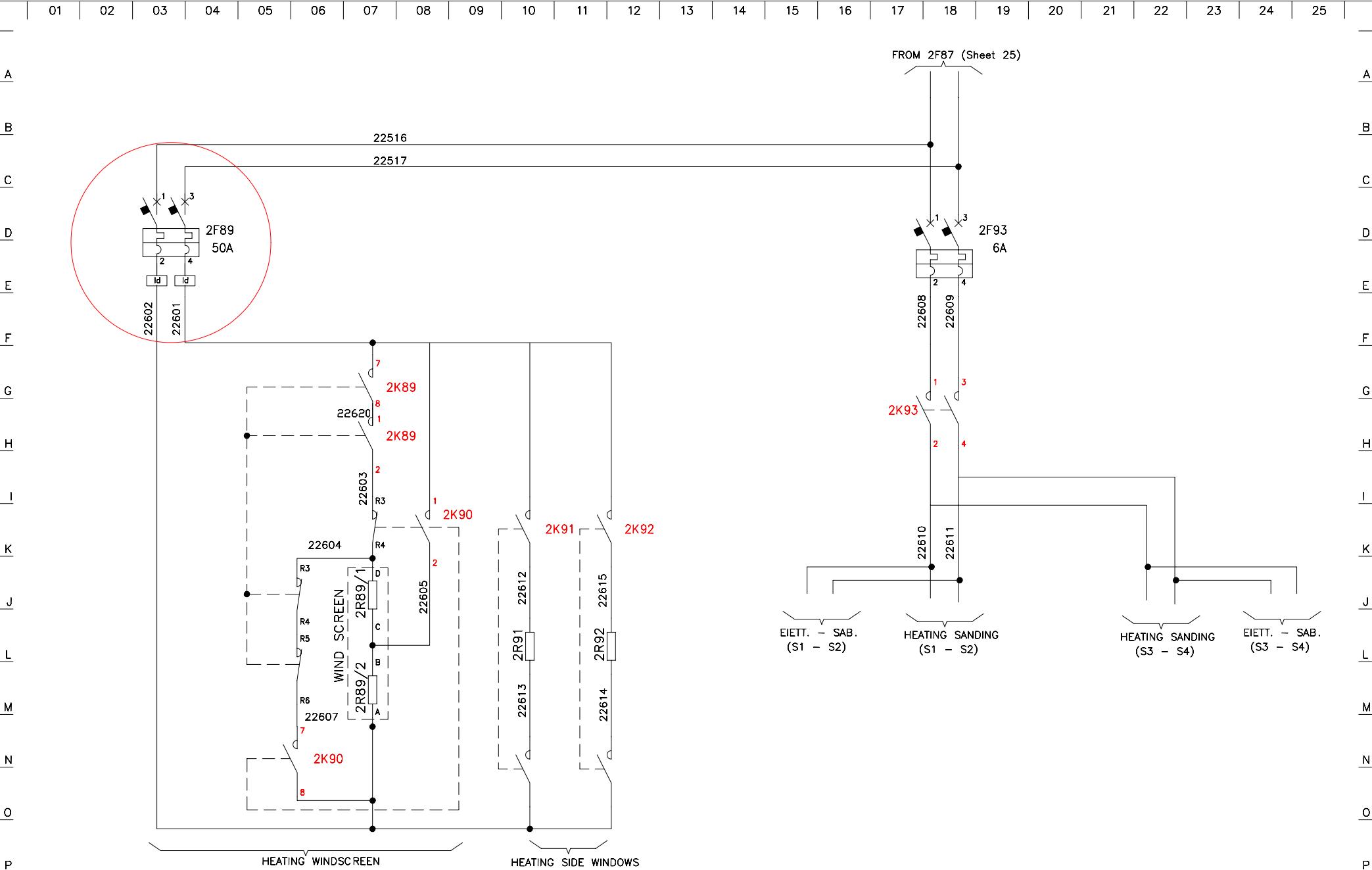


DIST.

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25		
INDICE	MODIFICHE			VISTO	DATA	INDICE	MODIFICHE			VISTO	DATA																
00	DRAFT ISSUE			D.F.	13.12.96	09	MOD. 2F78-79-80-81-82-83				28.05.07																
01	REVIEW			D.F.	30.01.97	10	AGG. 3K94				18.09.07																
02	REVIEW			D.F.	26.03.97																						
03	REVIEW			P.G.	21.03.00																						
07	REVIEW				04/01																						
08	MODIF. LABEL STOZ				03/02																						
													ANSALDO														
													Ansaldo Trasporti s.p.a.														
													AREA	DIS. D. FERRARI	13.12.96												
													MI	PROG.													
													ENTE	CONTR.													
													ISV/PQI	RESP. UFF.													
													LOADS 230Vac-16 2/3 Hz														
													TRAILER-CAR BC														
													237VE05680C01														
													MOD. 10														
													SOSTITUISCE														
													F. 24														
													SOSTITUITO DA														
													SEGU. F. 25														



	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
DIST.	INDICE	MODIFICHE	VISTO	DATA	INDICE	MODIFICHE	VISTO	DATA		AREA	DIS. D. FERRARI	13.12.96														
00	DRAFT ISSUE		D.F.	13.12.96	07	REVIEW		04/01		MI																
01	REVIEW		D.F.	30.01.97	08	MODIF. LABEL STOZ		03/02																		
02	REVIEW		D.F.	28.03.97	089	MODIF. STOZ 2F60-2F62-2F64		05/07		ENTE																
03	REVIEW		D.F.	01.10.97						ISV/PQI																
04	REVIEW		D.F.	01.10.99						RESP. UFF.																
05	REVIEW		P.G.	21.03.00						SOSTITUISCE																
										SOSTITUITO DA																
										F.	25															
										SEGU. F. 26																



DIST.

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
INDICE	MODIFICHE			VISTO	DATA	INDICE	MODIFICHE			VISTO	DATA														
00	DRAFT ISSUE			D.F.	13.12.96	09	MODIF. STOZ 2F65				29.05.07														
01	REVIEW			D.F.	30.01.97																				
02	REVIEW			D.F.	28.03.97																				
03	REVIEW			P.G.	21.03.00																				
07	REVIEW				04/01																				
08	MODIF. LABEL STOZ				03/02																				

ANSALDO
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AREA	DIS. D. FERRARI	13.12.96	MOTOR CAR BMb	237VE05680C01	MOD. 09
MI	PRDG.				
ENTE	CONTR.				
ISV/PQI	RESP. UFF.				

LOADS 230Vac-16 2/3 Hz

SOSTITUISCE F. 26

SOSTITUITO DA SEQUE F. 27

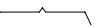


DISEGNO ESEGUITO CON
Non sono ammesse modifiche o variazioni manuali.

A termini di legge è rigorosamente
vieta riprodurre o comunicare a terzi
il contenuto del presente disegno

01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25

FROM UPS
(LOW VOLTAGE DIAGRAMM)



A

A

B

B

C

C

D

D

E

E

F

F

G

G

H

H

I

I

K

K

J

J

L

L

M

M

N

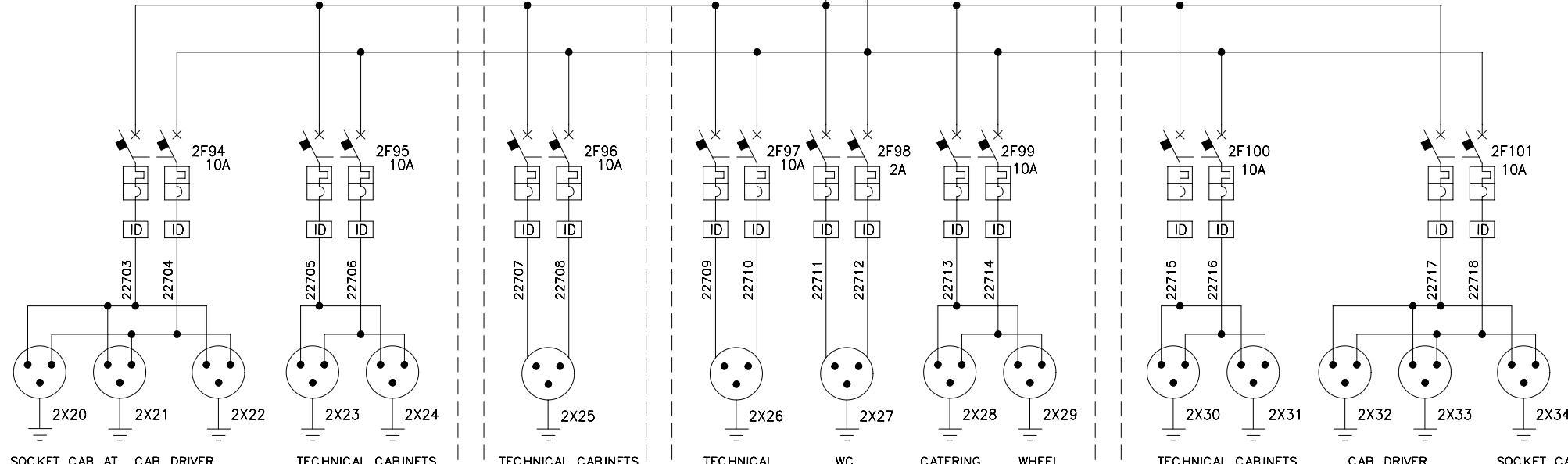
N

O

O

P

P



SOCKET CAB AT CAB DRIVER

TECHNICAL CABINETS

TECHNICAL CABINETS

TECHNICAL CABINETS

WC

CATERING AREA

WHEEL CHAIR

TECHNICAL CABINETS

CAB DRIVER

SOCKET CAB AT

MOTOR CAR BMa

TRAILER BP

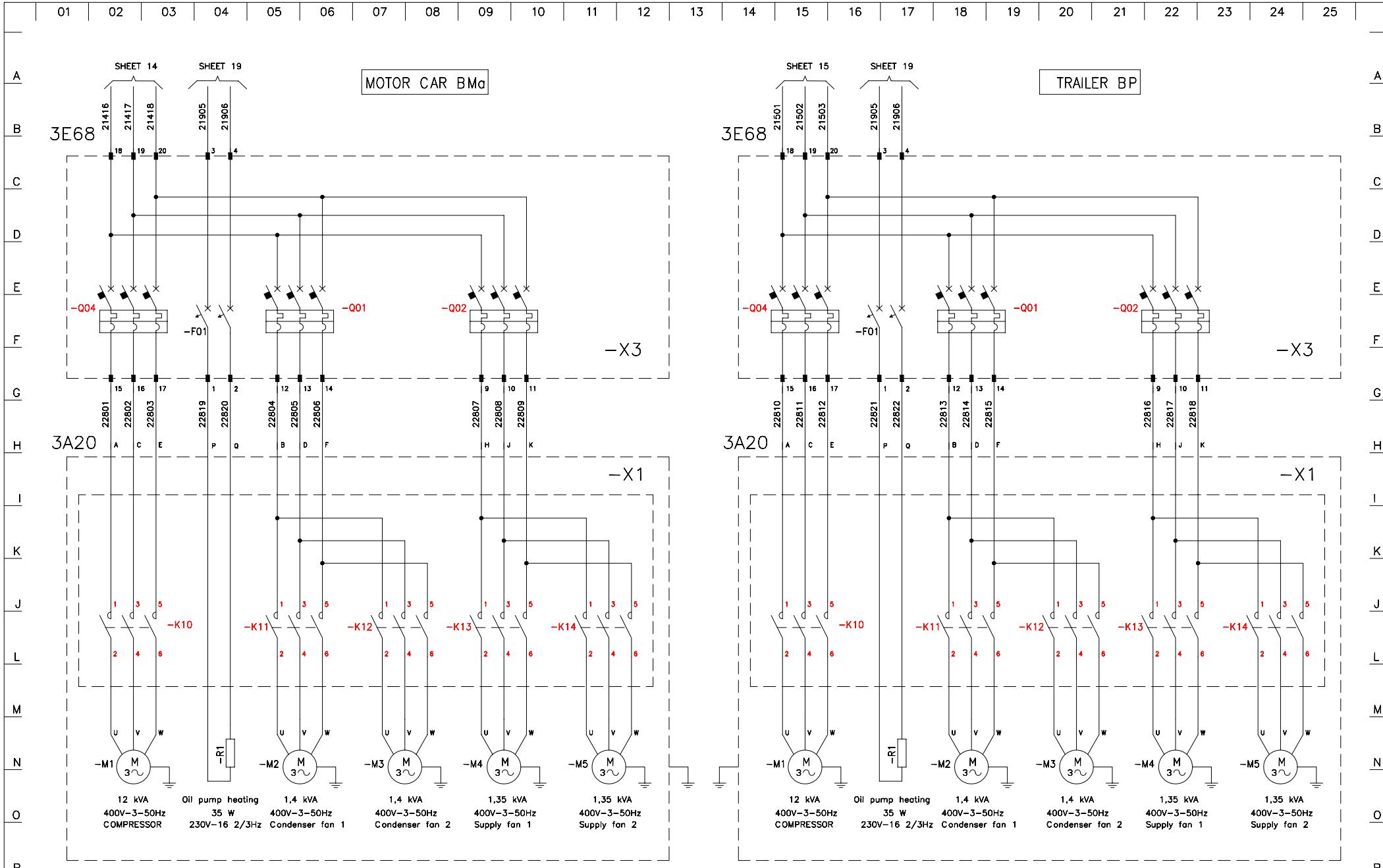
TRAILER BC

MOTOR CAR BMb

DIST.

01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25

INDICE	MODIFICHE		VISTO	DATA	INDICE	MODIFICHE		VISTO	DATA	AREA	DIS. D. FERRARI	13.12.96	AUXILIARY SUPPLY					237VE05680C01	MOD.
	00	DRAFT ISSUE	D.F.	13.12.96	01	REVIEW	D.F.	30.01.97	MI	PROG.									
	02	REVIEW	D.F.	26.03.97	03	REVIEW	P.G.	21.03.00	ENTE	CONTR.									
	07	REVIEW		04/01	08	MODIF LABEL STOZ		03/02	ISV/PQI	RESP. UFF.									
SOSTITUISCE					F.	27			SOSTITUITO DA										SEGU. F. 28



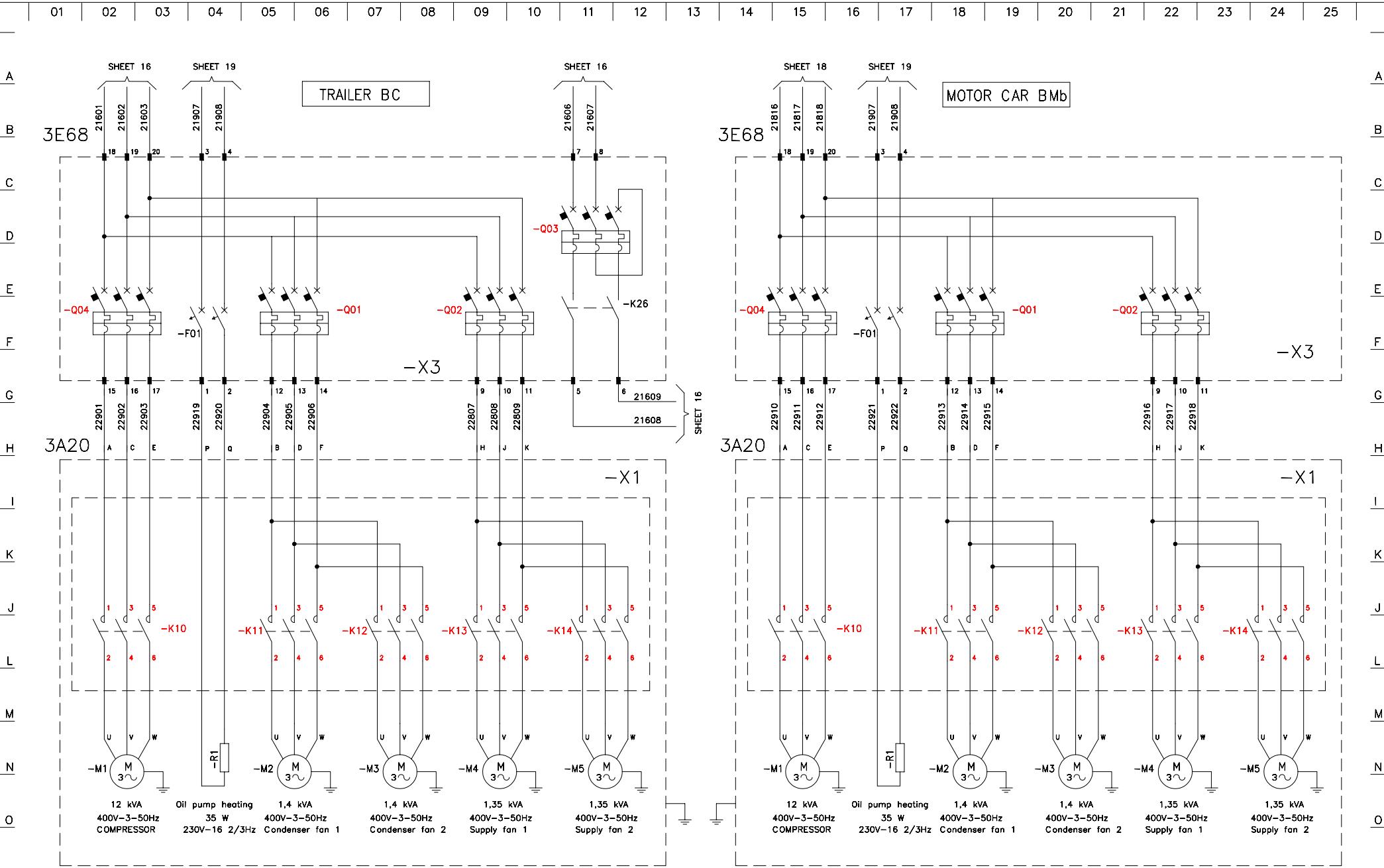
INDICE	MODIFICHE		VISTO	DATA	INDICE	MODIFICHE		VISTO	DATA
00	DRAFT ISSUE			D.F.	13.12.96				
01	REVIEW			D.F.	30.01.97				
02	REVIEW			P.G.	21.03.00				
07	REVIEW				04/01				

ANSALDO

Ansaldo Trasporti s.p.a.

AREA	DIS. P. GALAFFU	13.12.96	MOTOR CAR BMa / TRAILER BP	237VE05680C01	MOD. 07
MI	PROG.				
ENTE	CONTR.				
ISV/PQI	RESP. UFF.		AIR CONDITIONING PASSENGERS SYSTEM		

SOSTITUISCE
SOSTITUITO DA
F. 28
SEGUO F. 29



01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25				
INDICE	MODIFICHE				VISTO	DATA	INDICE	MODIFICHE				VISTO	DATA	AREA	DIS. P.	GALAFFU	13.12.96	ENTE	ISV/PQI	RESP. UFF.	MOTOR CAR BMb / TRAILER BC AIR CONDITIONING PASSENGERS SYSTEM						237VE05680C01	MOD. 07
00	DRAFT ISSUE				D.F.	13.12.96																						
01	REVIEW				D.F.	30.01.97																						
02	REVIEW				P.G.	21.03.00																						
07	REVIEW					04/01																						
DIST.																												

POS	LABEL	DESCRIPTION	MODE / CHARACTERISTIC	SPECIFICATION	Sh.	POSITION	REMARKS
1	1A1	Traction converter 1	1700 V / 1200 A	231EE07928B	5		UNDER FRAME BMa
2	1A1-A1	PHASE ASSEMBLY	1700 V / 1200 A	231EE07947B	5		INSIDE CONVERTER
3	1A1-A2	PHASE ASSEMBLY	1700 V / 1200 A	231EE07947B	5		INSIDE CONVERTER
4	1A1-A3	PHASE ASSEMBLY	1700 V / 1200 A	231EE07947B	5		INSIDE CONVERTER
5	1A1-A4	PHASE ASSEMBLY	1700 V / 1200 A	231EE07947B	5		INSIDE CONVERTER
6	1A1-A5	PHASE ASSEMBLY	1700 V / 1200 A	231EE07947B	5		INSIDE CONVERTER
7	1A1-A6	PHASE ASSEMBLY	1700 V / 1200 A	231EE07947B	5		INSIDE CONVERTER
8	1A1-A7	PHASE ASSEMBLY	1700 V / 1200 A	231EE07947B	5		INSIDE CONVERTER
9	1A1-C1	33.33Hz FILTER CAPACITOR	150uF 1050uF / 2700V	211EC22622B	5		INSIDE CONVERTER
10	1A1-CC	4Q CONVERTER CONTACTOR	LTHS 320 1000V/350A	211VK00900B0112	5		INSIDE CONVERTER
11	1A1-CP	PRECHARGING CONTACTOR	LTC 320 1000V/250A	211VK00901B01	5		INSIDE CONVERTER
12	1A1-CW	CROW-BAR ASSEMBLY		211EI22756B	5		INSIDE CONVERTER
13	1A1-R1	PRECHARGING RESISTOR	22 Ohm/1.5kW	211VR00902B01	5		INSIDE CONVERTER
14	1A1-R2	33.33Hz FILTER CAPACITOR PERMANENT RESISTOR	4 // 22kOhm 250V	231EE07935B	5		INSIDE CONVERTER
15	1A1-RCW	CROW-BAR RESISTOR	0.5 Ohm	211ER22700B	5		INSIDE CONVERTER
16	1A1-TA1	CURRENT TRANSDUCER	LT 505-S 4000Apm - 1A sec	211ET22501B	5		INSIDE CONVERTER
17	1A1-TA2	CURRENT TRANSDUCER	LT 505-S 4000Apm - 1A sec	211ET22501B	5		INSIDE CONVERTER
18	1A1-TACB	CURRENT TRANSFORMER		211ES00712B02	5		INSIDE CONVERTER
19	1A1-TAR	CURRENT TRANSDUCER	LT 505-S 4000Apm - 1A sec	211ET22501B	5		INSIDE CONVERTER
20	1A1-TAS	CURRENT TRANSDUCER	LT 505-S 4000Apm - 1A sec	211ET22501B	5		INSIDE CONVERTER
21	1A1-TAT	CURRENT TRANSDUCER	LT 505-S 4000Apm - 1A sec	211ET22501B	5		INSIDE CONVERTER
22							
23	1A1-TVI	VOLTAGE TRANSDUCER	CV 4-2500 2500Vpn - 100mA sec	211ET22766B	5		INSIDE CONVERTER
24	1A1-C2	33.33Hz FILTER CAPACITOR	1210 uF / 2700V	211EC22623B	5		INSIDE CONVERTER
25	1A2	Traction converter 2		231EE07928B	6		UNDER FRAME BMa
26	1A2-A1	PHASE ASSEMBLY	1700 V / 1200 A	231EE07947B	6		INSIDE CONVERTER
27	1A2-A2	PHASE ASSEMBLY	1700 V / 1200 A	231EE07947B	6		INSIDE CONVERTER
28	1A2-A3	PHASE ASSEMBLY	1700 V / 1200 A	231EE07947B	6		INSIDE CONVERTER
29	1A2-A4	PHASE ASSEMBLY	1700 V / 1200 A	231EE07947B	6		INSIDE CONVERTER
30	1A2-A5	PHASE ASSEMBLY	1700 V / 1200 A	231EE07947B	6		INSIDE CONVERTER
31	1A2-A6	PHASE ASSEMBLY	1700 V / 1200 A	231EE07947B	6		INSIDE CONVERTER
32	1A2-A7	PHASE ASSEMBLY	1700 V / 1200 A	231EE07947B	6		INSIDE CONVERTER

INDICE	MODIFICHE	VISTO	DATA	INDICE	MODIFICHE	VISTO	DATA
00	EMISSION	N.V.	20.10.98				
01	REDRAWN	P.G.	30.06.99				
02	UPDATED	P.G.	21.03.00				
07	UPDATED		04/01				

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Ansaldo Trasporti s.p.a.

AREA MILANO	DIS. PROG.	P. GAL	
ENTE ING/PEV	CONTR.		
	RESP. UFF.		

APPARATUS LIST

237VE05680C01	MOD. 07
SOSTITUISCE	F. 30
SOSTITUITO DA	SEGU F. 31

POS	LABEL	DESCRIPTION	MODE / CHARACTERISTIC	SPECIFICATION	Sh.	POSITION	REMARKS
33	1A2-C1	33.33Hz FILTER CAPACITOR	150uF 1050uF / 2700V	211EC22622B	6		INSIDE CONVERTER
34	1A2-CC	4Q CONVERTER CONTACTOR	LTHS 320 1000V/350A	211VK00900B0112	6		INSIDE CONVERTER
35	1A2-CP	PRECHARGING CONTACTOR	LTC 250 1000V/250A	211VK00901B01	6		INSIDE CONVERTER
36	1A2-CW	CROW-BAR ASSEMBLY		211EI22756B	6		INSIDE CONVERTER
37	1A2-R1	PRECHARGING RESISTOR	22 Ohm/1.5kW	211VR00902B01	6		INSIDE CONVERTER
38	1A2-R2	33.33Hz FILTER CAPACITOR PERMANENT RESISTOR	4 // 22kOhm 250V	231EE07935B	6		INSIDE CONVERTER
39	1A2-RCW	CROW-BAR RESISTOR	0.5 Ohm	211ER22700B	6		INSIDE CONVERTER
40	1A2-TA1	CURRENT TRANSDUCER	LT 505-S 4000Apm - 1A sec	211ET22501B	6		INSIDE CONVERTER
41	1A2-TA2	CURRENT TRANSDUCER	LT 505-S 4000Apm - 1A sec	211ET22501B	6		INSIDE CONVERTER
42	1A2-TACB	CURRENT TRANSFORMER		211ES00712B02	6		INSIDE CONVERTER
43	1A2-TAR	CURRENT TRANSDUCER	LT 505-S 4000Apm - 1A sec	211ET22501B	6		INSIDE CONVERTER
44	1A2-TAS	CURRENT TRANSDUCER	LT 505-S 4000Apm - 1A sec	211ET22501B	6		INSIDE CONVERTER
45	1A2-TAT	CURRENT TRANSDUCER	LT 505-S 4000Apm - 1A sec	211ET22501B	6		INSIDE CONVERTER
46							
47	1A2-TVI	VOLTAGE TRANSDUCER	CV4-2500 2500Vpn - 100mA sec	211ET22766B	6		INSIDE CONVERTER
48	1A2-C2	33.33Hz FILTER CAPACITOR	1210 uF / 2700V	211EC22623B	6		INSIDE CONVERTER
49	1A3	TRACTION CONVERTER 3		231EE07928B	7		UNDER FRAME BMb
50	1A3-A1	PHASE ASSEMBLY	1700 V / 1200 A	231EE07947B	7		INSIDE CONVERTER
51	1A3-A2	PHASE ASSEMBLY	1700 V / 1200 A	231EE07947B	7		INSIDE CONVERTER
52	1A3-A3	PHASE ASSEMBLY	1700 V / 1200 A	231EE07947B	7		INSIDE CONVERTER
53	1A3-A4	PHASE ASSEMBLY	1700 V / 1200 A	231EE07947B	7		INSIDE CONVERTER
54	1A3-A5	PHASE ASSEMBLY	1700 V / 1200 A	231EE07947B	7		INSIDE CONVERTER
55	1A3-A6	PHASE ASSEMBLY	1700 V / 1200 A	231EE07947B	7		INSIDE CONVERTER
56	1A3-A7	PHASE ASSEMBLY	1700 V / 1200 A	231EE07947B	7		INSIDE CONVERTER
57	1A3-C1	33.33Hz FILTER CAPACITOR	150uF 1050uF / 2700V	211EC22622B	7		INSIDE CONVERTER
58	1A3-CC	4Q CONVERTER CONTACTOR	LTHS 320 1000V/350A	211VK00900B0112	7		INSIDE CONVERTER
59	1A3-CP	PRECHARGING CONTACTOR	LTC 250 1000V/250A	211VK00901B01	7		INSIDE CONVERTER
60	1A3-CW	CROW-BAR ASSEMBLY		211EI22756B	7		INSIDE CONVERTER
61	1A3-R1	PRECHARGING RESISTOR	22 Ohm/1.5kW	211VR00902B01	7		INSIDE CONVERTER
62	1A3-R2	33.33Hz FILTER CAPACITOR PERMANENT RESISTOR	4 // 22kOhm 250V	231EE07935B	7		INSIDE CONVERTER
63	1A3-RCW	CROW-BAR RESISTOR	0.5 Ohm	211ER22700B	7		INSIDE CONVERTER
64	1A3-TA1	CURRENT TRANSDUCER	LT 505-S 4000Apr - 1A sec	211ET22501B	7		INSIDE CONVERTER

INDICE	MODIFICHE	VISTO	DATA	INDICE	MODIFICHE	VISTO	DATA
00	EMISSION	N.V.	20.10.98				
01	REDRAWN	P.G.	21.03.00				
07	REDRAWN		04/01				

ANSALDO
Ansaldo Trasporti s.p.a.

AREA MILANO	DIS.	P. GAL	
	PROG.		
	ENTE ING/PEV	CONTR. RESP. UFF.	

APPARATUS LIST

237VE05680C01	MOD. 07
SOSTITUISCE	F. 31
SOSTITUITO DA	SEGU. F. 32

POS	LABEL	DESCRIPTION	MODE / CHARACTERISTIC	SPECIFICATION	Sh.	POSITION	REMARKS
65	1A3-TA2	CURRENT TRANSDUCER	LT 505-S 4000Apr - 1A sec	211ET22501B	7		INSIDE CONVERTER
66	1A3-TACB	CURRENT TRANFORMER		211ES00712B02	7		INSIDE CONVERTER
67	1A3-TAR	CURRENT TRANSDUCER	LT 505-S 4000Apr - 1A sec	211ET22501B	7		INSIDE CONVERTER
68	1A3-TAS	CURRENT TRANSDUCER	LT 505-S 4000Apr - 1A sec	211ET22501B	7		INSIDE CONVERTER
69	1A3-TAT	CURRENT TRANSDUCER	LT 505-S 4000Apr - 1A sec	211ET22501B	7		INSIDE CONVERTER
70							
71	1A3-TVI	VOLTAGE TRANSDUCER	CV4-2500 2500Vpn - 100mA sec	211ET22766B	7		INSIDE CONVERTER
72	1A3-C2	33.33Hz FILTER CAPACITOR	1210 uF / 2700V	211EC22623B	7		INSIDE CONVERTER
73	1A4	TRACTION CONVERTER 3		231EE07928B	8		UNDER FRAME BMb
74	1A4-A1	PHASE ASSEMBLY	1700 V / 1200 A	231EE07947B	8		INSIDE CONVERTER
75	1A4-A2	PHASE ASSEMBLY	1700 V / 1200 A	231EE07947B	8		INSIDE CONVERTER
76	1A4-A3	PHASE ASSEMBLY	1700 V / 1200 A	231EE07947B	8		INSIDE CONVERTER
77	1A4-A4	PHASE ASSEMBLY	1700 V / 1200 A	231EE07947B	8		INSIDE CONVERTER
78	1A4-A5	PHASE ASSEMBLY	1700 V / 1200 A	231EE07947B	8		INSIDE CONVERTER
79	1A4-A6	PHASE ASSEMBLY	1700 V / 1200 A	231EE07947B	8		INSIDE CONVERTER
80	1A4-A7	PHASE ASSEMBLY	1700 V / 1200 A	231EE07947B	8		INSIDE CONVERTER
81	1A4-C1	33.33Hz FILTER CAPACITOR	150uF 1050uF / 2700V	211EC22622B	8		INSIDE CONVERTER
82	1A4-CC	4Q CONVERTER CONTACTOR	LTHS 320 1000V/350A	211VK00900B0112	8		INSIDE CONVERTER
83	1A4-CP	PRECHARGING CONTACTOR	LTC 250 1000V/250A	211VK00901B01	8		INSIDE CONVERTER
84	1A4-CW	CROW-BAR ASSEMBLY		211EI22756B	8		INSIDE CONVERTER
85	1A4-R1	PRECHARGING RESISTOR	22 Ohm/1.5kW	211VR00902B01	8		INSIDE CONVERTER
86	1A4-R2	33.33Hz FILTER CAPACITOR PERMANENT RESISTOR	4 // 22kOhm 250V	231EE07935B	8		INSIDE CONVERTER
87	1A4-RCW	CROW-BAR RESISTOR	0.5 Ohm	211ER22700B	8		INSIDE CONVERTER
88	1A4-TA1	CURRENT TRANSDUCER	LT 505-S 4000Apr - 1A sec	211ET22501B	8		INSIDE CONVERTER
89	1A4-TA2	CURRENT TRANSDUCER	LT 505-S 4000Apr - 1A sec		8		INSIDE CONVERTER
90	1A4-TACB	CURRENT TRANFORMER		211ES00712B02	8		INSIDE CONVERTER
91	1A4-TAR	CURRENT TRANSDUCER	LT 505-S 4000Apr - 1A sec	211ET22501B	8		INSIDE CONVERTER
92	1A4-TAS	CURRENT TRANSDUCER	LT 505-S 4000Apr - 1A sec	211ET22501B	8		INSIDE CONVERTER
93	1A4-TAT	CURRENT TRANSDUCER	LT 505-S 4000Apr - 1A sec	211ET22501B	8		INSIDE CONVERTER
94							
95	1A4-TVI	VOLTAGE TRANSDUCER	CV4-2500 2500Vpn - 100mA sec	211ET22766B	8		INSIDE CONVERTER
96	1A4-C2	33.33Hz FILTER CAPACITOR	1210 uF / 2700V	211EC22623B	8		INSIDE CONVERTER

INDICE	MODIFICHE	VISTO	DATA	INDICE	MODIFICHE	VISTO	DATA
00	EMISSION	N.V.	20.10.98				
01	REDRAWN	P.G.	21.03.00				
07	REDRAWN		04/01				

ANSALDO
Ansaldo Trasporti s.p.a.

AREA MILANO	DIS. PROG.	P. GAL	
ENTE ING/PEV	CONTR. RESP. UFF.		

APPARATUS LIST

237VE05680C01

MOD.
07

SOSTITUISCE

F. 32

SOSTITUITO DA

SEGU F. 33

POS	LABEL	DESCRIPTION	MODE / CHARACTERISTIC	SPECIFICATION	Sh.	POSITION	REMARKS
97	1A5	AUXILIARY STATIC CONVERTER 1		211EA22661B	12		INSIDE BMa
98	1A6	AUXILIARY STATIC CONVERTER 1		211EA22661B	12		INSIDE BMa
99	1A7	AUXILIARY STATIC CONVERTER 1		211EA22661B	12		INSIDE BMb
100	1A8	AUXILIARY STATIC CONVERTER 1		211EA22661B	12		INSIDE BMb
101	1C1	MOTOR FILTER CAPACITORS		231EE08165B	5		MOTOR TRACTION
102	1C2	MOTOR FILTER CAPACITORS		231EE08165B	6		MOTOR TRACTION
103	1C3	MOTOR FILTER CAPACITORS		231EE08165B	7		MOTOR TRACTION
104	1C4	MOTOR FILTER CAPACITORS		231EE08165B	8		MOTOR TRACTION
105	1F1	LIGHTNING ARRESTOR	18 kV 16 2/3 10kA 8/20 uS	3ECE405204	4		IMPERIALE BP
106	1F2	LIGHTNING ARRESTOR	18 kV 16 2/3 10kA 8/20 uS	3ECE405204	4		IMPERIALE BP
107	1F10/1-2	1A05 DOUBLE FUSIBLE	690 V - 630 A	211VF00990B01	12		QMT -BMa
108	1F11/1-2	1A05 DOUBLE FUSIBLE	690 V - 630 A	211VF00990B01	12		QMT -BMa
109	1F12/1-2	1A05 DOUBLE FUSIBLE	690 V - 630 A	211VF00990B01	12		QMT -BMb
110	1F13/1-2	1A05 DOUBLE FUSIBLE	690 V - 630 A	211VF00990B01	12		QMT -BMb
111	1L1	HEARTH REACTOR		211VL00922B	4		QMT -BMa
112	1L2	HEARTH REACTOR		211VL00922B	4		QMT -BMb
113	1K16	CHARGE BATTERY 2A1 CONTACTOR	LTC 250 1500 V - 250 A	211VK00937B01	12		UNDERFRAME BP
114	1K17	CHARGE BATTERY 2A1 CONTACTOR	LTC 250 1500 V - 250 A	211VK00937B01	12		UNDERFRAME BC
115							
116	1K01	TRAIN HEATING CONTACTOR	LTC 250 1000 V - 250 A	211VK00901B01	4		QAT -BMa
117	1K02	TRAIN HEATING CONTACTOR	LTC 250 1000 V - 250 A	211VK00901B01	4		QAT -BMa
118	1K03	TRAIN HEATING CONTACTOR	LTC 250 1000 V - 250 A	211VK00901B01	4		QAT -BMb
119	1K04	TRAIN HEATING CONTACTOR	LTC 250 1000 V - 250 A	211VK00901B01	4		QAT -BMb
120							
121	1K10	SUPPLY BATTERY CHARGE CONTACTOR	LTC 250 1500 V - 250 A	211VK00937B01	12		QAT -BMa
122	1K11	SUPPLY BATTERY CHARGE CONTACTOR	LTC 250 1500 V - 250 A	211VK00937B01	12		QAT -BMa
123	1K12	SUPPLY BATTERY CHARGE CONTACTOR	LTC 250 1500 V - 250 A	211VK00937B01	12		QAT -BMb
124							
125	1L11	MOTOR FILTER REACTORS		211EL22820B	5		UNDERFRAME BMa
126	1L21	MOTOR FILTER REACTORS		211EL22820B	6		UNDERFRAME BMa
127	1L31	MOTOR FILTER REACTORS		211EL22820B	7		UNDERFRAME BMb
128	1L41	MOTOR FILTER REACTORS		211EL22820B	8		UNDERFRAME BMb

INDICE	MODIFICHE	VISTO	DATA	INDICE	MODIFICHE	VISTO	DATA
00	EMISSION	N.V.	20.10.98				
01	REDRAWN	P.G.	19.01.00				
04	REDRAWN	P.G.	21.03.00				
07	REDRAWN		04/01				

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AREA MILANO	DIS. PROG.	P. GAL	
ENTE ING/PEV	CONTR.		
	RESP. UFF.		

APPARATUS LIST

237VE05680C01	MOD. 07
SOSTITUISCE	F. 33
SOSTITUITO DA	SEGU. F. 34

POS	LABEL	DESCRIPTION	MODE / CHARACTERISTIC	SPECIFICATION	Sh.	POSITION	REMARKS
129	1M1	TRACTION MOTOR 1		231MESE067B	5		LOCATED ON THE BOGIE
130	1M2	TRACTION MOTOR 2		231MESE067B	6		LOCATED ON THE BOGIE
131	1M3	TRACTION MOTOR 3		231MESE067B	7		LOCATED ON THE BOGIE
132	1M4	TRACTION MOTOR 4		231MESE067B	8		LOCATED ON THE BOGIE
133	1Q1	H.V. BREAKER	SECHERON: B VAC M97	211VK00725B020111	4		LOCATED ON THE IMPERIAL BP
134	1Q2	HEARTING SWITCH	SECHERON: B TE		4		LOCATED IN 1Q1
135	1Q3	PANTOGRAPH SWITCH	COEPTÉ STL 25	211VQ00948B	4		LOCATED ON THE IMPERIAL BP
136	1Q4	H.V. BREAKER			4		LOCATED IN 1Q3
137							
138							
139							
140	1T1	MAIN TRANSFORMER	ABB ADDA: SK8067	371VE03053B	4		UNDERFRAME BMa
141	1T1-L1	33.33Hz FILTER REACTOR FOR MAIN CONVERTER 1			4		INSIDE TRANSFORMER 1T1
142	1T1-L2	33.33Hz FILTER REACTOR FOR MAIN CONVERTER 2			4		INSIDE TRANSFORMER 1T1
143	1T1-Q1	HV ISOLATING SWITCH			4		INSIDE TRANSFORMER 1T1
144	1T1-T1	PRIMARY WINDING			4		INSIDE TRANSFORMER 1T1
145	1T1-T2	TRACTION SECONDARY WINDING			4		INSIDE TRANSFORMER 1T1
146	1T1-T3	TRACTION SECONDARY WINDING			4		INSIDE TRANSFORMER 1T1
147	1T1-T4	TRACTION SECONDARY WINDING			4		INSIDE TRANSFORMER 1T1
148	1T1-T5	TRACTION SECONDARY WINDING			4		INSIDE TRANSFORMER 1T1
149	1T1-T6	AUXILIARY CONVERTERS SECONDARY WINDING			4		INSIDE TRANSFORMER 1T1
150	1T1-T7	230 Vac AUXILIARY SECONDARY WINDING			4		INSIDE TRANSFORMER 1T1
151	1T1-T8	TRAIN HEATING SECONDARY WINNDING			4		INSIDE TRANSFORMER 1T1
152							
153							
154							
155							
156							
157							
158							
159							
160							

INDICE	MODIFICHE		VISTO	DATA	INDICE	MODIFICHE		VISTO	DATA
00	EMISSION		N.Y.	20.10.98					
01	REDRAWN		P.G.	21.03.00					
07	REDRAWN			04/01					

ANSALDO

Ansaldo Trasporti s.p.a.

AREA MILANO	DIS.	P. GAL	
	PROG.		
	ENTE ING/PEV	CONTR. RESP. UFF.	

APPARATUS LIST

237VE05680C01

MOD.
07

SOSTITUISCE
SOSTITUITO DA

F. 34
SEGU F. 35

DIST.

POS	LABEL	DESCRIPTION	MODE / CHARACTERISTIC	SPECIFICATION	Sh.	POSITION	REMARKS
161							
162	1T2	MAIN TRANSFORMER	ABB ADDA: SK8067	371VE03053B	4		UNDERFRAME BMb
163	1T2-L1	33.33Hz FILTER REACTOR FOR MAIN CONVERTER 1			4		INSIDE TRANSFORMER 1T2
164	1T2-L2	33.33Hz FILTER REACTOR FOR MAIN CONVERTER 2			4		INSIDE TRANSFORMER 1T2
165	1T2-Q1	HV ISOLATING SWITCH			4		INSIDE TRANSFORMER 1T2
166	1T2-T1	PRIMARY WINDING			4		INSIDE TRANSFORMER 1T2
167	1T2-T2	TRACTION SECONDARY WINDING			4		INSIDE TRANSFORMER 1T2
168	1T2-T3	TRACTION SECONDARY WINDING			4		INSIDE TRANSFORMER 1T2
169	1T2-T4	TRACTION SECONDARY WINDING			4		INSIDE TRANSFORMER 1T2
170	1T2-T5	TRACTION SECONDARY WINDING			4		INSIDE TRANSFORMER 1T2
171	1T2-T6	AUXILIARY CONVERTERS SECONDARY WNDING			4		INSIDE TRANSFORMER 1T2
172	1T2-T7	230 Vac AUXILIARY SECONDARY WINDING			4		INSIDE TRANSFORMER 1T2
173	1T2-T8	TRAIN HEATING SECONDARY WINNDING			4		INSIDE TRANSFORMER 1T2
174							
175							
176	1TA1	HARMONIC DETECTOR CURRENT TRANSFORMER	CONTREL 100:1-170A/162/3Hz-2A/95-105Hz	211ET22998B	4		LOCATED ON THE IMPERIAL BP
177	1TA2	LINE CURRENT TRANSFORMER	0.63VA 170Apr /0.34A sec	211VT00934B01	4	INSIDE BOX	LOCATED ON THE IMPERIAL BP
178	1TA3	CURRENT TRANSFORMER FOR ENERGY METER	10VA 170Apr /1A sec	211VT00939B	4	231VE05837B	LOCATED ON THE IMPERIAL BP
179	1TA4	CURRENT TRANSFORMER FOR ENERGY METER	10VA 170Apr /1A sec	211VT00939B	4	INSIDE BOX	LOCATED ON THE IMPERIAL BP
180	1TA5	LINE CURRENT TRANSFORMER	0.63VA 170Apr /0.34A sec	211VT00934B01	4	231VE05895B	LOCATED ON THE IMPERIAL BP
181	1TA6	DRAINAGE CURRENT TRANSFORMER	4VA 170Apr /0.56A sec	211VT00934B03	4	INSIDE BOX AT	LOCATED IN BMa
182	1TA7	TRAIN HEATING CURRENT TRANSFORMER	0.52VA 245Apr /0.49A sec	211VT00934B02	4	INSIDE BOX AT	LOCATED IN BMa
183	1TA8	TRAIN HEATING CURRENT TRANSFORMER	0.52VA 245Apr /0.49A sec	211VT00934B02	4	INSIDE BOX AT	LOCATED IN BMb
184	1TA9	DRAINAGE CURRENT TRANSFORMER	4VA 170Apr /0.56A sec	211VT00934B03	4	INSIDE BOX AT	LOCATED IN BMb
185	1TV1	LINE VOLTAGE TRANSFORMER	NESSWANDLER-B AU: VGF 36/18kV	211VT00932B	4		LOCATED ON THE IMPERIAL BP
186	1TV2	TRAIN HEATING SOCKET VOLTAGE TRANSFORMER	10VA 1000pr /24V sec	211VT00940B	4	INSIDE BOX AT	LOCATED IN BMb
187	1TV3	TRAIN HEATING SOCKET VOLTAGE TRANSFORMER	10VA 1000pr /24V sec	211VT00940B	4	INSIDE BOX AT	LOCATED IN BMb
188							
189							
190							
191							
192							

INDICE	MODIFICHE		VISTO	DATA	INDICE	MODIFICHE		VISTO	DATA
00	EMISSION		N.Y.	20.10.98					
01	REDRAWN		P.G.	21.03.00					
07	REDRAWN			04/01					

ANSALDO
Ansaldo Trasporti s.p.a.

AREA MILANO	DIS. PROG.	P. GAL	
ENTE ING/PEV	CONTR. RESP. UFF.		

APPARATUS LIST

237VE05680C01	MOD. 07
SOSTITUISCE	F. 35
SOSTITUITO DA	SEGU F. 36

POS	LABEL	DESCRIPTION	MODE / CHARACTERISTIC	SPECIFICATION	Sh.	POSITION	REMARKS
193							
194	1X1	PANTOGRAPH	SCHUNK: WBL88	211PESE067B	4		LOCATE ON THE IMPERIAL BP
195	1X2	PANTOGRAPH	SCHUNK: WBL88	211PESE067B	4		LOCATE ON THE IMPERIAL BP
196	1X3:1X11	EARTING BRUSH	RISOMESA: 5961/C CARBONIO:C10010/95	211VX00962B01	4		LOCATE ON THE BOGIE
197	1X12	TRAIN HEATING SOCKET	SPII:C 3726 – C 3731 – C 3730	232VE05771B-232VE06060C	4		LOCATE IN FRONT BMb
198	1X13	TRAIN HEATING SOCKET	SPII:C 3726 – C 3731 – C 3730	232VE05771B-232VE06060C	4		LOCATE IN FRONT BMa
199	1X14	TRAIN HEATING SOCKET	SPII:C 3726 – C 3731 – C 3730	232VE05771B-232VE06060C	4		LOCATE IN FRONT BMb
200	1X15	TRAIN HEATING SOCKET	SPII:C 3726 – C 3731 – C 3730	232VE05771B-232VE06060C	4		LOCATE IN FRONT BMa
201							
202							
203							
204							
205							
206							
207							
208							
209							
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222							
223							
224							

INDICE	MODIFICHE		VISTO	DATA	INDICE	MODIFICHE		VISTO	DATA
00	EMISSION		N.V.	20.10.98					
03	REDRAWN		P.G.	21.03.00					
07	REDRAWN			04/07					

DIST.

ANSALDO

Ansaldo Trasporti s.p.a.

AREA MILANO	DIS. PROG.	P. GAL	
ENTE ING/PEV	CONTR.		
	RESP. UFF.		

APPARATUS LIST

237VE05680C01	MOD. 07
SOSTITUISCE	F. 36
SOSTITUITO DA	SEGU F. 37

POS	LABEL	DESCRIPTION	MODE / CHARACTERISTIC	SPECIFICATION	Sh.	POSITION	REMARKS
225	2A1	CHARGE BATTERY CONVERTER	13,5kW - 24Vcc	231EE08209B	12		LOCATE UNDERFRAME BC
226	2A2	CHANGE BATTERY CONVERTER	13,5kW - 24Vcc	231EE08209B	12		LOCATE UNDERFRAME BP
227	2F01	DOUBLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: S292 100A	05E970290P05+P13	19		LOCATE IN THE BOX M.T.- BMa
228	2F02	DOUBLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: S292 100A	05E970290P05+P13	19		LOCATE IN THE BOX M.T.- BMb
229	2F20	TRIPLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: S283 6A	05E970280P68+PA2	13		LOCATE IN THE BOX M.T.- BMa
230	2F21	TRIPLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: S283 6A	05E970280P68+PA2	13		LOCATE IN THE BOX M.T.- BMa
231	2F22	TRIPLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: S283 10A	05E970280P70+PA2	13		LOCATE IN THE BOX M.T.- BMa
232	2F23	TRIPLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: S283 10A	05E970280P70+PA2	13		LOCATE IN THE BOX M.T.- BMa
233	2F24	TRIPLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: S283 8A	05E970280P69+PA2	13		LOCATE IN THE BOX M.T.- BMa
234	2F25	TRIPLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: S283 8A	05E970280P69+PA2	13		LOCATE IN THE BOX M.T.- BMa
235	2F26	TRIPLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: S283 8A	05E970280P69+PA2	14		LOCATE IN THE BOX M.T.- BMa
236	2F27	TRIPLE POLE CIRCUIT BREAKER	ALLEN-BRADLEY : 140MN - 0063	FAIVELEY	14		LOCATE IN THE BOX M.T.- BMa
237	2F28	TRIPLE POLE CIRCUIT BREAKER	ABB : S283-K10	FAIVELEY	14		LOCATE IN THE BOX M.T.- BMa
238	2F29	TRIPLE POLE CIRCUIT BREAKER	ALLEN-BRADLEY : 140MN - 00063	FAIVELEY	14		LOCATE IN THE BOX M.T.- BMa
239	2F30	TRIPLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: S283 40A	05E970280P68+PA2	14		LOCATE IN THE BOX M.T.- BMa
240	2F31	DOUBLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: EY7338 2A	211VQ00960B04	14		LOCATE IN THE BOX M.T.- BMa
241	2F32	DOUBLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: S282 4A K	05E970280 P45	14		LOCATE IN THE BOX M.T.- BMa
242	2F33	TRIPLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: S283 40A	05E970280P75+PA2	15		LOCATE IN THE BOX M.T.- BP
243	2F34	TRIPLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: S283 32A	05E970280P73+PA2	15		LOCATE IN THE BOX M.T.- BP
244	2F35	DOUBLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: S282 10A D	211VK01301B02	16		LOCATE IN THE BOX M.T.- BC
245	2F36	TRIPLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: S283 40A	05E970280P68+PA2	16		LOCATE IN THE BOX M.T.- BC
246	2F37	DOUBLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: EY2024 10A	211VQ00960B09	16		LOCATE IN THE BOX M.T.- BC
247	2F38	DOUBLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: EY2032 16A	211VQ00960B11	16		LOCATE IN THE BOX M.T.- BC
248	2F39	TRIPLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: S283 6A	05E970280P68+PA2	17		LOCATE IN THE BOX M.T.- BMb
249	2F40	TRIPLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: S283 6A	05E970280P68+PA2	17		LOCATE IN THE BOX M.T.- BMb
250	2F41	TRIPLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: S283 10A	05E970280P70+PA2	17		LOCATE IN THE BOX M.T.- BMb
251	2F42	TRIPLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: S283 10A	05E970280P70+PA2	17		LOCATE IN THE BOX M.T.- BMb
252	2F43	TRIPLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: S283 8A	05E970280P69+PA2	17		LOCATE IN THE BOX M.T.- BMb
253	2F44	TRIPLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: S283 8A	05E970280P69+PA2	17		LOCATE IN THE BOX M.T.- BMb
254	2F45	TRIPLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: S283 8A	05E970280P69+PA2	18		LOCATE IN THE BOX M.T.- BMb
255	2F46	TRIPLE POLE CIRCUIT BREAKER	ALLEN-BRADLEY : 140MN - 0063	FAIVELEY	18		LOCATE IN THE BOX M.T.- BMb
256	2F47	TRIPLE POLE CIRCUIT BREAKER	ABB : S283-K10	FAIVELEY	18		LOCATE IN THE BOX M.T.- BMb

INDICE	MODIFICHE	VISTO	DATA	INDICE	MODIFICHE	VISTO	DATA
00	EMISSION	N.V.	20.10.98				
03	REDRAWN	P.G.	21.03.00				
07	REDRAWN		04/01				
08	Mod. 2F35, add 2F32		06/03				

ANSALDO
Ansaldo Trasporti s.p.a.

AREA MILANO	DIS. PROG.	P. GAL	
ENTE ING/PEV	CONTR. RESP. UFF.		

APPARATUS LIST

237VE05680C01

MOD.
08

SOSTITUISCE

F. 37

SOSTITUITO DA

SEGU F. 38

POS	LABEL	DESCRIPTION	MODE / CHARACTERISTIC	SPECIFICATION	Sh.	POSITION	REMARKS
257	2F48	TRIPLE POLE CIRCUIT BREAKER	ALLEN-BRADLEY : 140MN - 0063	FAIVELEY	18		LOCATE IN THE BOX M.T.- BMb
258	2F49	TRIPLE POLE CIRCUIT BREAKER	ABB ELETTOCONDUTTURE: S283 40A	05E970280P75 +PA2	18		LOCATE IN THE BOX M.T.- BMb
259	2F50	DOUBLE POLE CIRCUIT BREAKER	ABB ELETTOCONDUTTURE: EY7338 2A	211VQ00960B04	18		LOCATE IN THE BOX M.T.- BMb
260	2F51	DOUBLE POLE CIRCUIT BREAKER	ABB ELETTOCONDUTTURE: S282 4A K	05E970280 P45	18		LOCATE IN THE BOX M.T.- BMb
261							
262							
263							
264							
265							
266							
267							
268	2F60	DOUBLE POLE CIRCUIT BREAKER	ABB ELETTOCONDUTTURE: S282 63A	05E970280 P40+PA2	20		LOCATE IN THE BOX M.T.- BMa
269	2F61	DOUBLE POLE CIRCUIT BREAKER	ABB ELETTOCONDUTTURE: S282 2A	05E970280 P58+A2	20		LOCATE IN THE BOX M.T.- BMa
270	2F62	DOUBLE POLE CIRCUIT BREAKER	ABB ELETTOCONDUTTURE: EY2040 20A	211VQ00960B12-PA2	20		LOCATE IN THE BOX M.T.- BMa
271							
272	2F64	DOUBLE POLE CIRCUIT BREAKER	ABB ELETTOCONDUTTURE: EY2040 20A	211VQ00960B12+PA2	20		LOCATE IN THE BOX M.T.- BMa
273	2F65	DOUBLE POLE CIRCUIT BREAKER	ABB ELETTOCONDUTTURE: EY2050 50A	211VQ00960B16	21		LOCATE IN THE BOX M.T.- BMa
274							
275							
276							
277	2F69	DOUBLE POLE CIRCUIT BREAKER	ABB ELETTOCONDUTTURE: S282 6A	05E970280P31+PA2	21		LOCATE IN THE BOX M.T.- BMa
278	2F70	DOUBLE POLE CIRCUIT BREAKER	ABB ELETTOCONDUTTURE: S272 -K1	FAIVELEY	20		LOCATE IN THE BOX M.T.- BMa
279	2F71	DOUBLE POLE CIRCUIT BREAKER	ABB ELETTOCONDUTTURE: S282 63A	05E970280 P40+PA2	22		LOCATE IN THE BOX M.T.- BP
280	2F72	DOUBLE POLE CIRCUIT BREAKER	ABB ELETTOCONDUTTURE: S282 - 8A	053970280P32+PA2	22		LOCATE IN THE BOX M.T.- BP
281	2F73	DOUBLE POLE CIRCUIT BREAKER	ABB ELETTOCONDUTTURE: EY1016 16A	211VQ00960B11+PA2	22		LOCATE IN THE BOX M.T.- BP
282	2F74	DOUBLE POLE CIRCUIT BREAKER	ABB ELETTOCONDUTTURE: EY2040 20A	211VQ00960B12+PA2	22		LOCATE IN THE BOX M.T.- BP
283	2F75	DOUBLE POLE CIRCUIT BREAKER	ABB ELETTOCONDUTTURE: S282 63A	05E970280 P40+PA2	23		LOCATE IN THE BOX M.T.- BC
284	2F76	DOUBLE POLE CIRCUIT BREAKER	ABB ELETTOCONDUTTURE: Y2016 16A	211VQ00960B11+PA2	23		LOCATE IN THE BOX M.T.- BC
285	2F77	DOUBLE POLE CIRCUIT BREAKER	ABB ELETTOCONDUTTURE: EY2040 20A	211VQ00960B12-PA2	23		LOCATE IN THE BOX M.T.- BC
286							
287							
288							

INDICE	MODIFICHE	VISTO	DATA	INDICE	MODIFICHE	VISTO	DATA
00	EMISSION	N.V.	20.10.98				
04	REDRAWN	P.G.	21.03.00				
07	REDRAWN		04/01				
08	Add 2F51		06/03				
09	REDRAWN		05/07				

ANSALDO
Ansaldo Trasporti s.p.a.

AREA MILANO	DIS.	P. GAL	
	PROG.		
	ENTE ING/PEV	CONTR. RESP. UFF.	

APPARATUS LIST

237VE05680C01	MOD. 09
SOSTITUISCE	F. 38
SOSTITUITO DA	SEGU. F. 39

POS	LABEL	DESCRIPTION	MODE / CHARACTERISTIC	SPECIFICATION	Sh.	POSITION	REMARKS
289	2F78	DOUBLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: EY2006 6A	211VQ00960B07-PA2	24		LOCATED IN THE BOX M.T.- BC
290	2F79	DOUBLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: EY2006 6A	211VQ00960B07-PA2	24		LOCATED IN THE BOX M.T.- BC
291	2F80	DOUBLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: EY2006 6A	211VQ00960B07-PA2	24		LOCATED IN THE BOX M.T.- BC
292	2F81	DOUBLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: S282 8A	05E970280 P32+PA2	24		LOCATED IN THE BOX M.T.- BC
293	2F82	DOUBLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: S282 8A	05E970280 P32+PA2	24		LOCATED IN THE BOX M.T.- BC
294	2F83	DOUBLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: S282 8A	05E970280 P32+PA2	24		LOCATED IN THE BOX M.T.- BC
295	2F84	DOUBLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: S272 K1	FAIVELEY	25		LOCATED IN THE BOX M.T.- BMb
296	2F85	DOUBLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: S282 2A	05E970280 P58+PA2	25		LOCATED IN THE BOX M.T.- BMb
297	2F86	DOUBLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: EY2040 20A	211VQ00960B12-PA2	25		LOCATED IN THE BOX M.T.- BMb
298	2F87	DOUBLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: S282 63A	05E970280 P40+PA2	25		LOCATED IN THE BOX M.T.- BMb
299	2F88	DOUBLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: EY2040 20A	211VQ00960B12-PA2	25		LOCATED IN THE BOX M.T.- BMb
300	2F89	DOUBLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: EY2050 50A	211VQ00960B16	25		LOCATED IN THE BOX M.T.- BMb
301	2F90	DOUBLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: S282 50A	05E970280 P37+PA2			
302							
303							
304	2F93	DOUBLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: S282 6A	05E970280P31+PA2	26		LOCATED IN THE BOX M.T.- BMb
305	2F94	DOUBLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: EY2024 10A	211VQ00960B09	27		LOCATED IN THE BOX M.T.- BMa
306	2F95	DOUBLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: EY2024 10A	211VQ00960B09	27		LOCATED IN THE BOX M.T.- BMa
307	2F96	DOUBLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: EY2024 10A	211VQ00960B09	27		LOCATED IN THE BOX M.T.- BP
308	2F97	DOUBLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: EY2024 10A	211VQ00960B09	27		LOCATED IN THE BOX M.T.- BC
309							
310	2F98	DOUBLE POLE CIRCUIT BREAKER (WC)	ABB ELETTRONIQUES: EY7338 2A	211VQ00960B04	27		LOCATED IN THE BOX M.T.- BC
311	2F99	DOUBLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: EY2024 10A	211VQ00960B09	27		LOCATED IN THE BOX M.T.- BC
312	2F100	DOUBLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: EY2024 10A	211VQ00960B09	27		LOCATED IN THE BOX M.T.- BMb
313	2F101	DOUBLE POLE CIRCUIT BREAKER	ABB ELETTRONIQUES: EY2024 10A	211VQ00960B09	27		LOCATED IN THE BOX M.T.- BMb
314							
315							
316							
317							
318							
319							
320							

INDICE	MODIFICHE	VISTO	DATA	INDICE	MODIFICHE	VISTO	DATA
00	MISSION	N.V.	20.10.98				
04	REDRAWN	P.G.	21.03.00				
07	REDRAWN		04/01				
08	REDRAWN		04/02				
09	REDRAWN		05/07				

ANSALDO
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AREA MILANO	DIS.	P. GAL	
	PROG.		
ENTE ING/PEV	CONTR.		
	RESP. UFF.		

APPARATUS LIST

237VE05680C01

MOD.
09

SOSTITUISCE
SOSTITUITO DA

F. 39
SEGU. F. 40

POS	LABEL	DESCRIPTION	MODE / CHARACTERISTIC	SPECIFICATION	Sh.	POSITION	REMARKS
321							
322							
323	2K01	CONVERTER 1A5 OUTPUT TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TAE 110	211VK00938B0100	12		LOCATED IN THE BOX M.T.- BMa
324	2K02	CONVERTER 1A6 OUTPUT TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TAE 75	211VK00938B0200	12		LOCATED IN THE BOX M.T.- BMa
325	2K03	CONVERTER 1A6 OUTPUT TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TAE 110	211VK00938B0100	12		LOCATED IN THE BOX M.T.- BMb
326	2K04	CONVERTER 1A6 OUTPUT TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TAE 110	211VK00938B0100	12		LOCATED IN THE BOX M.T.- BMb
327	2K05	M.V. CONFIGURATION SUPPLY TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TAE 75	211VK00938B0200	12		LOCATED IN THE BOX M.T.- BMa
328	2K06	M.V. CONFIGURATION SUPPLY TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TAE 75	211VK00938B0200	12		LOCATED IN THE BOX M.T.- BMa
329	2K07	M.V. CONFIGURATION SUPPLY TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TAE 75	211VK00938B0200	12		LOCATED IN THE BOX M.T.- BMb
330	2K08	M.V. CONFIGURATION SUPPLY TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TAE 75	211VK00938B0200	12	INSIDE QMT1	LOCATED IN THE BOX M.T.- BC
331	2K09	M.V. EXTERNAL SUPPLY TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TAE 110	211VK00938B0100	12		LOCATED IN THE BOX M.T.- BMa
332	2K10	M.V. EXTERNAL SUPPLY TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TAE 75	211VK00938B0200	12		LOCATED IN THE BOX M.T.- BMb
333							
334	2K11	CONTROL IN THE CIRCLE DIRECTION RELAY	AMRA: OK - Ph	4AMT553442R01	12		LOCATED IN THE BOX M.T.- BMa
335	2K12	CONTROL IN THE CIRCLE DIRECTION RELAY	AMRA: OK - Ph	4AMT553442R01	12		LOCATED IN THE BOX M.T.- BMb
336							
337	2K13	230Vac - 16 2/3Hz SUPPLY TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TAE 75	211VK00938B0200	19		LOCATED IN THE BOX M.T.- BMa
338	2K14	230Vac - 16 2/3Hz SUPPLY TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TAE 75	211VK00938B0200	19		LOCATED IN THE BOX M.T.- BMb
339	2K15	230Vac - 16 2/3Hz SUPPLY TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TAE 75	211VK00938B0200	19	INSIDE QMT1	LOCATED IN THE BOX M.T.- BC
340							
341							
342	2K20	TRACTION MOTOR 1M1 FAN TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TBC 16	211VQ00222B221122	13		LOCATED IN THE BOX M.T.- BMa
343	2K21	TRACTION MOTOR 1M1 FAN TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TBC 16	211VQ00222B221122	13		LOCATED IN THE BOX M.T.- BMa
344	2K22	WATER OIL FAN TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TBC 30	211VK00397B05	13		LOCATED IN THE BOX M.T.- BMa
345	2K23	WATER OIL FAN TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TBC 30	211VK00397B05	13		LOCATED IN THE BOX M.T.- BMa
346	2K24	CONVERTER 1A1 WATER POMP TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TBC 16	211VQ00222B221122	13		LOCATED IN THE BOX M.T.- BMa
347	2K25	CONVERTER 1A2 WATER POMP TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TBC 16	211VQ00222B221122	13		LOCATED IN THE BOX M.T.- BMa
348	2K26	TRANSFORMER 1T1 OIL POMP TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TBC 30	211VK00397B05	13		LOCATED IN THE BOX M.T.- BMa
349							
350							
351	2K34	MAIN COMPRESSOR TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TAE 75	211VK00938B0201	15		LOCATED IN THE BOX M.T.- BP
352	2K35	THERMAL RELAYS	ABB ELETTRONIQUES: TA75DU-32	211EK23100B01	15		LOCATED IN THE BOX M.T.- BP

INDICE	MODIFICHE	VISTO	DATA	INDICE	MODIFICHE	VISTO	DATA
00	EMISSION	N.Y.	20.10.98				
02	REDRAWN	P.G.	21.03.00				
07	REDRAWN		04/01				

ANSALDO
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AREA MILANO	DIS. P. GAL	
PROG.		
ENTE ING/PEV	CONTR. RESP. UFF.	

APPARATUS LIST

237VE05680C01

MOD.
07

SOSTITUISCE

F. 40

SOSTITUITO DA

SEGU. F. 41

POS	LABEL	DESCRIPTION	MODE / CHARACTERISTIC	SPECIFICATION	Sh.	POSITION	REMARKS
353	2K39	TRACTION MOTOR 1M3 FAN TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TBC 16	211VQ00222B221122	17		LOCATED IN THE BOX M.T.- BMb
354	2K40	TRACTION MOTOR 1M4 FAN TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TBC 16	211VQ00222B221122	17		LOCATED IN THE BOX M.T.- BMb
355	2K41	WATER AND OIL FAN TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TBC 30	211VK00397B05	13		LOCATED IN THE BOX M.T.- BMb
356	2K42	WATER AND OIL FAN TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TBC 30	211VK00397B05	13		LOCATED IN THE BOX M.T.- BMb
357	2K43	CONVERTER 1A3 WATER PUMP TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TBC 16	211VQ00222B221122	17		LOCATED IN THE BOX M.T.- BMb
358	2K44	CONVERTER 1A4 WATER PUMP TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TBC 16	211VQ00222B221122	17		LOCATED IN THE BOX M.T.- BMb
359	2K45	TRANSFORMER 1T2 OIL PUMP TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TBC 30	211VK00397B05	18		LOCATED IN THE BOX M.T.- BMb
360							
361							
362							
363	2K61	HEATING SIDE MIRROR QUADRUPLE POLE CONTACTOR	ABB ELETTRONIQUES: TBC 16	211VQ00222B221122	20		LOCATED IN THE BOX M.T.- BMb
364	2K62	HEATING CAB DRIVER FLOOR TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TBC 16	211VQ00222B221122	20		LOCATED IN THE BOX M.T.- BMb
365	2K63	HEATING DOORS STEP TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TBC 16	211VQ00222B221122	20		LOCATED IN THE BOX M.T.- BMb
366							
367	2K65	NORMAL HEATING WINDSCREEN QUADRUPLE POLE CONTACTOR	ABB ELETTRONIQUES: TBC 25	211VQ00967B01	21		LOCATED IN THE BOX M.T.- BMb
368	2K66	FAST EATING WINDSCREEN QUADRUPLE POLE CONTACTOR	ABB ELETTRONIQUES: TBC 25	211VQ00967B01	21		LOCATED IN THE BOX M.T.- BMb
369	2K67	HEATING SIDE WINDOW TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TBC 16	211VQ00222B221122	21		LOCATED IN THE BOX M.T.- BMb
370	2K68	HEATING SIDE WINDOW TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TBC 16	211VQ00222B221122	21		LOCATED IN THE BOX M.T.- BMb
371	2K69	HEATING SANDIG TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TBC 16	211VQ00222B221122	21		LOCATED IN THE BOX M.T.- BMb
372							
373	2K73	HEATING DOORS STEP TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TBC 16	211VQ00222B221122	22		LOCATED IN THE BOX M.T.- BP
374							
375	2K76	HEATING DOORS STEP TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TBC 16	211VQ00222B221122	23		LOCATED IN THE BOX M.T.- BC
376	2K78	HEATING WATER TANK TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TBC 16	211VQ00222B221122	24		LOCATED IN THE BOX M.T.- BC
377	2K79	HEATING COLLECTOR TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TBC 16	211VQ00222B221122	24		LOCATED IN THE BOX M.T.- BC
378	2K81	HEATING CABLES WC TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TBC 16	211VQ00222B221122	24		LOCATED IN THE BOX M.T.- BC
379	2K82	HEATING CABLES WC TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TBC 16	211VQ00222B221122	24		LOCATED IN THE BOX M.T.- BC
380	2K83	HEATING CABLES WC TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TBC 16	211VQ00222B221122	24		LOCATED IN THE BOX M.T.- BC
381							
382	2K85	HEATING SIDE MIRROR TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TBC 16	211VQ00222B221122	25		LOCATED IN THE BOX M.T.- BMb
383	2K86	HEATING CAB DRIVER FLOOR TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TBC 16	211VQ00222B221122	25		LOCATED IN THE BOX M.T.- BMb
384	2K87	HEATING DOOR STEP TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TBC 16	211VQ00222B221122	25		LOCATED IN THE BOX M.T.- BMb

INDICE	MODIFICA	VISTO	DATA	INDICE	MODIFICA	VISTO	DATA
00	EMISSION	N.V.	20.10.98				
04	REDRAWN	P.G.	21.03.00				
07	REDRAWN		04/01				

ANSALDO
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AREA MILANO	DIS. P. GAL	
PROG.		
ENTE ING/PEV	CONTR. RESP. UFF.	

APPARATUS LIST

237VE05680C01

MOD.
07

SOSTITUISCE

F. 41

SOSTITUITO DA

SEGU. F. 42

POS	LABEL	DESCRIPTION	MODE / CHARACTERISTIC	SPECIFICATION	Sh.	POSITION	REMARKS
385	2K89	NORMAL HEATING WINDSCREEN QUADRUPLE POLE CONTACTOR	ABB ELETTRONIQUES: TBC 25	211VQ00967B01	26		LOCATED IN THE BOX M.T.- BMa
386	2K90	FAST HEATING WINDSCREEN QUADRUPLE POLE CONTACTOR	ABB ELETTRONIQUES: TBC 25	211VQ00967B01	26		LOCATED IN THE BOX M.T.- BMa
387	2K91	HEATING SIDE WINDOW TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TBC 16	211VQ00222B221122	26		LOCATED IN THE BOX M.T.- BMb
388	2K92	HEATING SIDE WINDOW TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TBC 16	211VQ00222B221122	26		LOCATED IN THE BOX M.T.- BMb
389	2K93	HEATING SANDING TRIPLE POLE CONTACTOR	ABB ELETTRONIQUES: TBC 16	211VQ00222B221122	26		LOCATED IN THE BOX M.T.- BMb
390	2K94	MEASURING VOLTAGE RELAY	AMRA - MOK-V2	211VK01647B02	24		LOCATED IN THE BOX M.T.- BC
391							
392							
393	2M20	TRACTION MOTOR 1M1 FAN		211VZ00936B01	13		LOCATED ON THE IMPERIAL BMa
394	2M21	TRACTION MOTOR 1M1 FAN		211VZ00936B01	13		LOCATED ON THE IMPERIAL BMa
395	2M22	WATER AND OIL RADIATORS FAN		211EZ22746B	13	INSIDE COOLER ASS.	UNDER FRAME BMa
396	2M23	WATER AND OIL RADIATORS FAN		211EZ22746B	13	INSIDE COOLER ASS.	UNDER FRAME BMa
397	2M24	CONVERTER 1A1 WATER PUMP		211EZ22632B	13	LOCATED INTO 1A1	UNDER FRAME BMa
398	2M25	CONVERTER 1A2 WATER PUMP		211EZ22632B	13	LOCATED INTO 1A2	UNDER FRAME BMa
399	2M26	TRANSFORMER 1T1 OIL PUMP			14	LOCATED INTO 1T1	UNDER FRAME BMa
400							
401	2M31	CAB DRIVER REFRIGERATOR			14		LOCATED IN THE FRAME BMa
402							
403	2M34	MAIN COMPRESSOR AIR			15		LOCATED IN THE FRAME BP
404	2M34-RES	MAIN COMPRES.AIR,OIL ESSICATOR HEATING			22		LOCATED IN THE FRAME BP
405	2M37	WC FAN			16	INSIDE TOILET LOC.	IN THE FRAME BC
406							
407	2M39	TRACTION MOTOR 1M3 FAN		211VZ00936B01	17		LOCATED ON THE IMPERIAL BMb
408	2M40	TRACTION MOTOR 1M4 FAN		211VZ00936B01	17		LOCATED ON THE IMPERIAL BMb
409	2M41	WATER AND OIL RADIATORS FAN		211EZ22746B	17	INSIDE COOLER ASS.	UNDER FRAME BMb
410	2M42	WATER AND OIL RADIATORS FAN		211EZ22746B	17	INSIDE COOLER ASS.	UNDER FRAME BMb
411	2M43	CONVERTER 1A3 WATER PUMP		211EZ22632B	17	LOCATED INTO 1A1	UNDER FRAME BMb
412	2M44	CONVERTER 1A4 WATER PUMP		211EZ22632B	17	LOCATED INTO 1A2	UNDER FRAME BMb
413	2M45	TRANSFORMER 1T1 OIL PUMP			25	LOCATED INTO 1T1	UNDER FRAME BMb
414							
415	2M50	CAB DRIVER REFRIGERATOR			25		LOCATED IN THE FRAME BMb
416							

INDICE	MODIFICHE	VISTO	DATA	INDICE	MODIFICHE	VISTO	DATA
00	EMISSION	N.V.	20.10.98				
03	REDRAWN	P.G.	21.03.00				
07	REDRAWN		04/01				
08	REDRAWN		09/07				

ANSALDO

Ansaldo Trasporti s.p.a.

AREA MILANO	DIS.	P. GAL	
	PROG.		
	ENTE ING/PEV	CONTR. RESP. UFF.	

APPARATUS LIST

237VE05680C01

MOD.
08

SOSTITUISCE
SOSTITUITO DA

F. 42
SEGU. F. 43

POS	LABEL	DESCRIPTION	MODE / CHARACTERISTIC	SPECIFICATION	Sh.	POSITION	REMARKS
417	2R37	HOT AIR HAND DRYER			16		LOCATED IN THE FRAME BMa
418							
419							
420	2R61/1	HEATING SIDE MIRROR RESISTOR			20		LOCATED IN THE FRAME BMa
421	2R61/2	HEATING SIDE MIRROR RESISTOR			20		LOCATED IN THE FRAME BMa
422	2R62/1	HEATING CAB DRIVER FLOOR RESISTOR					
423	2R62/2	HEATING CAB DRIVER FLOOR RESISTOR					
424	2R63/1	HEATING UPPER DOOR 1 STEP RESISTOR			20		LOCATED IN THE FRAME BMa
425	2R63/2	HEATING BELOW DOOR 1 STEP RESISTOR			20		LOCATED IN THE FRAME BMa
426	2R63/3	HEATING UPPER DOOR 2 STEP RESISTOR			20		LOCATED IN THE FRAME BMa
427	2R63/4	HEATING BELOW DOOR 2 STEP RESISTOR			20		LOCATED IN THE FRAME BMa
428	2R63/5	HEATING UPPER DOOR 3 STEP RESISTOR			20		LOCATED IN THE FRAME BMa
429	2R63/6	HEATING BELOW DOOR 3 STEP RESISTOR			20		LOCATED IN THE FRAME BMa
430	2R63/7	HEATING UPPER DOOR 4 STEP RESISTOR			20		LOCATED IN THE FRAME BMa
431	2R63/8	HEATING BELOW DOOR 4 STEP RESISTOR			20		LOCATED IN THE FRAME BMa
432	2R63/9	HEATING DISPLAY 1 RESISTOR			20		LOCATED IN THE FRAME BMa
433	2R63/10	HEATING DISPLAY 2 RESISTOR			20		LOCATED IN THE FRAME BMa
434							
435	2R65/1	HEATING WINDSCREEN (SIDE A) RESISTOR			21		LOCATED IN THE FRAME BMa
436	2R65/2	HEATING WINDSCREEN (SIDE B) RESISTOR			21		LOCATED IN THE FRAME BMa
437							
438	2R67	HEATING SIDE WINDOW (SIDE RIGHT) RESISTOR			21		LOCATED IN THE FRAME BMa
439	2R68	HEATING SIDE WINDOW (SIDE LEFT) RESISTOR			21		LOCATED IN THE FRAME BMa
440							
441	2R73/1	HEATING DOOR 1 STEP RESISTOR			22		LOCATED IN THE FRAME BP
442	2R73/2	HEATING DOOR 2 STEP RESISTOR			22		LOCATED IN THE FRAME BP
443	2R73/3	HEATING DOOR 3 STEP RESISTOR			22		LOCATED IN THE FRAME BP
444	2R73/4	HEATING DOOR 4 STEP RESISTOR			22		LOCATED IN THE FRAME BP
445	2R73/5	HEATING DISPLAY 1 RESISTOR			22		LOCATED IN THE FRAME BP
446	2R73/6	HEATING DISPLAY 2 RESISTOR			22		LOCATED IN THE FRAME BP
447							
448							

INDICE	MODIFICHE	VISTO	DATA	INDICE	MODIFICHE	VISTO	DATA
00	EMISSION	N.V.	20.10.98				
02	REDRAWN	P.G.	21.03.00				
07	REDRAWN		04/01				

ANSALDO
Ansaldo Trasporti s.p.a.

AREA MILANO	DIS. PROG.	P. GAL	
ENTE ING/PEV	CONTR.		
	RESP. UFF.		

APPARATUS LIST

237VE05680C01	MOD. 07
SOSTITUISCE	F. 43
SOSTITUITO DA	SEGU. F. 44

POS	LABEL	DESCRIPTION	MODE / CHARACTERISTIC	SPECIFICATION	Sh.	POSITION	REMARKS
449	2R76/1	HEATING DOOR 1 STEP RESISTOR			23		LOCATED IN THE FRAME BC
450	2R76/2	HEATING DOOR 2 STEP RESISTOR			23		LOCATED IN THE FRAME BC
451	2R76/3	HEATING DOOR 3 STEP RESISTOR			23		LOCATED IN THE FRAME BC
452	2R76/4	HEATING DOOR 4 STEP RESISTOR			23		LOCATED IN THE FRAME BC
453	2R76/5	HEATING DISPLAY 1 RESISTOR			23		LOCATED IN THE FRAME BC
454	2R76/6	HEATING DISPLAY 2 RESISTOR			23		LOCATED IN THE FRAME BC
455	2R78	HEATING WATER TANK RESISTOR			24		LOCATED ON THE IMPERIAL BC
456	2R79	HEATING WATER COLLECTOR RESISTOR			24		LOCATED ON THE IMPERIAL BC
457	2R80	BOILER RESISTOR			24		LOCATED IN THE FRAME BC
458	2R81/1	HEATING DEVICE WC RESISTOR			24		LOCATED IN THE FRAME BC
459	2R81/2	HEATING DEVICE WC RESISTOR			24		LOCATED IN THE FRAME BC
460	2R82/1	HEATING DEVICE WC RESISTOR			24		LOCATED IN THE FRAME BC
461	2R82/2	HEATING DEVICE WC RESISTOR			24		LOCATED IN THE FRAME BC
462	2R83/1	HEATING DEVICE WC RESISTOR			24		LOCATED IN THE FRAME BC
463	2R83/2	HEATING DEVICE WC RESISTOR			24		LOCATED IN THE FRAME BC
464	2R84/1	HEATING DEVICE WATER RESISTOR			24		LOCATED ON THE IMPERIAL BC
465	2R84/2	HEATING DEVICE WATER RESISTOR			24		LOCATED ON THE IMPERIAL BC
466	2R85/1	HEATING SIDE MIRROR RESISTOR			25		LOCATED IN THE frame BMb
467	2R85/2	HEATING SIDE MIRROR RESISTOR			25		LOCATED IN THE frame BMb
468	2R86/1	HEATING CAB DRIVER FLOOR RESISTOR			25		LOCATED IN THE frame BMb
469	2R86/2	HEATING CAB DRIVER FLOOR RESISTOR			25		LOCATED IN THE frame BMb
470	2R87/1	HEATING UPPER DOOR 1 STEP RESISTOR			25		LOCATED IN THE frame BMb
471	2R87/2	HEATING BELOW DOOR 1 STEP RESISTOR			25		LOCATED IN THE frame BMb
472	2R87/3	HEATING UPPER DOOR 2 STEP RESISTOR			25		LOCATED IN THE frame BMb
473	2R87/4	HEATING BELOW DOOR 2 STEP RESISTOR			25		LOCATED IN THE frame BMb
474	2R87/5	HEATING UPPER DOOR 3 STEP RESISTOR			25		LOCATED IN THE frame BMb
475	2R87/6	HEATING BELOW DOOR 3 STEP RESISTOR			25		LOCATED IN THE frame BMb
476	2R87/7	HEATING UPPER DOOR 4 STEP RESISTOR			25		LOCATED IN THE frame BMb
477	2R87/8	HEATING BELOW DOOR 4 STEP RESISTOR			25		LOCATED IN THE frame BMb
478	2R87/9	HEATING DISPLAY 1 RESISTOR			25		LOCATED IN THE frame BMb
479	2R87/10	HEATING DISPLAY 2 RESISTOR			25		LOCATED IN THE frame BMb
480							

INDICE	MODIFICHE	VISTO	DATA	INDICE	MODIFICHE	VISTO	DATA
00	EMISSION	N.V.	20.10.98				
02	REDRAWN	P.G.	21.03.00				
07	REDRAWN		04/01				

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AREA MILANO	DIS. PROG.	P. GAL	
ENTE ING/PEV	CONTR.		
	RESP. UFF.		

APPARATUS LIST

237VE05680C01
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SOSTITUISCE
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F. 44
SEGU. F. 45

POS	LABEL	DESCRIPTION	MODE / CHARACTERISTIC	SPECIFICATION	Sh.	POSITION	REMARKS
481	2R89/1	HEATING WINDSCREEN (SIDE A) RESISTOR			26		LOCATED IN THE FRAME BMb
482	2R89/2	HEATING WINDSCREEN (SIDE B) RESISTOR			26		LOCATED IN THE FRAME BMb
483							
484	2R91	HEATING SIDE WINDOW (SIDE RIGHT) RESISTOR			26		LOCATED IN THE FRAME BMb
485	2R92	HEATING SIDE WINDOWS (SIDE LEFT) RESISTOR			26		LOCATED IN THE FRAME BMb
486							
487	2T01	CAB DRIVER REFREGERATOR TRANSFORMER	400/230 Vac - 50Hz - 500VA	211VT00969B01	14		LOCATED IN THE FRAME BMa
488	2T02	WC LOADS TRANSFORMER	400/230 Vac - 50Hz - 2,5kVA	211VT00969B02	16	INSIDE QMT1	LOCATED IN THE FRAME BC
489	2T03	CAB DRIVER REFREGERATOR TRANSFORMER	400/230 Vac - 50Hz - 500VA	211VT00969B01	18		LOCATED IN THE FRAME BMb
490	2T04	AREA CATERING TRANSFORMER	400/230 Vac - 50Hz - 2,5kVA	211VT00969B02	16		LOCATED IN THE FRAME BP
491	2T62/1	CAB DRIVER FLOOR RESISTOR THERMO CUT-OUT			20	INSIDE 2R62/1	LOCATED IN THE FRAME BMa
492	2T62/2	CAB DRIVER FLOOR RESISTOR THERMO CUT-OUT			20	INSIDE 2R62/2	LOCATED IN THE FRAME BMa
493	2T63/1	STEP DOOR 1 RESISTOR THERMO CUT-OUT			20	INSIDE 2R63/1	LOCATED IN THE FRAME BMa
494	2T63/2	STEP DOOR 1 RESISTOR THERMO CUT-OUT			20	INSIDE 2R63/2	LOCATED IN THE FRAME BMa
495	2T63/3	STEP DOOR 2 RESISTOR THERMO CUT-OUT			20	INSIDE 2R63/3	LOCATED IN THE FRAME BMa
496	2T63/4	STEP DOOR 2 RESISTOR THERMO CUT-OUT			20	INSIDE 2R63/4	LOCATED IN THE FRAME BMa
497	2T63/5	STEP DOOR 3 RESISTOR THERMO CUT-OUT			20	INSIDE 2R63/5	LOCATED IN THE FRAME BMa
498	2T63/6	STEP DOOR 3 RESISTOR THERMO CUT-OUT			20	INSIDE 2R63/6	LOCATED IN THE FRAME BMa
499	2T63/7	STEP DOOR 4 RESISTOR THERMO CUT-OUT			20	INSIDE 2R63/7	LOCATED IN THE FRAME BMa
500	2T63/8	STEP DOOR 4 RESISTOR THERMO CUT-OUT			20	INSIDE 2R63/8	LOCATED IN THE FRAME BMa
501							
502	2T73/1	STEP DOOR 1 RESISTOR THERMO CUT-OUT			22	INSIDE 2R73/1	LOCATED IN THE FRAME BP
503	2T73/2	STEP DOOR 2 RESISTOR THERMO CUT-OUT			22	INSIDE 2R73/2	LOCATED IN THE FRAME BP
504	2T73/3	STEP DOOR 3 RESISTOR THERMO CUT-OUT			22	INSIDE 2R73/3	LOCATED IN THE FRAME BP
505	2T73/4	STEP DOOR 4 RESISTOR THERMO CUT-OUT			22	INSIDE 2R73/4	LOCATED IN THE FRAME BP
506							
507	2T76/1	STEP DOOR 1 RESISTOR THERMO CUT-OUT			23	INSIDE 2R76/1	LOCATED IN THE FRAME BC
508	2T76/2	STEP DOOR 2 RESISTOR THERMO CUT-OUT			23	INSIDE 2R76/2	LOCATED IN THE FRAME BC
509	2T76/3	STEP DOOR 3 RESISTOR THERMO CUT-OUT			23	INSIDE 2R76/3	LOCATED IN THE FRAME BC
510	2T76/4	STEP DOOR 4 RESISTOR THERMO CUT-OUT			23	INSIDE 2R76/4	LOCATED IN THE FRAME BC
511	2T76/7	STEP DOOR 3 RESISTOR THERMO CUT-OUT			23	INSIDE 2R76/3	LOCATED IN THE FRAME BC
512	2T76/8	STEP DOOR 4 RESISTOR THERMO CUT-OUT			23	INSIDE 2R76/4	LOCATED IN THE FRAME BC

INDICE	MODIFICHE	VISTO	DATA	INDICE	MODIFICHE	VISTO	DATA
00	EMISSION	N.V.	20.10.98				
03	REDRAWN	P.G.	21.03.00				
07	REDRAWN		04/01				

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AREA MILANO	DIS.	P. GAL	
	PROG.		
	ENTE ING/PEV	CONTR. RESP. UFF.	

APPARATUS LIST

237VE05680C01
MOD. 07
SOSTITUISCE
SOSTITUITO DA
F. 45
SEGU. F. 46

POS	LABEL	DESCRIPTION	MODE / CHARACTERISTIC	SPECIFICATION	Sh.	POSITION	REMARKS
513	2R76/7	HEATING MOBILE STEEP			23		LOCATED IN THE FRAME.- BC
514	2R76/8	HEATING MOBILE STEEP			23		LOCATED IN THE FRAME.- BC
515	2R76/9	HEATING MOBILE STEEP			23		LOCATED IN THE FRAME.- BC
516	2R76/10	HEATING MOBILE STEEP			23		LOCATED IN THE FRAME.- BC
517							
518	2T86/1	CAB DRIVER FLOOR RESISTOR THERMO CUT-OUT			25	INSIDE 2R86/1	LOCATED IN THE FRAME.- BMb
519	2T86/2	CAB DRIVER FLOOR RESISTOR THERMO CUT-OUT			25	INSIDE 2R86/2	LOCATED IN THE FRAME.- BMb
520	2T87/1	STEP DOOR 1 RESISTOR THERMO CUT-OUT			25	INSIDE 2R87/1	LOCATED IN THE FRAME.- BMb
521	2T87/2	STEP DOOR 1 RESISTOR THERMO CUT-OUT			25	INSIDE 2R87/2	LOCATED IN THE FRAME.- BMb
522	2T87/3	STEP DOOR 2 RESISTOR THERMO CUT-OUT			25	INSIDE 2R87/3	LOCATED IN THE FRAME.- BMb
523	2T87/4	STEP DOOR 2 RESISTOR THERMO CUT-OUT			25	INSIDE 2R87/4	LOCATED IN THE FRAME.- BMb
524	2T87/5	STEP DOOR 3 RESISTOR THERMO CUT-OUT			25	INSIDE 2R87/5	LOCATED IN THE FRAME.- BMb
525	2T87/6	STEP DOOR 3 RESISTOR THERMO CUT-OUT			25	INSIDE 2R87/6	LOCATED IN THE FRAME.- BMb
526	2T87/7	STEP DOOR 4 RESISTOR THERMO CUT-OUT			25	INSIDE 2R87/7	LOCATED IN THE FRAME.- BMb
527	2T87/8	STEP DOOR 4 RESISTOR THERMO CUT-OUT			25	INSIDE 2R87/8	LOCATED IN THE FRAME.- BMb
528	2T87/9	STEP DOOR 3 RESISTOR THERMO CUT-OUT			23	INSIDE 2R87/6	LOCATED IN THE FRAME.- BC
529	2T87/10	STEP DOOR 4 RESISTOR THERMO CUT-OUT			23	INSIDE 2R87/8	LOCATED IN THE FRAME.- BC
530							
531							
532	2X01	M.V. SUPPLY INLET SOCKET	CEE/17 63A (3P+T)	211VX00961B01	12		LOCATED EXTERNAL FRAME.- BMa
533	2X02	M.V. SUPPLY INLET SOCKET	CEE/17 63A (3P+T)	211VX00961B01	12		LOCATED EXTERNAL FRAME.- BMb
534	2X03	VACUUM CLEANER SOCKET			20		LOCATED IN THE FRAME BMa
535	2X04	VACUUM CLEANER SOCKET			20		LOCATED IN THE FRAME BMa
536	2X05	VACUUM CLEANER SOCKET			22		LOCATED IN THE FRAME BP
537	2X06	VACUUM CLEANER SOCKET			22		LOCATED IN THE FRAME BP
538	2X07	VACUUM CLEANER SOCKET			23		LOCATED IN THE FRAME BC
539	2X08	VACUUM CLEANER SOCKET			23		LOCATED IN THE FRAME BC
540	2X09	VACUUM CLEANER SOCKET			25		LOCATED IN THE FRAME BMb
541	2X10	VACUUM CLEANER SOCKET			25		LOCATED IN THE FRAME BMb
542							
543	2X37	CATERING AREA SOCKET			16		LOCATED IN THE FRAME BC
544	2X38	CATERING AREA SOCKET			16		LOCATED IN THE FRAME BC

INDICE	MODIFICHE	VISTO	DATA	INDICE	MODIFICHE	VISTO	DATA
00	EMISSION	N.Y.	20.10.98				
02	REDRAWN	P.G.	21.03.00				
07	REDRAWN		04/01				

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ENTE ING/PEV	CONTR. RESP. UFF.		

APPARATUS LIST

237VE05680C01	MOD. 07
SOSTITUISCE	F. 46
SOSTITUITO DA	SEGU. F. 47

POS	LABEL	DESCRIPTION	MODE / CHARACTERISTIC	SPECIFICATION	Sh.	POSITION	REMARKS
545	2X36	REFRIGERATOR CAB DRIVER			18		LOCATED IN THE FRAME.- BMb
546	2X20	CAB AT SOCKET			27		LOCATED IN THE FRAME.- BMa
547	2X21	CAB DRIVER SOCKET			27		LOCATED IN THE FRAME.- BMa
548	2X22	CAB DRIVER SOCKET			27		LOCATED IN THE FRAME.- BMa
549	2X23	TECHNICAL CABINET SOCKET			27		LOCATED IN THE FRAME.- BMa
550	2X24	TECHNICAL CABINET SOCKET			27		LOCATED IN THE FRAME.- BMa
551	2X25	TECHNICAL CABINET SOCKET			27		LOCATED IN THE FRAME.- BP
552	2X26	TECHNICAL CABINET SOCKET			27		LOCATED IN THE FRAME.- BC
553	2X27	SHAVER SOCKET			27		LOCATED IN THE FRAME.- BC
554	2X28	CATERING AREA SOCKET			27		LOCATED IN THE FRAME.- BC
555	2X29	WHEELCHAIR SOCKET			27		LOCATED IN THE FRAME.- BC
556	2X30	TECHNICAL CABINET SOCKET			27		LOCATED IN THE FRAME.- BC
557	2X31	TECHNICAL CABINET SOCKET			27		LOCATED IN THE FRAME.- BMb
558	2X32	CAB DRIVER SOCKET			27		LOCATED IN THE FRAME.- BMb
559	2X33	CAB DRIVER SOCKET			27		LOCATED IN THE FRAME.- BMb
560	2X34	CAB AT SOCKET			27		LOCATED IN THE FRAME.- BMb
561	2X35	REFRIGERATOR CAB DRIVER			14		LOCATED ON THE IMPERIAL BMa
562	3A19	AIR CONDITIONING UNIT "DRIVER CAB"			09		LOCATED ON THE IMPERIAL BMa
563	3A19-E1				09	INSIDE QAT	LOCATED IN THE FRAME BMa
564	3E66-F2	CONVECTION HEATER RESISTOR FWE			09	INSIDE QAT	LOCATED IN THE FRAME BMa
565	3E66-F3	ELECTRIC HEATER RESISTOR FWE			09	INSIDE QAT	LOCATED IN THE FRAME BMa
566	3E66-K01	ELECTRIC HEATER RESISTOR CONTACTOR			09	INSIDE QAT	LOCATED IN THE FRAME BMa
567	3E66-K02	ELECTRIC HEATER RESISTOR CONTACTOR			09	INSIDE QAT	LOCATED IN THE FRAME BMa
568	3E66-K03	CONVECTION HEATER RESISTOR CONTACTOR			10		LOCATED ON THE IMPERIAL BMb
569	3A19	AIR CONDITIONING UNIT "DRIVER CAB"			10		LOCATED ON THE IMPERIAL BMb
570	3A19-E1	CONVECTION HEATER RESISTOR			10	INSIDE QAT	LOCATED IN THE FRAME BMb
571	3E66-F2	CONVECTION HEATER RESISTOR FWE	FERRAZ RB10A		10	INSIDE QAT	LOCATED IN THE FRAME BMb
572	3E66-F3	ELECTRIC HEATER RESISTOR FWE	FERRAZ RB 6A		10	INSIDE QAT	LOCATED IN THE FRAME BMb
573	3E66-K01	ELECTRIC HEATER RESISTOR CONTACTOR			10	INSIDE QAT	LOCATED IN THE FRAME BMb
574	3E66-K02	ELECTRIC HEATER RESISTOR CONTACTOR			10	INSIDE QAT	LOCATED IN THE FRAME BMb
575	3E66-K03	CONVECTION HEATER RESISTOR CONTACTOR			10		LOCATED IN THE FRAME BC
576	3E68	CATERING AREA SOCKET			28		LOCATED IN THE FRAME BMa

INDICE	MODIFICHE	VISTO	DATA	INDICE	MODIFICHE	VISTO	DATA
00	EMISSION	N.V.	20.10.98				
03	REDRAWN	P.G.	21.03.00				
07	REDRAWN		04/01				

ANSALDO
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AREA MILANO	DIS. PROG.	P. GAL	
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APPARATUS LIST

237VE05680C01

MOD.
07

SOSTITUISCE
SOSTITUITO DA

F. 47
SEGU. F. 48

POS	LABEL	DESCRIPTION	MODE / CHARACTERISTIC	SPECIFICATION	Sh.	POSITION	REMARKS
577	3A20	AIR CONDITIONING UNIT "PASSENGERS"			09-28		LOCATED ON THE IMPERIAL BMa
578	W1A/B	HEATER PASSENGERS SALOON 1			09		LOCATED IN THE FRAME.- BMa
579	W2C/D W3C/D	HEATER PASSENGERS SALOON 2			09		LOCATED IN THE FRAME.- BMa
580	W1E/F	HEATER PASSENGERS SALOON 3			09		LOCATED IN THE FRAME.- BMa
581	W4V1/W1	HEATER VESTIBULE 1			09		LOCATED IN THE FRAME.- BMa
582	W4V/W	HEATER VESTIBULE 2			09		LOCATED IN THE FRAME.- BMa
583	3E68	MV/LV CONTROL PANEL			28		LOCATED IN THE FRAME.- BMa
584	3A20	AIR CONDITIONING UNIT "PASSENGERS"			09-28		LOCATED ON THE IMPERIAL BP
585	W5E/W8E/W10F	HEATER PASSENGERS SALOON 3			09		LOCATED IN THE FRAME.- BP
586	W5A/B W8A/B	HEATER PASSENGERS SALOON 1			09		LOCATED IN THE FRAME.- BP
587	W6C/D	HEATER PASSENGERS SALOON 2			09		LOCATED IN THE FRAME.- BP
588	W4V1/W4W1	HEATER VESTIBULE 1			09		LOCATED IN THE FRAME.- BP
589	W4V2/W2	HEATER VESTIBULE 2			09		LOCATED IN THE FRAME.- BP
590	3E68	MV/LV CONTROL PANEL			29		LOCATED IN THE FRAME.- BC
591	3A20	AIR CONDITIONING UNIT "PASSENGERS"			10-29		LOCATED ON THE IMPERIAL BC
592	W5A/B W8A/B	HEATER PASSENGERS SALOON 1			10		
593	W9C/D	HEATER PASSENGERS SALOON 2			10		
594	W5E/W8E/W10F	HEATER PASSENGERS SALOON 3			10		
595	W4V1/W1	HEATER VESTIBULE 1			10		
596	W4V2/W2	HEATER VESTIBULE 2			10		
597	W7T	HEATER TOILETTE			10		
598	3E68	MV/LV CONTROL PANEL			29		LOCATED IN THE FRAME BMb
599	3A20	AIR CONDITIONING UNIT "PASSENGERS"			10-29		LOCATED ON THE IMPERIAL BMb
600	W1A/B	HEATER PASSENGERS SALOON 1			10		LOCATED IN THE FRAME BMb
601	W2C/D W3C/D	HEATER PASSENGERS SALOON 2			10		LOCATED IN THE FRAME BMb
602	W1E/W1F	HEATER PASSENGERS SALOON 3			10		LOCATED IN THE FRAME BMb
603	W4V1/W1	HEATER VESTIBULE 1			10		LOCATED IN THE FRAME BMb
604	W4V2/W2	HEATER VESTIBULE 2			10		LOCATED IN THE FRAME BMb
605	8A13/F01-F02	HV BOX FUSES	xF01:RB32A; xF02:RC40A-FERRAZ		09		LOCATED ON THE IMPERIAL BMa
606	8A13/F01-F02	HV BOX FUSES	xF01:RB32A; xF02:RC40A-FERRAZ		09		LOCATED ON THE IMPERIAL BP
607	8A13/F01-F02	HV BOX FUSES	xF01:RB32A; xF02:RC40A-FERRAZ		10		LOCATED ON THE IMPERIAL BMb
608	8A13/F01-F02	HV BOX FUSES	xF01:RB32A; xF02:RC40A-FERRAZ		10		LOCATED ON THE IMPERIAL BC

INDICE	M O D I F I C H E		VISTO	DATA	INDICE	M O D I F I C H E		VISTO	DATA
00	EMISSION		P.G.	21/03/00					
07	REDRAW			04/01					

ANSALDO
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AREA MILANO	DIS. P. GAL	
PROG.		
ENTE ING/PEV	CONTR.	
	RESP. UFF.	

APPARATUS LIST

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MOD.
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SOSTITUISCE

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SOSTITUITO DA

SEGUE F. —