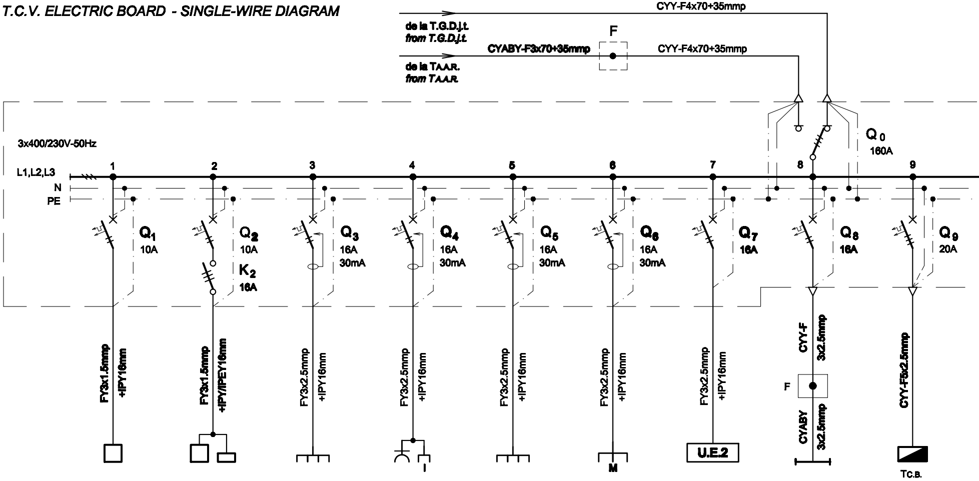
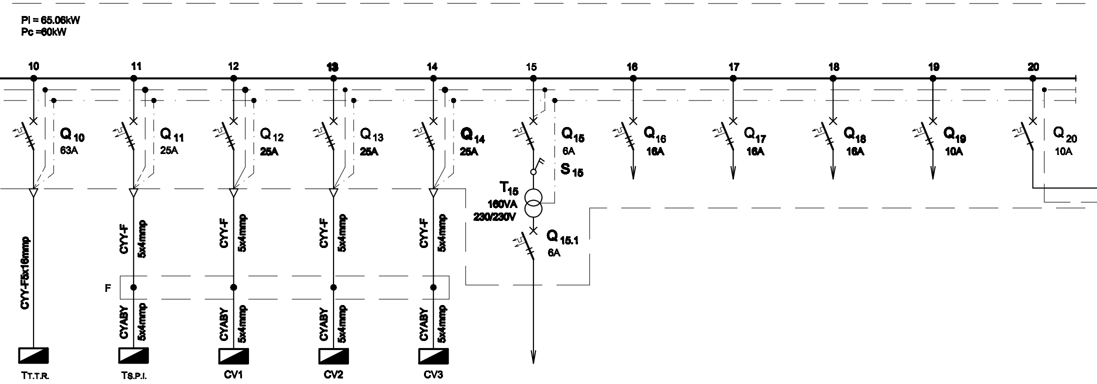
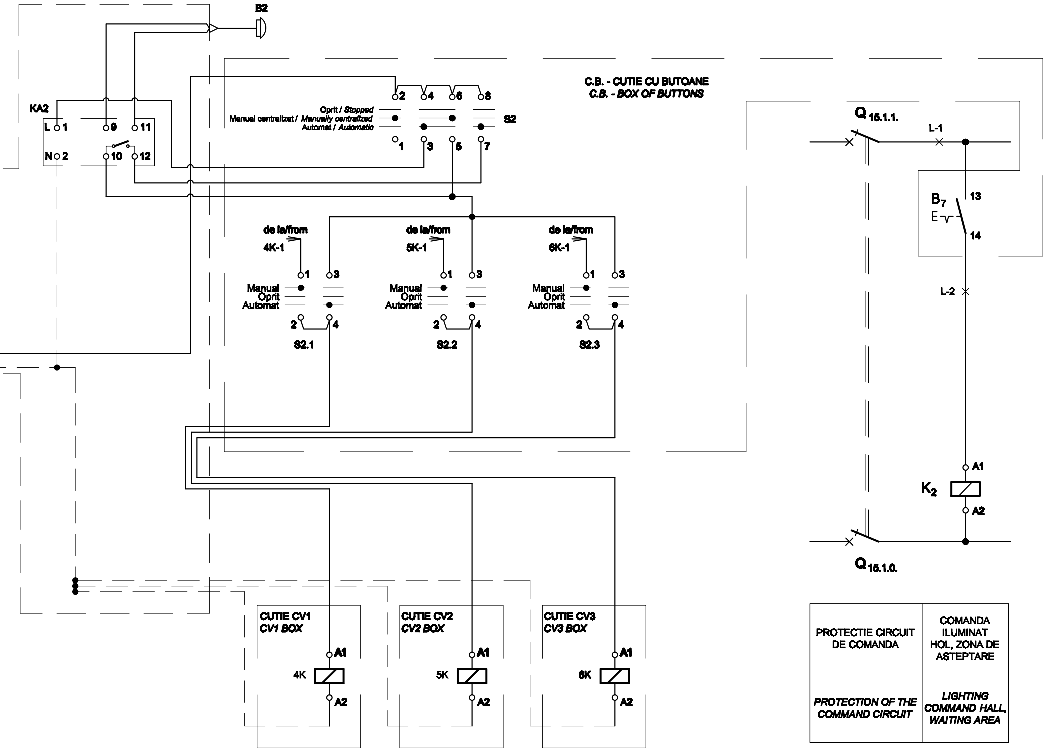
TABLOU ELECTRIC T.C.V. - SCHEMA MONOFILARA
T.C.V. ELECTRIC BOARD - SINGLE-WIRE DIAGRAM


CYY-F4x70+35mmp
de la T.G.D.j.t.
from T.G.D.j.t.
F
CYABY-F3x70+35mmp
CYY-F4x70+35mmp
de la T.A.A.R.
from T.A.A.R.
Q 0
160A
3x400/230V-50Hz
L1,L2,L3
N
PE
1
2
3
4
5
6
7
8
9
Q1
10A
Q2
10A
K2
16A
Q3
16A
30mA
Q4
16A
30mA
Q5
16A
30mA
Q6
16A
30mA
Q7
16A
Q8
16A
Q9
20A
FY3x1.5mmp
+IPY16mm
FY3x1.5mmp
+IPY/IPEY16mm
FY3x2.5mmp
+IPY16mm
FY3x2.5mmp
+IPY16mm
FY3x2.5mmp
+IPY16mm
FY3x2.5mmp
+IPY16mm
FY3x2.5mmp
+IPY16mm
CYY-F
3x2.5mmp
F
CYABY
3x2.5mmp
CYY-F5x2.5mmp
I
M
U.E.2
Tc.B.

Nr. circuit *Circuit number*	1	2	3	4	5	6	7	8	9
Pi [kW]	0.2	0.55	2	2	2	2	2	1.7	6.15
Destinatia *Destination*	BIROU MISCARE *OFFICE* 2LL / *Lamps*	SALA DE ASTEPTARE, HOL *WAITING ROOM, HALL* 6LL / *Lamps*	DISTRICT "L" 6 APATA *"L6 APATA" DISTRICT* 5LP / *Sockets outlet*	BIROU MISCARE, SALA DE ASTEPTARE *OFFICE, WAITING ROOM* 2LP / *Sockets outlet*	BIROU MISCARE *OFFICE* 4LP / *Sockets outlet*	BIROU MISCARE, SALA DE ASTEPTARE *OFFICE, WAITING ROOM* 2LP / *Sockets outlet*	UNITATE EXTERIOARA DE CLIMATIZARE SISTEM MONOSPLIT *OUTDOOR UNIT AIR CONDITIONING SYSTEM MONOSPLIT* 1Buc. / *Piece*	ILUMINAT TUNEL PIETONAL *PEDESTRIAN TUNNEL LIGHTING* 34LL / Lamps	CASIERIE TABLOU ELECTRIC - T.C.B. *CASH OFFICE* *ELECTRIC BOARD - T C.B.*


Pi = 65.06kW
Pc =60kW
10
11
12
13
14
15
16
17
18
19
20
Q 10
63A
Q 11
25A
Q 12
25A
Q 13
25A
Q 14
25A
Q 15
6A
S 15
T 15
160VA
230/230V
Q 15.1
6A
Q 16
16A
Q 17
16A
Q 18
16A
Q 19
10A
Q 20
10A
CYY-F5x16mmp
CYY-F
5x4mmp
F
CYABY
5x4mmp
TT.T.R.
TS.P.I.
CV1
CV2
CV3

10	11	12	13	14	15	16	17	18	19	20
27.9	4.6	2.6	2.6	1.2	0.16	3	2	2	1	-
TABLOU ELECTRIC - T T.T.R. *ELECTRIC BOARD - T T.T.R.*	STATIE POMPE INCENDIU TABLOU ELECTRIC - T S.P.I. *FIRE PUMPING STATION ELECTRIC BOARD - T S.P.I.*	CUTIE ETANSA PENTRU COPERTINA - CV1 *SEALED BOX FOR CANOPY - CV1*	CUTIE ETANSA PENTRU COPERTINA - CV2 *SEALED BOX FOR CANOPY - CV2*	CUTIE ETANSA PENTRU COPERTINA - CV3 *SEALED BOX FOR CANOPY - CV3*	CIRCUIT COMANDA ILUMINAT INTERIOR *COMMAND CIRCUIT INDOOR LIGHTING*	REZERVA MONOFAZATA *THREE-PHASE RESERVE*	REZERVA MONOFAZATA *SINGLE-PHASE RESERVE*	REZERVA MONOFAZATA *SINGLE-PHASE RESERVE*	REZERVA MONOFAZATA *SINGLE-PHASE RESERVE*	CIRCUIT COMANDA ILUMINAT EXTERIOR *COMMAND CIRCUIT OUTDOOR LIGHTING*


B2
KA2
L 1
9
11
N 2
10
12
C.B. - CUTIE CU BUTOANE
C.B. - BOX OF BUTTONS
2
4
6
8
Oprit / *Stopped*
Manual centralizat / *Manually centralized*
Automat / *Automatic*
S2
1
3
5
7
Q 15.1.1.
L-1
B7
13
14
L-2
de la/from 4K-1
1
3
Manual
Oprit
Automat
2
4
S2.1
de la/from 5K-1
1
3
Manual
Oprit
Automat
2
4
S2.2
de la/from 6K-1
1
3
Manual
Oprit
Automat
2
4
S2.3
A1
K2
A2
Q 15.1.0.
CUTIE CV1
CV1 BOX
A1
4K
A2
CUTIE CV2
CV2 BOX
A1
5K
A2
CUTIE CV3
CV3 BOX
A1
6K
A2

PROTECTIE CIRCUIT DE COMANDA *PROTECTION OF THE COMMAND CIRCUIT*	COMANDA ILUMINAT HOL, ZONA DE ASTEPTARE *LIGHTING COMMAND HALL, WAITING AREA*

TABLOU ELECTRIC T.C.V. - SPECIFICATIE DE APARATAJ / *T.C.V. ELECTRIC BOARD - EQUIPMENT SPECIFICATION*

Nr. *No.*	Simbol *Symbol*	Denumirea aparatului *Equipment denomination*	Caracteristici tehnice *Technical data*	Buc. *Pcs.*	Observatii *Remarks*
0	1	2	3	4	5
1	Q0	Inversor de sursa tripolar *Three-poles source change-over switch*	In=160A Un=400V Uimp=8kV f=50Hz Icm=2,2kA	1	
2	Q1,Q2	Intrerupator automat bipolar, curba B *Two-poles circuit breaker, curve B*	In=10A Un=230V Icu=6kA f=50Hz	2	
3	Q3,...,Q6	Intrerupator automat bipolar cu protectie la curent diferential rezidual, curba C *Two-poles circuit breaker with protection at residual differential current device, curve C*	In=16A Un=230V Icu=6kA f=50Hz IΔn=0,03A Tip A Nivel de imunitate 250A la forma de unda 8/20 μS *Level of immunity 250A to wave form 8/20 μS*	4	
4	Q7,Q17,Q18	Intrerupator automat bipolar, curba C *Two-poles circuit breaker, curve C*	In=16A Un=230V Icu=6kA f=50Hz	3	
5	Q9	Intrerupator automat tripolar, curba C *Three-poles circuit breaker, curve C*	In=20A Un=400V Icu=6kA f=50Hz	1	
6	Q10	Intrerupator automat tripolar, curba C *Three-poles circuit breaker, curve C*	In=63A Un=400V Icu=6kA f=50Hz	1	
7	Q11,Q12, Q13,Q14	Intrerupator automat tripolar, curba C *Three-poles circuit breaker, curve C*	In=25A Un=400V Icu=6kA f=50Hz	4	
8	Q8	Intrerupator automat bipolar, curba B *Two-poles circuit breaker, curve B*	In=16A Un=230V Icu=6kA f=50Hz	1	
9	Q19	Intrerupator automat bipolar, curba C *Two-poles circuit breaker, curve C*	In=10A Un=230V Icu=6kA f=50Hz	1	
10	KA2	Intrerupator crepuscular *Twilight switch*	Un=230V In=10A E=2...60lx f=50Hz Tf=-25°C...+55°C	1	
0	1	2	3		
11	Q16	Intrerupator automat tripolar, curba C *Three-poles circuit breaker, curve C*	In=16A Un=400V Icu=6kA f=50Hz		
12	Q20	Intrerupator automat monopolar, curba D / *Single-pole circuit breaker, curve D*	In=10A Un=230V f=50Hz Icu=6kA		
13	B2	Celula fotoelectrica *Photoelectric cell*	Tf=-40°C...+70°C IP66		
14	Q15,Q15.1	Intrerupator automat bipolar, curba D *Two-poles circuit breaker, curve D*	In=6A Un=230V f=50Hz Icu=10kA		
15	T15	Transformator monofazat uscat de comanda / *Single-phase dry-type command transformer*	Sn=160VA U1n=230V U2n=230V f=50Hz		
16	B7	Buton de comanda luminos cu retinere / *Light command button with retainer*	Ui=500V In=6A f=50Hz IP67		
17	L	Clema de racordare *Connection clamp*	Un=660V In=16A f=50Hz		
18	S15	Comutator cu came cu doua pozitii si un etaj / *Cam switch with two positions and one floor*	Un=500V In=16A f=50Hz		
19	S2.1,S2.2,S2.3	Comutator cu came *Cam switch*	Un=230V In=10A f=50Hz		
20	S2	Comutator cu came *Cam switch*	Un=230V In=10A f=50Hz		
21	K2	Contactor electromagnetic tripolar de curent alternativ / *Three-poles electromagnetic a.c. contactor*	In=16A Un=400A Uc=230V f=50Hz		
22	-	Cutie / *Box*	IP54, Clasa I / *Class I*		

4	5
1	
1	
1	
2	
1	
1	Butonul se va monta in C.B. (cutia cu butoane) *Button will be installed in C.B.(box of buttons)*
2	
1	
3	Comutatoarele cu came se vor monta in C.B. (cutia cu butoane) *Cam switchs will be installed in C.B.(box of buttons)*
1	Comutatorul cu came se va monta in C.B. (cutia cu butoane) *Cam switch will be installed in C.B.(box of buttons)*
1	
1	

Indice Index	Data Date	Modificare Modification/Revision	Proiectant Designer	Aprobat Consultant Approved Consultant	Aprobat CFR Approved CFR
D					
C					
B					
A					

GUVERNUL ROMANIEI
ROMANIAN GOVERNMENT

PROIECT FINANŢAT DE UNIUNEA EUROPEANĂ
EUROPEAN UNION FINANCED PROJECT

CFR

C.N.C.F. "C.F.R." - S.A.

CLIENT / CLIENT

ITALFERR
GRUPPO FERROVIE DELLO STATO
Joint Venture leader

Scott Wilson

OBERMEYER
PLANEN + BERATEN GmbH

TECNIC
Consulting Engineers

CONSULTANT / CONSULTANT

			Data Date	Semnătură Signature
Aprobat Approved	Şef proiect Project manager	R. Liuzza	12.2011	
Aprobat Approved	Coordonator Secţiune 1 Section 1 Coordinator	C. Gambelli	12.2011	
Verificat Checked	Expert Verificator Checking Expert	G. Fioravanti	12.2011	

SUBCONTRACTANT / SUBCONTRACTOR

AREX COMPANY

Aprobat Approved	Responsabil Subconsultant Subconsultant Responsible	A.Stanciu - Dinulescu	12.2011	
Întocmit Elaborated	Proiectant Designer	D. Matei	12.2011	

Reabilitarea liniei de cale ferata Braşov - Simeria, parte componentă a coridorului IV Pan European, pentru circulaţia trenurilor cu viteza maximă de 160 km/h,
Tronsonul : Braşov - Sighişoara
Rehabilitation of the railway line Braşov - Simeria, component Part of the IV Pan-European Corridor, for the trains circulation with maximum speed of 160 km/h,
Section : Braşov - Sighişoara

Proiect/Project
2004/RO/16/P/PA/003

Faza / Phase:
D.E. / E.D.

Denumire desen / Drawing Title :

Tablou electric T.C.V. - Staţia Feldioara;
Feldioara station - T.C.V. electric board

Codificare / Codification System	Scara / Scale	LOT / LOT	Nr. / No 01 / 01

E A 5 1 | 0 1 | E | 0 7 | B X | I E | 0 0 | 3 | 1 | 0 4 5 | 1

A3(297x1890)