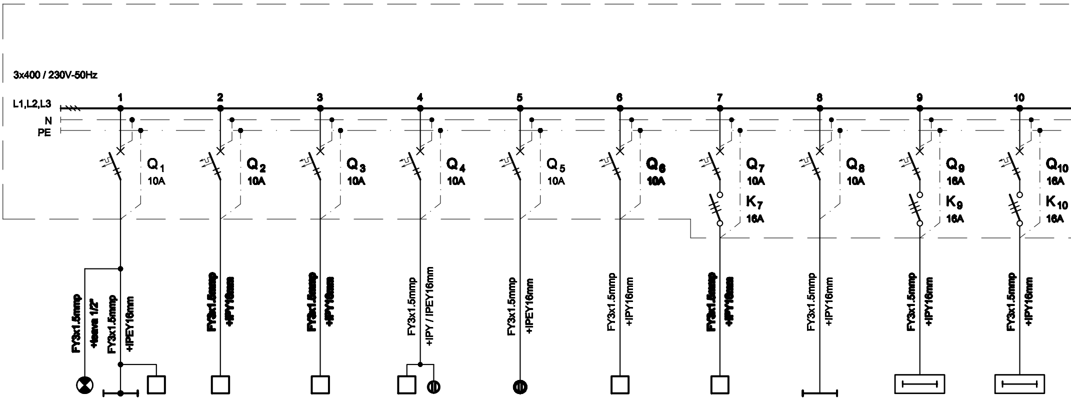
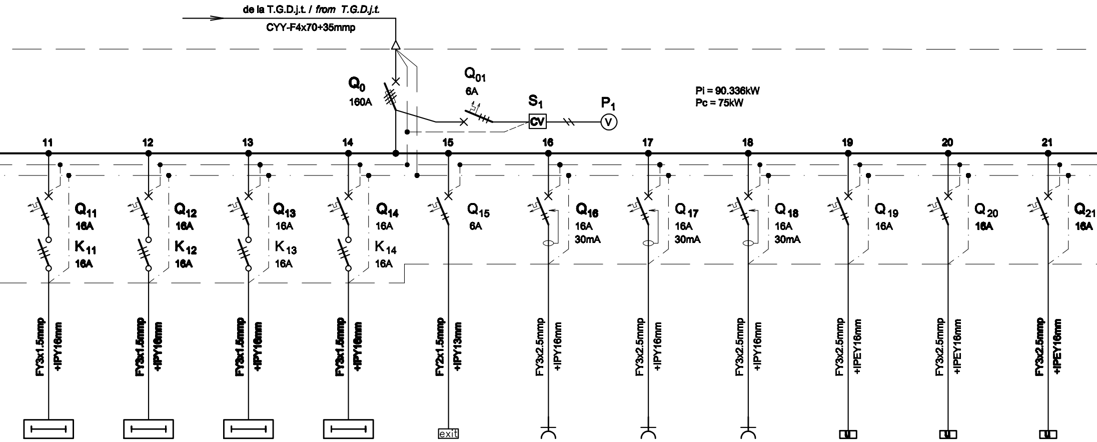
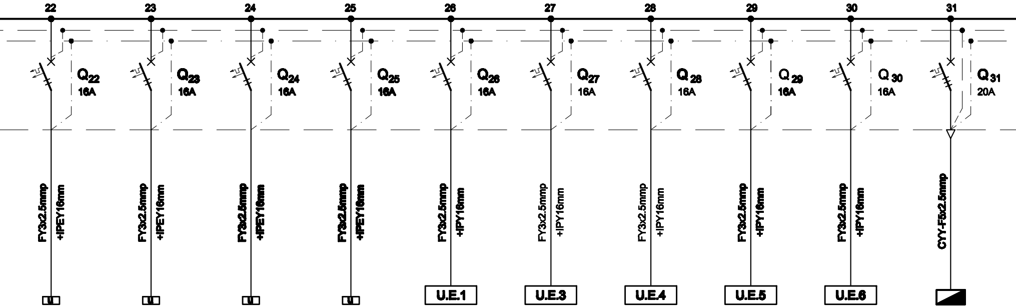
TABLOU ELECTRIC GENERAL T.G. - SCHEMA MONOFILARA
GENERAL ELECTRIC BOARD T.G. - SINGLE-WIRE DIAGRAM


3x400 / 230V-50Hz
L1,L2,L3
N
PE
1
2
3
4
5
6
7
8
9
10
Q1 10A
Q2 10A
Q3 10A
Q4 10A
Q5 10A
Q6 10A
Q7 10A
K7 16A
Q8 10A
Q9 16A
K9 16A
Q10 16A
K10 16A
FY3x1.5mmp +teava 1/2"
FY3x1.5mmp +IPEY16mm
FY3x1.5mmp +IPY16mm
FY3x1.5mmp +IPY16mm
FY3x1.5mmp +IPY / IPEY16mm
FY3x1.5mmp +IPEY16mm
FY3x1.5mmp +IPY16mm
FY3x1.5mmp +IPY16mm
FY3x1.5mmp +IPY16mm
FY3x1.5mmp +IPY16mm
FY3x1.5mmp +IPY16mm

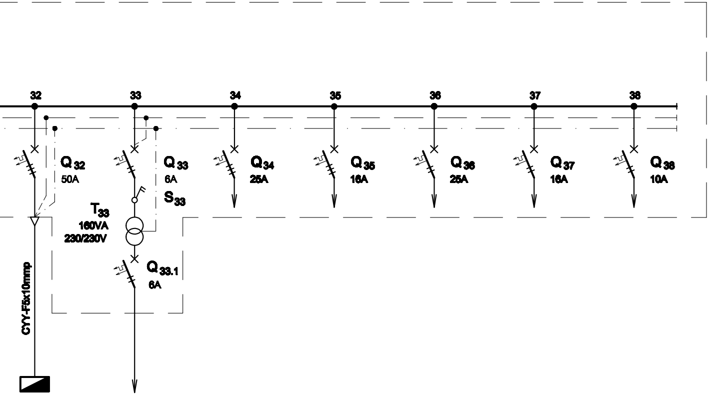
Nr. circuit *Circuit number*	1	2	3	4	5	6	7	8	9	10
PI [kW]	1.21	0.7	0.8	0.82	0.66	0.7	0.6	0.4	1.5	1.5
Destinatia *Destination*	ACCES PERSONAL, GRUP ELECTROGEN, ACUMULATORI, IDM, GS PERSONAL, SEF STATIE ***STAFF ACCESS, GENERATOR, ACCUMULATORS, MOVEMENT OFFICE, TOILET STAFF, STATION CHIEF*** **14LL / *Lamps***	**HOL, REPARTITOR** *HALL, DISTRIBUTING FRAME ROOM* **7LL / *Lamps***	**INTERVENTIE SALVATORI TUNEL** ***TUNNEL RESCUERS*** **8LL / *Lamps***	**INTERVENTIE SALVATORI TUNEL, GR. SAN. INTERVENTIE SALVATORI TUNEL** *TUNNEL RESCUERS, TUNNEL RESCUERS TOILLET* **10LL / *Lamps***	**VESTIAR si DUS PERSONAL, GS FEMEI, GS BARBATI** ***LOCKER and SHOWER STAFF, TOILET WOMEN, TOILET MEN*** **14LL / *Lamps***	**CASE BILETE, HOL** ***TICKET OFFICE, HALL*** **7LL / *Lamps***	HOL, HOL, ZONA ASTEPTARE ***HALL, MAIN HALL, WAITING AREA*** **6LL / *Lamps***	**ACCES ETAJ** ***FIRST FLOOR ACCES*** **4LL / *Lamps***	PICTOGRAMA ***PICTOGRAM*** **1Buc. / *Piece***	PICTOGRAMA ***PICTOGRAM*** **1Buc. / *Piece***

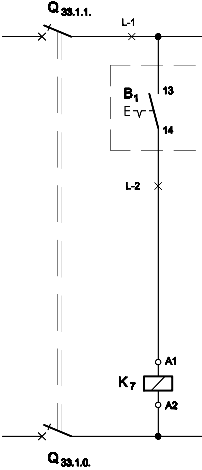

de la T.G.D.j.t. / *from T.G.D.j.t.*
CYY-F4x70+35mmp
Q0
160A
Q01
6A
S1
CV
P1
V
Pi = 90.336kW
Pc = 75kW
11
12
13
14
15
16
17
18
19
20
21
Q11
16A
K11
16A
Q12
16A
K12
16A
Q13
16A
K13
16A
Q14
16A
K14
16A
Q15
6A
Q16
16A
30mA
Q17
16A
30mA
Q18
16A
30mA
Q19
16A
Q20
16A
Q21
16A
FY3x1.5mmp +IPY16mm
FY3x1.5mmp +IPY16mm
FY3x1.5mmp +IPY16mm
FY3x1.5mmp +IPY16mm
FY2x1.5mmp +IPY13mm
FY3x2.5mmp +IPY16mm
FY3x2.5mmp +IPY16mm
FY3x2.5mmp +IPY16mm
FY3x2.5mmp +IPEY16mm
FY3x2.5mmp +IPEY16mm
FY3x2.5mmp +IPEY16mm
exit

11	12	13	14	15	16	17	18	19	20	21
1.5	1.5	1	1	0.24	2	2	2	2	2	2
PICTOGRAMA *PICTOGRAM* 1Buc. / *Piece*	PICTOGRAMA *PICTOGRAM* 1Buc. / *Piece*	PICTOGRAME ***PICTOGRAMS*** **5Buc. / *Pieces***	PICTOGRAME *PICTOGRAMS* 5Buc. / *Pieces*	**ILUMINAT DE SIGURANTA** ***EMERGENCY LIGHTING*** **15Buc. / *Pieces***	**REPARTITOR, IDM, HOL, GRUP ELECTROGEN** ***DISTRIBUTING FRAME ROOM, MOVEMENT OFFICE, HALL, GENERATOR*** **7LP / *Sockets outlet***	INTERVENTIE SALVATORI TUNEL, HOL *TUNNEL RESCUERS, HALL* 5LP / *Sockets outlet*	SEF STATIE, CASE BILETE, HOL, HOL *STATION CHIEF, TICKET OFFICE, MAIN HALL, HALL* 7LP / *Sockets outlet*	**USCATOR DE MAINI** *HAND DRYER* 1Buc. / *Piece*	**USCATOR DE MAINI** *HAND DRYER* **1Buc. / *Piece***	USCATOR DE MAINI *HAND DRYER* **1Buc. / *Piece***


22
23
24
25
26
27
28
29
30
31
Q22 16A
Q23 16A
Q24 16A
Q25 16A
Q26 16A
Q27 16A
Q 28 16A
Q 29 16A
Q 30 16A
Q 31 20A
FY3x2.5mmp +IPEY16mm
FY3x2.5mmp +IPEY16mm
FY3x2.5mmp +IPEY16mm
FY3x2.5mmp +IPEY16mm
FY3x2.5mmp +IPY16mm
FY3x2.5mmp +IPY16mm
FY3x2.5mmp +IPY16mm
FY3x2.5mmp +IPY16mm
FY3x2.5mmp +IPY16mm
CYY-F5x2.5mmp
U.E.1
U.E.3
U.E.4
U.E.5
U.E.6

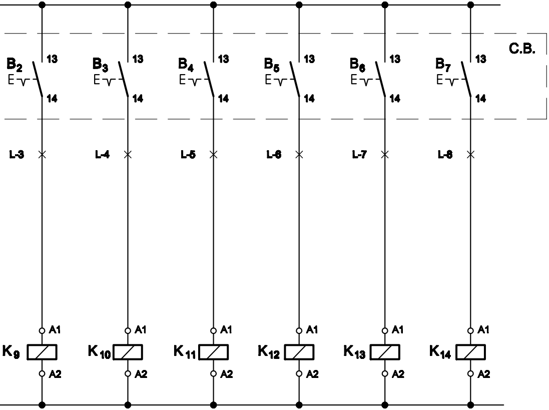
22	23	24	25	26	27	28	29	30	31
2	2	2	2	1.1	1.1	1.95	1.95	1.95	5.36
USCATOR DE MAINI *HAND DRYER* 1Buc. / *Piece*	USCATOR DE MAINI *HAND DRYER* 1Buc. / *Piece*	USCATOR DE MAINI *HAND DRYER* 1Buc. / *Piece*	USCATOR DE MAINI *HAND DRYER* 1Buc. / *Piece*	UNITATE EXTERIOARA DE CLIMATIZARE SISTEM MONOSPLIT *OUTDOOR UNIT AIR CONDITIONING SYSTEM MONOSPLIT* 1Buc. / *Piece*	UNITATE EXTERIOARA DE CLIMATIZARE SISTEM MONOSPLIT *OUTDOOR UNIT AIR CONDITIONING SYSTEM MONOSPLIT* 1Buc. / *Piece*	UNITATE EXTERIOARA DE CLIMATIZARE SISTEM MONOSPLIT *OUTDOOR UNIT AIR CONDITIONING SYSTEM MONOSPLIT* 1Buc. / *Piece*	UNITATE EXTERIOARA DE CLIMATIZARE SISTEM MONOSPLIT *OUTDOOR UNIT AIR CONDITIONING SYSTEM MONOSPLIT* 1Buc. / *Piece*	UNITATE EXTERIOARA DE CLIMATIZARE SISTEM MONOSPLIT *OUTDOOR UNIT AIR CONDITIONING SYSTEM MONOSPLIT* 1Buc. / *Piece*	SPATIU COMERCIAL TABLOU ELECTRIC - $T_{Sp.com.}$ *COMMERCIAL AREA* *ELECTRIC BOARD* - $T_{Sp.com.}$


32
33
34
35
36
37
38
Q 32
50A
Q 33
6A
S33
T33
160VA
230/230V
Q 34
25A
Q 35
16A
Q 36
25A
Q 37
16A
Q 38
10A
Q 33.1
6A
CYY-F5x10mmp


Q 33.1.1.
L-1
B1
E
13
14
L-2
A1
K7
A2
Q 33.1.0.

32	33	34	35	36	37	38
29.826	0.16	4	3	3	2	1
TABLOU ELECTRIC ETAJ - T.E. *FLOOR ELECTRIC BOARD - T.E.*	CIRCUIT COMANDA ILUMINAT INTERIOR ***COMMAND CIRCUIT INDOOR LIGHTING***	**REZERVA TRIFAZATA** ***THREE-PHASE RESERVE***	**REZERVA TRIFAZATA** ***THREE-PHASE RESERVE***	**REZERVA MONOFAZATA** ***SINGLE-PHASE RESERVE***	**REZERVA MONOFAZATA** ***SINGLE-PHASE RESERVE***	**REZERVA MONOFAZATA** ***SINGLE-PHASE RESERVE***

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


C.B.
B2
E
13
14
B3
E
13
14
B4
E
13
14
B5
E
13
14
B6
E
13
14
B7
E
13
14
L-3
L-4
L-5
L-6
L-7
L-8
A1
K9
A2
A1
K10
A2
A1
K11
A2
A1
K12
A2
A1
K13
A2
A1
K14
A2

COMANDA APRINDERE STINGERE PICTOGRAME	COMANDA APRINDERE STINGERE PICTOGRAME	COMANDA APRINDERE STINGERE PICTOGRAME	COMANDA APRINDERE STINGERE PICTOGRAME	COMANDA APRINDERE STINGERE PICTOGRAME	COMANDA APRINDERE STINGERE PICTOGRAME
ON-OFF COMMAND OF THE PICTOGRAMS	***ON-OFF COMMAND OF THE PICTOGRAMS***	*ON-OFF COMMAND OF THE PICTOGRAMS*	*ON-OFF COMMAND OF THE PICTOGRAMS*	*ON-OFF COMMAND OF THE PICTOGRAMS*	*ON-OFF COMMAND OF THE PICTOGRAMS*

Nr. *No.*	Simbol *Symbol*	Denumirea aparatului *Equipment denomination*
0	1	2
1	Q0	Separator de sarcina tripolar cu fuzibil / *Three-poles switch-disconnector with fusible*
2	Q1,...,Q8,Q38	Intrerupator automat bipolar, curba B *Two-poles circuit breaker, curve B*
3	Q16,Q17,Q18	Intrerupator automat bipolar cu protectie la curent diferential rezidual, curba C / *Two-poles circuit breaker with protection at residual differential current device, curve C*
4	Q15	Intrerupator automat bipolar, curba B *Two-poles circuit breaker, curve B*
5	Q19,...,Q30,Q37	Intrerupator automat bipolar, curba C *Two-poles circuit breaker, curve C*
6	Q31	Intrerupator automat tripolar, curba C *Three-poles circuit breaker, curve C*
7	Q32	Intrerupator automat tripolar, curba C *Three-poles circuit breaker, curve C*
8	Q34	Intrerupator automat tripolar, curba C *Three-poles circuit breaker, curve C*
9	Q35	Intrerupator automat tripolar, curba C *Three-poles circuit breaker, curve C*
10	Q36	Intrerupator automat bipolar, curba C *Two-poles circuit breaker, curve C*

TABLOU ELECTRIC GENERAL T.G. - SPECIFICATIE DE APARATAJ
T.G. GENERAL ELECTRIC BOARD - EQUIPMENT SPECIFICATION

Caracteristici tehnice *Technical data*	Buc. *Pcs.*	Observatii *Remarks*
3	4	5
In=160A Un=400V Uimp=8kV f=50Hz Icm=2.2kA	1	
In=10A Un=230V Icu=6kA f=50Hz	9	
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 8/20μS*	3	
In=6A Un=230V Icu=6kA f=50Hz	1	
In=16A Un=230V Icu=6kA f=50Hz	13	
In=20A Un=400V Icu=6kA f=50Hz	1	
In=50A Un=400V Icu=6kA f=50Hz	1	
In=25A Un=400V Icu=6kA f=50Hz	1	
In=16A Un=230V Icu=6kA f=50Hz	1	
In=25A Un=230V Icu=6kA f=50Hz	1	

0	1	2	3	4	5
11	Q01	Intrerupator automat tripolar, constructie modulara, curba C *Three-poles circuit breaker, modular construction, curve C*	In=6A Un=400V Icu=25kA f=50Hz	1	
12	Q9,...,Q14	Intrerupator automat bipolar, curba B *Two-poles circuit breaker, curve B*	In=16A Un=230V Icu=6kA f=50Hz	6	
13	P1	Voltmetru feromagnetic *Ferromagnetic voltmeter*	Domeniu / *Range* 0...600 V	1	
14	S1	Comutator voltmetric *Voltmetric switch*	In=10A Un=500V f=50Hz	1	
15	K7,K9,K10,K11, K12,K13,K14	Contactor electromagnetic tripolar de curent alternativ / *Three-poles electromagnetic a.c. contactor*	In=16A Un=400A Uc=230V f=50Hz	7	
16	Q33,Q33.1	Intrerupator automat bipolar, curba D *Two-poles circuit breaker, curve D*	Un=230V In=6A f=50Hz Icu=10kA	2	
17	T33	Transformator monofazat uscat de comanda / *Single-phase dry-type command transformer*	Sn=160VA U1n=230V U2n=230V f=50Hz	1	
18	S33	Comutator cu came cu doua pozitii si un etaj / *Cam switch with two positions and one floor*	Un=500V In=16A f=50Hz	1	
19	B1,B2,B3, B4,B5,B6,B7	Buton de comanda luminos cu retinere / *Light command button with retainer*	Ui=500V In=6A f=50Hz IP67	7	Butoanele se vor monta in C.B. (cutia cu butoane) *Buttons will be installed in C.B. (box of buttons)*
20	L	Clema de racordare *Connection clamp*	Un=660V In=16A f=50Hz	8	
21	-	Cutie / *Box*	IP30, Clasa I / *Class I*	1	

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

GUVERNUL ROMANIEI
ROMANIAN GOVERNMENT

PROIECT FINANŢAT DE UNIUNEA EUROPEANĂ
EUROPEAN UNION FINANCED PROJECT

CLIENT / CLIENT

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

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 general T.G. - Staţia Racoş;
Racos station - T.G. general electric board

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

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

A3(297x2415)