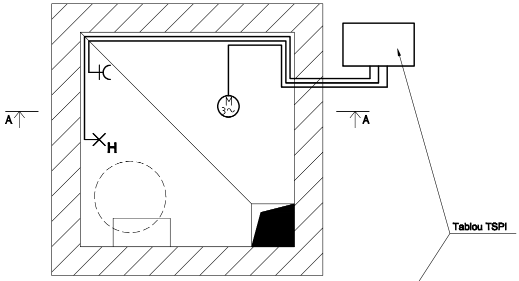
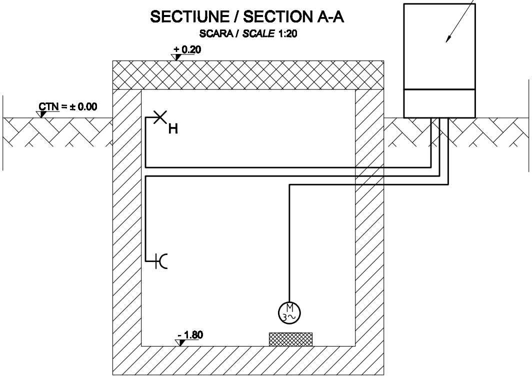
STATIE POMPARE APA PENTRU STINGEREA INCENDIULUI
PUMPING STATION FOR FIGHTING FIRE

SCARA / *SCALE* 1:20

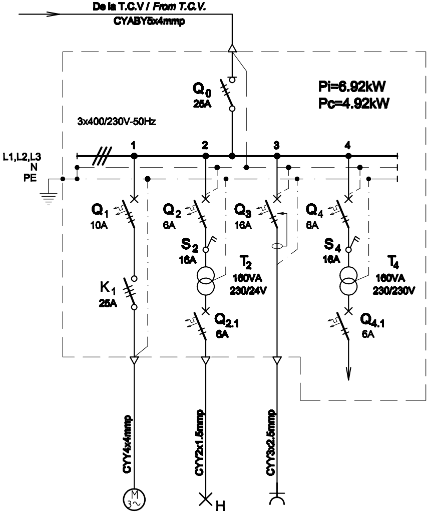


SECTIUNE / SECTION A-A

SCARA / *SCALE* 1:20

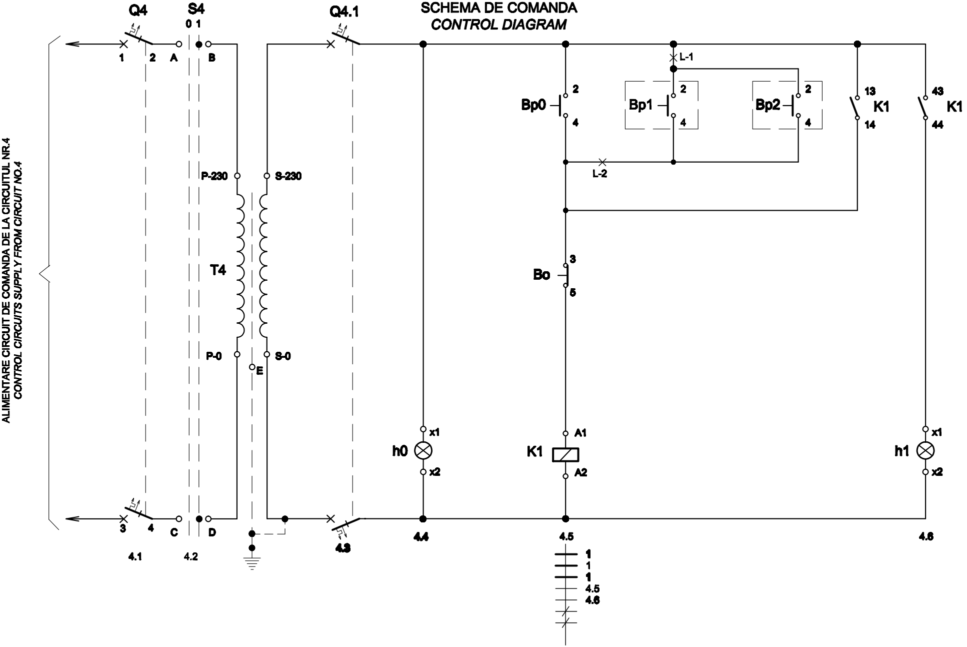


TABLOU ELECTRIC T S.P.I. - SCHEMA MONOFILARA
T S.P.I. ELECTRIC BOARD - SINGLE-WIRE DIAGRAM



Nr. circuit *Circuit number*	1	2	3	4
Pi [kW]	4.6	0.16	2	0.16
Destinatia *Destination*	Pompa incendiu *Fire pump*	Iluminat *Lighting*	Priza *Socket outlet*	Circuit comanda *Control circuit*

SCHEMA DE COMANDA
CONTROL DIAGRAM



ALIMENTARE CIRCUITE DE COMANDA / *CONTROL CIRCUITS SUPPLY*				SEMNALIZARE OPTICA CIRCUITE DE COMANDA ALIMENTATE *OPTICAL SIGNALING FOR SUPPLIED CONTROL CIRCUITS*	CIRCUIT DE COMANDA POMPA / *CONTROL CIRCUIT FOR PUMP*			SEMNALIZARE OPTICA POMPA PORNITA OPTICAL SIGNALING FOR PUMP IN OPERATION
PROTECTIE PRIMARA TRANSFORMATOR *TRANSFORMER PRIMARY PROTECTION*	CONECTARE CIRCUITE DE COMANDA *CONTROL CIRCUITS CONNECTION*	TRANSF.DE COMANDA *CONTROL TRANSFORMER*	PROTECTIE SECUNDARA TRANSF. *TRANSFORMER SECONDARY PROTECTION*		COMANDA LOCALA DIN STATIA DE POMPARE *LOCAL CONTROL FROM THE PUMPING STATION*	COMANDA DE LA DULAP PSI *CONTROL FROM PSI CLOSET*	COMANDA DE LA CLADIRE *CONTROL FROM BUILDING*	

TABLOU ELECTRIC TS.P.I. - SPECIFICATIE DE APARATAJ
TS.P.I. ELECTRIC BOARD - EQUIPMENT SPECIFICATION

Nr. *No.*	Simbol *Symbol*	Denumirea aparatului *Equipment denomination*	Buc. *Pcs.*	Caracteristici tehnice *Technical data*	Observatii *Remarks*
0	1	2	3	4	5
1	Q_0	Separator de sarcina tripolar *Three poles switch-disconnector*	1	**Ui=690V Ie=25A f=50Hz Uimp=6kV Icw=5.5kA timp 1s**	
2	Q_1	Intrerupator automat tripolar pentru protectie motoare / *Three-poles automatic circuit breaker to protect the engine*	1	Un=400V In=10A f=50Hz Ics=10kA Ir=6-10A Irm=80-140A	
3	Q_2,Q_4	Intrerupator automat bipolar *Two-poles circuit- breaker*	2	Un=230V In=6A f=50Hz Curba:D Ics=10kA	
4	$Q_{2.1}$	Intrerupator automat bipolar *Two-poles circuit- breaker*	1	Un=230V In=6A f=50Hz Curba:B Ics=10kA	
5	$Q_{4.1}$	Intrerupator automat bipolar *Two-poles circuit- breaker*	1	Un=230V In=6A f=50Hz Curba:C Ics=10kA	
6	Q_3	**Intrerupator automat bipolar cu protectie la curent diferential rezidual *Two-poles circuit breaker with protection at residual differential current device***	1	**Un=230V In=16A f=50Hz Curba:C IΔn=30mA Ics=10kA clasa A**	
7	K_1	Contactor electromagnetic tripolar de curent alternativ / *Three-poles electromagnetic a.c. contactor*	1	Un=400V In=25A f=50Hz Ubob=230V	
8	T_2	Transformator monofazat uscat de comanda / *Single-phase dry-type command transformer*	1	Sn=160VA U1n=230V U2n=24V f=50Hz	
9	T_4	Transformator monofazat uscat de comanda / *Single-phase dry-type command transformer*	1	Sn=160VA U1n=230V U2n=230V f=50Hz	
10	S_2,S_4	Comutator cu came cu doua pozitii si un etaj / *Cam switch with two positions and one floor*	2	Un=500V In=10A f=50Hz	
11	**Bp0,Bo**	**Buton de comanda** ***Command button***	2	**Un=230V In=6A f=50Hz**	**Se vor monta pe usa interioara a tabloului.** ***Will be mounted on the indoor door board.***
12	Bp1,Bp2	Buton de comanda montat in cutie capsulata / *Command button mounted in the box encapsulated*	2	Un=230V In=6A f=50Hz	**Se vor monta la dulapul P.S.I. + cladire** ***Will be mounted to the P.S.I. closet + building.***
13	h0,h1	Lampa de semnalizare cu transformator *Signaling lamp with transformer*	2	Pi=2W Ualim=230V f=50Hz	Se vor monta pe usa interioara a tabloului. *Will be mounted on the indoor door board.*
14	L	Clema de racordare *Connecting clamp*	3	Un=660V In=16A S=2,5/4mm²	
15	-	**Bara de nul / *Neutral bar***	2	**Cupru / *Copper***	
16	-	**Cofret metalic, Clasa I** ***Metal enclosure, Class I***	1	**Grad de protectie: IP54** ***Protection degree*: IP54**	

ECHIPARE CU APARATAJ -
EQUIPPING - TS.P.I.

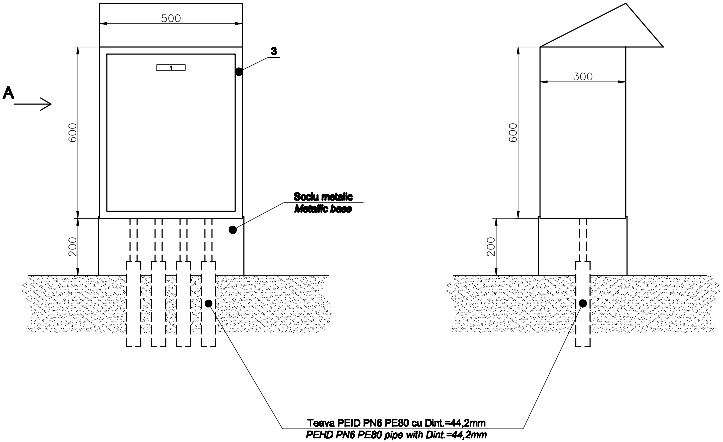
TABLOU ELECTRIC TS.P.I. - DETALIU DE MONTAJ
TS.P.I. ELECTRIC BOARD - MOUNTING DETAIL

VEDERE DIN FATA
FRONT VIEW

Sc 1:10

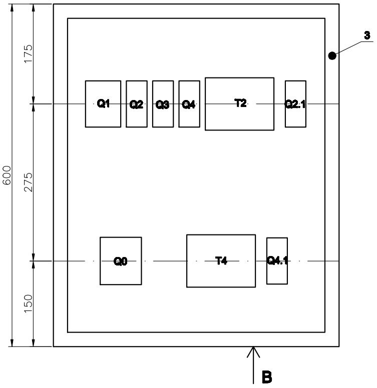
VEDERE DIN A
VIEW FROM A

Sc 1:10


500
600
200
1
3
A
Soclu metalic
Metallic base
300
600
200
Teava PEID PN6 PE80 cu Dint.=44,2mm
PEHD PN6 PE80 pipe with Dint.=44,2mm

VEDERE DIN FATA CU USA EXTERIOARA SI USA INTERIOARA DESCHISE
FRONT VIEW WITH OUTDOOR AND INDOOR DOORS OPENED

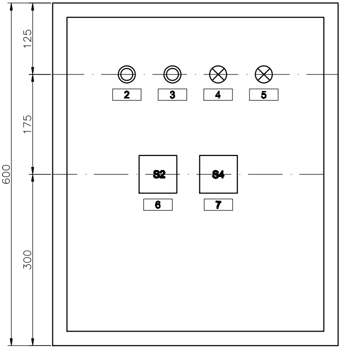
Sc 1:5



TABLOU ELECTRIC T S.P.I.
ELECTRIC BOARD

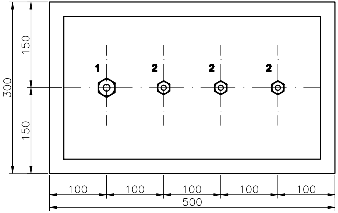
VEDERE DIN FATA CU USA EXTERIOARA DESCHISA SI USA INTERIOARA INCHISA
FRONT VIEW WITH OUTDOOR DOOR OPENED AND INDOOR DOOR CLOSED

Sc 1:5



VEDERE DIN B
VIEW FROM B

Sc 1:5



TEXTUL ETICHETELOR
TEXT OF THE LABELS

Nr. eticheta *No. label*	Simbol aparat *Apparatus symbol*	*Text* *Text*	Dimensiuni [mm] *Dimensions [mm]*
1	**-**	**Tablou TSPI**	**100x20x2**
2	**Bp**	**Pornire pompa**	**50x20x2**
3	**Bo**	**Oprire pompa**	**50x20x2**
4	**h0**	**Tensiune de comanda conectata**	**50x20x2**
5	**h1**	**Pompa pornita**	**50x20x2**
6	**S2**	**Iluminat statie pompe**	**50x20x2**
7	**S4**	**Conectare circuit de comanda**	**50x20x2**

H

1

2

3

1. La
proc
Th
pum
2. Co
Th

LEGENDA / *LEGEND*:

- Corp de iluminat echipat cu lampa cu incandescenta, Un=24V, f=50Hz, grad protectie: IP54, Clasa: I
  Lighting unit equipped with incandescent lamp, Un=24V, f=50Hz, protection degree: IP54, Clasa: I

Presgarnitura metalica pentru cabluri tip IPE29PR2MT
Metallic cable gland - type IPE29PR2MT

Presgarnitura metalica pentru cabluri tip IPE21PR2MT
Metallic cable gland - type IPE21PR2MT

Cutie - Clasa I - 600x500x300mm, IP54
Box - Class I - 600x500x300mm, IP54

NOTA / *NOTE*:

a trecerile prin peretii statiei de pompare cablurile se vor proteja in teava de protectie si se va eda la etansarea spatiului dintre teava si cablu.
e cables shall be protected in the protection pipe when passing through the walls of the ping station, sealing up the space between the pipe and cable.
arcasa metalica a electropompei se va lega la conductorul de protectie.
e metallic case of the electropump shall be connected to the protection conductor.

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 TS.P.I. - Staţia Racoş;
Racos station - TS.P.I. 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 5 7 | 1

A3(297x2310)