

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



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

CLIENT / CLIENT



CONSULTANT / CONSULTANT

		Șef proiect Project manager	R. Liuzza	Data Date	Semnătură Signature
Aprobat Approved					<i>[Signature]</i>
Aprobat Approved	Coordonator Sectiune 1 Section 1 Coordinator		C. Gambelli		<i>[Signature]</i>
Verificat Checked	Tunel Expert Tunnel Expert		C. Gambelli		<i>[Signature]</i>
Intocmit Elaborated	Proiectant Designer		P. Amodio		<i>[Signature]</i>

SUBCONSULTANT / SUBCONSULTANT

Aprobat Approved	Responsabil Subconsultant Subconsultant Responsible		
Intocmit Elaborated	Proiectant Designer		
Reabilitarea liniei de cale ferata Brașov - Simeria, parte componentă a coridorului IV Pan European, pentru circulația trenurilor cu viteza maximă de 160 km/h. Sectiune 1 Brasov - Sighisoara		Project/Project	2004/RO/16/P/PA/003
Rehabilitation of the railway line Brașov - Simeria, component Part of the IV Pan-European Corridor, for the trains circulation with maximum speed of 160 km/h. Section 1 Brasov - Sighisoara		Faza / Phase: P.Th. / T.D.	

Denumire desen / Drawing Title : **TUNNEL/TUNELUL ORMENIS**
ORMENIS SIDE/INSPRE ORMENIS

Emergency and fire protection systems/Sisteme de urgență și de incendiu
Electrical diagram fire protection panel central C1 (Q_A1/C1)/Electrice Diagrame cadru foc centrale C1 (Q_A1/C1)

Codificare / Codification System

Scara / Scale	LOT	Nr. / No
-		-

E A 5 1 0 1 C 1 0 L X T S 1 0 2 3 0 0 2 0

CHARACTERISTICS PANEL/CARACTERISTICI CADRU

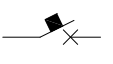
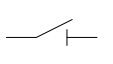
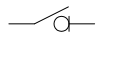














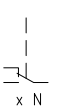







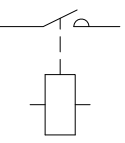
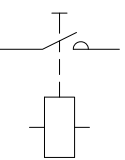
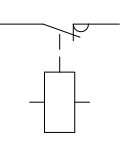
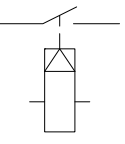



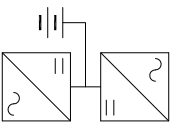
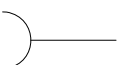
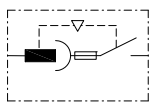
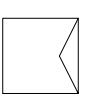
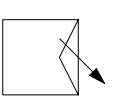
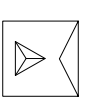
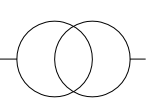

SYSTEM/SISTEM

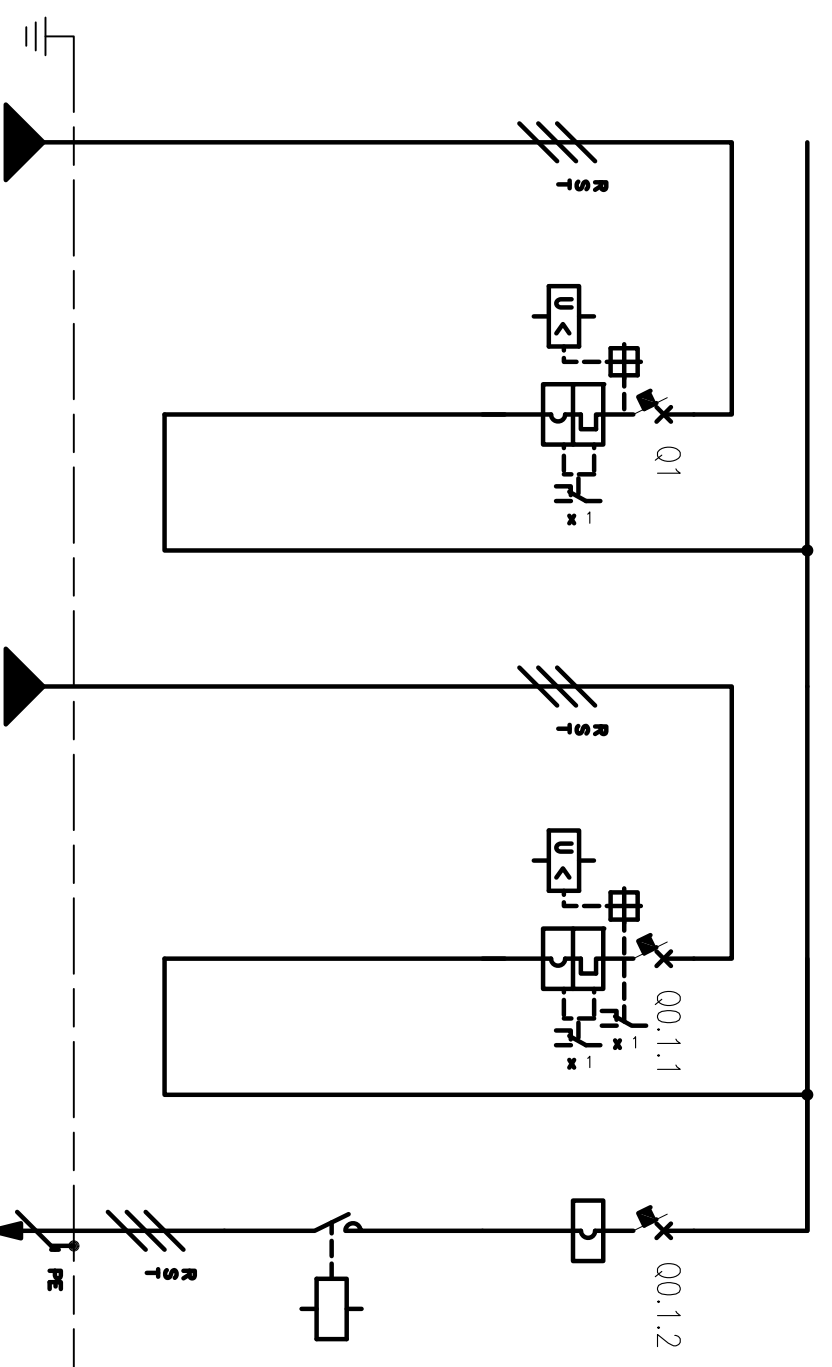
VOLTAGE/TENSIUNE [V]	400	FREQUENCY/FRECVENTA [Hz]	50
RETED CURRENT PANEL/CURENT NOMINAL CADRU [A]			
SHORT CIRCUIT CURRENT ON PANEL [kA]			16
DISTRIBUTION SYSTEM/SISTEMUL DE DISTRIBUTIE			TNS
SIZE BARS/DIMENSIUNEA BARS			
In [A]		Scc [kA]	
CARPENTRY/TAMPLARIE			METALLIC
INSULATION CLASS/CLASA DE IZOLARE			IP

REFERENCE STANDARDS/STANDARDELE DE REFERINTA

BREAKERS SWITCHES/CIRCUITUL CONCASOARE	<input checked="" type="checkbox"/>	EN 60947-2
MODULAR SWITCHES/CIRCUITUL MODULAR	<input checked="" type="checkbox"/>	EN 60947-2
	<input type="checkbox"/>	EN 60898
CARPENTRY/TAMPLARIE	<input checked="" type="checkbox"/>	EN 60439-1

SYMBOLS LEGEND CHEIA SIMBOLURI

	CIRCUIT BREAKER INTERRUPTOR		SWITCH SWITCH		SWITCH OPERATION SWITCH OPERATIUNEA		THERMAL PROTECTION PROTECTIE TERMICA		MAGNETIC PROTECTION PROTECTIE MAGNETICA		DIFFERENTIAL PROTECTION PROTECTIE DIFERENTIALA		MOTOR MOTOR		FUSE ELEMENT FUZE ELEMENT		TOROID		MANUAL DRIVE MANUAL
	MOTORIZED CONTROL DE REGLAJ MOTORIZATE		FREE TRIP CALATORIE GRATUITA		ROTARY HANDLE INTERLOCKING MANIER ROTATIV CENTRALIZARE		INTERLOCK INTERBLOCARE		REMOVABLE EQUIPMENT AMOVIBIL ECHIPAMENTE		LOCK KEY (LOCKED WITH APPLIANCE IN PLACE OF REST) LOCK (BLOCAT CU APARATULUI IN POZITIA DE ODHINA)		LOCK KEY (FREE WITH APPLIANCE IN PLACE OF REST) LOCK (GRATUIT CU APARATULUI IN POZITIA DE ODHINA)		AUX CONTACT (N=NUMBER OF INSTALLED CONTACTS, THE HATCH INDICATES WHICH EQUIPMENT PART ACT ON THE CONTACT) DATE DE CONTACT AUX (N=NUMARUL DE DATE INSTALATE, ACT HATCH CU PRIMIRE LA ECHIPAMENTUL INDICA PARTUL CA DATE)		COIL A MINIMUM VOLTAGE COIL UN VOLTAJ MINIM		COIL A LAUNCH OF CORRENT COIL UN CANSAREA DE CURENT
	CHANGEOVER SWITCH FOR INSTRUMENT (VOLTMETRIC/AMPEROMETRIC) SWITCH PENTRU INSTRUMENT (VOLTMETRIC/AMPEROMETRIC)		AMPEROMETER AMPEROMETRU		VOLTMETER VOLTMETRU		FREQUENCYMETER FRECVENTA		INSTRUMENT INTEGRATOR (CONTACTOR) INSTRUMENT INTEGRATOR (CONTACTOR)		CONTACTOR WITH NO CONTACT CONTACTOR CU DATE DE NO CONTACT		CONTACTOR WITH POSSIBILITY OF MANUAL CONTACT WITH NO CONTACT CONTACTOR CU POSIBILITATEA DE DATE MANUAL CU DE CONTACT NO		CONTACTOR NORMALLY CLOSED CONTACT CONTACTOR CU DATE IN MOD NORMAL INCHIS		CONTACTOR (RELAY / STEP / STEP) CONTACTOR (RELEU PAS CU PAS)		CLOCK CEASUL
	TWILIGHT CREPUSCULAR		ASTRONOMIC CLOCK CEASUL ASTRONOMIC		UPS UPS		SOCKET (GENERAL SYMBOL) SOCKET (GENERAL SIMBOLURI)		PLUG AND SWITCH FUSE BLOCK SOCKET CU INTERBLOCATA EA SIGURANTI		SOFT STARTER STARTER		INVERTER INVERTOR		STAR STARTER STAR STARTER		TRASFORMER TRASFORMER		SPD VAL



TERMINAL NUMBER/TERMINAL NUMARUL	DISTRIBUTION	ARRIVAL/SOSIRE	ARRIVAL/SOSIRE	AE1					
NUMBER OF CIRCUIT NUMARUL DE CIRCUIT		RSTNPE	RSTNPE	3	L0:1:2	RSTPE			
DESCRIPTION OF THE CIRCUIT DESCRIRREA A CIRCUITULUI		TRAFO 1	TRAFO 2	ELECTRIC PUMP/POMPA ELECTRICA					
TYPE APPARATUS/TIP APARATURA				NG125 LMA					
SWITCH/SWITCH	Icu [kA]			50					
N. POLI	In [A]	4P	4P	3P	63				
CURVE RELEASES/CURBA DE PRESA		TMD <= 63		MA					
Ir [A]	tr [s]	56,7	56,7	0,9x					
Ird [A]	tsd [s]	500	500	756					
Ii [A]									
Ig [A]	Ig [s]								
TYPE/TIP	CLASS/CLASA								
I _{dn} [A]	t _{dn} [ms]								
TYPE/TIP	CLASS/CLASA			LC1D40	AC1				
COIL [V]	N. POLE	In [A]		230	3 poli	60			
TYPE/TIP	I _{th} [A]								
N. POLE	In [A]								
TYPE/TIP	MODEL								
OTHER APP.									
PIPELINE/PIPELINE	TYPE ISOLATION	POSE/INSTALAREA	EPR	13	EPR	15			
	SECTION PHASE-N-PE/PEN [mm ²]		1x70	1x35	1x35	1x16			
	I _b [A]	I _z [A]	56,3	279	56,3	279			
	Un [V]	P _n [kW]	400		400				
	I _{cc min} [kA]	I _{cc max} [kA]	9,3	1489	13,2	148			
BOTTOM LINE/ FUND LINE	ENGLT/LUNGIMEA [m]	IV TOTAL [%]	10	0,1	10	0,1			

NOTE

