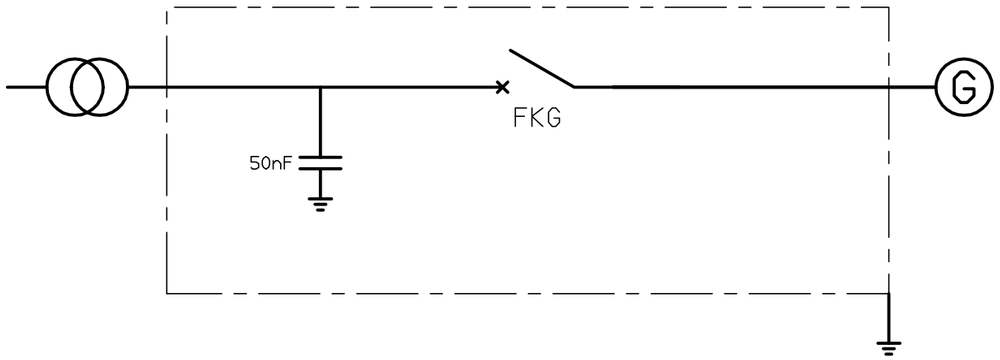
SCHEMA HAUTE TENSION
HIGH VOLTAGE DIAGRAM



FOURNITURE AREVA
SUPPLIED BY AREVA

9	2	Limite de fourniture	Limit of supply
8	1	Détails	Details
7	2	Détails	Details
6	2	Raccordement	Connection
5	1	Croquis général	General arrangement
4	1	Croquis général	General arrangement
3	1	Croquis général	General arrangement
2	1	Croquis général	General arrangement
1	3	Page de garde	Cover sheet
PAGE SHEET	REVISION REVISION	DESIGNATION DESIGNATION	

SOMMAIRE - CONTENT

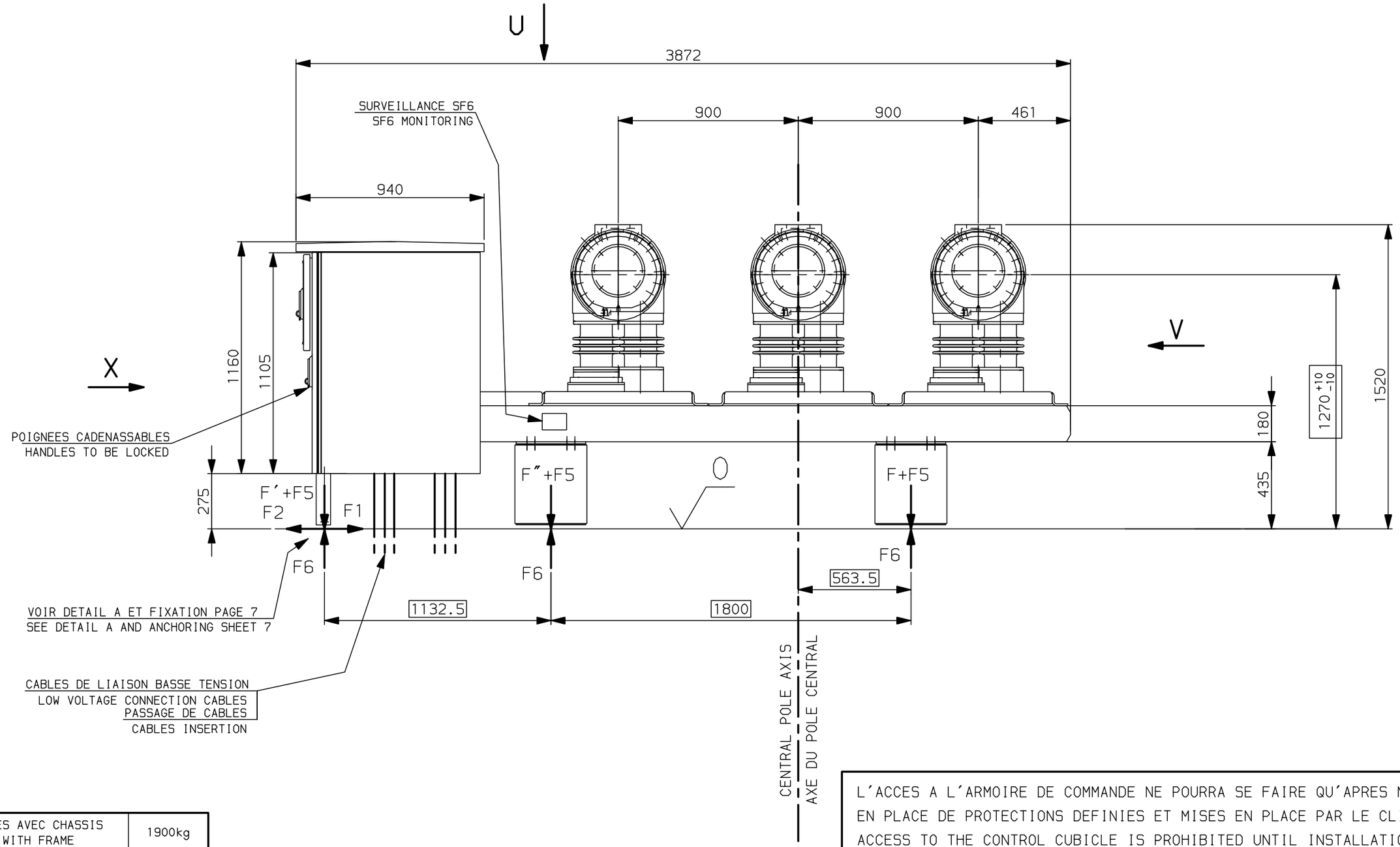
GENERATOR CIRCUIT BREAKER
GENERAL ARRANGEMENT

AREVA REF. CLIENT COAL GANGUE - CHINE
AR113272

Seuls, les documents remis en confirmation de commande nous engagent pour éxécution conforme.
Only documents submitted as order confirmation may be considered as binding for manufacturing purposes.

© AREVA Tous droits réservés. All rights reserved. Alle rechte vorbehalten. Todos derechos reservados.

DOSSIER: 53970 DATE: 2004-12-23 NOM : FLORIN	A3	AREVA — T&D Villeurbanne AHT	QUALITE AQ /
VERIFICATION DATE: 2004-12-22 NOM : MOMMERT	ECHELLE _:_	DISJONCTEUR DE GENERATEUR TYPE FKG1N SANS GAINE CROQUIS D'IMPLANTATION	Clé 1
MODIFICATION DATE: 2004-12-22 NOM : P VITRIER			VERSION 1
EMISSION DATE: 2004-09-08 NOM : P VITRIER	PAGE 1 / 9	VS113272AGAD01D	REVISION 3



L'ACCES A L'ARMOIRE DE COMMANDE NE POURRA SE FAIRE QU'APRES MISE EN PLACE DE PROTECTIONS DEFINIES ET MISES EN PLACE PAR LE CLIENT.
ACCESS TO THE CONTROL CUBICLE IS PROHIBITED UNTIL INSTALLATION OF SUITABLE PROTECTION. (TO BE DEFIND BY THE CUSTOMER).

MASSE DES 3 POLES AVEC CHASSIS MASS OF 3 POLES WITH FRAME	1900kg
MASSE D'UNE PARTIE ACTIVE MASS OF ONE ACTIVE PART	375kg
MASSE DE LA COMMANDE MASS OF THE CONTROL MECHANISM	1020kg
MASSE TOTALE DE LA CELLULE TOTAL MASS OF THE UNIT	2920kg

EFFORT VERTICAL STATIQUE PAR SUPPORT VERTICAL STATIC LOAD PER SUPPORT			EFFORT DYNAMIQUE PAR SUPPORT DYNAMIC LOAD PER SUPPORT		
F	F″	F′	F1-F2	F3-F4	F5-F6
445daN	665daN	310daN	950daN	900daN	400daN

© AREVA Tous droits réservés.All rights reserved.Alle rechte vorbehalten.Todos derechos reservados.

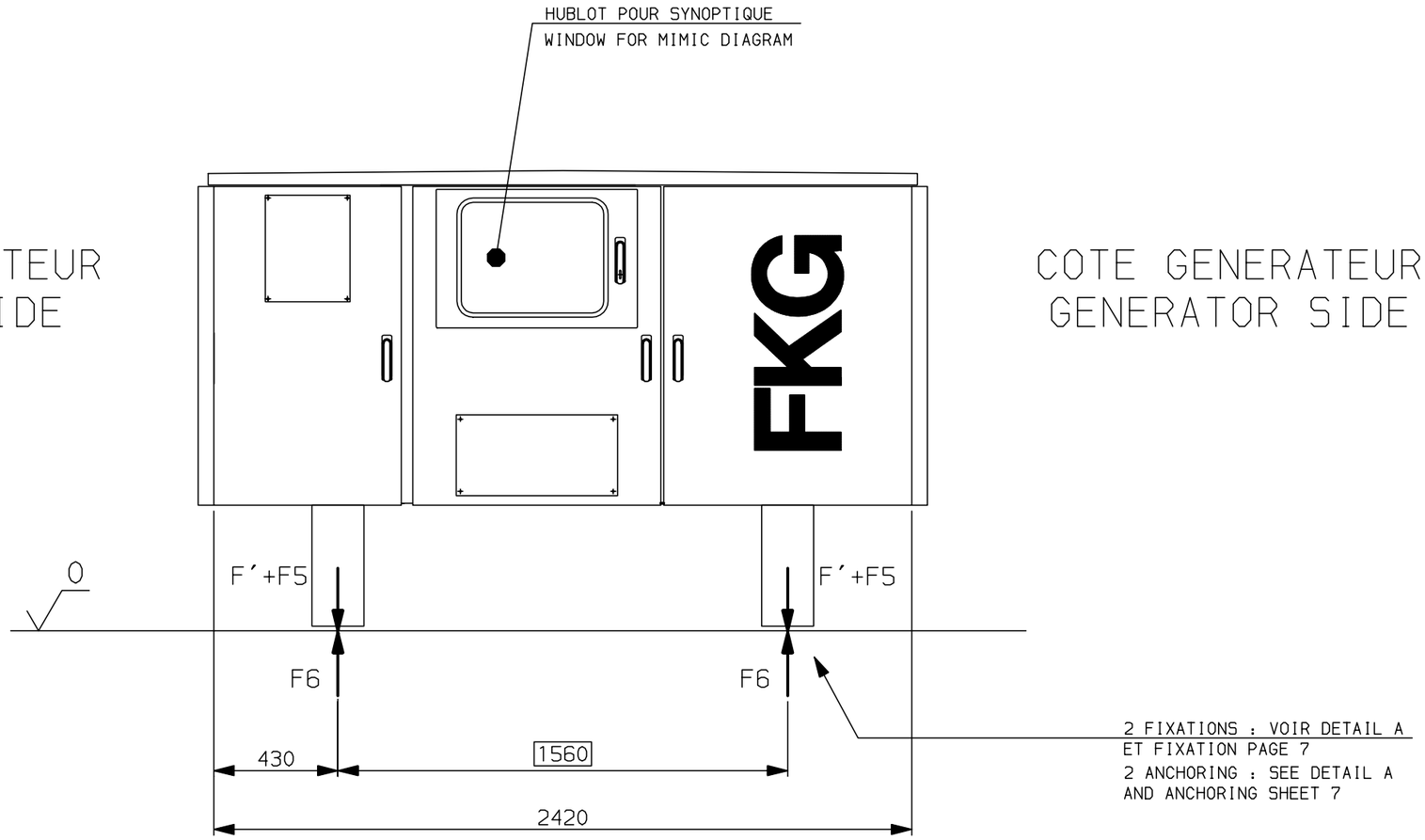
Clé 2

DOSSIER / DATE: 2004-09-10 NOM : FLORIN	ECHELLE /	AREVA	T&D Villeurbanne AHT
EMISSION DATE: 2004-09-08 NOM : P VITRIER	PAGE 2	VS113272AGAD01D	

Version 1

REVISION 1

VUE SUIVANT X
VIEW AS PER X



EFFORT VOIR PAGE 3
LOAD SEE SHEET 3

© AREVA Tous droits réservés.All rights reserved.Alle rechte vorbehalten.Todos derechos reservados.

DOSSIER / DATE: 2004-09-10 NOM : FLORIN	ECHELLE /	AREVA	T&D Villeurbanne AHT	Clé 3 / Version 1
EMISSION DATE: 2004-09-08 NOM : P VITRIER	PAGE 3	VS113272AGAD01D		REVISION 1

VUE SUIVANT V - VIEW AS PER V

RACCORDEMENT : VOIR
DETAIL C PAGE 6
CONNECTION : SEE
DETAIL C SHEET 6

COTE GENERATEUR
GENERATOR SIDE

COTE TRANSFORMATEUR
TRANSFORMER SIDE

1545

772.5

CONDENSATEUR
CAPACITY

F+F5/F"+F5

F+F5/F"+F5

F4

F3

F3

F4

F6

F6

4 FIXATIONS : VOIR DETAIL B
ET FIXATION PAGE 8
4 ANCHORING : SEE DETAIL B
AND ANCHORING SHEET 8

PRISE DE TERRE DU CHASSIS : VOIR DETAIL D
FRAME GROUNDING PAD : SEE DETAIL D

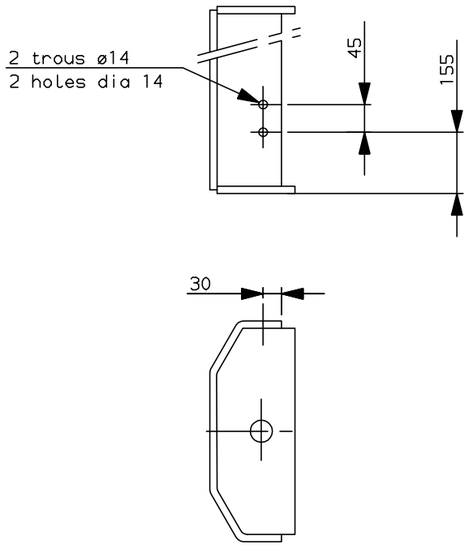
1856

927.5

AXE TRANSVERSAL DES 3 POLES
TRANSVERSAL AXIS OF THE 3 POLES

DETAIL D

PRISE DE TERRE DU CHASSIS
FRAME GROUNDING PAD

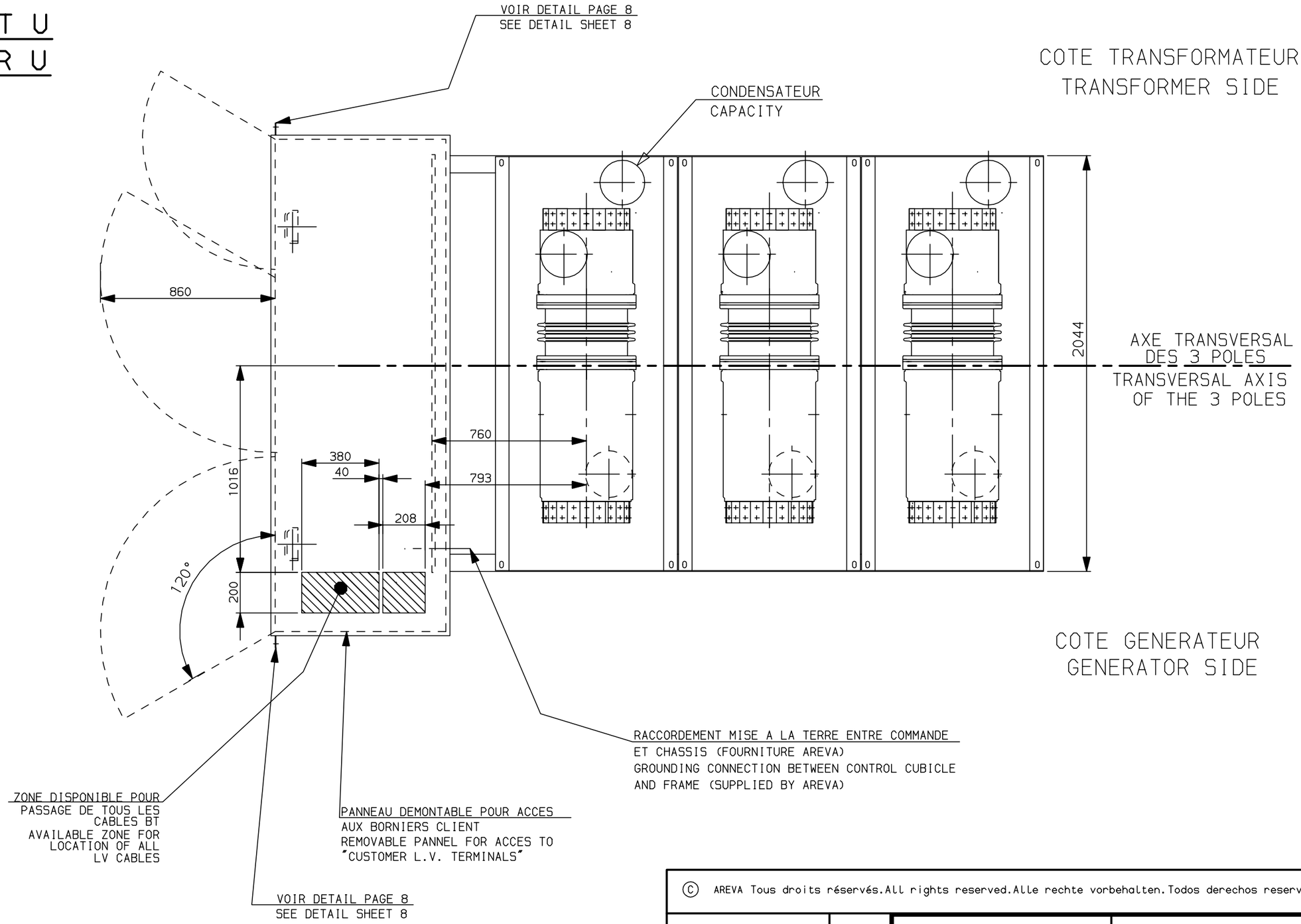


EFFORT VOIR PAGE 3
LOAD SEE SHEET 3

© AREVA Tous droits réservés.All rights reserved.Alle rechte vorbehalten.Todos derechos reservados.

DOSSIER / DATE: 2004-09-10 NOM : FLORIN	ECHELLE /	AREVA	T&D Villeurbanne AHT	Clé 4 / Version 1
EMISSION DATE: 2004-09-08 NOM : P VITRIER	PAGE 4	VS113272AGAD01D		REVISION 1

VUE SUIVANT U
VIEW AS PER U



© AREVA Tous droits réservés.All rights reserved.Alle rechte vorbehalten.Todos derechos reservados.

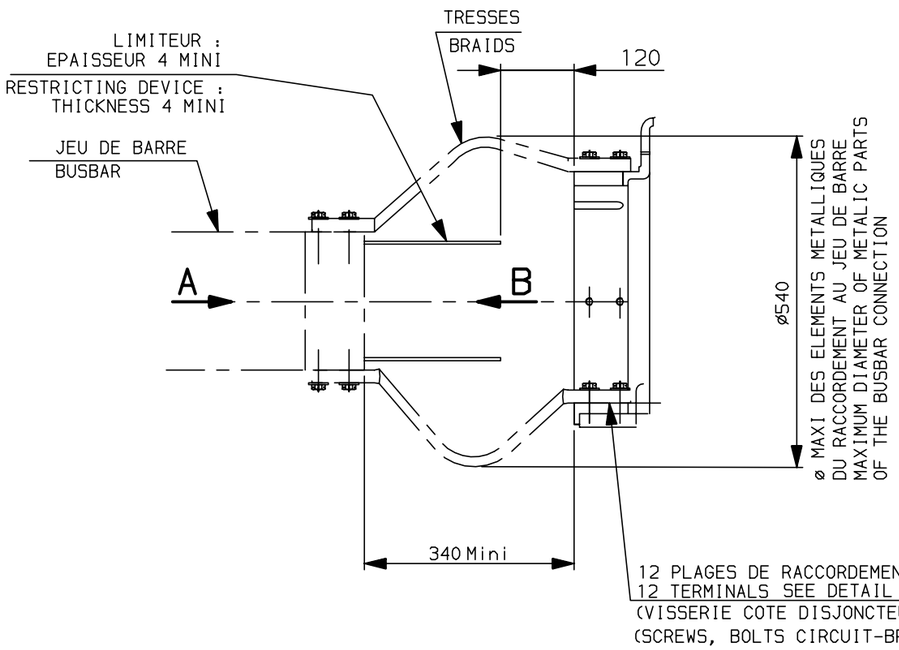
DOSSIER / DATE: 2004-09-10 NOM : FLORIN	ECHELLE /	AREVA	T&D Villeurbanne AHT	Clé 5 / Version 1
EMISSION DATE: 2004-09-08 NOM : P VITRIER	PAGE 5	VS113272AGAD01D		REVISION 1

DETAIL C : RACCORDEMENT - DETAIL C : CONNECTION

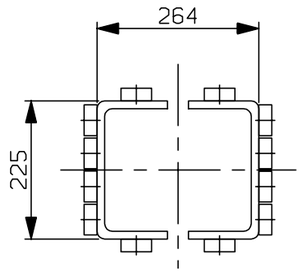
TOUTES LES PRESCRIPTIONS PORTEES SUR CETTE PAGE DOIVENT ETRE RESPECTEES POUR LE RACCORDEMENT DE LA CELLULE. AREVA T&D SA DECLINE TOUTE RESPONSABILITE POUR LES DEFAILLANCES ENGENDREES PAR LE NON-RESPECT DE CES PRESCRIPTIONS. ALL INSTRUCTIONS WRITTEN ON THIS SHEET MUST BE RESPECTED FOR CONNECTION OF THE UNIT. AREVA T&D SA DECLINES ALL RESPONSIBILITY FOR DAMAGES RESULTING FROM NON-ADHERENCE TO THESE INSTRUCTIONS.

1 -LES 2 EXTREMITES DE CHAQUE POLE SONT IDENTIQUES
2 -LE RACCORDEMENT N'EST PAS A LA CHARGE DE AREVA T&D.
3 -RACCORDEMENT JEU DE BARRE :
- ✱ 12 TRESSES DE RACCORDEMENT EN CUIVRE (HORS FOURNITURE AREVA T&D) DOIVENT ETRE CONNECTEES DE CHAQUE COTE DE LA CELLULE. CHAQUE TRESSE DOIT ETRE ARGENTEE ET DE SECTION 900mm² MINIMUM. (NOMBRE ET SECTION DES TRESSES POUR UN COURANT ASSIGNE EN SERVICE CONTINU DE 10800A A 40°C)
- ✱ UN LIMITEUR DE DEBATTEMENT DEMONTABLE (HORS FOURNITURE AREVA T&D) DOIT ETRE VISSE AU JEU DE BARRE ET DOIT AVOIR LES DIMENSIONS INDIQUEES CI DESSOUS.

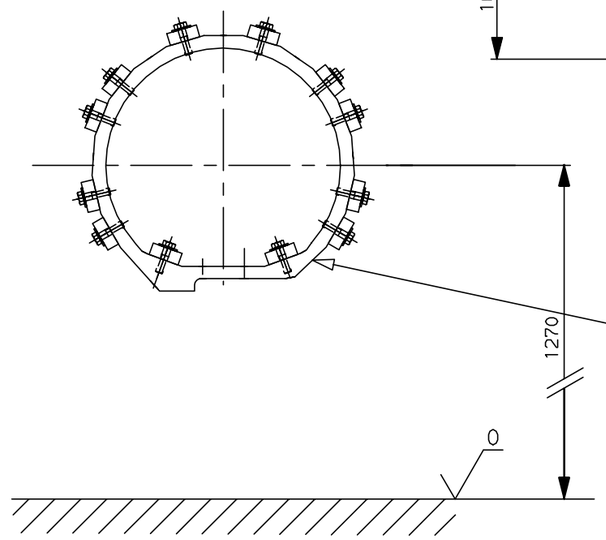
1 -BOTH ENDS OF EACH POLE ARE IDENTICAL
2 -CONNECTION IS NOT PART OF AREVA T&D DUTY.
3 -BUSBAR CONNECTION :
- ✱ 12 COPPER CONNECTING BRAIDS (NOT SUPPLIED BY AREVA T&D) MUST BE CONNECTED TO EACH SIDE OF THE UNIT. EACH BRAID MUST BE SILVERED AND MUST HAVE A MINIMUM SECTION OF 900mm². (NUMBER & SECTION OF CONNECTING BRAIDS FOR THE RATED CONTINUOUS CURRENT OF 10800A AT 40°C)
- ✱ A REMOVABLE RESTRICTING DEVICE OF CLEARANCE (NOT SUPPLIED BY AREVA T&D) MUST BE SCREWED AT THE BUSBAR AND MUST HAVE THE DIMENSIONS INDICATED BELOW.

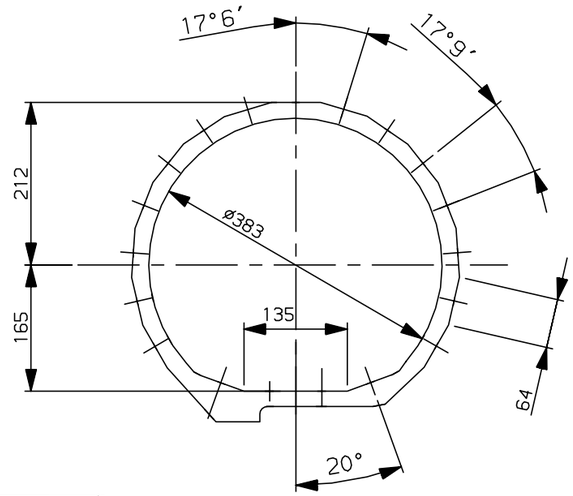


VUE SUIVANT B
VIEW AS PER B
(JEU DE BARRES/BUSBAR)

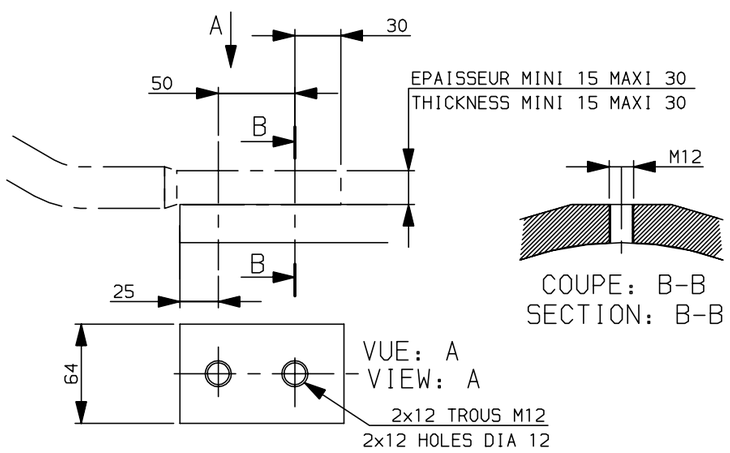


VUE SUIVANT A
VIEW AS PER A
(DISJONCTEUR/CIRCUIT-BREAKER)





DETAIL E : RACCORDEMENT COTE DISJONCTEUR
DETAIL E : GCB SIDE CONNEXION

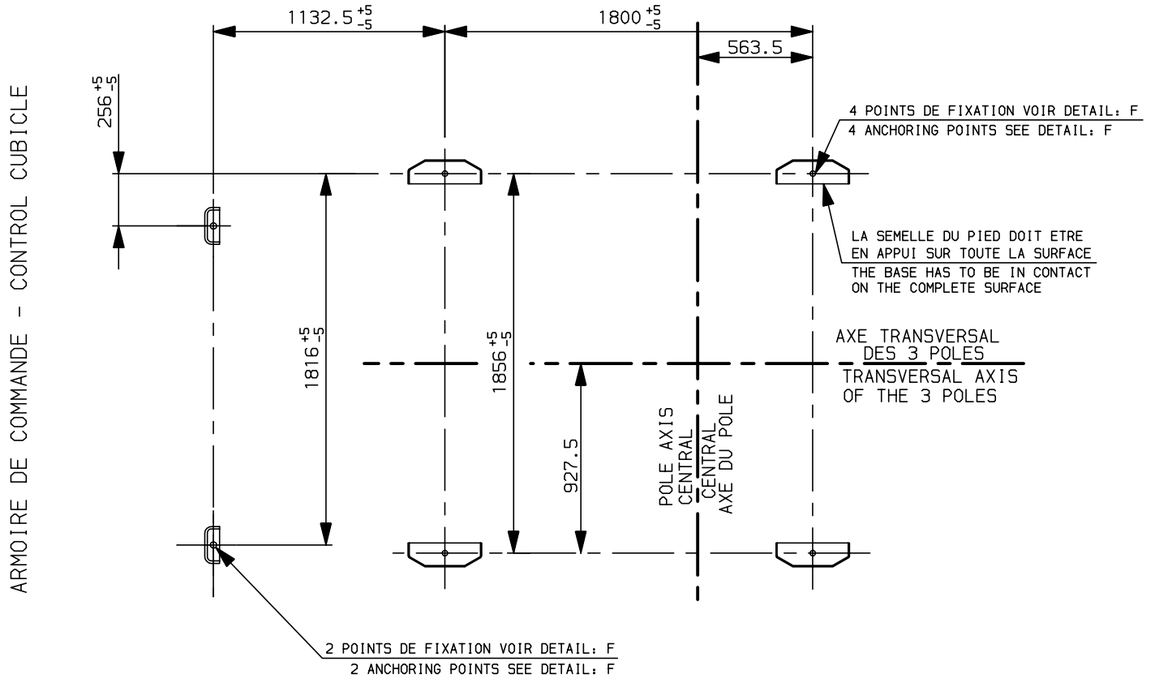


© AREVA Tous droits réservés.All rights reserved.Alle rechte vorbehalten.Todos derechos reservados.

DOSSIER 53947 DATE: 2004-10-13 NOM : FLORIN	ECHELLE /	AREVA	T&D Villeurbanne AHT	Clé 6 Version 1
EMISSION DATE: 2004-09-08 NOM : P VITRIER	PAGE 6	VS113272AGAD01D		REVISION 2

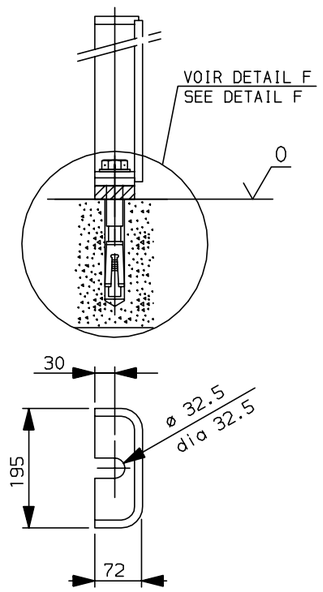
FIXATION
ANCHORING

COTE TRANSFORMATEUR - TRANSFORMER SIDE

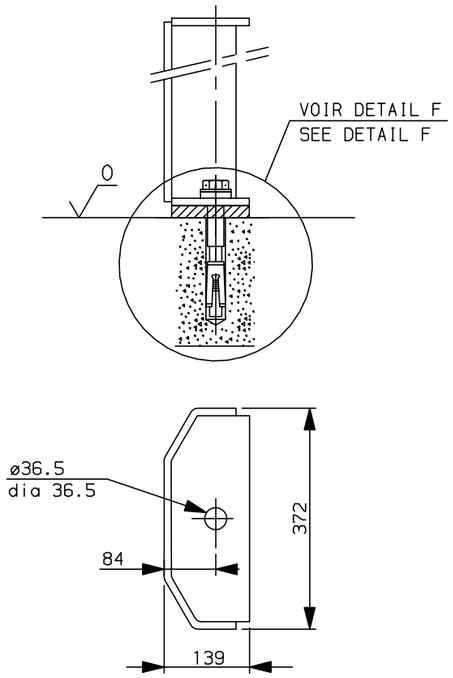


COTE GENERATEUR - GENERATOR SIDE

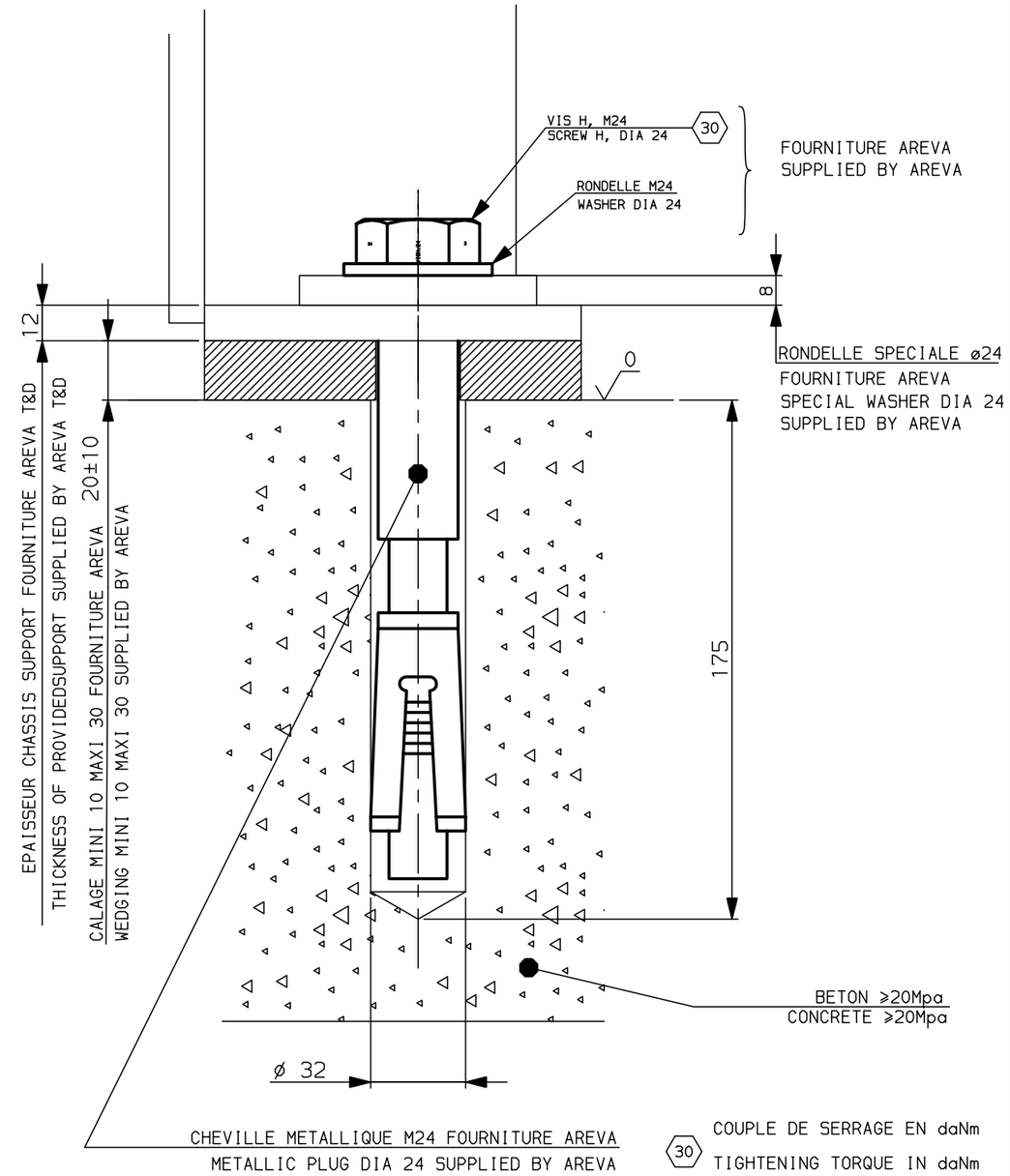
DETAIL A



DETAIL B

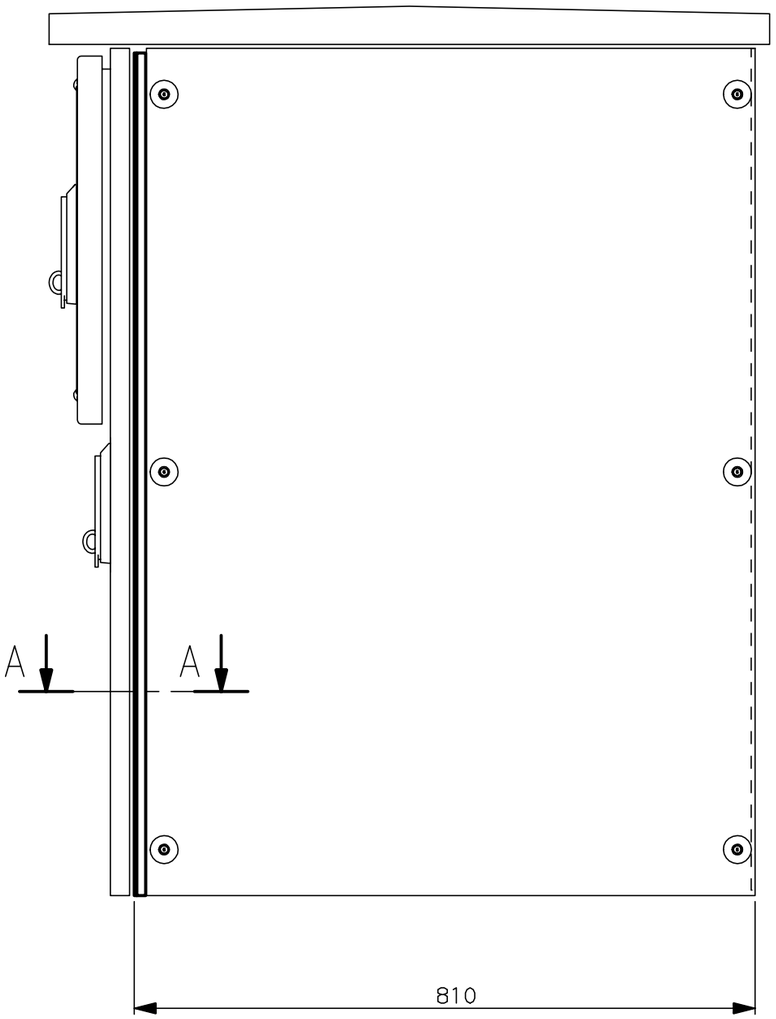


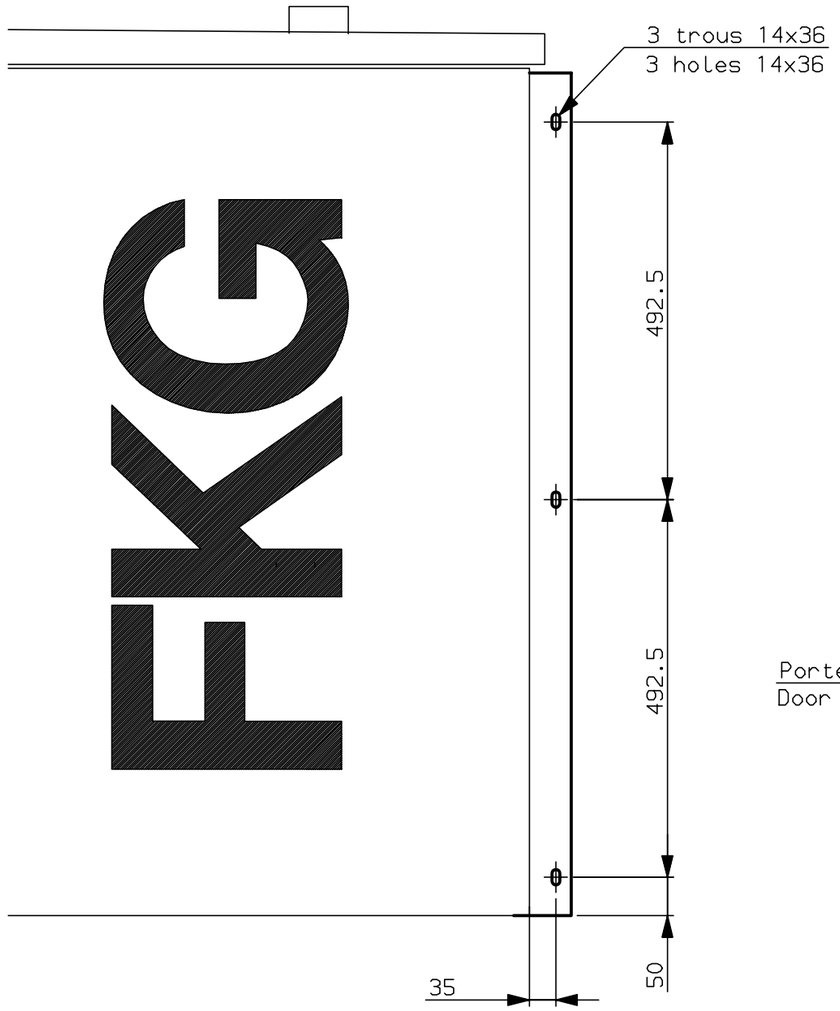
DETAIL F



© AREVA Tous droits réservés.All rights reserved.Alle rechte vorbehalten.Todos derechos reservados.

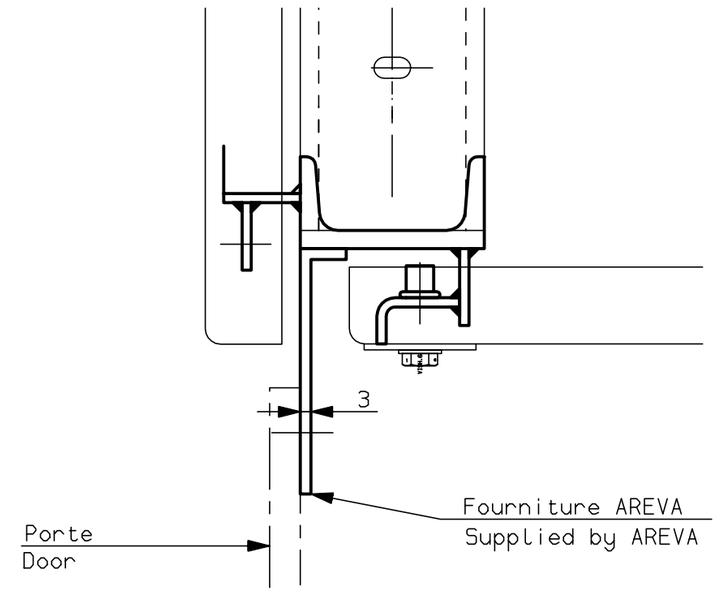
DOSSIER 53970 DATE: 2004-12-23 NOM : FLORIN	ECHELLE /	AREVA	T&D Villeurbanne AHT	Clé 7 Version 1
EMISSION DATE: 2004-09-08 NOM : P VITRIER	PAGE 7	VS113272AGAD01D		REVISION 2





COUPE A-A
SECTION A-A

SCALE 1/2



© AREVA Tous droits réservés.All rights reserved.Alle rechte vorbehalten.Todos derechos reservados.

DOSSIER / DATE: 2004-09-10 NOM : FLORIN	ECHELLE /	AREVA	T&D Villeurbanne AHT	Clé 8 / Version 1
EMISSION DATE: 2004-09-08 NOM : P VITRIER	PAGE 8	VS113272AGAD01D		REVISION 1

LIMIT OF SUPPLY	SUPPLIED BY		MADE BY		LIMITE DE FOURNITURE	FOURNITURE		REALISATION	
	AREVA	CUSTOMER	AREVA	CUSTOMER		AREVA	CLIENT	AREVA	CLIENT
CONNECTION BETWEEN BUSBAR AND GCB				X	RACCORDEMENT ENTRE JEU DE BARRE ET CELLULE FKG				X
- GCB TERMINALS	X				- PLAGES DE RACCORDEMENT CELLULE FKG	X			
- BUSBAR TERMINALS		X			- PLAGES DE RACCORDEMENT JEU DE BARRE		X		
- CONNECTION BRAIDS BETWEEN BUSBAR TERMINALS AND GCB TERMINALS		X			- TRESSES DE RACCORDEMENT ENTRE JEU DE BARRES ET CELLULE FKG		X		
- BRAIDS RESTRICTING DEVICE (SEE SHEET 6)		X			- LIMITEUR DE DEBATTEMENT DES TRESSES (VOIR FOLIO 6)		X		
- SCREWS/BOLTS FOR FIXING BRAIDS ON GCB TERMINALS	X				- VISSERIE DE FIXATION TRESSES SUR CELLULE FKG	X			
- SCREWS/BOLTS FOR FIXING BRAIDS ON BUSBAR TERMINALS		X			- VISSERIE DE FIXATION TRESSES SUR JEU DE BARRE		X		
ANCHORING				X	FIXATION GENIE CIVIL				X
- SUPPORTS OF GCB FRAME, SUPPORTS OF GCB CUBICLE	X				- SUPPORTS CHASSIS CELLULE FKG ET ARMOIRE	X			
- SHIMS FOR LEVEL ADJUSTMENT	X				- CALES DE REGLAGE (MISE A NIVEAU)	X			
- GROUND STOWING (ANCHORING RODS, NUTS, WASHERS)	X				- ARRIMAGE AU SOL (TIGES D'ANCRAGE, ECROUS, RONDELLES)	X			
LOW VOLTAGE EQUIPMENT					CABLAGE BASSE TENSION				
- TERMINAL BLOCKS FOR CONNECTION OF CUSTOMER CABLES	X				-BORNIERS POUR RACCORDEMENT CABLES CLIENT	X			
- STRIP FOR EARTHING THE CABLE SCREEN	X				- BARRETTE POUR MISE A LA TERRE DES ECRANS DES CABLES	X			
- LOW VOLTAGE CABLE PLATE (TO BE DRILLED ACCORDING CUSTOMER CABLES SIZE)	X				- PLAQUE DE FOND ARMOIRE	X			
- DRILLING OF CABLE PLATE ACCORDING TO CUSTOMER CABLES SIZE				X	- PERCAGE PLAQUE DE FOND ARMOIRE POUR PRESSE-ETOUPE CLIENT				X
- CABLE GLANDS FOR CUSTOMER CABLES		X			- PRESSE-ETOUPE POUR CABLE CLIENT		X		
- DENSIMETER CABLE					- CABLAGE DENSIMETRE SF6				
- CABLE, CABLE GLAND, ACCESSORIES	X				- CABLE, PRESSE-ETOUPE, ACCESSOIRES	X			
- CABLE FIXING AND CONNECTION TO CUBICLE TERMINAL BLOCKS				X	- RACCORDEMENT SUR BORNIER ARMOIRE				X
GCB EARTHING				X	MISE A LA TERRE DU DISJONCTEUR FKG				X
- 2 HOLES dia14 ON FRAME FEET (CUBICLE IS EARTHED THROUGH THE FRAME)	X				- 2 TROUS ø14 SUR PIEDS CHASSIS (ARMOIRE MISE A LA TERRE/CHASSIS)	X			
- LUGS AND CONNECTION TO GENERAL EARTHING		X			- COSSES ET CIRCUIT DE RACCORDEMENT GENERAL		X		

NOTE FOR FKG WITH CAPACITOR:

THE DIELECTRIQUE TEST AT POWER FREQUENCY OF THE BUSBAR,BEFORE STARTING,
CAN BE PERFORMED WITH CAPACITOR IN PLACE AND CONNECTED.
HOWEWER, IF THE GENERATOR IS NOT POWERFUL ENOUGH, IT IS IMPERIOUS
TO PLUG OFF, AND REMOVE THE CAPACITORS FROM THE BUSBARS BEFORE PERFORMING THE TEST.

NOTA POUR FKG AVEC CONDENSATEUR

L'ESSAI DIELECTRIQUE A FREQUENCE INDUSTRIELLE DU JEU DE BARRE, AVANT MISE EN SERVICE,
PEUT ETRE FAIT AVEC LES CONDENSATEURS EN PLACE ET CONNECTE.
TOUTEFOIS, SI LE GENERATEUR N'EST PAS SUFFISAMMENT PUISSANT, IL EST IMPERATIF ALORS
DE DEBRANCHER ET DE SORTIR LES CONDENSATEURS DES GAINES AVANT DE REALISER L'ESSAI.

© AREVA Tous droits réservés.All rights reserved.Alle rechte vorbehalten.Todos derechos reservados.

DOSSIER 53970 DATE: 2004-12-23 NOM : FLORIN	ECHELLE /	AREVA	T&D Villeurbanne AHT	Clé 9 Version 1
EMISSION DATE: 2004-09-08 NOM : P VITRIER	PAGE 9	VS113272AGAD01D		REVISION 2