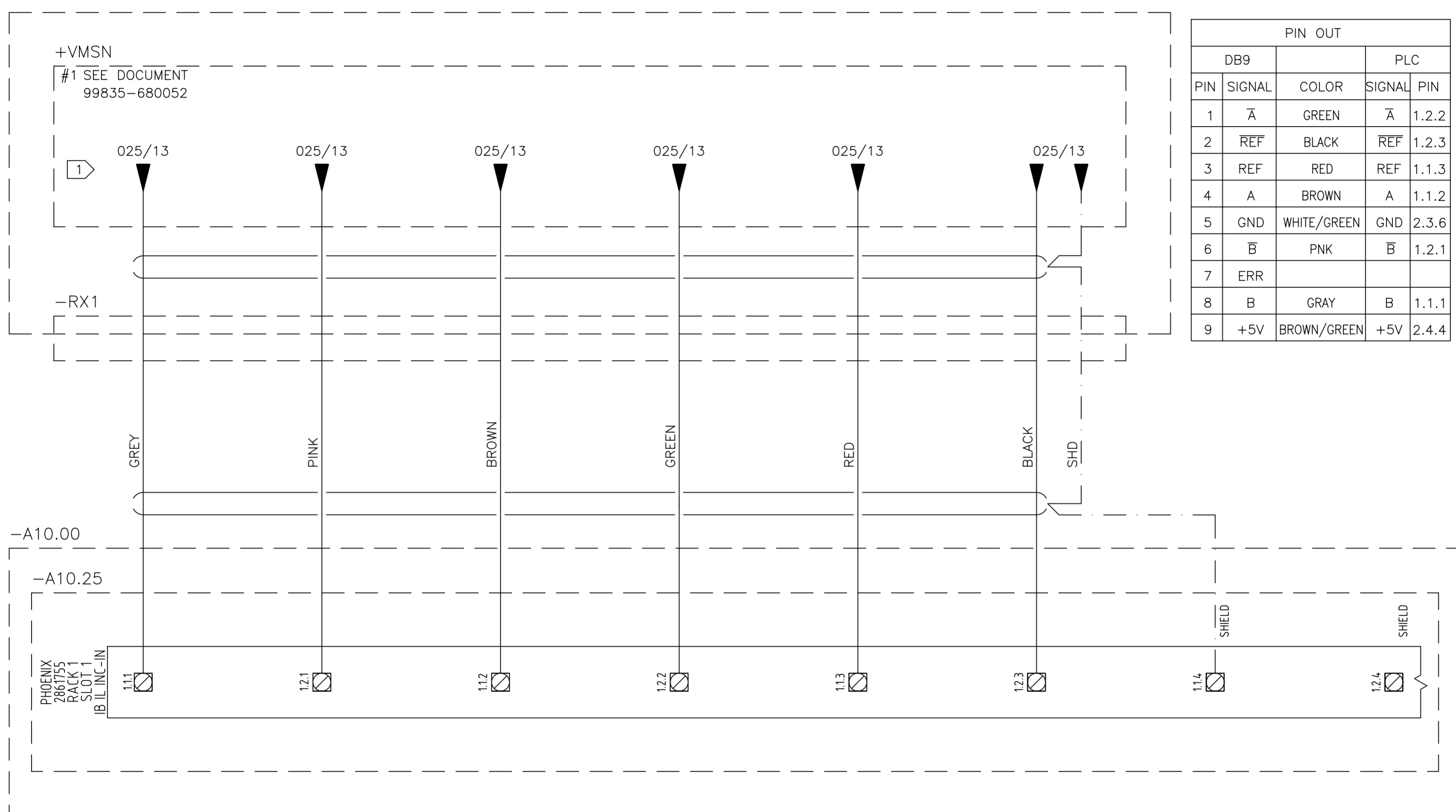


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FORMAT A3 - IMPSA Wind CAD SYSTEM

+LCPN

+VMSN
#1 SEE DOCUMENT
99835-680052



PIN OUT				
DB9		PLC		
PIN	SIGNAL	COLOR	SIGNAL	PIN
1	\bar{A}	GREEN	\bar{A}	1.2.2
2	\bar{REF}	BLACK	\bar{REF}	1.2.3
3	REF	RED	REF	1.1.3
4	A	BROWN	A	1.1.2
5	GND	WHITE/GREEN	GND	2.3.6
6	\bar{B}	PNK	\bar{B}	1.2.1
7	ERR			
8	B	GRAY	B	1.1.1
9	+5V	BROWN/GREEN	+5V	2.4.4

REFERENCE

1. ROTOR ENCODER RPM SPEED
- 2.
- 3.

NOTE: CHANNELS A AND B ARE INTERCHANGED

01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16

05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



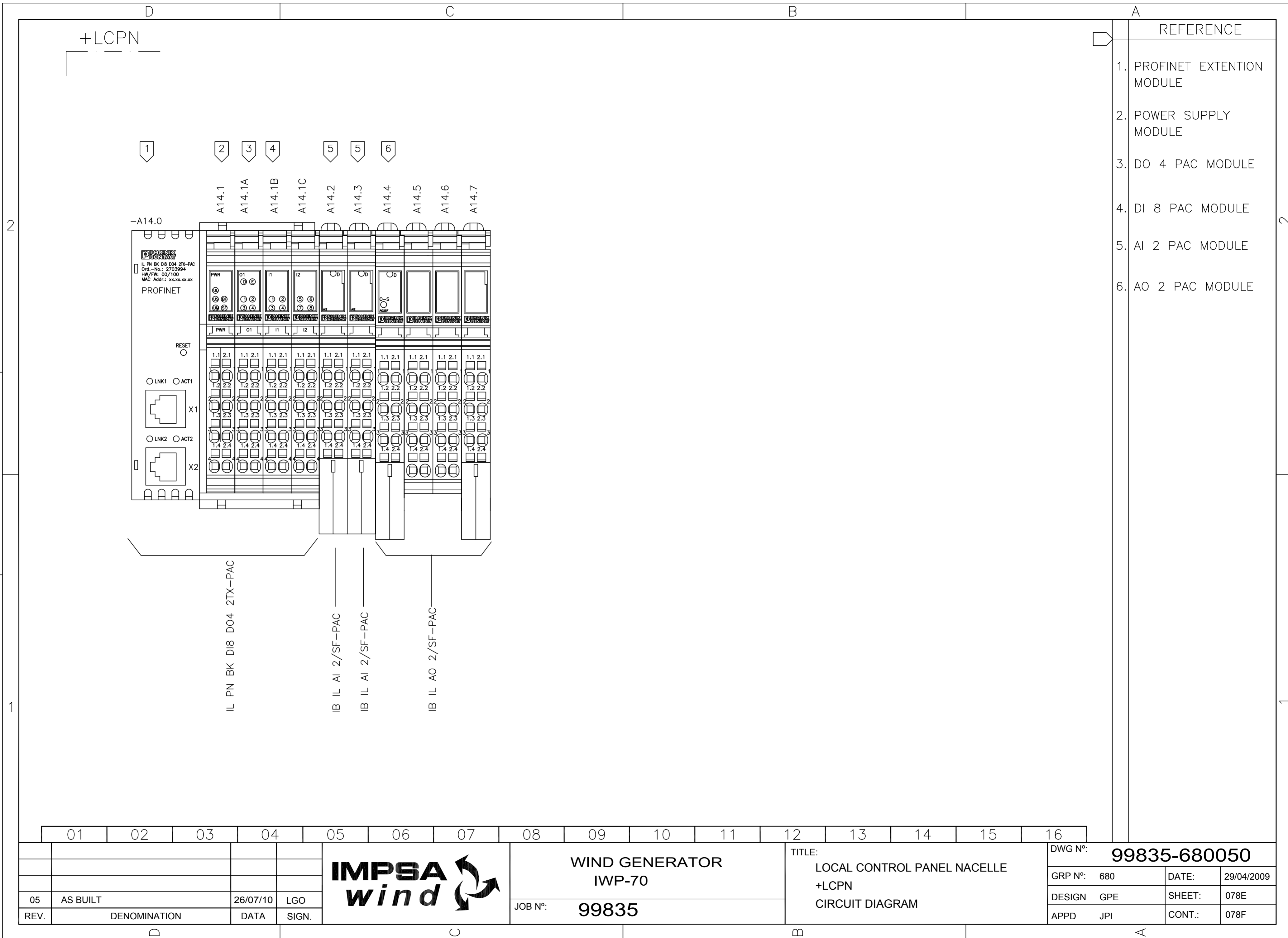
WIND GENERATOR
IWP-77
JOB N°: 99835

TITLE:
LOCAL CONTROL PANEL NACELLE
+LCPN
CIRCUIT DIAGRAM

DWG N°: 99835-680050		
GRP N°: 680	DATE:	20/06/2008
DESIGN GPE	SHEET:	078A
APPD JPI	CONT.:	078B

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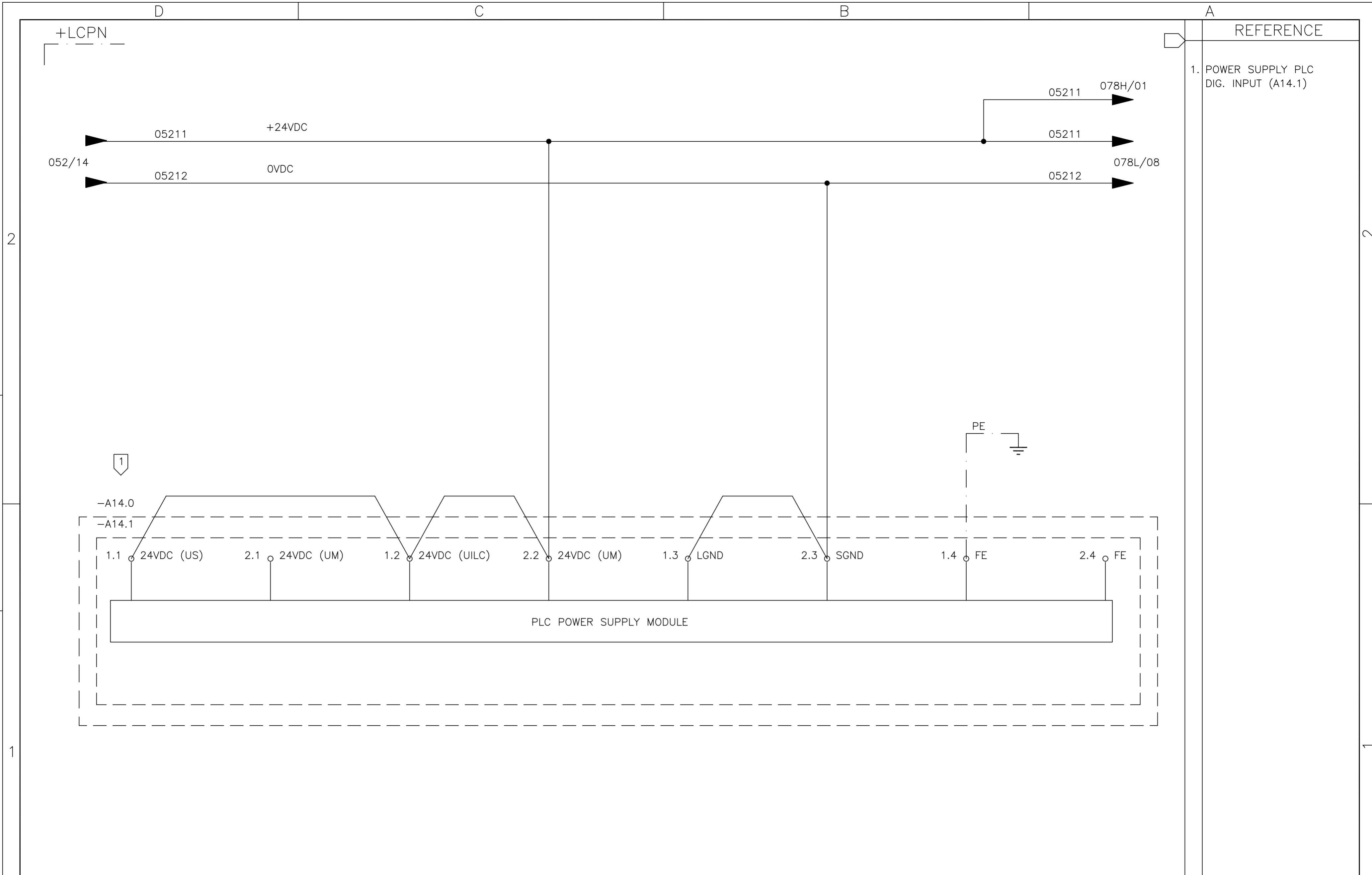
FORMAT A3 - IMPSA Wind CAD SYSTEM



	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16		
05	AS BUILT		26/07/10	LGO	IMPSA <i>wind</i>				WIND GENERATOR IWP-70				TITLE: LOCAL CONTROL PANEL NACELLE +LCPN CIRCUIT DIAGRAM				DWG N°: 99835-680050	
REV.	DENOMINATION		DATA	SIGN.														
									DESIGN GPE		SHEET: 078E							
													APPD JPI		CONT.: 078F			

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FORMAT A3 - IMPSA Wind CAD SYSTEM



	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
05	AS BUILT			26/07/10	LGO											
REV.	DENOMINATION			DATA	SIGN.											



WIND GENERATOR
IWP-70

JOB N°: **99835**

TITLE:
LOCAL CONTROL PANEL NACELLE
+LCPN
CIRCUIT DIAGRAM

DWG N°: **99835-680050**

GRP N°: 680	DATE: 29/04/2009
DESIGN GPE	SHEET: 078F
APPD JPI	CONT.: 078G

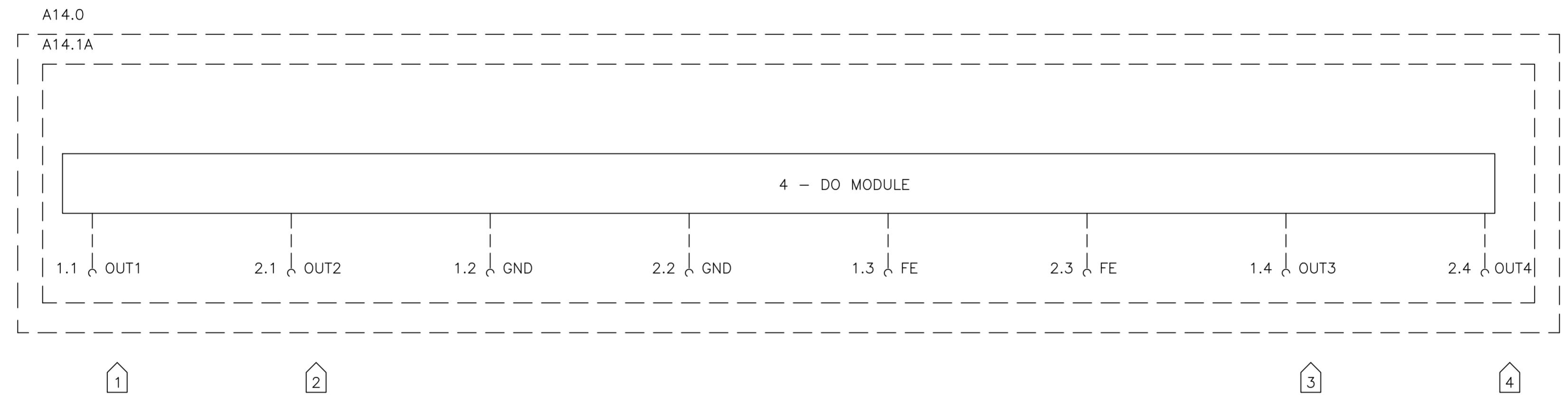
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FORMAT A3 - IMPSA Wind CAD SYSTEM

+LCPN

REFERENCE

- 1. SPARE
- 2. SPARE
- 3. SPARE
- 4. SPARE



01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16

05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



**WIND GENERATOR
IWP-70**

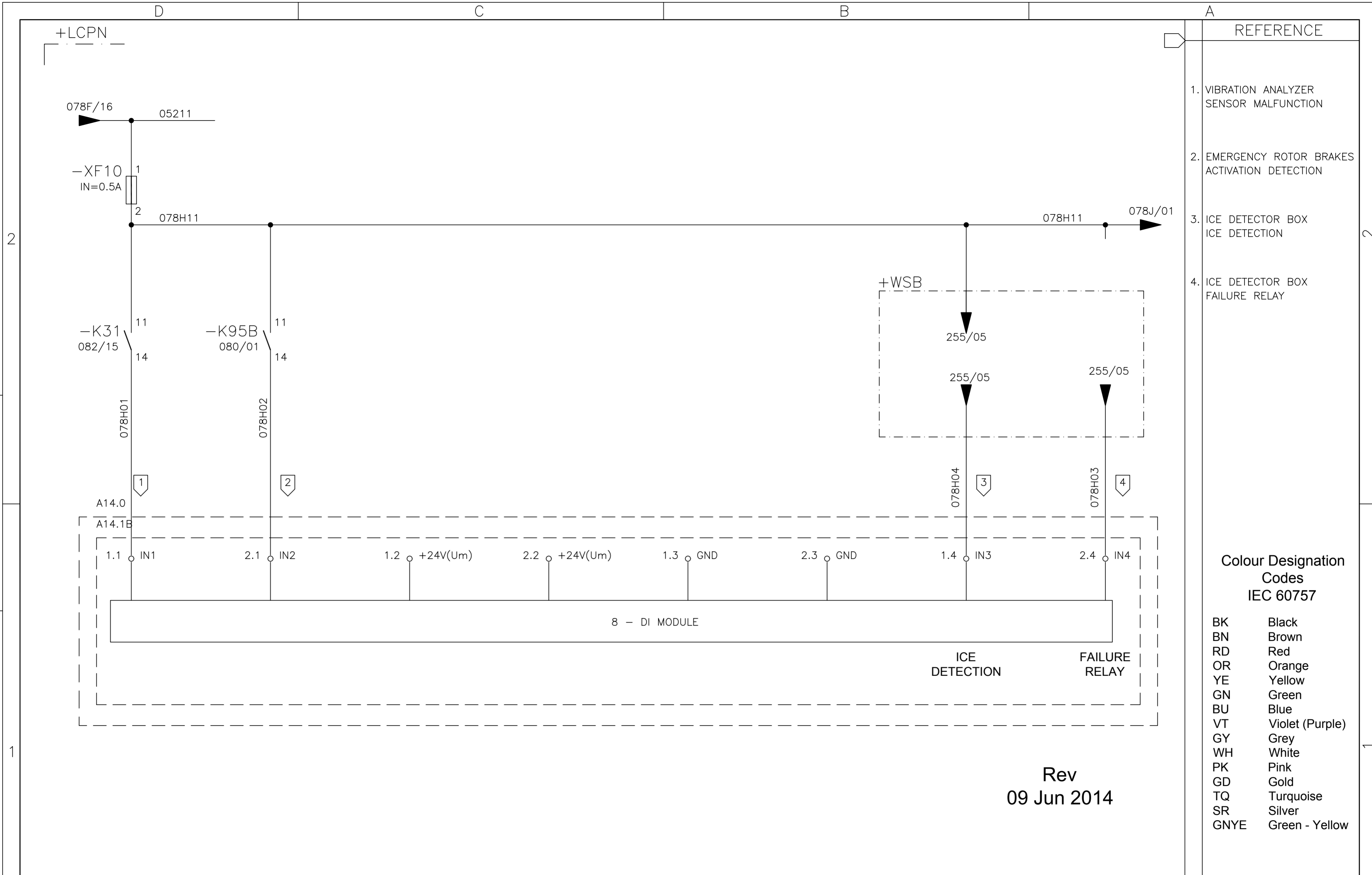
JOB N°: **99835**

TITLE:
LOCAL CONTROL PANEL NACELLE
+LCPN
CIRCUIT DIAGRAM

DWG N°: 99835-680050	
GRP N°: 680	DATE: 29/04/2009
DESIGN GPE	SHEET: 078G
APPD JPI	CONT.: 078H

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FORMAT A3 - IMPSA Wind CAD SYSTEM



Rev
09 Jun 2014

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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				IMPSA <i>wind</i>	WIND GENERATOR IWP-70				TITLE: LOCAL CONTROL PANEL NACELLE +LCPN CIRCUIT DIAGRAM				DWG N°: 99835-680050			
					JOB N°: 99835								GRP N°: 680		DATE: 29/04/2009	
06	ICE DETECTION TEST			09/06/14	LGO			DESIGN GPE		SHEET: 078H		APPD JPI		CONT.: 078J		
REV.	DENOMINATION			DATA			SIGN.									

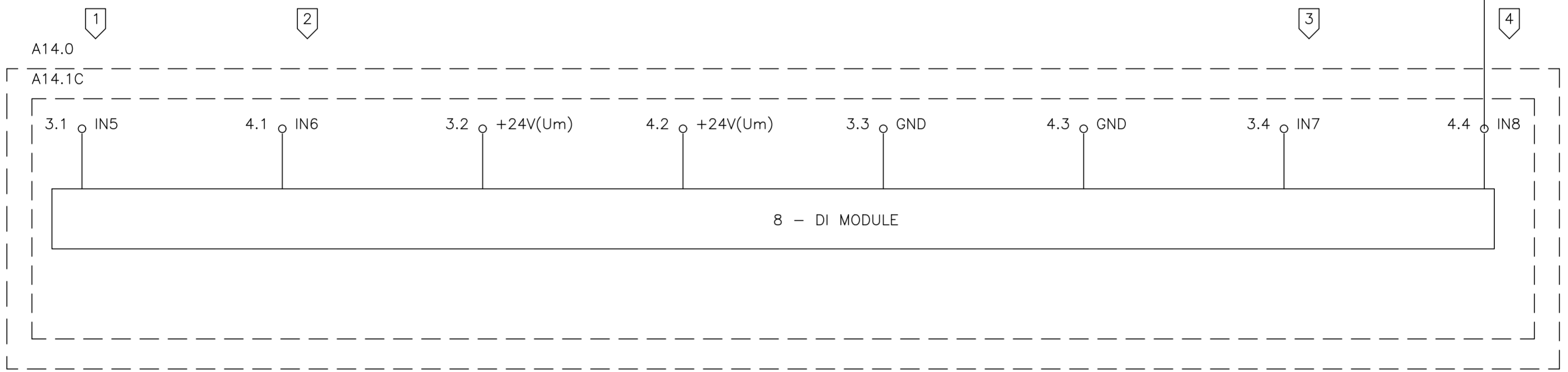
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FORMAT A3 - IMPSA Wind CAD SYSTEM

+LCPN

REFERENCE

- 1. SPARE
- 2. SPARE
- 3. SPARE
- 4. FUSE -XF10 NORMAL



01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16

05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

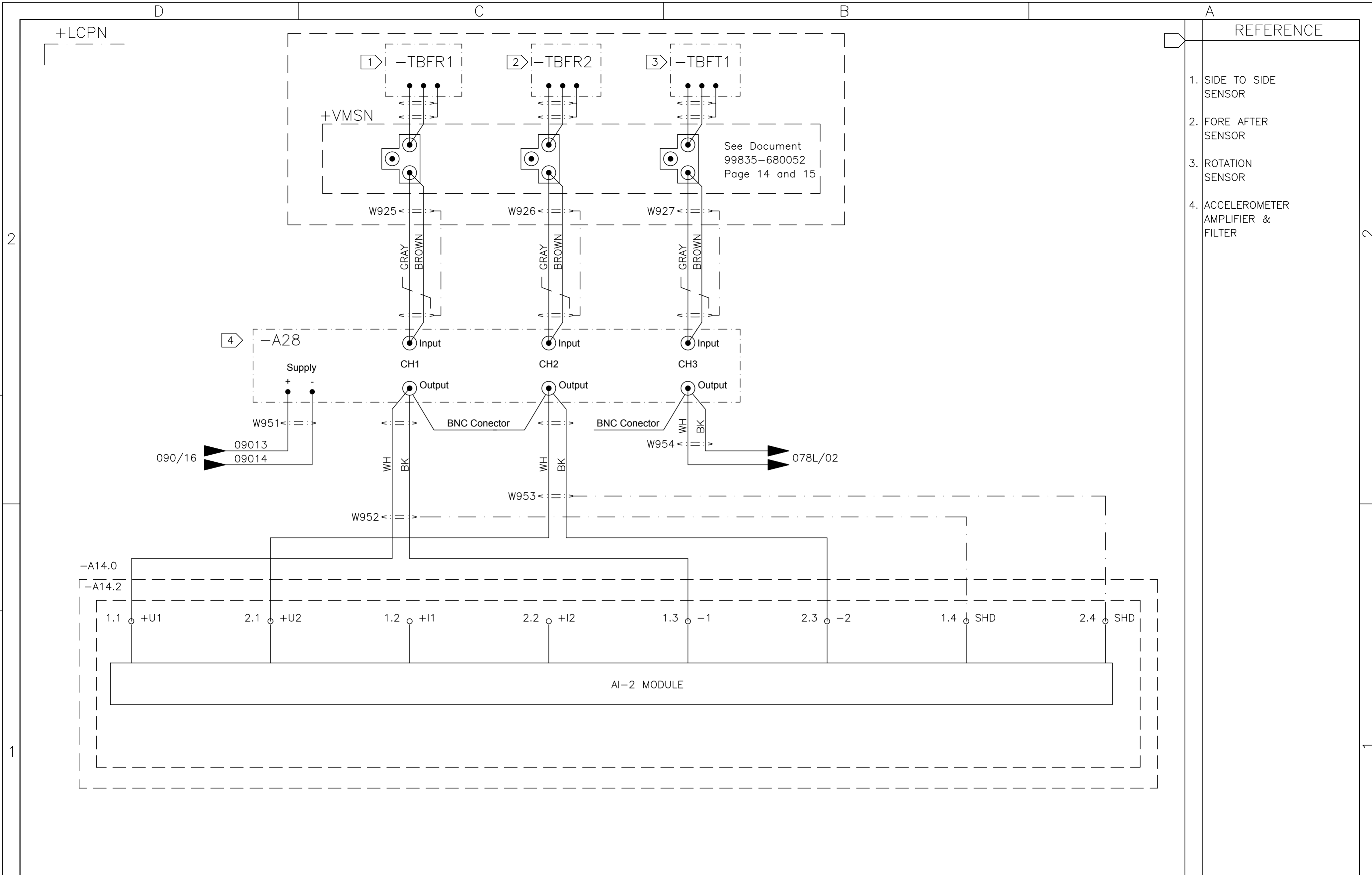
JOB N°: **99835**

TITLE:
LOCAL CONTROL PANEL NACELLE
+LCPN
CIRCUIT DIAGRAM

DWG N°: 99835-680050		
GRP N°: 680	DATE:	29/04/2009
DESIGN GPE	SHEET:	078J
APPD JPI	CONT.:	078K

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FORMAT A3 - IMPSA Wind CAD SYSTEM

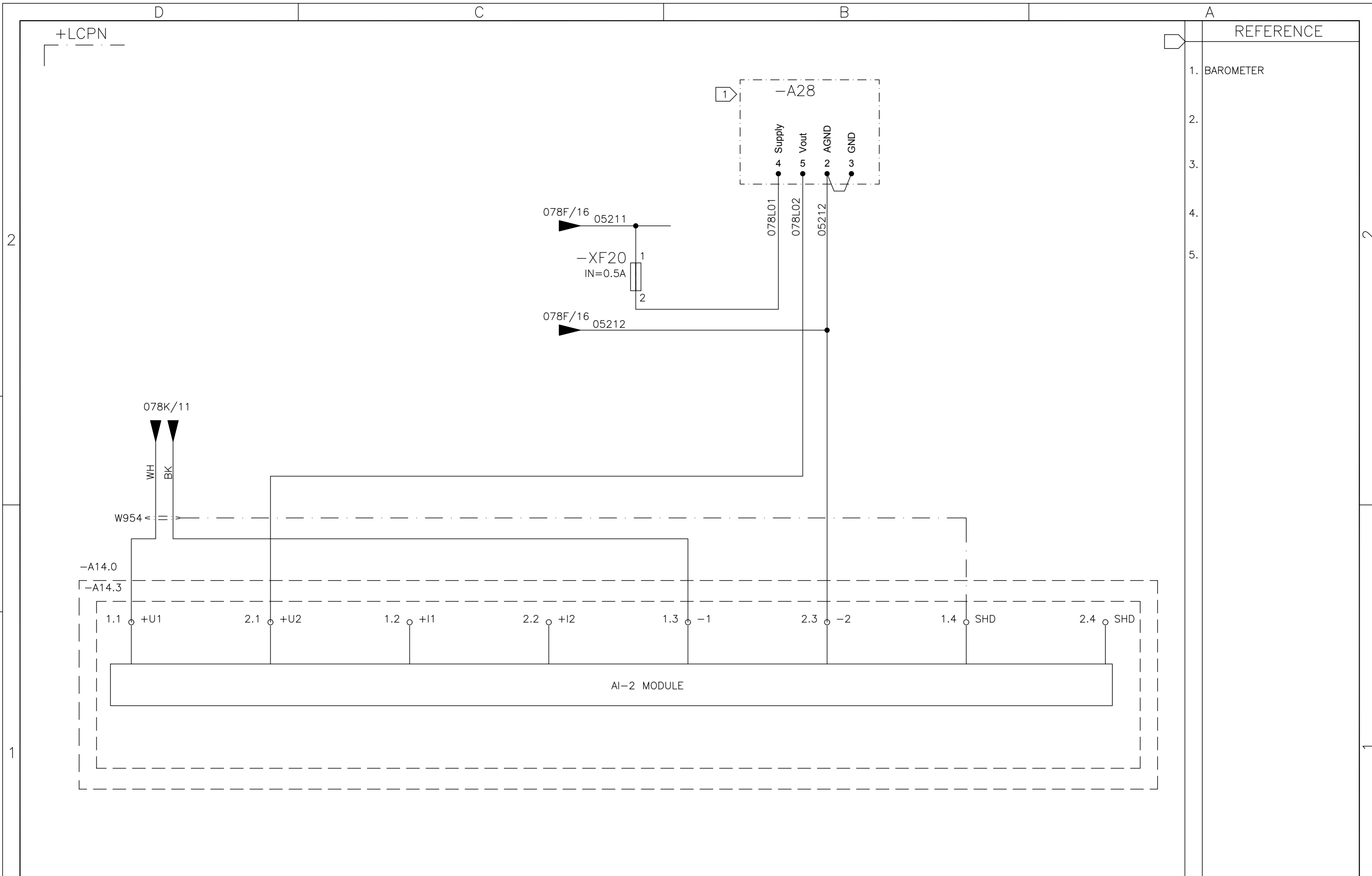


- REFERENCE
1. SIDE TO SIDE SENSOR
 2. FORE AFTER SENSOR
 3. ROTATION SENSOR
 4. ACCELEROMETER AMPLIFIER & FILTER

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
				WIND GENERATOR IWP-70				TITLE: LOCAL CONTROL PANEL NACELLE +LCPN CIRCUIT DIAGRAM				DWG N°: 99835-680050			
05 AS BUILT		26/07/10 LGO		JOB N°: 99835				GRP N°: 680 DATE: 29/04/2009				DESIGN GPE SHEET: 078K			
REV. DENOMINATION		DATA SIGN.													

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FORMAT A3 - IMPSA Wind CAD SYSTEM



	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
05	AS BUILT			26/07/10	LGO											
REV.	DENOMINATION			DATA	SIGN.											



WIND GENERATOR
IWP-70

JOB N°: **99835**

TITLE:
LOCAL CONTROL PANEL NACELLE
+LCPN
CIRCUIT DIAGRAM

DWG N°:	99835-680050		
GRP N°:	680	DATE:	29/04/2009
DESIGN	GPE	SHEET:	078L
APPD	JPI	CONT.:	078M

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FORMAT A3 - IMPSA Wind CAD SYSTEM

+LCPN

REFERENCE

-A14.0

-A14.4

2 - AO MODULE

2.1.1.1 ♂ +10-20 2.2.1 ♂ +14-20 2.1.2 ♂ B2 2.2.2 ♂ B2 2.1.3 ♂ AGND 2.2.3 ♂ AGND 2.1.4 ♂ SHD 2.2.4 ♂ SHD

1.
2.
3.

01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16

05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

JOB N°: **99835**

TITLE:
LOCAL CONTROL PANEL NACELLE
+LCPN
CIRCUIT DIAGRAM

DWG N°: 99835-680050	
GRP N°: 680	DATE: 29/04/2009
DESIGN GPE	SHEET: 078M
APPD JPI	CONT.: 078N

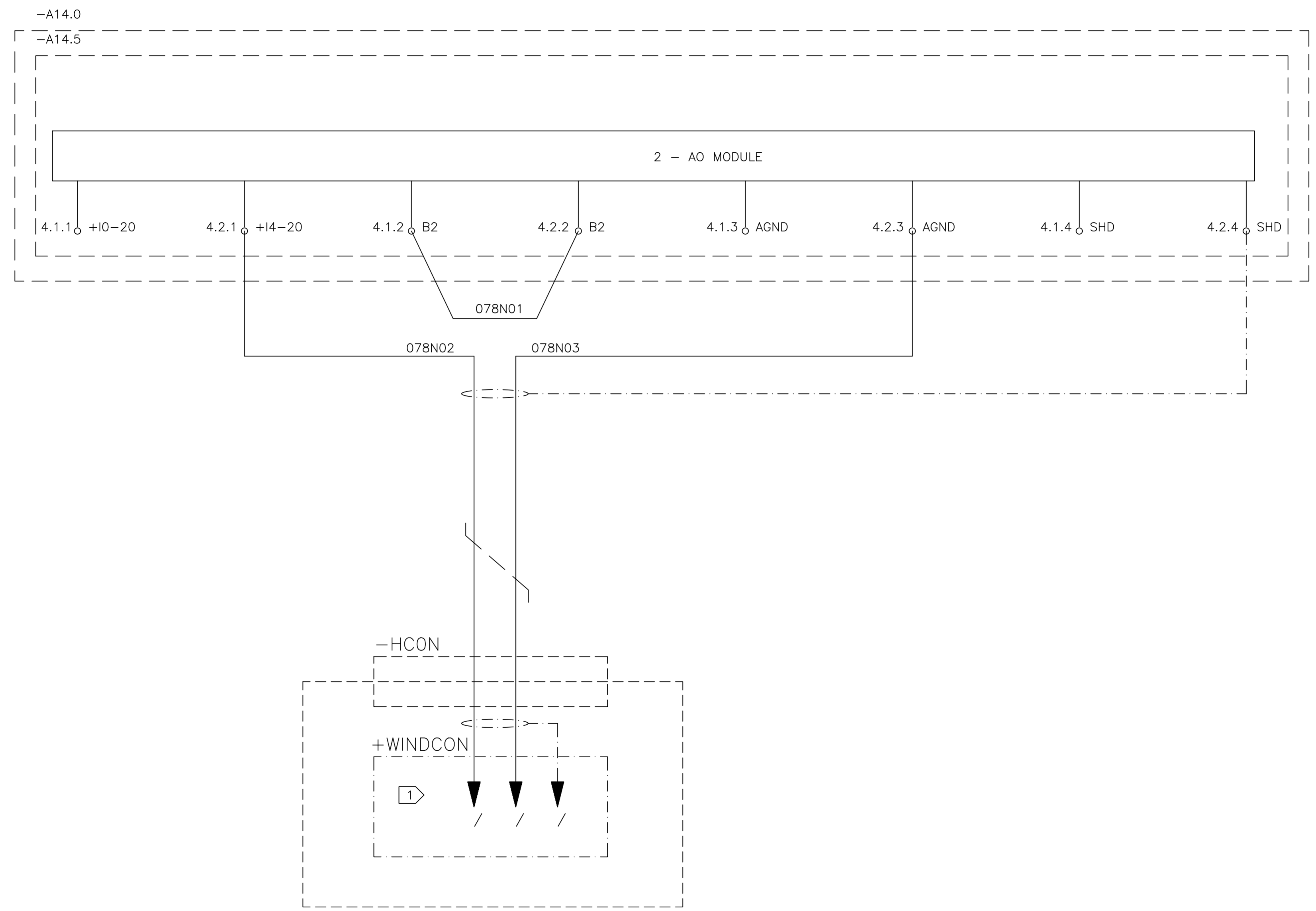
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FORMAT A3 - IMPSA Wind CAD SYSTEM

+LCPN

REFERENCE

1. POWER SIGNAL TO WINDCON
- 2.
- 3.



01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16

05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

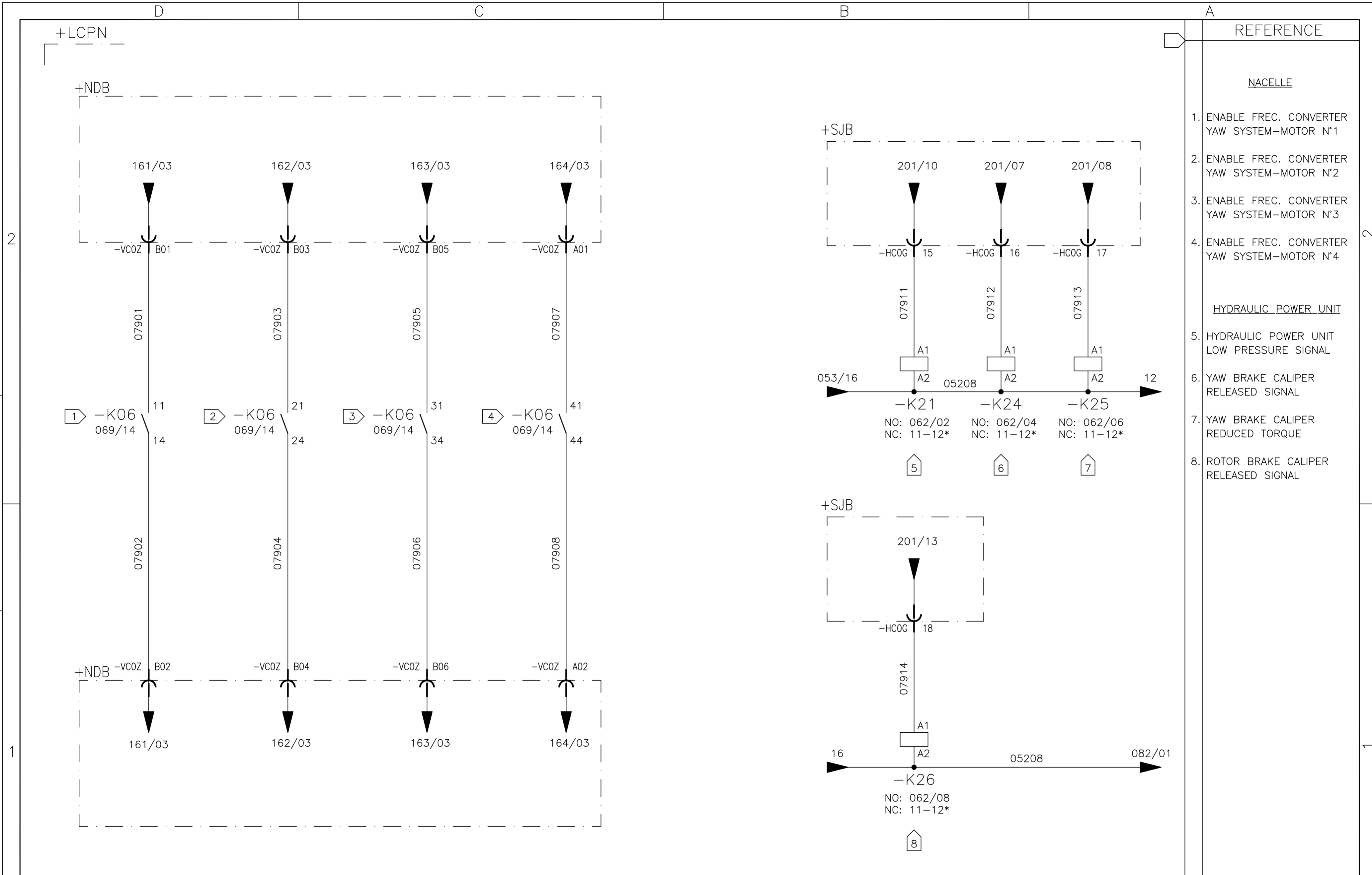
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TITLE:
LOCAL CONTROL PANEL NACELLE
+LCPN
CIRCUIT DIAGRAM

DWG N°:	99835-680050		
GRP N°:	680	DATE:	29/04/2009
DESIGN	GPE	SHEET:	078N
APPD	JPI	CONT.:	079

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FORMAT A3 - IMPSA Wind CAD SYSTEM



01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

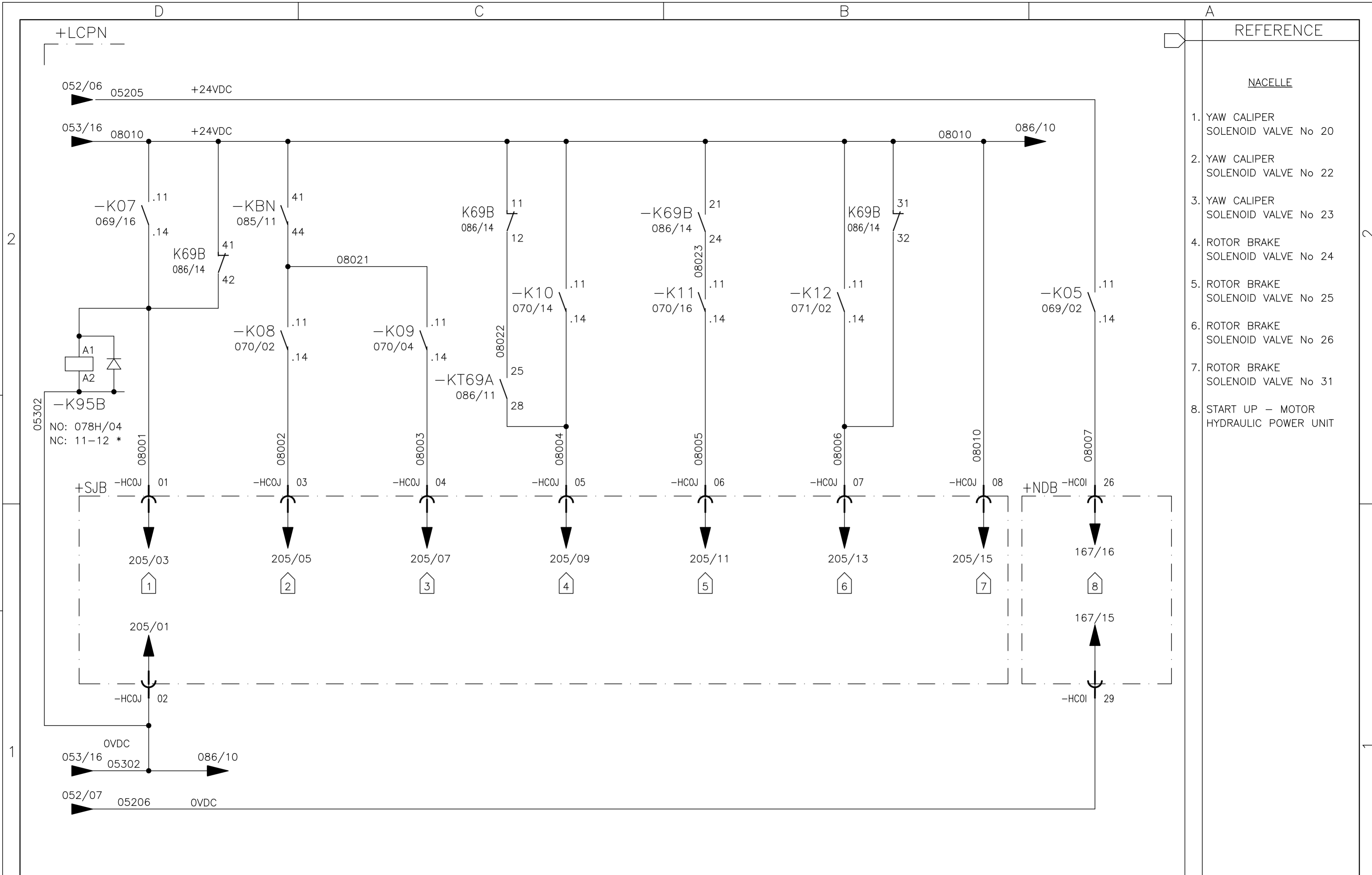
JOB N°: **99835**

TITLE:
LOCAL CONTROL PANEL NACELLE
+LCPN
CIRCUIT DIAGRAM

DWG N°:	99835-680050		
GRP N°:	680	DATE:	11/12/2006
DESIGN	GPE	SHEET:	079
APPD	JPI	CONT.:	080

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FORMAT A3 - IMPSA Wind CAD SYSTEM



01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

JOB N°: **99835**

TITLE:
LOCAL CONTROL PANEL NACELLE
+LCPN
CIRCUIT DIAGRAM

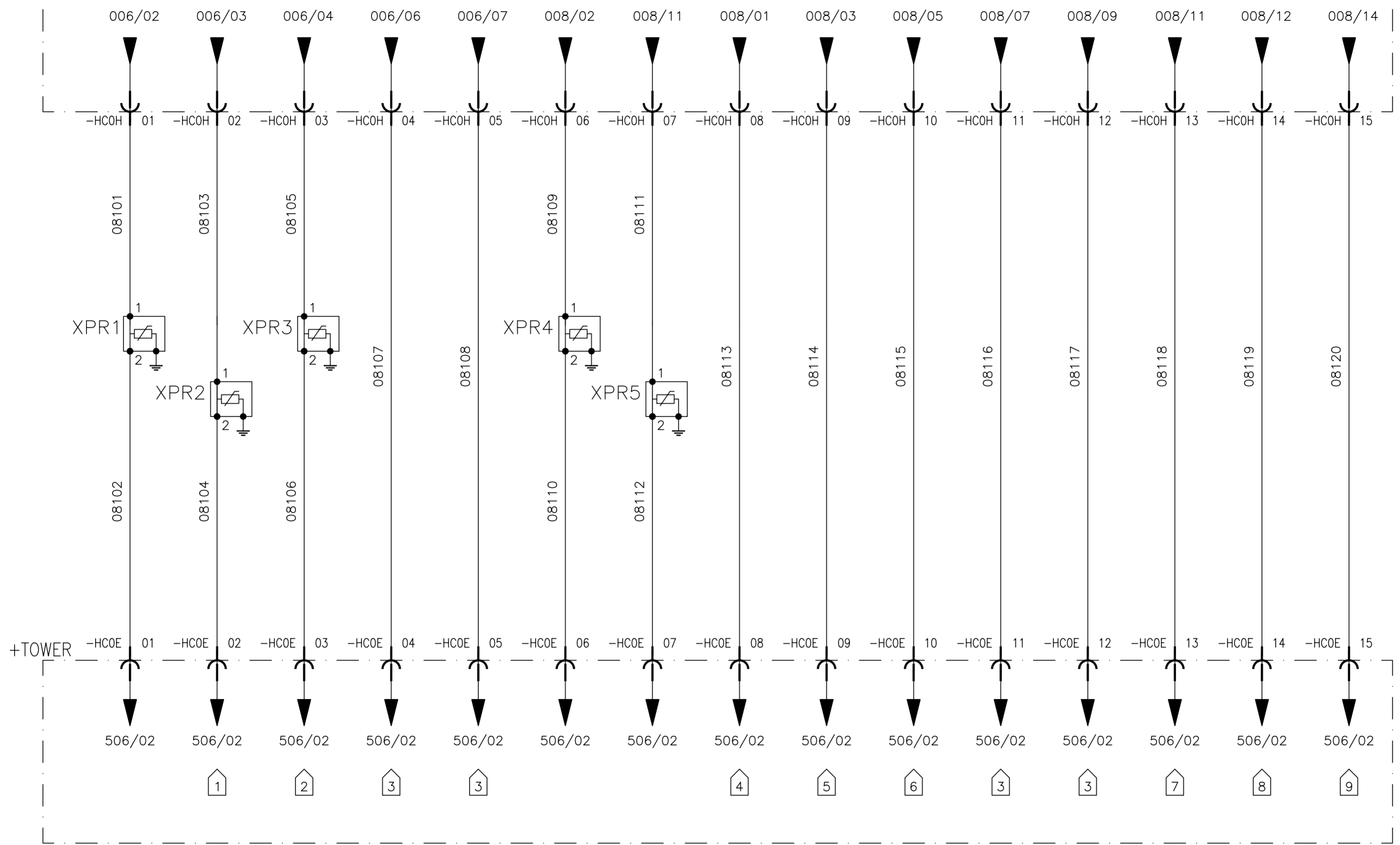
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GRP N°:	680	DATE:	11/12/2006
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APPD	JPI	CONT.:	081

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FORMAT A3 - IMPSA Wind CAD SYSTEM

+LCPN

+CBN #1



REFERENCE

NACELLE

1. OPEN CIRCUIT BREAKER COMMAND FROM +CONV.
2. CLOSE CIRCUIT BREAKER COMMAND FROM +CONV.
3. EQUIPED SPARE
4. NACELLE CIRCUIT BREAKER OPEN
5. NACELLE CIRCUIT BREAKER CLOSE
6. NACELLE CIRCUIT BREAKER SPRING CHARGED
7. NACELLE CIRCUIT BREAKER READY TO CLOSE
6. NACELLE CIRCUIT BREAKER FUSE OPEN
9. NACELLE CIRCUIT BREAKER COMMAND POWER SOURCE FAILURE

#1 SEE DOCUMENT 99835-680053

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

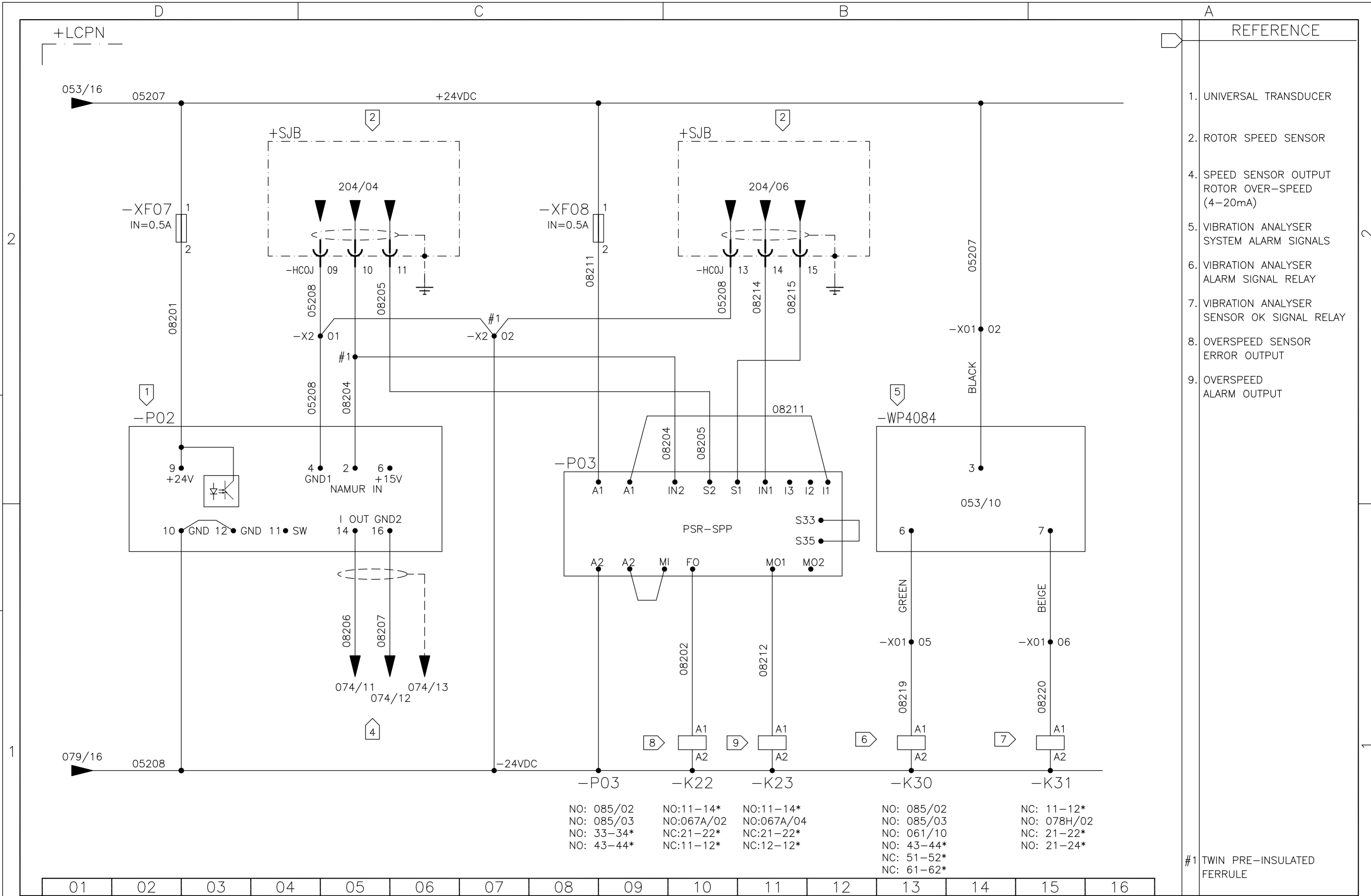
JOB N°: **99835**

TITLE:
LOCAL CONTROL PANEL NACELLE
+LCPN
NACELLE CIRCUIT BREAKER SIGNALS

DWG N°: 99835-680050	
GRP N°: 680	DATE: 11/12/2006
DESIGN GPE	SHEET: 081
APPD JPI	CONT.: 082

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FORMAT A3 - IMPSA Wind CAD SYSTEM



- REFERENCE
1. UNIVERSAL TRANSDUCER
 2. ROTOR SPEED SENSOR
 4. SPEED SENSOR OUTPUT ROTOR OVER-SPEED (4-20mA)
 5. VIBRATION ANALYSER SYSTEM ALARM SIGNALS
 6. VIBRATION ANALYSER ALARM SIGNAL RELAY
 7. VIBRATION ANALYSER SENSOR OK SIGNAL RELAY
 8. OVERSPEED SENSOR ERROR OUTPUT
 9. OVERSPEED ALARM OUTPUT
- #1 TWIN PRE-INSULATED FERRULE

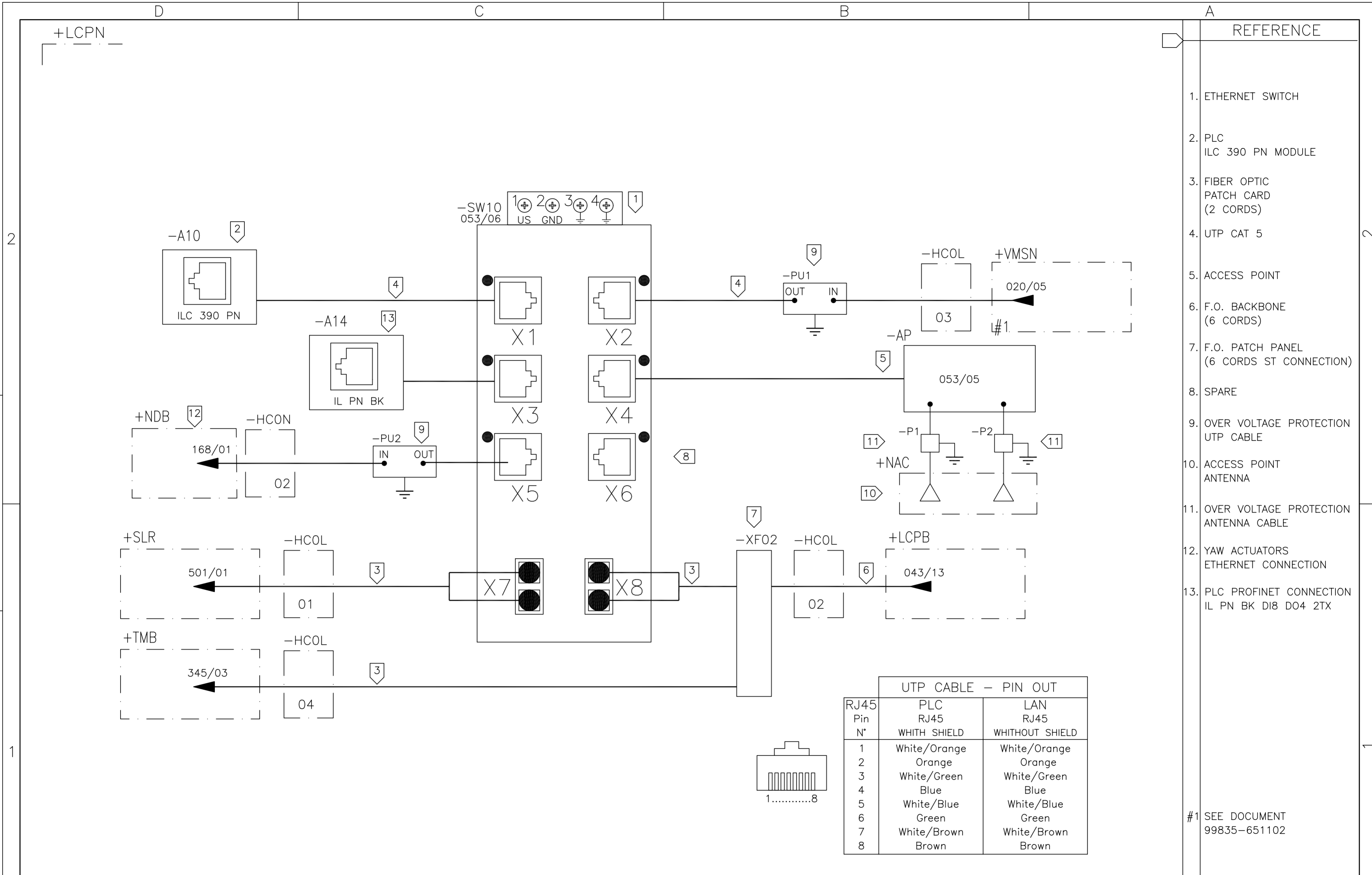
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NO: 085/03	NO:067A/02	NO:067A/04	NO: 085/03	NO: 078H/02
NO: 33-34*	NC:21-22*	NC:21-22*	NO: 061/10	NC: 21-22*
NO: 43-44*	NC:11-12*	NC:12-12*	NO: 43-44*	NO: 21-24*
			NC: 51-52*	
			NC: 61-62*	

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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					WIND GENERATOR IWP-70				TITLE: LOCAL CONTROL PANEL NACELLE +LCPN CIRCUIT DIAGRAM				DWG N°: 99835-680050			
05	AS BUILT	26/07/10	LGO		JOB N°: 99835								GRP N°: 680 DATE: 11/12/2006			
REV.	DENOMINATION	DATA	SIGN.									DESIGN GPE SHEET: 082 APPD JPI CONT.: 083				

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FORMAT A3 - IMPSA Wind CAD SYSTEM



- REFERENCE
1. ETHERNET SWITCH
 2. PLC ILC 390 PN MODULE
 3. FIBER OPTIC PATCH CARD (2 CORDS)
 4. UTP CAT 5
 5. ACCESS POINT
 6. F.O. BACKBONE (6 CORDS)
 7. F.O. PATCH PANEL (6 CORDS ST CONNECTION)
 8. SPARE
 9. OVER VOLTAGE PROTECTION UTP CABLE
 10. ACCESS POINT ANTENNA
 11. OVER VOLTAGE PROTECTION ANTENNA CABLE
 12. YAW ACTUATORS ETHERNET CONNECTION
 13. PLC PROFINET CONNECTION IL PN BK DI8 DO4 2TX

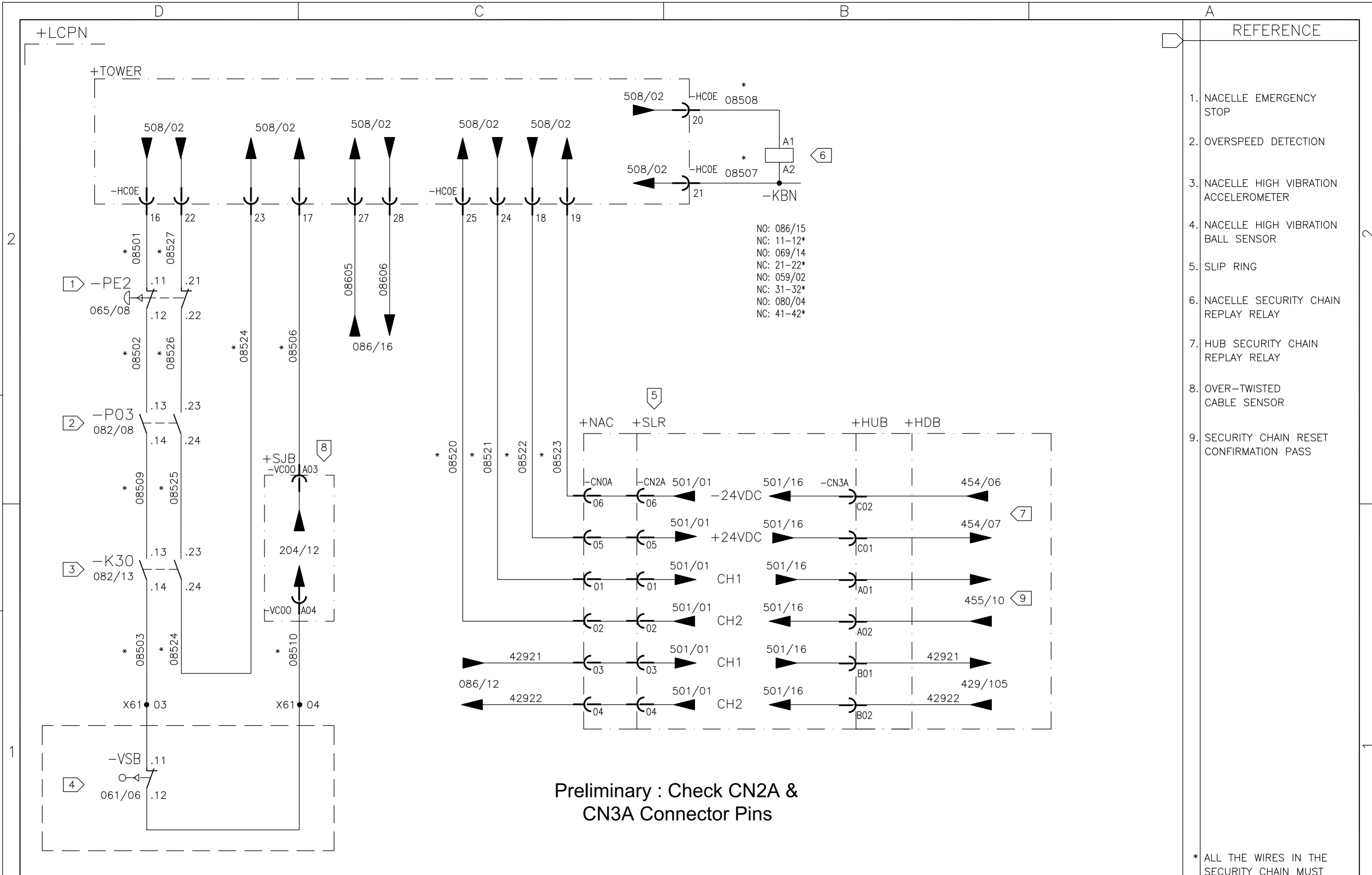
UTP CABLE - PIN OUT		
RJ45 Pin N°	PLC RJ45 WITH SHIELD	LAN RJ45 WITHOUT SHIELD
1	White/Orange	White/Orange
2	Orange	Orange
3	White/Green	White/Green
4	Blue	Blue
5	White/Blue	White/Blue
6	Green	Green
7	White/Brown	White/Brown
8	Brown	Brown

#1 SEE DOCUMENT 99835-651102

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
	IMPSA wind				WIND GENERATOR IWP-70				TITLE: LOCAL CONTROL PANEL NACELLE +LCPN CIRCUIT DIAGRAM ETHERNET SWITCH CONNECTIONS				DWG N°: 99835-680050			
05	AS BUILT		26/07/10	LGO	JOB N°: 99835				GRP N°: 680				DATE:	11/12/2006		
REV.	DENOMINATION		DATA	SIGN.					DESIGN GPE				SHEET:	083		
									APPD JPI				CONT.:	085		

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FORMAT A3 - IMPSA Wind CAD SYSTEM



Preliminary : Check CN2A & CN3A Connector Pins

* ALL THE WIRES IN THE SECURITY CHAIN MUST BE IN WHITE COLOR

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

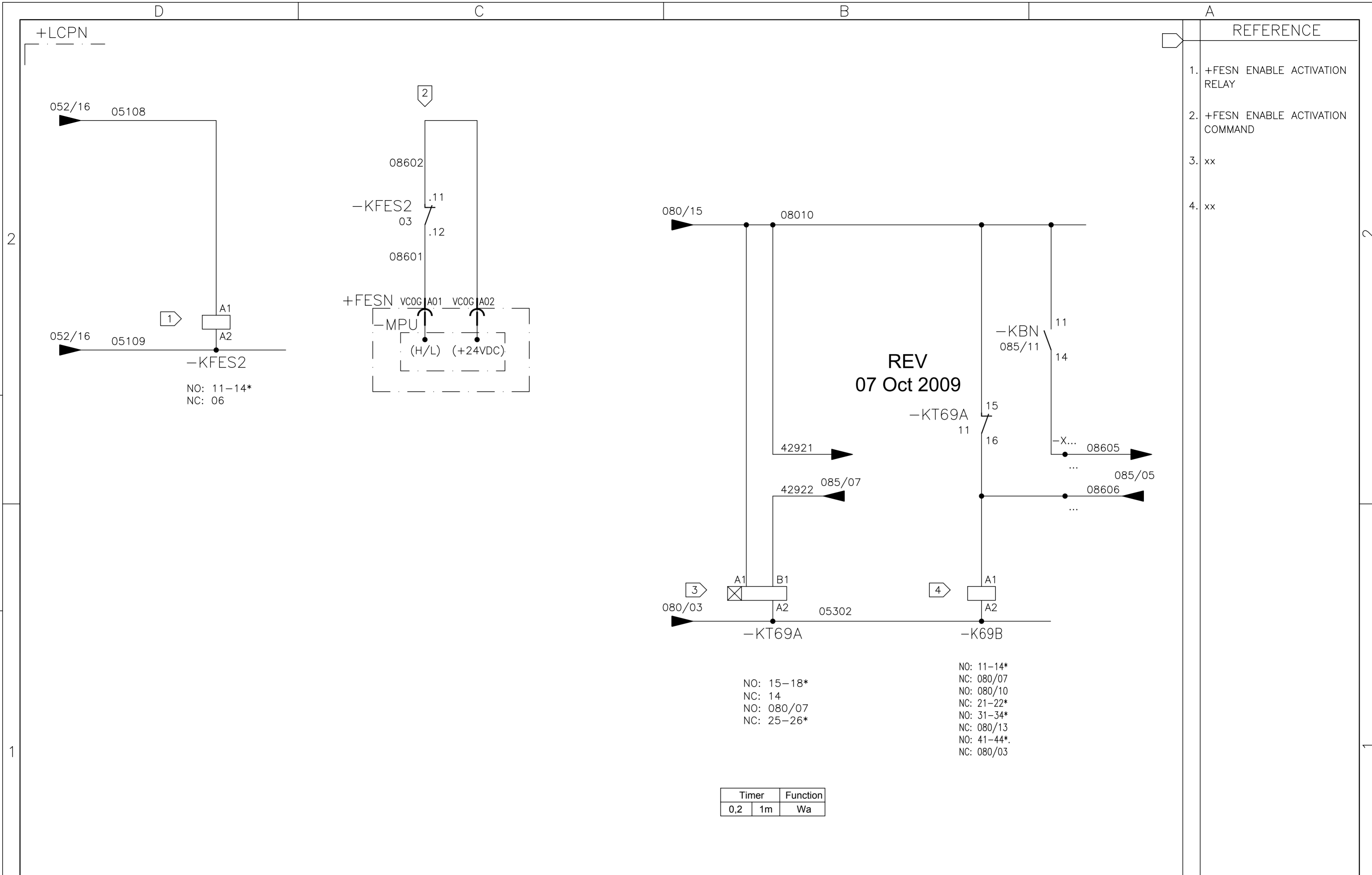
JOB N°: 99835

TITLE:
LOCAL CONTROL PANEL NACELLE
+LCPN - CIRCUIT DIAGRAMS

DWG N°: 99835-680050	
GRP N°: 680	DATE: 13/10/2006
DESIGN GPE	SHEET: 085
APPD JPI	CONT.: 086

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FORMAT A3 - IMPSA Wind CAD SYSTEM

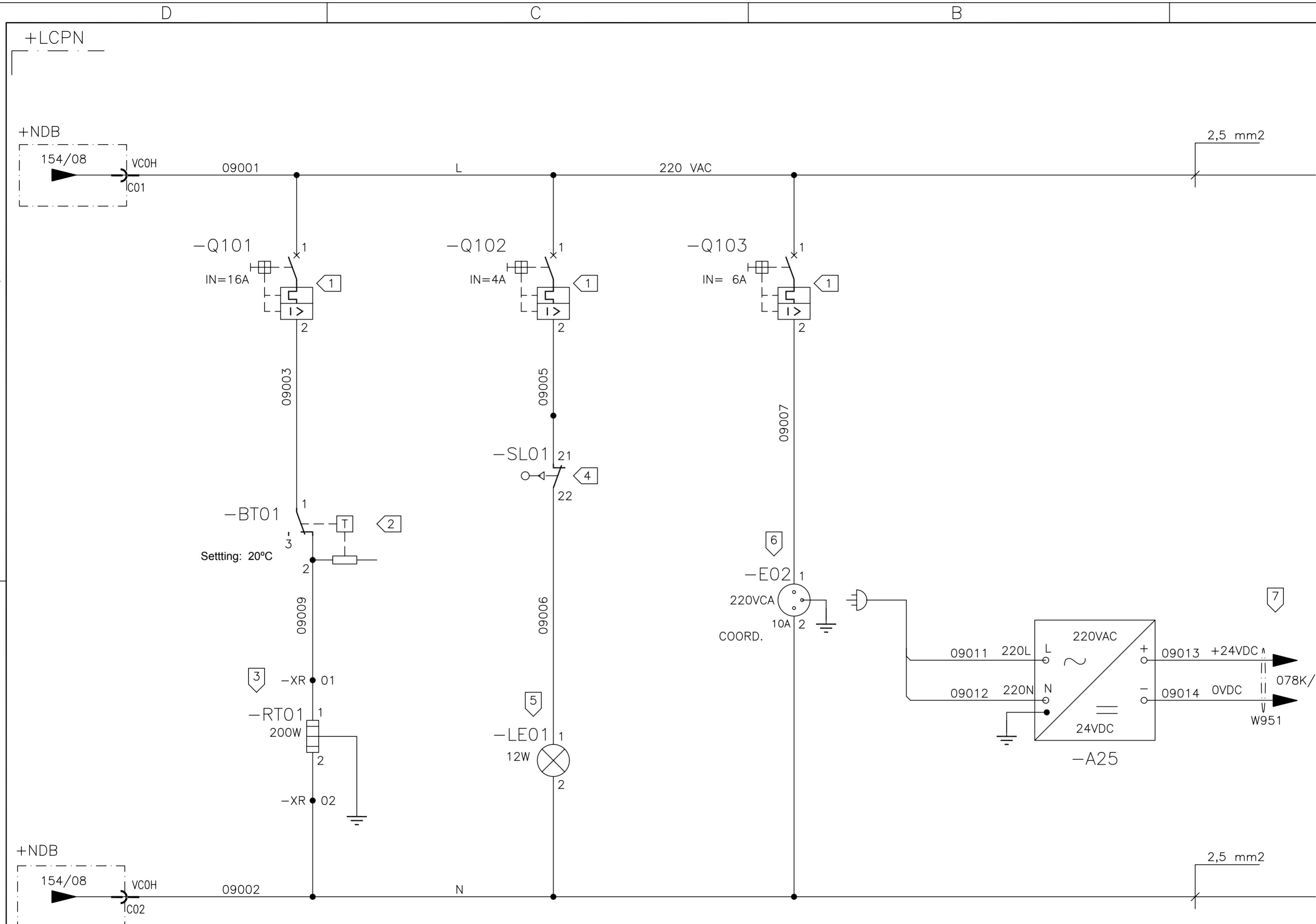


REFERENCE	
1.	+FESN ENABLE ACTIVATION RELAY
2.	+FESN ENABLE ACTIVATION COMMAND
3.	xx
4.	xx

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
								WIND GENERATOR IWP-70				TITLE: LOCAL CONTROL PANEL NACELLE +LCPN - CIRCUIT DIAGRAMS			
05	AS BUILT	26/07/10	LGO												
REV.	DENOMINATION	DATA	SIGN.	JOB N°: 99835				DWG N°: 99835-680050							
								GRP N°: 680 DATE: 13/10/2006							
								DESIGN GPE SHEET: 086							
								APPD JPI CONT.: 090							

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FORMAT A3 - IMPSA Wind CAD SYSTEM

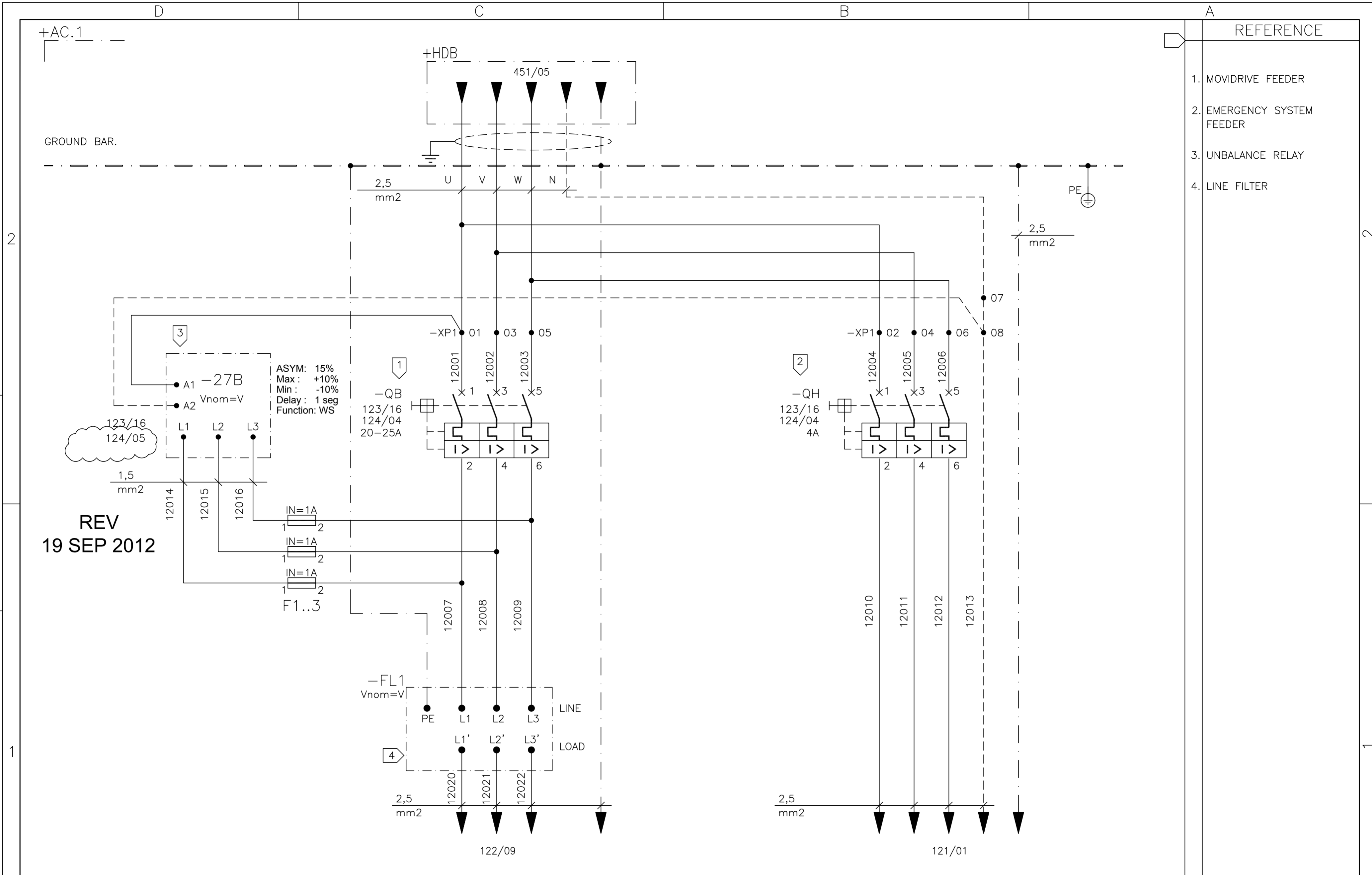


- REFERENCE
1. CIRCUIT BREAKER FAULT RESET
 2. 10°C-30°C THERMOSTAT
 3. PANEL HEATER
 4. DOOR SWITCH
 5. PANEL LIGHT
 6. OUTLET 10A
 7. ACCELEROMETER AMPLIFIER & FILTER SUPPLY

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
								WIND GENERATOR IWP-70 TITLE: LOCAL CONTROL PANEL NACELLE +LCPN - CIRCUIT DIAGRAMS				DWG N°: 99835-680050			
05 AS BUILT 26/07/10 LGO												JOB N°: 99835			
REV.		DENOMINATION		DATA		SIGN.						APPD JPI CONT.: 120			

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FORMAT A3 - IMPSA Wind CAD SYSTEM



REV
19 SEP 2012

REFERENCE	
1.	MOVIDRIVE FEEDER
2.	EMERGENCY SYSTEM FEEDER
3.	UNBALANCE RELAY
4.	LINE FILTER

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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06	AS BUILT	19/09/2012	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

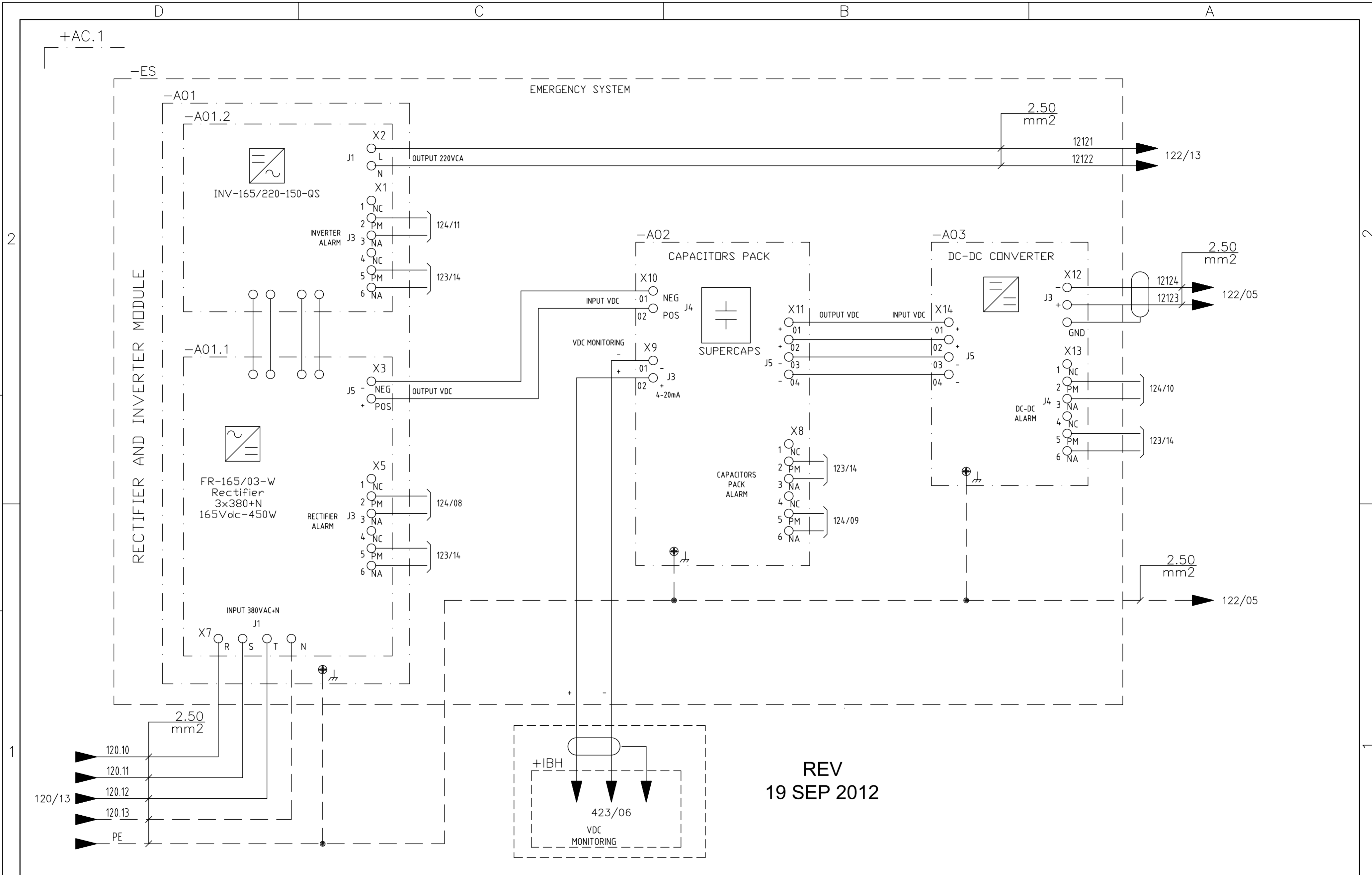
JOB Nº: **99835**

TITLE:
BLADE POSITION SYSTEM +AC 1
CIRCUIT DIAGRAM
380 VAC DISTRIBUTION

DWG Nº:	99835-680050		
GRP Nº:	680	DATE:	13/10/2006
DESIGN	GPE	SHEET:	120
APPD	JPI	CONT.:	121

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FORMAT A3 - IMPSA Wind CAD SYSTEM



REV
19 SEP 2012

01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16

06	AS BUILT	19/09/2012	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

JOB N°: **99835**

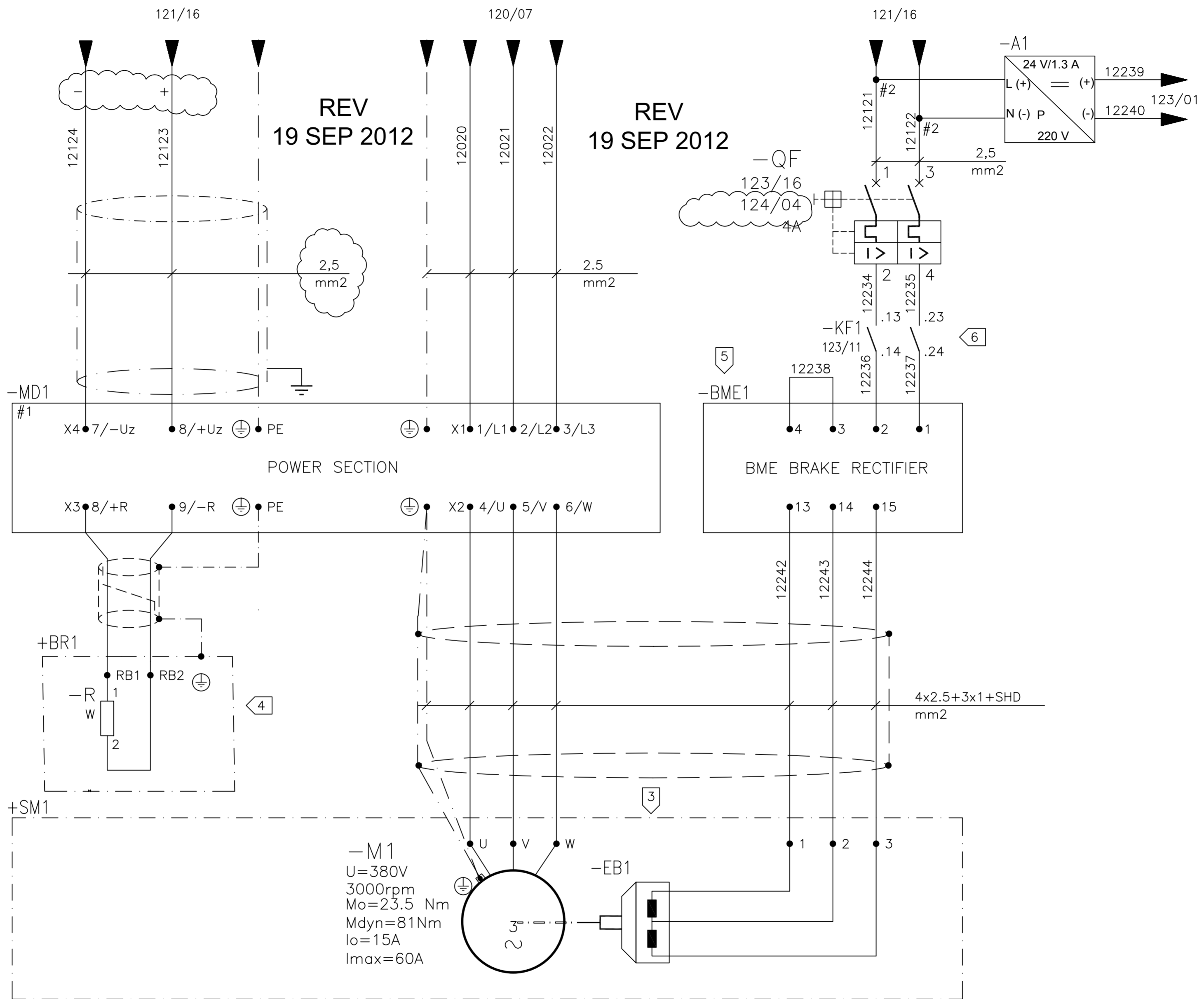
TITLE:
BLADE POSITION SYSTEM +AC.1
CIRCUIT DIAGRAM
EMERGENCY SYSTEM

DWG N°: 99835-680050	
GRP N°: 680	DATE: 13/10/2006
DESIGN GPE	SHEET: 121
APPD JPI	CONT.: 122

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FORMAT A3 - IMPSA Wind CAD SYSTEM

+AC.1



REFERENCE

- 1. MOVIDRIVE FREQUENCY CONVERTER
 - 2. BLADE SERVOMOTOR
 - 3. ELECTROMECHANIC BRAKE
 - 4. BRAKE RESISTOR
 - 5. BRAKE CONTROL
 - 6. BRAKE ACTIVATION RELAY
- #2 TWIN PRE-INSULATED FERRULE
- #1 SEW EURODRIVE
Doc N° 11300310 / EN

01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16

06	AS BUILT	19/09/2012	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

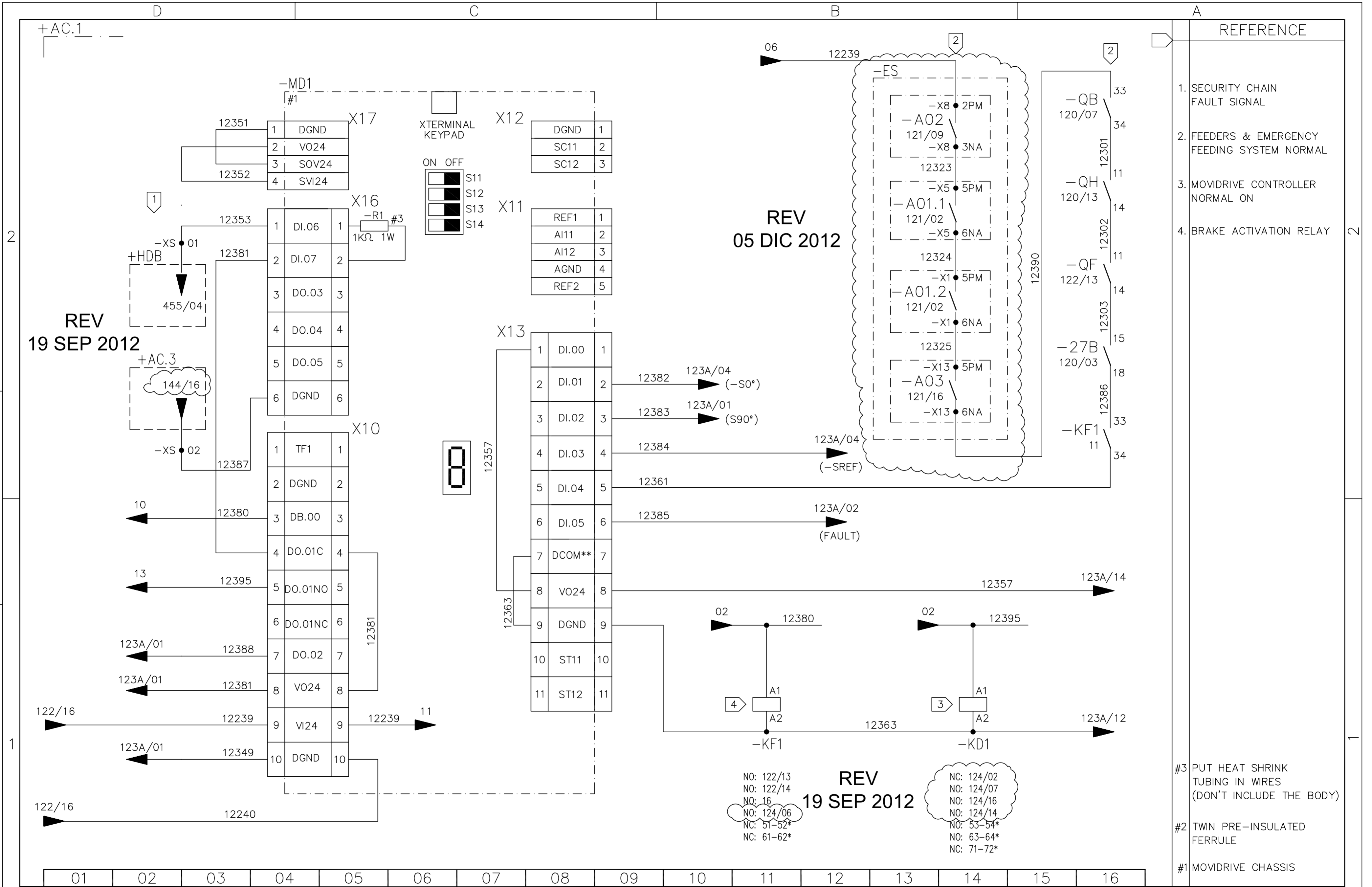
JOB N°: **99835**

TITLE:
BLADE POSITION SYSTEM +AC.1
CIRCUIT DIAGRAM
POWER AND BRAKE SECTIONS CONNECTION

DWG N°:	99835-680050		
GRP N°:	680	DATE:	13/10/2006
DESIGN	GPE	SHEET:	122
APPD	JPI	CONT.:	123

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FORMAT A3 - IMPSA Wind CAD SYSTEM

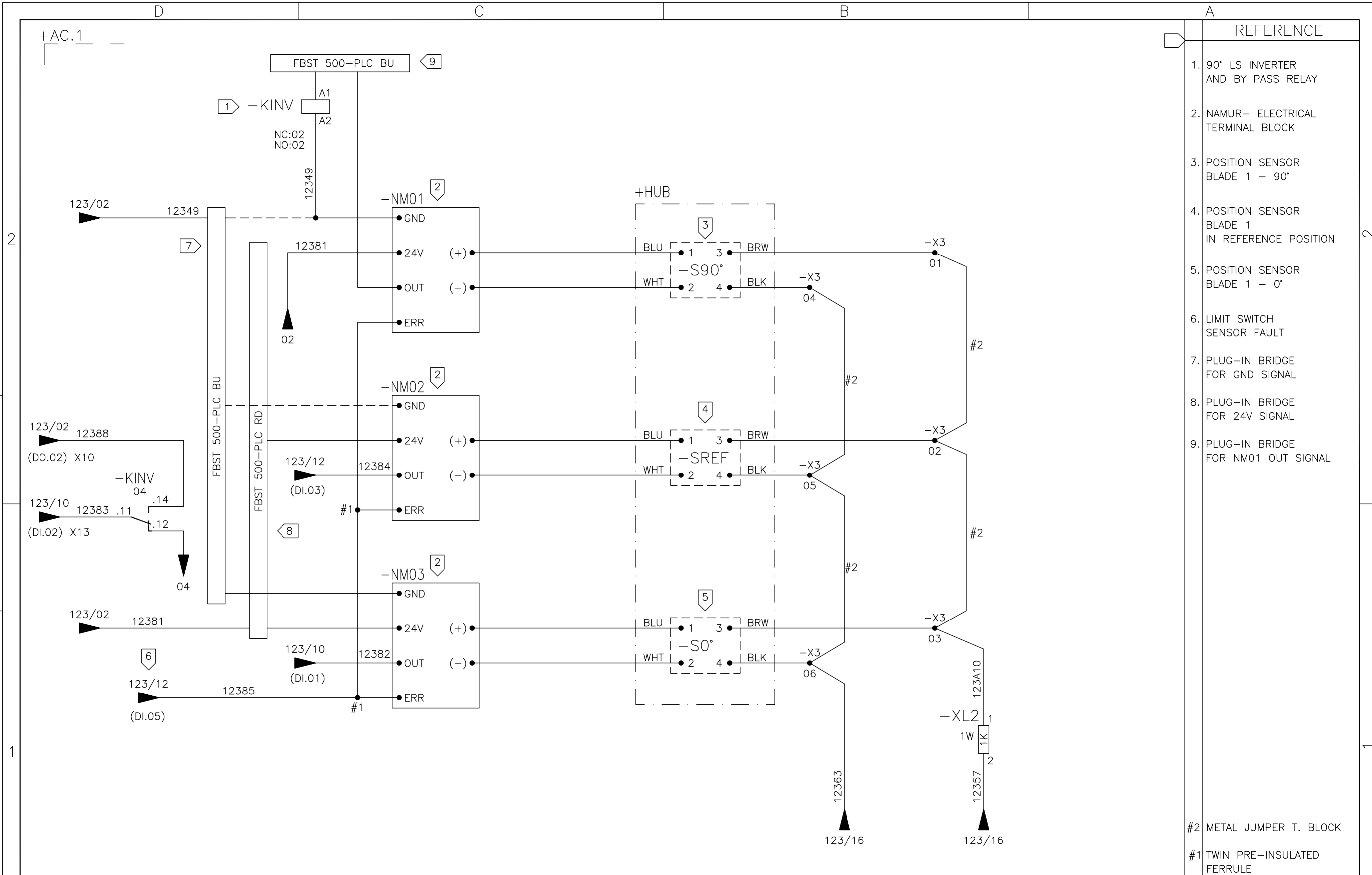


01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
06	AS BUILT	19/09/2012	LGO					WIND GENERATOR IWP-70 TITLE: BLADE POSITION SYSTEM +AC.1 CIRCUIT DIAGRAM CONTROL SECTION CONNECTION				DWG N°: 99835-680050			
REV.	DENOMINATION	DATA	SIGN.									JOB N°: 99835			

- #3 PUT HEAT SHRINK TUBING IN WIRES (DON'T INCLUDE THE BODY)
- #2 TWIN PRE-INSULATED FERRULE
- #1 MOVIDRIVE CHASSIS

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FORMAT A3 - IMPSA Wind CAD SYSTEM

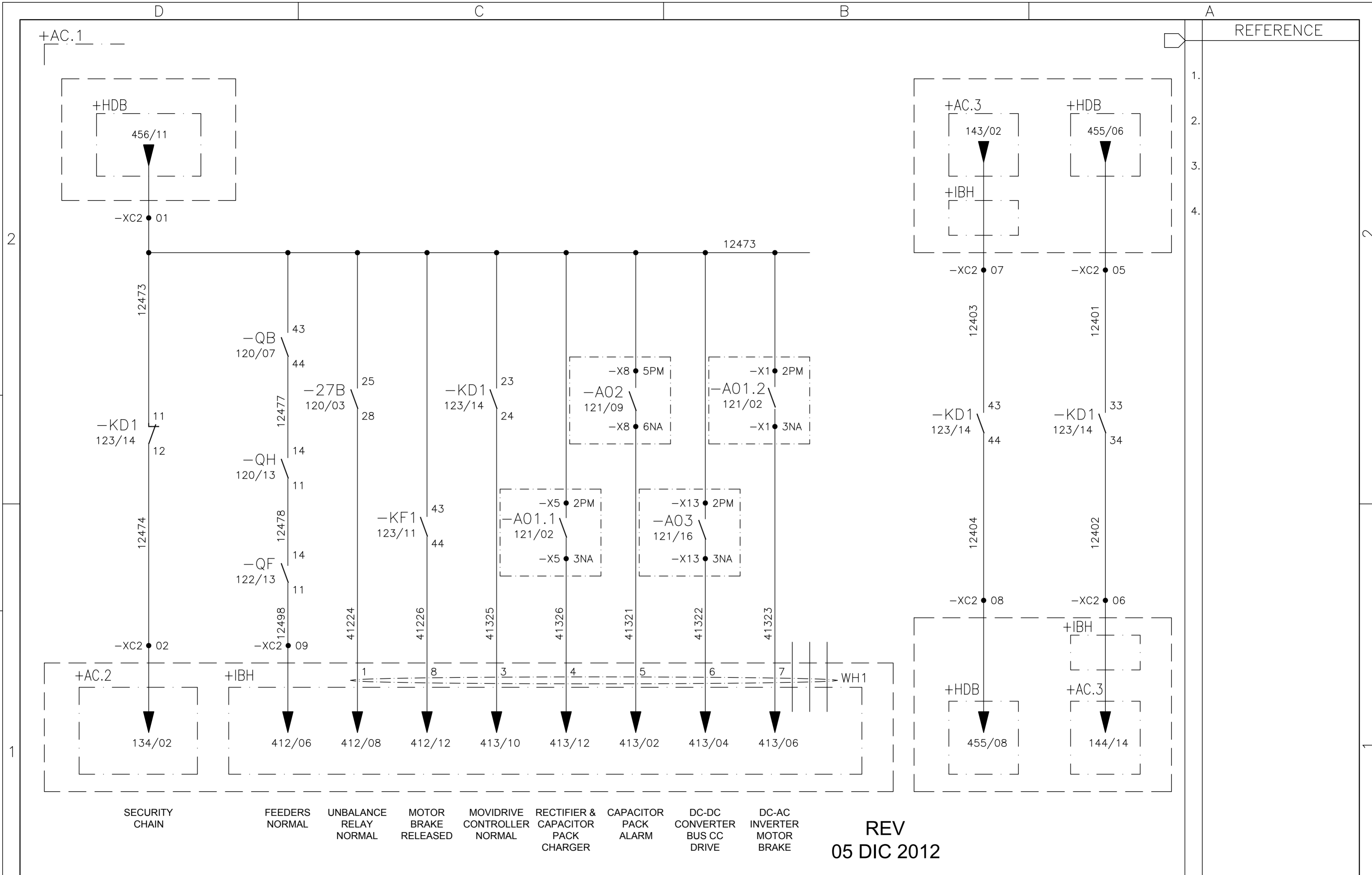


- REFERENCE
1. 90° LS INVERTER AND BY PASS RELAY
 2. NAMUR- ELECTRICAL TERMINAL BLOCK
 3. POSITION SENSOR BLADE 1 - 90°
 4. POSITION SENSOR BLADE 1 IN REFERENCE POSITION
 5. POSITION SENSOR BLADE 1 - 0°
 6. LIMIT SWITCH SENSOR FAULT
 7. PLUG-IN BRIDGE FOR GND SIGNAL
 8. PLUG-IN BRIDGE FOR 24V SIGNAL
 9. PLUG-IN BRIDGE FOR NM01 OUT SIGNAL
- #2 METAL JUMPER T. BLOCK
#1 TWIN PRE-INSULATED FERRULE

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16				
04	ACCORDING TO CHANGE	06/10/08	GPE					WIND GENERATOR IWP-70 JOB N°: 99835				TITLE: BLADE POSITION SYSTEM +AC.1 CIRCUIT DIAGRAM CONTROL SECTION CONNECTION				DWG N°: 99835-680050			
05	AS BUILT	26/07/10	LGO													GRP N°: 680			
REV.	DENOMINATION	DATA	SIGN.									DESIGN GPE SHEET: 123A APPD JPI CONT.: 124							

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FORMAT A3 - IMPSA Wind CAD SYSTEM



SECURITY CHAIN FEEDERS NORMAL UNBALANCE RELAY NORMAL MOTOR BRAKE RELEASED MOVIDRIVE CONTROLLER NORMAL RECTIFIER & CAPACITOR PACK CHARGER CAPACITOR PACK ALARM DC-DC CONVERTER BUS CC DRIVE DC-AC INVERTER MOTOR BRAKE

REV 05 DIC 2012

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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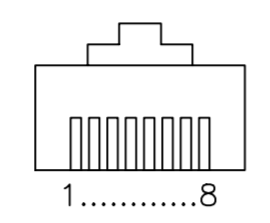
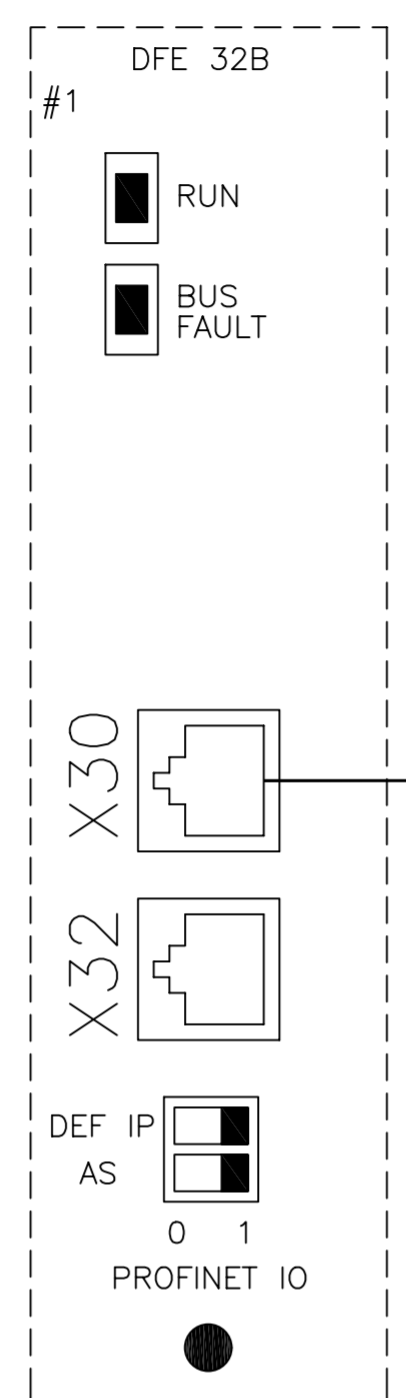
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												GRP Nº: 680		DATE: 13/10/2006	
06 AS BUILT		19/09/2012 LGO		JOB Nº: 99835				DESIGN GPE				SHEET: 124			
REV. DENOMINATION		DATA SIGN.						APPD JPI				CONT.: 125			

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FORMAT A3 - IMPSA Wind CAD SYSTEM

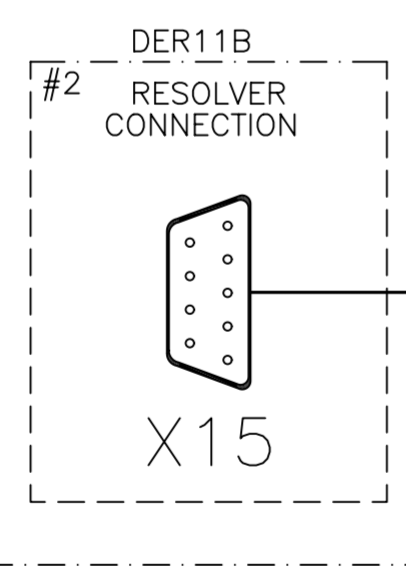
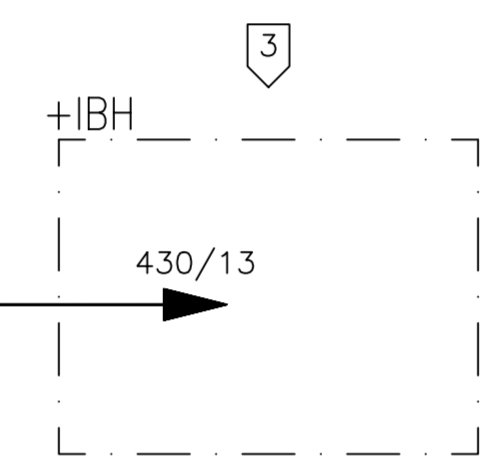
+AC.1

-MD1



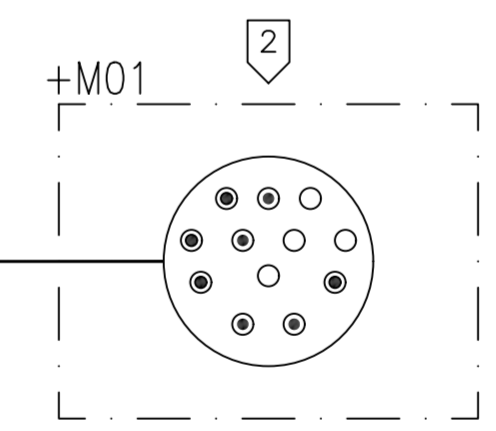
UTP CABLE - PIN OUT		
RJ45 Pin N°	PLC RJ45 WITH SHIELD	LAN RJ45 WITHOUT SHIELD
1	White/Orange	White/Orange
2	Orange	Orange
3	White/Green	White/Green
4	Blue	Blue
5	White/Blue	White/Blue
6	Green	Green
7	White/Brown	White/Brown
8	Brown	Brown

PIN	PIN ASSIGNMENT
1	TX+ Transmit plus
2	TX- Transmit minus
3	RX+ Receive plus
6	RX- Receive minus



1

-WX15



PRE - FABRICATED CABLE - PIN OUT			
Terminal/Pin Motor Side	Description	Wire color	Terminal/Pin Card Side
1	ref.+	Reference	Pink (PK)
2	Ref.-		Gray (GY)
3	cos+	Cosine signal	Red (RD)
4	cos-		Blue (BU)
5	sin+	Sine Signal	Yellow (YE)
6	sin-		Green (GN)
9	TF/TH	Motor Protection	White (WH)
10	TF/TH		Brown (BN)

REFERENCE

1. PRE-FABRICATED CABLE FOR ENCODER
2. PLUG CONNECTOR ON SERVOMOTOR
3. ETHERNET SWITCH CONNECTION

- #2 CATALOG SEW EURODRIVE Doc 11427817 / EN
- #1 CATALOG SEW EURODRIVE Doc N° 11614226 / EN

01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16

05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

JOB N°: **99835**

TITLE:
BLADE POSITION SYSTEM +AC.1
CIRCUIT DIAGRAM
COMUNIC./ENCODER SECTION CONNECTION

DWG N°: 99835-680050	
GRP N°: 680	DATE: 13/10/2006
DESIGN GPE	SHEET: 125
APPD JPI	CONT.: 129

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FORMAT A3 - IMPSA Wind CAD SYSTEM

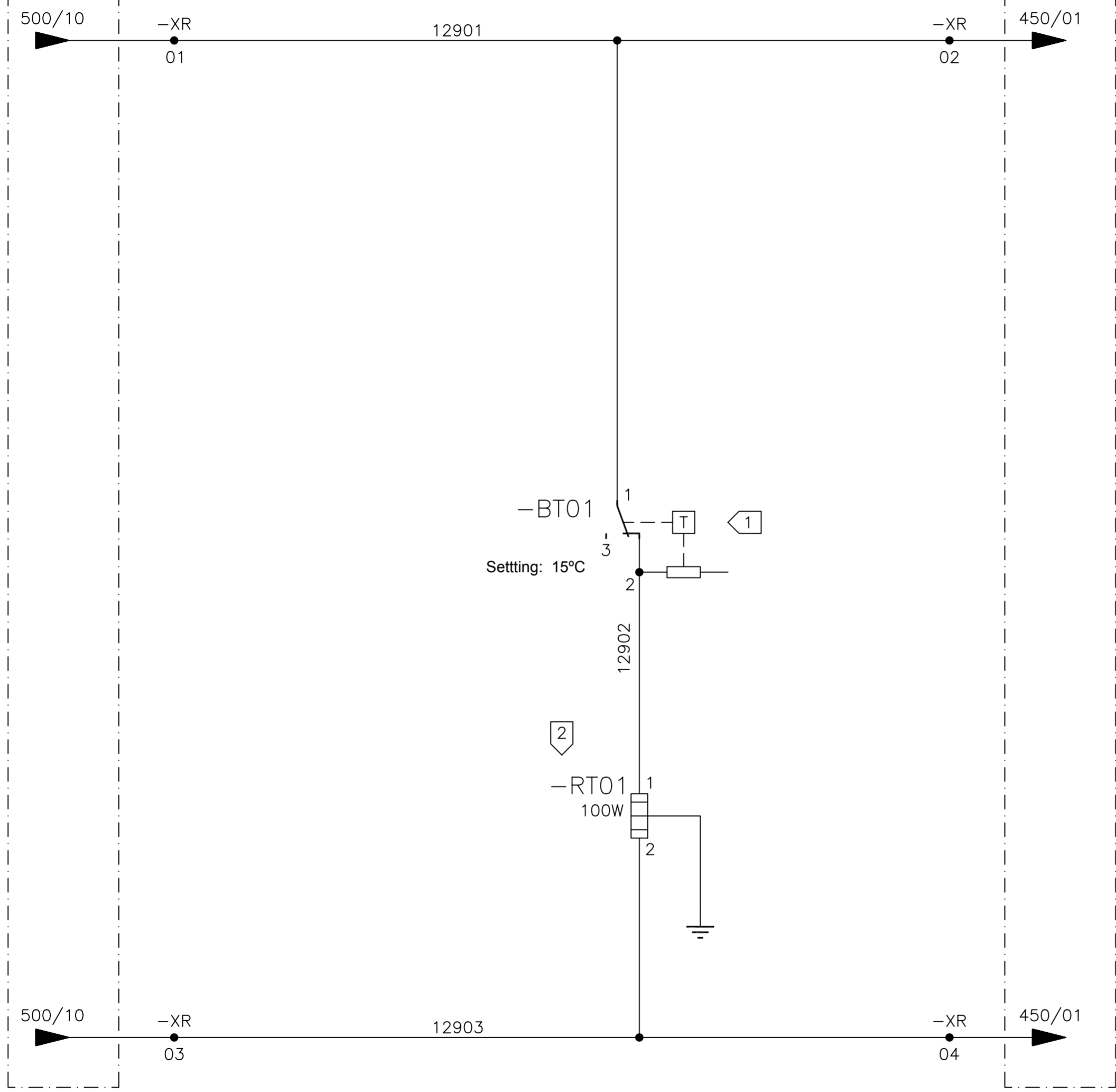
+AC.1

+HDB

+IBH

REFERENCE

1. 10°C-30°C THERMOSTAT
2. PANEL HEATER



01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

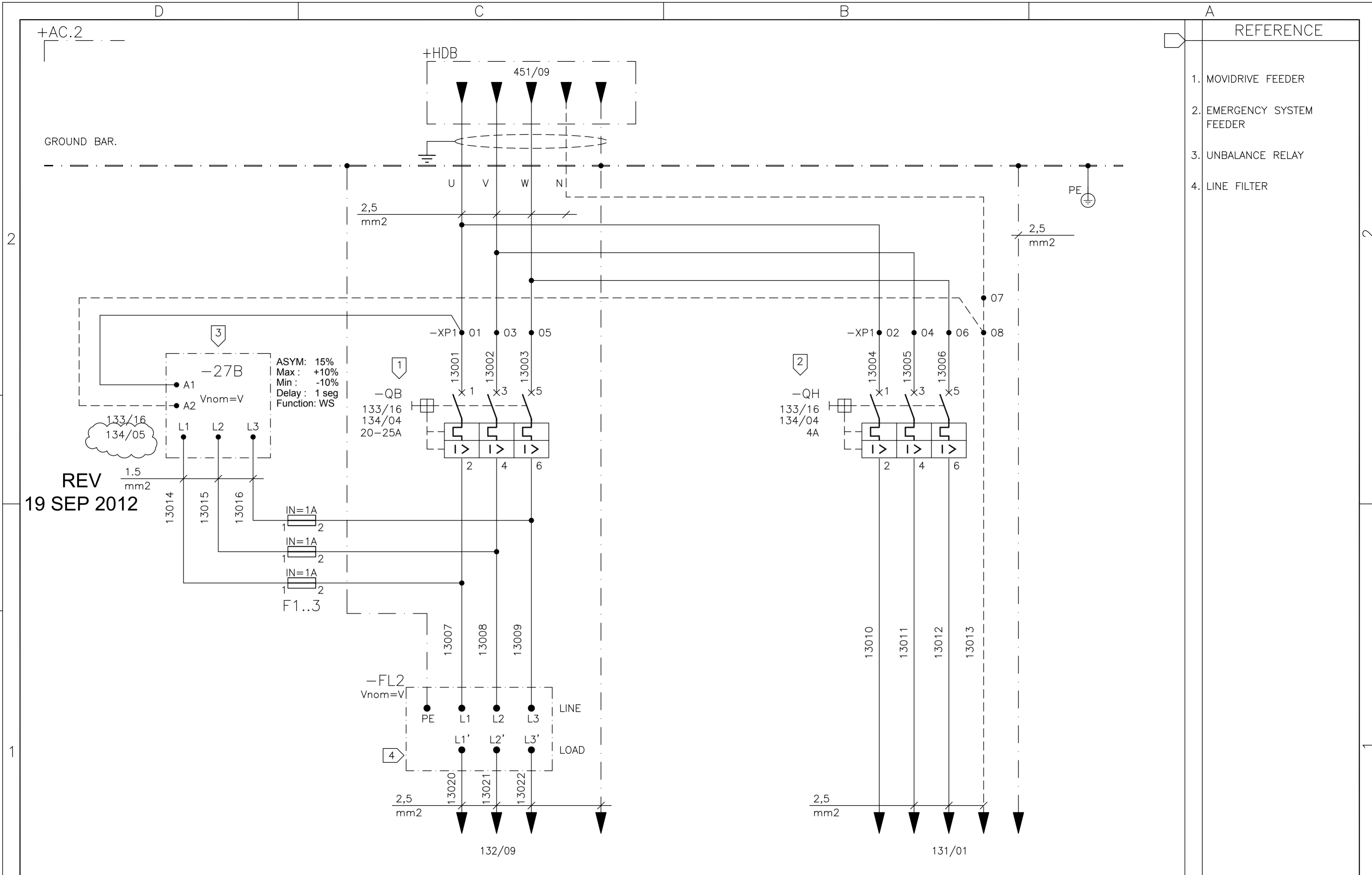
JOB N°: **99835**

TITLE:
BLADE POSITION SYSTEM + AC 1
CIRCUIT DIAGRAM

DWG N°:	99835-680050		
GRP N°:	680	DATE:	13/10/2006
DESIGN	GPE	SHEET:	129
APPD	JPI	CONT.:	130

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FORMAT A3 - IMPSA Wind CAD SYSTEM



REFERENCE	
1.	MOVIDRIVE FEEDER
2.	EMERGENCY SYSTEM FEEDER
3.	UNBALANCE RELAY
4.	LINE FILTER

REV 19 SEP 2012

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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06	AS BUILT	19/09/2012	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

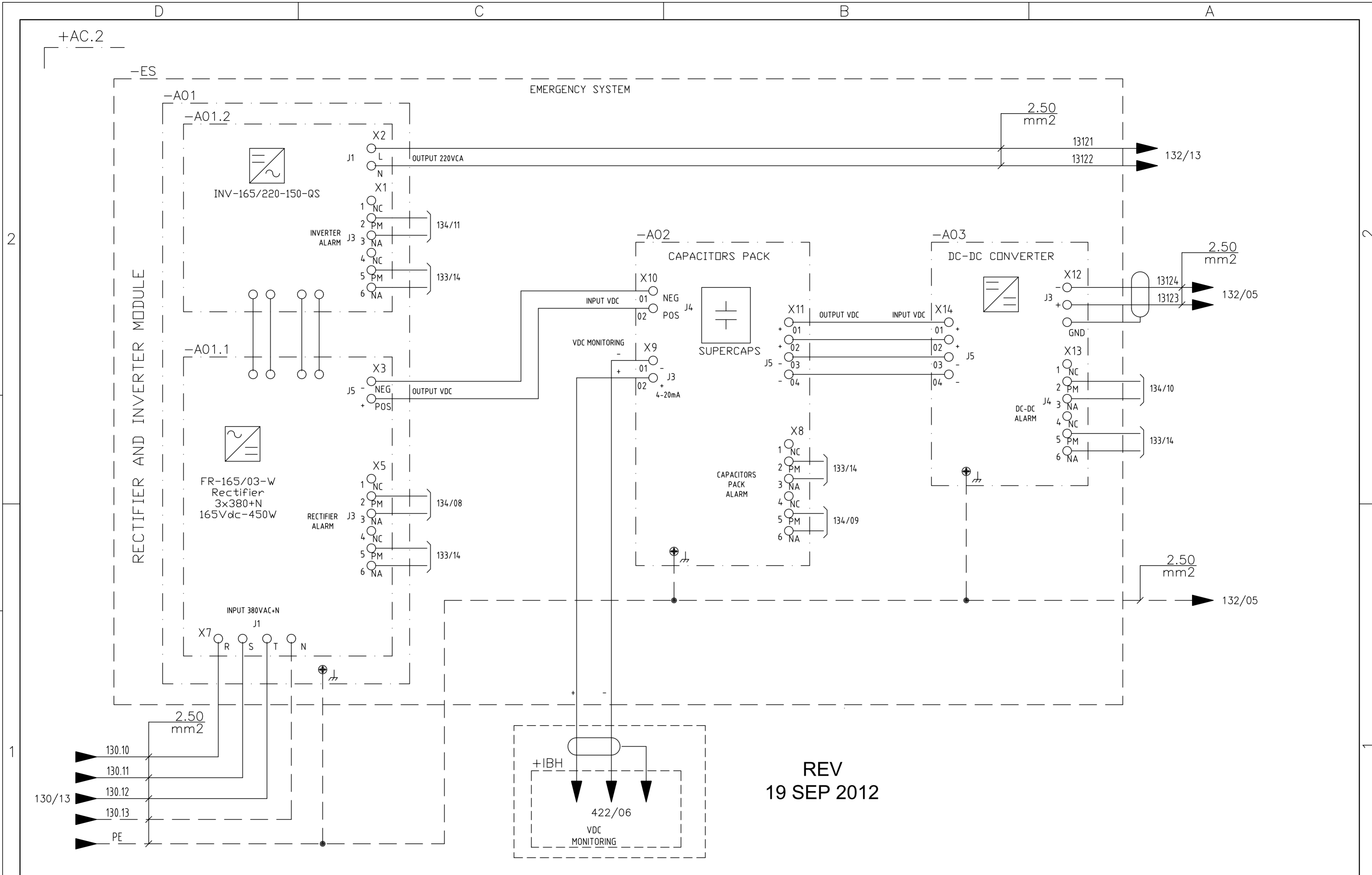
JOB Nº: **99835**

TITLE:
BLADE POSITION SYSTEM +AC 2
CIRCUIT DIAGRAM
380 VAC DISTRIBUTION

DWG Nº:	99835-680050		
GRP Nº:	680	DATE:	13/10/2006
DESIGN	GPE	SHEET:	130
APPD	JPI	CONT.:	131

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FORMAT A3 - IMPSA Wind CAD SYSTEM



REV
19 SEP 2012

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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06	AS BUILT	19/09/2012	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

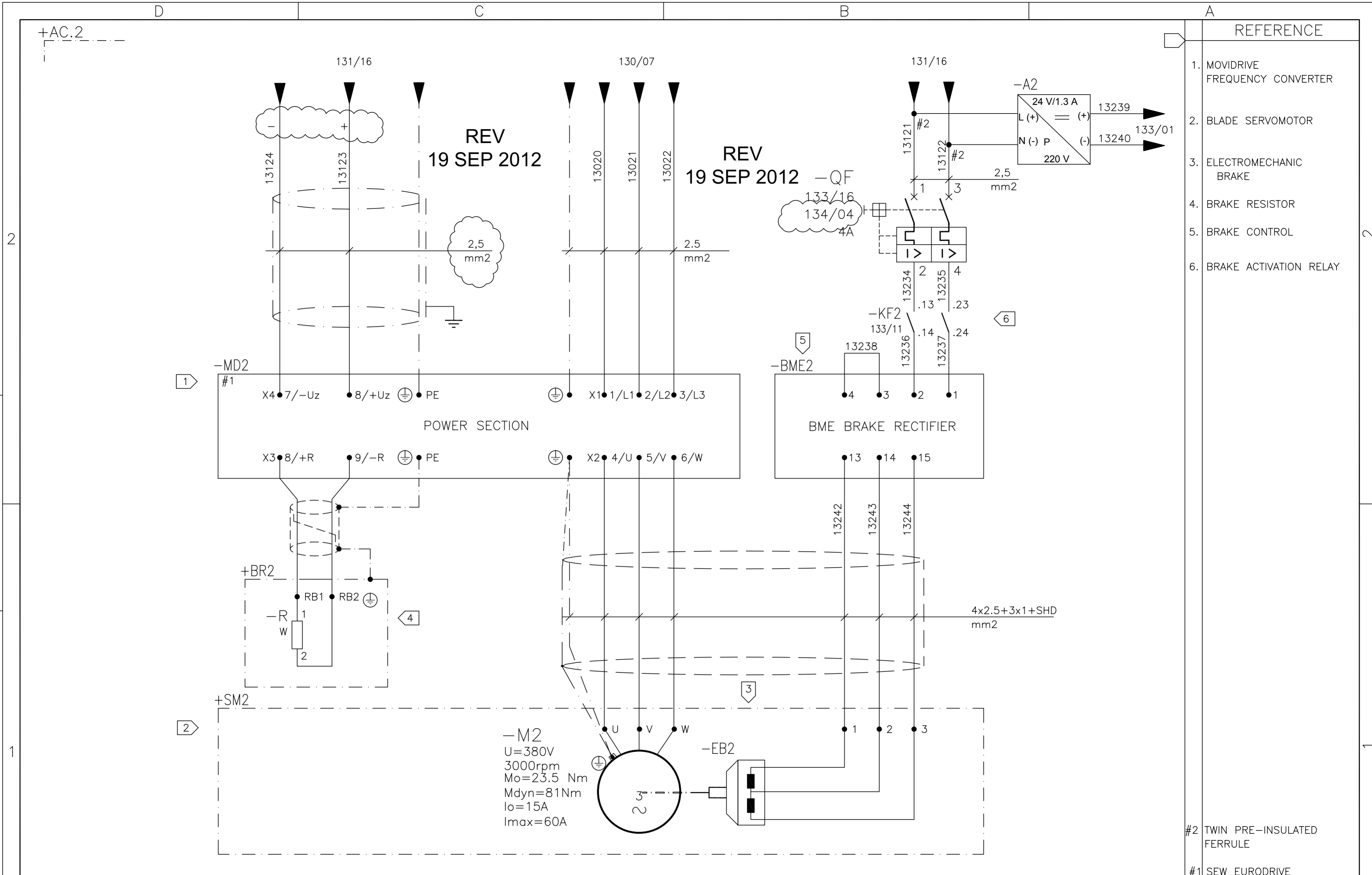
JOB N°: **99835**

TITLE:
BLADE POSITION SYSTEM +AC.2
CIRCUIT DIAGRAM
EMERGENCY SYSTEM

DWG N°:	99835-680050		
GRP N°:	680	DATE:	13/10/2006
DESIGN	GPE	SHEET:	131
APPD	JPI	CONT.:	132

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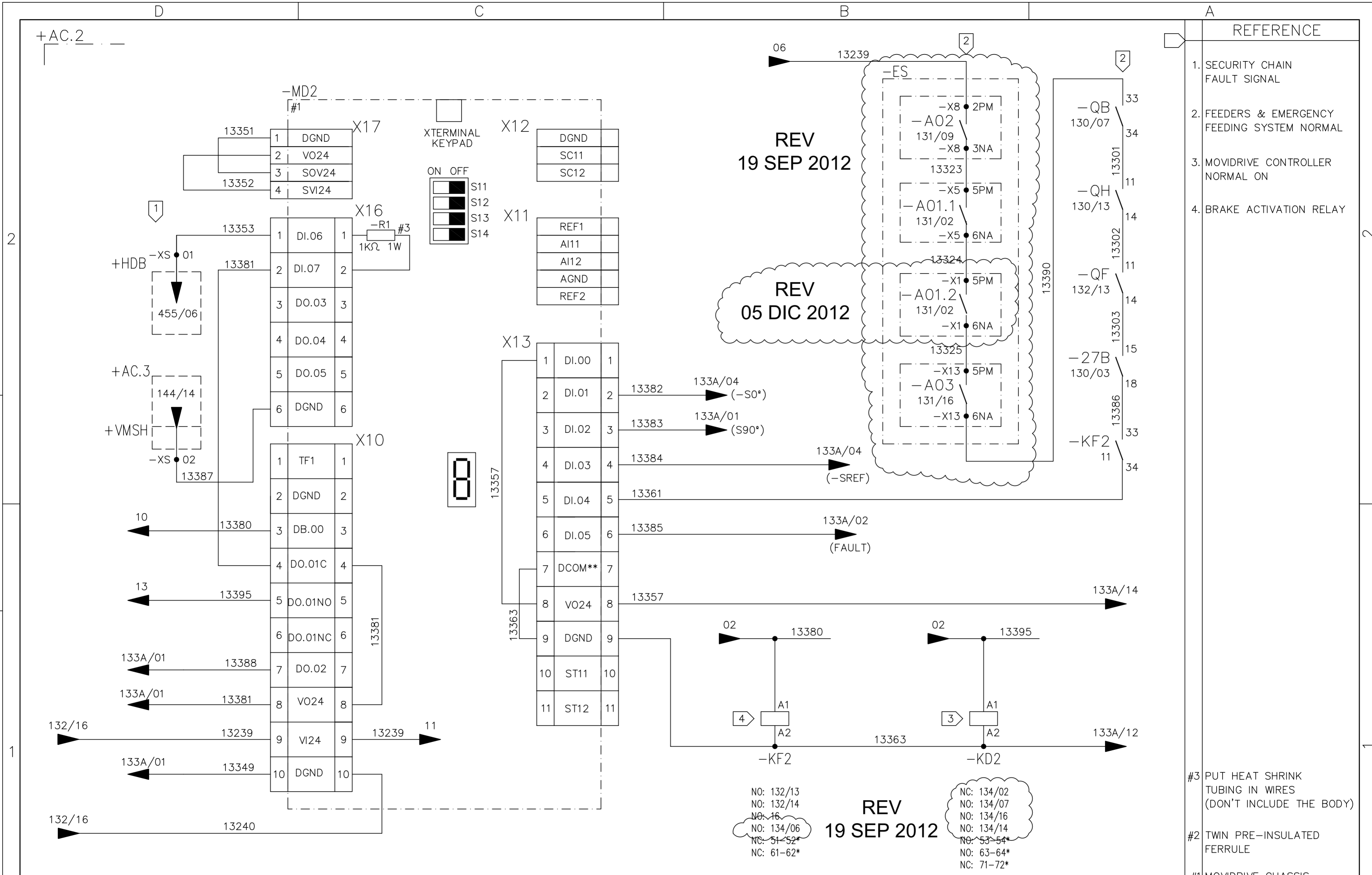
FORMAT A3 - IMPSA Wind CAD SYSTEM



01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
							WIND GENERATOR IWP-70				TITLE: BLADE POSITION SYSTEM +AC.2 CIRCUIT DIAGRAM POWER AND BRAKE SECTIONS CONNECTION				DWG N°: 99835-680050
06 AS BUILT		19/09/2012 LGO		JOB N°: 99835				GRP N°: 680				DATE: 13/10/2006			
REV. DENOMINATION		DATA SIGN.		APPD JPI				DESIGN GPE		SHEET: 132		CONT.: 133			

THIS DOCUMENT MUST NOT BE COPIED WITHOUT OUR WRITTEN PERMISSION, AND THE CONTENTS THEREOF MUST NOT BE IMPARTED TO A THIRD PARTY NOR BE USED FOR UNAUTHORIZED PURPOSE

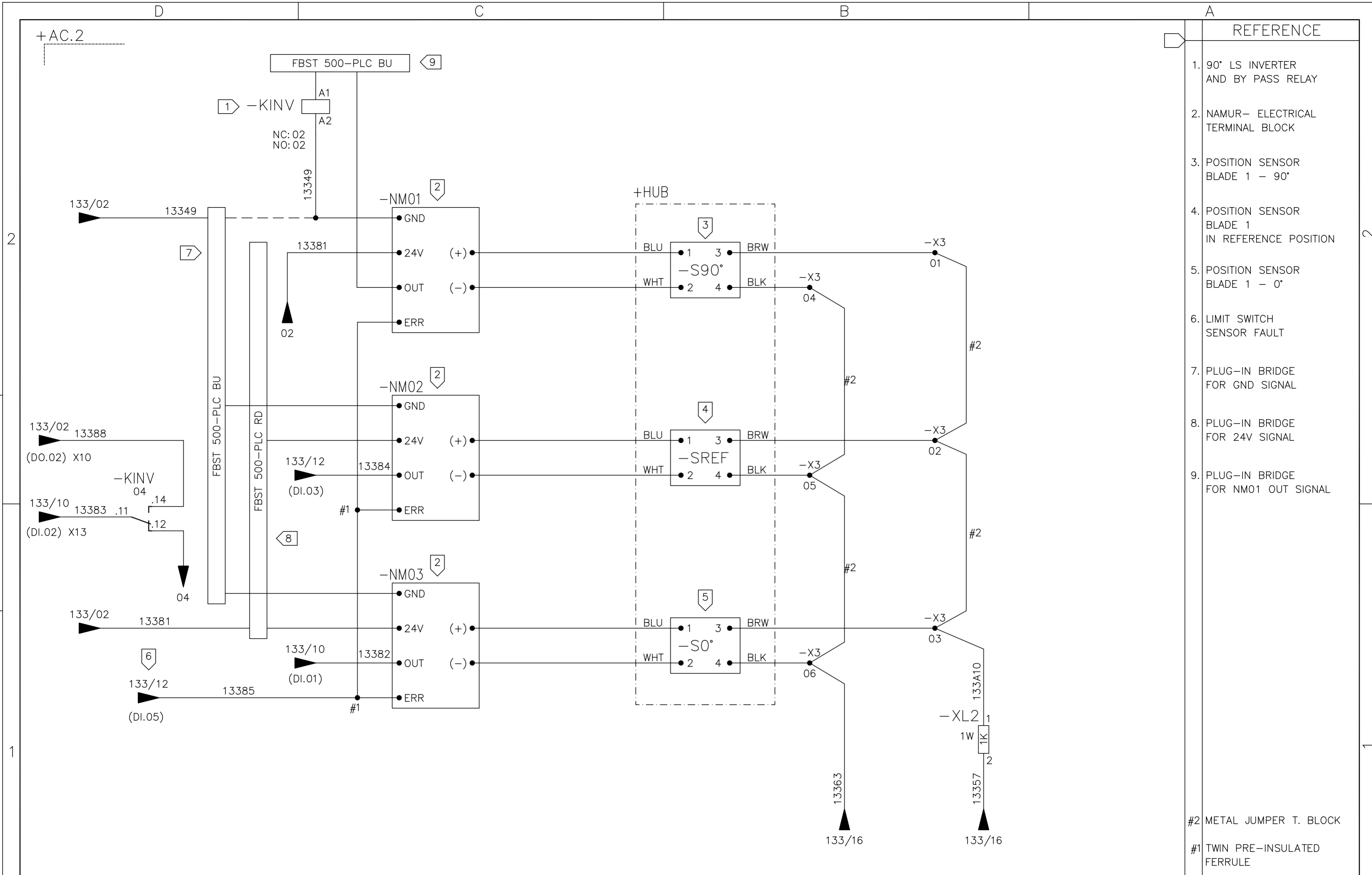
FORMAT A3 - IMPSA Wind CAD SYSTEM



	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
IMPSA <i>wind</i>	WIND GENERATOR IWP-70							TITLE: BLADE POSITION SYSTEM +AC.2 CIRCUIT DIAGRAM CONTROL SECTION CONNECTION							DWG N°: 99835-680050	
JOB N°: 99835															GRP N°: 680	DATE: 13/10/2006
REV. 06	AS BUILT	19/09/2012	LGO								DESIGN GPE	SHEET: 133				
REV.	DENOMINATION	DATA	SIGN.								APPD JPI	CONT.: 133A				

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FORMAT A3 - IMPSA Wind CAD SYSTEM



- REFERENCE
1. 90° LS INVERTER AND BY PASS RELAY
 2. NAMUR- ELECTRICAL TERMINAL BLOCK
 3. POSITION SENSOR BLADE 1 - 90°
 4. POSITION SENSOR BLADE 1 IN REFERENCE POSITION
 5. POSITION SENSOR BLADE 1 - 0°
 6. LIMIT SWITCH SENSOR FAULT
 7. PLUG-IN BRIDGE FOR GND SIGNAL
 8. PLUG-IN BRIDGE FOR 24V SIGNAL
 9. PLUG-IN BRIDGE FOR NM01 OUT SIGNAL
- #2 METAL JUMPER T. BLOCK
- #1 TWIN PRE-INSULATED FERRULE

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

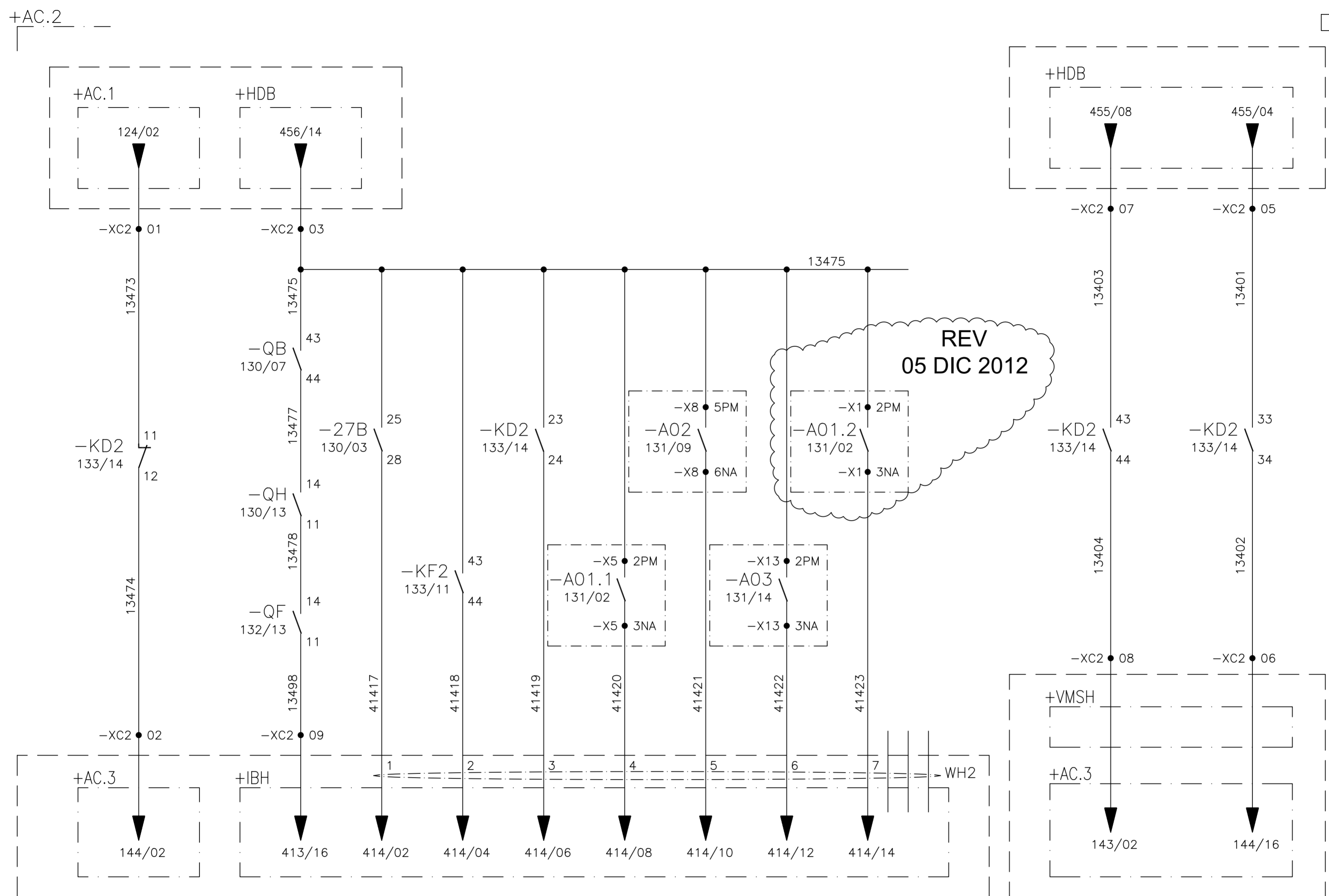
JOB N°: 99835

TITLE:
BLADE POSITION SYSTEM +AC.1
CIRCUIT DIAGRAM
CONTROL SECTION CONNECTION

DWG N°:	99835-680050		
GRP N°:	680	DATE:	13/10/2006
DESIGN	GPE	SHEET:	133A
APPD	JPI	CONT.:	134

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FORMAT A3 - IMPSA Wind CAD SYSTEM



SECURITY CHAIN FEEDERS NORMAL UNBALANCE RELAY NORMAL MOTOR BRAKE RELEASED MOVIDRIVE CONTROLLER NORMAL RECTIFIER & CAPACITOR PACK CHARGER CAPACITOR PACK ALARM DC-DC CONVERTER BUS CC DRIVE DC-AC INVERTER MOTOR BRAKE

REV
19 SEP 2012

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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06	AS BUILT	19/09/2012	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

JOB N°: 99835

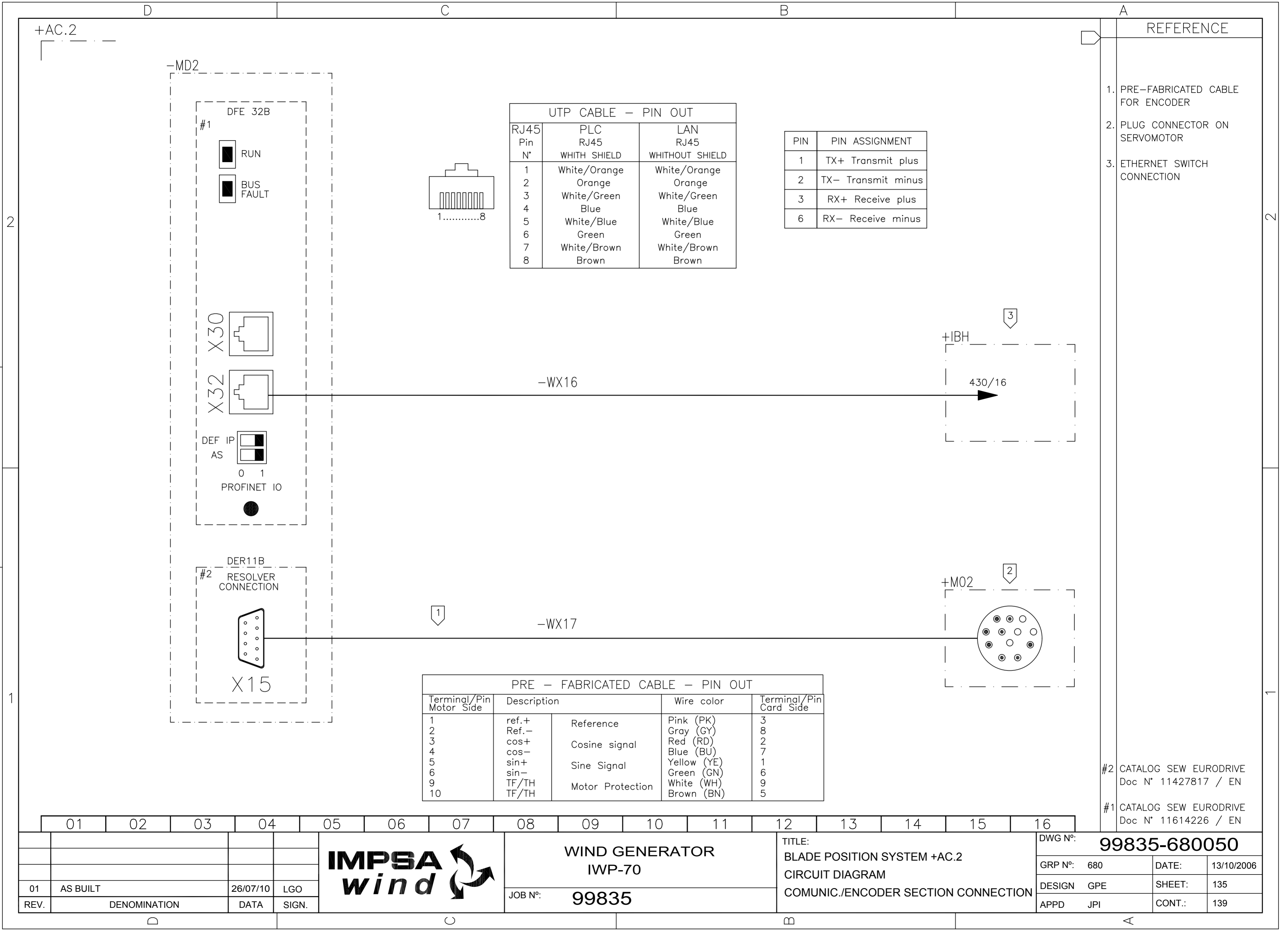
TITLE:
BLADE POSITION SYSTEM +AC.2
CIRCUIT DIAGRAM
REMOTE SIGNALING

DWG N°:	99835-680050		
GRP N°:	680	DATE:	13/10/2006
DESIGN	GPE	SHEET:	134
APPD	JPI	CONT.:	135

REFERENCE			
1.			
2.			

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FORMAT A3 - IMPSA Wind CAD SYSTEM



UTP CABLE - PIN OUT		
RJ45 Pin N°	PLC RJ45 WITH SHIELD	LAN RJ45 WITHOUT SHIELD
1	White/Orange	White/Orange
2	Orange	Orange
3	White/Green	White/Green
4	Blue	Blue
5	White/Blue	White/Blue
6	Green	Green
7	White/Brown	White/Brown
8	Brown	Brown

PIN	PIN ASSIGNMENT
1	TX+ Transmit plus
2	TX- Transmit minus
3	RX+ Receive plus
6	RX- Receive minus

PRE - FABRICATED CABLE - PIN OUT			
Terminal/Pin Motor Side	Description	Wire color	Terminal/Pin Card Side
1	ref.+	Pink (PK)	3
2	Ref.-	Gray (GY)	8
3	cos+	Red (RD)	2
4	cos-	Blue (BU)	7
5	sin+	Yellow (YE)	1
6	sin-	Green (GN)	6
9	TF/TH	White (WH)	9
10	TF/TH	Brown (BN)	5

- REFERENCE
1. PRE-FABRICATED CABLE FOR ENCODER
 2. PLUG CONNECTOR ON SERVO MOTOR
 3. ETHERNET SWITCH CONNECTION

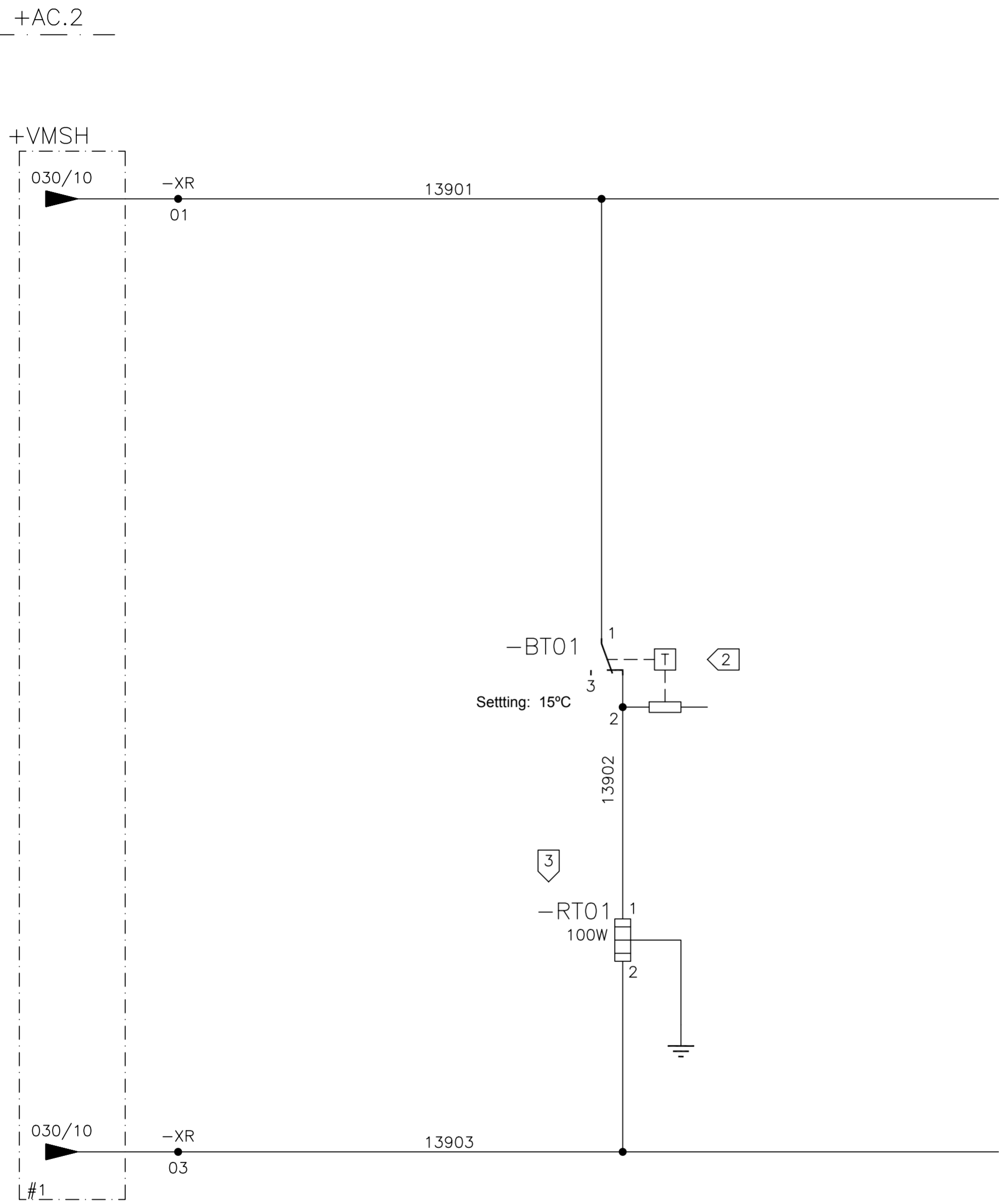
- #2 CATALOG SEW EURODRIVE Doc N° 11427817 / EN
- #1 CATALOG SEW EURODRIVE Doc N° 11614226 / EN

01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16

				WIND GENERATOR IWP-70				TITLE: BLADE POSITION SYSTEM +AC.2 CIRCUIT DIAGRAM COMUNIC./ENCODER SECTION CONNECTION				DWG N°: 99835-680050			
JOB N°: 99835				GRP N°: 680				DATE: 13/10/2006							
REV. 01 AS BUILT 26/07/10 LGO				DESIGN GPE				SHEET: 135							
DENOMINATION DATA SIGN.				APPD JPI				CONT.: 139							

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FORMAT A3 - IMPSA Wind CAD SYSTEM



REFERENCE

1. 10°C-30°C THERMOSTAT
2. PANEL HEATER

#1 SEE DOCUMENT 99835-680051

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

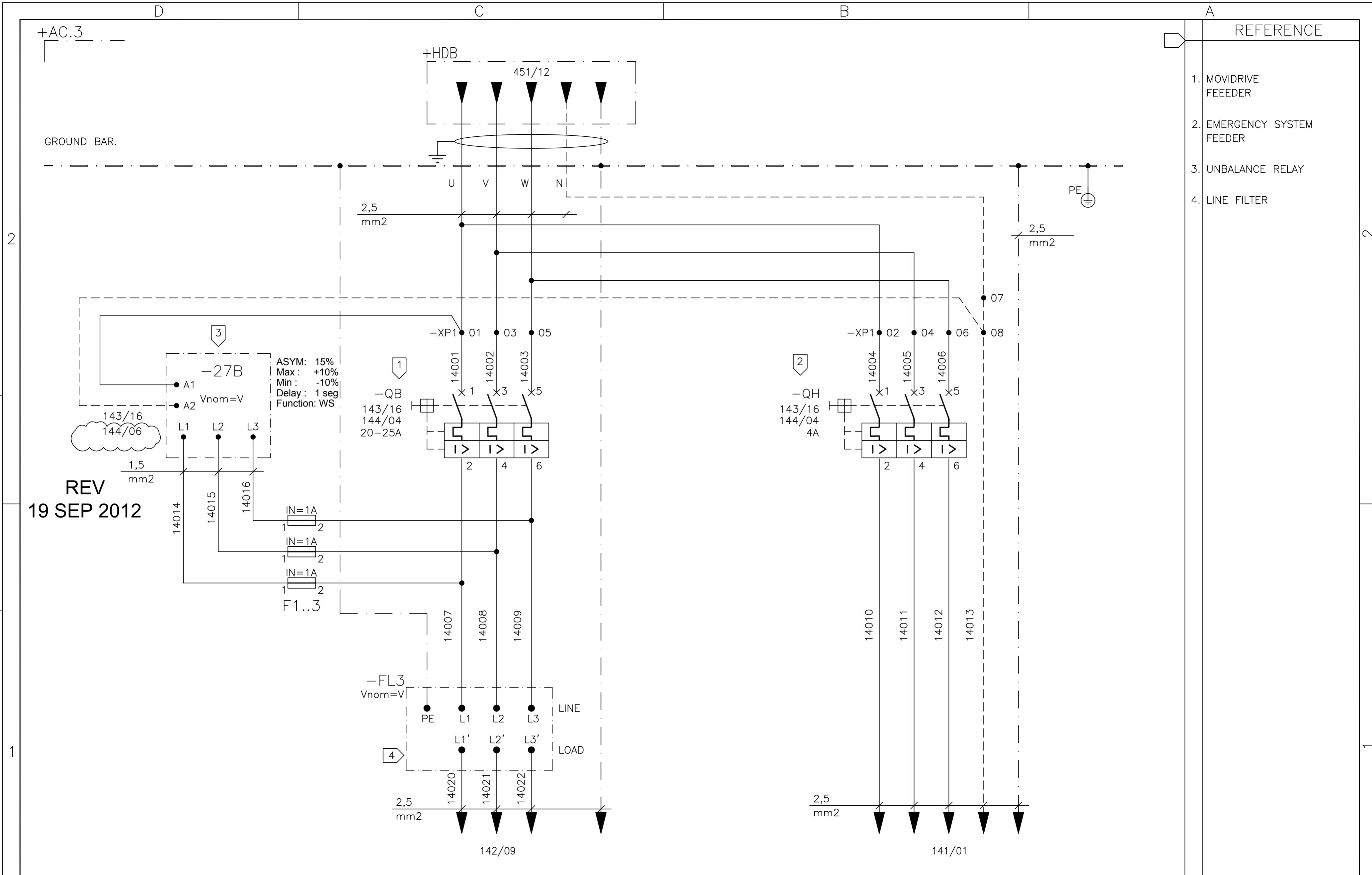
JOB N°: **99835**

TITLE:
BLADE POSITION SYSTEM + AC 2
CIRCUIT DIAGRAM

DWG N°:	99835-680050		
GRP N°:	680	DATE:	13/10/2006
DESIGN	GPE	SHEET:	139
APPD	JPI	CONT.:	140

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FORMAT A3 - IMPSA Wind CAD SYSTEM



REFERENCE	
1.	MOVIDRIVE FEEDER
2.	EMERGENCY SYSTEM FEEDER
3.	UNBALANCE RELAY
4.	LINE FILTER

REV
19 SEP 2012

01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16

06	AS BUILT	19/09/2012	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

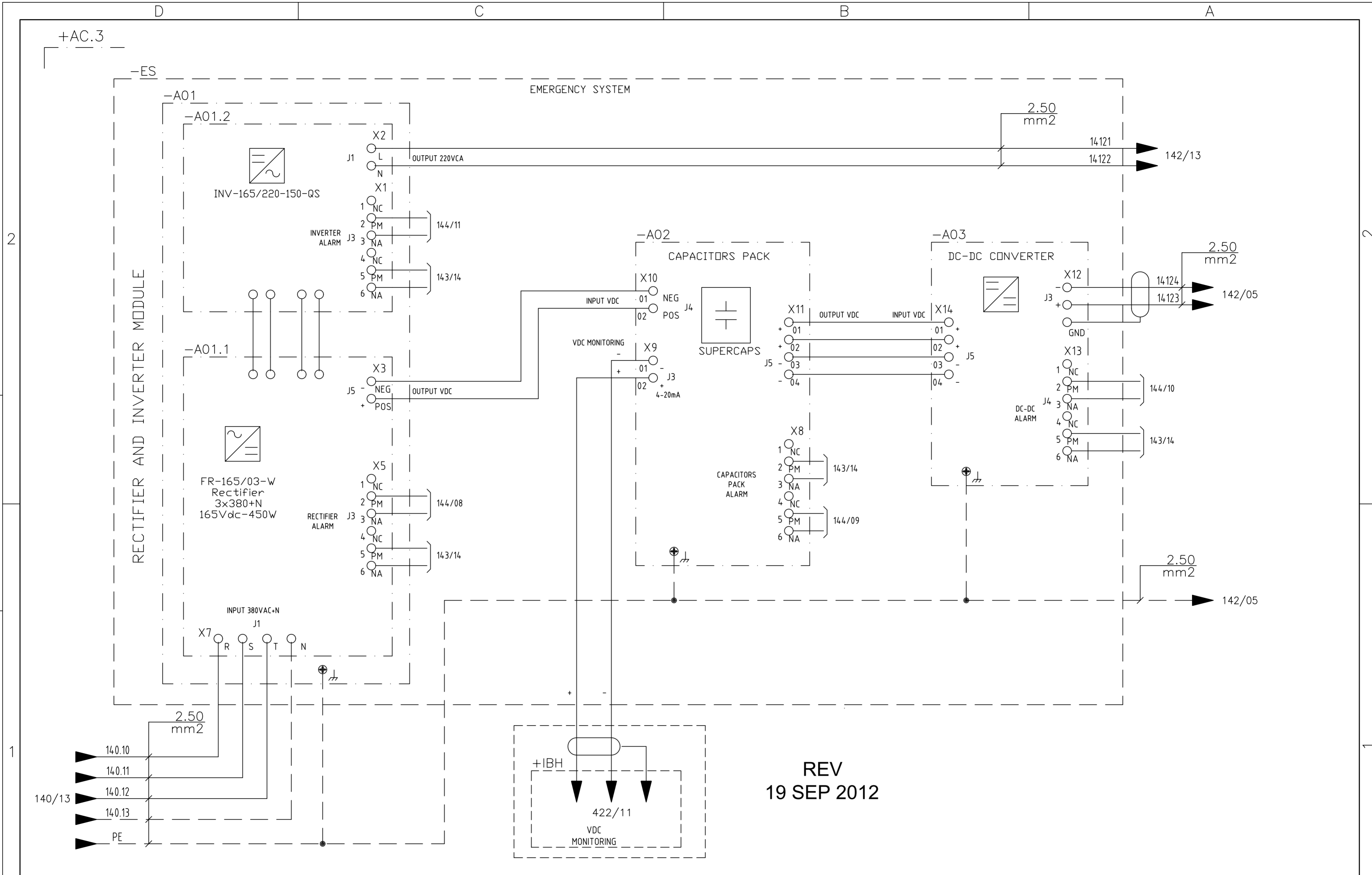
JOB Nº: **99835**

TITLE:
BLADE POSITION SYSTEM +AC 3
CIRCUIT DIAGRAM
380 VAC DISTRIBUTION

DWG Nº: 99835-680050		
GRP Nº: 680	DATE:	13/10/2006
DESIGN GPE	SHEET:	140
APPD JPI	CONT.:	141

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FORMAT A3 - IMPSA Wind CAD SYSTEM



REV
19 SEP 2012

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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06	AS BUILT	19/09/2012	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

JOB N°: **99835**

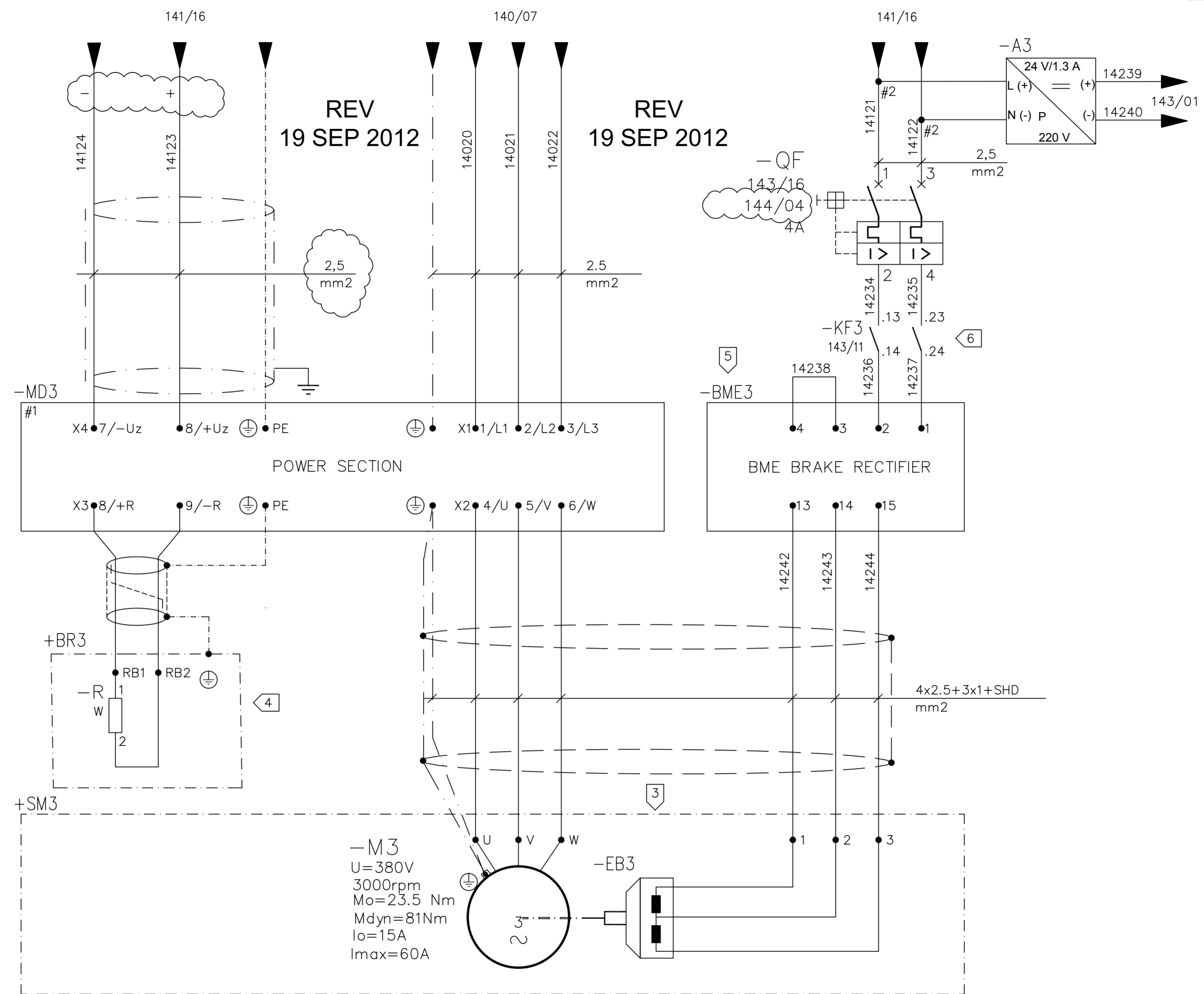
TITLE:
BLADE POSITION SYSTEM +AC.3
CIRCUIT DIAGRAM
EMERGENCY SYSTEM

DWG N°:	99835-680050		
GRP N°:	680	DATE:	13/10/2006
DESIGN	GPE	SHEET:	141
APPD	JPI	CONT.:	142

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FORMAT A3 - IMPSA Wind CAD SYSTEM

+AC.3



REFERENCE

- 1. MOVIDRIVE FREQUENCY CONVERTER
- 2. BLADE SERVOMOTOR
- 3. ELECTROMECHANIC BRAKE
- 4. BRAKE RESISTOR
- 5. BRAKE CONTROL
- 6. BRAKE ACTIVATION RELAY

#2 TWIN PRE-INSULATED FERRULE
#1 SEW EURODRIVE Doc N° 11300310 / EN

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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06	AS BUILT	19/09/2012	LGO
REV.	DENOMINATION	DATA	SIGN.



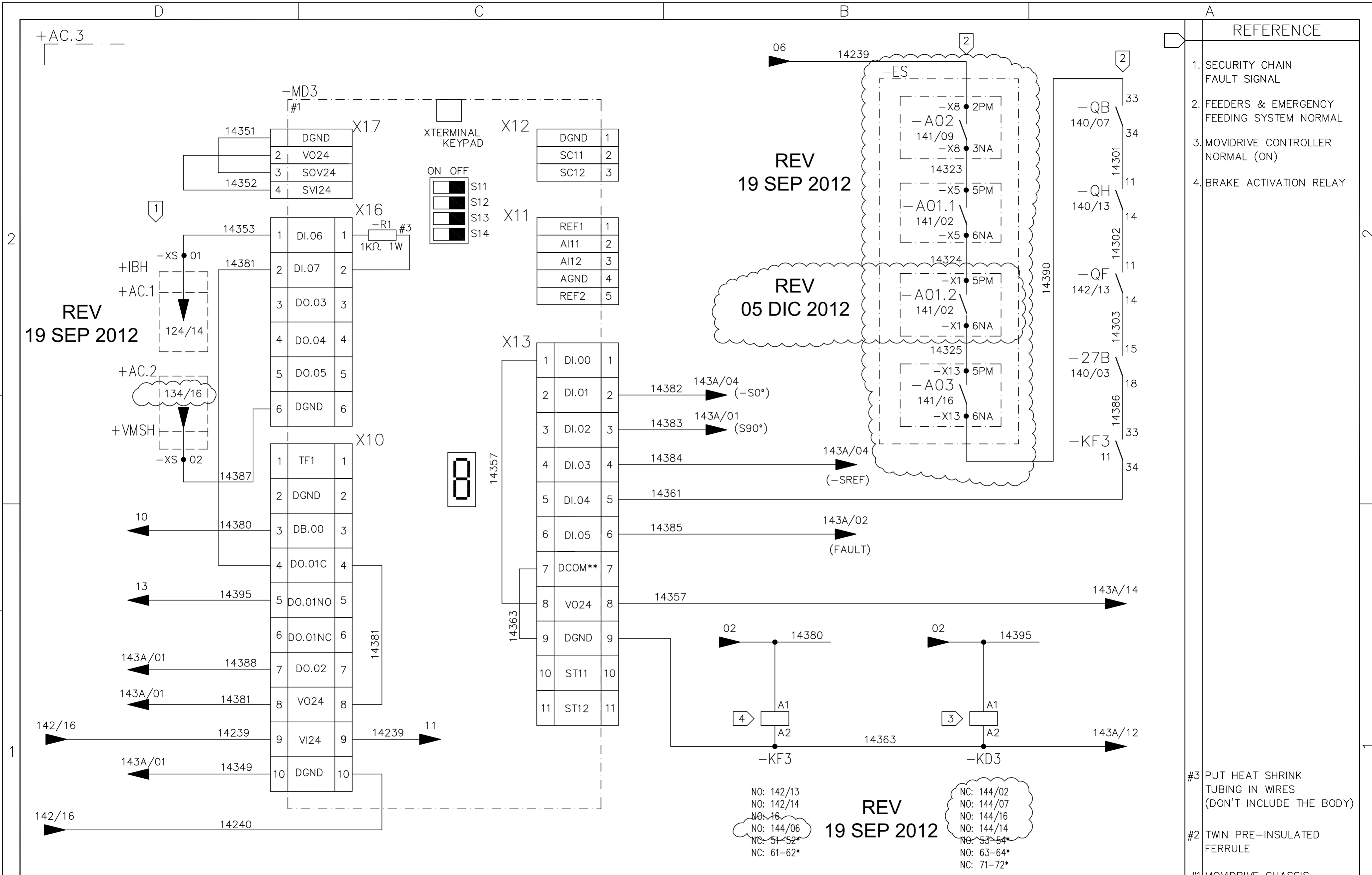
WIND GENERATOR
IWP-70
JOB N°: **99835**

TITLE:
BLADE POSITION SYSTEM +AC.3
CIRCUIT DIAGRAM
POWER AND BRAKE SECTIONS CONNECTION

DWG N°:	99835-680050		
GRP N°:	680	DATE:	13/10/2006
DESIGN	GPE	SHEET:	142
APPD	JPI	CONT.:	143

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FORMAT A3 - IMPSA Wind CAD SYSTEM



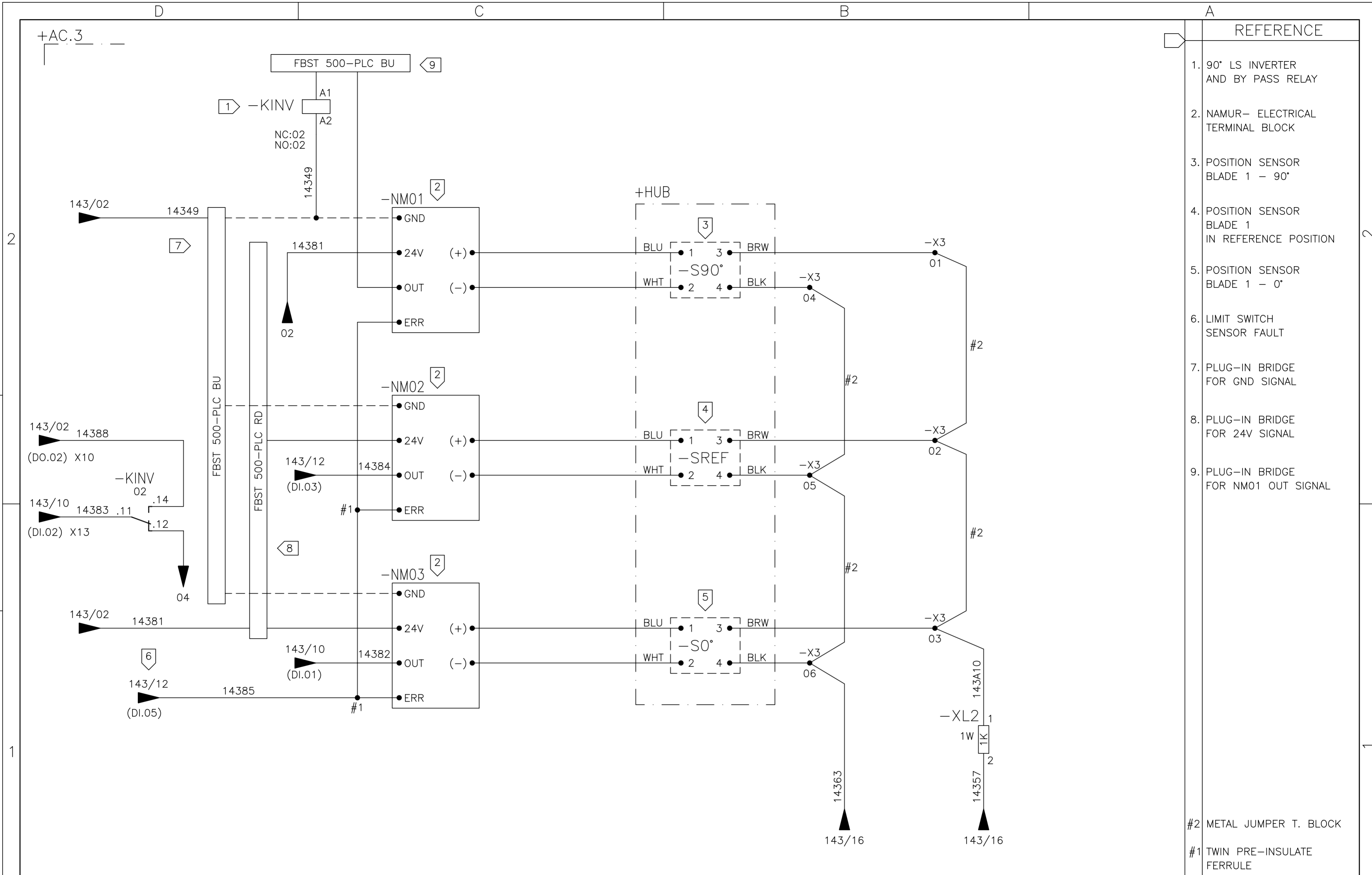
REFERENCE	
1.	SECURITY CHAIN FAULT SIGNAL
2.	FEEDERS & EMERGENCY FEEDING SYSTEM NORMAL
3.	MOVIDRIVE CONTROLLER NORMAL (ON)
4.	BRAKE ACTIVATION RELAY

#3	PUT HEAT SHRINK TUBING IN WIRES (DON'T INCLUDE THE BODY)
#2	TWIN PRE-INSULATED FERRULE
#1	MOVIDRIVE CHASSIS

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
IMPSA <i>wind</i>	WIND GENERATOR IWP-70							TITLE: BLADE POSITION SYSTEM +AC.3 CIRCUIT DIAGRAM CONTROL SECTION CONNECTION							DWG N°: 99835-680050	
JOB N°: 99835															GRP N°: 680	DATE: 13/10/2006
REV. 06 AS BUILT	DENOMINATION	DATA 19/09/2012	SIGN. LGO								DESIGN GPE	SHEET: 143				
											APPD JPI	CONT.: 143A				

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FORMAT A3 - IMPSA Wind CAD SYSTEM



- REFERENCE
1. 90° LS INVERTER AND BY PASS RELAY
 2. NAMUR- ELECTRICAL TERMINAL BLOCK
 3. POSITION SENSOR BLADE 1 - 90°
 4. POSITION SENSOR BLADE 1 IN REFERENCE POSITION
 5. POSITION SENSOR BLADE 1 - 0°
 6. LIMIT SWITCH SENSOR FAULT
 7. PLUG-IN BRIDGE FOR GND SIGNAL
 8. PLUG-IN BRIDGE FOR 24V SIGNAL
 9. PLUG-IN BRIDGE FOR NM01 OUT SIGNAL
- #2 METAL JUMPER T. BLOCK
 #1 TWIN PRE-INSULATE FERRULE

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

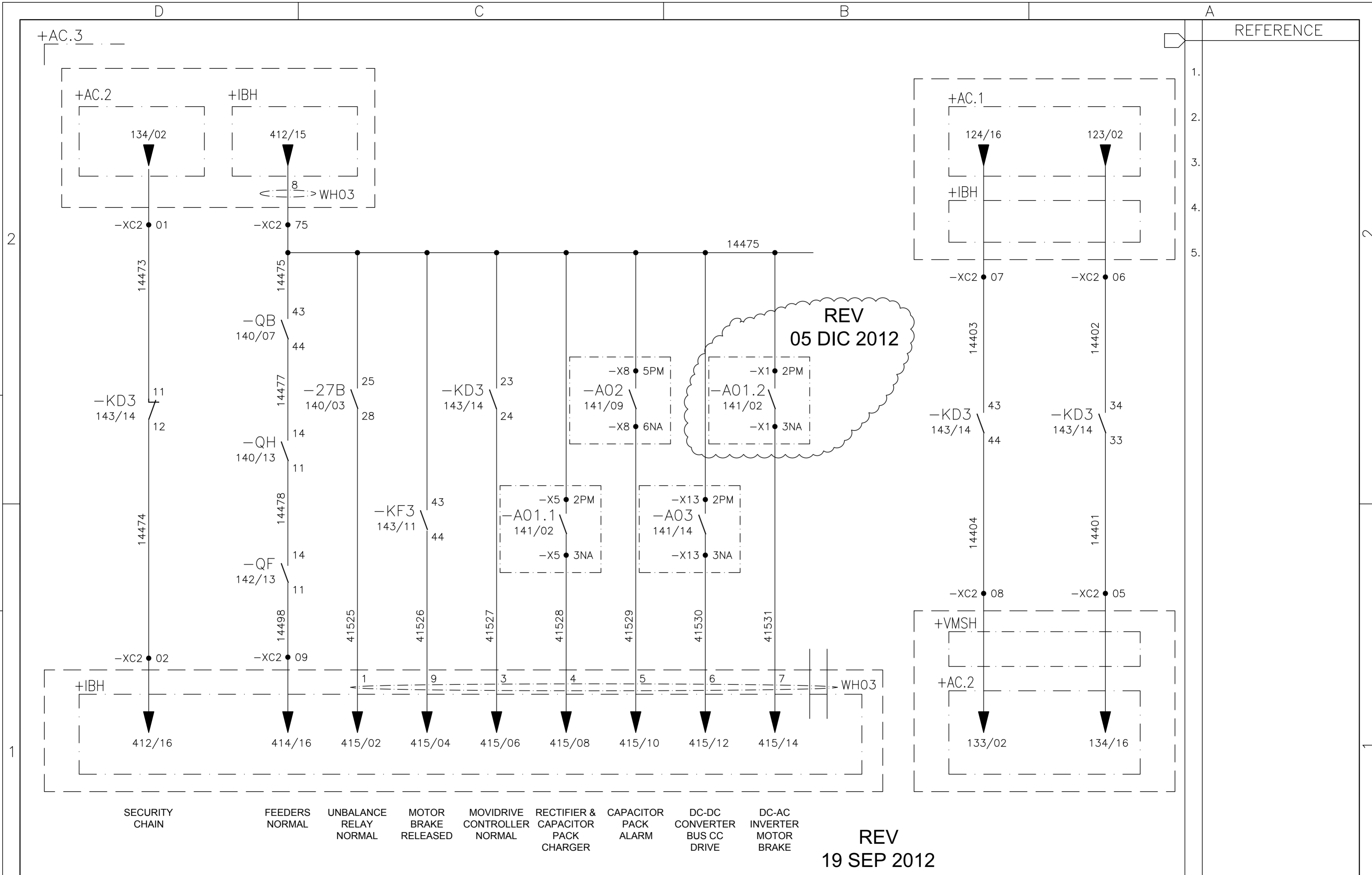
JOB N°: **99835**

TITLE:
BLADE POSITION SYSTEM +AC.3
CIRCUIT DIAGRAM
CONTROL SECTION CONNECTION

DWG N°: 99835-680050		
GRP N°: 680	DATE: 13/10/2006	
DESIGN GPE	SHEET: 143A	
APPD JPI	CONT.: 144	

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FORMAT A3 - IMPSA Wind CAD SYSTEM



SECURITY CHAIN FEEDERS NORMAL UNBALANCE RELAY NORMAL MOTOR BRAKE RELEASED MOVIDRIVE CONTROLLER NORMAL RECTIFIER & CAPACITOR PACK CHARGER CAPACITOR PACK ALARM DC-DC CONVERTER BUS CC DRIVE DC-AC INVERTER MOTOR BRAKE

REV
19 SEP 2012

01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16

				WIND GENERATOR IWP-70				TITLE: BLADE POSITION SYSTEM +AC.3 CIRCUIT DIAGRAM REMOTE SIGNALING				DWG N°: 99835-680050			
												GRP N°: 680		DATE: 13/10/2006	
06 AS BUILT		19/09/2012 LGO		JOB N°: 99835				DESIGN GPE		SHEET: 144					
REV. DENOMINATION		DATA SIGN.						APPD JPI		CONT.: 145					

REFERENCE

1.
2.
3.
4.
5.

2

1

D

C

B

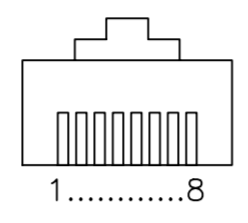
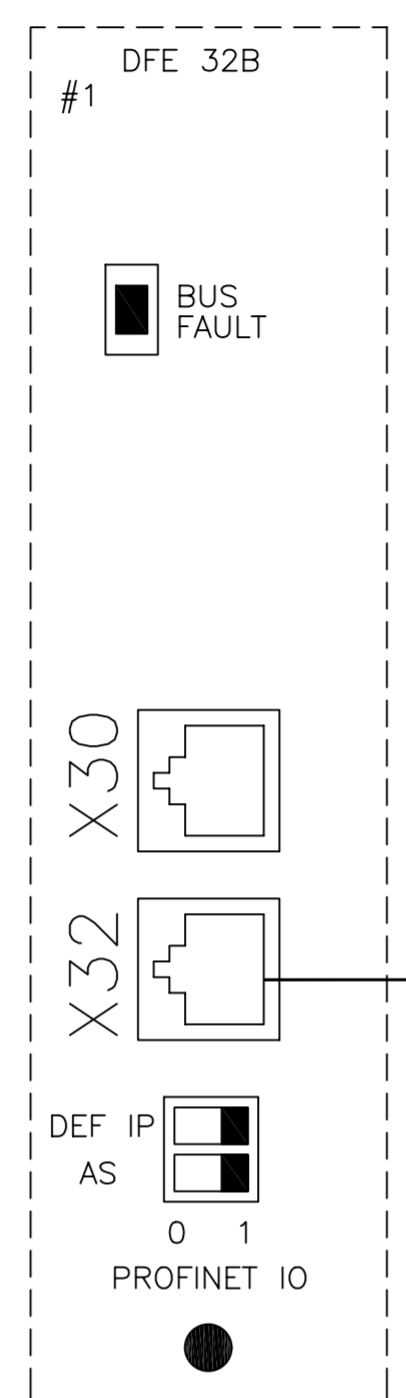
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FORMAT A3 - IMPSA Wind CAD SYSTEM

+AC.3

-MD3



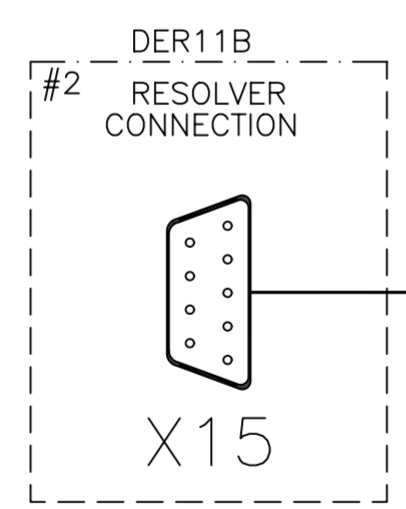
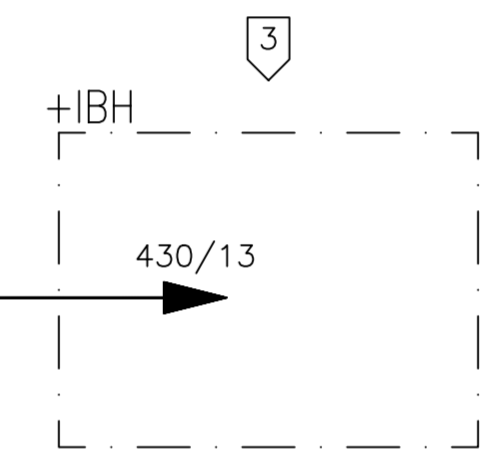
UTP CABLE - PIN OUT		
RJ45 Pin N°	PLC RJ45 WITH SHIELD	LAN RJ45 WITHOUT SHIELD
1	White/Orange	White/Orange
2	Orange	Orange
3	White/Green	White/Green
4	Blue	Blue
5	White/Blue	White/Blue
6	Green	Green
7	White/Brown	White/Brown
8	Brown	Brown

PIN	PIN ASSIGNMENT
1	TX+ Transmit plus
2	TX- Transmit minus
3	RX+ Receive plus
6	RX- Receive minus

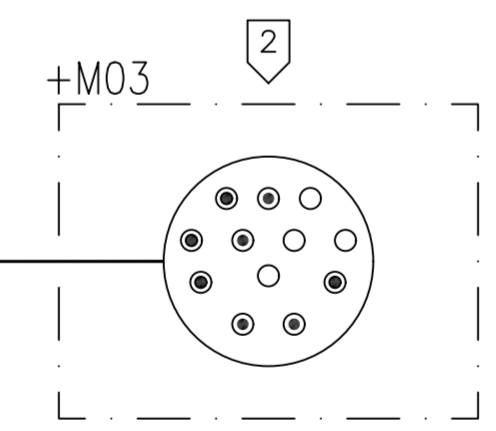
REFERENCE

1. PRE-FABRICATED CABLE FOR ENCODER
2. PLUG CONNECTOR ON SERVOMOTOR
3. ETHERNET SWITCH CONNECTION

-WX18



-WX19



PRE - FABRICATED CABLE - PIN OUT			
Terminal/Pin Motor Side	Description	Wire color	Terminal/Pin Card Side
1	ref. +	Reference	Pink (PK)
2	Ref. -		Gray (GY)
3	cos+	Cosine signal	Red (RD)
4	cos-		Blue (BU)
5	sin+	Sine Signal	Yellow (YE)
6	sin-		Green (GN)
9	TF/TH	Motor Protection	White (WH)
10	TF/TH		Brown (BN)

- #2 CATALOG SEW EURODRIVE Doc N° 11427817 / EN
- #1 CATALOG SEW EURODRIVE Doc N° 11614226 / EN

01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16

05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

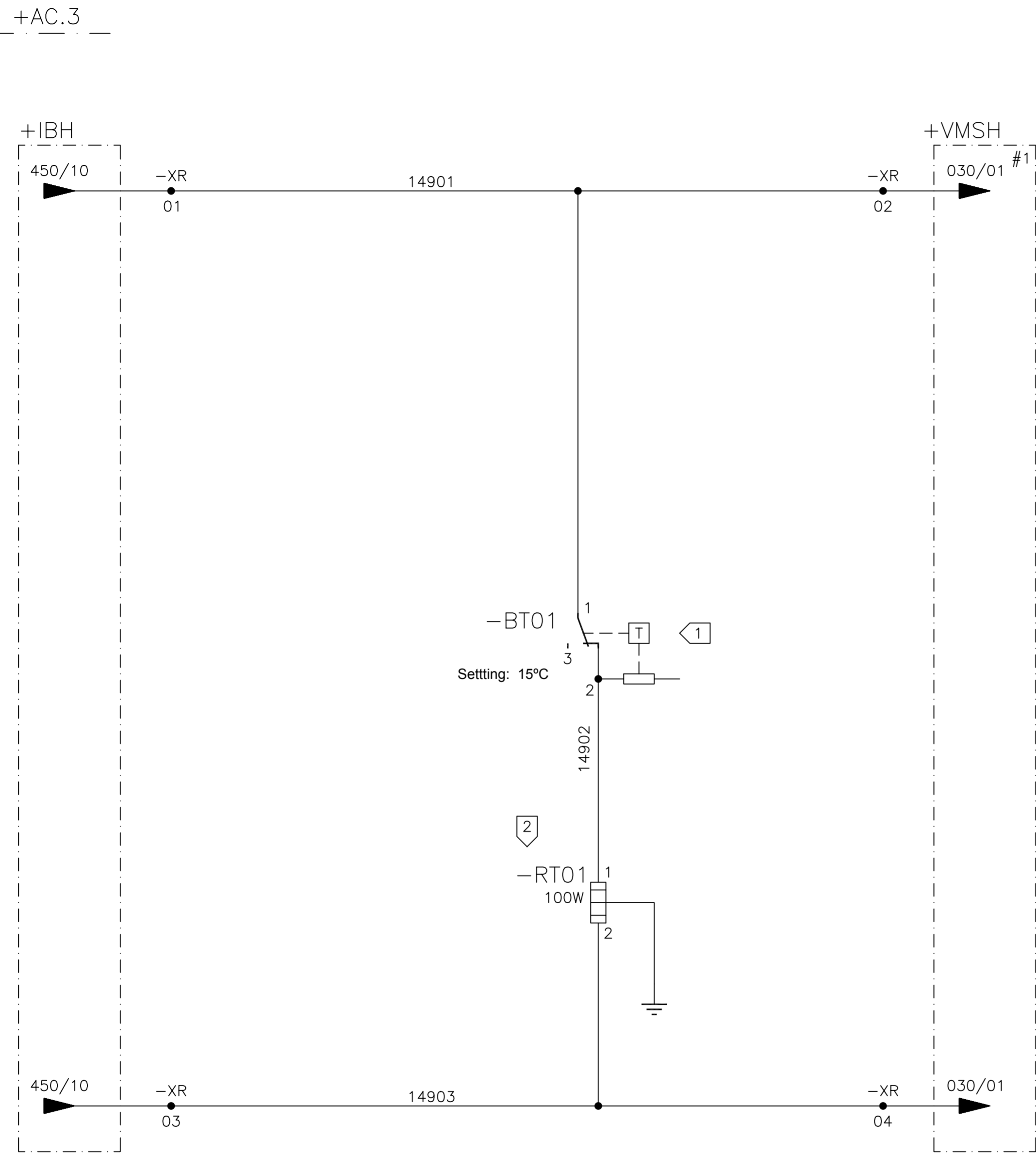
JOB N°: **99835**

TITLE:
BLADE POSITION SYSTEM +AC.3
CIRCUIT DIAGRAM
COMUNIC./ENCODER SECTION CONNECTION

DWG N°: 99835-680050		
GRP N°: 680	DATE: 13/10/2006	
DESIGN GPE	SHEET: 145	
APPD JPI	CONT.: 149	

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FORMAT A3 - IMPSA Wind CAD SYSTEM



REFERENCE

1. 10°C-30°C THERMOSTAT
2. PANEL HEATER

#1 SEE DOCUMENT 99835-680051

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

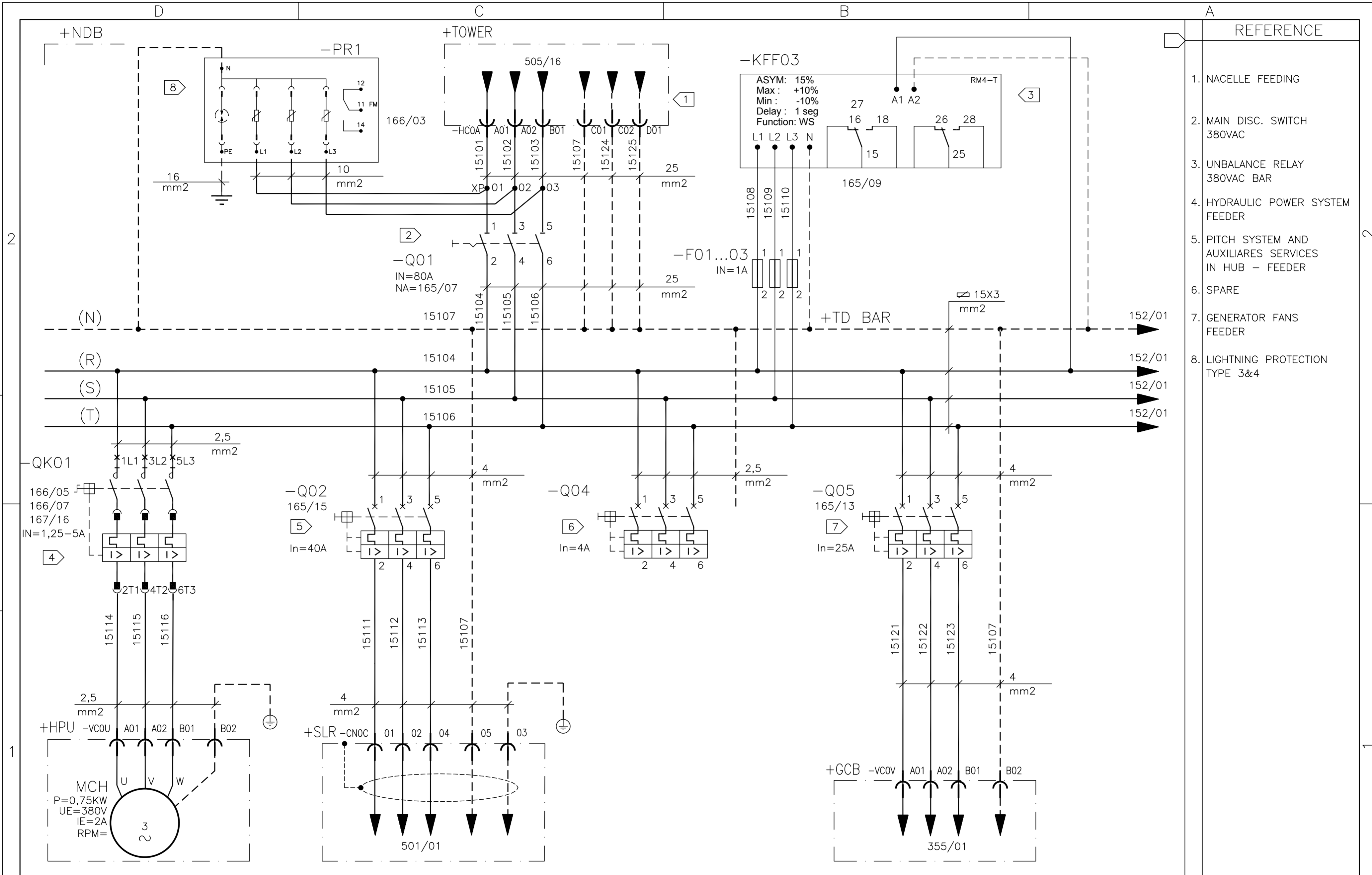
JOB N°: **99835**

TITLE:
BLADE POSITION SYSTEM + AC 3
CIRCUIT DIAGRAM

DWG N°:	99835-680050		
GRP N°:	680	DATE:	13/10/2006
DESIGN	GPE	SHEET:	149
APPD	JPI	CONT.:	151

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FORMAT A3 - IMPSA Wind CAD SYSTEM



REFERENCE

1. NACELLE FEEDING
2. MAIN DISC. SWITCH 380VAC
3. UNBALANCE RELAY 380VAC BAR
4. HYDRAULIC POWER SYSTEM FEEDER
5. PITCH SYSTEM AND AUXILIARES SERVICES IN HUB - FEEDER
6. SPARE
7. GENERATOR FANS FEEDER
8. LIGHTNING PROTECTION TYPE 3&4

01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16

05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

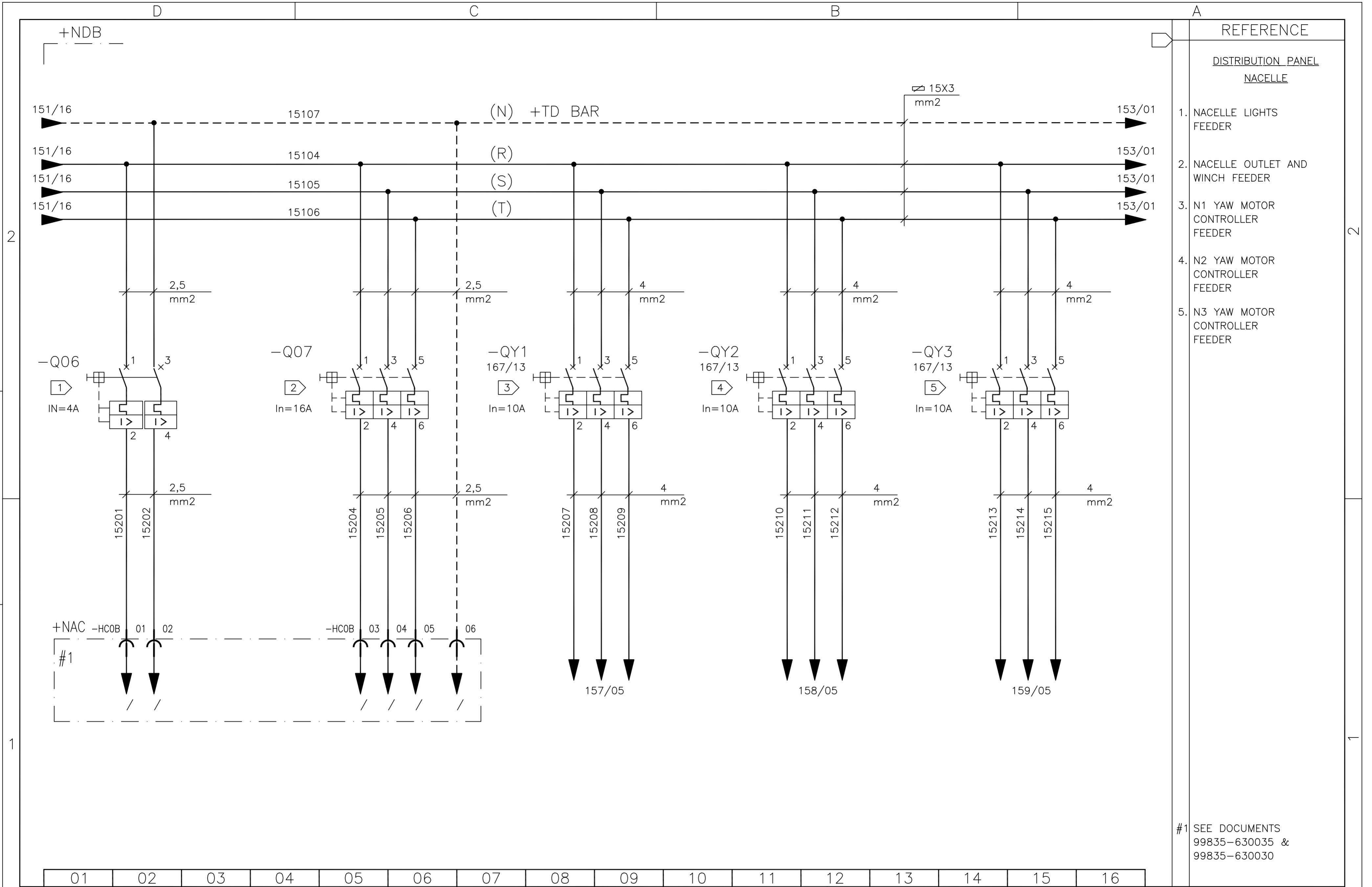
JOB Nº: **99835**

TITLE:
NACELLE DISTRIBUTION BOX
+NDB
CIRCUIT DIAGRAM

DWG Nº: 99835-680050		
GRP Nº: 680	DATE:	13/10/2006
DESIGN GPE	SHEET:	151
APPD JPI	CONT.:	152

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FORMAT A3 - IMPSA Wind CAD SYSTEM

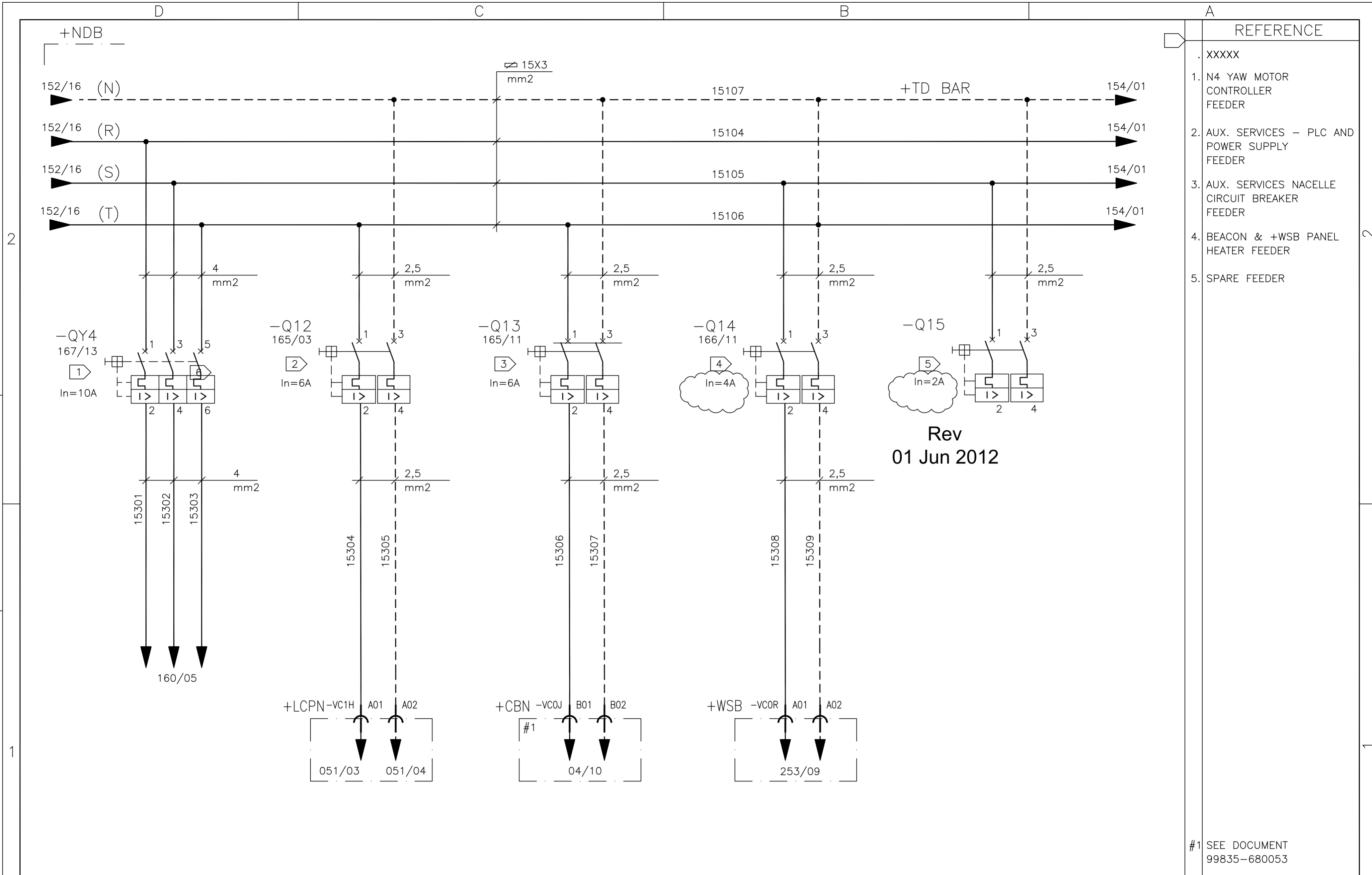


#1 SEE DOCUMENTS 99835-630035 & 99835-630030

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16				
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REV. 05 AS BUILT																DATA 26/07/10			
DENOMINATION				DATA				SIGN.				DESIGN GPE				SHEET: 152			
								JOB N°: 99835				APPD JPI				CONT.: 153			

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FORMAT A3 - IMPSA Wind CAD SYSTEM



Rev
01 Jun 2012

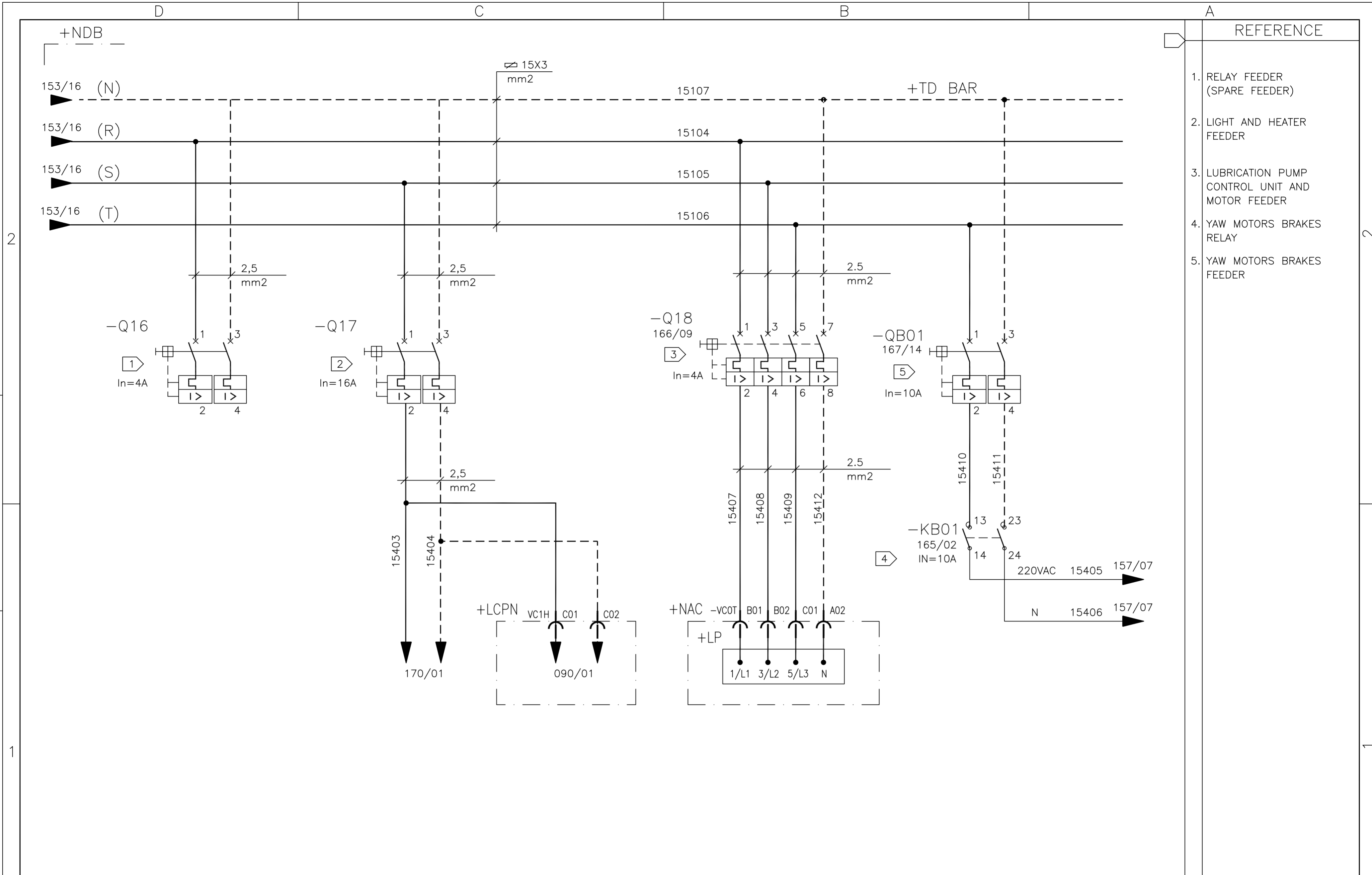
REFERENCE	
. XXXXX	
1.	N4 YAW MOTOR CONTROLLER FEEDER
2.	AUX. SERVICES - PLC AND POWER SUPPLY FEEDER
3.	AUX. SERVICES NACELLE CIRCUIT BREAKER FEEDER
4.	BEACON & +WSB PANEL HEATER FEEDER
5.	SPARE FEEDER

#1 SEE DOCUMENT 99835-680053

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
								WIND GENERATOR IWP-70 TITLE: NACELLE DISTRIBUTION BOX +NDB CIRCUIT DIAGRAM JOB N°: 99835				DWG N°: 99835-680050			
06	ICE DETECTION TEST	01/06/12	LGO									GRP N°: 680	DATE: 13/10/2006		
REV.	DENOMINATION	DATA	SIGN.	DESIGN GPE	SHEET: 153										
				APPD JPI	CONT.: 154										

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FORMAT A3 - IMPSA Wind CAD SYSTEM



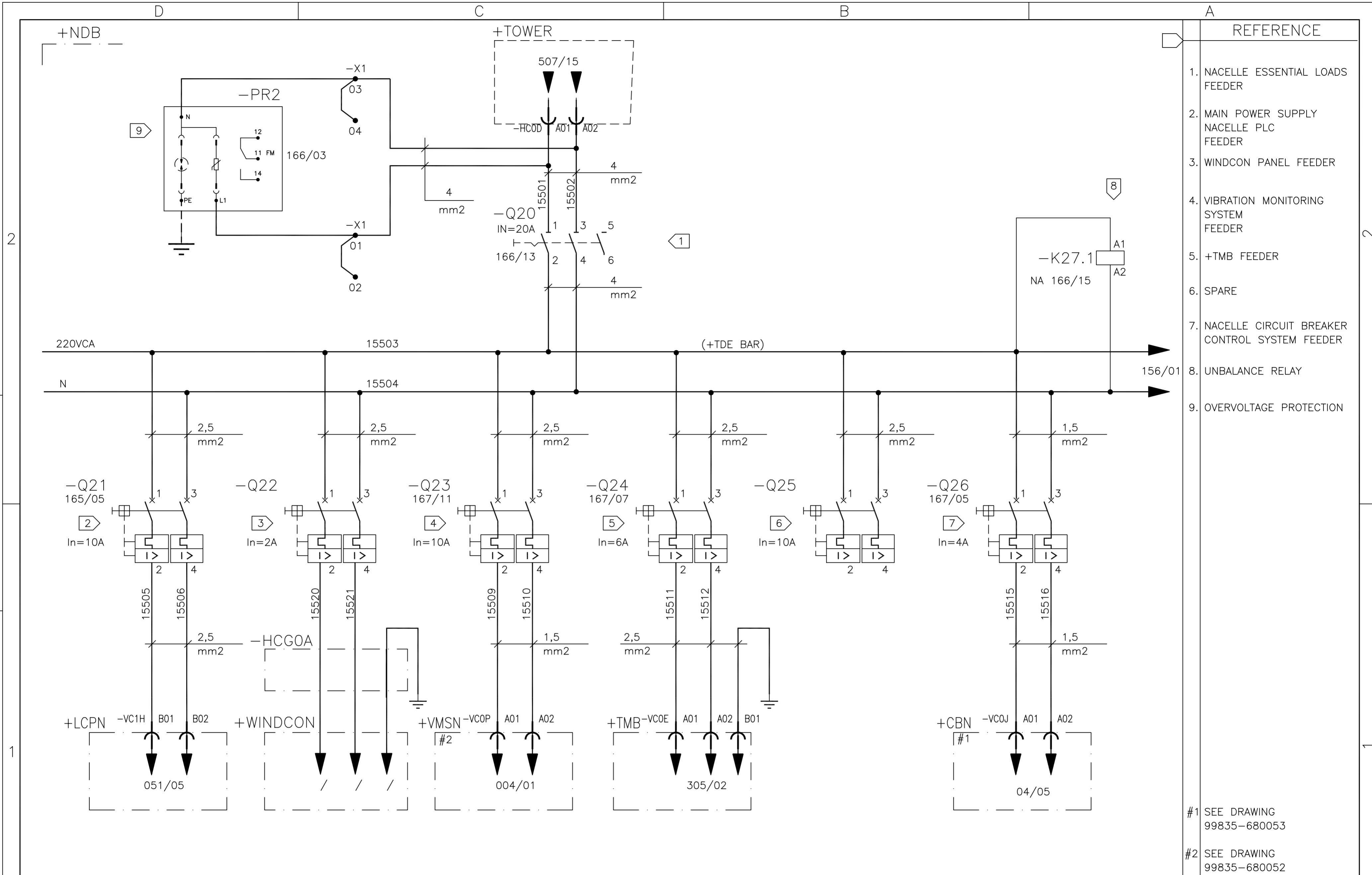
- REFERENCE
1. RELAY FEEDER (SPARE FEEDER)
 2. LIGHT AND HEATER FEEDER
 3. LUBRICATION PUMP CONTROL UNIT AND MOTOR FEEDER
 4. YAW MOTORS BRAKES RELAY
 5. YAW MOTORS BRAKES FEEDER

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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					WIND GENERATOR IWP-70				TITLE: NACELLE DISTRIBUTION BOX +NDB CIRCUIT DIAGRAM				DWG N°: 99835-680050			
05	AS BUILT	26/07/10	LGO		JOB N°: 99835				GRP N°: 680 DATE: 13/10/2006							
REV.	DENOMINATION	DATA	SIGN.					DESIGN GPE SHEET: 154								
								APPD JPI CONT.: 155								

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FORMAT A3 - IMPSA Wind CAD SYSTEM



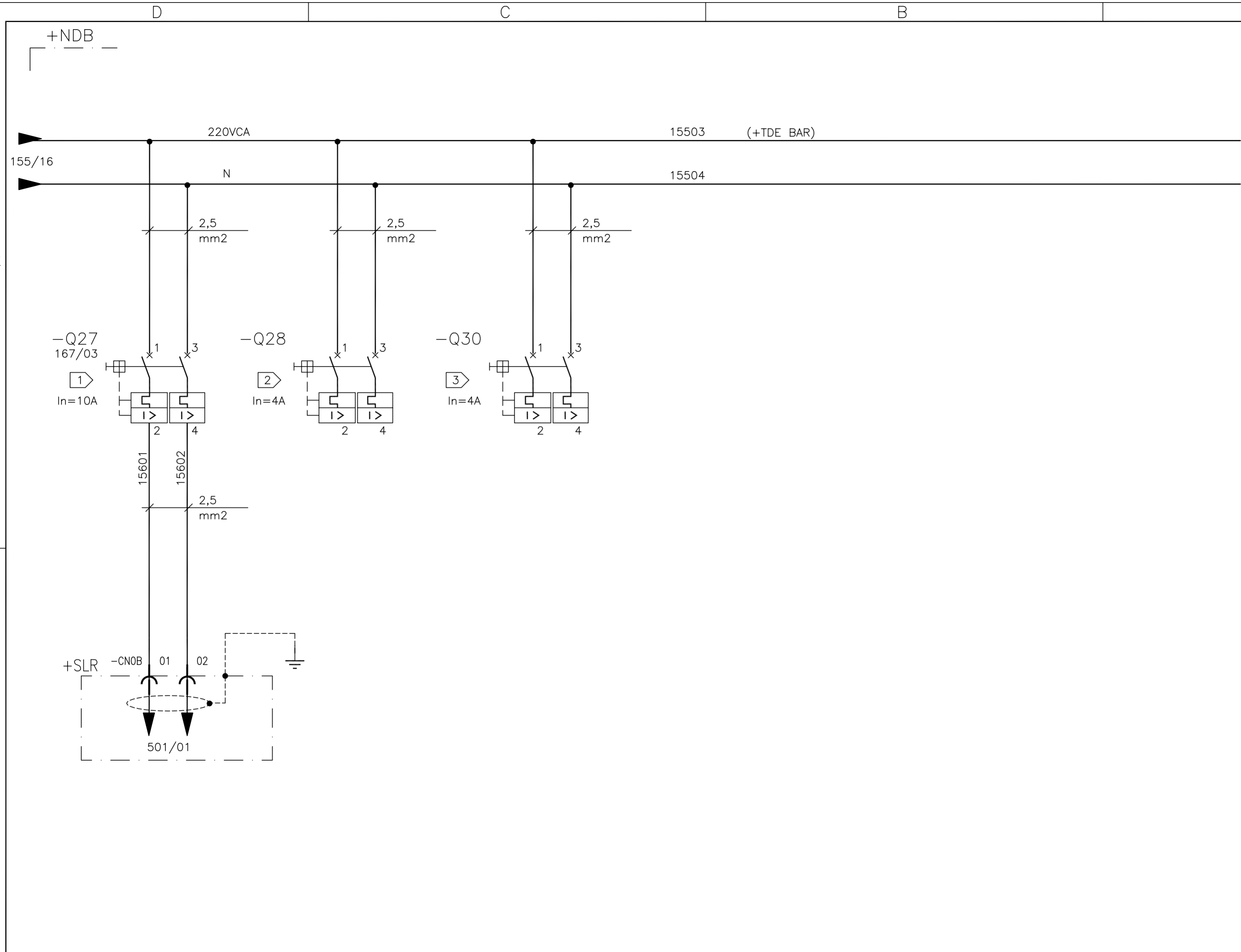
REFERENCE	
1.	NACELLE ESSENTIAL LOADS FEEDER
2.	MAIN POWER SUPPLY NACELLE PLC FEEDER
3.	WINDCON PANEL FEEDER
4.	VIBRATION MONITORING SYSTEM FEEDER
5.	+TMB FEEDER
6.	SPARE
7.	NACELLE CIRCUIT BREAKER CONTROL SYSTEM FEEDER
8.	UNBALANCE RELAY
9.	OVERVOLTAGE PROTECTION

#1	SEE DRAWING 99835-680053
#2	SEE DRAWING 99835-680052

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
								WIND GENERATOR IWP-70 TITLE: NACELLE DISTRIBUTION BOX +NDB - CIRCUIT DIAGRAMS ESSENTIAL LOADS DISTRIBUTION				DWG N°: 99835-680050			
05 AS BUILT 26/07/10 LGO												JOB N°: 99835			
REV. DENOMINATION DATA SIGN.								DESIGN GPE SHEET: 155				APPD JPI CONT.: 156			

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FORMAT A3 - IMPSA Wind CAD SYSTEM



- REFERENCE
1. HUB ESSENTIAL LOADS FEEDER
 2. SPARE FEEDER
 3. SPARE FEEDER

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

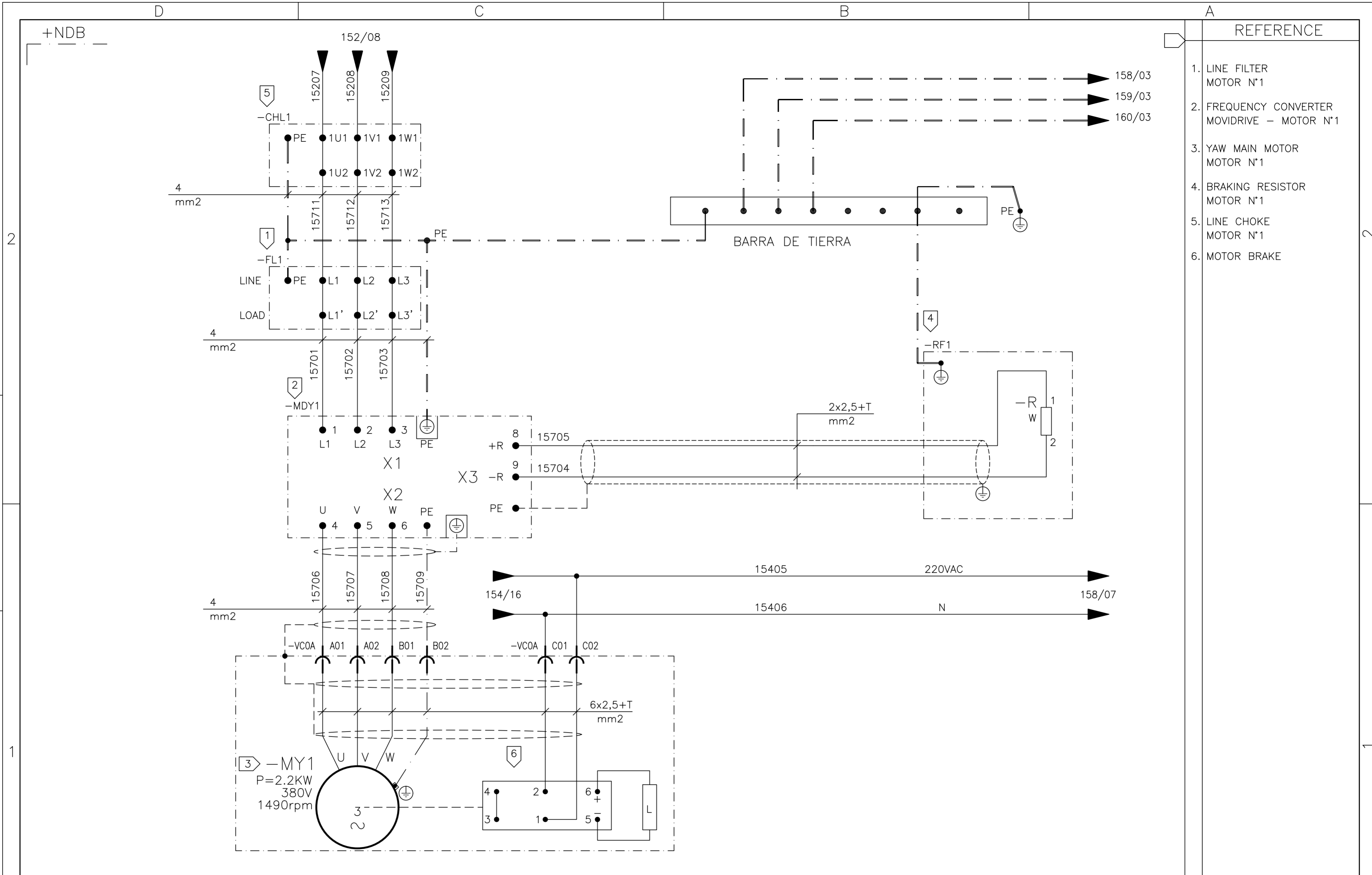
JOB N°: **99835**

TITLE:
NACELLE DISTRIBUTION BOX
+NDB- CIRCUIT DIAGRAMS
ESSENTIAL LOADS DISTRIBUTION

DWG N°:	99835-680050		
GRP N°:	680	DATE:	13/10/2006
DESIGN	GPE	SHEET:	156
APPD	JPI	CONT.:	157

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FORMAT A3 - IMPSA Wind CAD SYSTEM



- REFERENCE
1. LINE FILTER MOTOR N°1
 2. FREQUENCY CONVERTER MOVIDRIVE - MOTOR N°1
 3. YAW MAIN MOTOR MOTOR N°1
 4. BRAKING RESISTOR MOTOR N°1
 5. LINE CHOKE MOTOR N°1
 6. MOTOR BRAKE

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

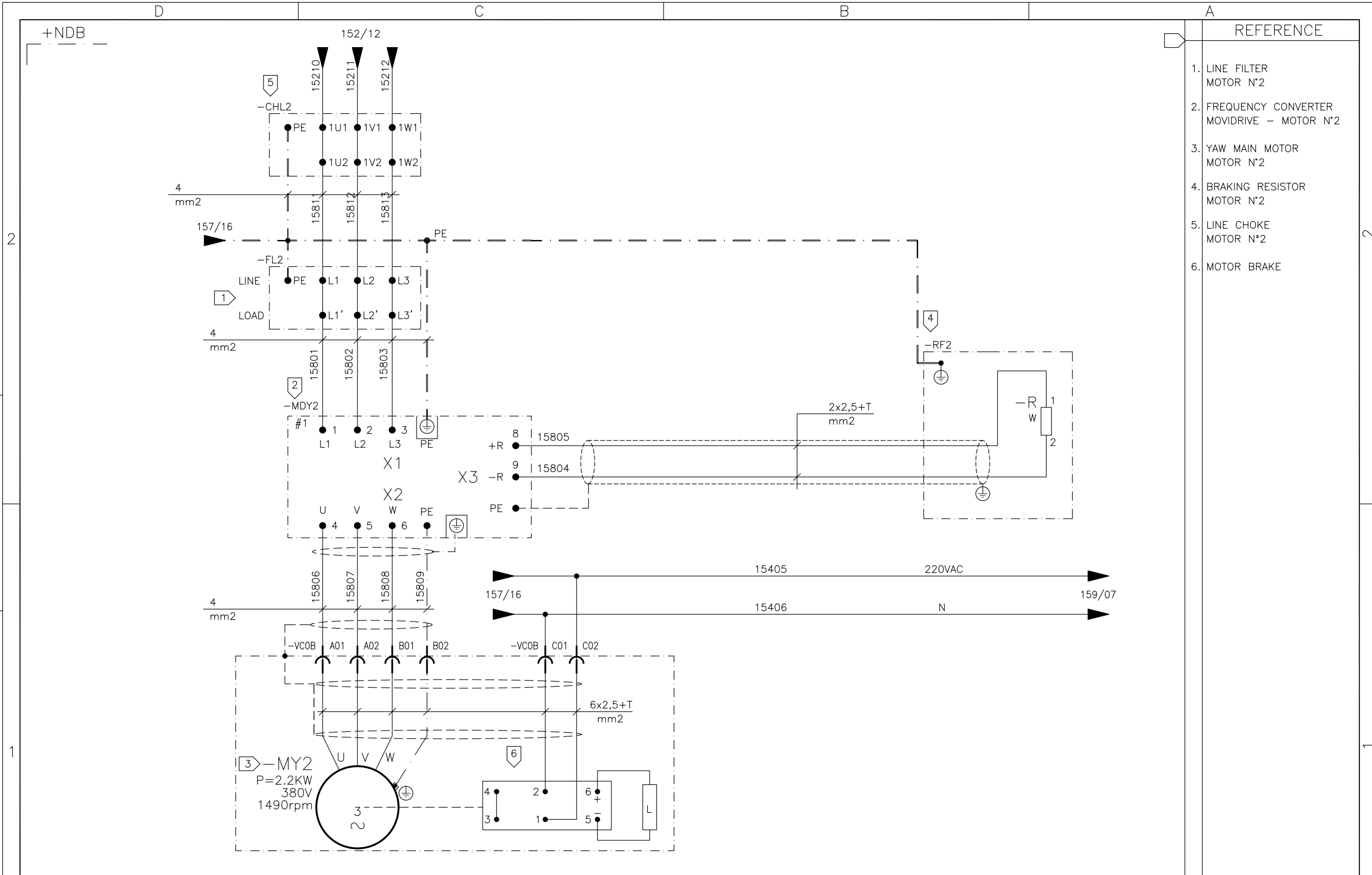
JOB N°: **99835**

TITLE:
NACELLE DISTRIBUTION BOX
+NDB - CIRCUIT DIAGRAMS
YAW SYSTEM CONTROL MOTOR N°1

DWG N°: 99835-680050		
GRP N°: 680	DATE: 13/10/2006	
DESIGN GPE	SHEET: 157	
APPD JPI	CONT.: 158	

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FORMAT A3 - IMPSA Wind CAD SYSTEM



REFERENCE

1. LINE FILTER MOTOR N°2
2. FREQUENCY CONVERTER MOVIDRIVE - MOTOR N°2
3. YAW MAIN MOTOR MOTOR N°2
4. BRAKING RESISTOR MOTOR N°2
5. LINE CHOKE MOTOR N°2
6. MOTOR BRAKE

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

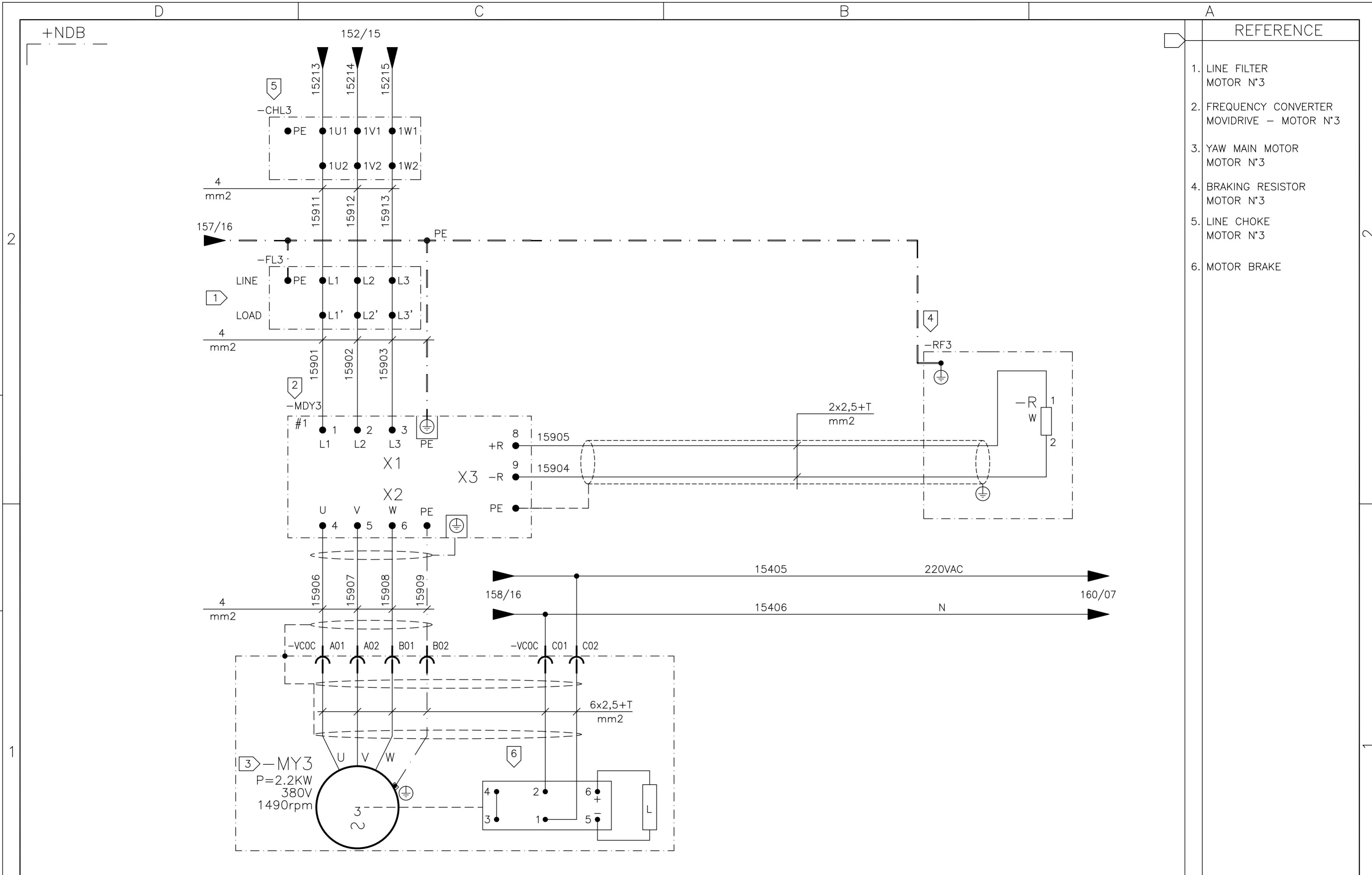
JOB N°: **99835**

TITLE:
NACELLE DISTRIBUTION BOX
+NDB - CIRCUIT DIAGRAMS
YAW CONTROL SYSTEM MOTOR N°2

DWG N°: 99835-680050		
GRP N°: 680	DATE: 13/10/2006	
DESIGN GPE	SHEET: 158	
APPD JPI	CONT.: 159	

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FORMAT A3 - IMPSA Wind CAD SYSTEM



REFERENCE

1. LINE FILTER MOTOR N°3
2. FREQUENCY CONVERTER MOVIDRIVE - MOTOR N°3
3. YAW MAIN MOTOR MOTOR N°3
4. BRAKING RESISTOR MOTOR N°3
5. LINE CHOKE MOTOR N°3
6. MOTOR BRAKE

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

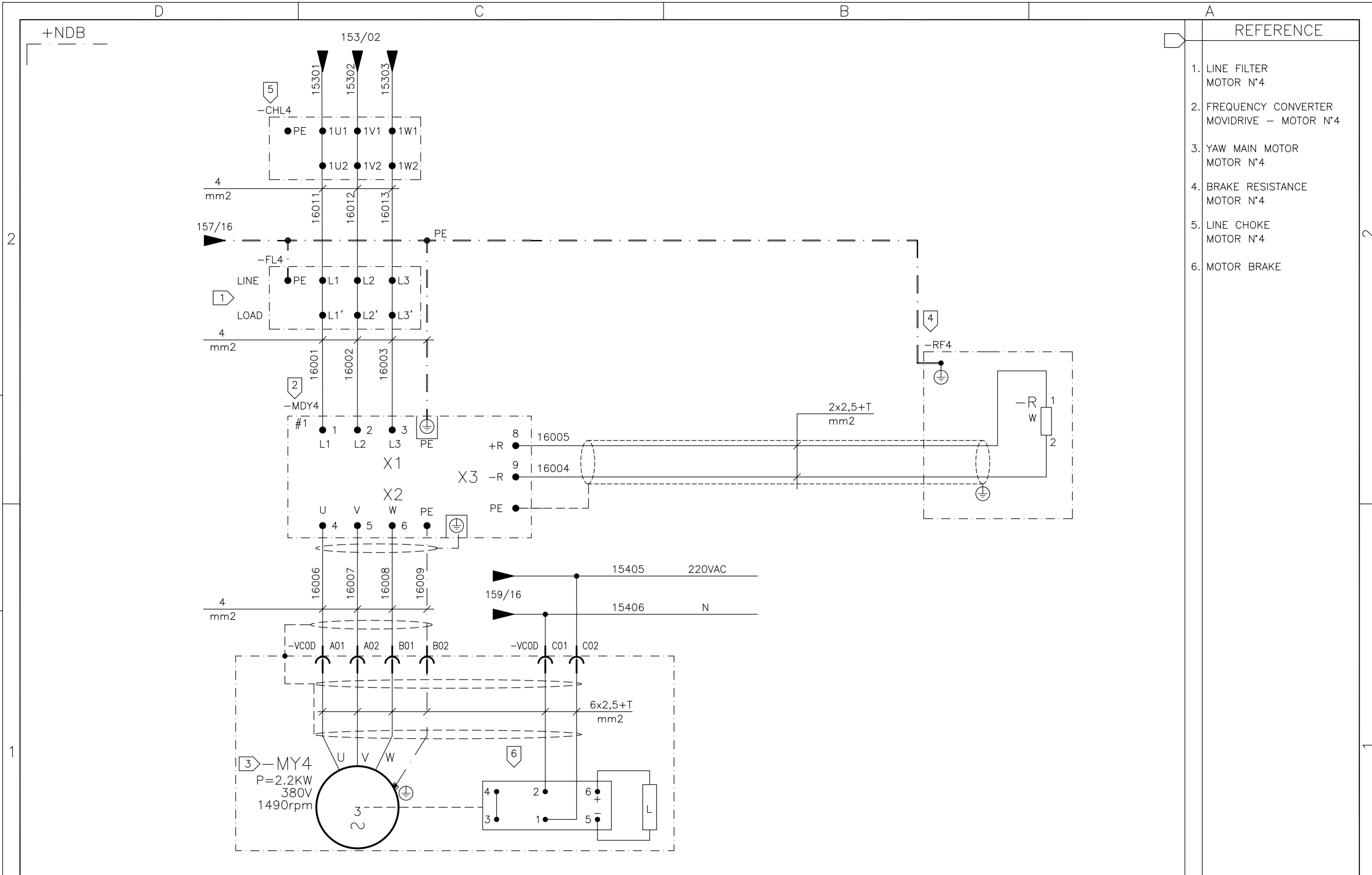
JOB N°: **99835**

TITLE:
NACELLE DISTRIBUTION BOX
+NDB - CIRCUIT DIAGRAMS
YAW SYSTEM CONTROL MOTOR N°3

DWG N°: 99835-680050		
GRP N°: 680	DATE: 13/10/2006	
DESIGN GPE	SHEET: 159	
APPD JPI	CONT.: 160	

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FORMAT A3 - IMPSA Wind CAD SYSTEM



REFERENCE

1. LINE FILTER MOTOR N°4
2. FREQUENCY CONVERTER MOVIDRIVE - MOTOR N°4
3. YAW MAIN MOTOR MOTOR N°4
4. BRAKE RESISTANCE MOTOR N°4
5. LINE CHOKE MOTOR N°4
6. MOTOR BRAKE

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

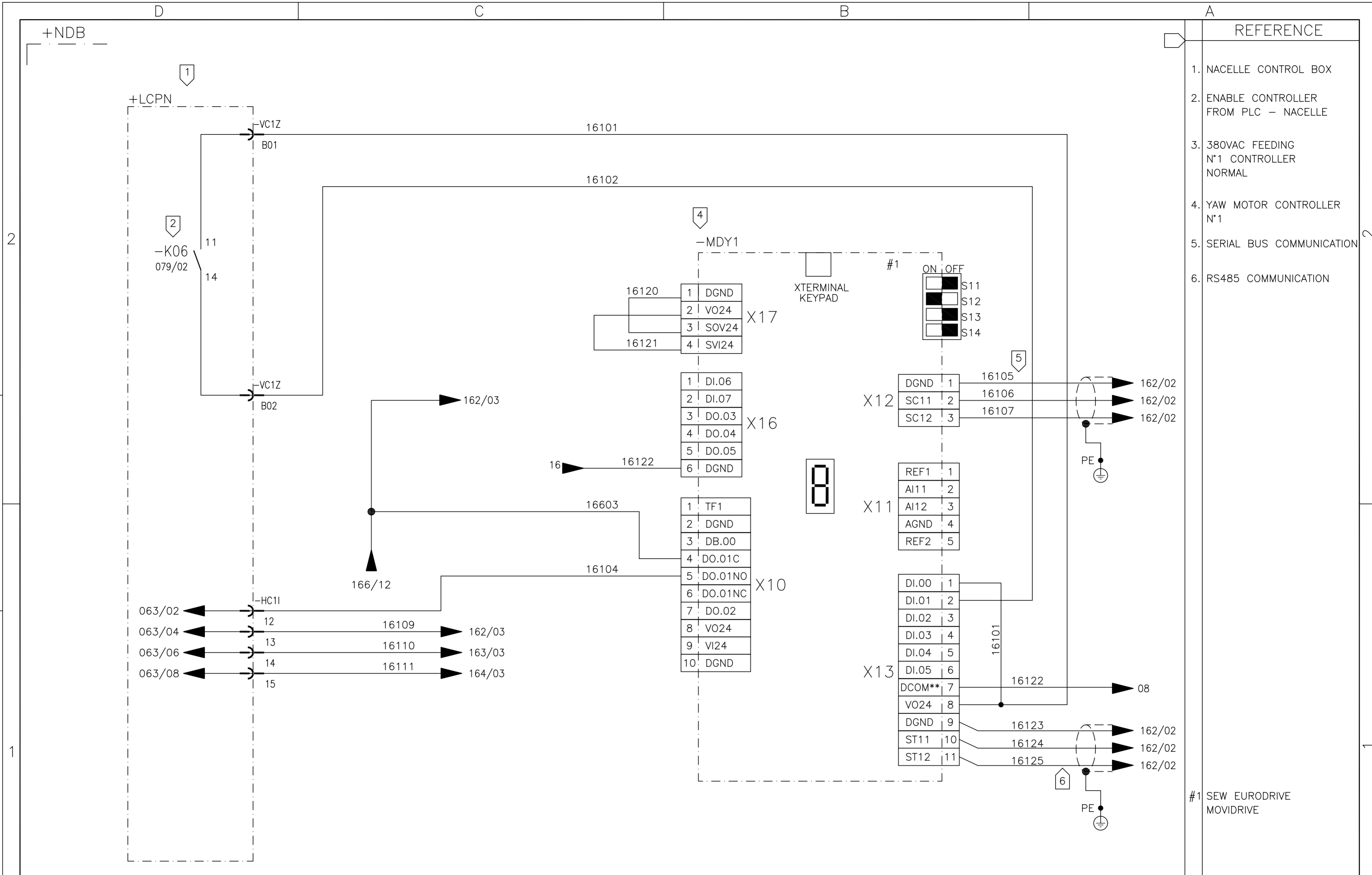
JOB N°: **99835**

TITLE:
NACELLE DISTRIBUTION BOX
+NDB - CIRCUIT DIAGRAMS
YAW SYSTEM CONTROL MOTOR N°4

DWG N°: 99835-680050		
GRP N°: 680	DATE: 13/10/2006	
DESIGN GPE	SHEET: 160	
APPD JPI	CONT.: 161	

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FORMAT A3 - IMPSA Wind CAD SYSTEM



- REFERENCE
1. NACELLE CONTROL BOX
 2. ENABLE CONTROLLER FROM PLC - NACELLE
 3. 380VAC FEEDING N°1 CONTROLLER NORMAL
 4. YAW MOTOR CONTROLLER N°1
 5. SERIAL BUS COMMUNICATION
 6. RS485 COMMUNICATION

#1 SEW EURODRIVE MOVIDRIVE

01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16

05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

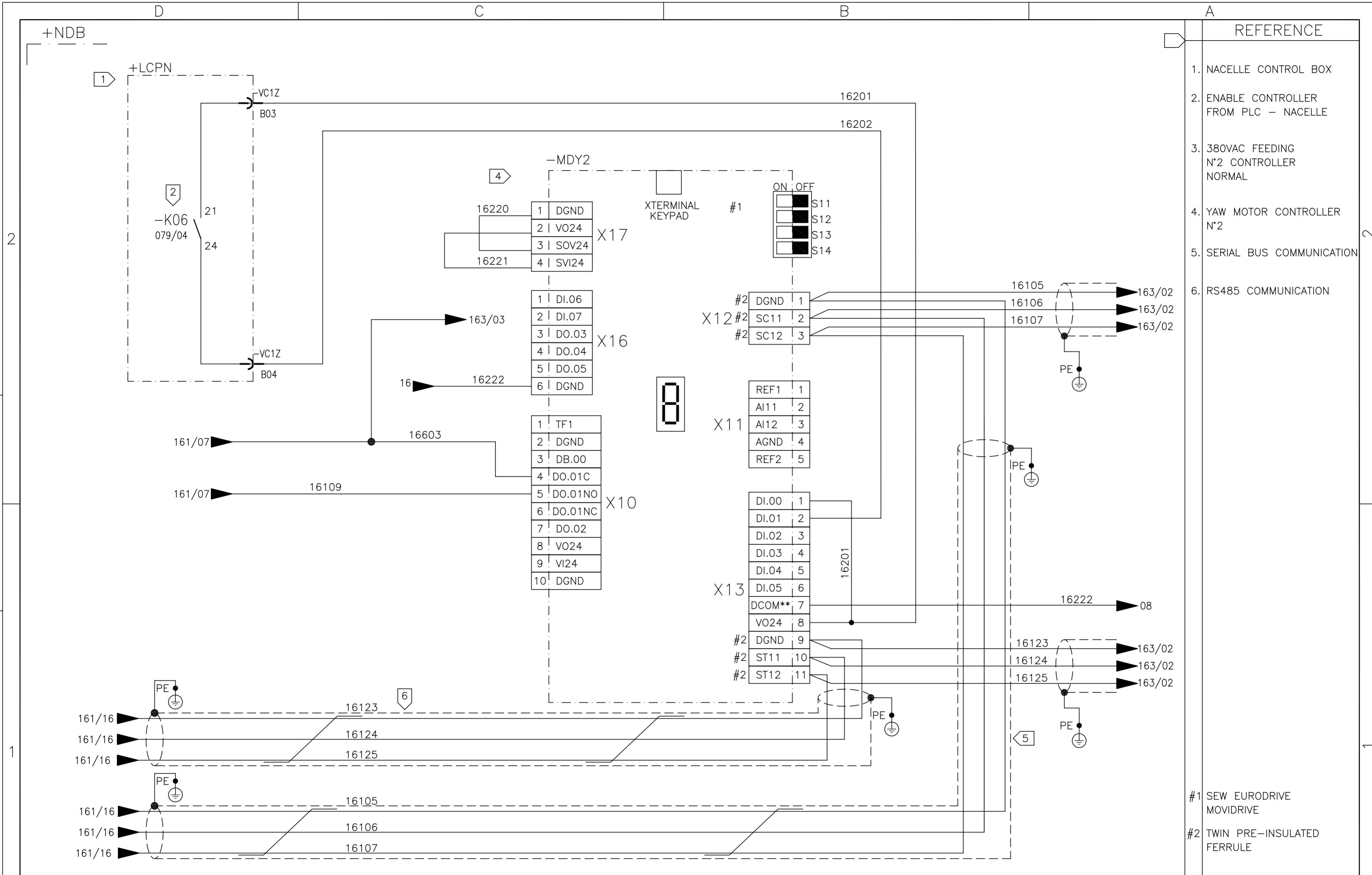
JOB N°: **99835**

TITLE:
NACELLE DISTRIBUTION BOX
+NDB - CIRCUIT DIAGRAMS
YAW SYSTEM CONTROL MOTOR N°1

DWG N°: 99835-680050	
GRP N°: 680	DATE: 13/10/2006
DESIGN GPE	SHEET: 161
APPD JPI	CONT.: 162

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FORMAT A3 - IMPSA Wind CAD SYSTEM



- REFERENCE
1. NACELLE CONTROL BOX
 2. ENABLE CONTROLLER FROM PLC - NACELLE
 3. 380VAC FEEDING N°2 CONTROLLER NORMAL
 4. YAW MOTOR CONTROLLER N°2
 5. SERIAL BUS COMMUNICATION
 6. RS485 COMMUNICATION
- #1 SEW EURODRIVE MOVIDRIVE
#2 TWIN PRE-INSULATED FERRULE

01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16

05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

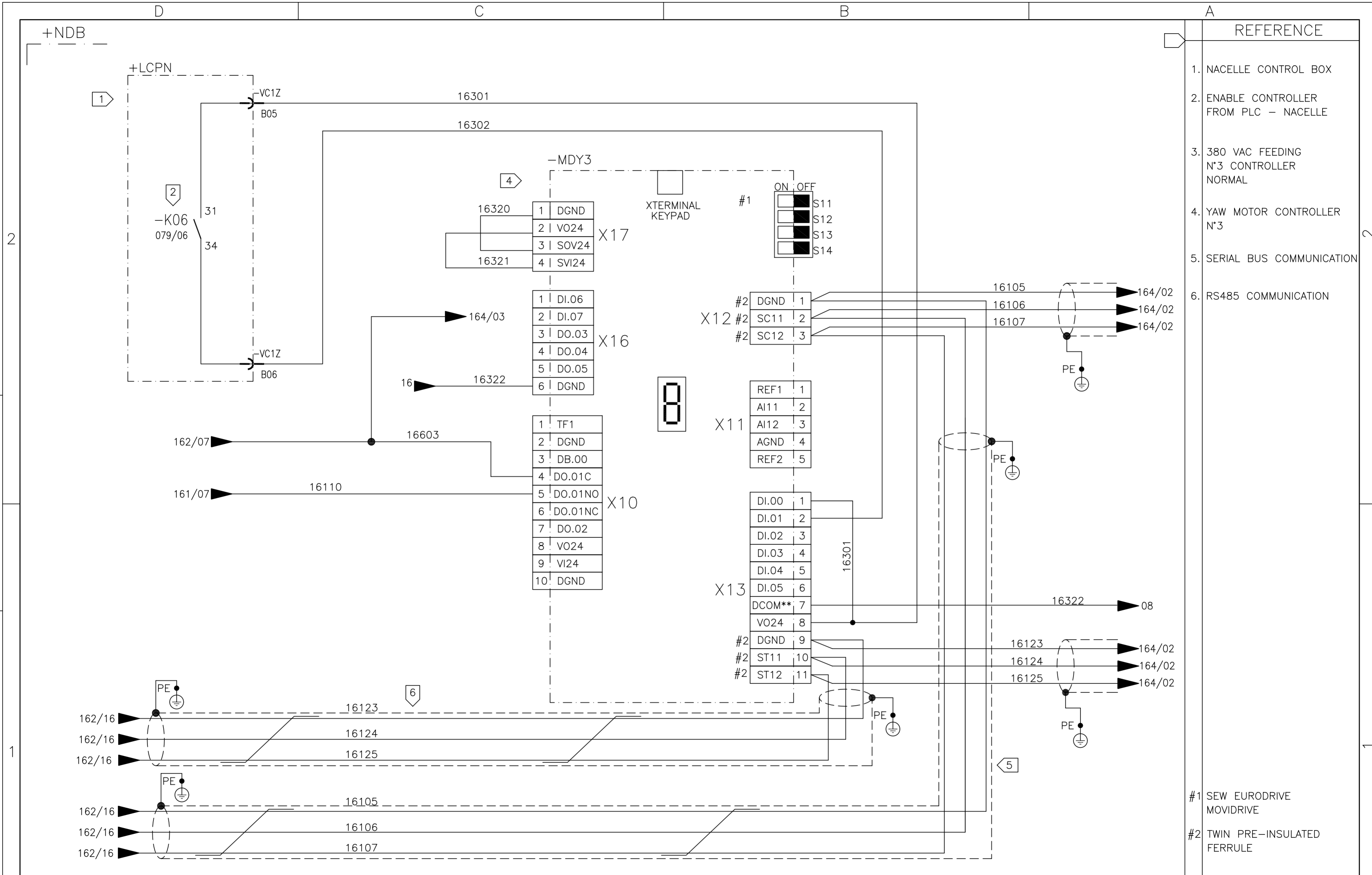
JOB N°: **99835**

TITLE:
NACELLE DISTRIBUTION BOX
+NDB - CIRCUIT DIAGRAMS
YAW SYSTEM CONTROL MOTOR N°2

DWG N°: 99835-680050	
GRP N°: 680	DATE: 13/10/2006
DESIGN GPE	SHEET: 162
APPD JPI	CONT.: 163

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FORMAT A3 - IMPSA Wind CAD SYSTEM



REFERENCE

1. NACELLE CONTROL BOX
2. ENABLE CONTROLLER FROM PLC - NACELLE
3. 380 VAC FEEDING N°3 CONTROLLER NORMAL
4. YAW MOTOR CONTROLLER N°3
5. SERIAL BUS COMMUNICATION
6. RS485 COMMUNICATION

- #1 SEW EURODRIVE MOVIDRIVE
- #2 TWIN PRE-INSULATED FERRULE

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

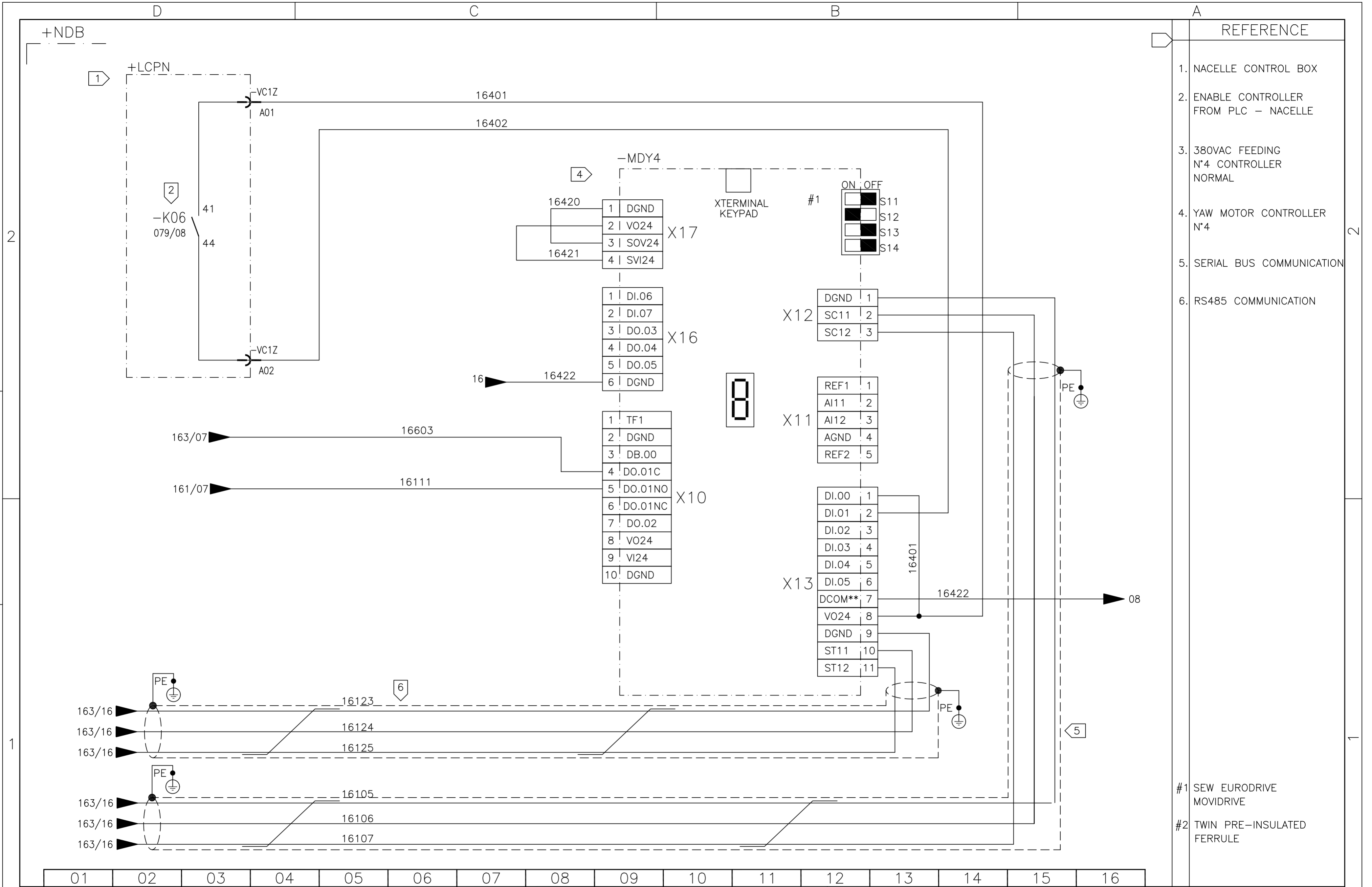
JOB N°: **99835**

TITLE:
NACELLE DISTRIBUTION BOX
+NDB - CIRCUIT DIAGRAMS
YAW SYSTEM CONTROL MOTOR N°3

DWG N°: 99835-680050		
GRP N°: 680	DATE: 13/10/2006	
DESIGN GPE	SHEET: 163	
APPD JPI	CONT.: 164	

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FORMAT A3 - IMPSA Wind CAD SYSTEM



REFERENCE	
1.	NACELLE CONTROL BOX
2.	ENABLE CONTROLLER FROM PLC - NACELLE
3.	380VAC FEEDING N°4 CONTROLLER NORMAL
4.	YAW MOTOR CONTROLLER N°4
5.	SERIAL BUS COMMUNICATION
6.	RS485 COMMUNICATION

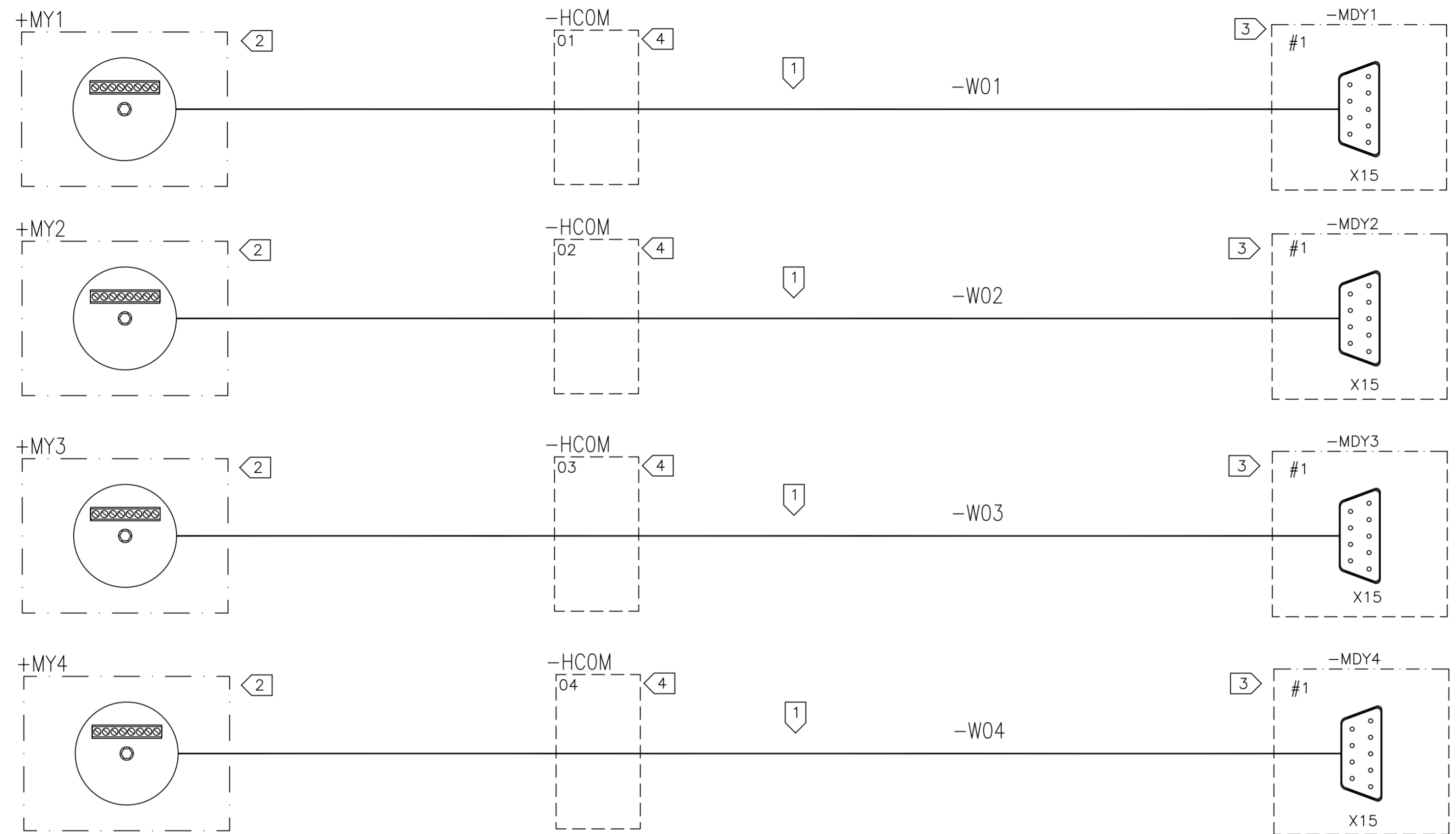
#1	SEW EURODRIVE MOVIDRIVE
#2	TWIN PRE-INSULATED FERRULE

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
								WIND GENERATOR IWP-70 TITLE: NACELLE DISTRIBUTION BOX +NDB - CIRCUIT DIAGRAMS YAW SYSTEM CONTROL MOTOR N°4				DWG N°: 99835-680050			
05	AS BUILT	26/07/10	LGO									JOB N°: 99835			
REV.	DENOMINATION	DATA	SIGN.					DESIGN GPE SHEET: 164							
								APPD JPI CONT.: 164A							

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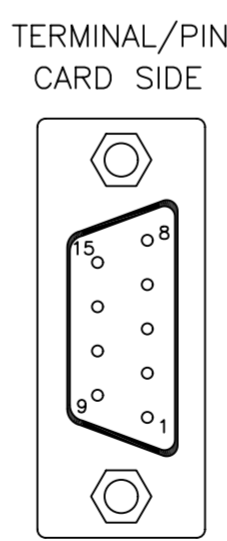
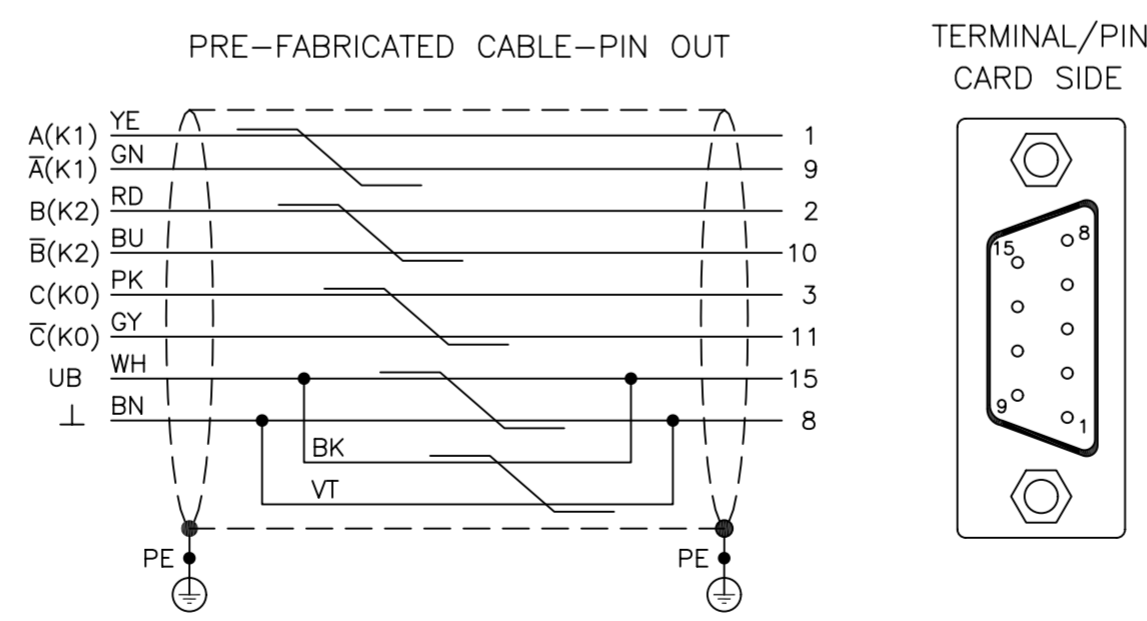
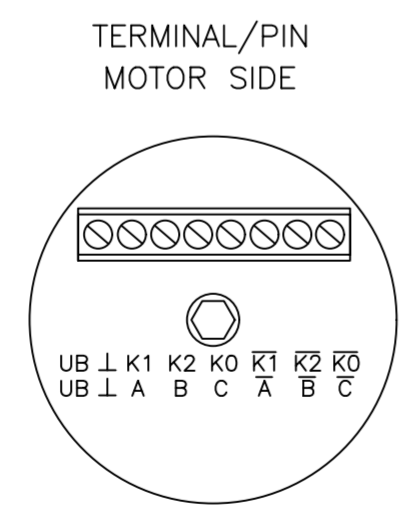
FORMAT A3 - IMPSA Wind CAD SYSTEM

+NDB



REFERENCE

1. PRE-FABRICATED CABLE FOR ENCODER
2. ENCODER CABLE CONNECTION ON MOTOR
3. ENCODER CONNECTION ON MOVIDRIVE
4. CABLE FEED-THROUGH



#1 CATALOG SEW EURODRIVE
Doc N° 1427817 / EN

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

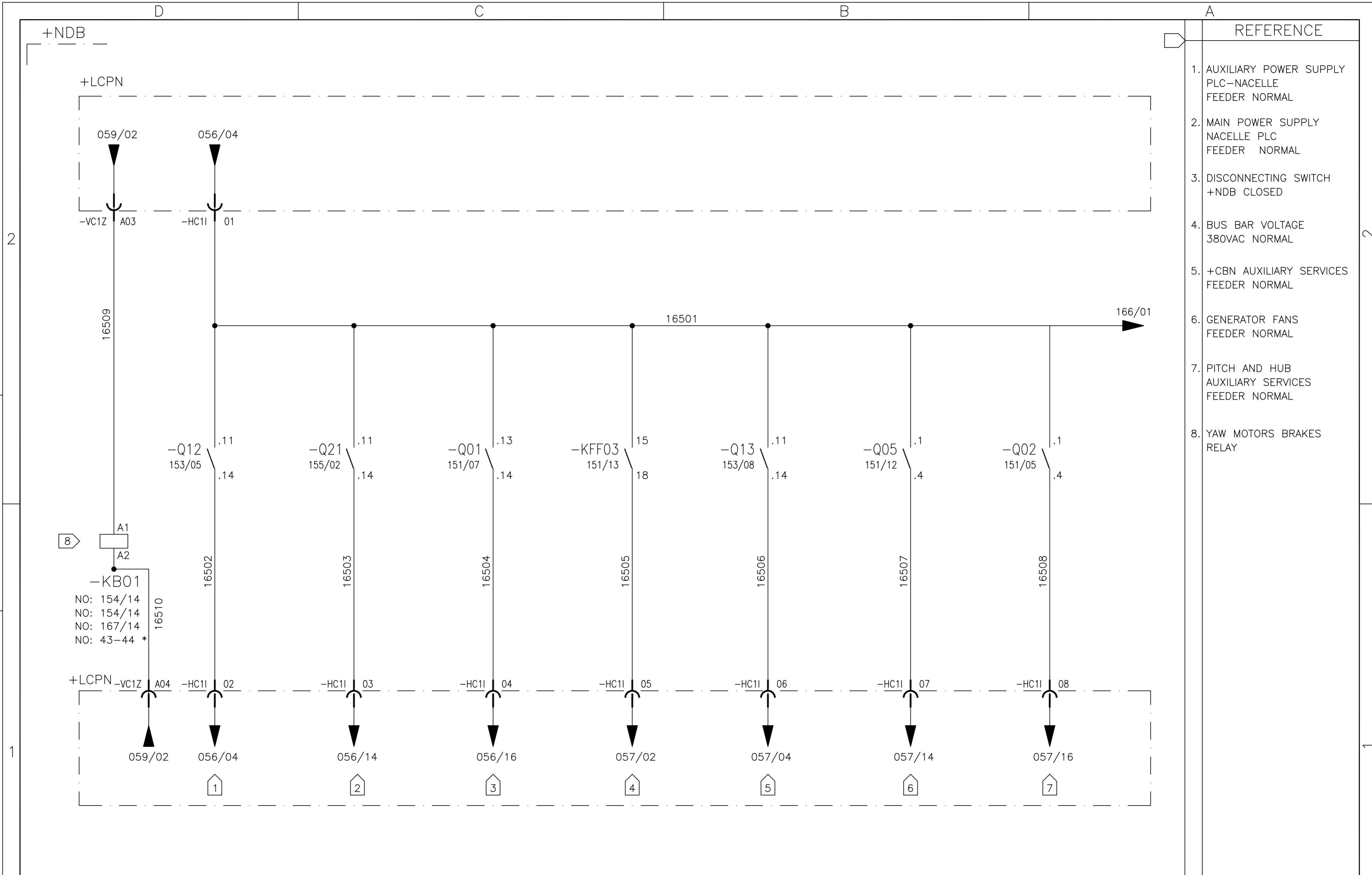
JOB N°: **99835**

TITLE:
NACELLE DISTRIBUTION BOX
+NDB
CIRCUIT DIAGRAM

DWG N°: 99835-680050		
GRP N°: 680	DATE: 13/10/2006	
DESIGN GPE	SHEET: 164A	
APPD JPI	CONT.: 165	

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FORMAT A3 - IMPSA Wind CAD SYSTEM

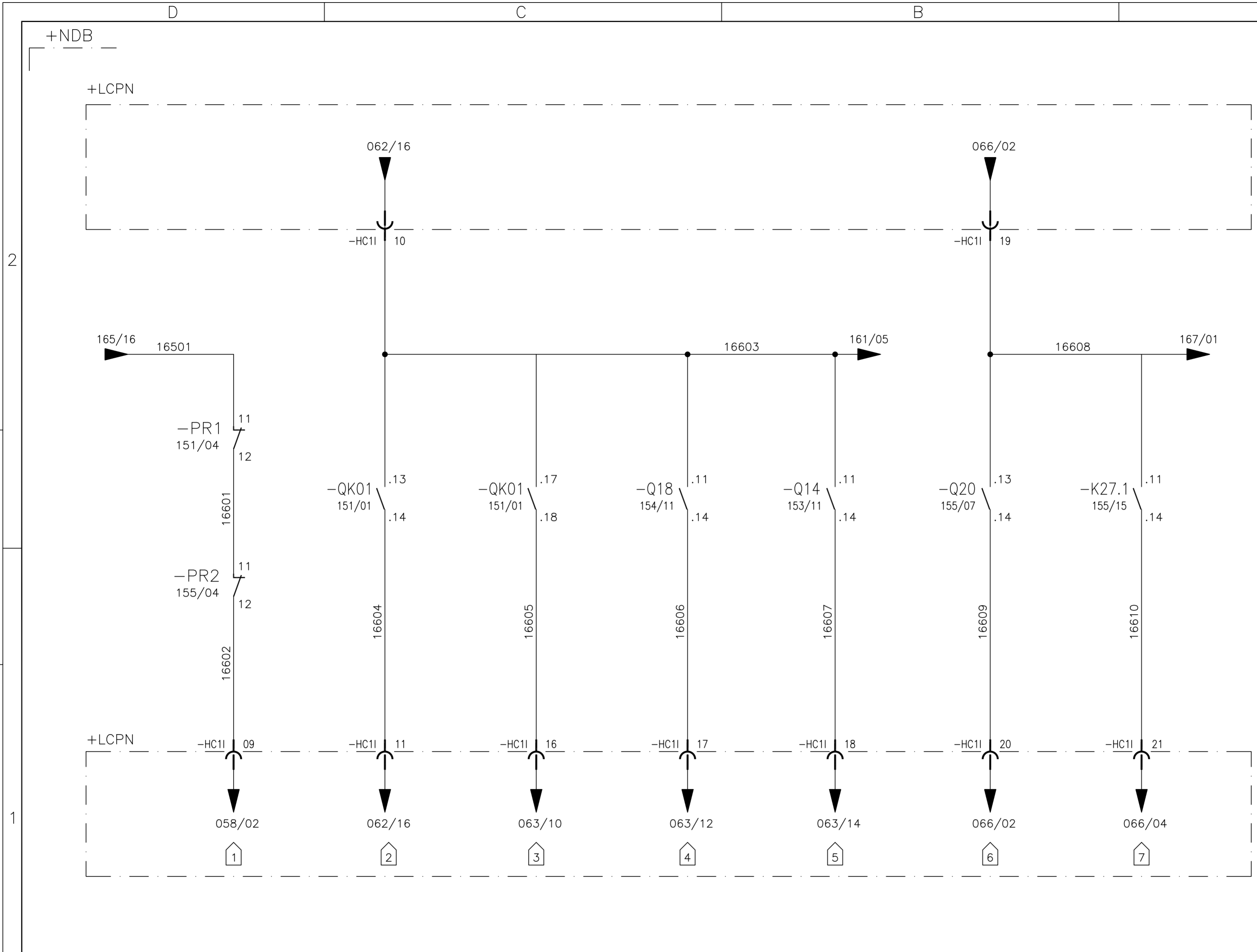


- | REFERENCE | |
|-----------|--|
| 1. | AUXILIARY POWER SUPPLY PLC-NACELLE FEEDER NORMAL |
| 2. | MAIN POWER SUPPLY NACELLE PLC FEEDER NORMAL |
| 3. | DISCONNECTING SWITCH +NDB CLOSED |
| 4. | BUS BAR VOLTAGE 380VAC NORMAL |
| 5. | +CBN AUXILIARY SERVICES FEEDER NORMAL |
| 6. | GENERATOR FANS FEEDER NORMAL |
| 7. | PITCH AND HUB AUXILIARY SERVICES FEEDER NORMAL |
| 8. | YAW MOTORS BRAKES RELAY |

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
								WIND GENERATOR IWP-70 TITLE: NACELLE DISTRIBUTION BOX +NDB - CIRCUIT DIAGRAMS SIGNALS TO + LCPN JOB N°: 99835				DWG N°: 99835-680050			
05 AS BUILT 26/07/10 LGO												GRP N°: 680 DATE: 13/10/2006			
REV. DENOMINATION DATA SIGN.								DESIGN GPE SHEET: 165				APPD JPI CONT.: 166			

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FORMAT A3 - IMPSA Wind CAD SYSTEM

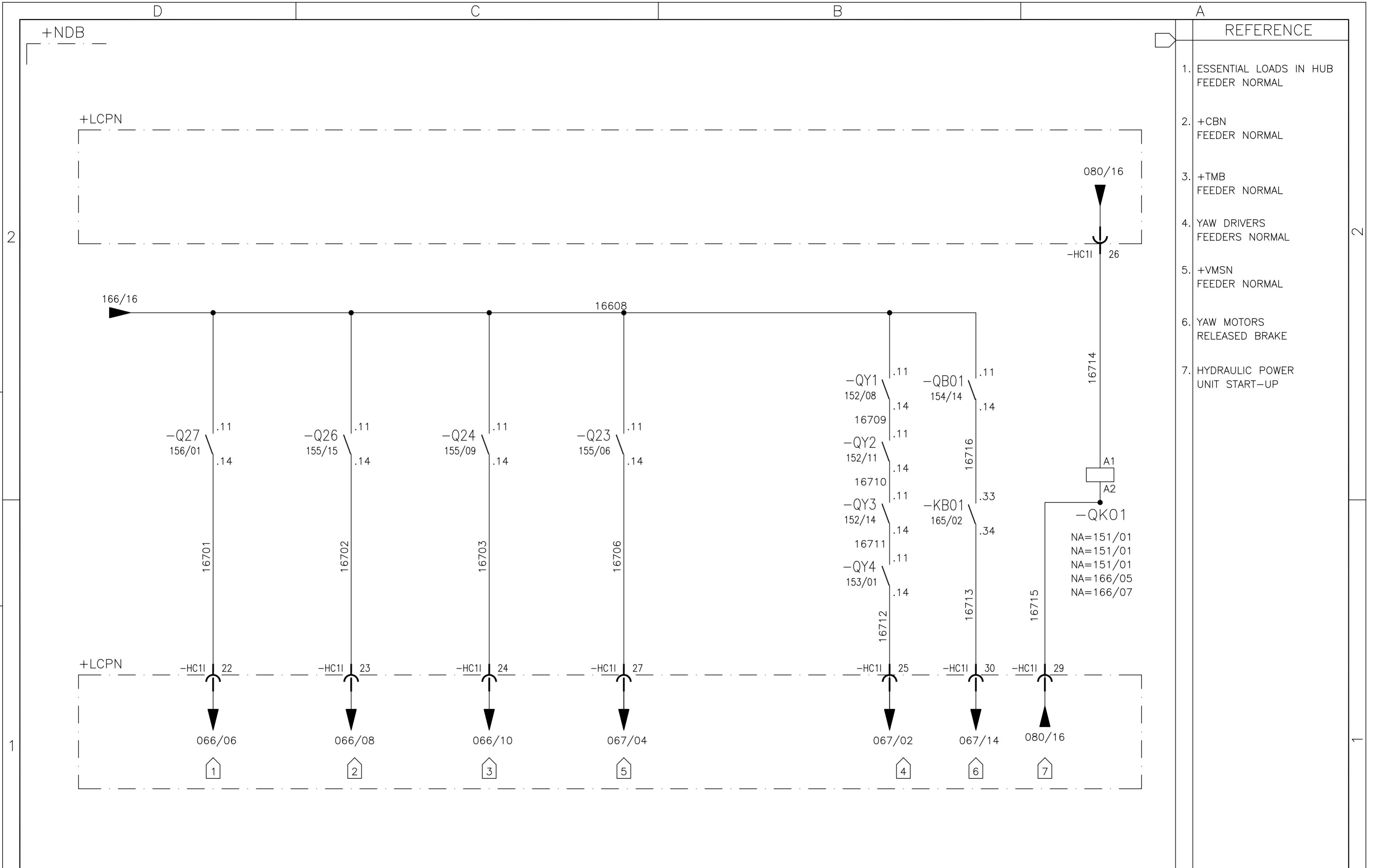


REFERENCE		
1.	380VAC & 220VAC (+NDB)	OVERVOLTAGE PROTECTION
2.	HYDRAULIC UNIT	MOTOR CONNECTED
3.	HYDRAULIC UNIT	FEEDER NORMAL
4.	LUBRICATION PUMP	FEEDER NORMAL
5.	BEACON	FEEDER NORMAL
6.	MAIN DISCONNECTING	SWITCH ESSENTIAL LOADS
7.	TDE BUS BAR	VOLTAGE NORMAL

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16				
								WIND GENERATOR IWP-70				TITLE: NACELLE DISTRIBUTION BOX +NDB - CIRCUIT DIAGRAMS SIGNALS TO + LCPN				DWG N°: 99835-680050			
05 AS BUILT																26/07/10 LGO			
REV. DENOMINATION				DATA SIGN.				JOB N°: 99835				DESIGN GPE				SHEET: 166			
												APPD JPI				CONT.: 167			

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FORMAT A3 - IMPSA Wind CAD SYSTEM



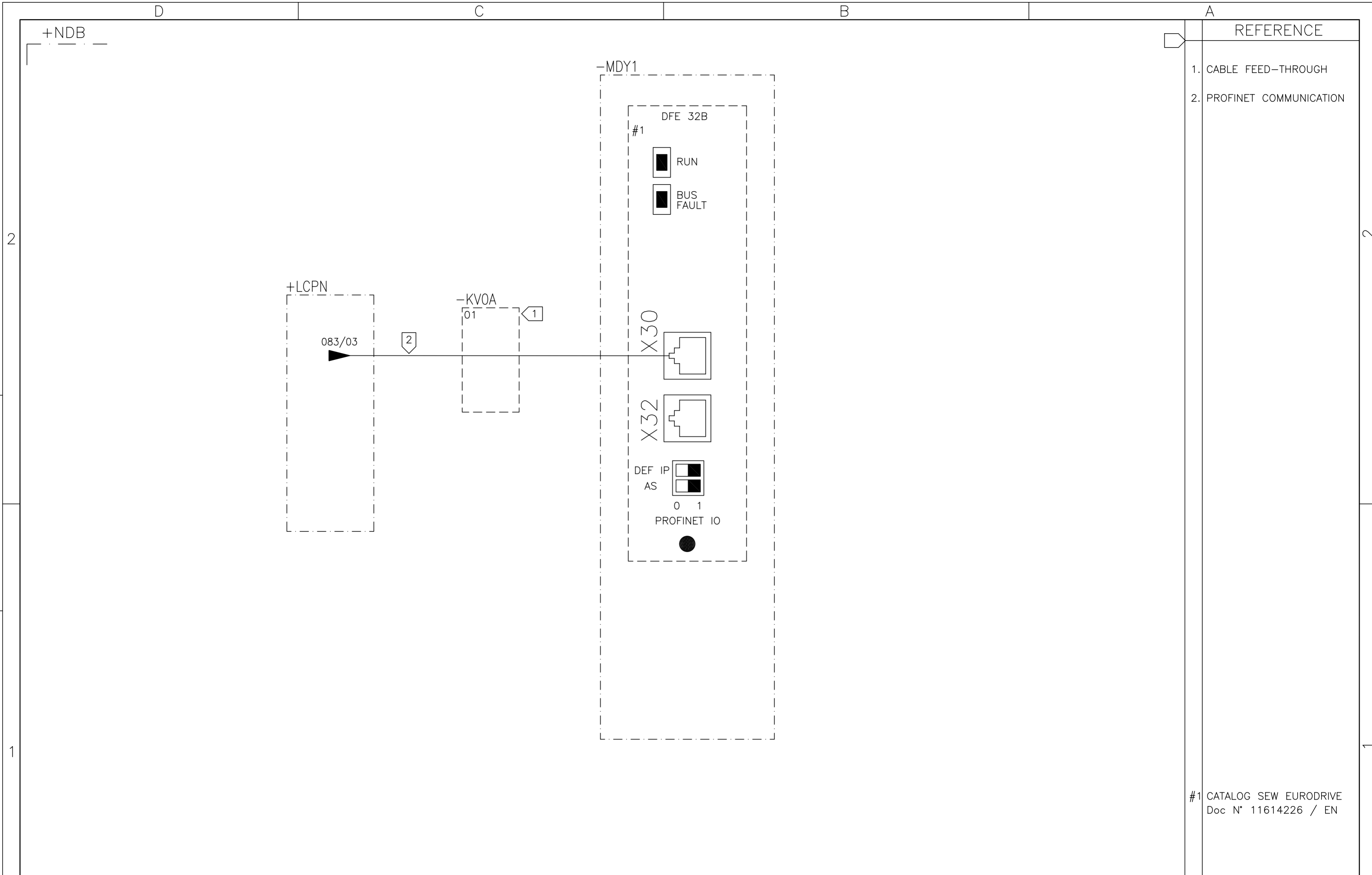
REFERENCE	
1.	ESSENTIAL LOADS IN HUB FEEDER NORMAL
2.	+CBN FEEDER NORMAL
3.	+TMB FEEDER NORMAL
4.	YAW DRIVERS FEEDERS NORMAL
5.	+VMSN FEEDER NORMAL
6.	YAW MOTORS RELEASED BRAKE
7.	HYDRAULIC POWER UNIT START-UP

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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					WIND GENERATOR IWP-70				TITLE: NACELLE DISTRIBUTION BOX +NDB - CIRCUIT DIAGRAMS SIGNALS TO + LCPN				DWG N°: 99835-680050			
05 AS BUILT 26/07/10 LGO					JOB N°: 99835				GRP N°: 680 DATE: 13/10/2006							
REV. DENOMINATION DATA SIGN.								DESIGN GPE SHEET: 167				APPD JPI CONT.: 168				

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FORMAT A3 - IMPSA Wind CAD SYSTEM



01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

JOB N°: **99835**

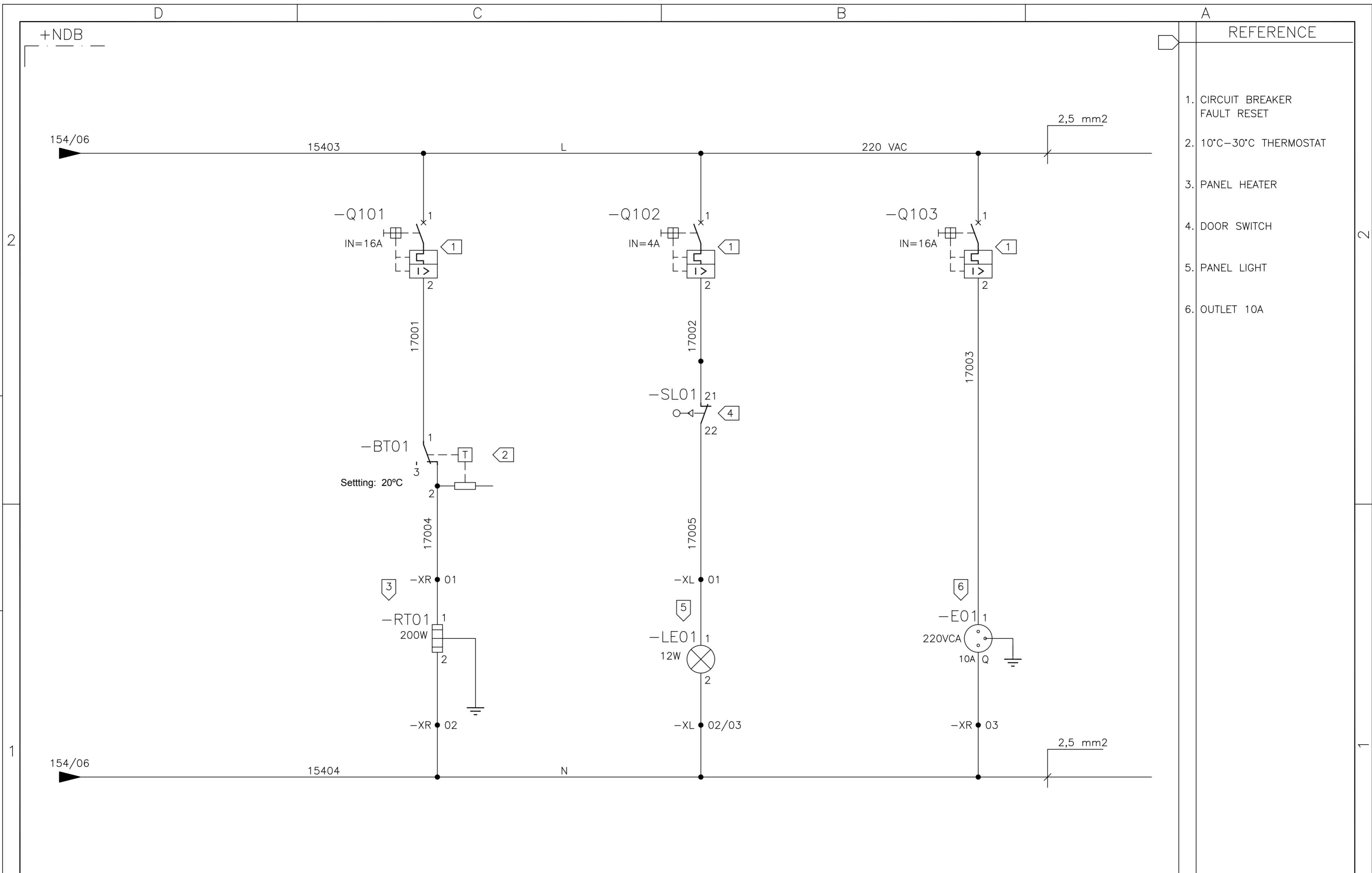
TITLE:
NACELLE DISTRIBUTION BOX
+NDB - CIRCUIT DIAGRAM
YAW SYSTEM COMMUNICATION

DWG N°:	99835-680050		
GRP N°:	680	DATE:	13/10/2006
DESIGN	GPE	SHEET:	168
APPD	JPI	CONT.:	170

#1 CATALOG SEW EURODRIVE
Doc N° 11614226 / EN

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FORMAT A3 - IMPSA Wind CAD SYSTEM

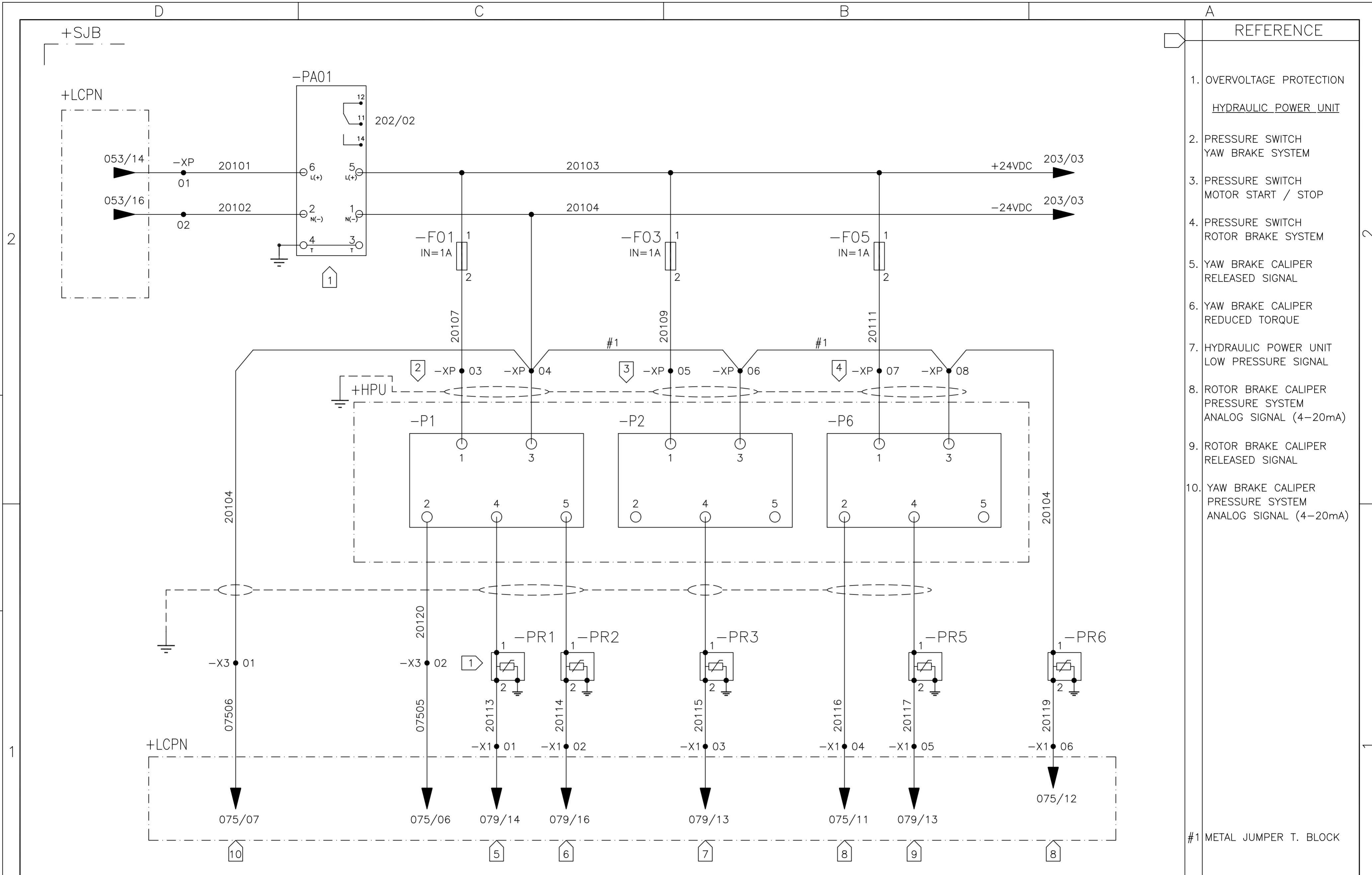


REFERENCE	
1.	CIRCUIT BREAKER FAULT RESET
2.	10°C-30°C THERMOSTAT
3.	PANEL HEATER
4.	DOOR SWITCH
5.	PANEL LIGHT
6.	OUTLET 10A

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
								WIND GENERATOR IWP-70 JOB Nº: 99835				TITLE: NACELLE DISTRIBUTION BOX +NDB - CIRCUIT DIAGRAMS AUXILIARES SERVICES			
05	AS BUILT	26/07/10	LGO												
REV.	DENOMINATION	DATA	SIGN.									DWG Nº: 99835-680050 GRP Nº: 680 DATE: 13/10/2006 DESIGN GPE SHEET: 170 APPD JPI CONT.: 201			

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FORMAT A3 - IMPSA Wind CAD SYSTEM



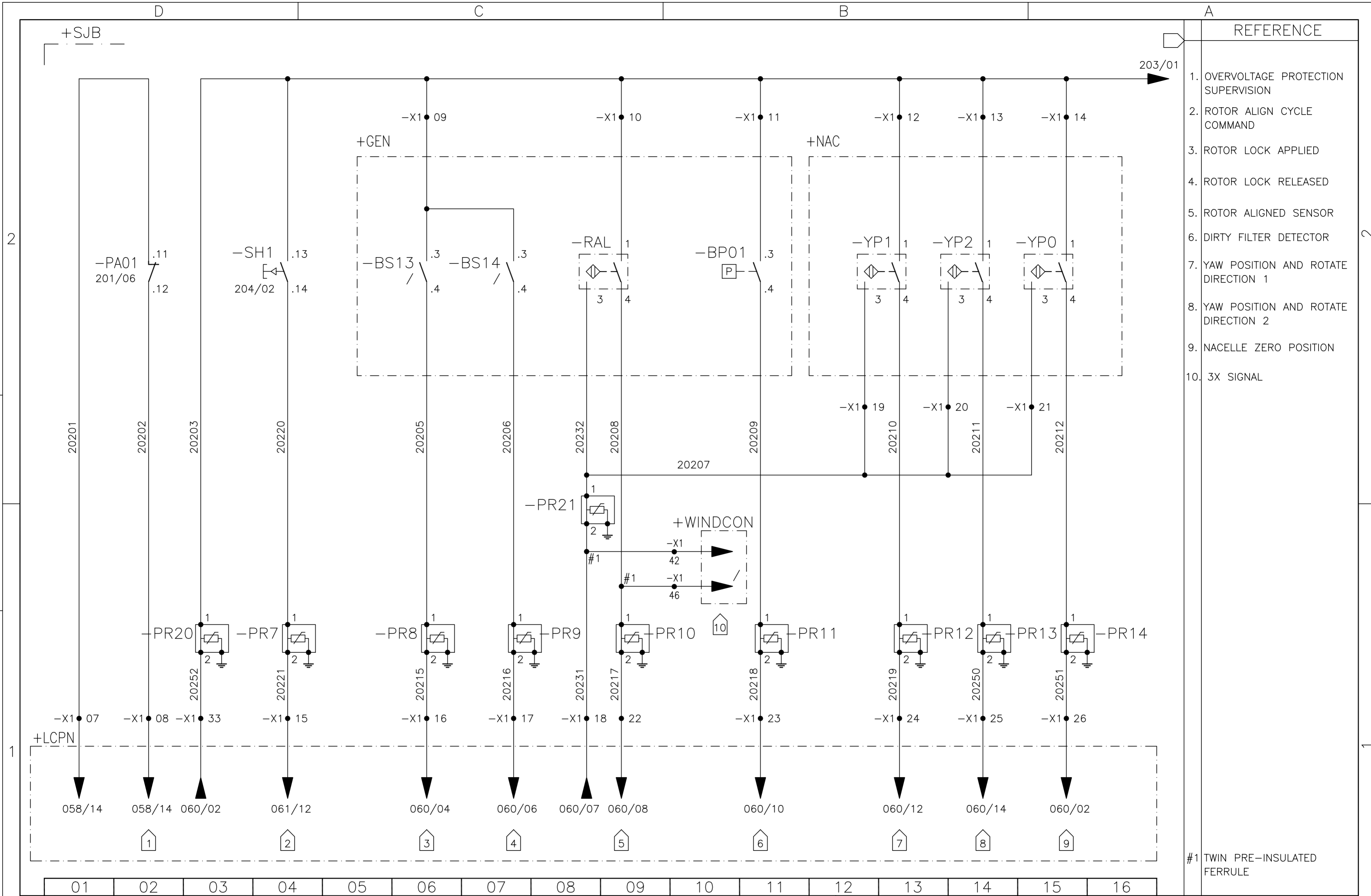
- | REFERENCE | |
|-----------|--|
| 1. | OVERVOLTAGE PROTECTION
HYDRAULIC POWER UNIT |
| 2. | PRESSURE SWITCH
YAW BRAKE SYSTEM |
| 3. | PRESSURE SWITCH
MOTOR START / STOP |
| 4. | PRESSURE SWITCH
ROTOR BRAKE SYSTEM |
| 5. | YAW BRAKE CALIPER
RELEASED SIGNAL |
| 6. | YAW BRAKE CALIPER
REDUCED TORQUE |
| 7. | HYDRAULIC POWER UNIT
LOW PRESSURE SIGNAL |
| 8. | ROTOR BRAKE CALIPER
PRESSURE SYSTEM
ANALOG SIGNAL (4-20mA) |
| 9. | ROTOR BRAKE CALIPER
RELEASED SIGNAL |
| 10. | YAW BRAKE CALIPER
PRESSURE SYSTEM
ANALOG SIGNAL (4-20mA) |

#1 METAL JUMPER T. BLOCK

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
								WIND GENERATOR IWP-70 JOB Nº: 99835				TITLE: SENSOR JUNCTION BOX +SJB CIRCUIT DIAGRAM POWER SUPPLY			
05	AS BUILT	26/07/10	LGO												
REV.	DENOMINATION	DATA	SIGN.					GRP Nº: 680 DATE: 11/12/2006 DESIGN GPE SHEET: 201 APPD JPI CONT.: 202							

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FORMAT A3 - IMPSA Wind CAD SYSTEM



01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

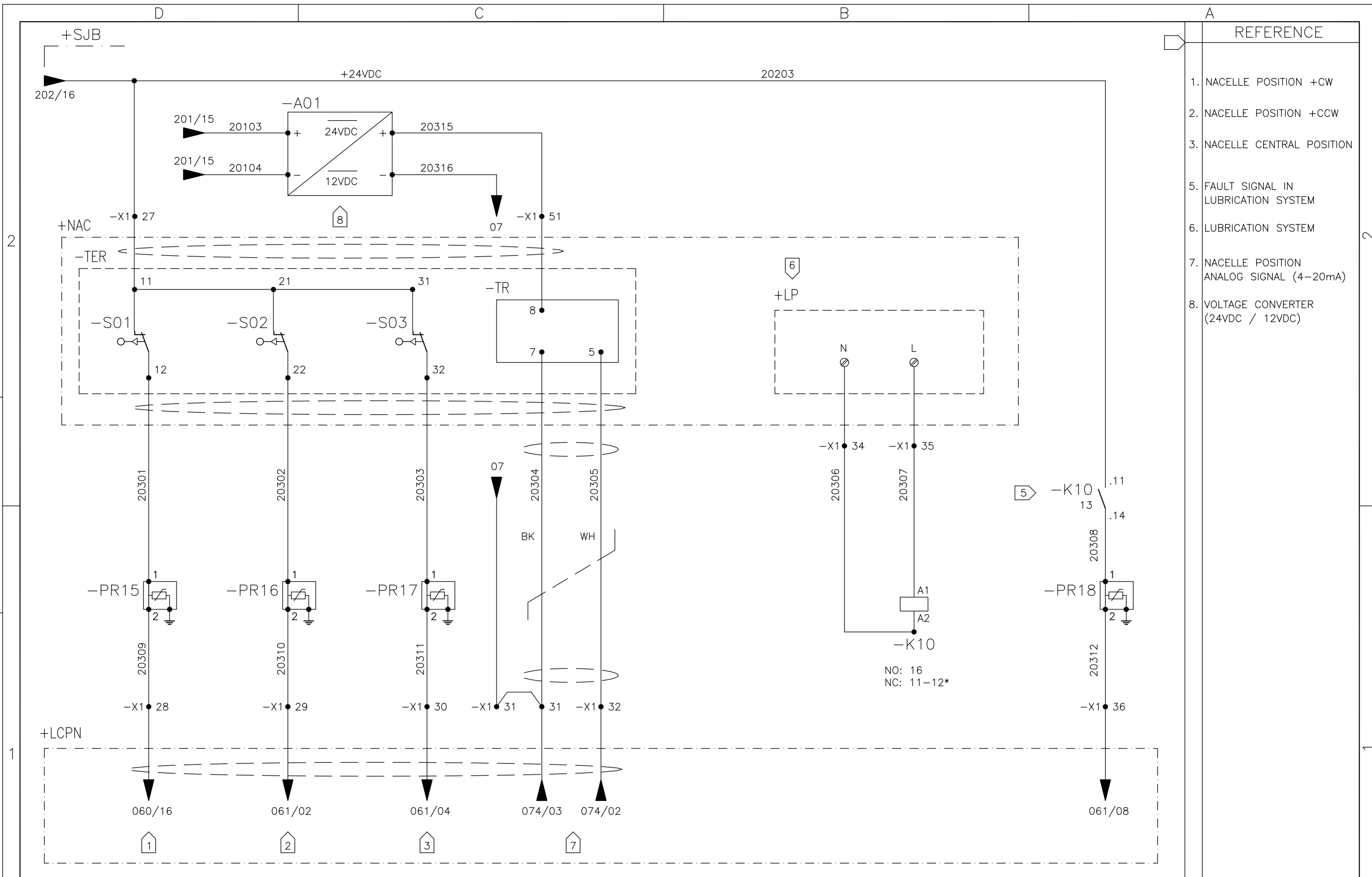
JOB N°: **99835**

TITLE:
SENSOR JUNCTION BOX +SJB
CIRCUIT DIAGRAM
SIGNALS TO +LCPN

DWG N°:	99835-680050		
GRP N°:	680	DATE:	11/12/2006
DESIGN	GPE	SHEET:	202
APPD	JPI	CONT.:	203

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FORMAT A3 - IMPSA Wind CAD SYSTEM



REFERENCE	
1.	NACELLE POSITION +CW
2.	NACELLE POSITION +CCW
3.	NACELLE CENTRAL POSITION
5.	FAULT SIGNAL IN LUBRICATION SYSTEM
6.	LUBRICATION SYSTEM
7.	NACELLE POSITION ANALOG SIGNAL (4-20mA)
8.	VOLTAGE CONVERTER (24VDC / 12VDC)

01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16

05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

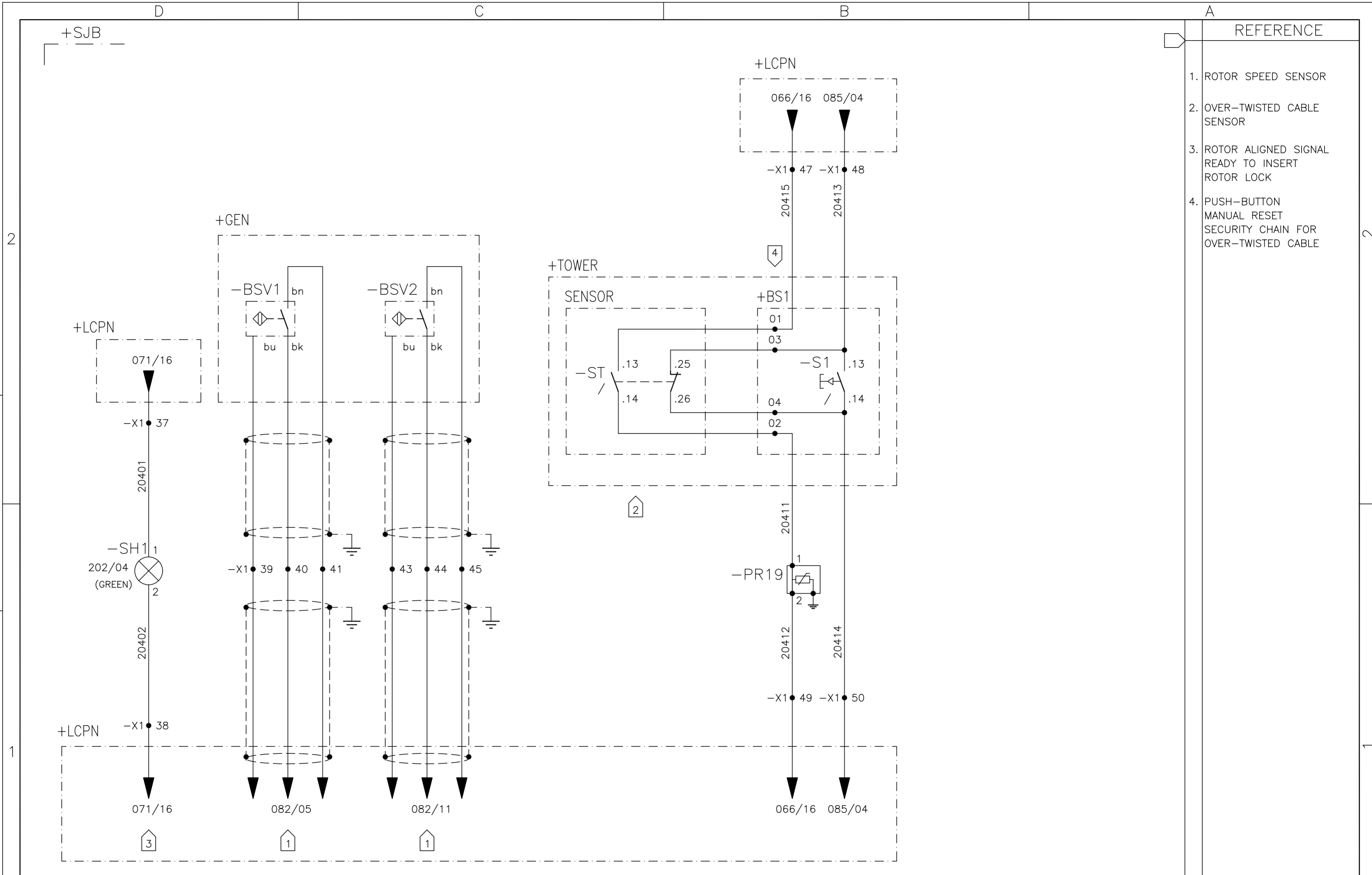
JOB N°: **99835**

TITLE:
SENSOR JUNCTION BOX +SJB
CIRCUIT DIAGRAM
SIGNALS TO +LCPN

DWG N°:	99835-680050		
GRP N°:	680	DATE:	11/12/2006
DESIGN	GPE	SHEET:	203
APPD	JPI	CONT.:	204

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FORMAT A3 - IMPSA Wind CAD SYSTEM



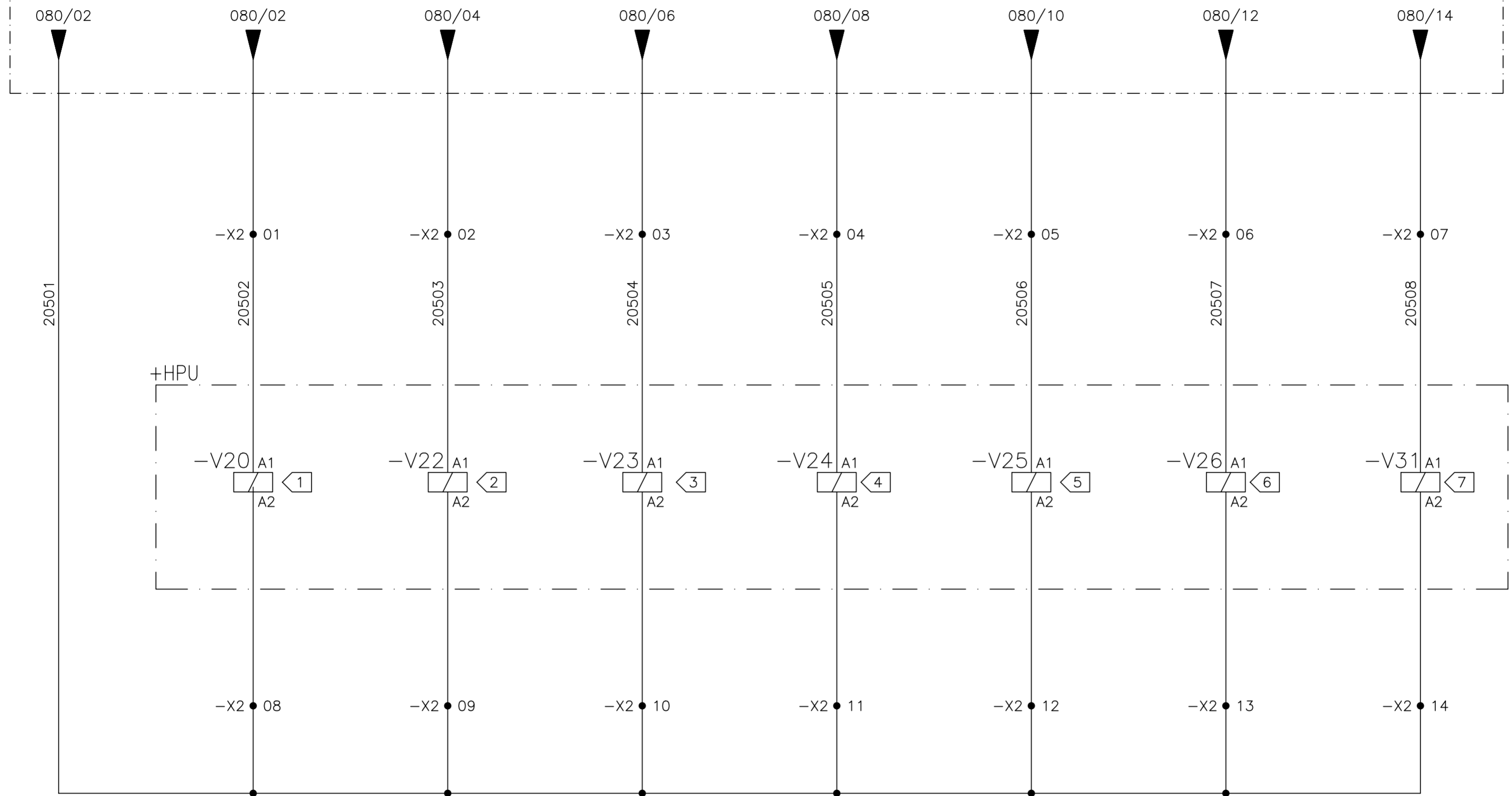
- REFERENCE
1. ROTOR SPEED SENSOR
 2. OVER-TWISTED CABLE SENSOR
 3. ROTOR ALIGNED SIGNAL READY TO INSERT ROTOR LOCK
 4. PUSH-BUTTON MANUAL RESET SECURITY CHAIN FOR OVER-TWISTED CABLE

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16				
								WIND GENERATOR IWP-70 JOB Nº: 99835				TITLE: SENSOR JUNCTION BOX +SJB CIRCUIT DIAGRAM SIGNALS TO +LCPN				DWG Nº: 99835-680050			
05	AS BUILT	26/07/10	LGO													GRP Nº: 680 DATE: 11/12/2006			
REV.	DENOMINATION	DATA	SIGN.	DESIGN GPE SHEET: 204															
				APPD JPI CONT.: 205															

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FORMAT A3 - IMPSA Wind CAD SYSTEM

+SJB
+LCPN



REFERENCE

HYDAULIC POWER UNIT

1. YAW CALIPER VALVE SOLENIOD N°20
2. YAW CALIPER VALVE SOLENIOD N°22
3. YAW CALIPER VALVE SOLENIOD N°23
4. ROTOR BRAKE VALVE SOLENIOD N° 24
5. ROTOR BRAKE VALVE SOLENIOD N° 25
6. ROTOR BRAKE VALVE SOLENIOD N° 26
7. ROTOR BRAKE VALVE SOLENIOD N° 31

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

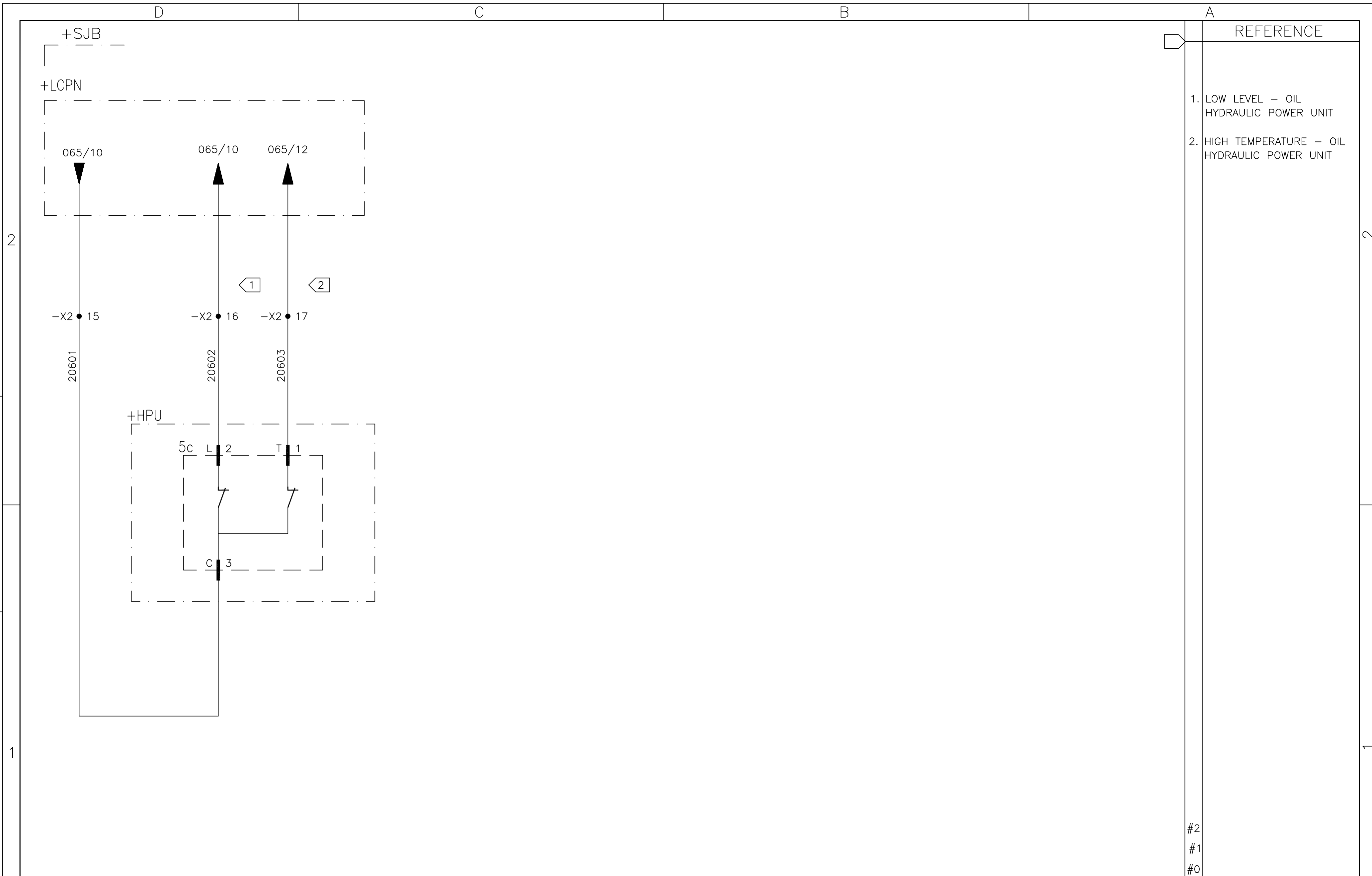
JOB N°: **99835**

TITLE:
SENSOR JUNCTION BOX +SJB
CIRCUIT DIAGRAM
SIGNALS TO SOLENOIDS

DWG N°: 99835-680050	
GRP N°: 680	DATE: 11/12/2006
DESIGN GPE	SHEET: 205
APPD JPI	CONT.: 206

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FORMAT A3 - IMPSA Wind CAD SYSTEM



#2
#1
#0

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

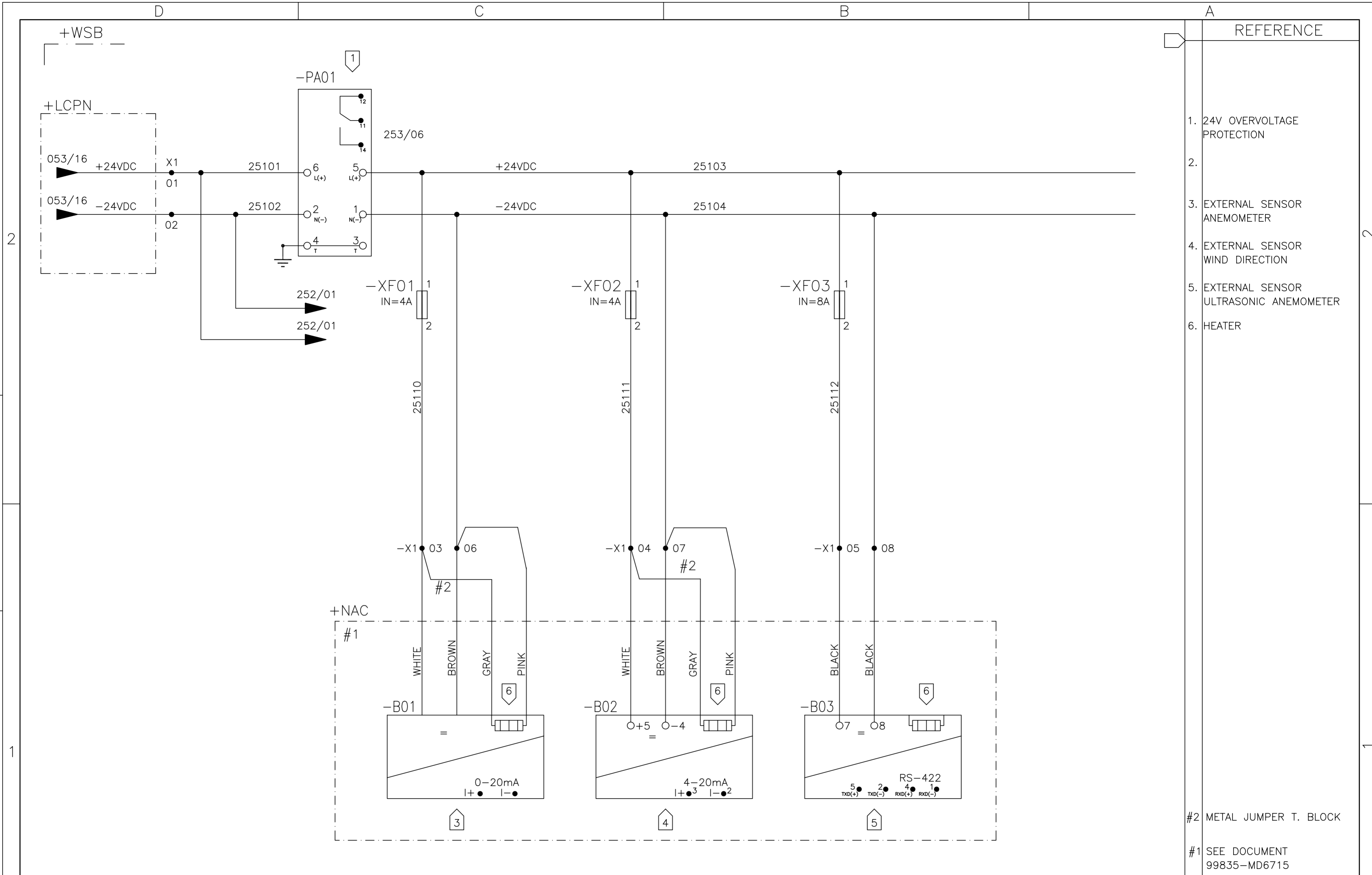
JOB N°: **99835**

TITLE:
SENSOR JUNCTION BOX +SJB
CIRCUIT DIAGRAM
SIGNALS TO SOLENOIDS

DWG N°:	99835-680050		
GRP N°:	680	DATE:	11/12/2006
DESIGN	GPE	SHEET:	206
APPD	JPI	CONT.:	251

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FORMAT A3 - IMPSA Wind CAD SYSTEM



- REFERENCE
1. 24V OVERVOLTAGE PROTECTION
 - 2.
 3. EXTERNAL SENSOR ANEMOMETER
 4. EXTERNAL SENSOR WIND DIRECTION
 5. EXTERNAL SENSOR ULTRASONIC ANEMOMETER
 6. HEATER
- #2 METAL JUMPER T. BLOCK
- #1 SEE DOCUMENT 99835-MD6715

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

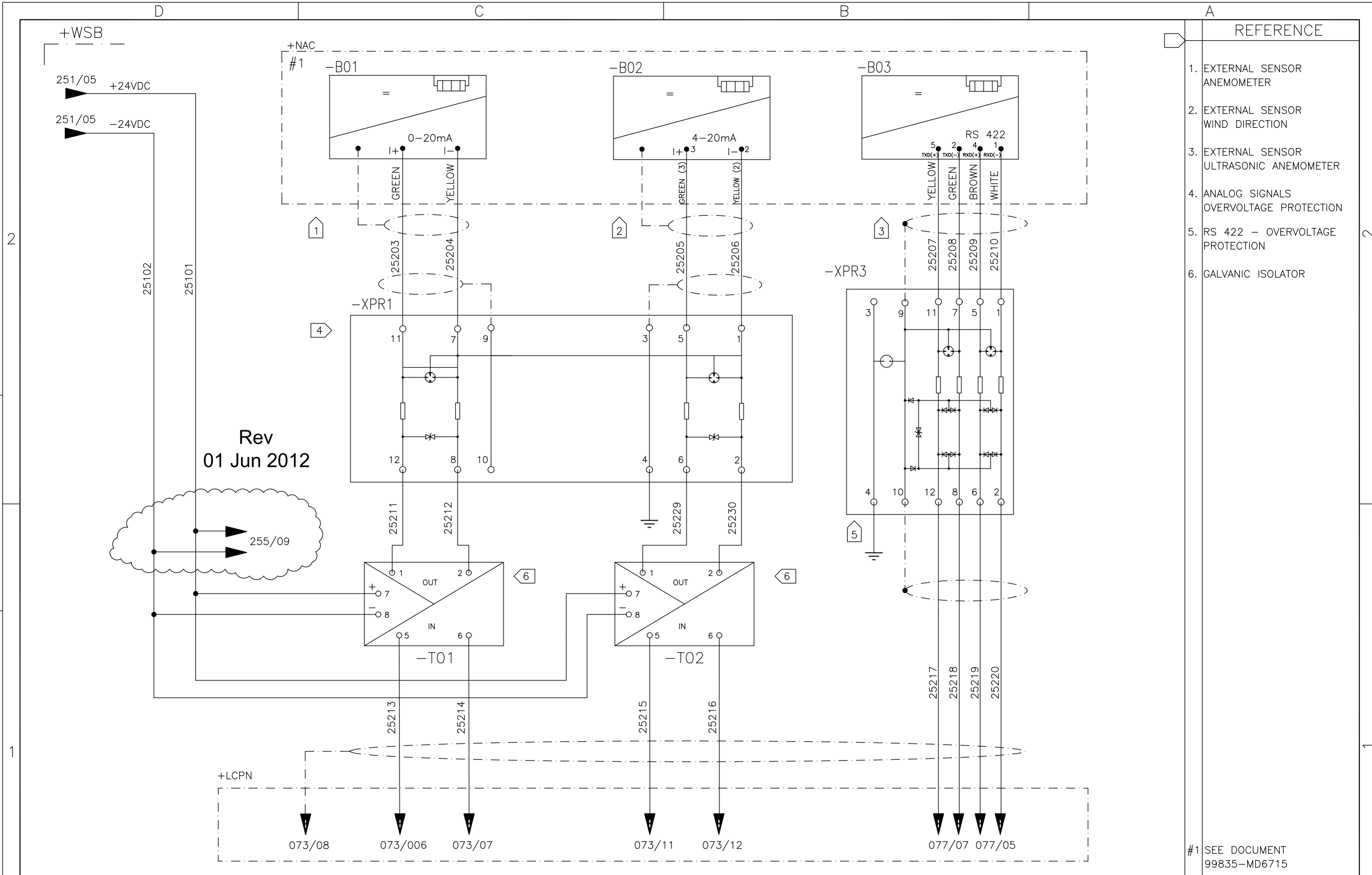
JOB N°: **99835**

TITLE:
WEATHER STATION BOX
+WSB
CIRCUIT DIAGRAM

DWG N°: 99835-680050	
GRP N°: 680	DATE: 11/12/2006
DESIGN GPE	SHEET: 251
APPD JPI	CONT.: 252

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FORMAT A3 - IMPSA Wind CAD SYSTEM



01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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05	AS BUILT	26/07/10	LGO}
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

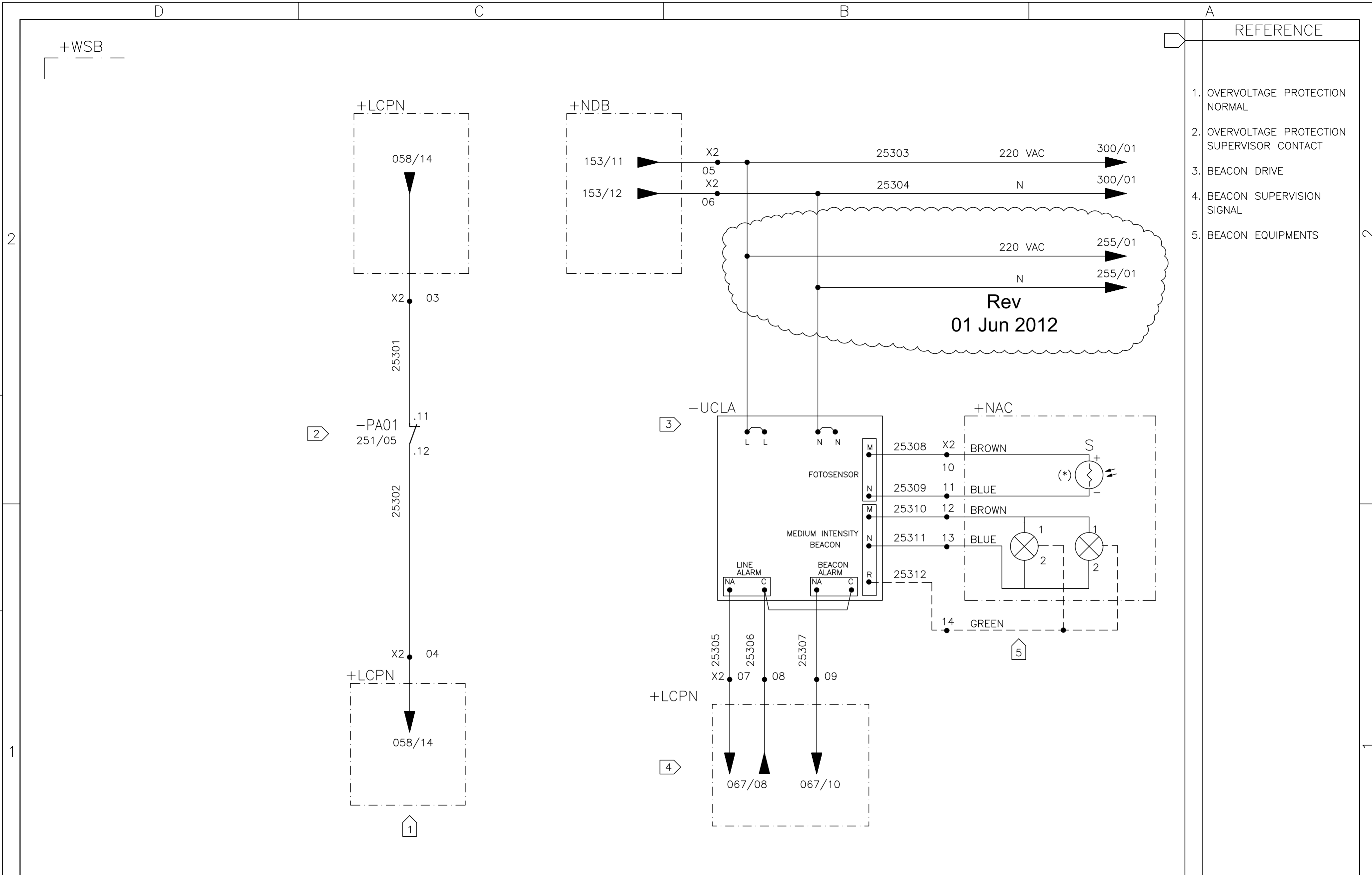
JOB N°: **99835**

TITLE:
WEATHER STATION BOX
+WSB
CIRCUIT DIAGRAM

DWG N°:	99835-680050		
GRP N°:	680	DATE:	11/12/2006
DESIGN	GPE	SHEET:	252
APPD	JPI	CONT.:	253

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FORMAT A3 - IMPSA Wind CAD SYSTEM



- REFERENCE
1. OVERVOLTAGE PROTECTION NORMAL
 2. OVERVOLTAGE PROTECTION SUPERVISOR CONTACT
 3. BEACON DRIVE
 4. BEACON SUPERVISION SIGNAL
 5. BEACON EQUIPMENTS

Rev
01 Jun 2012

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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06	ICE DETECTION TEST	01/06/12	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

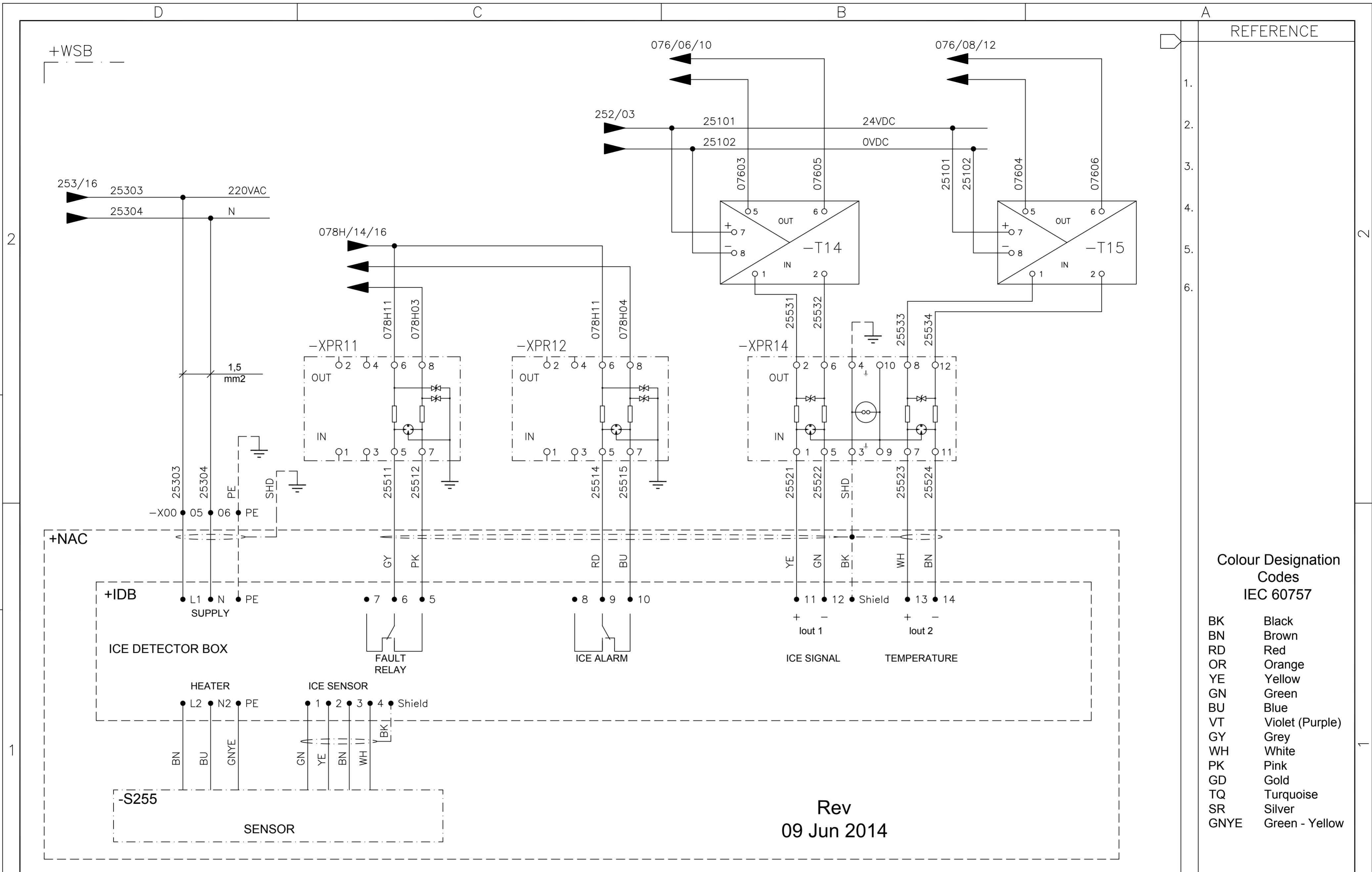
JOB Nº: **99835**

TITLE:
WEATHER STATION BOX
+WSB
CIRCUIT DIAGRAM

DWG Nº:	99835-680050		
GRP Nº:	680	DATE:	11/12/2006
DESIGN	GPE	SHEET:	253
APPD	JPI	CONT.:	255

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FORMAT A3 - IMPSA Wind CAD SYSTEM



REFERENCE

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

Colour Designation Codes IEC 60757

- BK Black
- BN Brown
- RD Red
- OR Orange
- YE Yellow
- GN Green
- BU Blue
- VT Violet (Purple)
- GY Grey
- WH White
- PK Pink
- GD Gold
- TQ Turquoise
- SR Silver
- GNYE Green - Yellow

Rev 09 Jun 2014

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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06	ICE DETECTION TEST	09/06/14	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

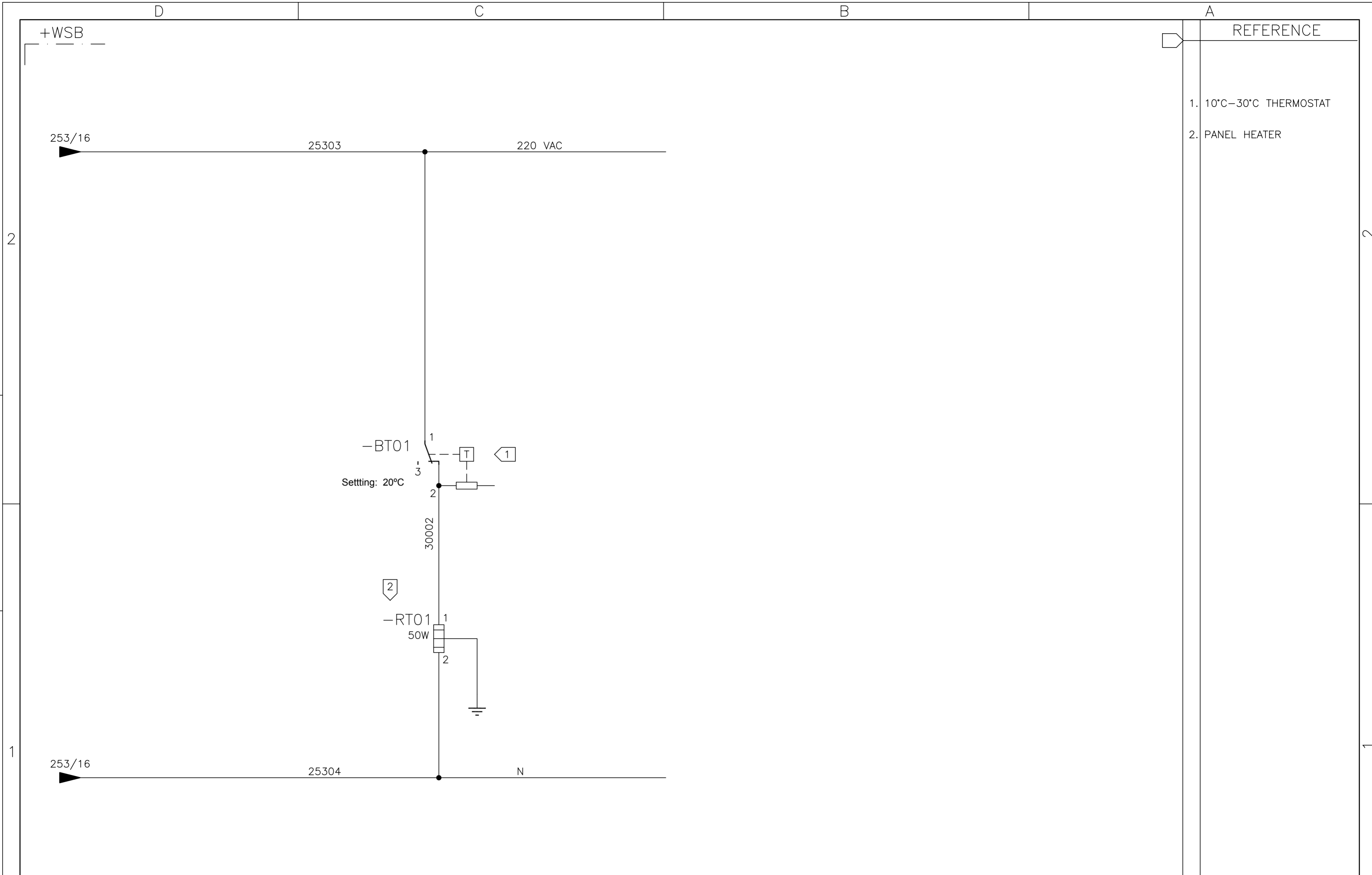
JOB N°: 99835

TITLE:
WEATHER STATION BOX
+WSB
CIRCUIT DIAGRAM

DWG N°:	99835-680050		
GRP N°:	680	DATE:	11/12/2006
DESIGN	GPE	SHEET:	255
APPD	JPI	CONT.:	300

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FORMAT A3 - IMPSA Wind CAD SYSTEM



REFERENCE

- 1. 10°C-30°C THERMOSTAT
- 2. PANEL HEATER

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

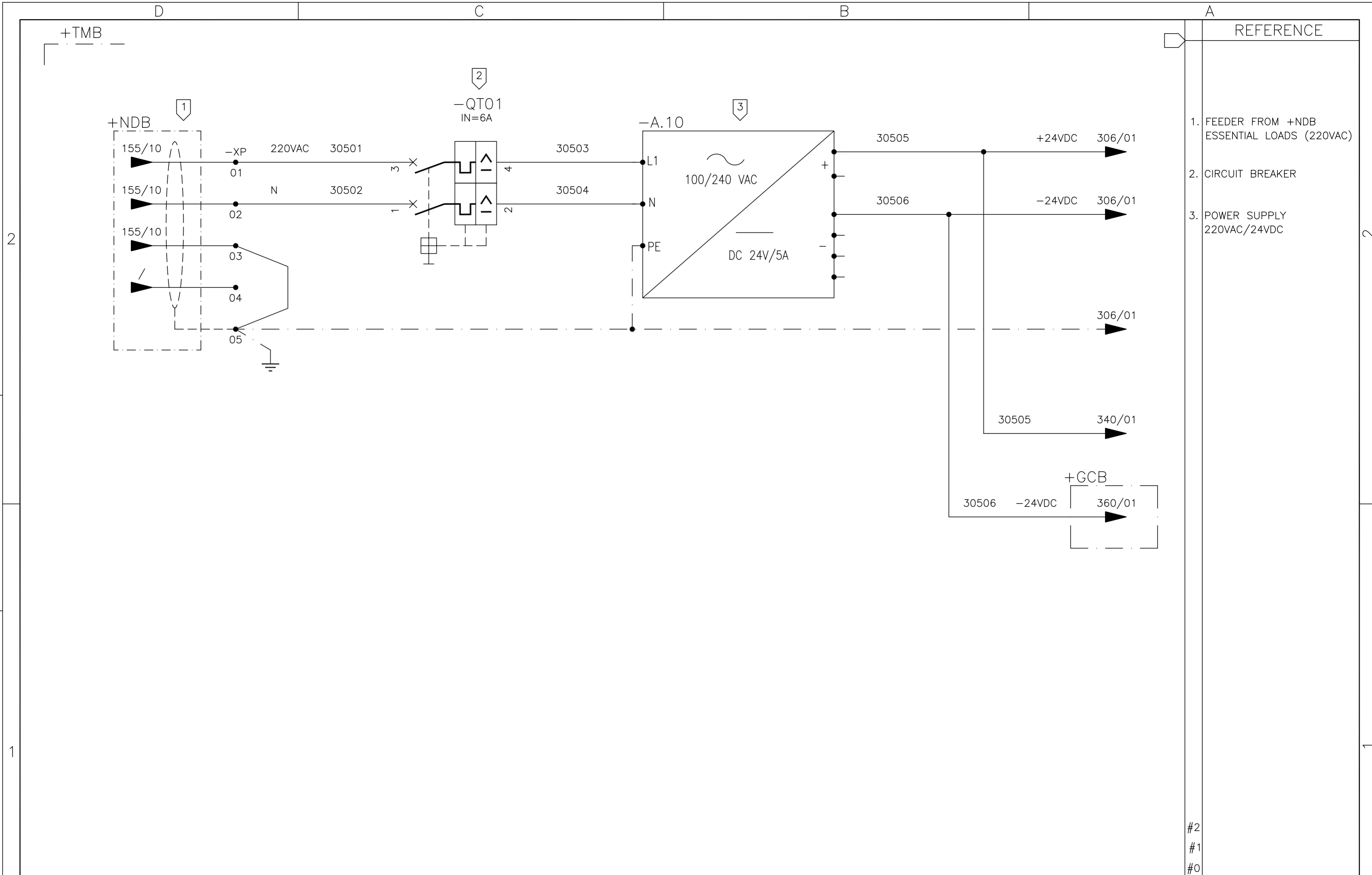
JOB N°: **99835**

TITLE:
WEATHER STATION BOX
+WSB
CIRCUIT DIAGRAM

DWG N°:	99835-680050		
GRP N°:	680	DATE:	13/10/2006
DESIGN	GPE	SHEET:	300
APPD	JPI	CONT.:	305

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FORMAT A3 - IMPSA Wind CAD SYSTEM



- REFERENCE
1. FEEDER FROM +NDB ESSENTIAL LOADS (220VAC)
 2. CIRCUIT BREAKER
 3. POWER SUPPLY 220VAC/24VDC

#2
#1
#0

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

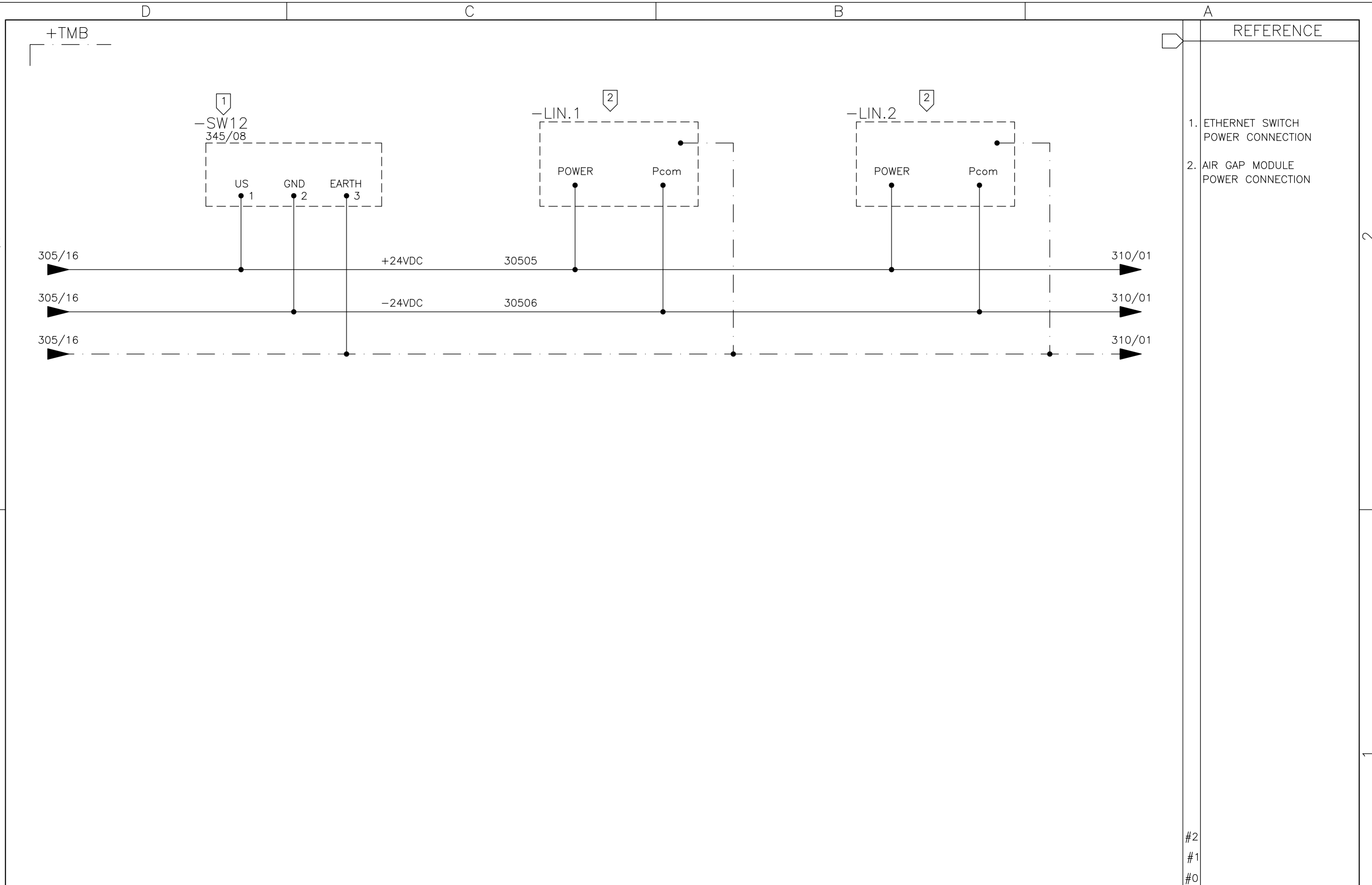
JOB N°: **99835**

TITLE:
TEMPERATURE MEASUREMENT BOX
+TMB
CIRCUIT DIAGRAM

DWG N°:	99835-680050		
GRP N°:	680	DATE:	11/12/2006
DESIGN	GPE	SHEET:	305
APPD	JPI	CONT.:	306

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FORMAT A3 - IMPSA Wind CAD SYSTEM



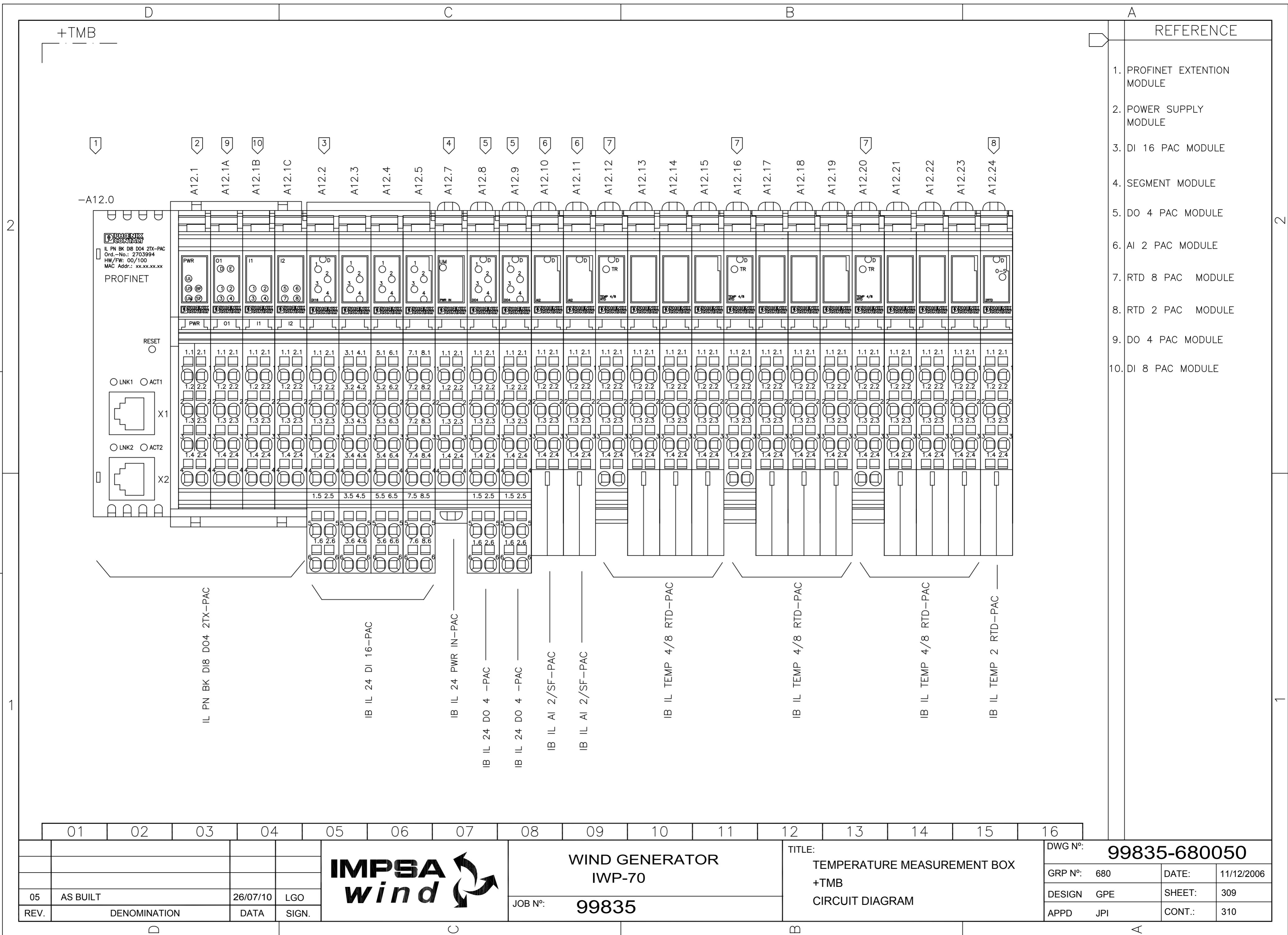
1. ETHERNET SWITCH
POWER CONNECTION
2. AIR GAP MODULE
POWER CONNECTION

#2
#1
#0

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
					IMPSA <i>wind</i>				WIND GENERATOR IWP-70				TITLE: TEMPERATURE MEASUREMENT BOX +TMB CIRCUIT DIAGRAM			
									JOB Nº: 99835							
05	AS BUILT			26/07/10	LGO					GRP Nº: 680		DATE: 11/12/2006				
REV.	DENOMINATION			DATA	SIGN.					DESIGN GPE		SHEET: 306				
										APPD JPI		CONT.: 309				

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FORMAT A3 - IMPSA Wind CAD SYSTEM

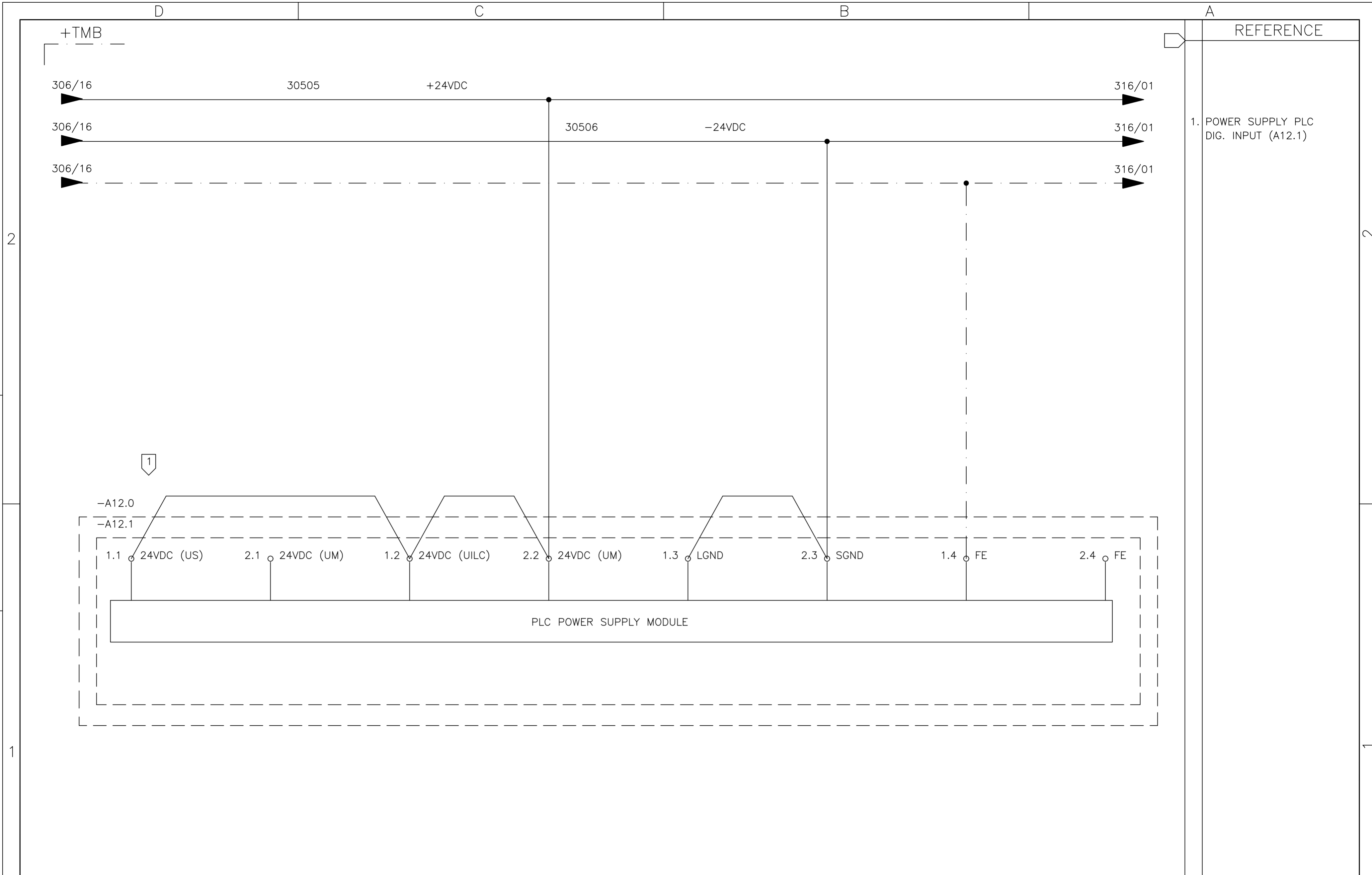


REFERENCE	
1.	PROFINET EXTENSION MODULE
2.	POWER SUPPLY MODULE
3.	DI 16 PAC MODULE
4.	SEGMENT MODULE
5.	DO 4 PAC MODULE
6.	AI 2 PAC MODULE
7.	RTD 8 PAC MODULE
8.	RTD 2 PAC MODULE
9.	DO 4 PAC MODULE
10.	DI 8 PAC MODULE

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
								WIND GENERATOR IWP-70				TITLE: TEMPERATURE MEASUREMENT BOX +TMB CIRCUIT DIAGRAM			
05	AS BUILT	26/07/10	LGO												
REV.	DENOMINATION	DATA	SIGN.									GRP N°: 680 DATE: 11/12/2006	DESIGN GPE SHEET: 309	APPD JPI CONT.: 310	

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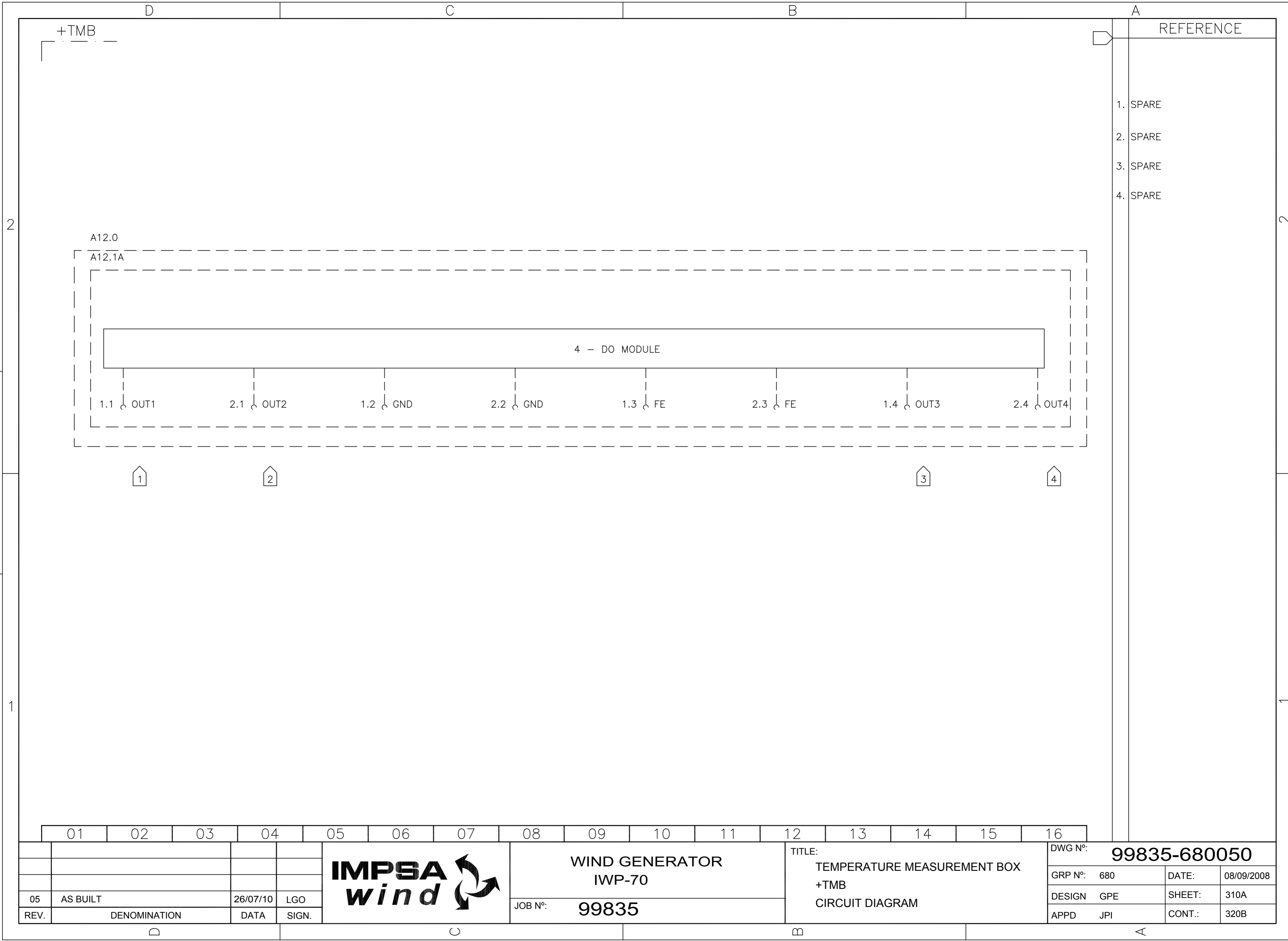
FORMAT A3 - IMPSA Wind CAD SYSTEM



	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
					IMPSA <i>wind</i>				WIND GENERATOR IWP-70				TITLE: TEMPERATURE MEASUREMENT BOX +TMB CIRCUIT DIAGRAM			
									JOB N°: 99835							
05	AS BUILT			26/07/10	LGO					GRP N°: 680		DATE:	11/12/2006			
REV.	DENOMINATION			DATA	SIGN.					DESIGN GPE		SHEET:	310			
										APPD JPI		CONT.:	310A			

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FORMAT A3 - IMPSA Wind CAD SYSTEM



REFERENCE	
1.	SPARE
2.	SPARE
3.	SPARE
4.	SPARE

01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16

05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

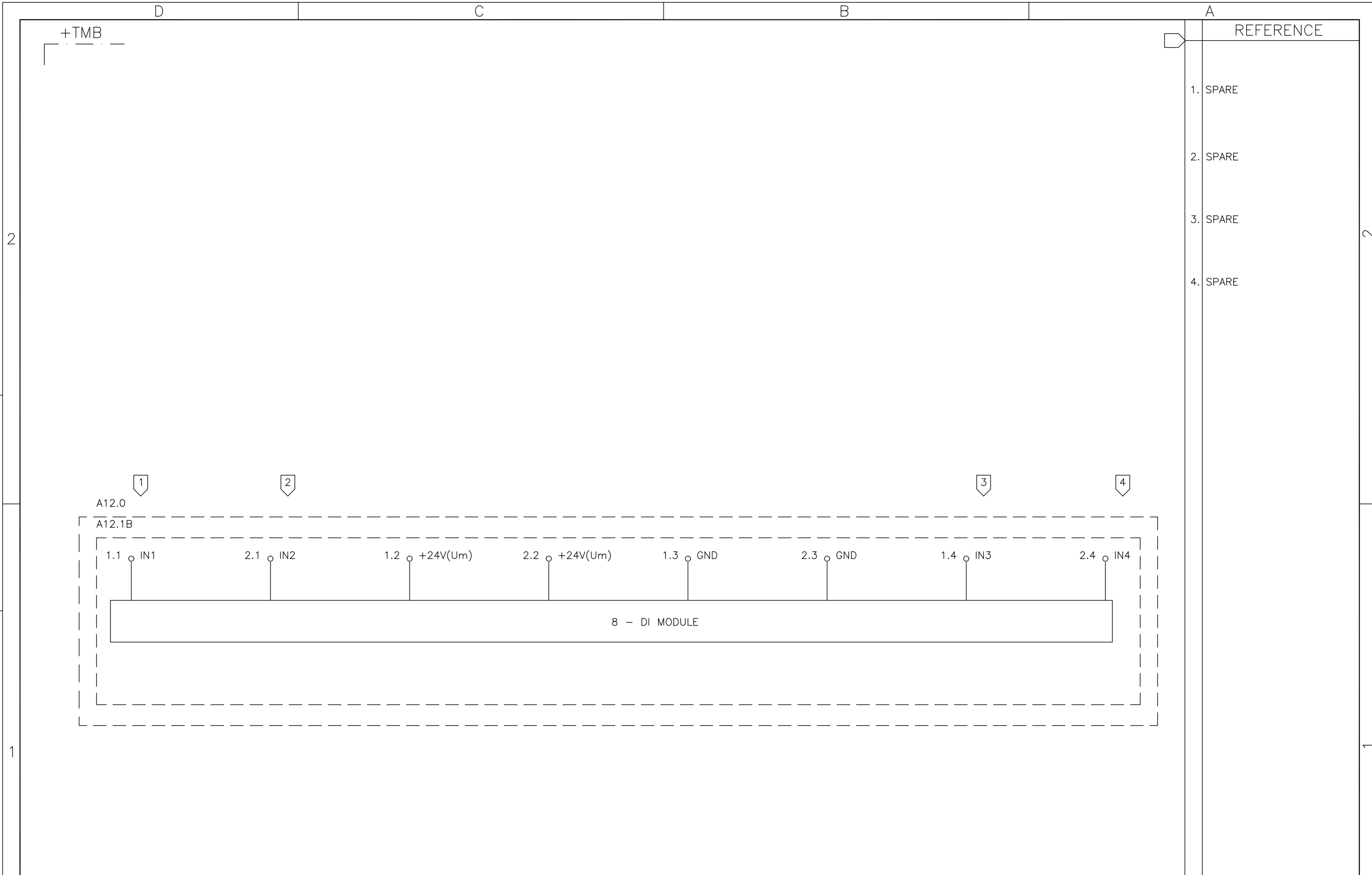
JOB N°: **99835**

TITLE:
TEMPERATURE MEASUREMENT BOX
+TMB
CIRCUIT DIAGRAM

DWG N°: 99835-680050	
GRP N°: 680	DATE: 08/09/2008
DESIGN GPE	SHEET: 310A
APPD JPI	CONT.: 320B

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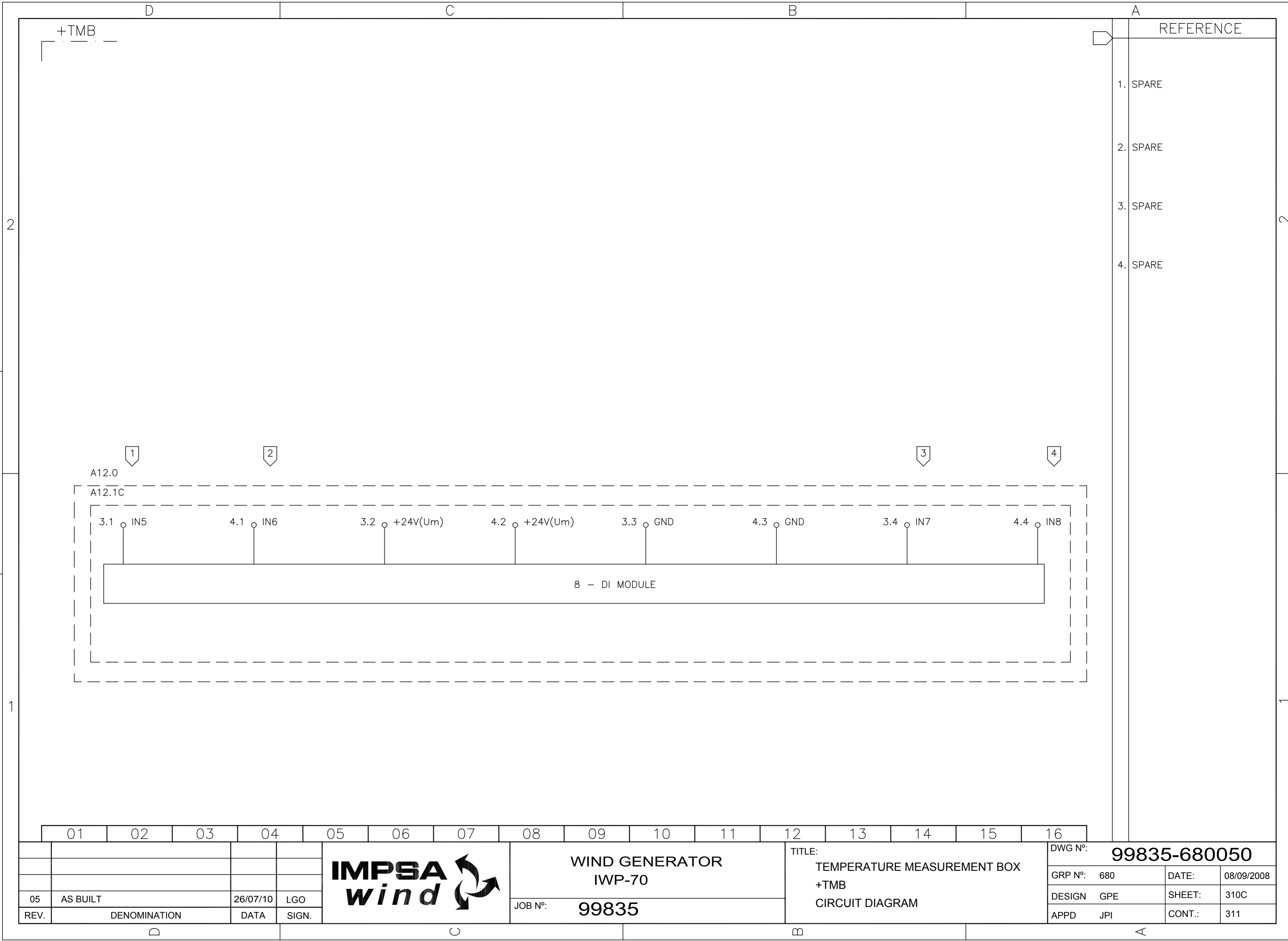
FORMAT A3 - IMPSA Wind CAD SYSTEM



	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
							WIND GENERATOR IWP-70			TITLE: TEMPERATURE MEASUREMENT BOX +TMB CIRCUIT DIAGRAM			DWG N°: 99835-680050			
													JOB N°: 99835			GRP N°: 680 DATE: 08/09/2008
05	AS BUILT		26/07/10	LGO							DESIGN GPE		SHEET: 310B			
REV.	DENOMINATION		DATA	SIGN.							APPD JPI		CONT.: 310C			

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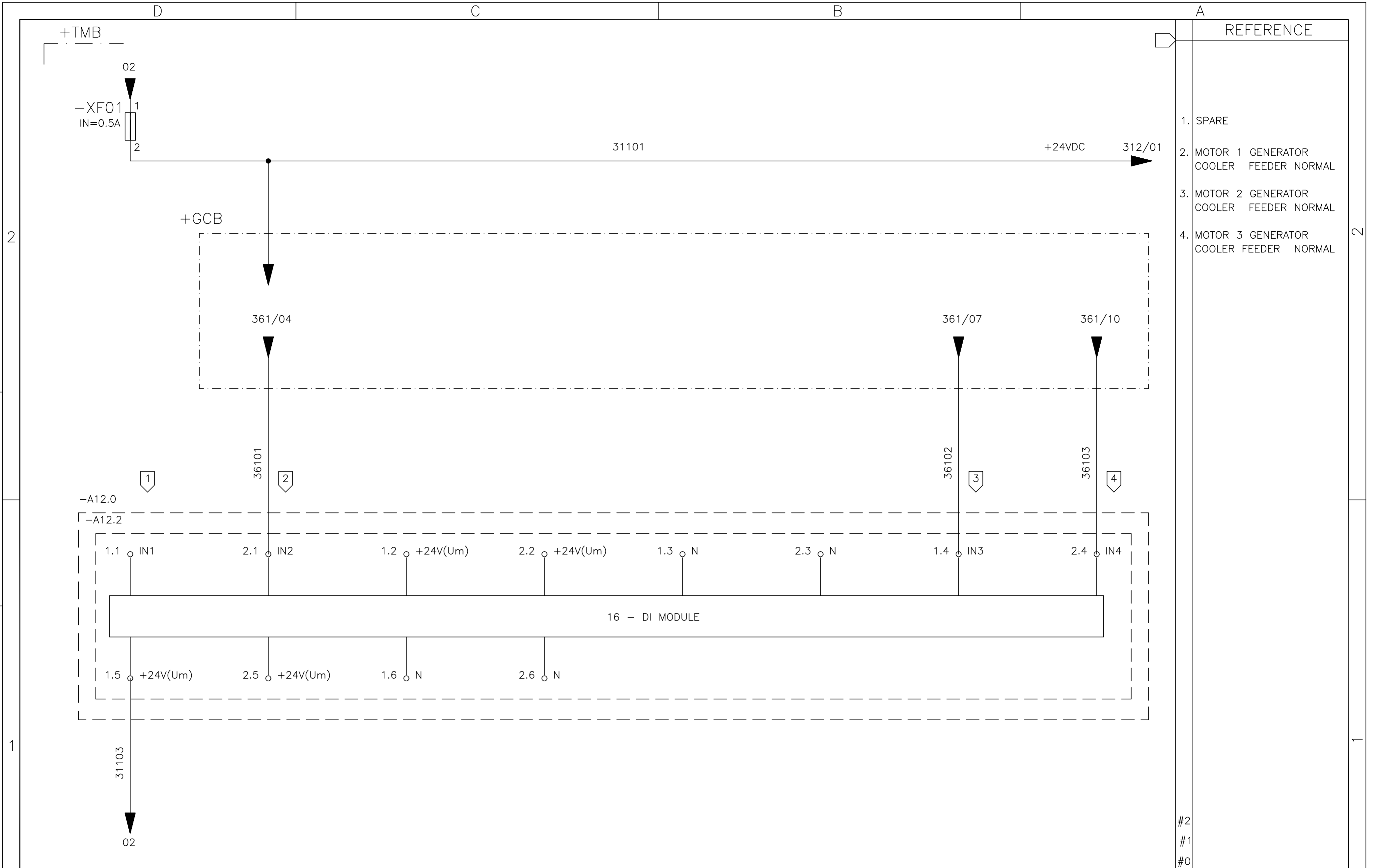
FORMAT A3 - IMPSA Wind CAD SYSTEM



01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
				IMPSA <i>wind</i>				WIND GENERATOR IWP-70				TITLE: TEMPERATURE MEASUREMENT BOX +TMB CIRCUIT DIAGRAM			
								JOB N°: 99835							
05	AS BUILT		26/07/10	LGO								GRP N°: 680		DATE:	08/09/2008
REV.	DENOMINATION		DATA	SIGN.								DESIGN GPE		SHEET:	310C
												APPD JPI		CONT.:	311

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FORMAT A3 - IMPSA Wind CAD SYSTEM



01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16

05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

JOB Nº: 99835

TITLE:
TEMPERATURE MEASUREMENT BOX
+TMB
CIRCUIT DIAGRAM

DWG Nº: 99835-680050	
GRP Nº: 680	DATE: 11/12/2006
DESIGN GPE	SHEET: 311
APPD JPI	CONT.: 312

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FORMAT A3 - IMPSA Wind CAD SYSTEM

+TMB

311/16

31101

+24VDC

313/01

+GCB

361/13

362/01

362/04

362/07

36104

1

36201

2

36202

3

36203

4

-A12.0

-A12.3

3.1 IN5

4.1 IN6

3.2 +24V(Um)

4.2 +24V(Um)

3.3 N

4.3 N

3.4 IN7

4.4 IN8

3.5 +24V(Um)

4.5 +24V(Um)

3.6 N

4.6 N

16 - DI MODULE

REFERENCE

1. MOTOR 4 GENERATOR COOLER FEEDER NORMAL
2. MOTOR 1 GENERATOR COOLER CONNECTED
3. MOTOR 2 GENERATOR COOLER CONNECTED
4. MOTOR 3 GENERATOR COOLER CONNECTED

#2
#1
#0

01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16

05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

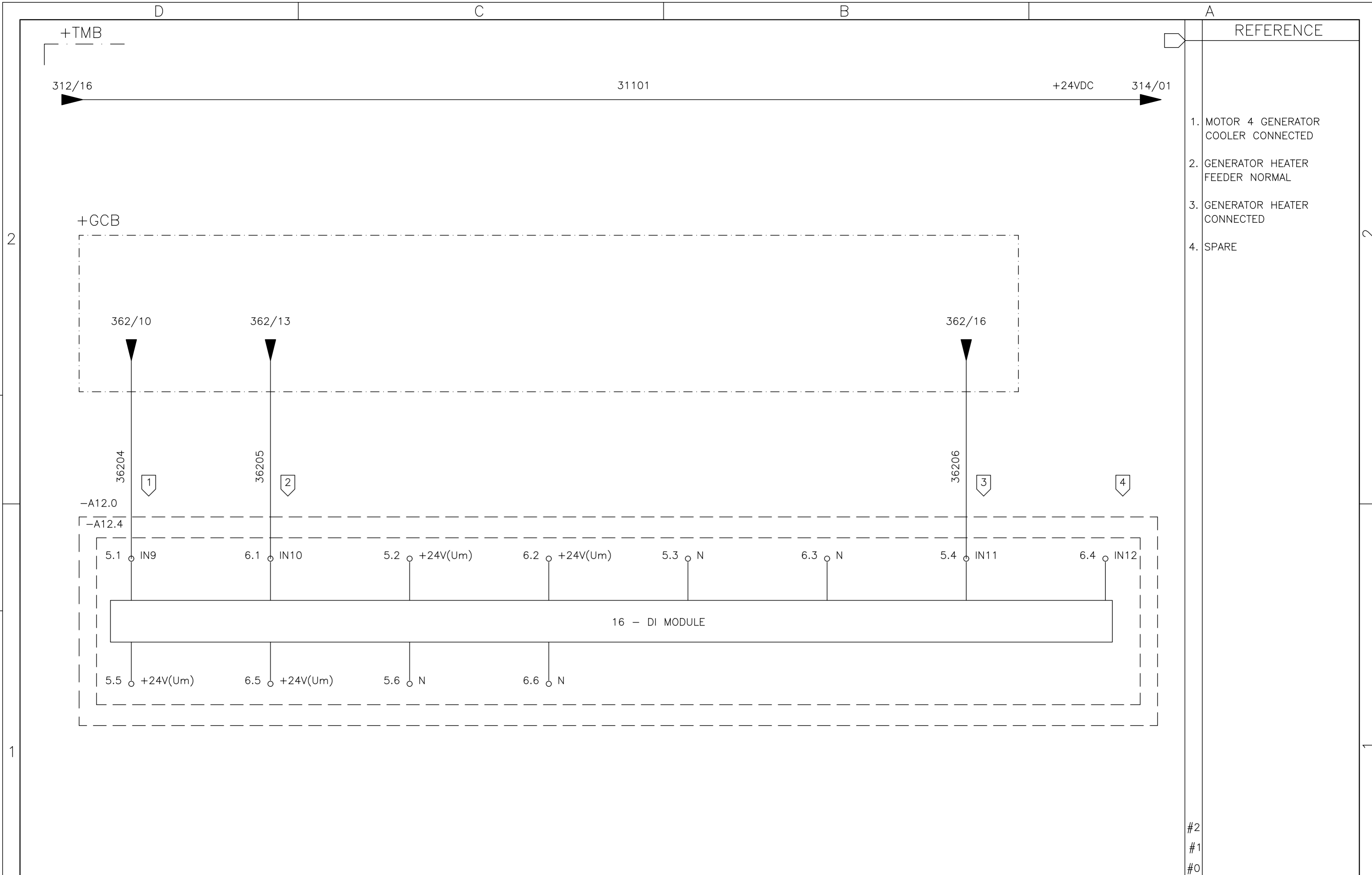
JOB N°: 99835

TITLE:
TEMPERATURE MEASUREMENT BOX
+TMB
CIRCUIT DIAGRAM

DWG N°: 99835-680050	
GRP N°: 680	DATE: 11/12/2006
DESIGN GPE	SHEET: 312
APPD JPI	CONT.: 313

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FORMAT A3 - IMPSA Wind CAD SYSTEM



- | REFERENCE | |
|-----------|------------------------------------|
| 1. | MOTOR 4 GENERATOR COOLER CONNECTED |
| 2. | GENERATOR HEATER FEEDER NORMAL |
| 3. | GENERATOR HEATER CONNECTED |
| 4. | SPARE |

#2
#1
#0

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

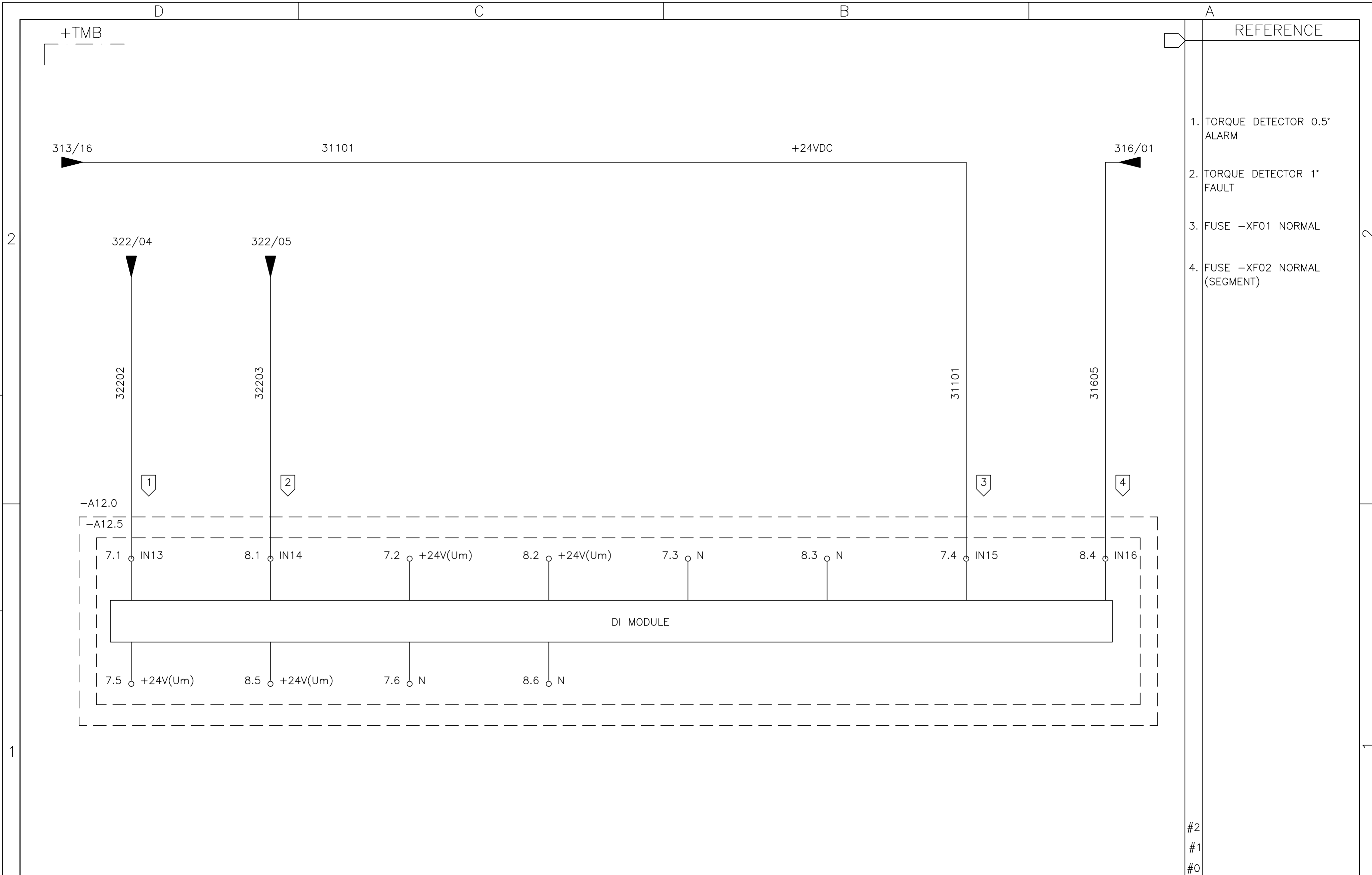
JOB N°: **99835**

TITLE:
TEMPERATURE MEASUREMENT BOX
+TMB
CIRCUIT DIAGRAM

DWG N°: 99835-680050	
GRP N°: 680	DATE: 11/12/2006
DESIGN GPE	SHEET: 313
APPD JPI	CONT.: 314

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FORMAT A3 - IMPSA Wind CAD SYSTEM



REFERENCE	
1.	TORQUE DETECTOR 0.5° ALARM
2.	TORQUE DETECTOR 1° FAULT
3.	FUSE -XF01 NORMAL
4.	FUSE -XF02 NORMAL (SEGMENT)

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

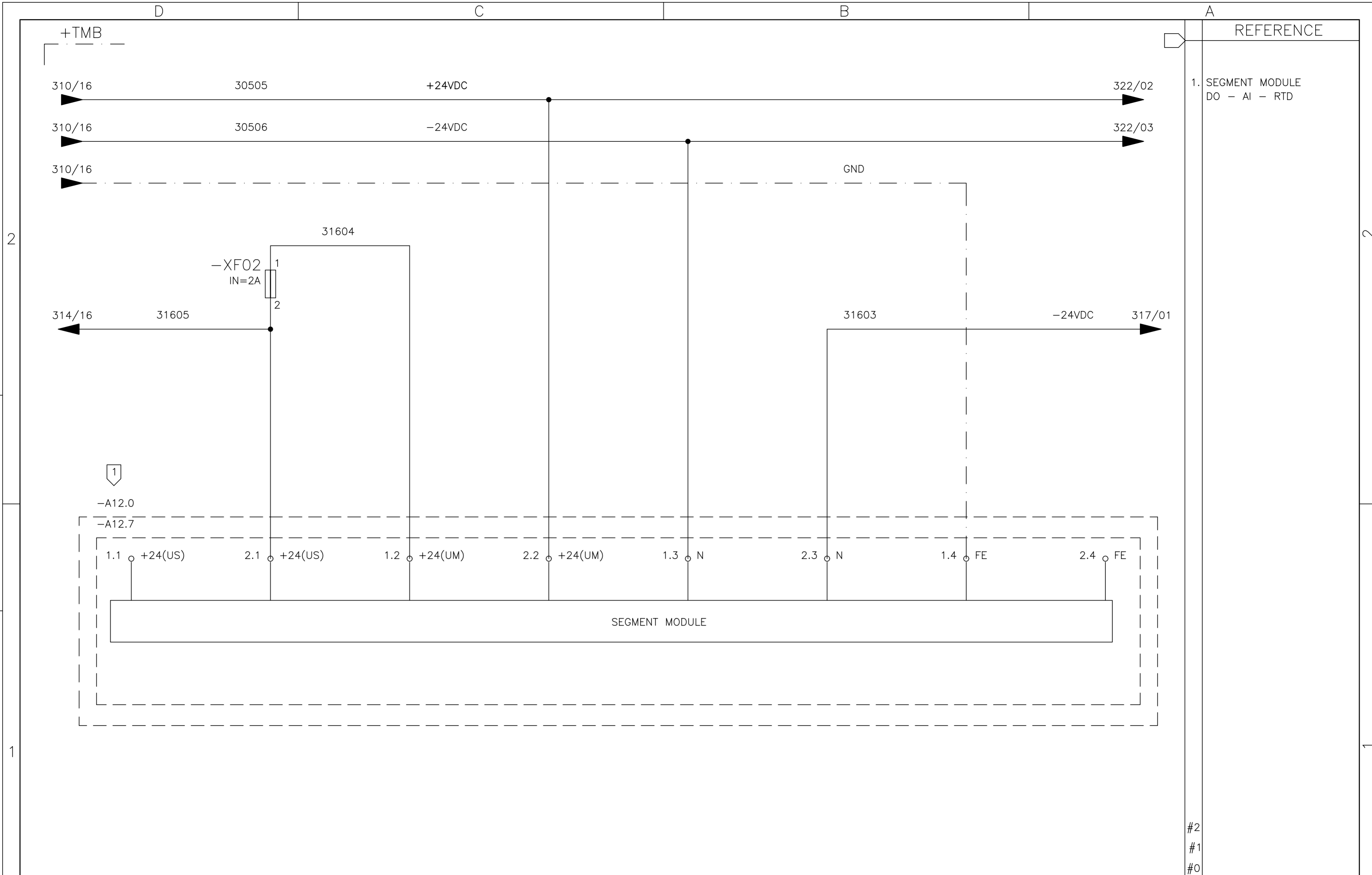
JOB N°: **99835**

TITLE:
TEMPERATURE MEASUREMENT BOX
+TMB
CIRCUIT DIAGRAM

DWG N°:	99835-680050		
GRP N°:	680	DATE:	11/12/2006
DESIGN	GPE	SHEET:	314
APPD	JPI	CONT.:	316

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FORMAT A3 - IMPSA Wind CAD SYSTEM



01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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06	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

JOB Nº: **99835**

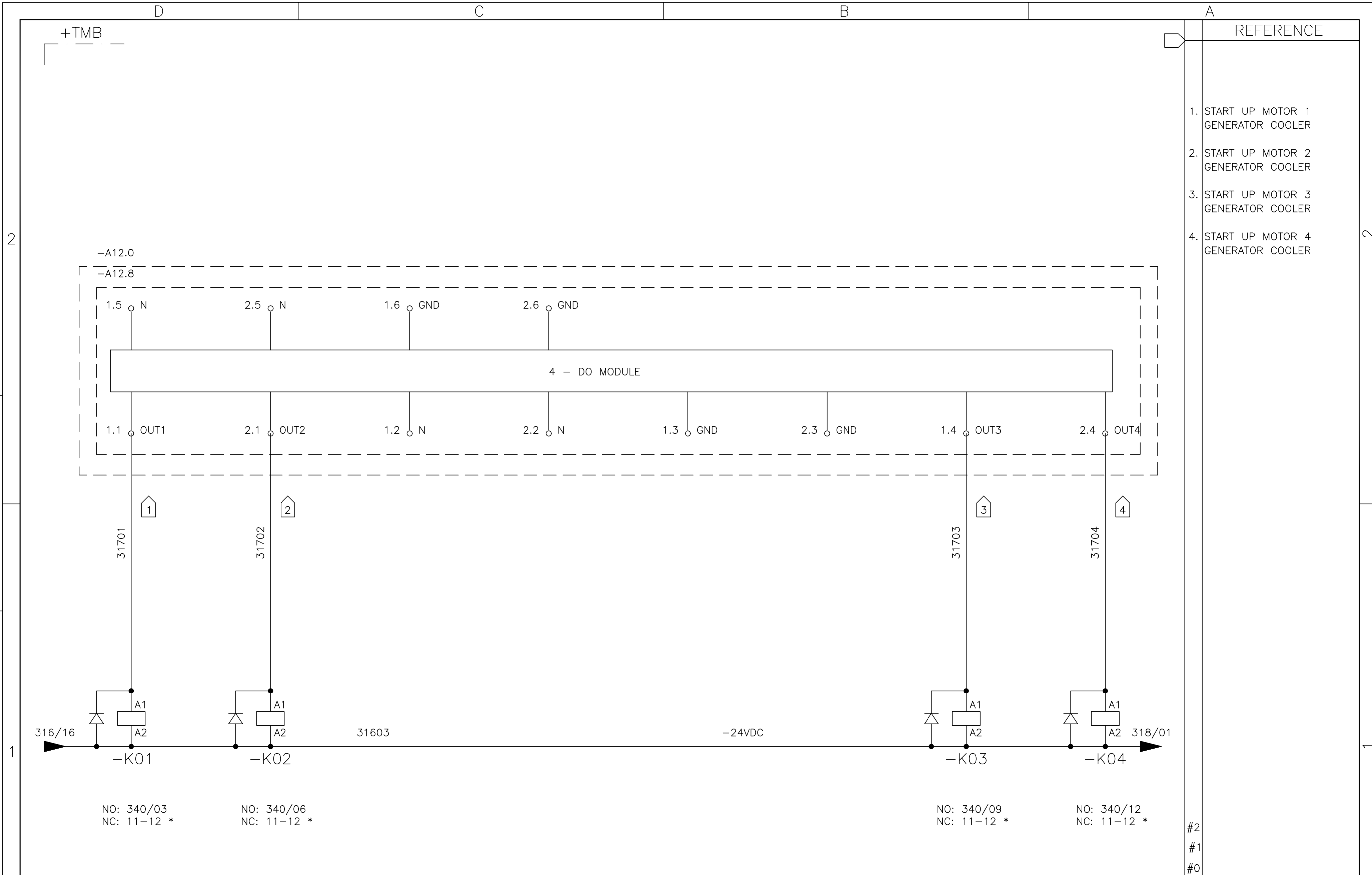
TITLE:
TEMPERATURE MEASUREMENT BOX
+TMB
CIRCUIT DIAGRAM

DWG Nº: 99835-680050	
GRP Nº: 680	DATE: 11/12/2006
DESIGN GPE	SHEET: 316
APPD JPI	CONT.: 317

#2
#1
#0

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FORMAT A3 - IMPSA Wind CAD SYSTEM



REFERENCE	
1.	START UP MOTOR 1 GENERATOR COOLER
2.	START UP MOTOR 2 GENERATOR COOLER
3.	START UP MOTOR 3 GENERATOR COOLER
4.	START UP MOTOR 4 GENERATOR COOLER

NO: 340/03 NO: 340/06 NO: 340/09 NO: 340/12
 NC: 11-12 * NC: 11-12 * NC: 11-12 * NC: 11-12 *

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16				
								WIND GENERATOR IWP-70				TITLE: TEMPERATURE MEASUREMENT BOX +TMB CIRCUIT DIAGRAM				DWG N°: 99835-680050			
05 AS BUILT 26/07/10 LGO																JOB N°: 99835			
REV. DENOMINATION DATA SIGN.												DESIGN GPE SHEET: 317 APPD JPI CONT.: 318							

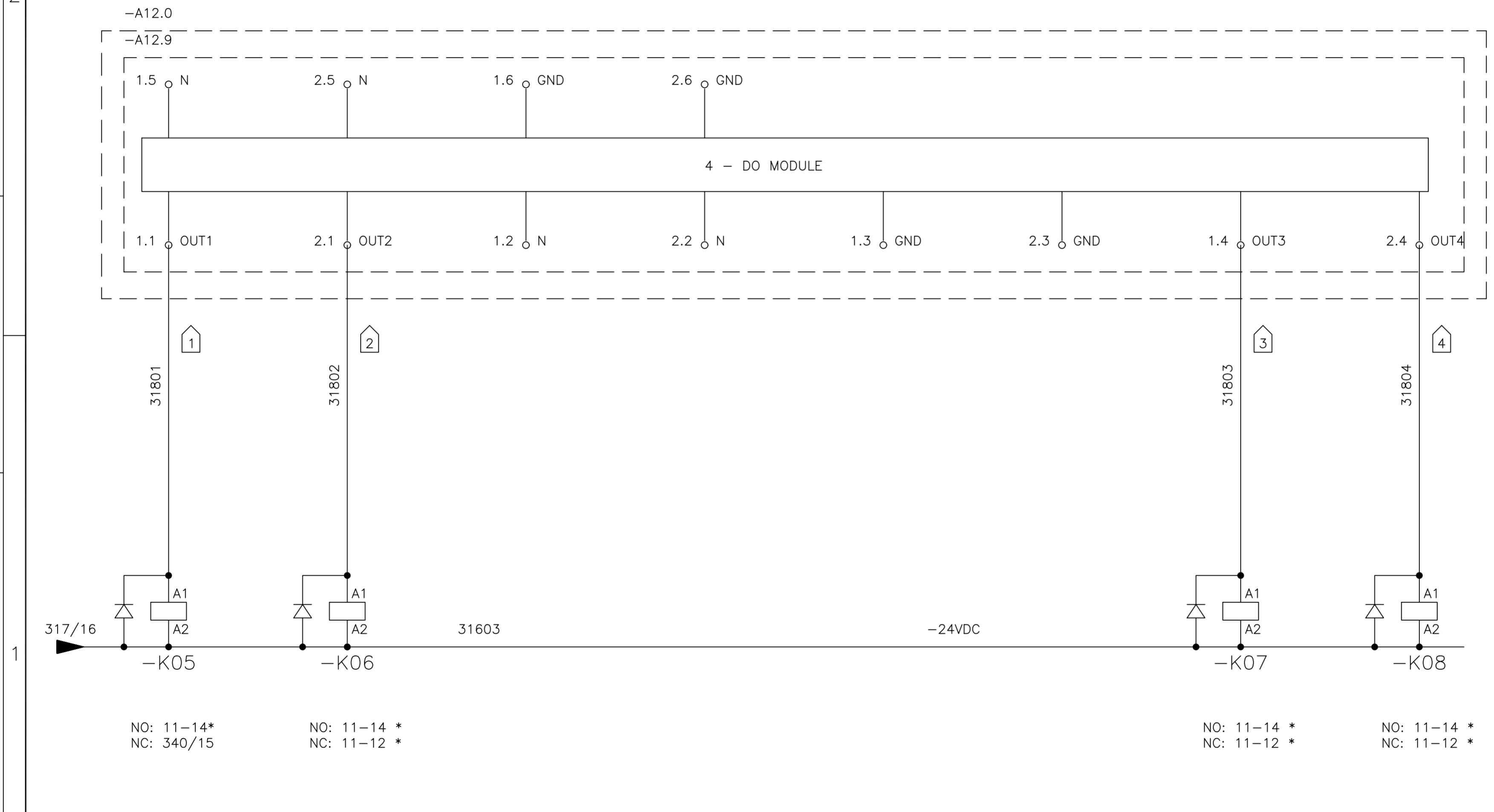
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FORMAT A3 - IMPSA Wind CAD SYSTEM

+TMB

REFERENCE

1. ACTIVATE GENERATOR HEATER
2. SPARE EQUIPED
3. SPARE EQUIPED
4. SPARE EQUIPED



NO: 11-14*
NC: 340/15

NO: 11-14 *
NC: 11-12 *

NO: 11-14 *
NC: 11-12 *

NO: 11-14 *
NC: 11-12 *

#2
#1
#0

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

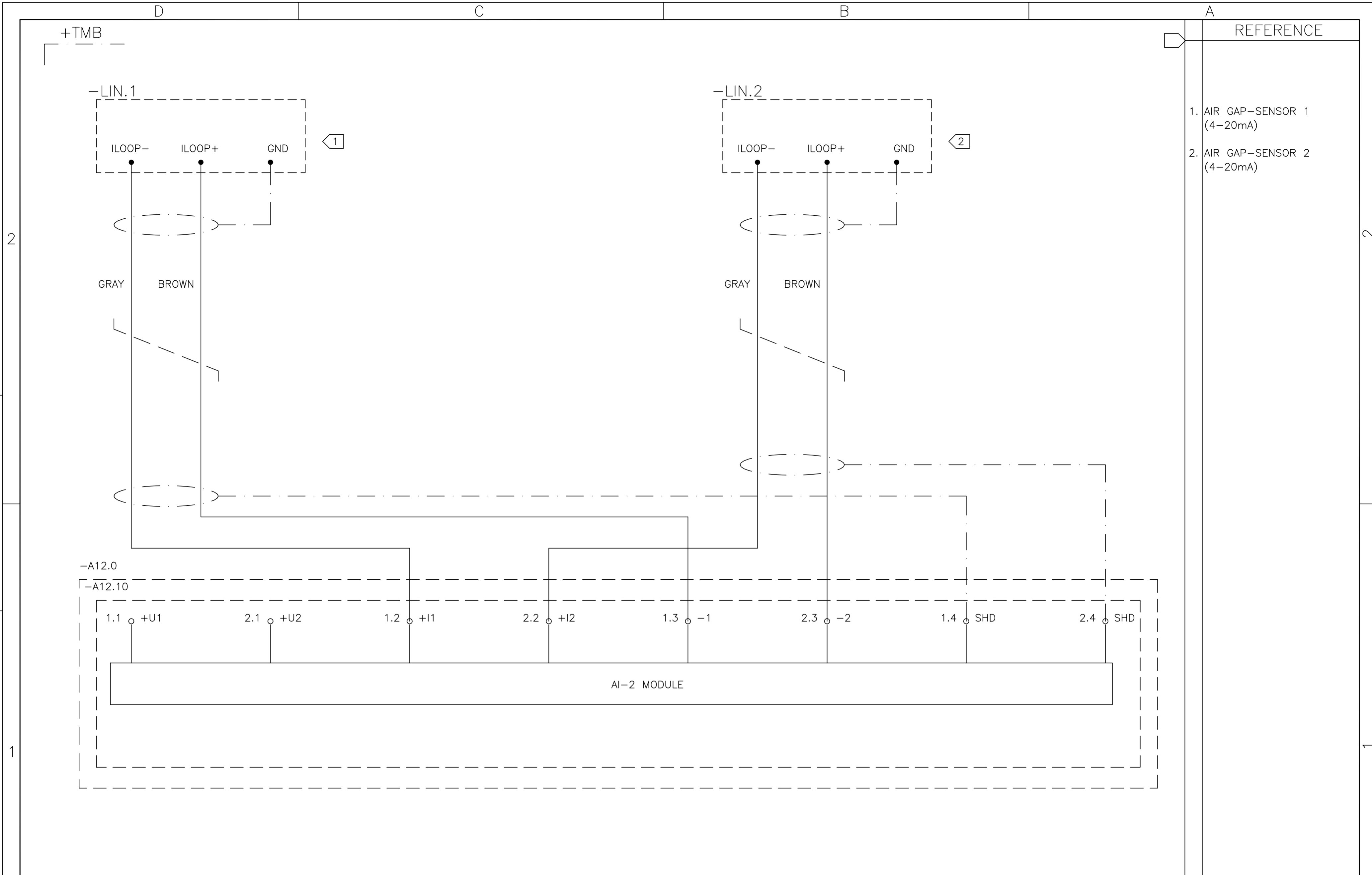
JOB Nº: **99835**

TITLE:
TEMPERATURE MEASUREMENT BOX
+TMB
CIRCUIT DIAGRAM

DWG Nº:	99835-680050		
GRP Nº:	680	DATE:	11/12/2006
DESIGN	GPE	SHEET:	318
APPD	JPI	CONT.:	321

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FORMAT A3 - IMPSA Wind CAD SYSTEM



- REFERENCE
1. AIR GAP-SENSOR 1 (4-20mA)
 2. AIR GAP-SENSOR 2 (4-20mA)

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

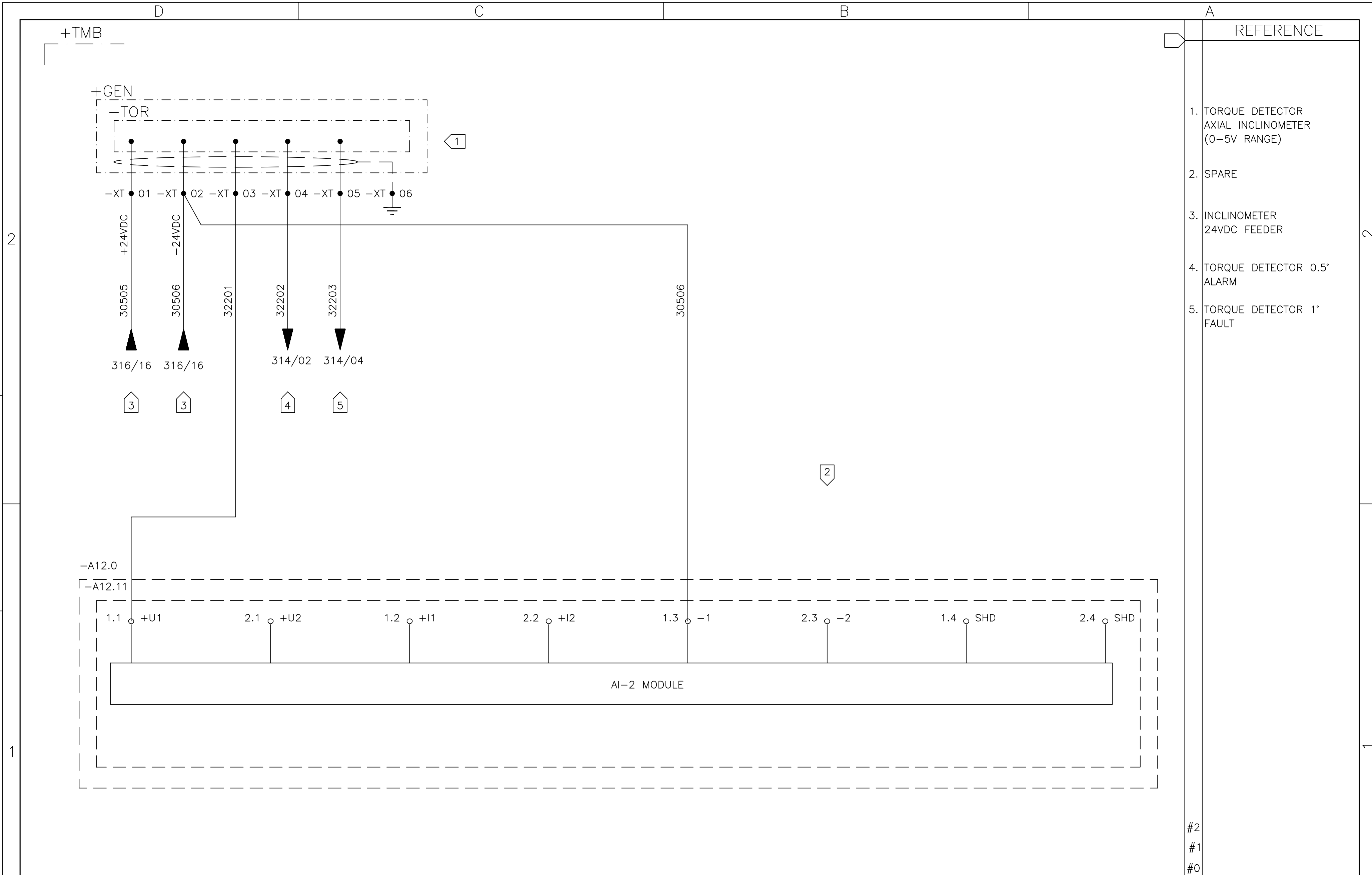
JOB N°: **99835**

TITLE:
TEMPERATURE MEASUREMENT BOX
+TMB
CIRCUIT DIAGRAM

DWG N°:	99835-680050		
GRP N°:	680	DATE:	11/12/2006
DESIGN	GPE	SHEET:	321
APPD	JPI	CONT.:	322

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FORMAT A3 - IMPSA Wind CAD SYSTEM



01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

JOB N°: **99835**

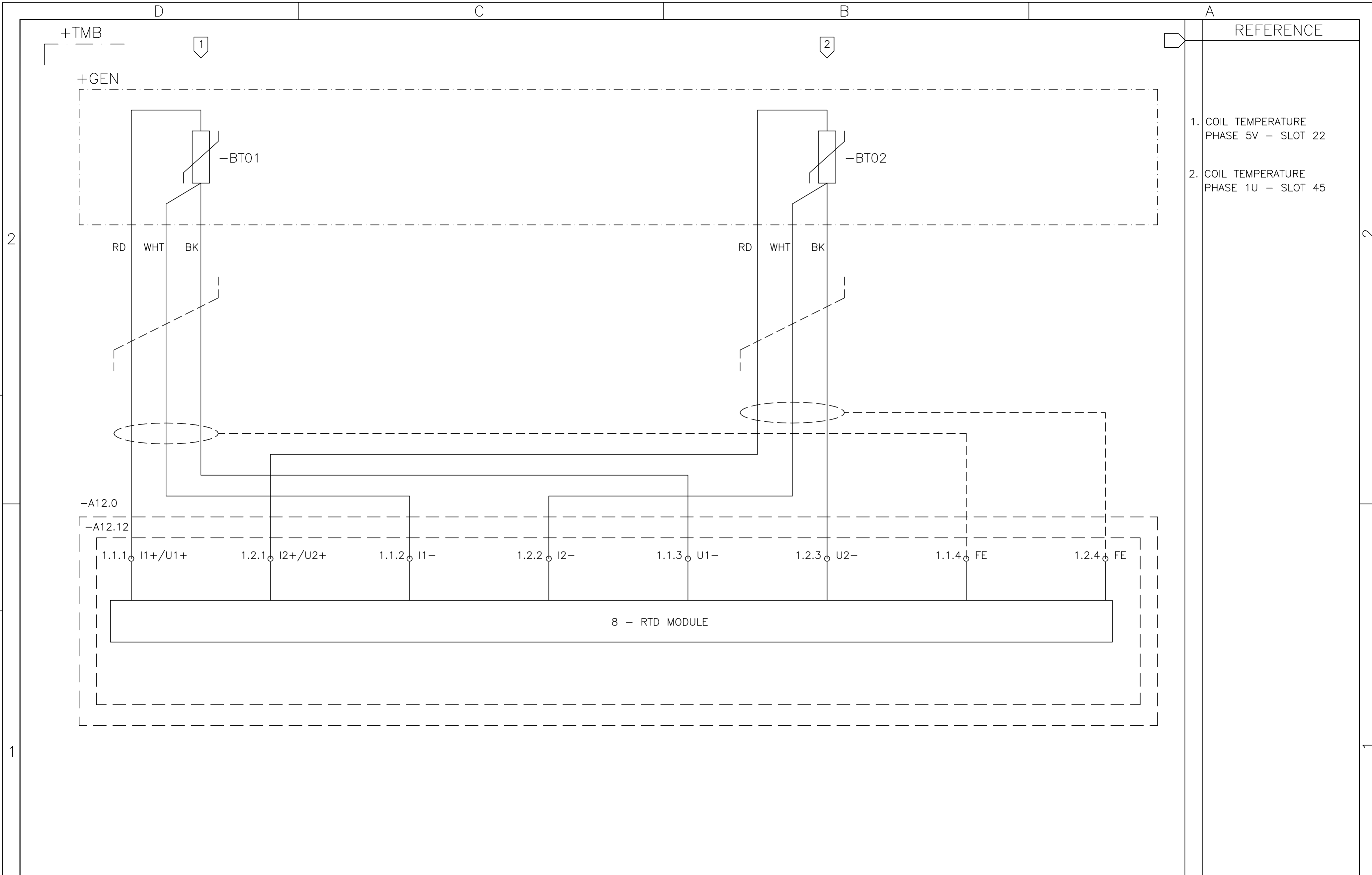
TITLE:
TEMPERATURE MEASUREMENT BOX
+TMB
CIRCUIT DIAGRAM

DWG N°: 99835-680050	
GRP N°: 680	DATE: 11/12/2006
DESIGN GPE	SHEET: 322
APPD JPI	CONT.: 323

#2
#1
#0

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FORMAT A3 - IMPSA Wind CAD SYSTEM



REFERENCE	
1.	COIL TEMPERATURE PHASE 5V - SLOT 22
2.	COIL TEMPERATURE PHASE 1U - SLOT 45

01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16

05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

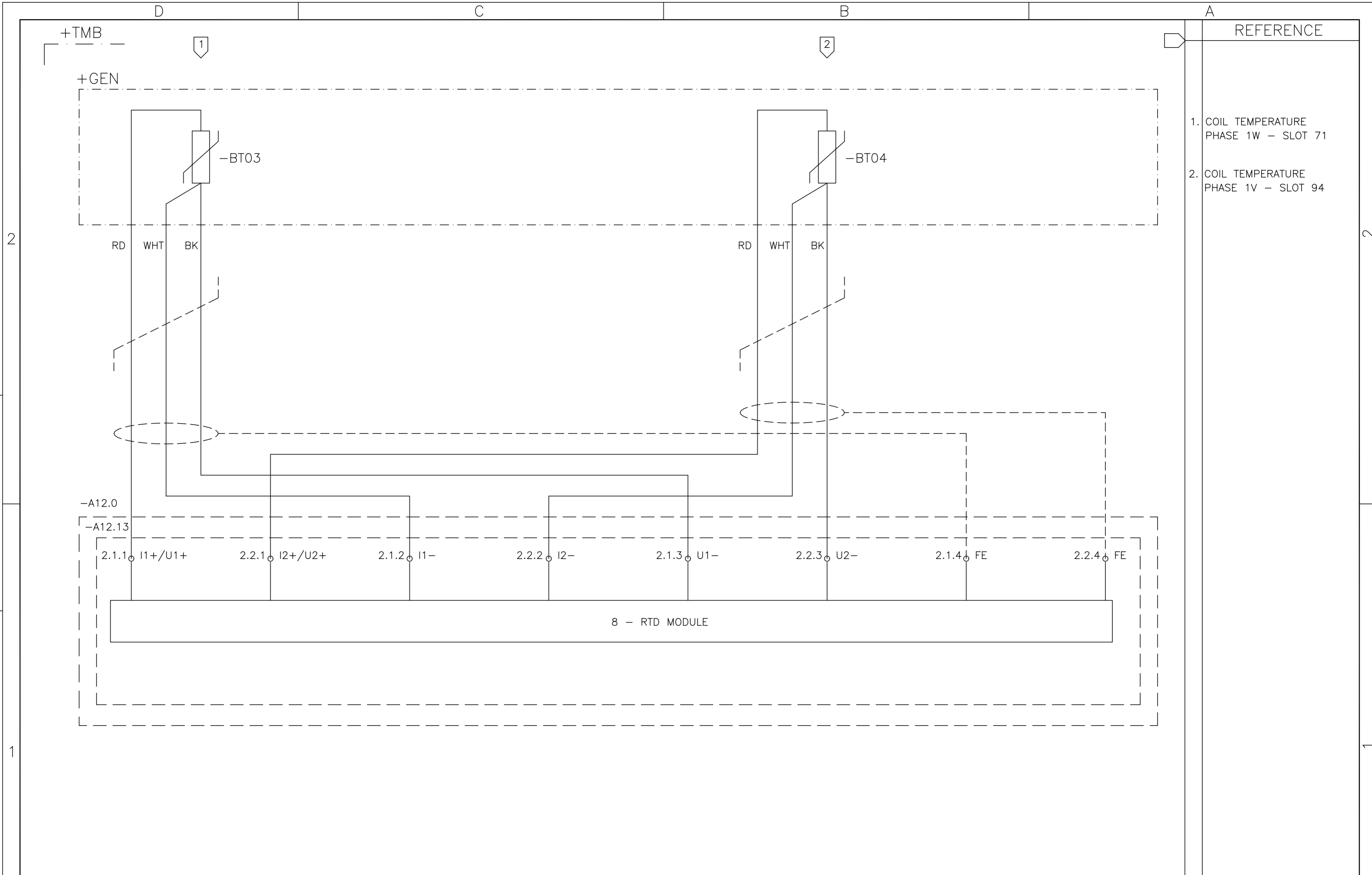
JOB N°: **99835**

TITLE:
TEMPERATURE MEASUREMENT BOX
+TMB
CIRCUIT DIAGRAM

DWG N°: 99835-680050	
GRP N°: 680	DATE: 11/12/2006
DESIGN GPE	SHEET: 323
APPD JPI	CONT.: 324

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FORMAT A3 - IMPSA Wind CAD SYSTEM



01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16

05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

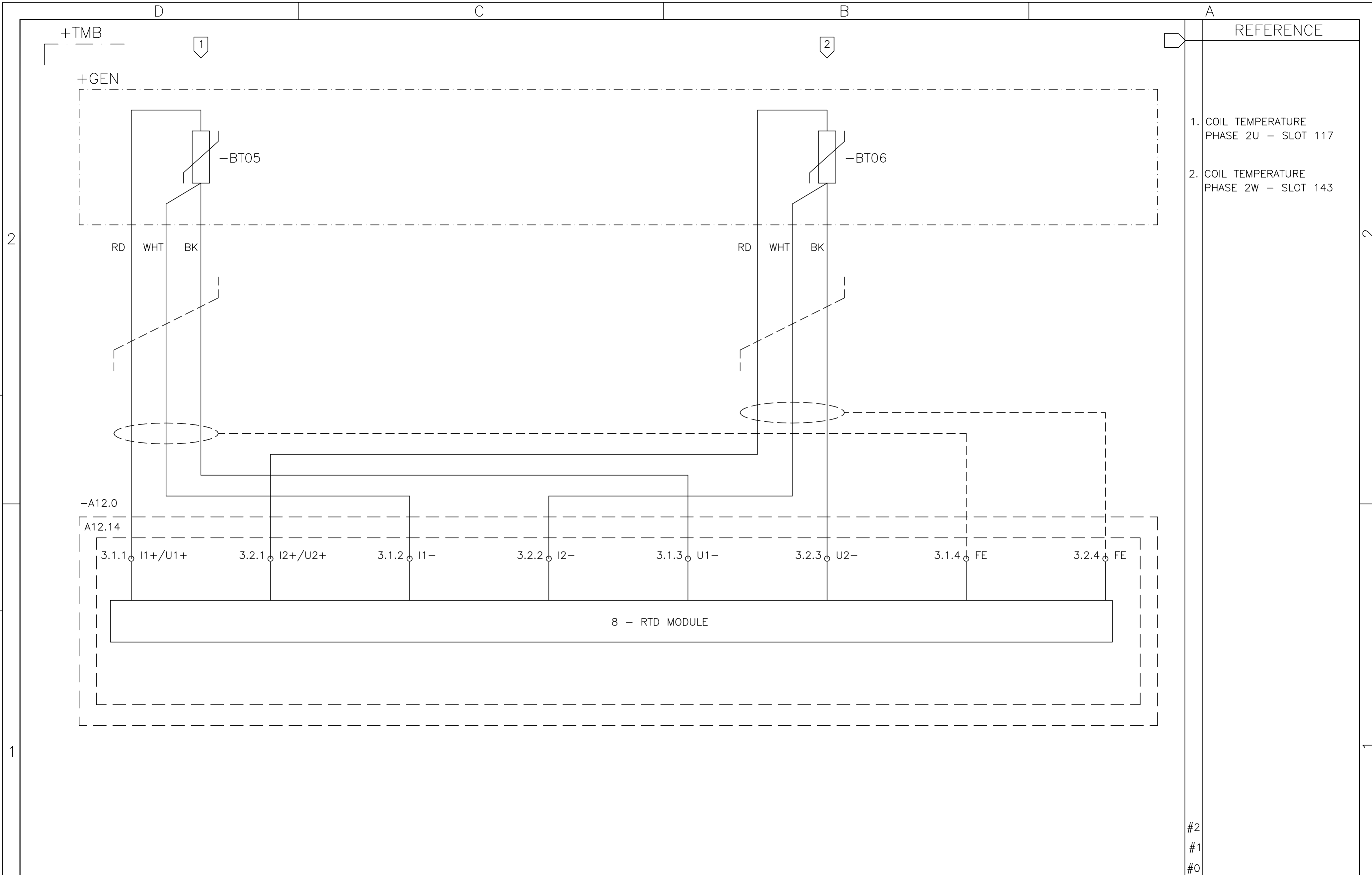
JOB N°: **99835**

TITLE:
TEMPERATURE MEASUREMENT BOX
+TMB
CIRCUIT DIAGRAM

DWG N°:	99835-680050		
GRP N°:	680	DATE:	11/12/2006
DESIGN	GPE	SHEET:	324
APPD	JPI	CONT.:	325

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FORMAT A3 - IMPSA Wind CAD SYSTEM



REFERENCE	
1.	COIL TEMPERATURE PHASE 2U - SLOT 117
2.	COIL TEMPERATURE PHASE 2W - SLOT 143

#2
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#0

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

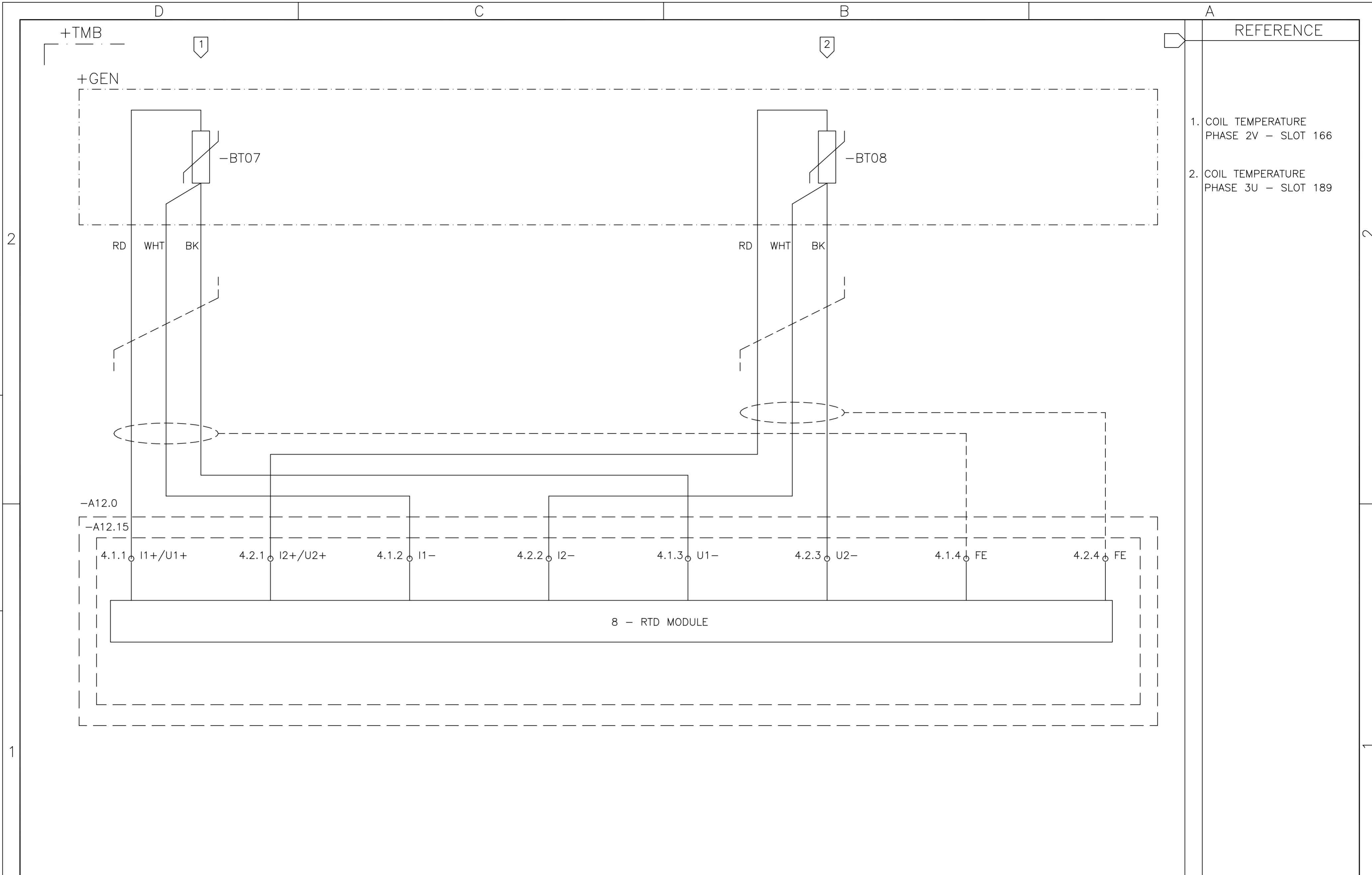
JOB N°: **99835**

TITLE:
TEMPERATURE MEASUREMENT BOX
+TMB
CIRCUIT DIAGRAM

DWG N°:	99835-680050		
GRP N°:	680	DATE:	11/12/2006
DESIGN	GPE	SHEET:	325
APPD	JPI	CONT.:	326

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FORMAT A3 - IMPSA Wind CAD SYSTEM



01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

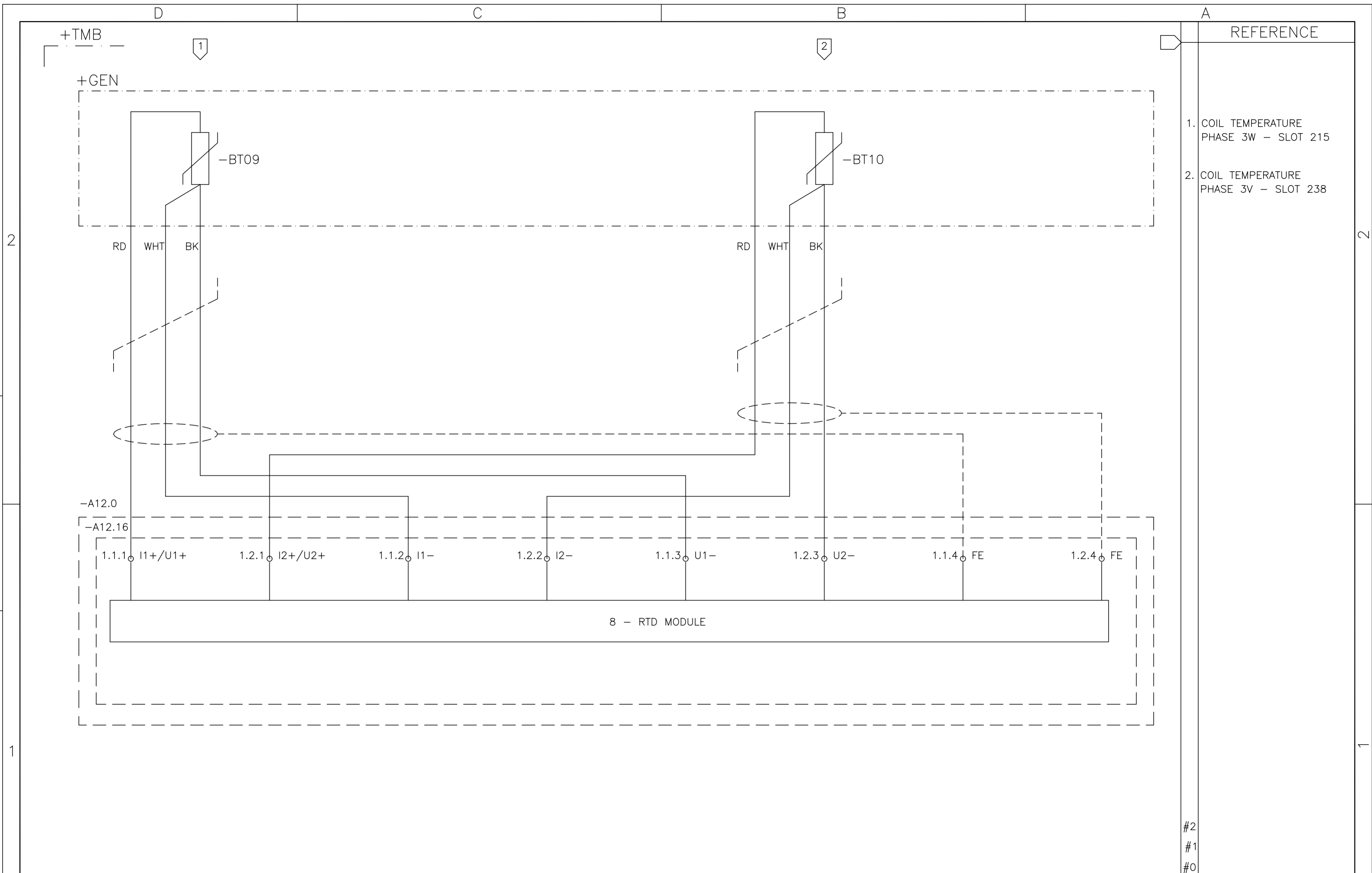
JOB N°: **99835**

TITLE:
TEMPERATURE MEASUREMENT BOX
+TMB
CIRCUIT DIAGRAM

DWG N°: 99835-680050	
GRP N°: 680	DATE: 11/12/2006
DESIGN GPE	SHEET: 326
APPD JPI	CONT.: 327

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FORMAT A3 - IMPSA Wind CAD SYSTEM



- REFERENCE
1. COIL TEMPERATURE PHASE 3W - SLOT 215
 2. COIL TEMPERATURE PHASE 3V - SLOT 238

#2
#1
#0

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

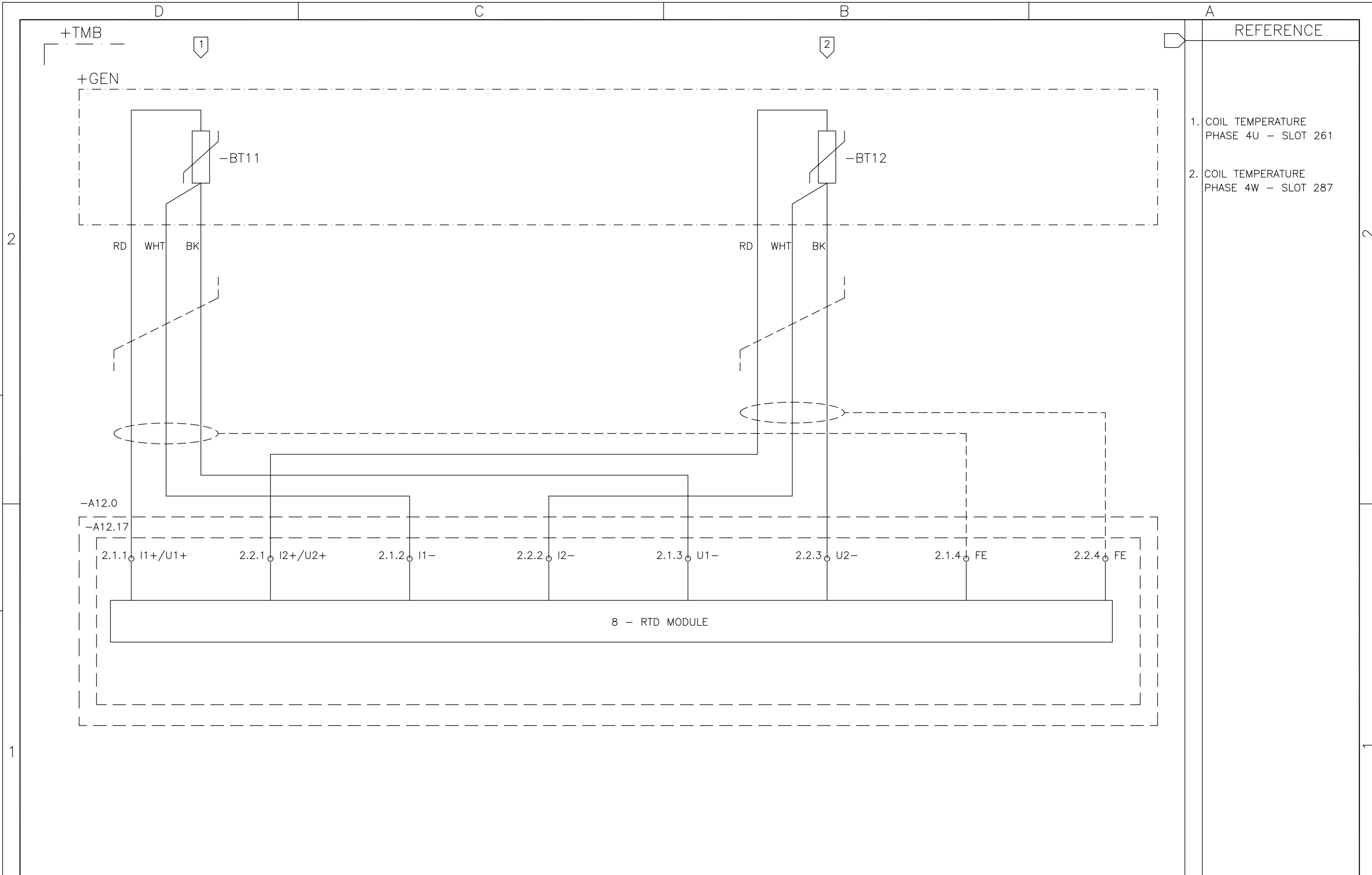
JOB N°: **99835**

TITLE:
TEMPERATURE MEASUREMENT BOX
+TMB
CIRCUIT DIAGRAM

DWG N°:	99835-680050		
GRP N°:	680	DATE:	11/12/2006
DESIGN	GPE	SHEET:	327
APPD	JPI	CONT.:	328

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FORMAT A3 - IMPSA Wind CAD SYSTEM



01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16

05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

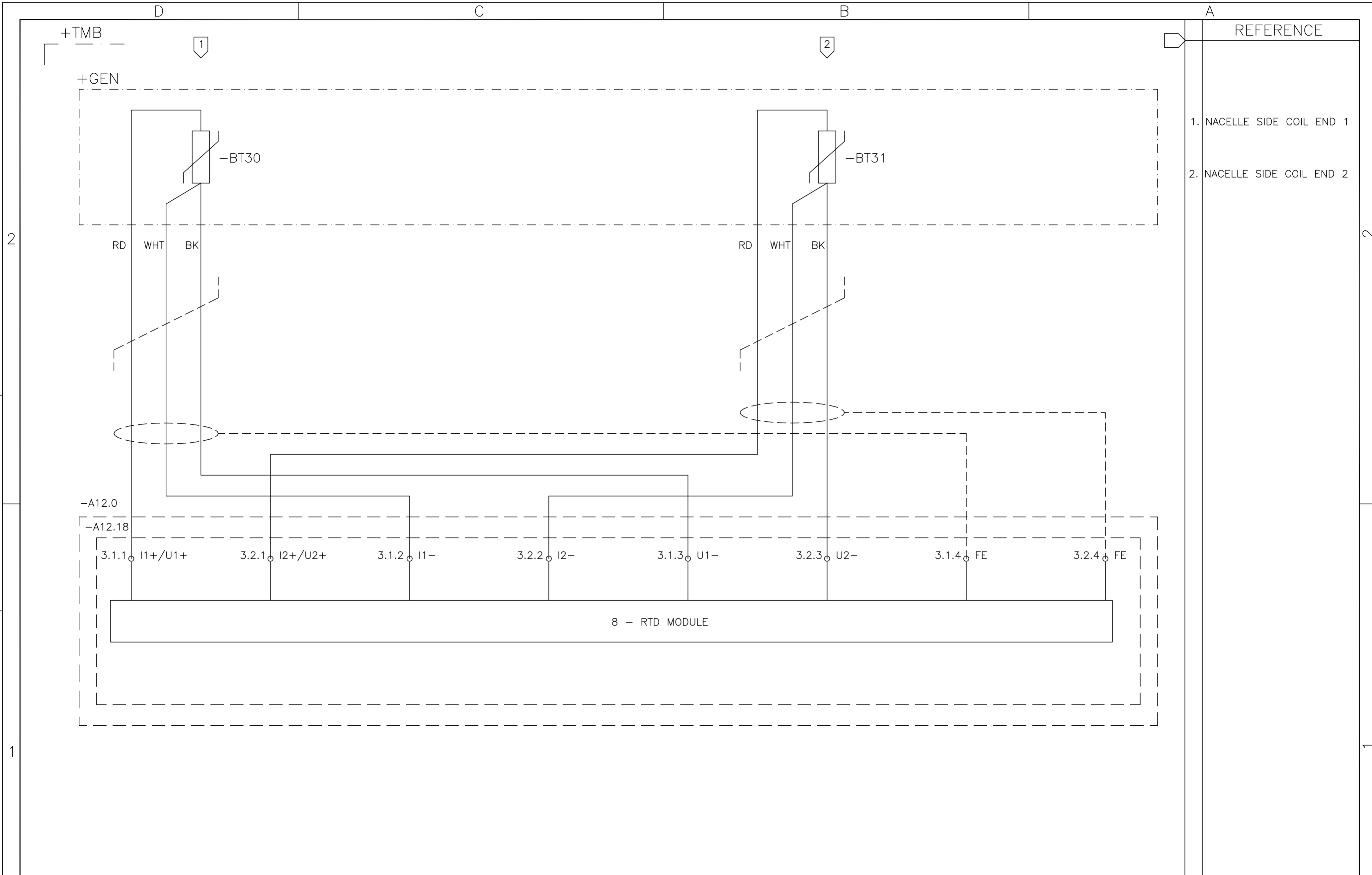
JOB Nº: **99835**

TITLE:
TEMPERATURE MEASUREMENT BOX
+TMB
CIRCUIT DIAGRAM

DWG Nº: 99835-680050	
GRP Nº: 680	DATE: 11/12/2006
DESIGN GPE	SHEET: 328
APPD JPI	CONT.: 329

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FORMAT A3 - IMPSA Wind CAD SYSTEM



01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16

05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

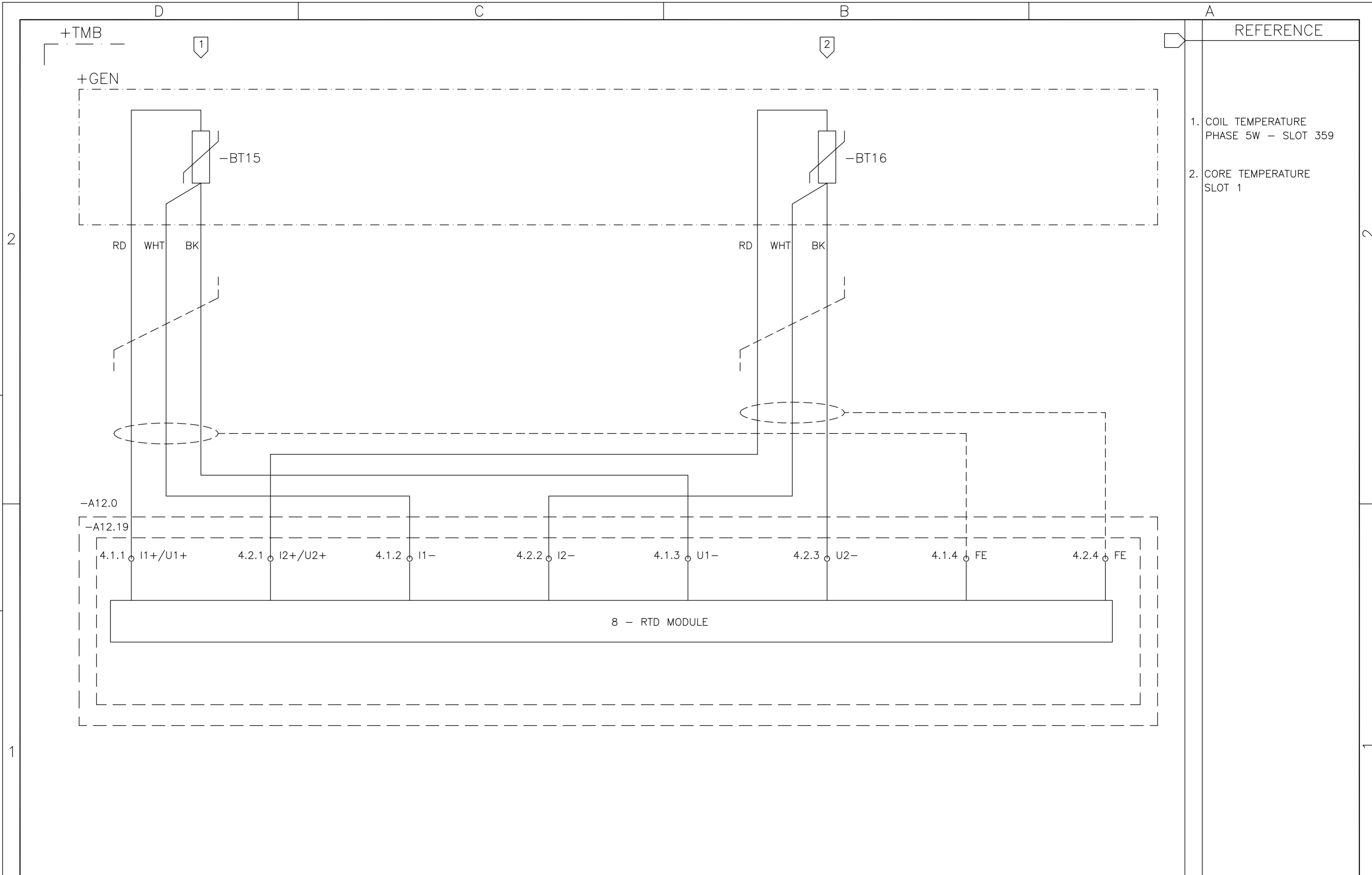
JOB N°: **99835**

TITLE:
TEMPERATURE MEASUREMENT BOX
+TMB
CIRCUIT DIAGRAM

DWG N°:	99835-680050		
GRP N°:	680	DATE:	11/12/2006
DESIGN	GPE	SHEET:	329
APPD	JPI	CONT.:	330

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FORMAT A3 - IMPSA Wind CAD SYSTEM



01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

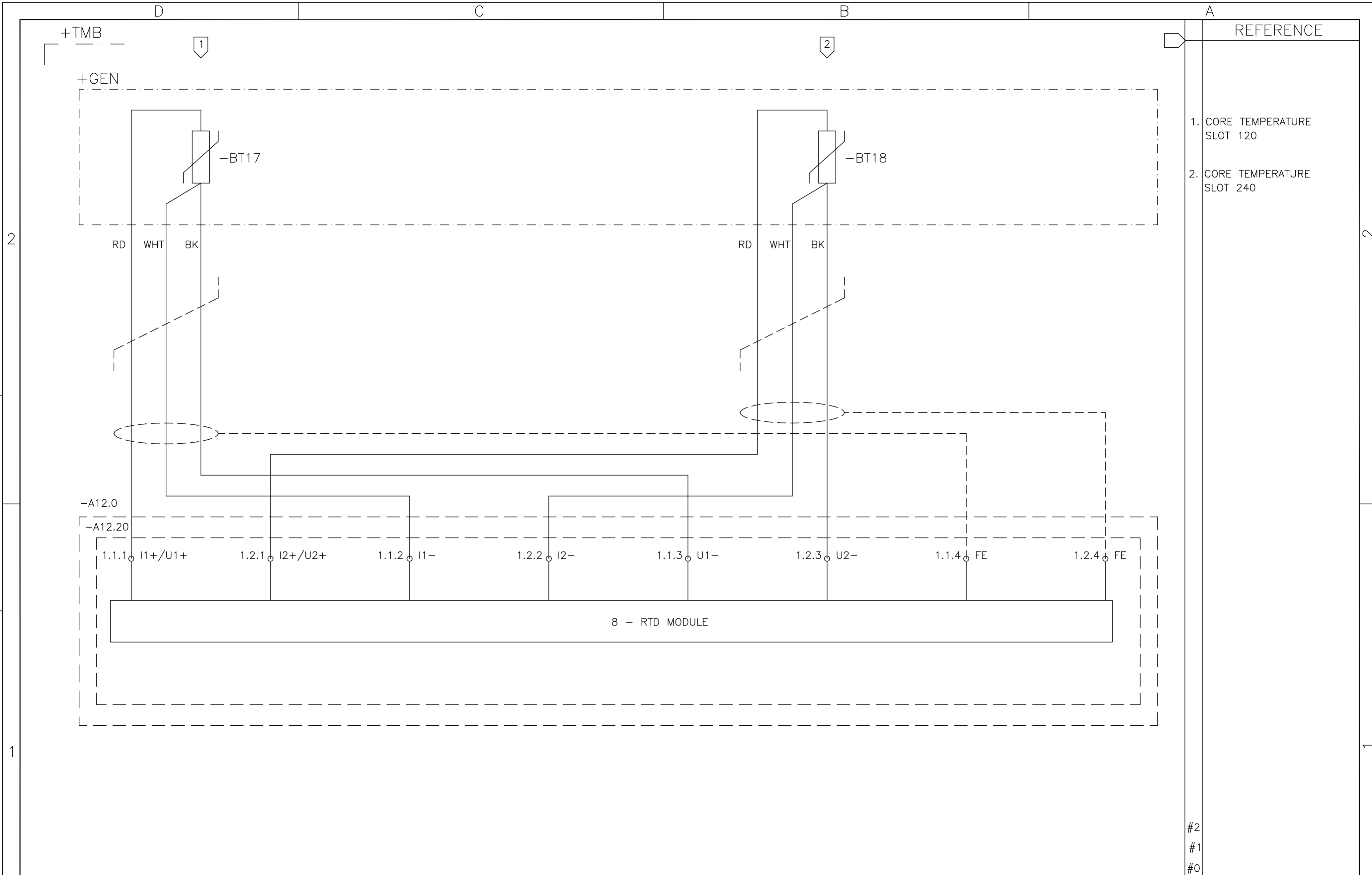
JOB N°: **99835**

TITLE:
TEMPERATURE MEASUREMENT BOX
+TMB
CIRCUIT DIAGRAM

DWG N°:	99835-680050		
GRP N°:	680	DATE:	11/12/2006
DESIGN	GPE	SHEET:	330
APPD	JPI	CONT.:	331

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FORMAT A3 - IMPSA Wind CAD SYSTEM



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01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

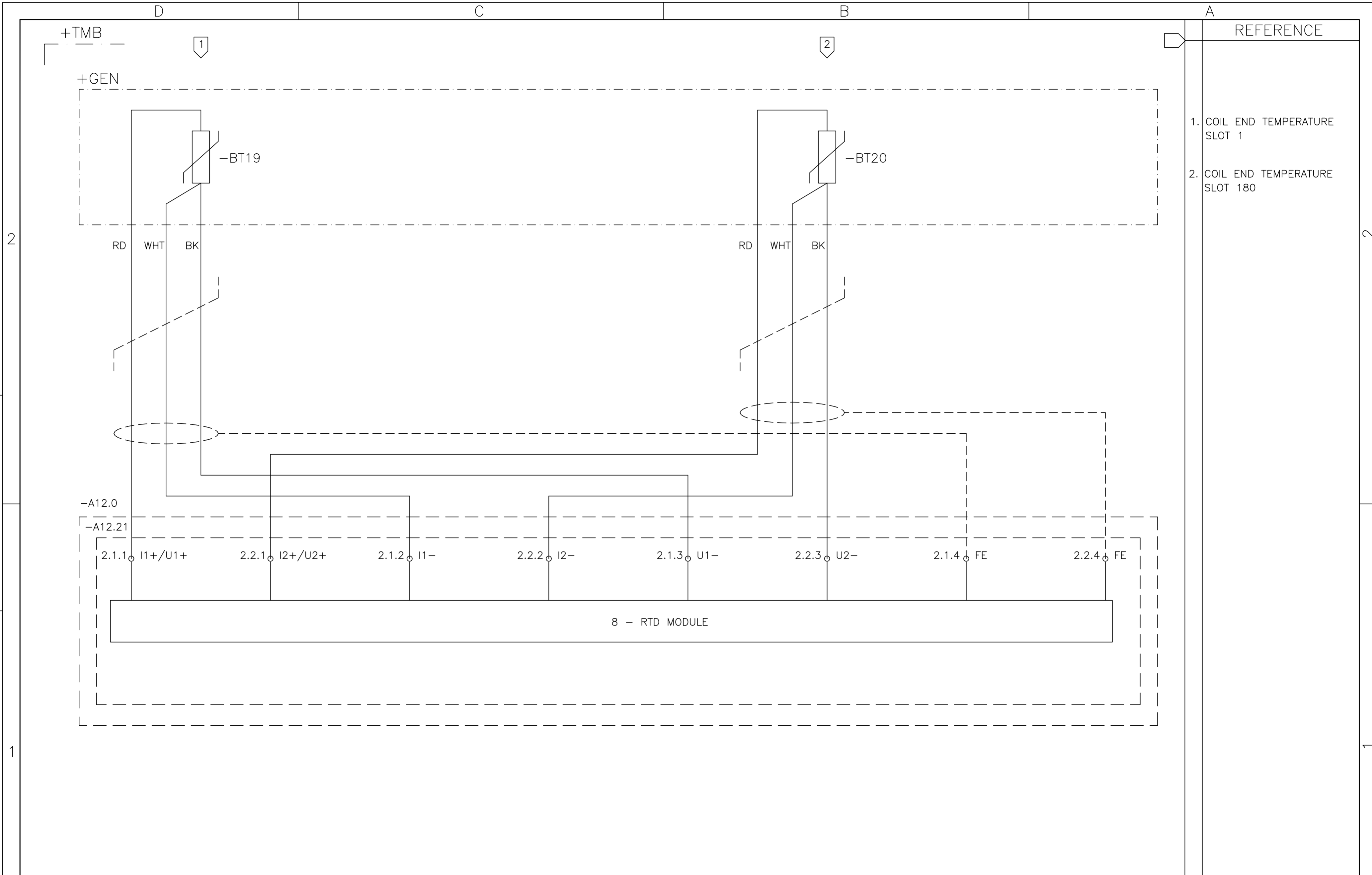
JOB N°: **99835**

TITLE:
TEMPERATURE MEASUREMENT BOX
+TMB
CIRCUIT DIAGRAM

DWG N°:	99835-680050		
GRP N°:	680	DATE:	11/12/2006
DESIGN	GPE	SHEET:	331
APPD	JPI	CONT.:	332

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FORMAT A3 - IMPSA Wind CAD SYSTEM



01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

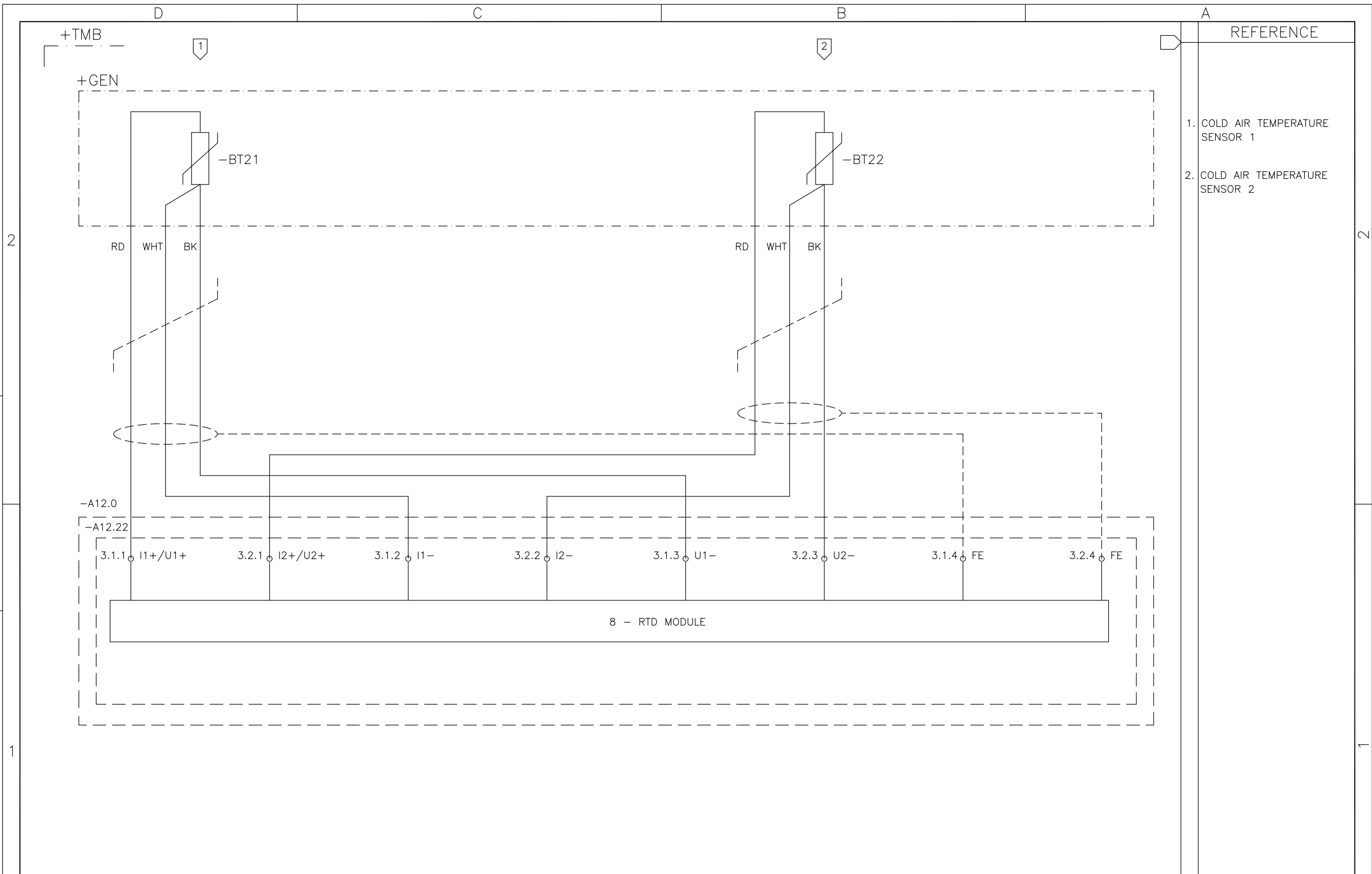
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TITLE:
TEMPERATURE MEASUREMENT BOX
+TMB
CIRCUIT DIAGRAM

DWG N°:	99835-680050		
GRP N°:	680	DATE:	11/12/2006
DESIGN	GPE	SHEET:	332
APPD	JPI	CONT.:	333

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FORMAT A3 - IMPSA Wind CAD SYSTEM



01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

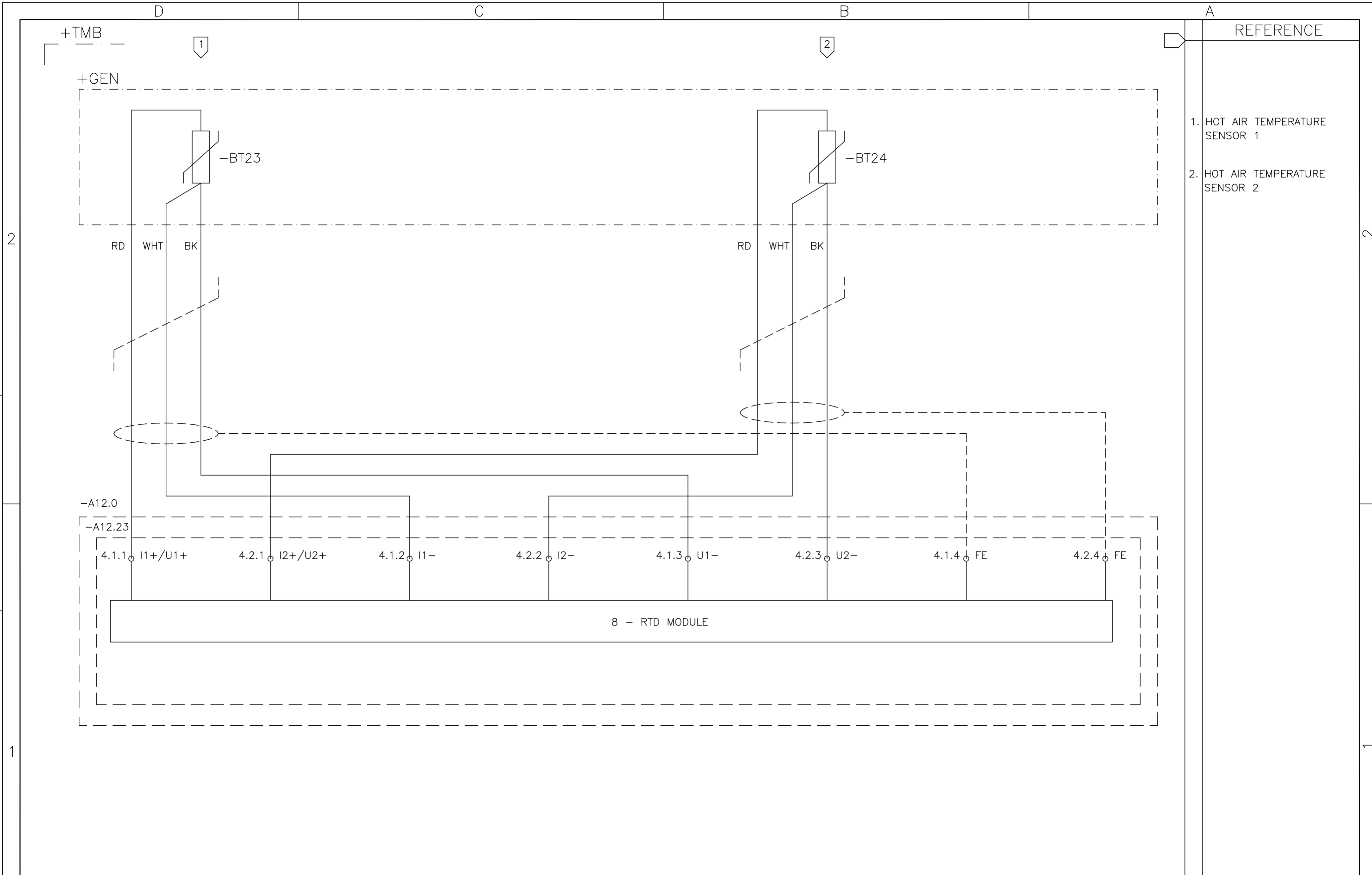
JOB Nº: **99835**

TITLE:
TEMPERATURE MEASUREMENT BOX
+TMB
CIRCUIT DIAGRAM

DWG Nº:	99835-680050		
GRP Nº:	680	DATE:	11/12/2006
DESIGN	GPE	SHEET:	333
APPD	JPI	CONT.:	334

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FORMAT A3 - IMPSA Wind CAD SYSTEM



01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16

05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

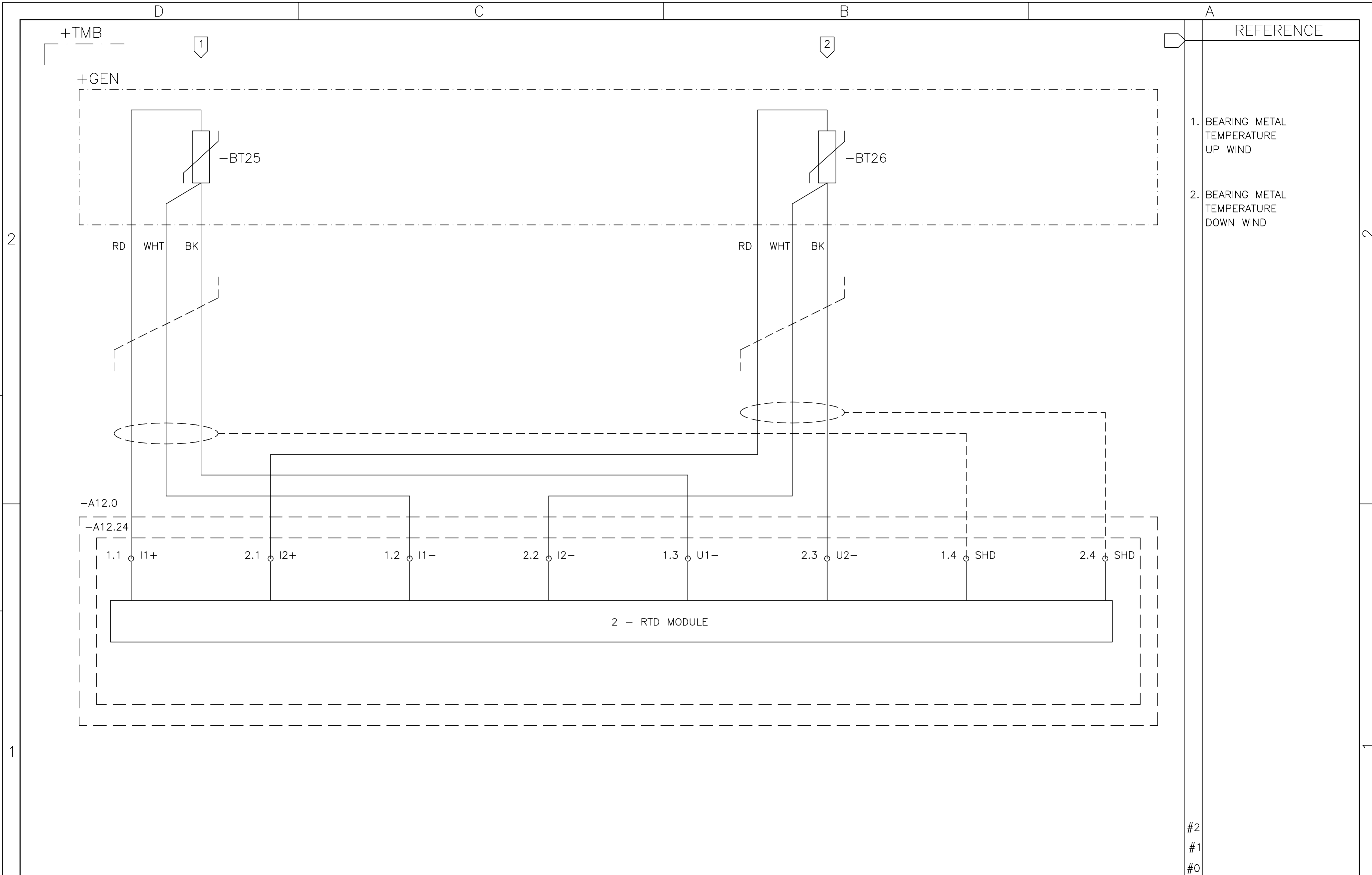
JOB N°: **99835**

TITLE:
TEMPERATURE MEASUREMENT BOX
+TMB
CIRCUIT DIAGRAM

DWG N°: 99835-680050	
GRP N°: 680	DATE: 11/12/2006
DESIGN GPE	SHEET: 334
APPD JPI	CONT.: 335

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FORMAT A3 - IMPSA Wind CAD SYSTEM



- REFERENCE
1. BEARING METAL TEMPERATURE UP WIND
 2. BEARING METAL TEMPERATURE DOWN WIND

#2
#1
#0

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

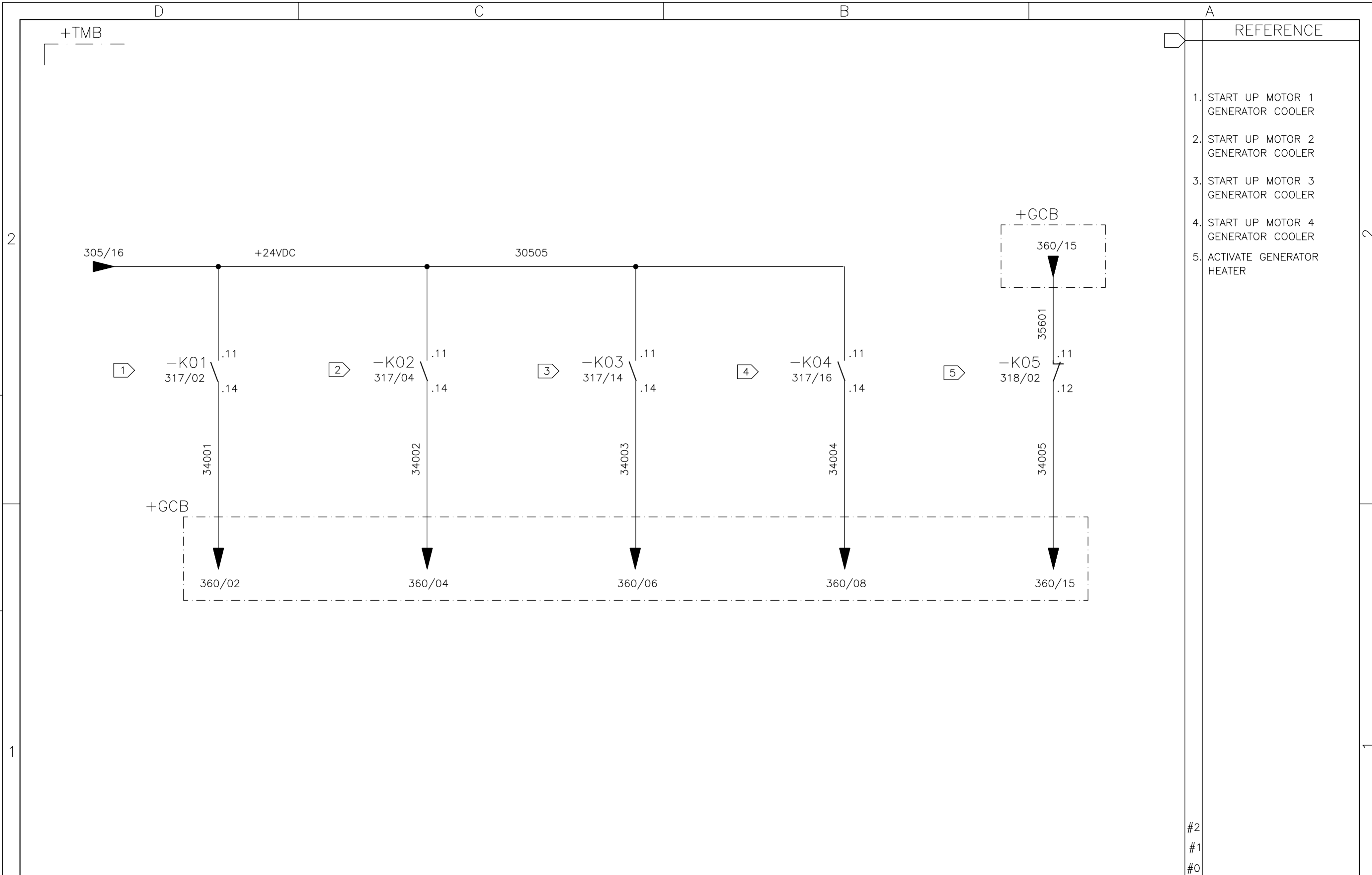
JOB N°: **99835**

TITLE:
TEMPERATURE MEASUREMENT BOX
+TMB
CIRCUIT DIAGRAM

DWG N°:	99835-680050		
GRP N°:	680	DATE:	11/12/2006
DESIGN	GPE	SHEET:	335
APPD	JPI	CONT.:	340

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FORMAT A3 - IMPSA Wind CAD SYSTEM



- REFERENCE
1. START UP MOTOR 1 GENERATOR COOLER
 2. START UP MOTOR 2 GENERATOR COOLER
 3. START UP MOTOR 3 GENERATOR COOLER
 4. START UP MOTOR 4 GENERATOR COOLER
 5. ACTIVATE GENERATOR HEATER

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

JOB N°: **99835**

TITLE:
TEMPERATURE MEASUREMENT BOX
+TMB
CIRCUIT DIAGRAM

DWG N°: 99835-680050	
GRP N°: 680	DATE: 11/12/2006
DESIGN GPE	SHEET: 340
APPD JPI	CONT.: 345

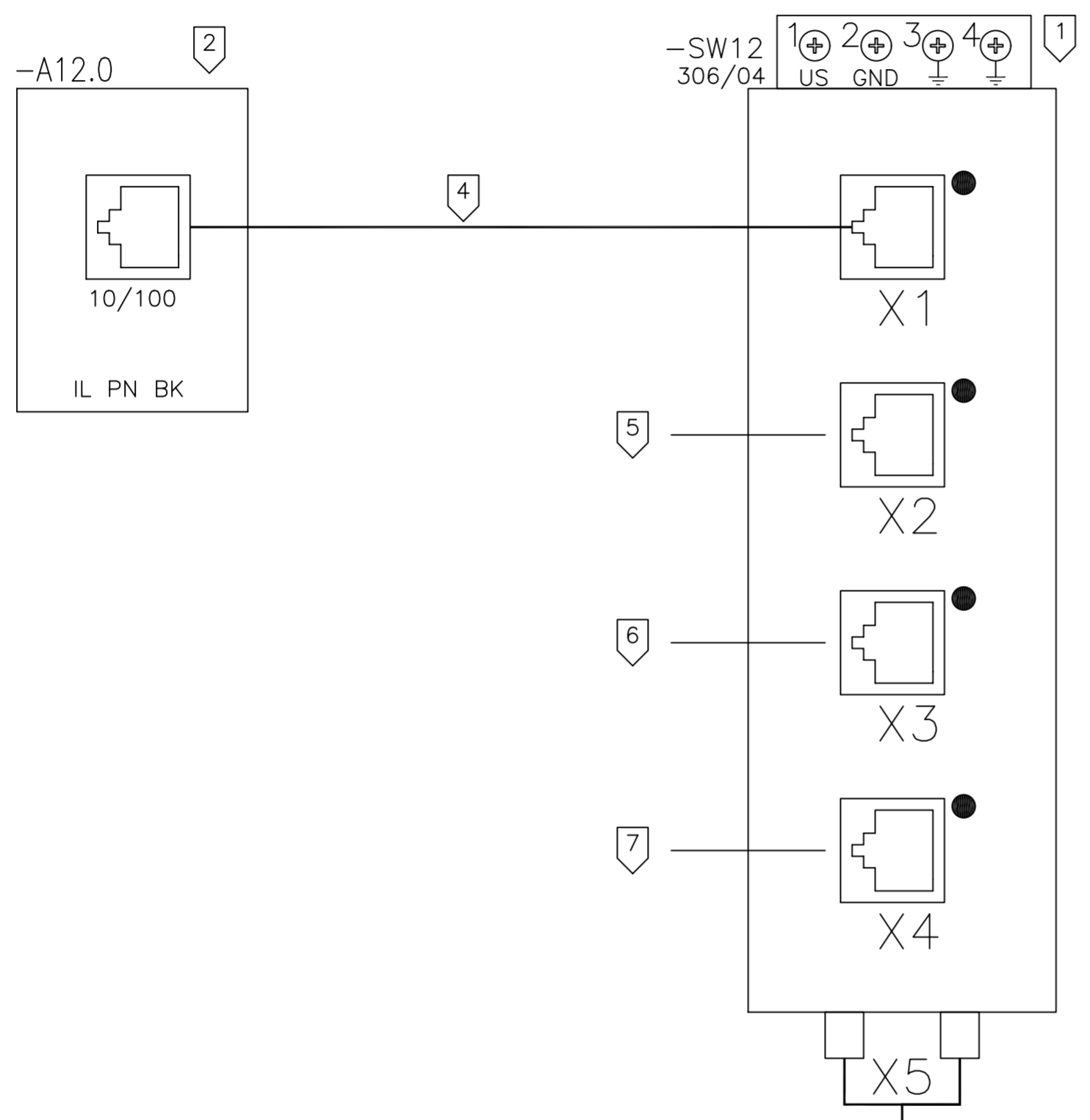
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FORMAT A3 - IMPSA Wind CAD SYSTEM

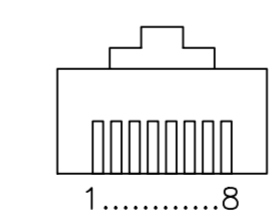
+TMB

REFERENCE



1. ETHERNET SWITCH
2. PLC PROFINET CONNECTION
IL PN BK DI8 DO4 2TX
3. FIBER OPTIC
PATCH CORD
(2 CORDS)
4. UTP CAT 5
5. SPARE
6. SPARE
7. SPARE

UTP CABLE - PIN OUT		
RJ45 Pin N°	PLC RJ45 WITH SHIELD	LAN RJ45 WITHOUT SHIELD
1	White/Orange	White/Orange
2	Orange	Orange
3	White/Green	White/Green
4	Blue	Blue
5	White/Blue	White/Blue
6	Green	Green
7	White/Brown	White/Brown
8	Brown	Brown



01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16

05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

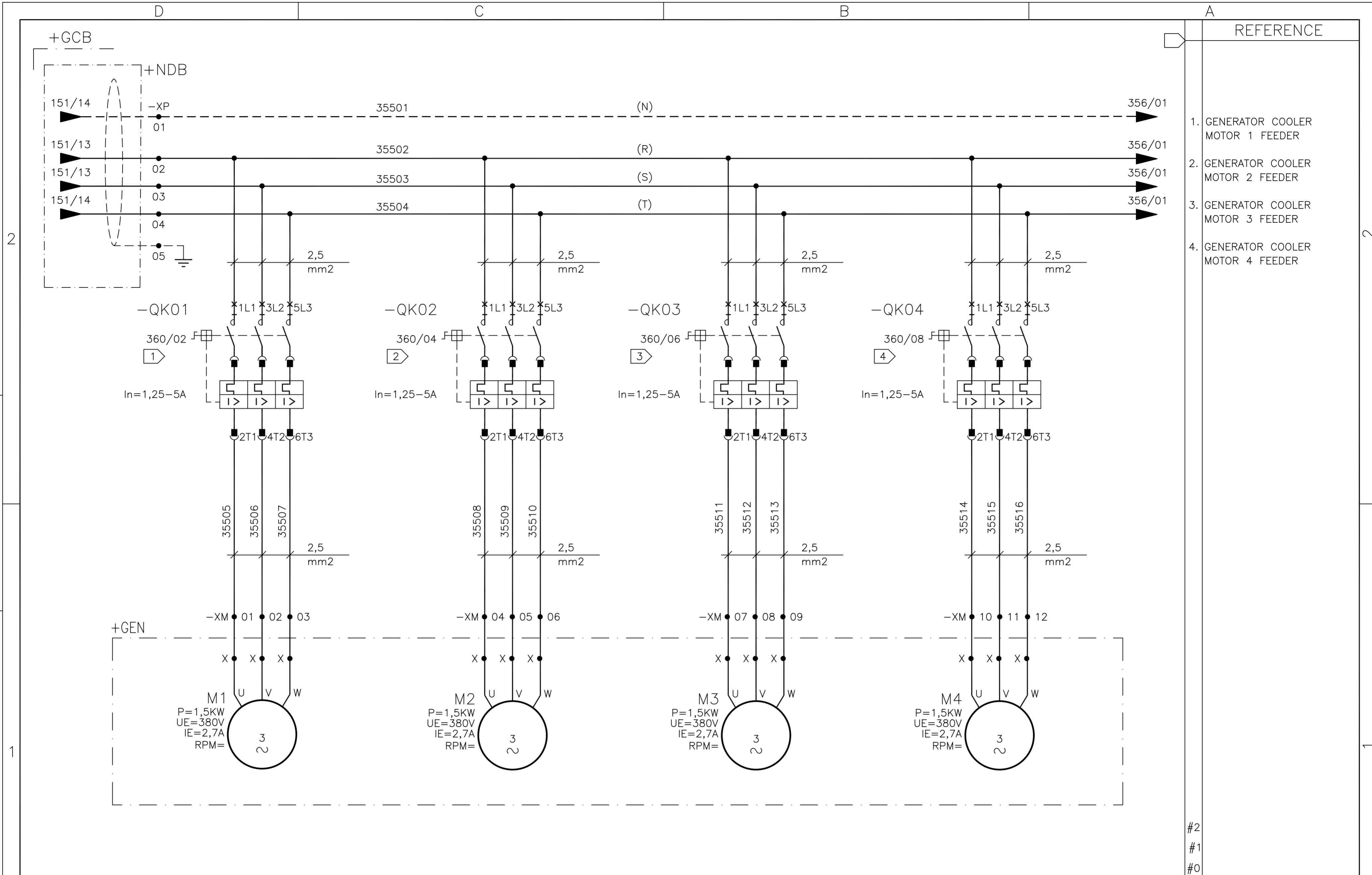
JOB N°: **99835**

TITLE:
TEMPERATURE MEASUREMENT BOX
+TMB CIRCUIT DIAGRAM
ETHERNET SWITCH CONNECTIONS

DWG N°: 99835-680050	
GRP N°: 680	DATE: 11/12/2006
DESIGN GPE	SHEET: 345
APPD JPI	CONT.: 355

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FORMAT A3 - IMPSA Wind CAD SYSTEM



#2
#1
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01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
								WIND GENERATOR IWP-70 JOB Nº: 99835				TITLE: GENERATOR COOLER BOX +GCB CIRCUIT DIAGRAM			
05	AS BUILT	26/07/10	LGO												
REV.	DENOMINATION	DATA	SIGN.					GRP Nº: 680 DATE: 11/12/2006 DESIGN GPE SHEET: 355 APPD JPI CONT.: 356							

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FORMAT A3 - IMPSA Wind CAD SYSTEM



01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

JOB Nº: **99835**

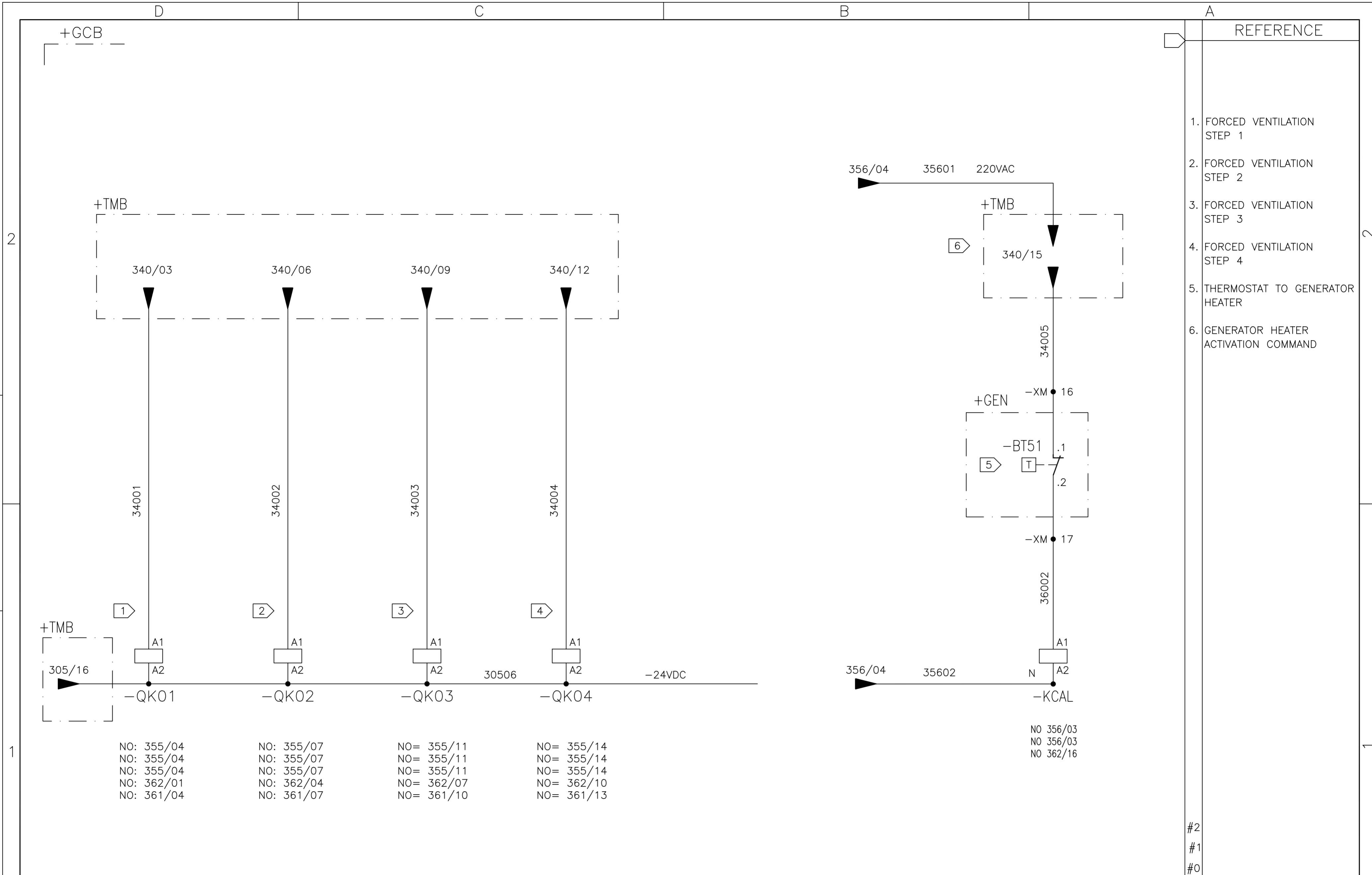
TITLE:
GENERATOR COOLER BOX
+GCB
CIRCUIT DIAGRAM

DWG Nº: 99835-680050	
GRP Nº: 680	DATE: 11/12/2006
DESIGN GPE	SHEET: 356
APPD JPI	CONT.: 360

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FORMAT A3 - IMPSA Wind CAD SYSTEM



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|------------|------------|------------|------------|
| NO: 355/04 | NO: 355/07 | NO= 355/11 | NO= 355/14 |
| NO: 355/04 | NO: 355/07 | NO= 355/11 | NO= 355/14 |
| NO: 355/04 | NO: 355/07 | NO= 355/11 | NO= 355/14 |
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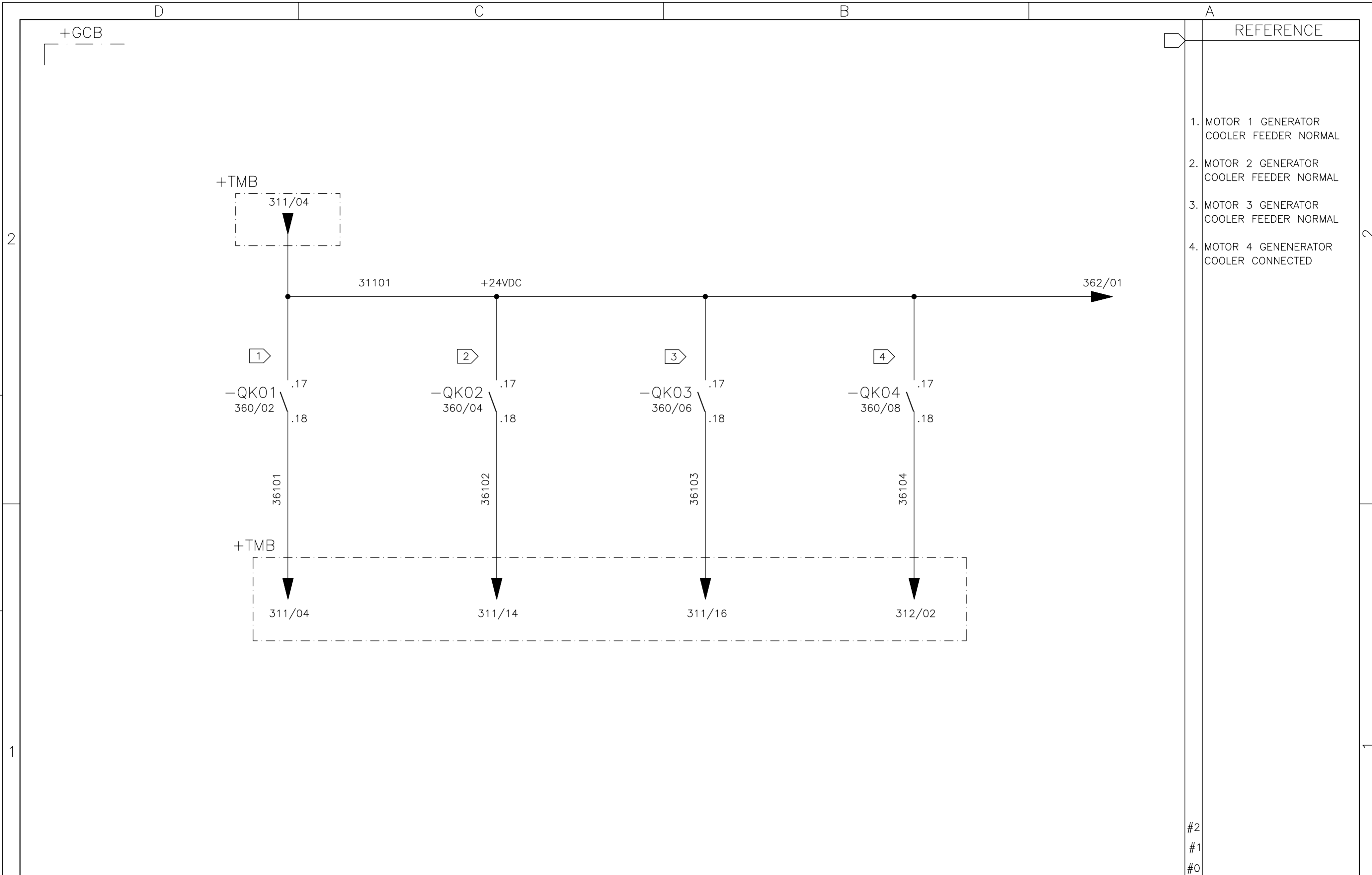
- NO 356/03
- NO 356/03
- NO 362/16

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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	IMPSA <i>wind</i>	WIND GENERATOR IWP-70	TITLE: GENERATOR COOLER BOX +GCB CIRCUIT DIAGRAM
05 AS BUILT	26/07/10 LGO	JOB N°: 99835	DWG N°: 99835-680050
REV.	DENOMINATION	DATA	SIGN.
			GRP N°: 680
			DATE: 11/12/2006
			DESIGN GPE
			SHEET: 360
			APPD JPI
			CONT.: 361

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FORMAT A3 - IMPSA Wind CAD SYSTEM

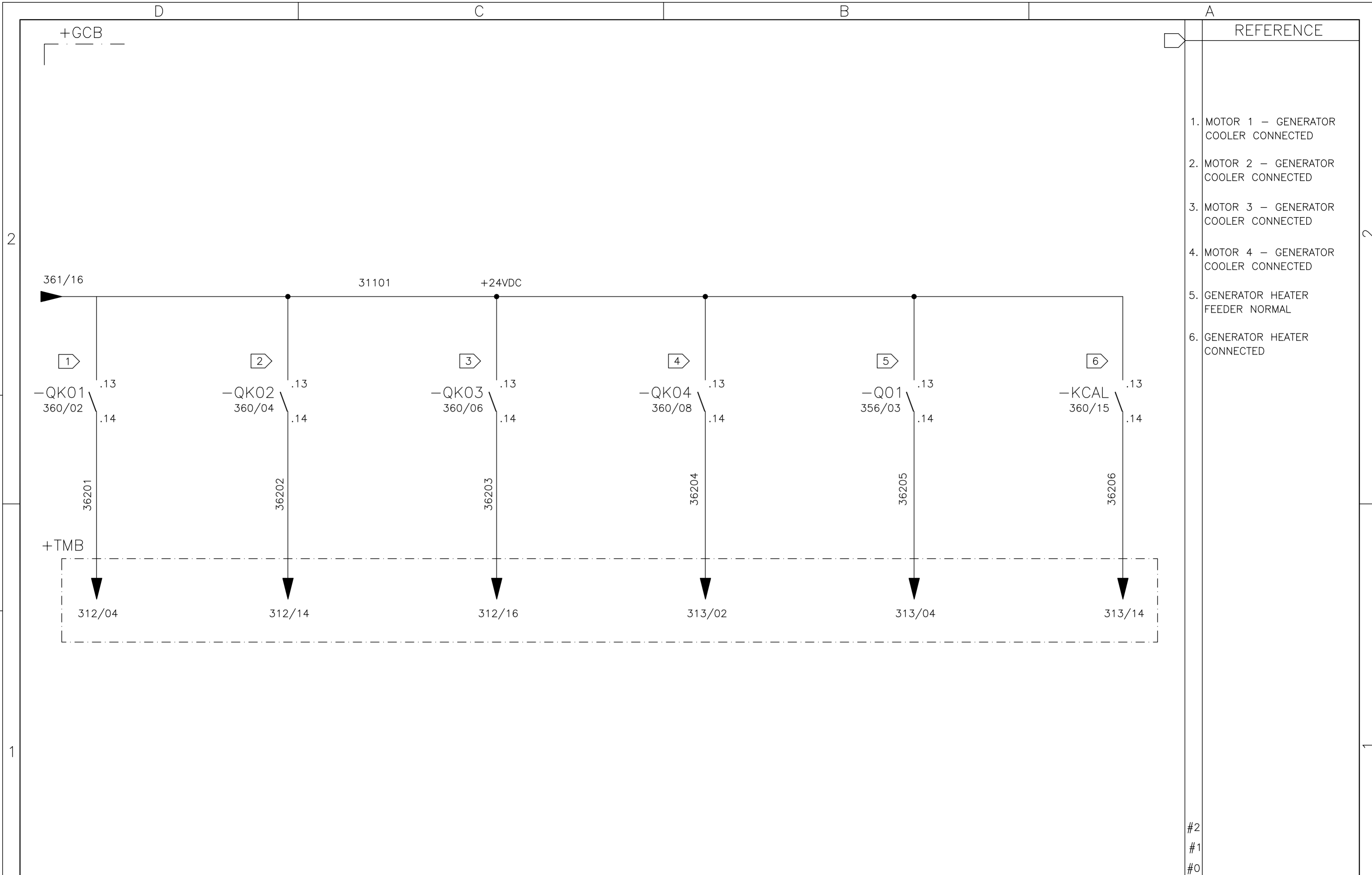


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	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16				
									WIND GENERATOR IWP-70 JOB Nº: 99835				TITLE: GENERATOR COOLER BOX +GCB CIRCUIT DIAGRAM				DWG Nº: 99835-680050			
05	AS BUILT			26/07/10	LGO					DESIGN GPE				SHEET: 361						
REV.	DENOMINATION			DATA	SIGN.					APPD JPI				CONT.: 362						

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FORMAT A3 - IMPSA Wind CAD SYSTEM



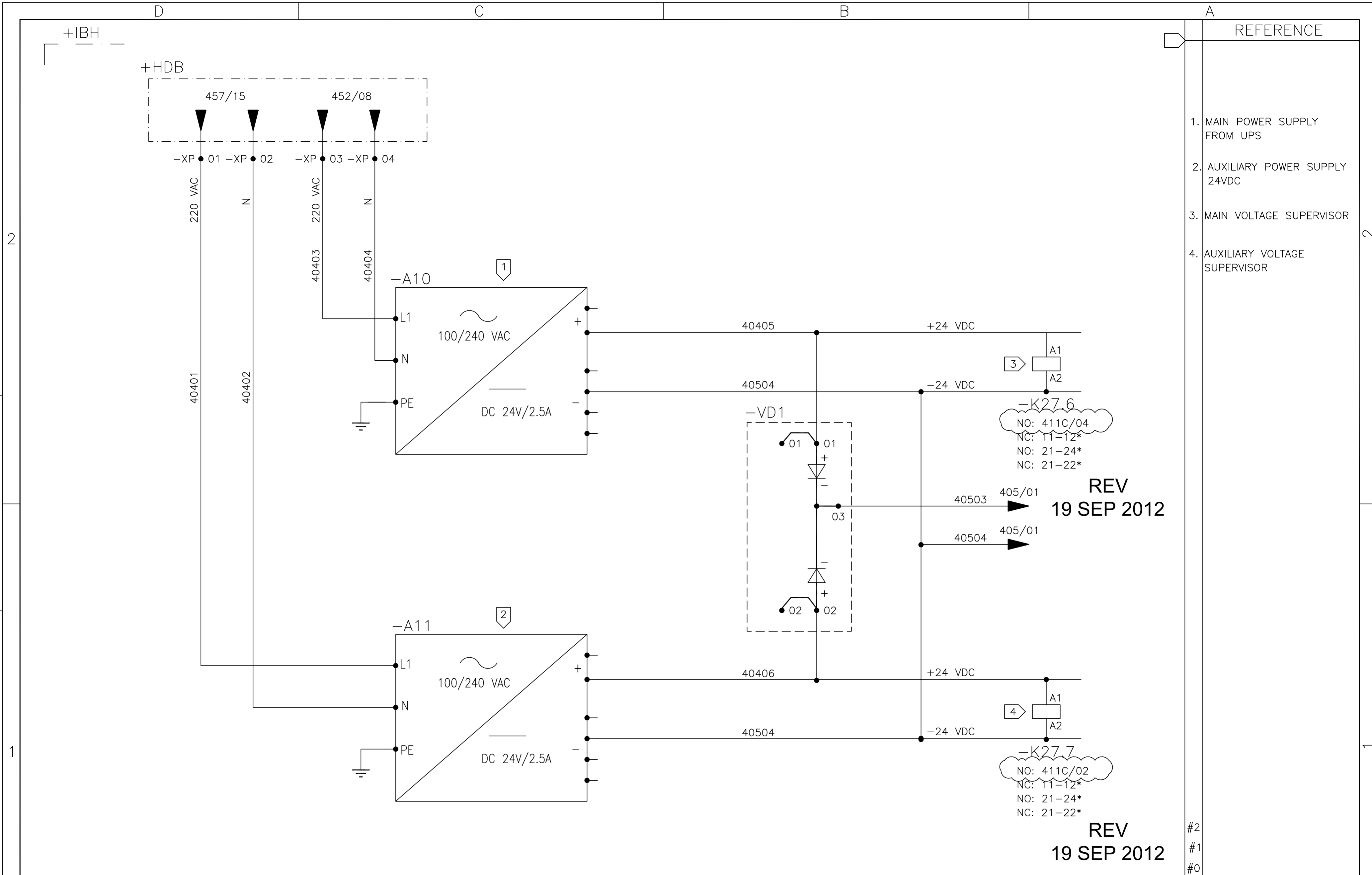
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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	IMPSA <i>wind</i>	WIND GENERATOR IWP-70	TITLE: GENERATOR COOLER BOX +GCB CIRCUIT DIAGRAM	DWG N°: 99835-680050
05	AS BUILT	26/07/10	LGO	GRP N°: 680
REV.	DENOMINATION	DATA	SIGN.	DATE: 11/12/2006
			JOB N°: 99835	DESIGN GPE
				SHEET: 362
				APPD JPI
				CONT.: 404

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FORMAT A3 - IMPSA Wind CAD SYSTEM

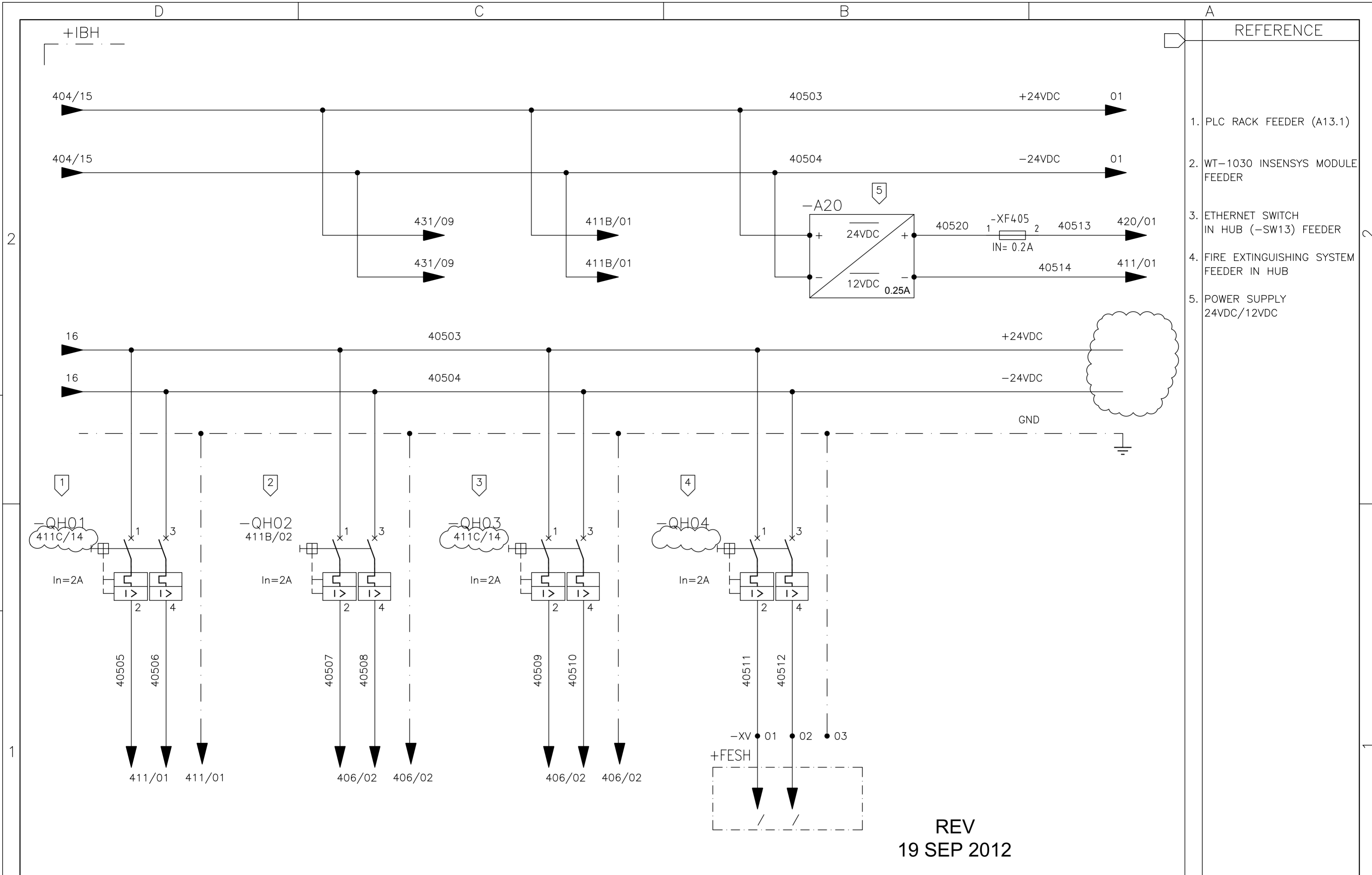


REFERENCE	
1.	MAIN POWER SUPPLY FROM UPS
2.	AUXILIARY POWER SUPPLY 24VDC
3.	MAIN VOLTAGE SUPERVISOR
4.	AUXILIARY VOLTAGE SUPERVISOR

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
								WIND GENERATOR IWP-70 TITLE: INSENSYS, PLC & SWITCH BOX +IBH CIRCUIT DIAGRAM				DWG N°: 99835-680050			
06	AS BUILT	19/09/2012	LGO									JOB N°: 99835			
REV.	DENOMINATION	DATA	SIGN.									APPD JPI	CONT.: 405		

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FORMAT A3 - IMPSA Wind CAD SYSTEM



REV
19 SEP 2012

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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06	AS BUILT	19/09/2012	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

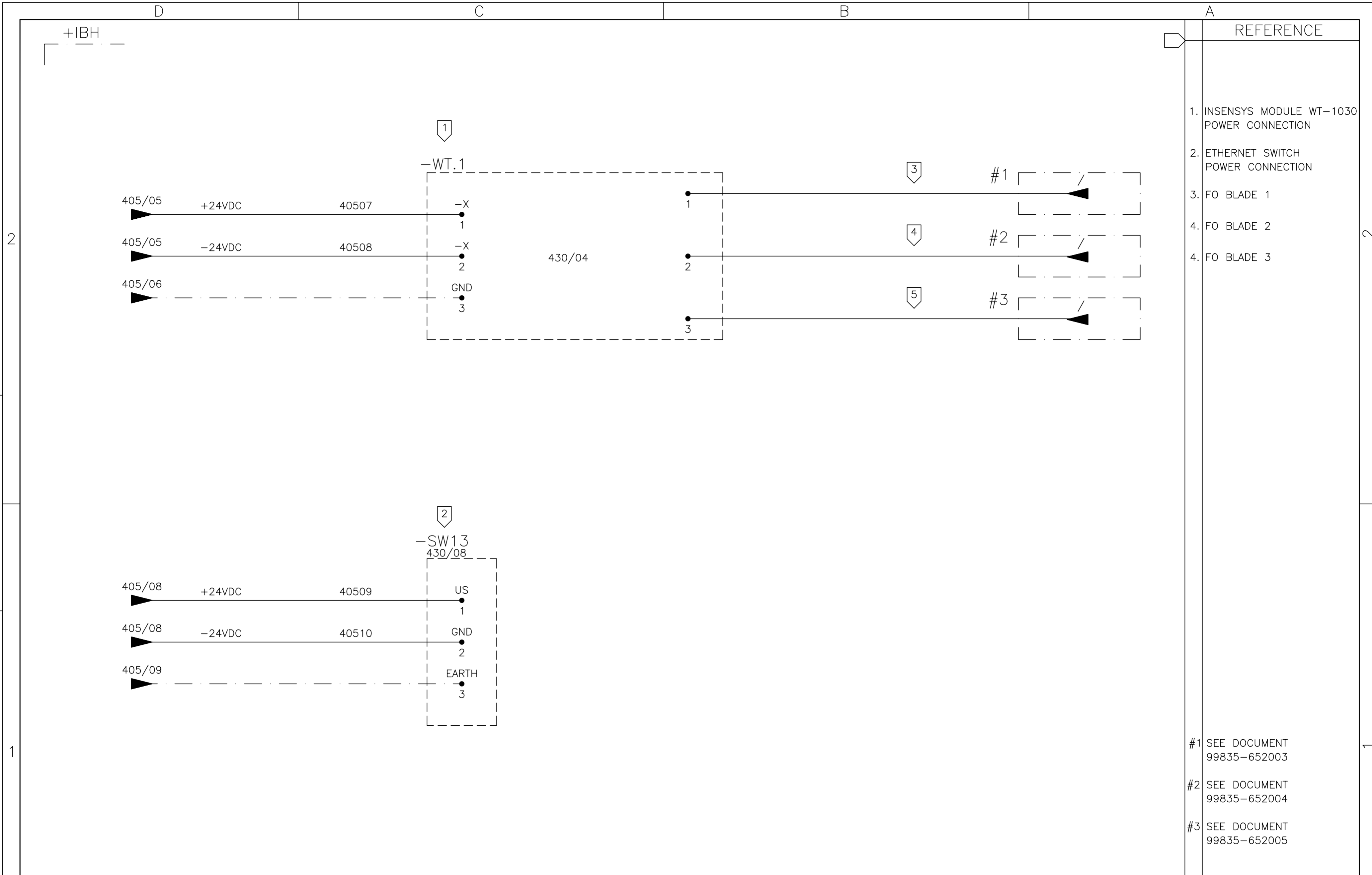
JOB N°: **99835**

TITLE:
INSENSYS, PLC & SWITCH BOX
+IBH
CIRCUIT DIAGRAM

DWG N°:	99835-680050		
GRP N°:	680	DATE:	11/12/2006
DESIGN	GPE	SHEET:	405
APPD	JPI	CONT.:	406

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FORMAT A3 - IMPSA Wind CAD SYSTEM

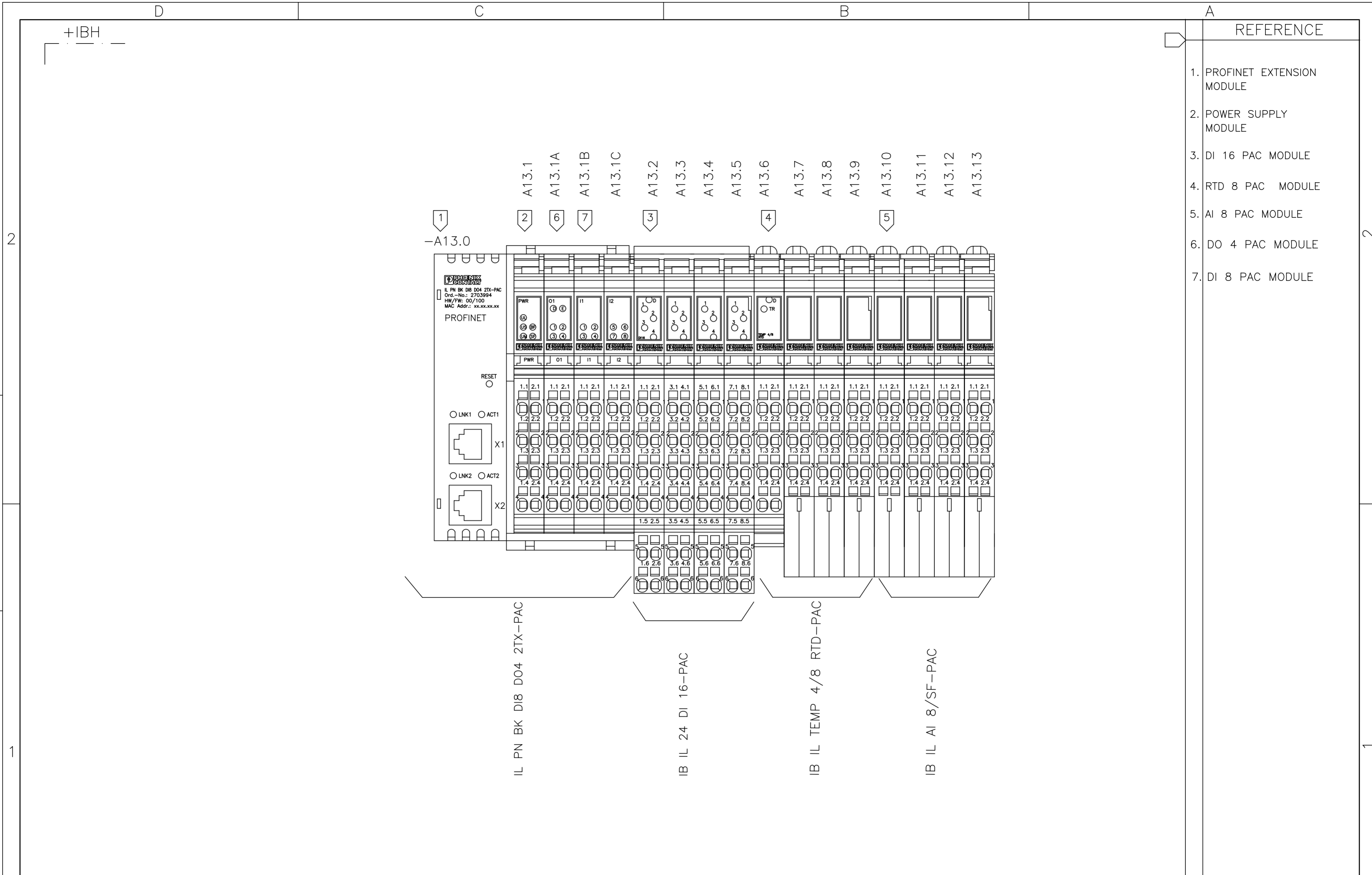


- | REFERENCE | |
|-----------|--|
| 1. | INSENSYS MODULE WT-1030 POWER CONNECTION |
| 2. | ETHERNET SWITCH POWER CONNECTION |
| 3. | FO BLADE 1 |
| 4. | FO BLADE 2 |
| 4. | FO BLADE 3 |
-
- | | |
|----|---------------------------|
| #1 | SEE DOCUMENT 99835-652003 |
| #2 | SEE DOCUMENT 99835-652004 |
| #3 | SEE DOCUMENT 99835-652005 |


01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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													GRP Nº: 680	DATE: 11/12/2006	
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REV.	DENOMINATION	DATA	SIGN.					APPD JPI				CONT.: 410			

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FORMAT A3 - IMPSA Wind CAD SYSTEM

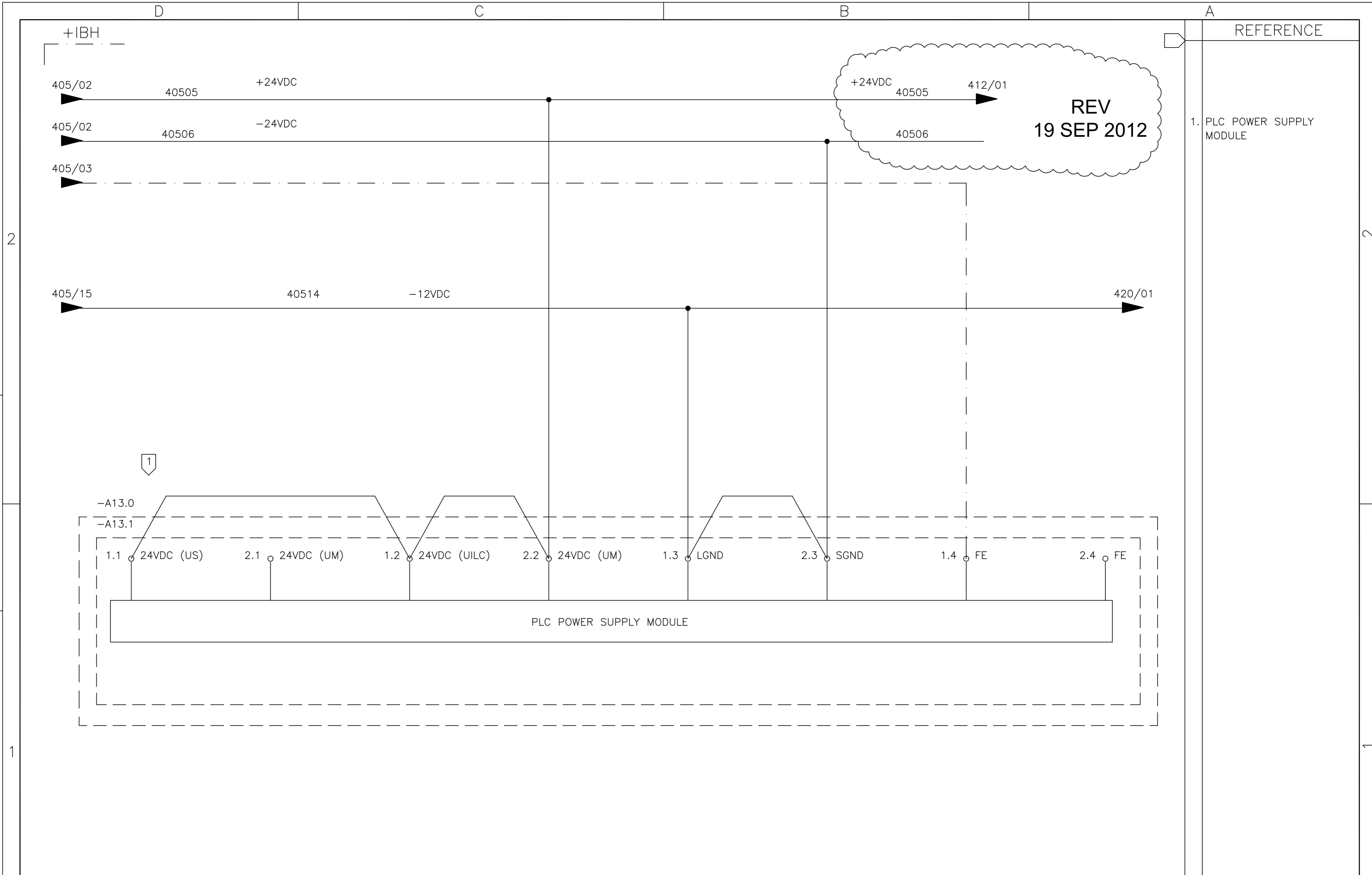


01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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					WIND GENERATOR IWP-70				TITLE: INSENSYS, PLC & SWITCH BOX +IBH CIRCUIT DIAGRAM				DWG N°: 99835-680050	
05	AS BUILT	26/07/10	LGO		JOB N°: 99835								GRP N°: 680	DATE: 11/12/2006
REV.	DENOMINATION	DATA	SIGN.									DESIGN GPE	SHEET: 410	
												APPD JPI	CONT.: 411	

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FORMAT A3 - IMPSA Wind CAD SYSTEM



REFERENCE

- 1. PLC POWER SUPPLY MODULE

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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06	AS BUILT	19/09/2012	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

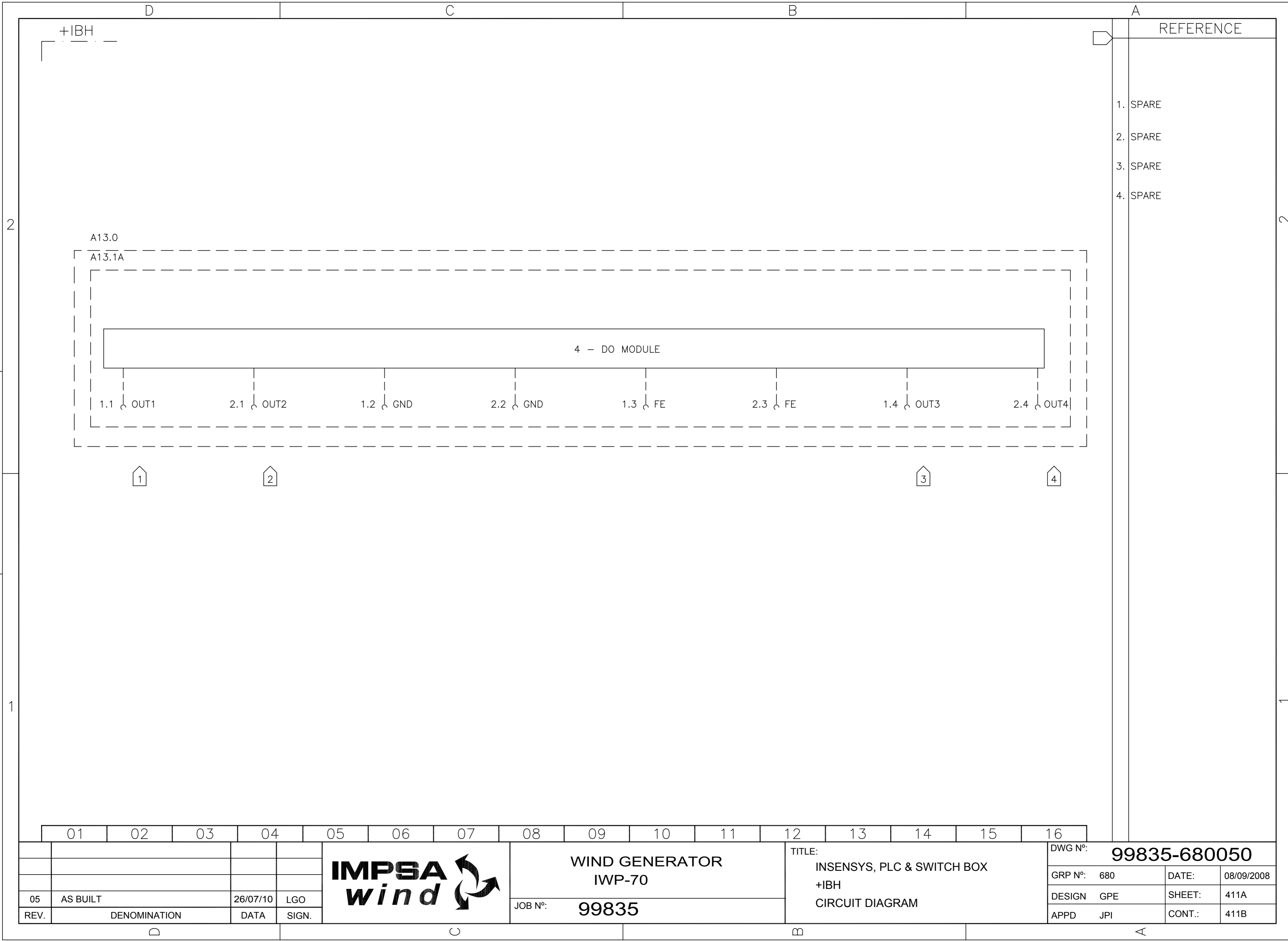
JOB N°: **99835**

TITLE:
INSENSYS, PLC & SWITCH BOX
+IBH
CIRCUIT DIAGRAM

DWG N°: 99835-680050	
GRP N°: 680	DATE: 11/12/2006
DESIGN GPE	SHEET: 411
APPD JPI	CONT.: 411A

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FORMAT A3 - IMPSA Wind CAD SYSTEM



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05	AS BUILT		26/07/10	LGO												
REV.	DENOMINATION		DATA	SIGN.												



WIND GENERATOR
IWP-70

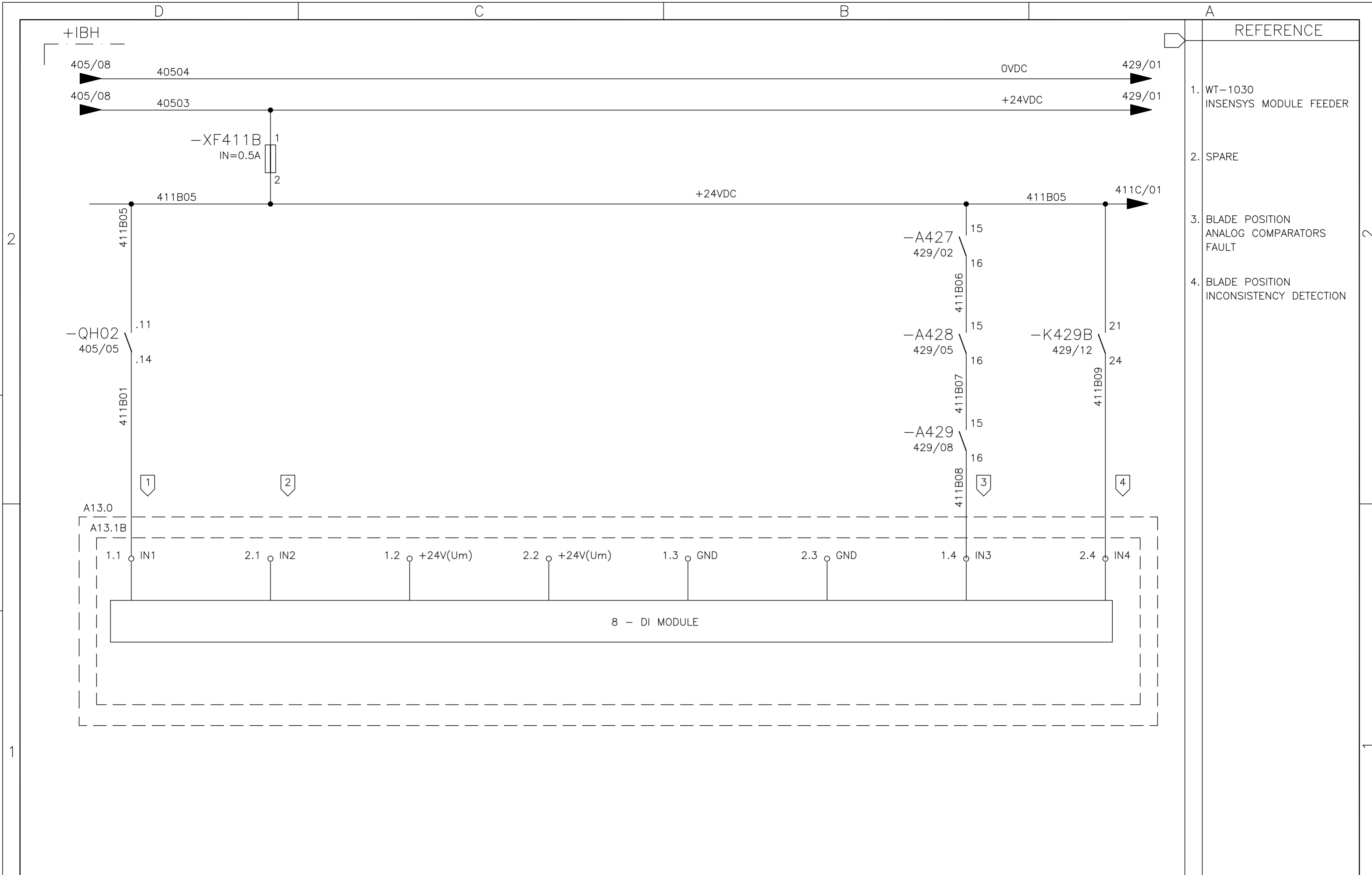
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TITLE:
INSENSYS, PLC & SWITCH BOX
+IBH
CIRCUIT DIAGRAM

DWG N°:	99835-680050		
GRP N°:	680	DATE:	08/09/2008
DESIGN	GPE	SHEET:	411A
APPD	JPI	CONT.:	411B

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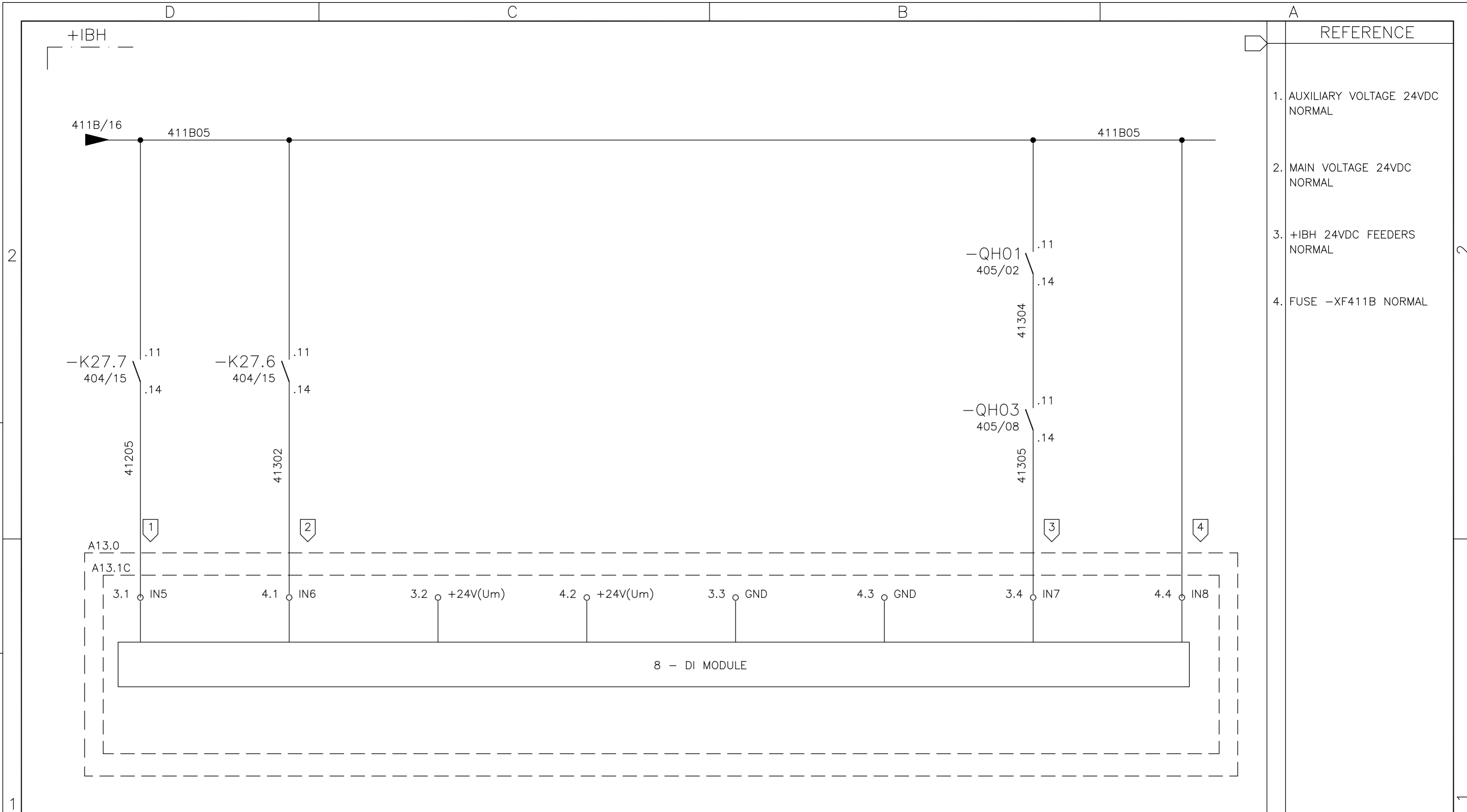
FORMAT A3 - IMPSA Wind CAD SYSTEM



01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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				JOB Nº: 99835		GRP Nº: 680		DATE: 08/09/2008		DESIGN GPE		SHEET: 411B		APPD JPI	
05	AS BUILT	26/07/10	LGO												
REV.	DENOMINATION	DATA	SIGN.												

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FORMAT A3 - IMPSA Wind CAD SYSTEM



REFERENCE	
1.	AUXILIARY VOLTAGE 24VDC NORMAL
2.	MAIN VOLTAGE 24VDC NORMAL
3.	+IBH 24VDC FEEDERS NORMAL
4.	FUSE -XF411B NORMAL

REV
19 SEP 2012

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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06	AS BUILT	19/09/2012	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

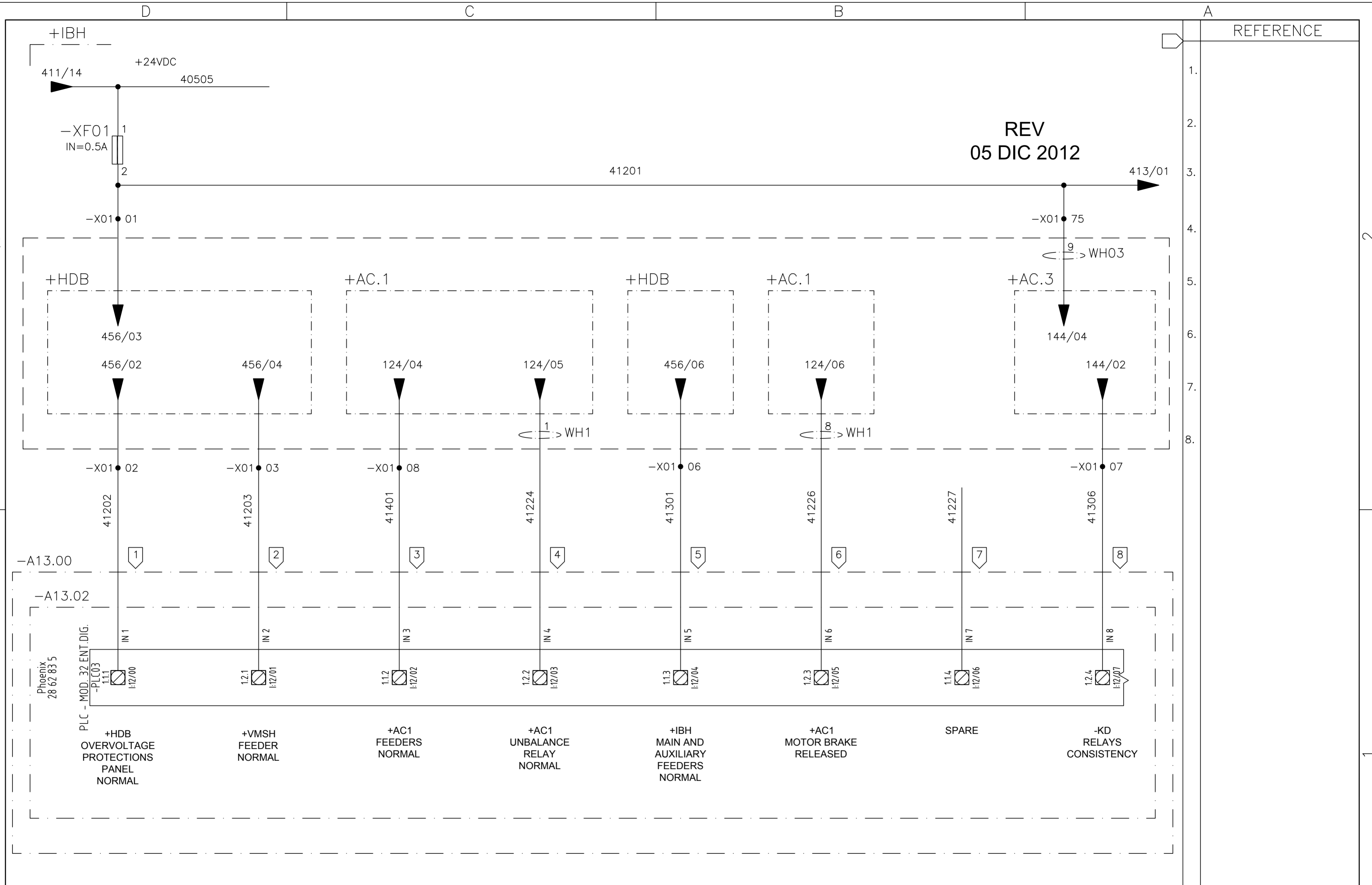
JOB Nº: **99835**

TITLE:
INSENSYS, PLC & SWITCH BOX
+IBH
CIRCUIT DIAGRAM

DWG Nº:	99835-680050		
GRP Nº:	680	DATE:	08/09/2008
DESIGN	GPE	SHEET:	411C
APPD	JPI	CONT.:	412

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FORMAT A3 - IMPSA Wind CAD SYSTEM

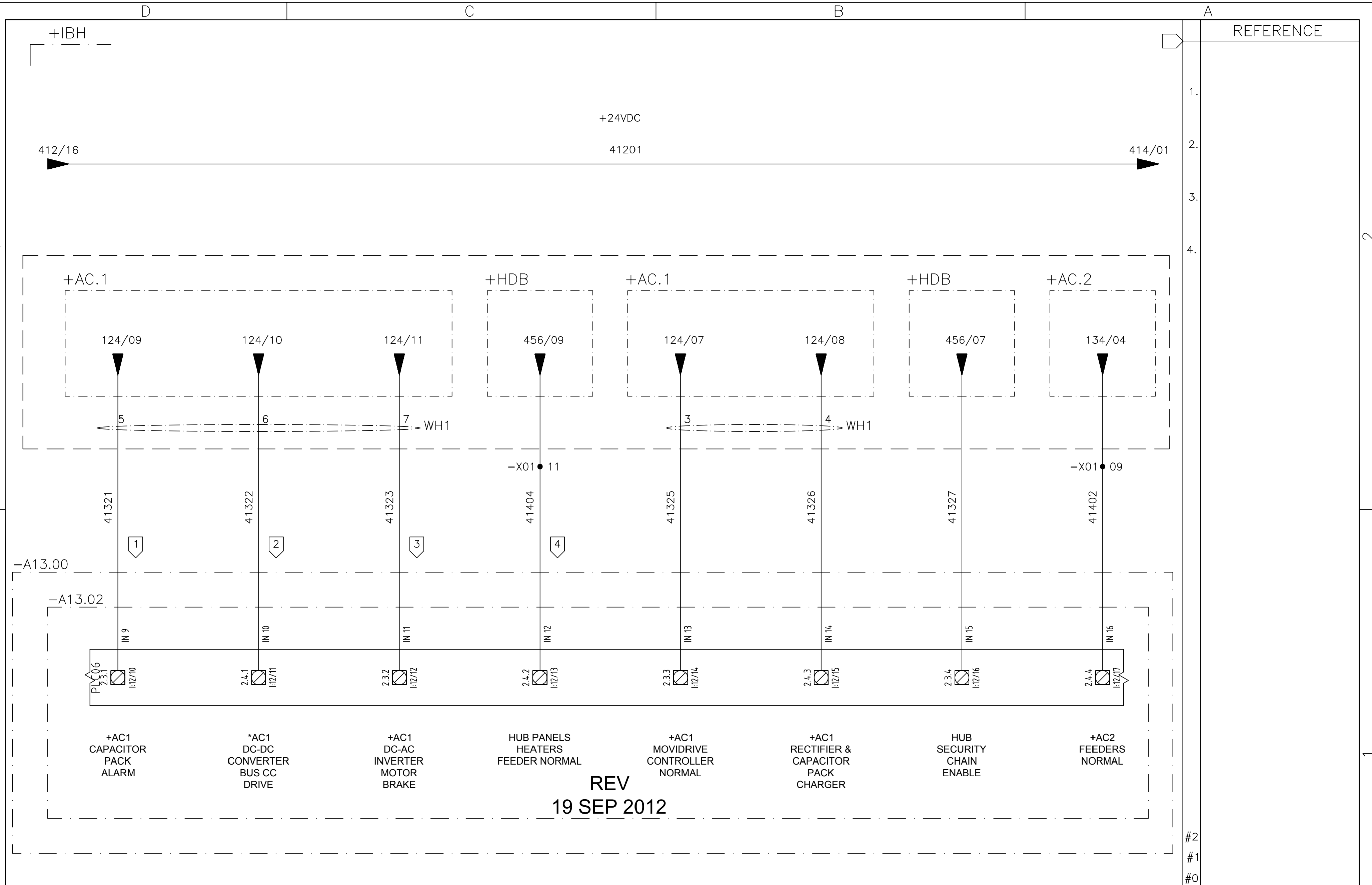


REV
05 DIC 2012

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16				
								WIND GENERATOR IWP-70				TITLE: INSENSYS, PLC & SWITCH BOX +IBH CIRCUIT DIAGRAM				DWG N°: 99835-680050			
																JOB N°: 99835			
06	AS BUILT	19/09/2012	LGO									DESIGN GPE SHEET: 412							
REV.	DENOMINATION	DATA	SIGN.									APPD JPI CONT.: 413							

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FORMAT A3 - IMPSA Wind CAD SYSTEM



01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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06	AS BUILT	19/09/2012	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

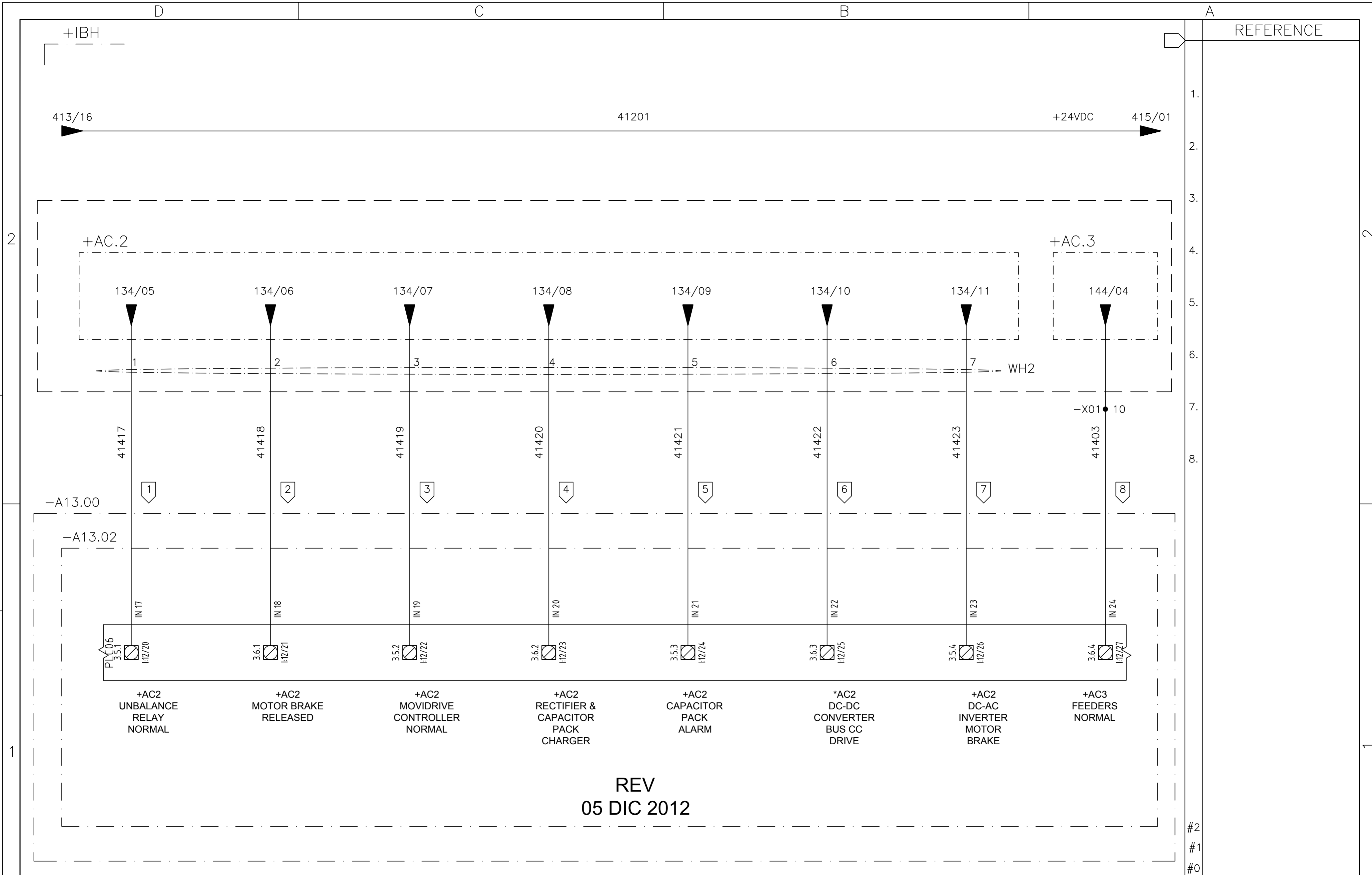
JOB N°: **99835**

TITLE:
INSENSYS, PLC & SWITCH BOX
+IBH
CIRCUIT DIAGRAM

DWG N°: 99835-680050	
GRP N°: 680	DATE: 11/12/2006
DESIGN GPE	SHEET: 413
APPD JPI	CONT.: 414

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FORMAT A3 - IMPSA Wind CAD SYSTEM



REV
05 DIC 2012

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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06	AS BUILT	19/09/2012	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

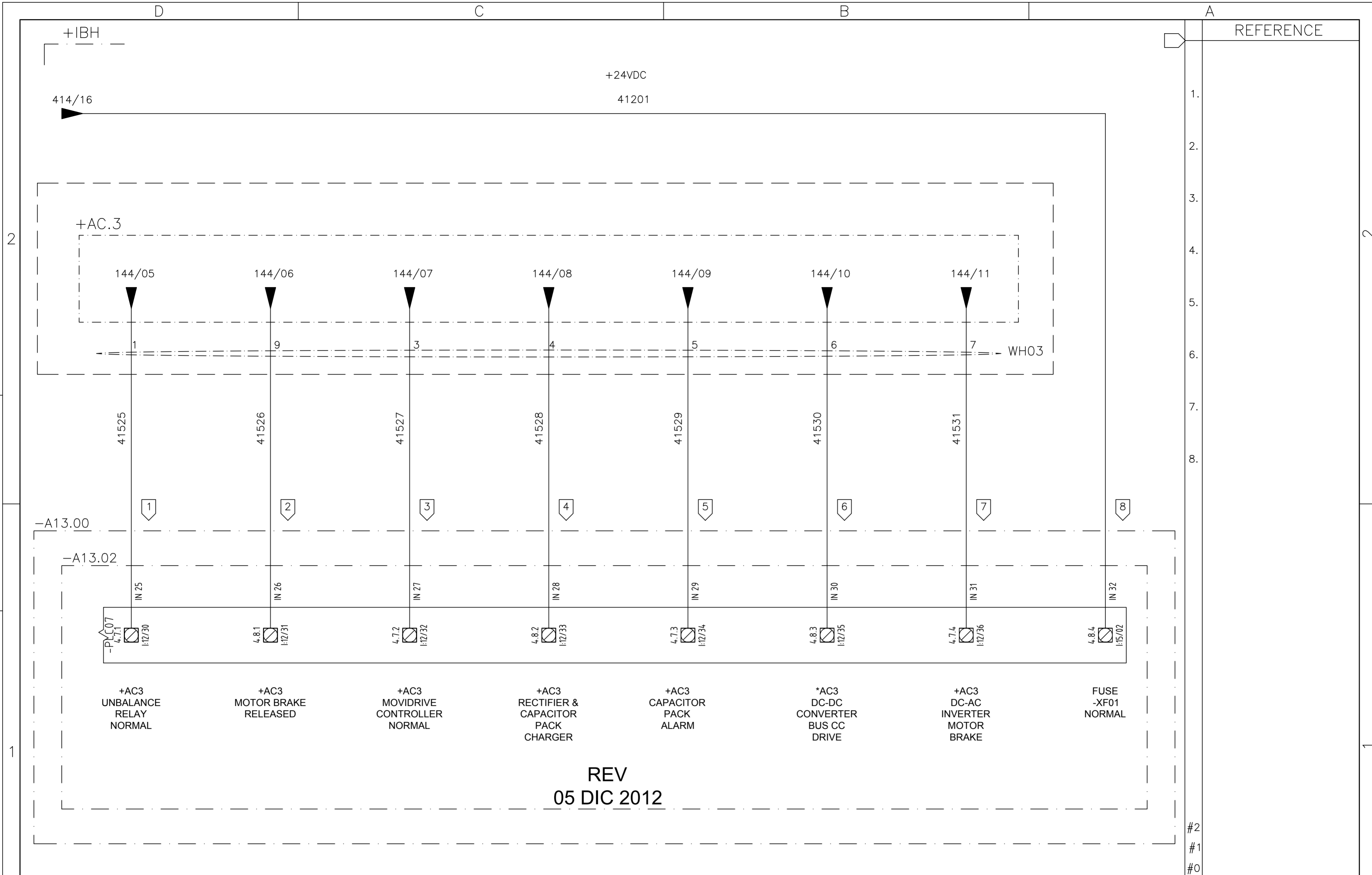
JOB N°: 99835

TITLE:
INSENSYS, PLC & SWITCH BOX
+IBH
CIRCUIT DIAGRAM

DWG N°:	99835-680050		
GRP N°:	680	DATE:	11/12/2006
DESIGN	GPE	SHEET:	414
APPD	JPI	CONT.:	415

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FORMAT A3 - IMPSA Wind CAD SYSTEM



REV
05 DIC 2012

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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06	AS BUILT	19/09/2012	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

JOB N°: 99835

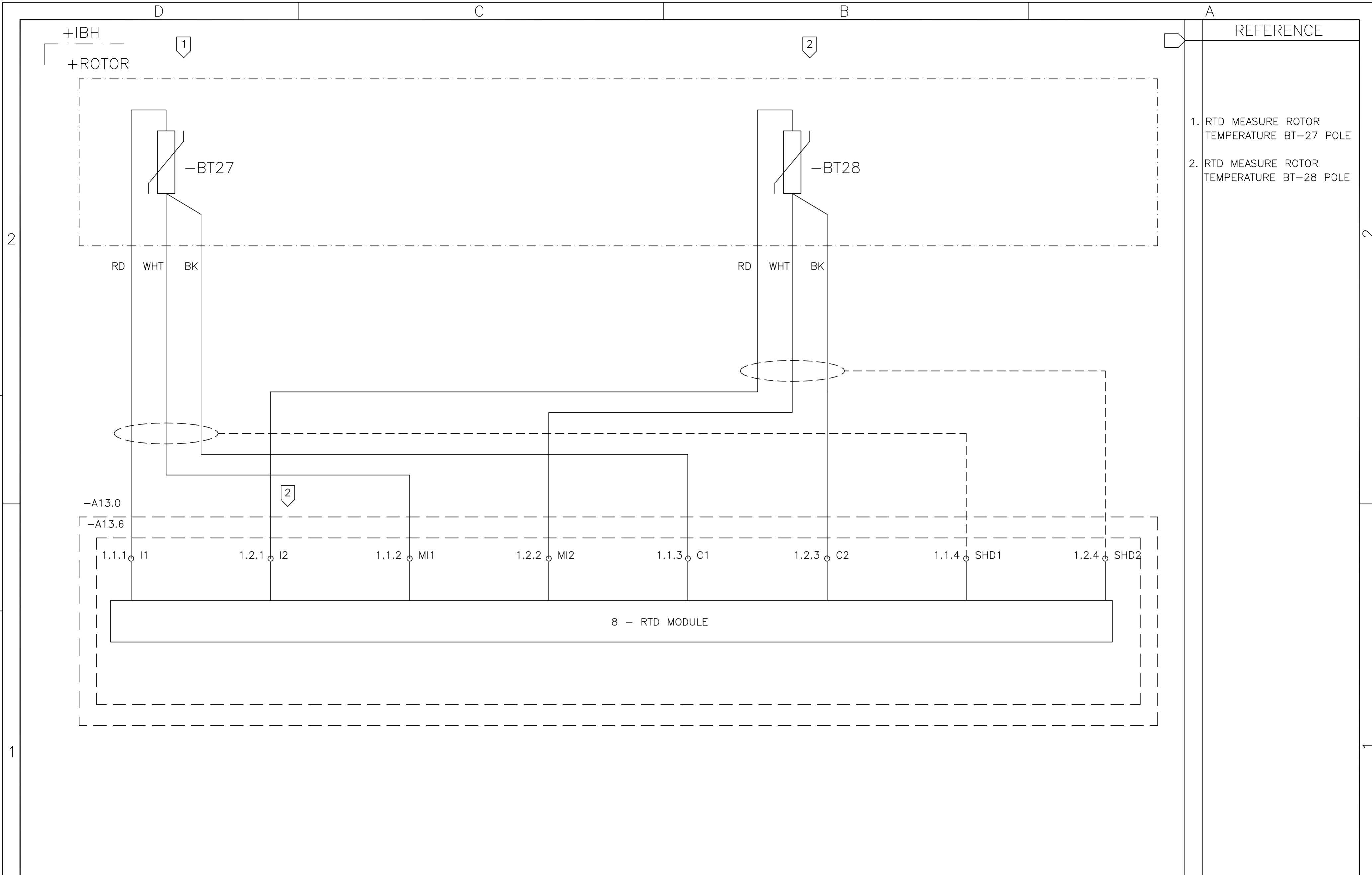
TITLE:
INSENSYS, PLC & SWITCH BOX
+IBH
CIRCUIT DIAGRAM

DWG N°:	99835-680050		
GRP N°:	680	DATE:	11/12/2006
DESIGN	GPE	SHEET:	415
APPD	JPI	CONT.:	416

1.	REFERENCE
2.	
3.	
4.	
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6.	
7.	
8.	
#2	
#1	
#0	

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FORMAT A3 - IMPSA Wind CAD SYSTEM



- REFERENCE
1. RTD MEASURE ROTOR TEMPERATURE BT-27 POLE
 2. RTD MEASURE ROTOR TEMPERATURE BT-28 POLE

01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16

05	A BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

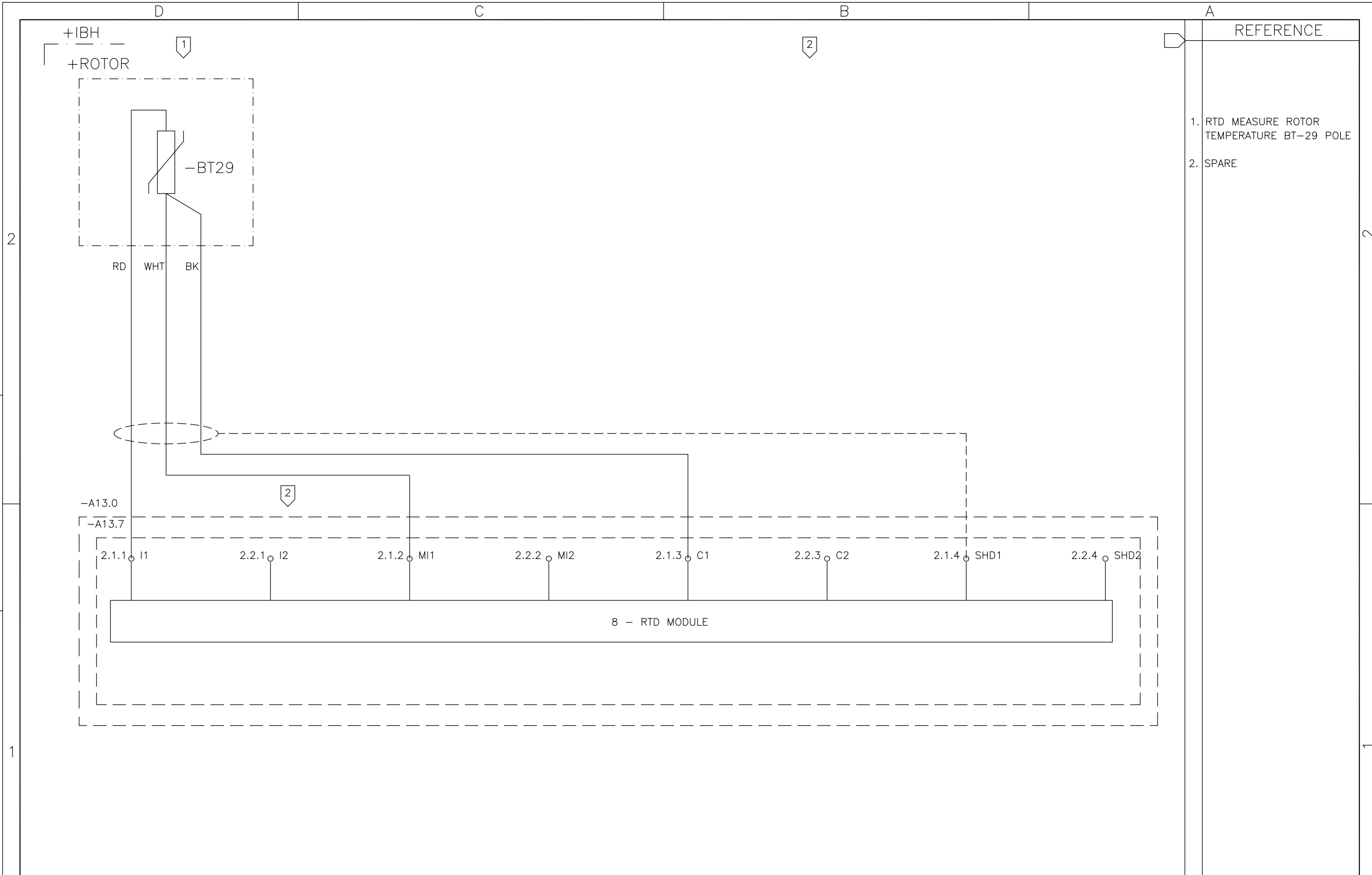
JOB N°: **99835**

TITLE:
INSENSYS, PLC & SWITCH BOX
+IBH
CIRCUIT DIAGRAM

DWG N°:	99835-680050		
GRP N°:	680	DATE:	11/12/2006
DESIGN	GPE	SHEET:	416
APPD	JPI	CONT.:	417

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FORMAT A3 - IMPSA Wind CAD SYSTEM



- REFERENCE
1. RTD MEASURE ROTOR TEMPERATURE BT-29 POLE
 2. SPARE

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

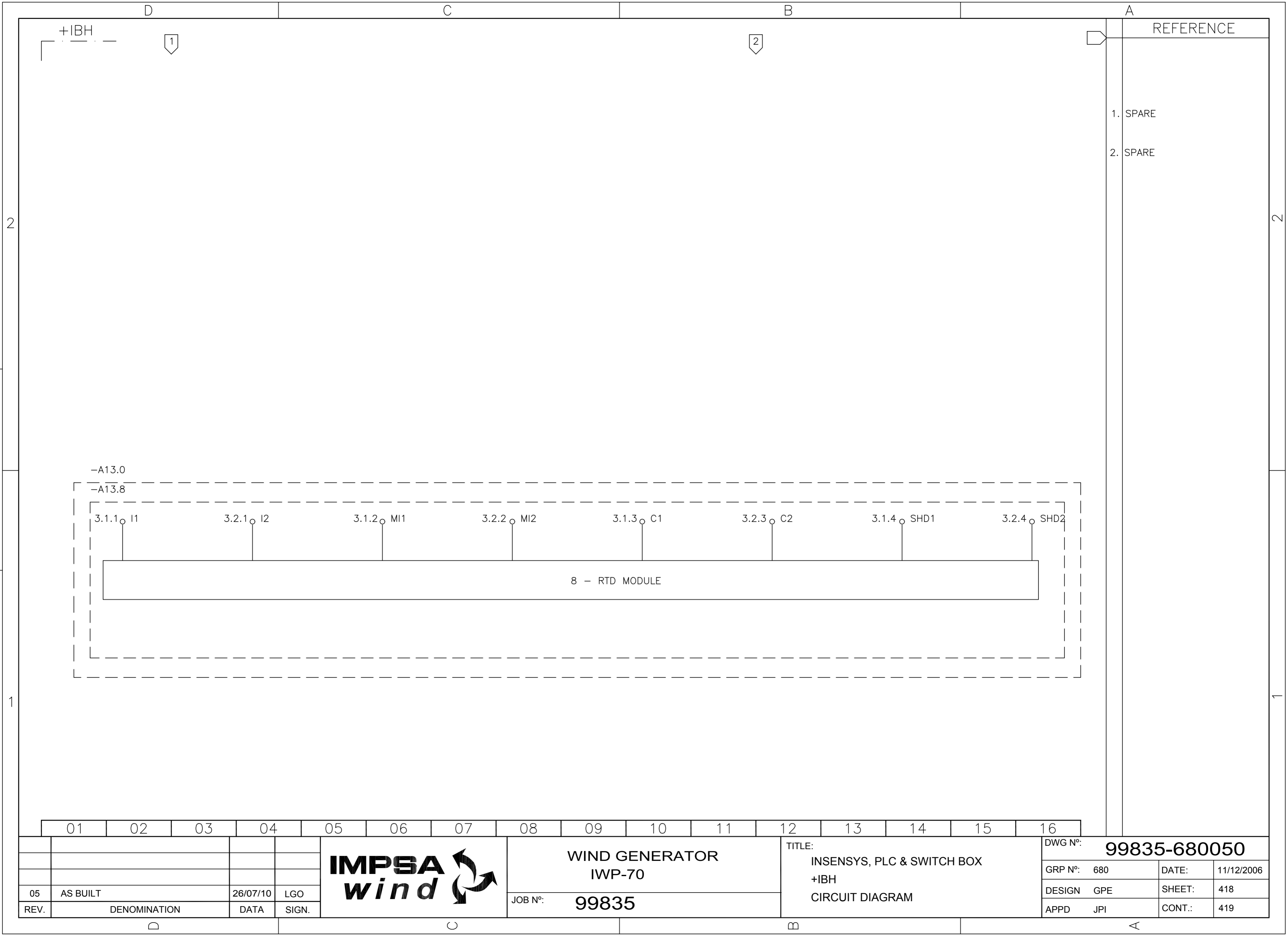
JOB N°: **99835**

TITLE:
INSENSYS, PLC & SWITCH BOX
+IBH
CIRCUIT DIAGRAM

DWG N°:	99835-680050		
GRP N°:	680	DATE:	11/12/2006
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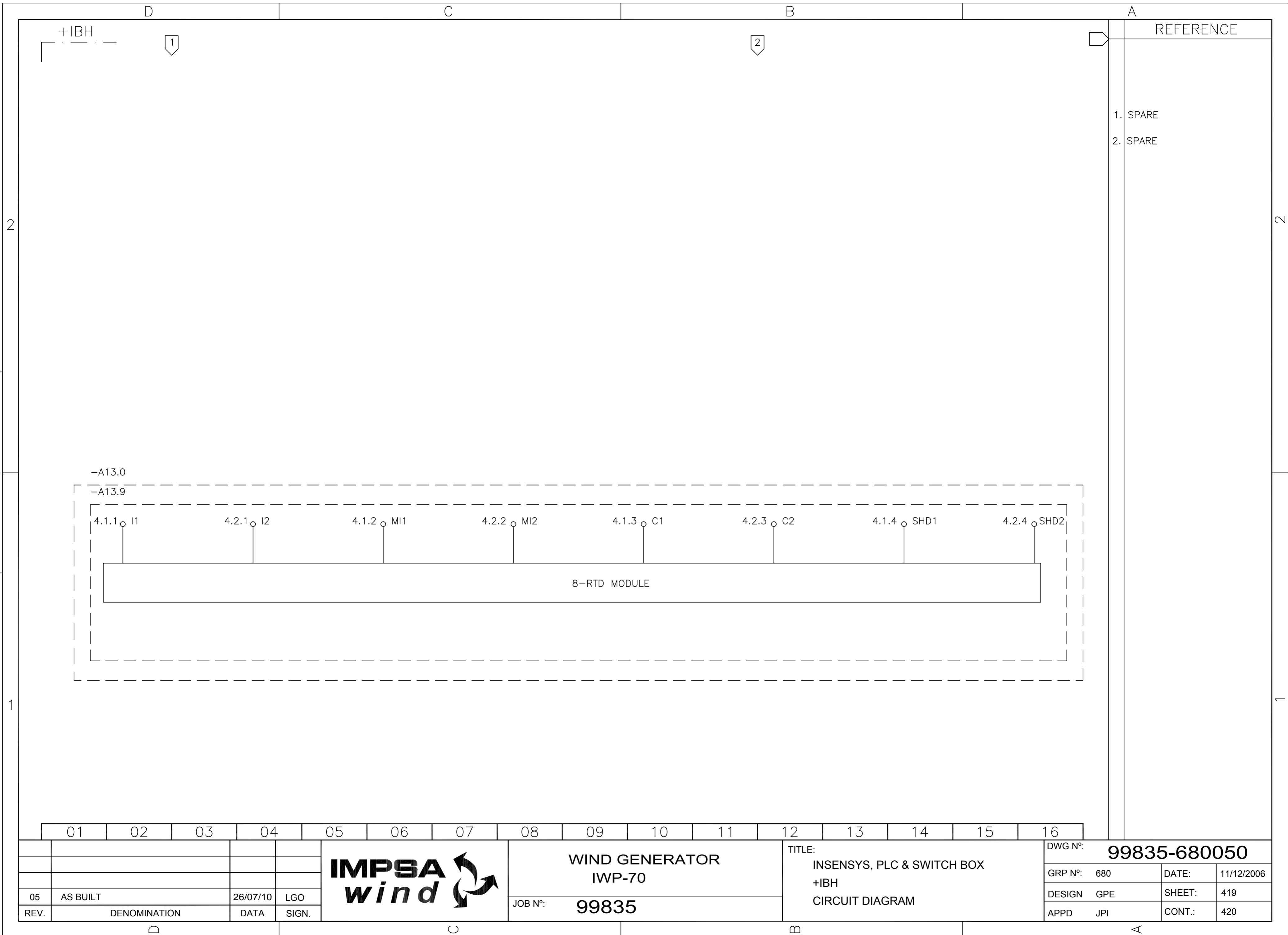
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FORMAT A3 - IMPSA Wind CAD SYSTEM



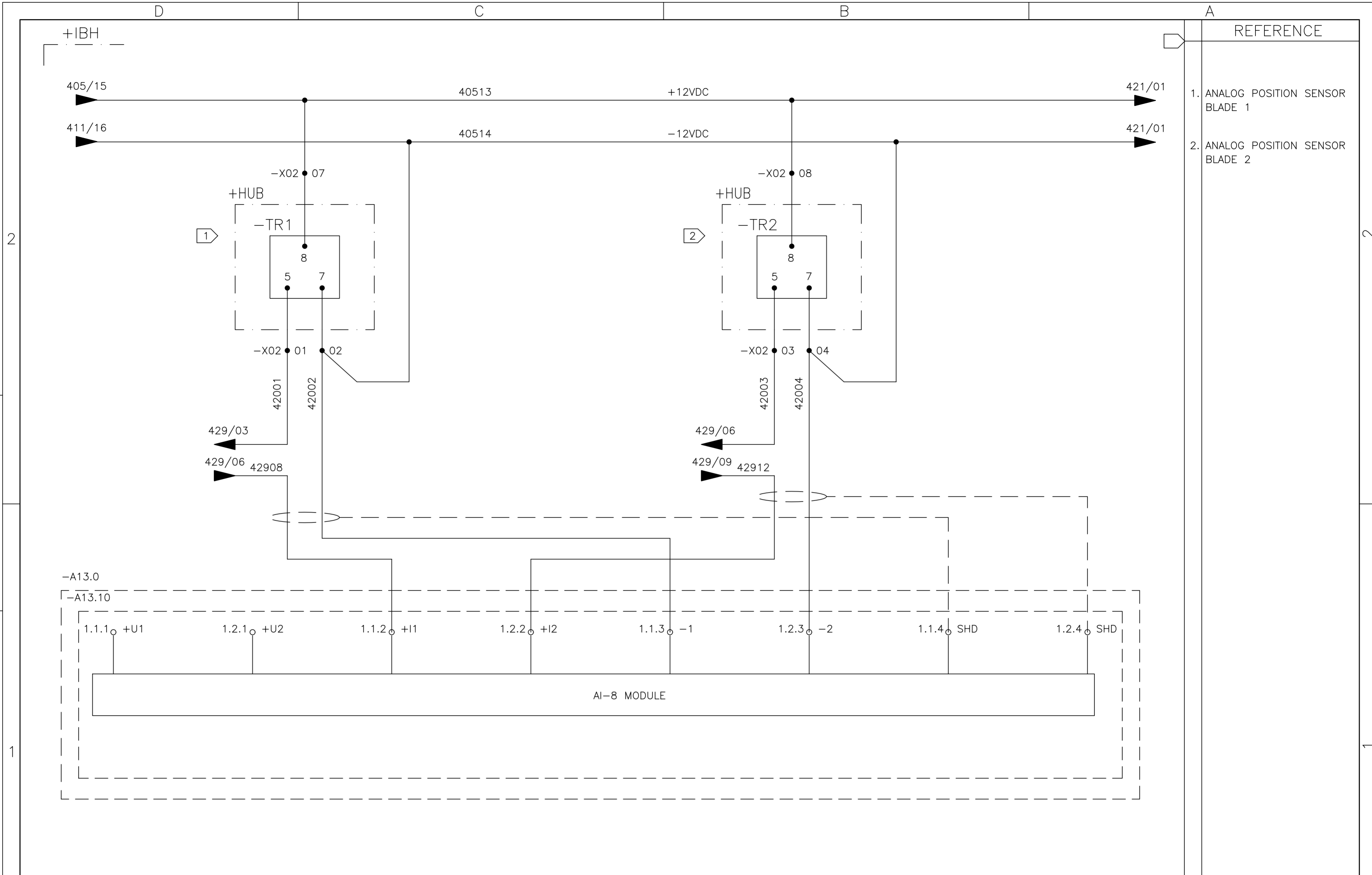
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FORMAT A3 - IMPSA Wind CAD SYSTEM



01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

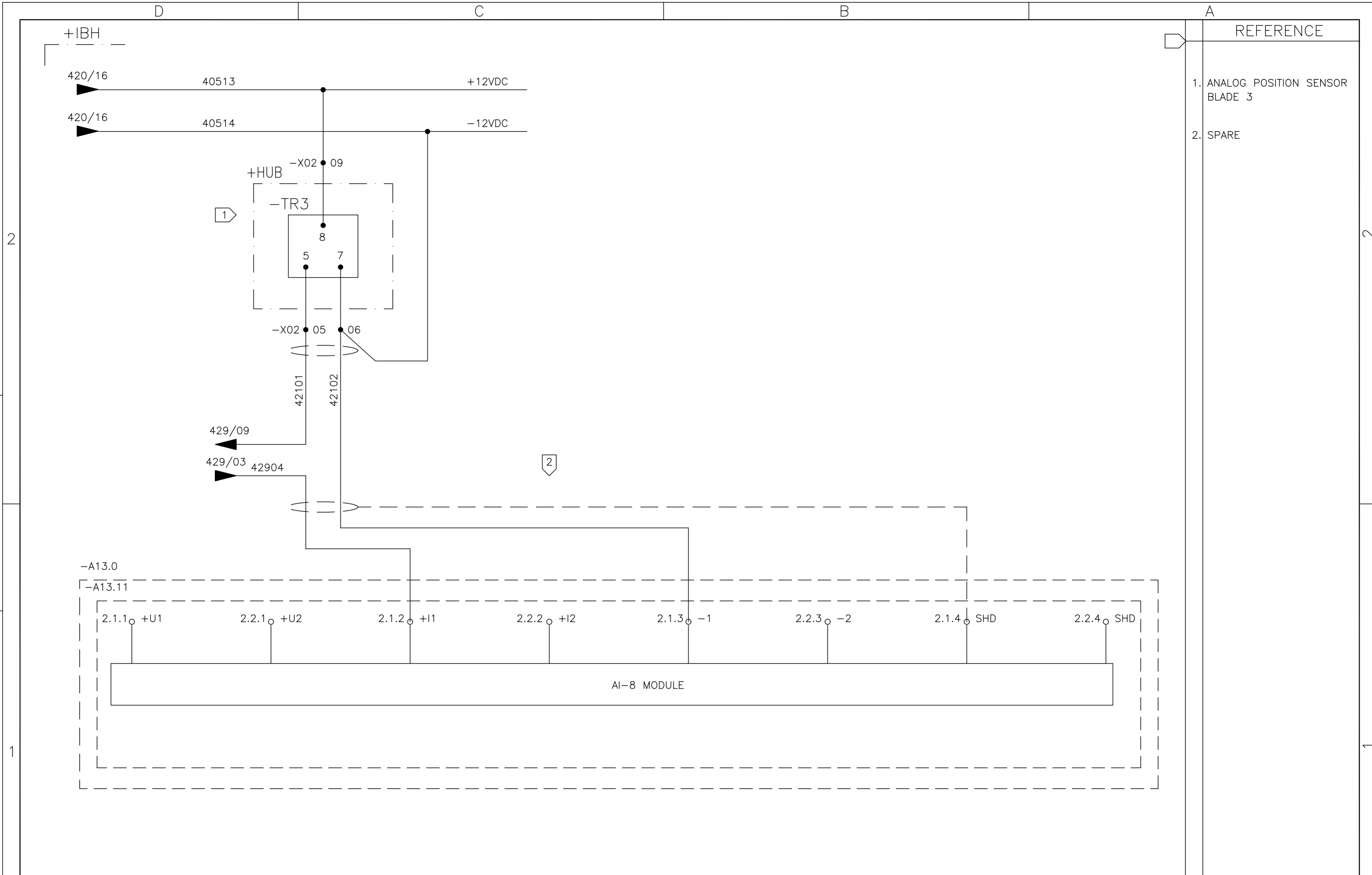
JOB N°: **99835**

TITLE:
INSENSYS, PLC & SWITCH BOX
+IBH
CIRCUIT DIAGRAM

DWG N°:	99835-680050		
GRP N°:	680	DATE:	11/12/2006
DESIGN	GPE	SHEET:	420
APPD	JPI	CONT.:	421

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FORMAT A3 - IMPSA Wind CAD SYSTEM



01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16

05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

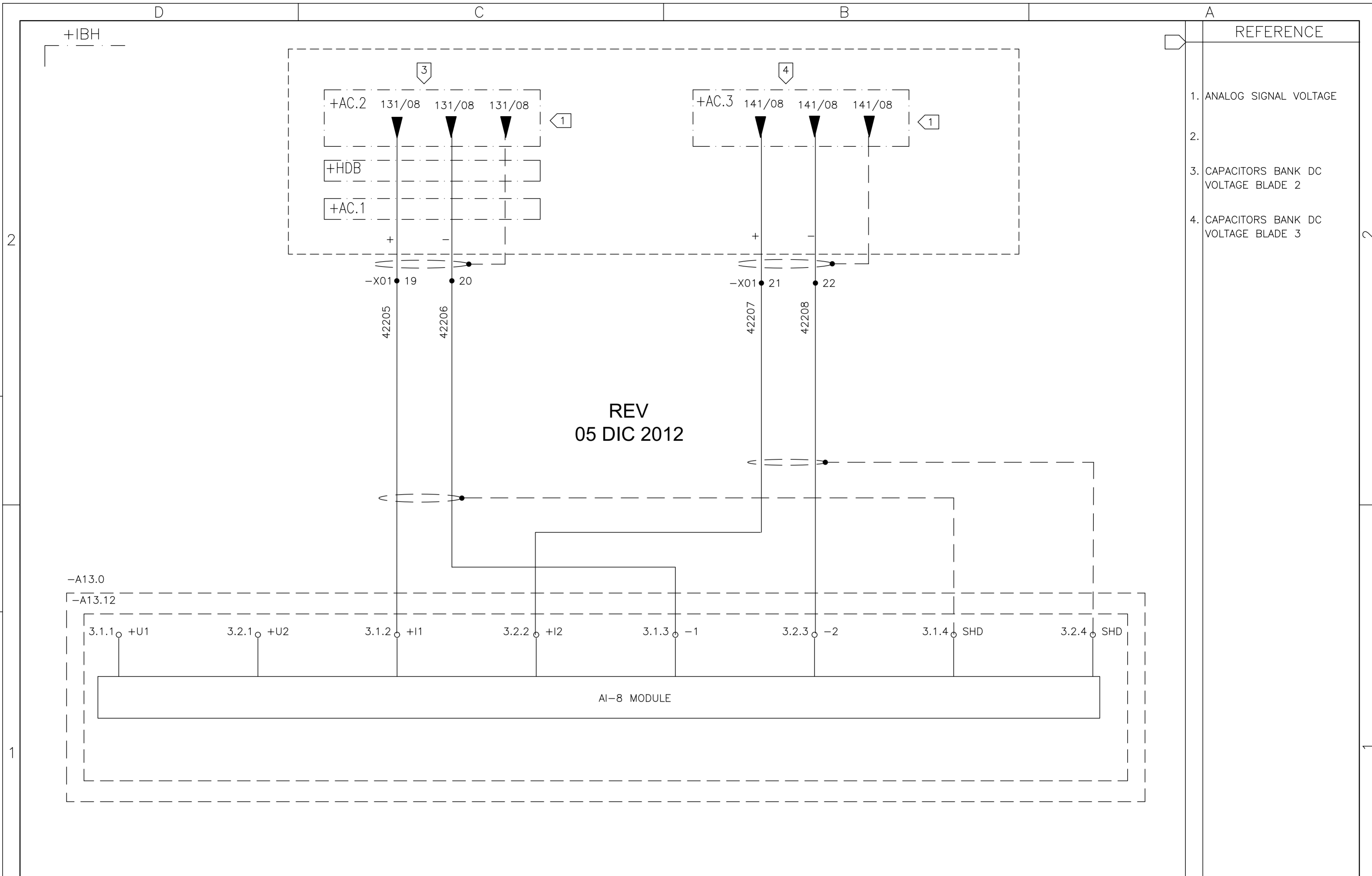
JOB N°: **99835**

TITLE:
INSENSYS, PLC & SWITCH BOX
+IBH
CIRCUIT DIAGRAM

DWG N°: 99835-680050	
GRP N°: 680	DATE: 11/12/2006
DESIGN GPE	SHEET: 421
APPD JPI	CONT.: 422

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FORMAT A3 - IMPSA Wind CAD SYSTEM



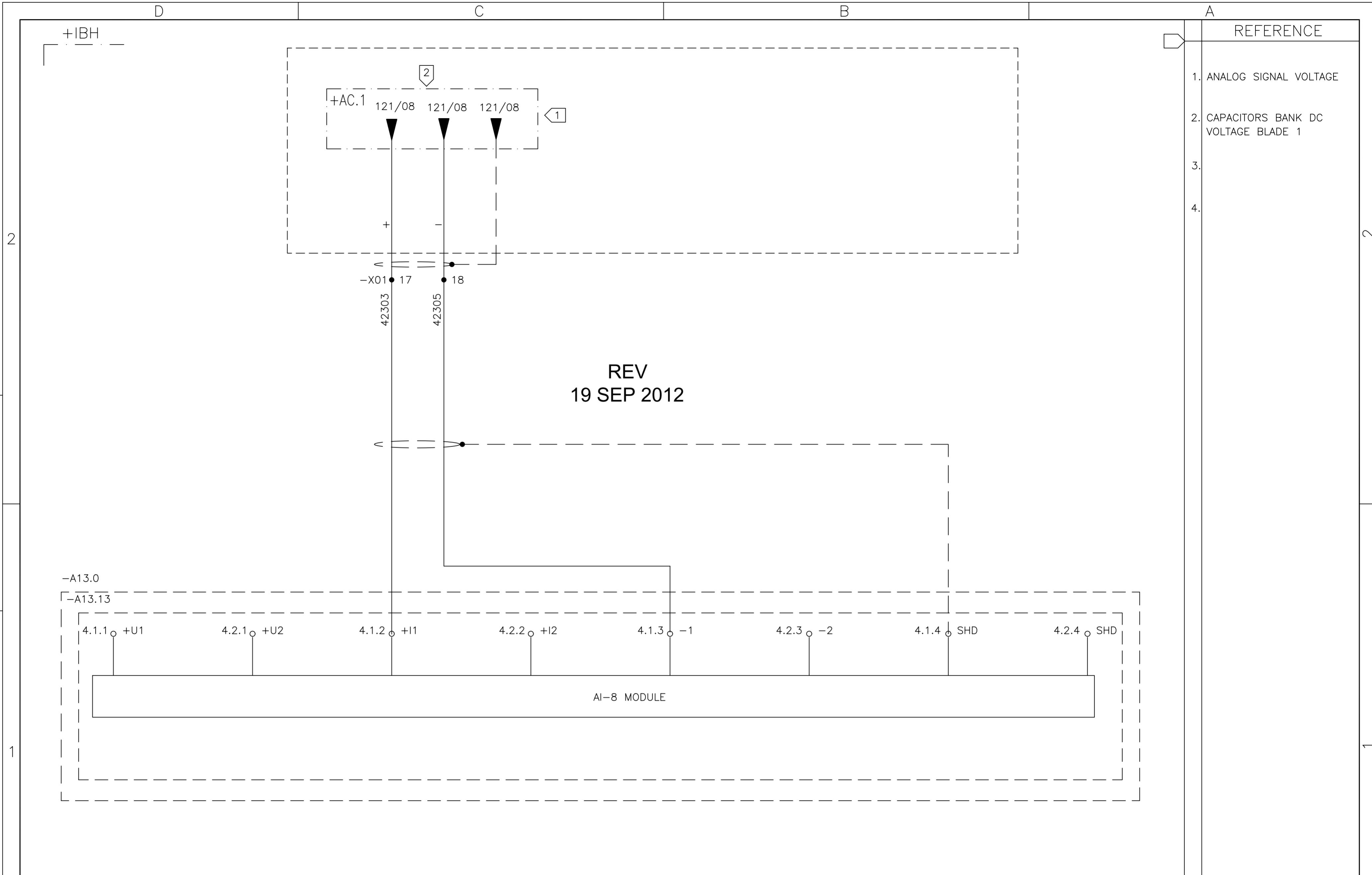
- REFERENCE
1. ANALOG SIGNAL VOLTAGE
 - 2.
 3. CAPACITORS BANK DC VOLTAGE BLADE 2
 4. CAPACITORS BANK DC VOLTAGE BLADE 3

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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	IMPSA <i>wind</i>	WIND GENERATOR IWP-70	TITLE: INSENSYS, PLC & SWITCH BOX +IBH CIRCUIT DIAGRAM	DWG N°: 99835-680050
06	AS BUILT	19/09/2012	LGO	GRP N°: 680
REV.	DENOMINATION	DATA	SIGN.	DATE: 11/12/2006
				SHEET: 422
				APPD JPI
				CONT.: 423

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FORMAT A3 - IMPSA Wind CAD SYSTEM



REV
19 SEP 2012

REFERENCE	
1.	ANALOG SIGNAL VOLTAGE
2.	CAPACITORS BANK DC VOLTAGE BLADE 1
3.	
4.	

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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					WIND GENERATOR IWP-70		TITLE: INSENSYS, PLC & SWITCH BOX +IBH CIRCUIT DIAGRAM			DWG N°: 99835-680050	
06	AS BUILT	19/09/2012	LGO		JOB N°: 99835					GRP N°: 680	DATE: 11/12/2006
REV.	DENOMINATION	DATA	SIGN.						DESIGN GPE	SHEET: 423	
									APPD JPI	CONT.: 430	

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FORMAT A3 - IMPSA Wind CAD SYSTEM

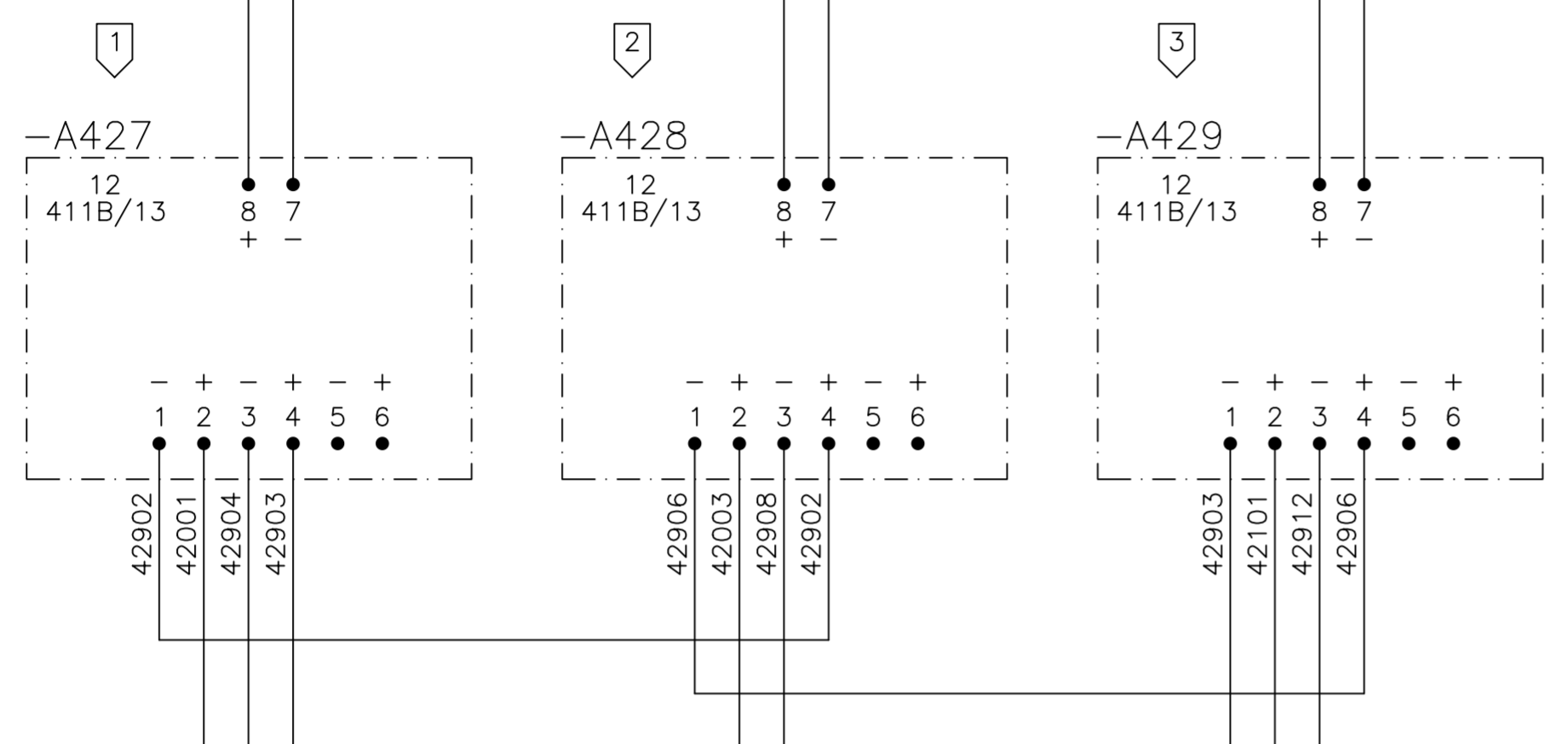
+IBH

411B/16 40503
411B/16 40504

+24VDC
0VDC

REFERENCE

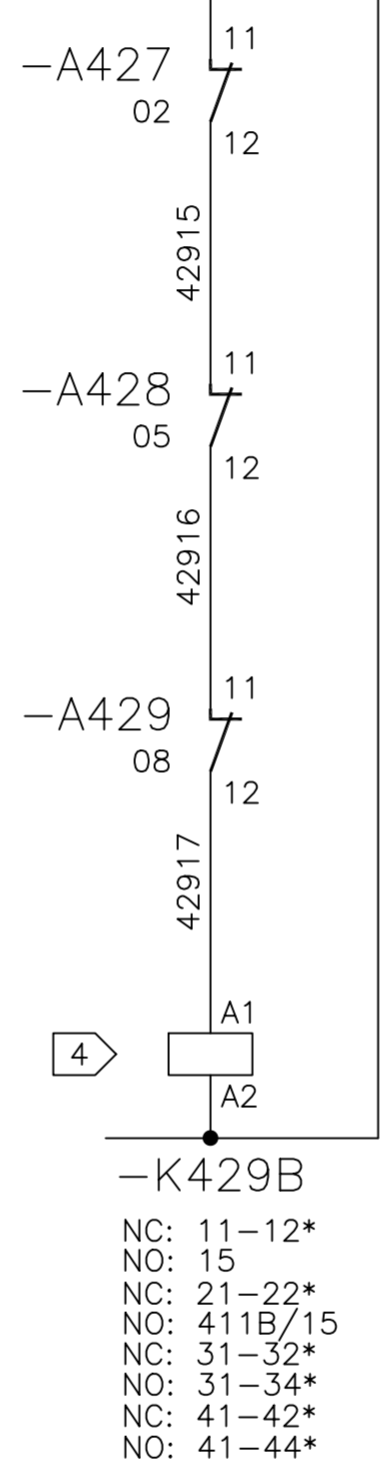
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2. BLADE # 2 POSITION ANALOG COMPARATOR
3. BLADE # 3 POSITION ANALOG COMPARATOR
4. INCONSISTENCY DETECTION



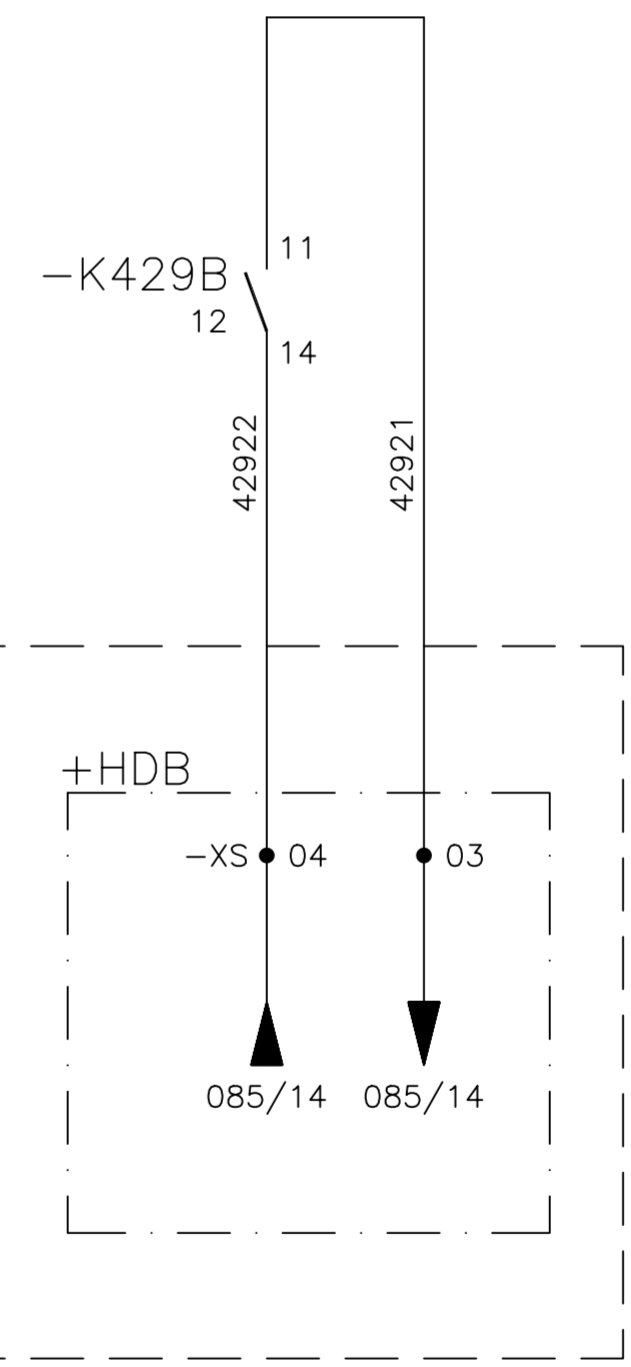
420/03
421/03

420/10
420/03

421/03
420/10

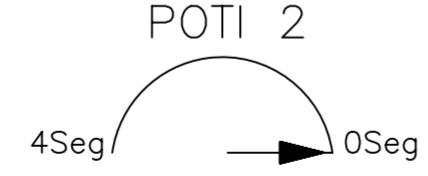
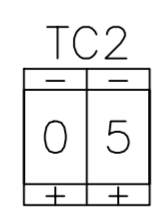
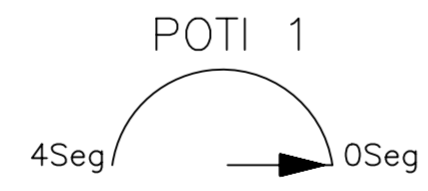
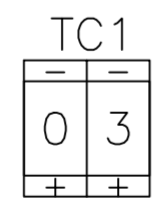
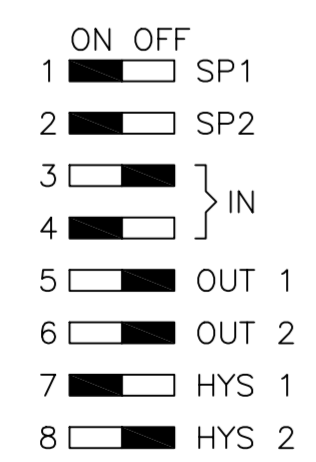


4
A1
A2
-K429B
NC: 11-12*
NO: 15
NC: 21-22*
NO: 411B/15
NC: 31-32*
NO: 31-34*
NC: 41-42*
NO: 41-44*



+HDB
-XS 04 03
085/14 085/14

DIP SWITCH SETTINGS



01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16

05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



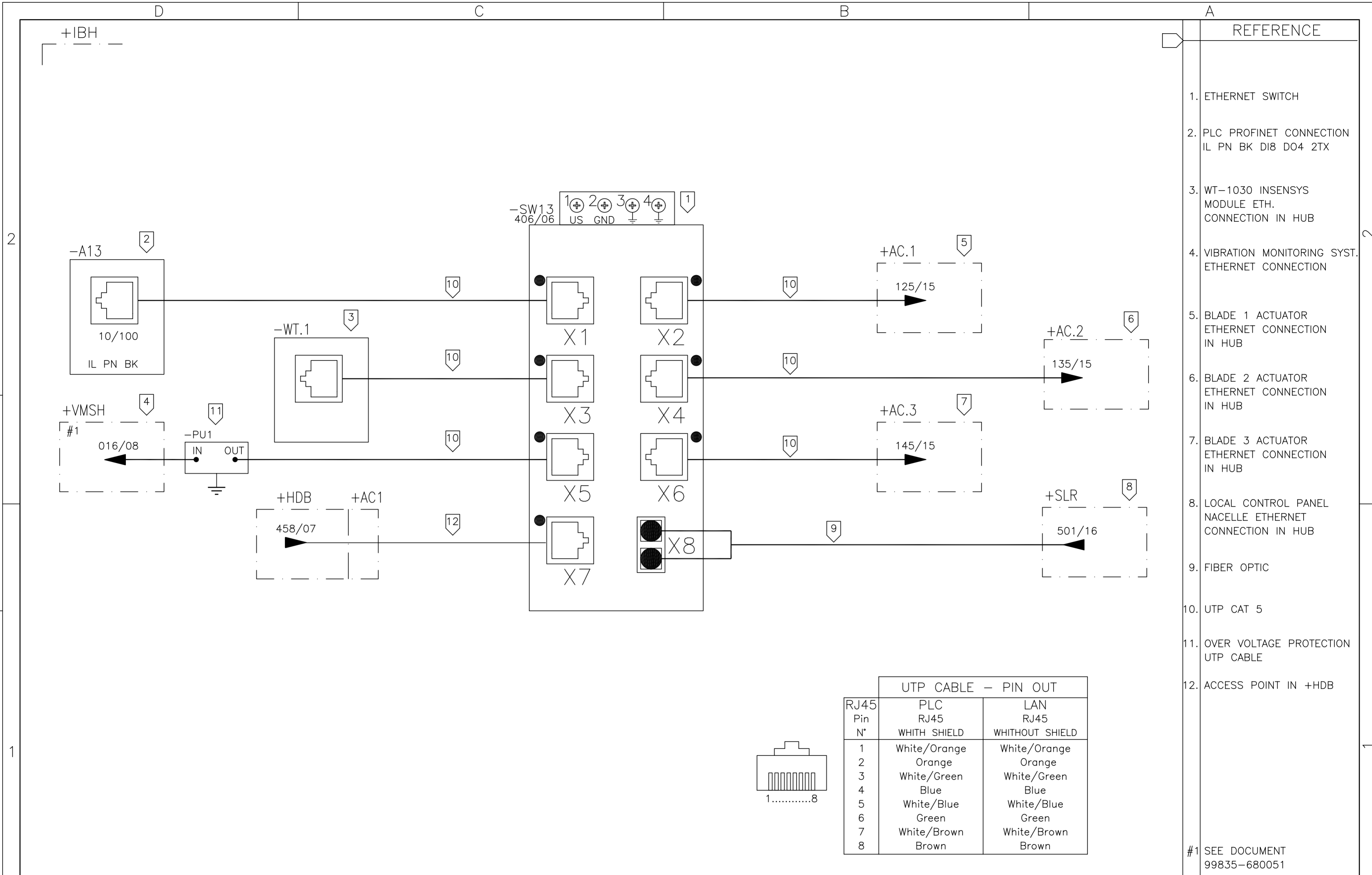
WIND GENERATOR
IWP-70
JOB N°: 99835

TITLE:
INSENSYS, PLC & SWITCH BOX
+IBH
CIRCUIT DIAGRAM

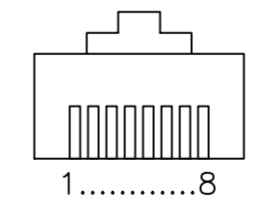
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GRP N°: 680	DATE:	11/12/2006
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APPD JPI	CONT.:	430

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FORMAT A3 - IMPSA Wind CAD SYSTEM



- REFERENCE
1. ETHERNET SWITCH
 2. PLC PROFINET CONNECTION
IL PN BK DI8 DO4 2TX
 3. WT-1030 INSENSYS
MODULE ETH.
CONNECTION IN HUB
 4. VIBRATION MONITORING SYST.
ETHERNET CONNECTION
 5. BLADE 1 ACTUATOR
ETHERNET CONNECTION
IN HUB
 6. BLADE 2 ACTUATOR
ETHERNET CONNECTION
IN HUB
 7. BLADE 3 ACTUATOR
ETHERNET CONNECTION
IN HUB
 8. LOCAL CONTROL PANEL
NACELLE ETHERNET
CONNECTION IN HUB
 9. FIBER OPTIC
 10. UTP CAT 5
 11. OVER VOLTAGE PROTECTION
UTP CABLE
 12. ACCESS POINT IN +HDB
- #1 SEE DOCUMENT
99835-680051

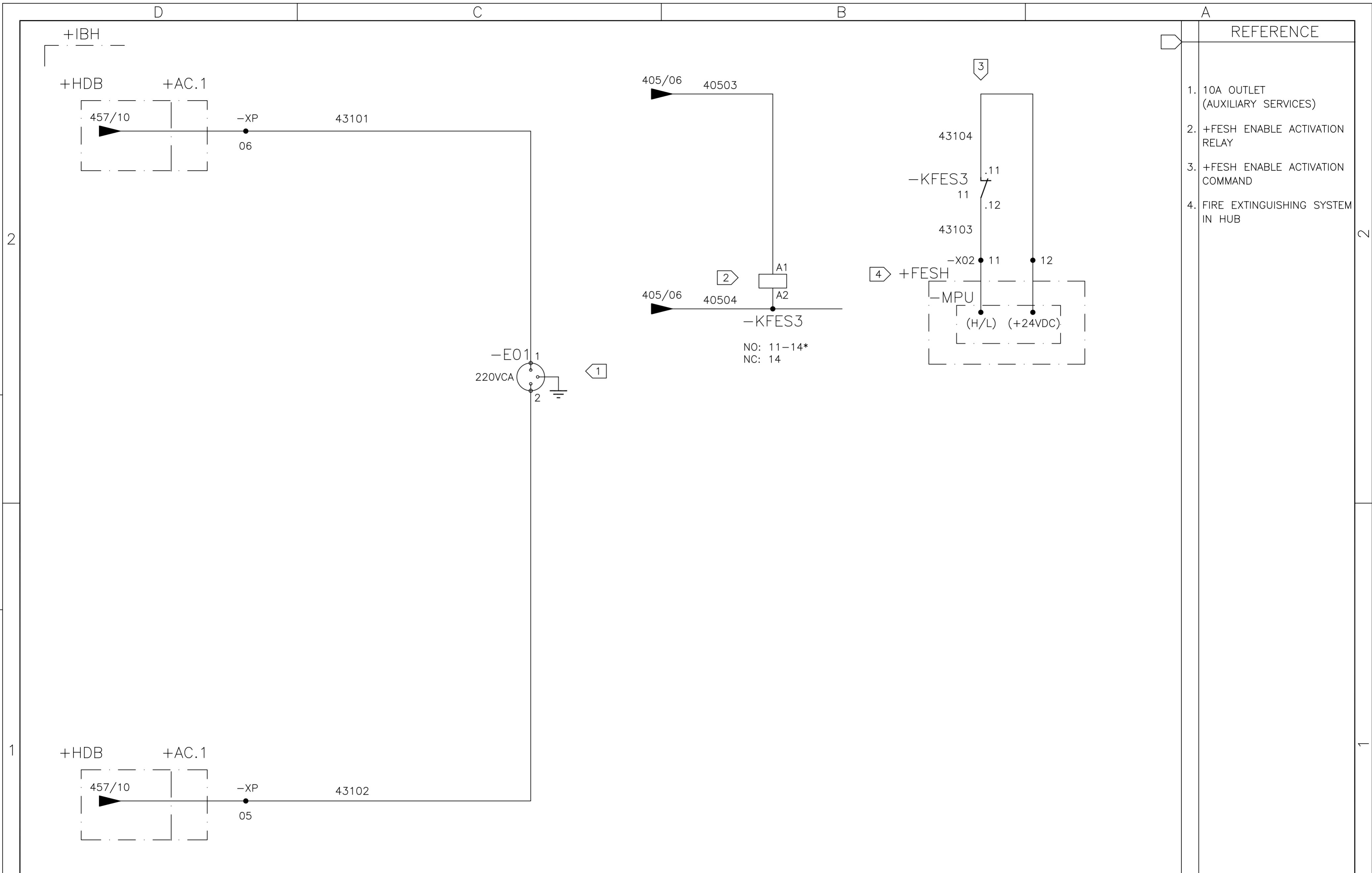


UTP CABLE - PIN OUT		
RJ45 Pin N°	PLC RJ45 WITH SHIELD	LAN RJ45 WITHOUT SHIELD
1	White/Orange	White/Orange
2	Orange	Orange
3	White/Green	White/Green
4	Blue	Blue
5	White/Blue	White/Blue
6	Green	Green
7	White/Brown	White/Brown
8	Brown	Brown

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
IMPSA wind				WIND GENERATOR IWP-70				TITLE: INSENSYS, PLC & SWITCH BOX +IBH CIRCUIT DIAGRAM ETHERNET SWITCH CONNECTIONS				DWG N°: 99835-680050			
JOB N°: 99835				GRP N°: 680				DATE: 11/12/2006				DESIGN GPE			
REV. DENOMINATION				DATA				SHEET: 430				APPD JPI			
LGO				SIGN.				CONT.: 431							

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FORMAT A3 - IMPSA Wind CAD SYSTEM



01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

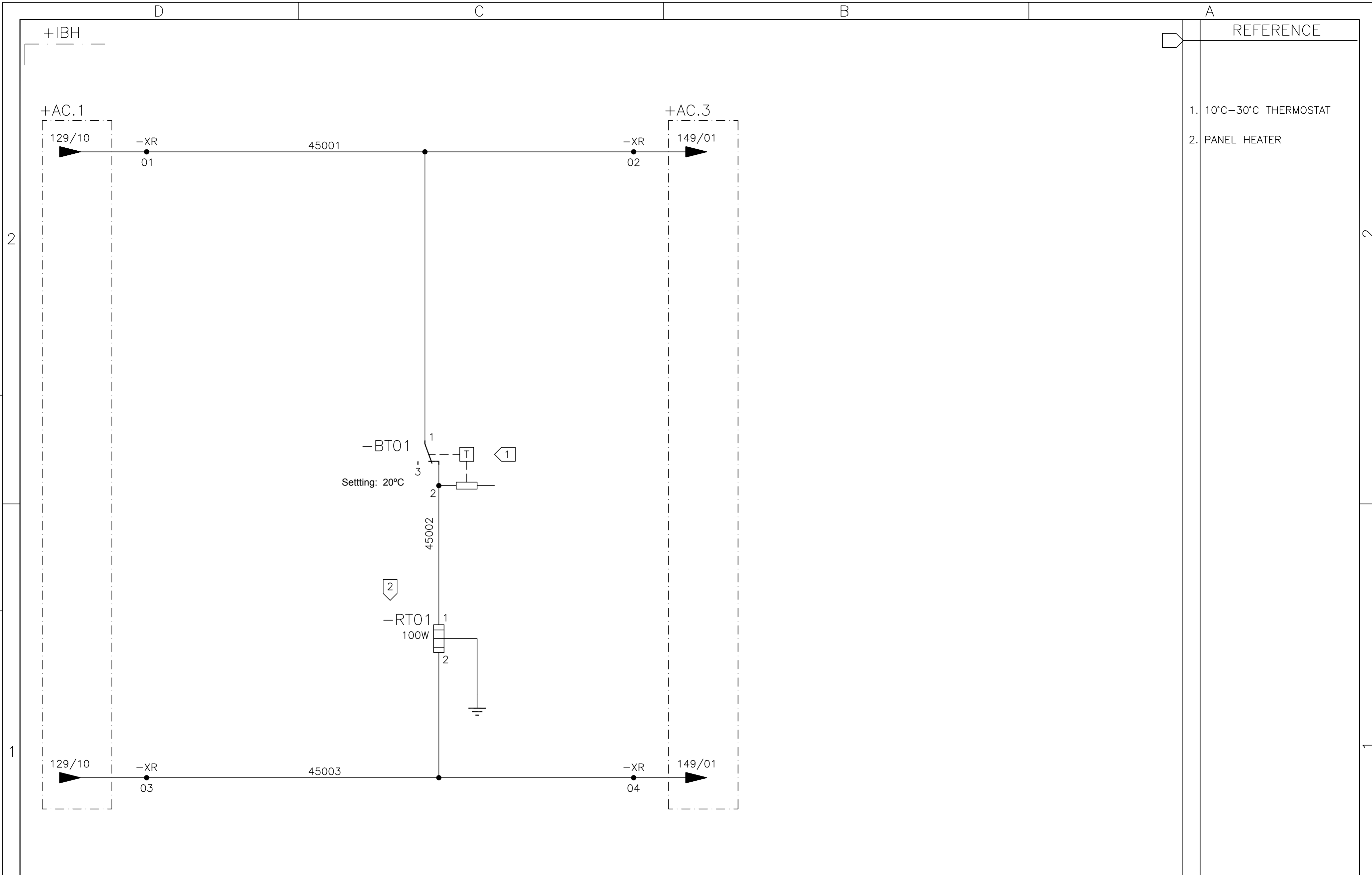
JOB N°: **99835**

TITLE:
INSENSYS, PLC & SWITCH BOX
+IBH
CIRCUIT DIAGRAM

DWG N°:	99835-680050		
GRP N°:	680	DATE:	11/12/2006
DESIGN	GPE	SHEET:	431
APPD	JPI	CONT.:	450

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FORMAT A3 - IMPSA Wind CAD SYSTEM



01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

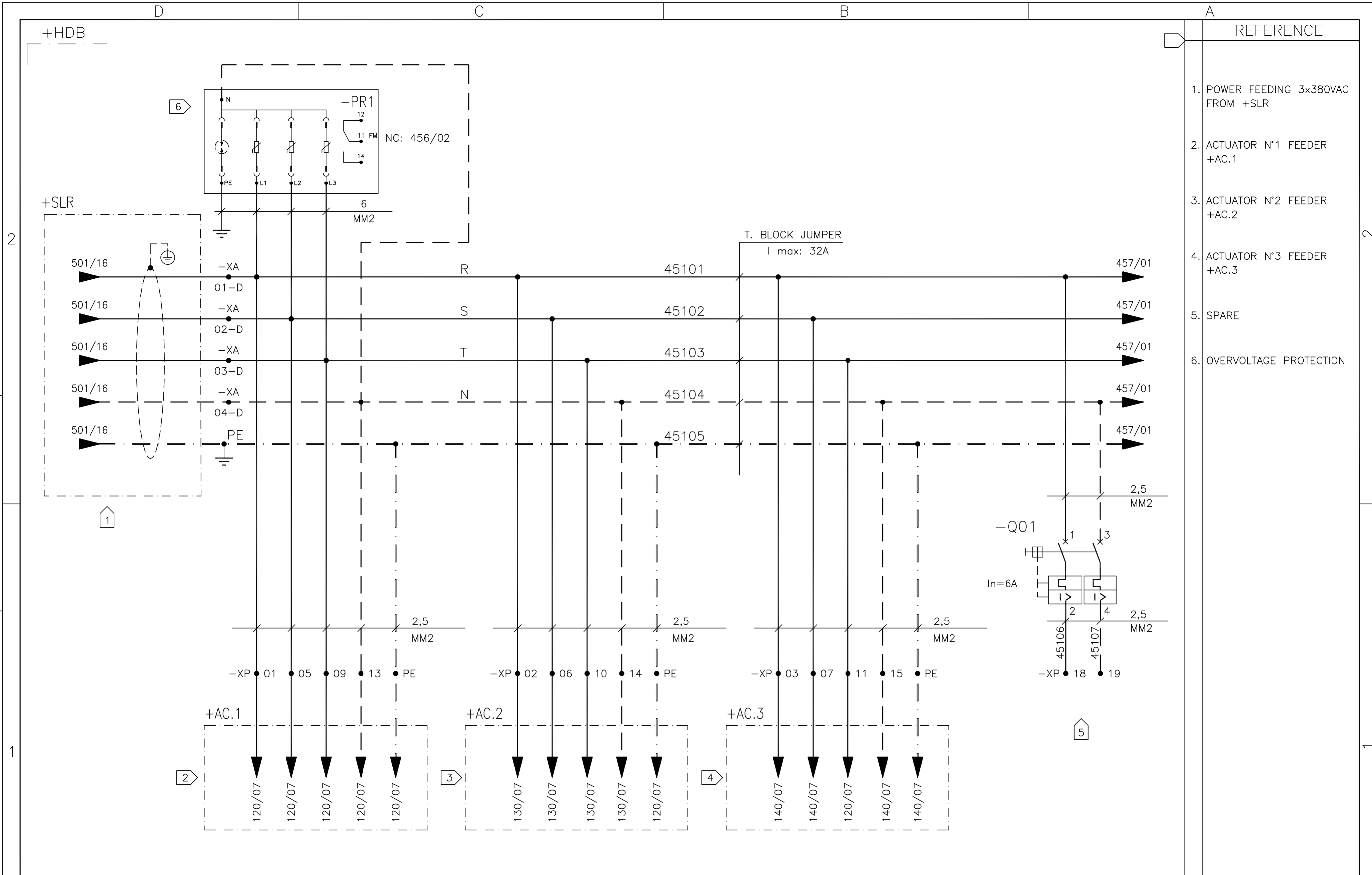
JOB N°: **99835**

TITLE:
INSENSYS, PLC & SWITCH BOX +IBH
CIRCUIT DIAGRAM

DWG N°:	99835-680050		
GRP N°:	680	DATE:	13/10/2006
DESIGN	GPE	SHEET:	450
APPD	JPI	CONT.:	451

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FORMAT A3 - IMPSA Wind CAD SYSTEM



REFERENCE

1. POWER FEEDING 3x380VAC FROM +SLR
2. ACTUATOR N°1 FEEDER +AC.1
3. ACTUATOR N°2 FEEDER +AC.2
4. ACTUATOR N°3 FEEDER +AC.3
5. SPARE
6. OVERVOLTAGE PROTECTION

01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16

05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

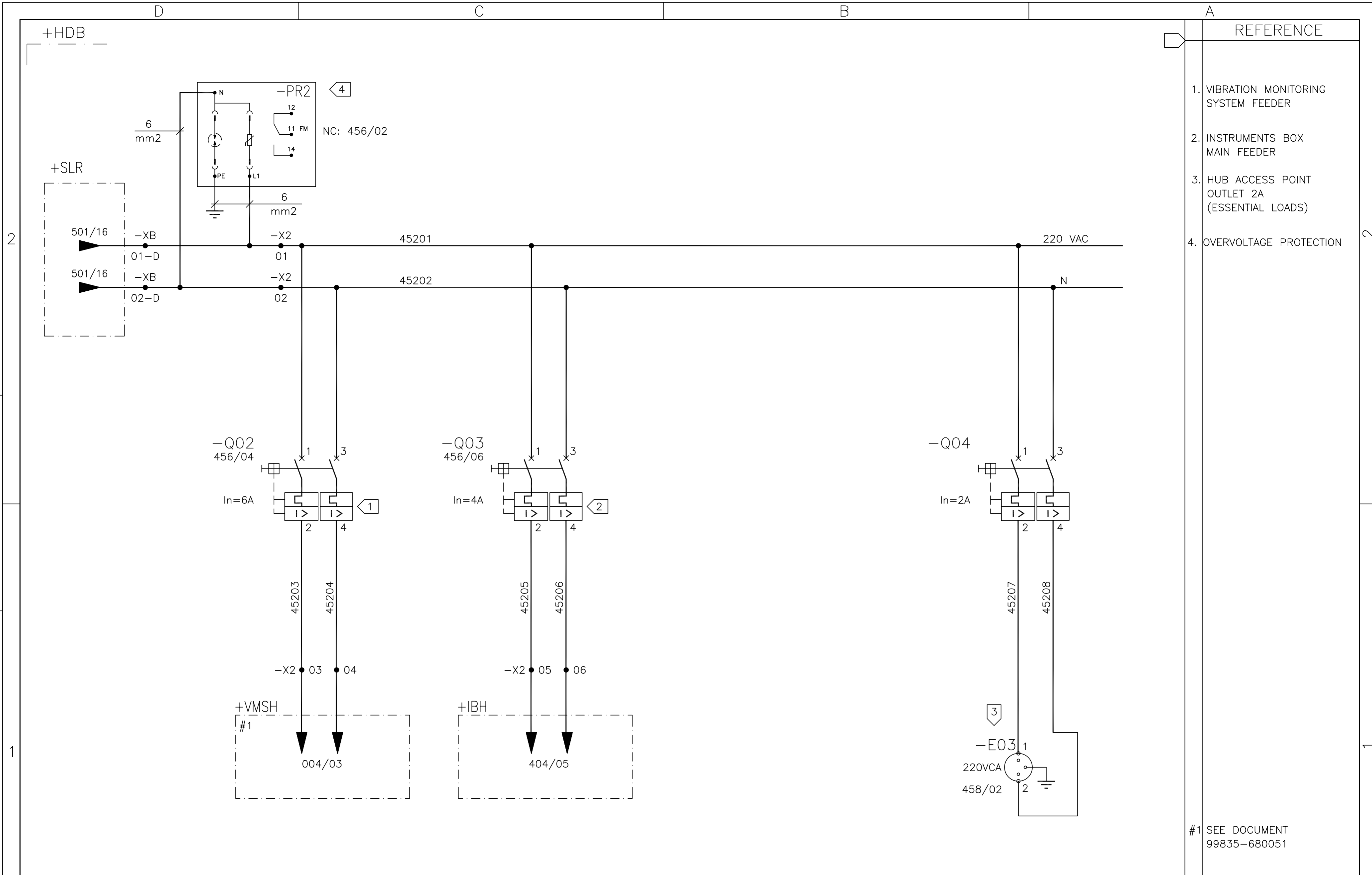
JOB N°: **99835**

TITLE:
HUB DISTRIBUTION BOX +HDB
CIRCUIT DIAGRAM
POWER SUPPLY

DWG N°:	99835-680050		
GRP N°:	680	DATE:	11/12/2006
DESIGN	GPE	SHEET:	451
APPD	JPI	CONT.:	452

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FORMAT A3 - IMPSA Wind CAD SYSTEM



#1 SEE DOCUMENT 99835-680051

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05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

JOB Nº: **99835**

TITLE:
HUB DISTRIBUTION BOX +HDB
CIRCUIT DIAGRAM
POWER SUPPLY

DWG Nº:	99835-680050		
GRP Nº:	680	DATE:	11/12/2006
DESIGN	GPE	SHEET:	452
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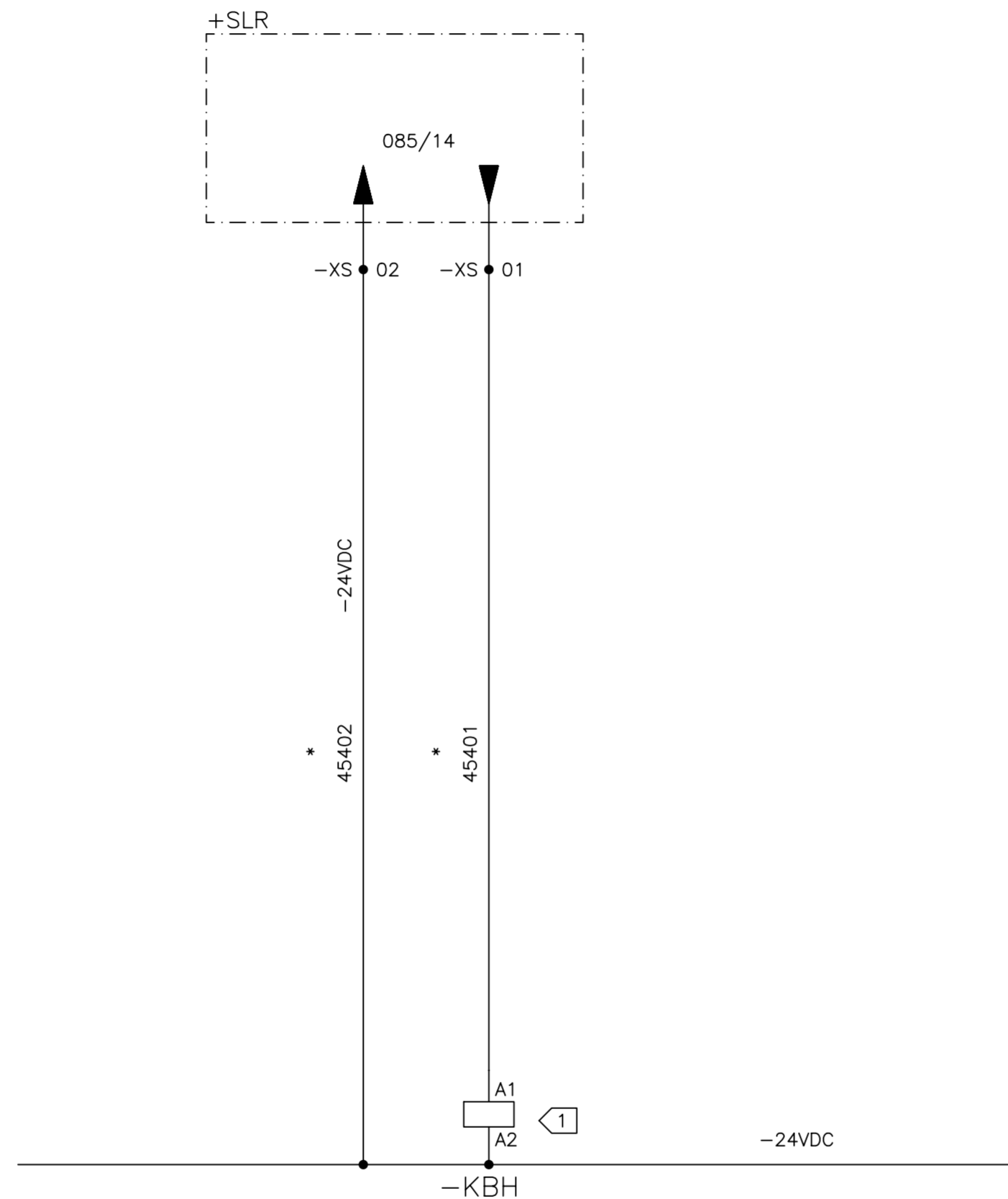
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FORMAT A3 - IMPSA Wind CAD SYSTEM

REFERENCE

- 1. SECURITY CHAIN ENABLE

* ALL THE WIRES IN THE SECURITY CHAIN MUST BE IN WHITE COLOR



- NC: 455/10
- NO: 455/04
- NO: 455/06
- NO: ~~455/08~~
- NO: 456/07
- NO: ~~63-64*~~
- NC: 71-72*

REV
19 SEP 2012

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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06	AS BUILT	19/09/2012	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

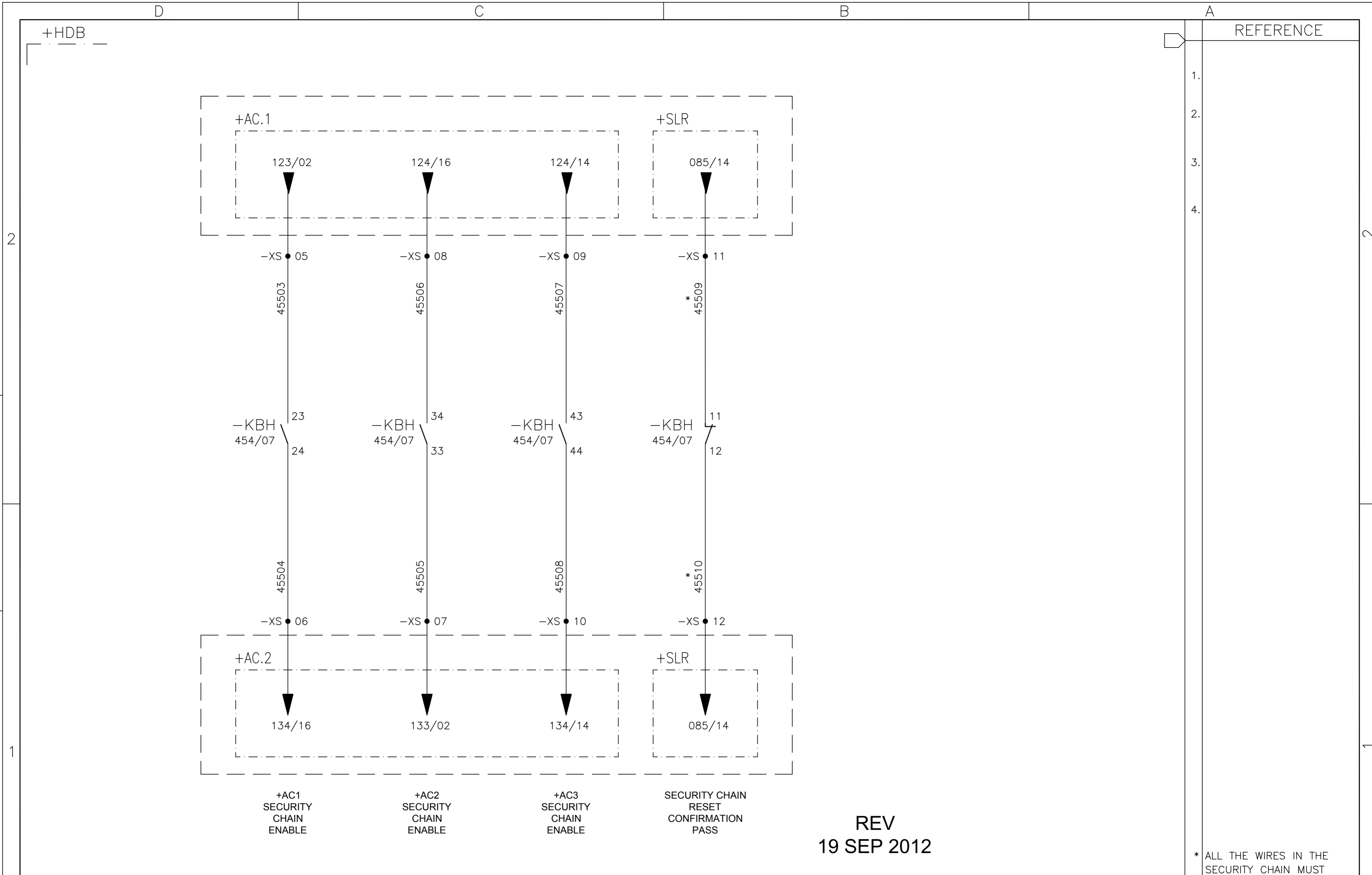
JOB N°: 99835

TITLE:
HUB DISTRIBUTION BOX +HDB
CIRCUIT DIAGRAM
SECURITY CHAIN

DWG N°:	99835-680050		
GRP N°:	680	DATE:	11/12/2006
DESIGN	GPE	SHEET:	454
APPD	JPI	CONT.:	455

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FORMAT A3 - IMPSA Wind CAD SYSTEM



REV
19 SEP 2012

* ALL THE WIRES IN THE SECURITY CHAIN MUST BE IN WHITE COLOR

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16		
06	AS BUILT		19/09/2012	LGO					WIND GENERATOR IWP-70 JOB N°: 99835				TITLE: HUB DISTRIBUTION BOX +HDB CIRCUIT DIAGRAM SECURITY CHAIN SIGNALS				DWG N°: 99835-680050	
REV.	DENOMINATION		DATA	SIGN.													GRP N°: 680	
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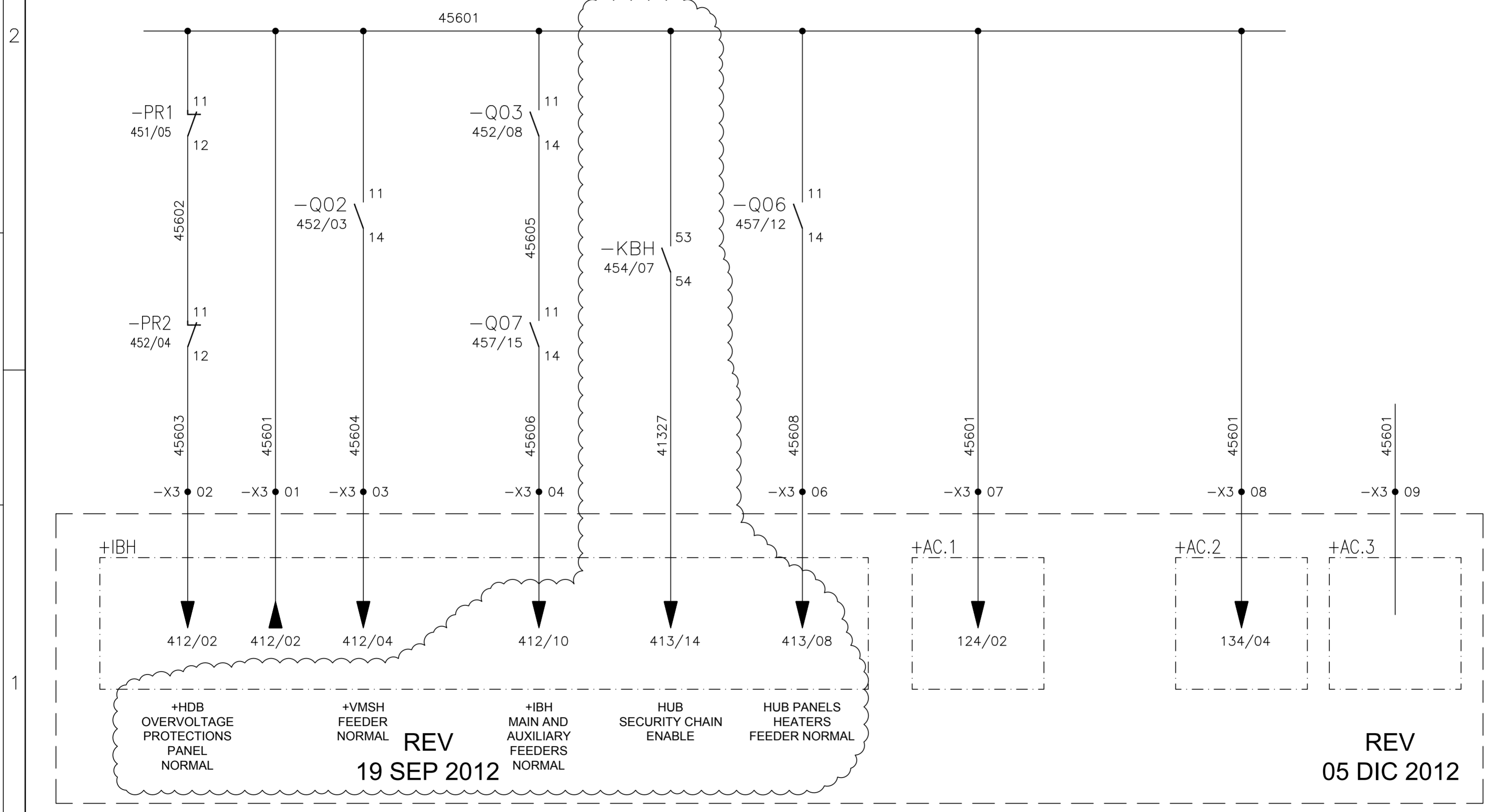
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FORMAT A3 - IMPSA Wind CAD SYSTEM

+HDB

REFERENCE

- 1.
- 2.
- 3.
- 4.



+HDB OVERVOLTAGE PROTECTIONS PANEL NORMAL
 +VMSH FEEDER NORMAL
 +IBH MAIN AND AUXILIARY FEEDERS NORMAL
 HUB SECURITY CHAIN ENABLE
 HUB PANELS HEATERS FEEDER NORMAL

REV 05 DIC 2012

01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16

06	AS BUILT	19/09/2012	LGO
REV.	DENOMINATION	DATA	SIGN.



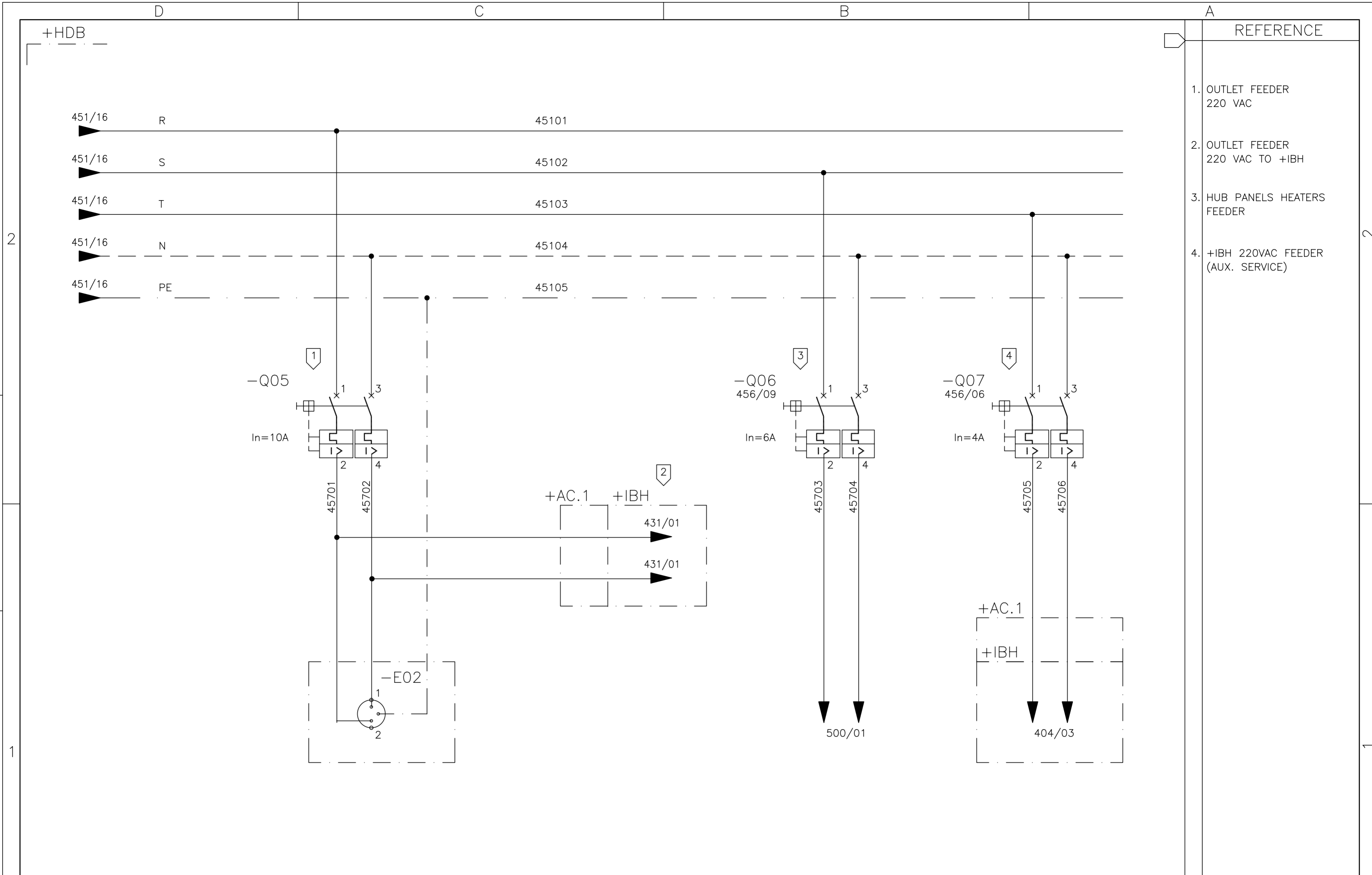
WIND GENERATOR
IWP-70
 JOB N°: **99835**

TITLE:
HUB DISTRIBUTION BOX +HDB
CIRCUIT DIAGRAM
SIGNAL TO +IBH

DWG N°:	99835-680050		
GRP N°:	680	DATE:	11/12/2006
DESIGN	GPE	SHEET:	456
APPD	JPI	CONT.:	457

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FORMAT A3 - IMPSA Wind CAD SYSTEM



01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

JOB N°: **99835**

TITLE:
HUB DISTRIBUTION BOX +HDB
CIRCUIT DIAGRAM

DWG N°:	99835-680050		
GRP N°:	680	DATE:	11/12/2006
DESIGN	GPE	SHEET:	457
APPD	JPI	CONT.:	458

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FORMAT A3 - IMPSA Wind CAD SYSTEM



- REFERENCE
1. ACCESS POINT
 2. ACCESS POINT ANTENNA
 3. OVER VOLTAGE PROTECTION ANTENNA CABLE

01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16

05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

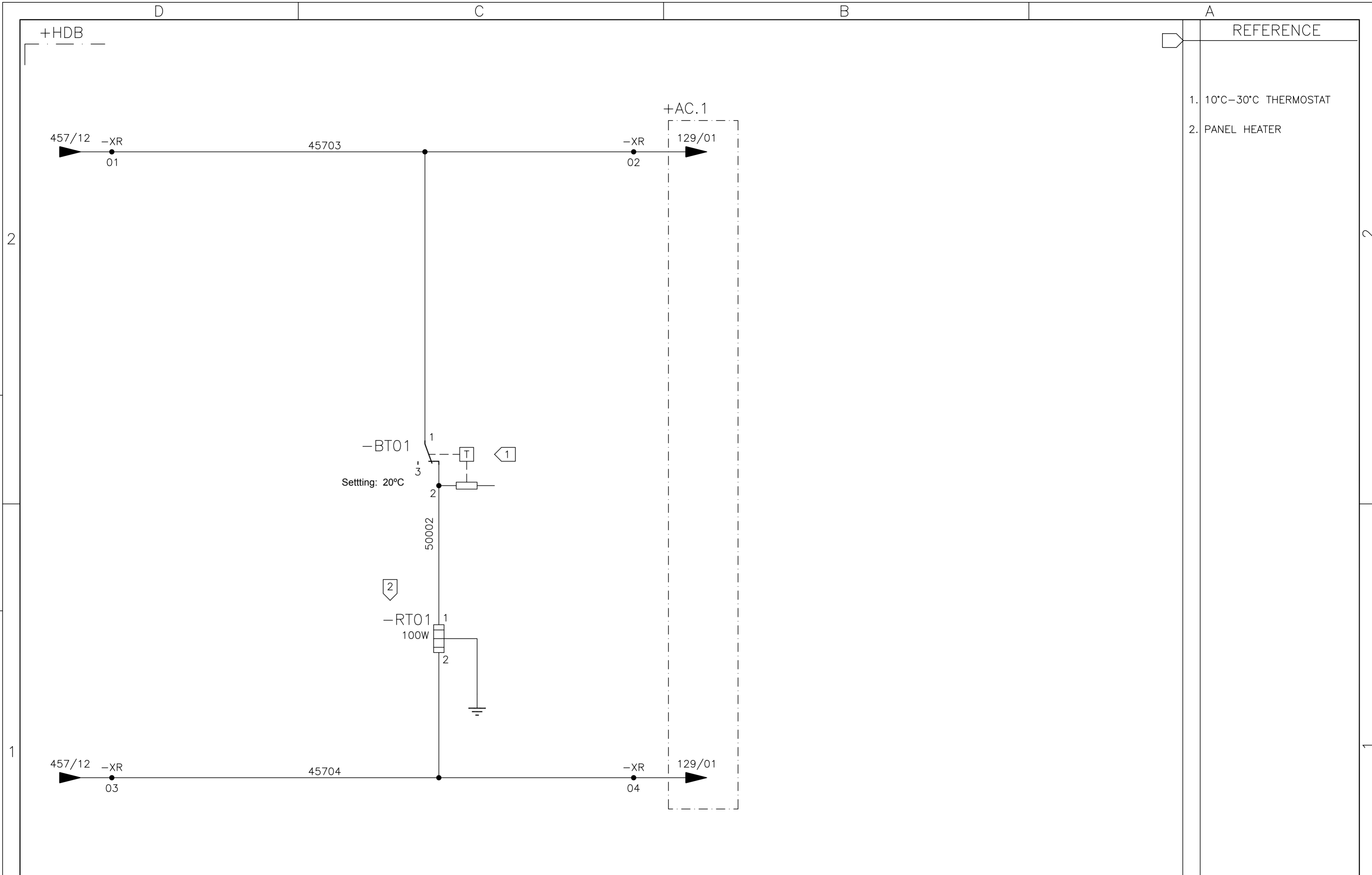
JOB N°: **99835**

TITLE:
HUB DISTRIBUTION BOX +HDB
CIRCUIT DIAGRAM


DWG N°:	99835-680050		
GRP N°:	680	DATE:	11/12/2006
DESIGN	GPE	SHEET:	458
APPD	JPI	CONT.:	500

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FORMAT A3 - IMPSA Wind CAD SYSTEM

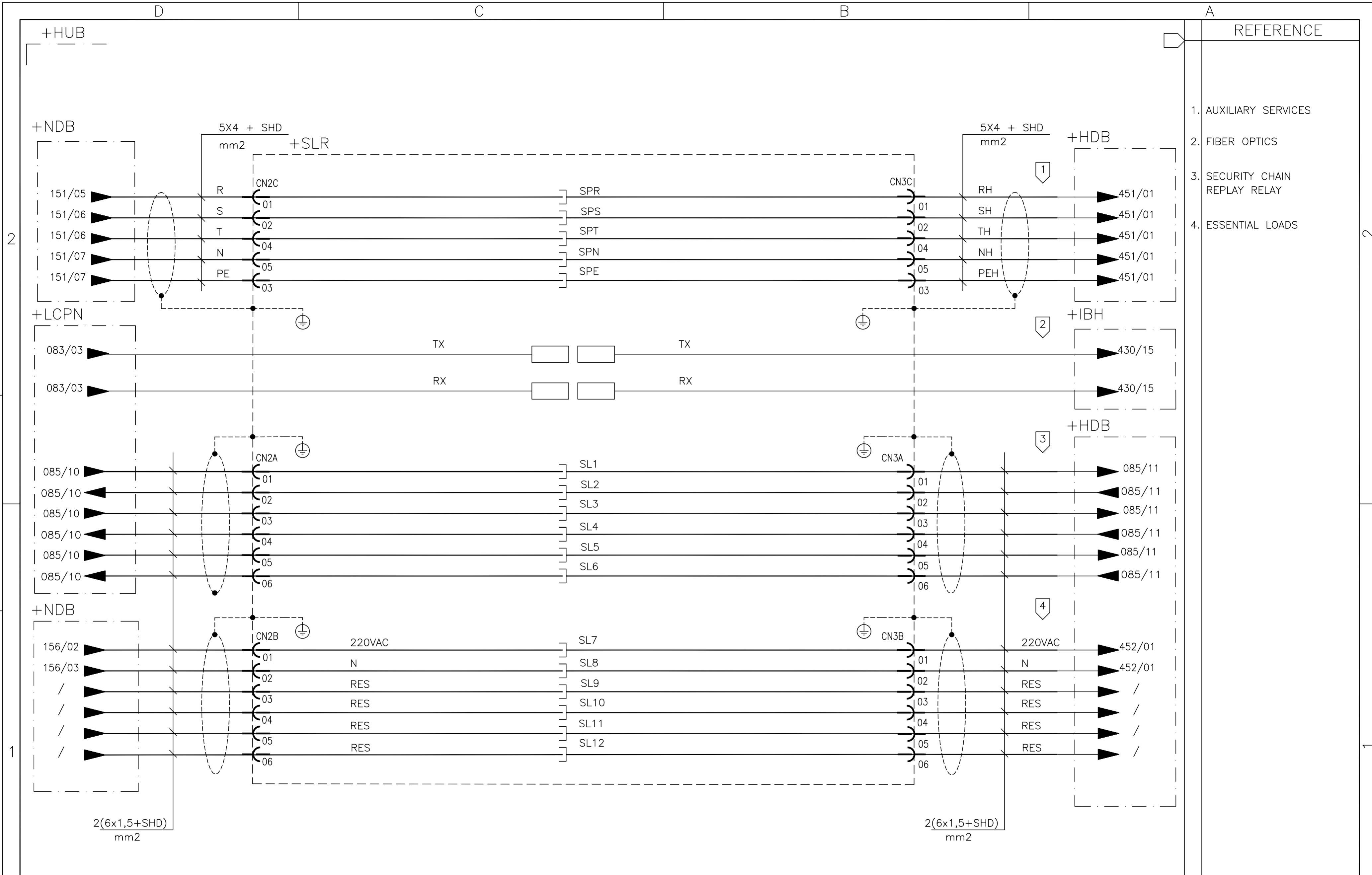


- REFERENCE
1. 10°C-30°C THERMOSTAT
 2. PANEL HEATER

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
05	AS BUILT		26/07/10	LGO					TITLE: WIND GENERATOR IWP-70 HUB DISTRIBUTION BOX +HDB CIRCUIT DIAGRAM				DWG N°: 99835-680050			
REV.	DENOMINATION		DATA	SIGN.									JOB N°: 99835			

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FORMAT A3 - IMPSA Wind CAD SYSTEM



01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16

05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

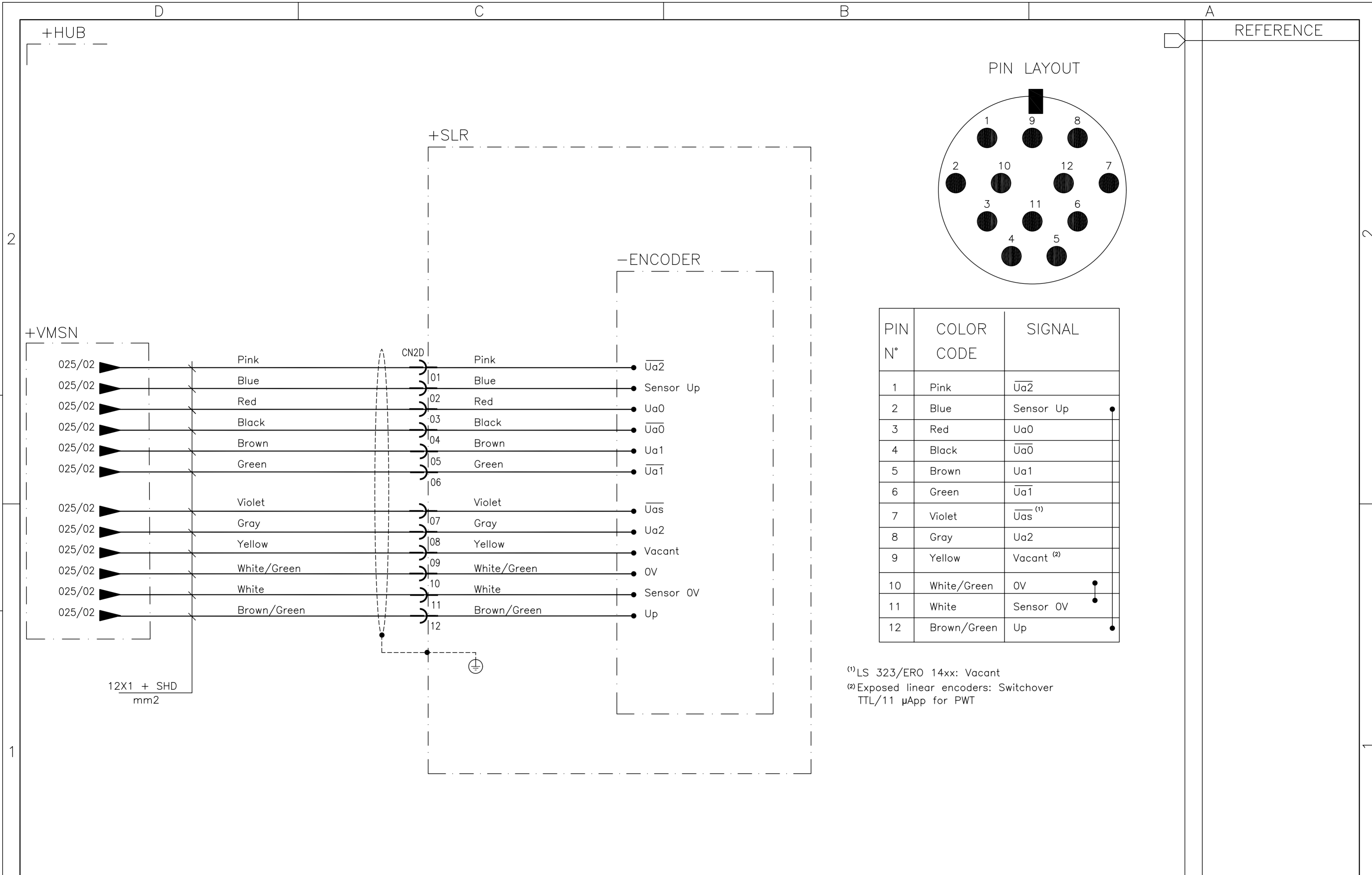
JOB Nº: **99835**

TITLE:
SLIP RING SYSTEM
+HUB
CIRCUIT DIAGRAM

DWG Nº: 99835-680050		
GRP Nº: 680	DATE:	28/12/2006
DESIGN GPE	SHEET:	501
APPD JPI	CONT.:	504

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FORMAT A3 - IMPSA Wind CAD SYSTEM



PIN N°	COLOR CODE	SIGNAL
1	Pink	$\overline{Ua2}$
2	Blue	Sensor Up
3	Red	Ua0
4	Black	$\overline{Ua0}$
5	Brown	Ua1
6	Green	$\overline{Ua1}$
7	Violet	$\overline{Uas}^{(1)}$
8	Gray	Ua2
9	Yellow	Vacant ⁽²⁾
10	White/Green	0V
11	White	Sensor 0V
12	Brown/Green	Up

⁽¹⁾LS 323/ERO 14xx: Vacant
⁽²⁾Exposed linear encoders: Switchover TTL/11 μ App for PWT

01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16

05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

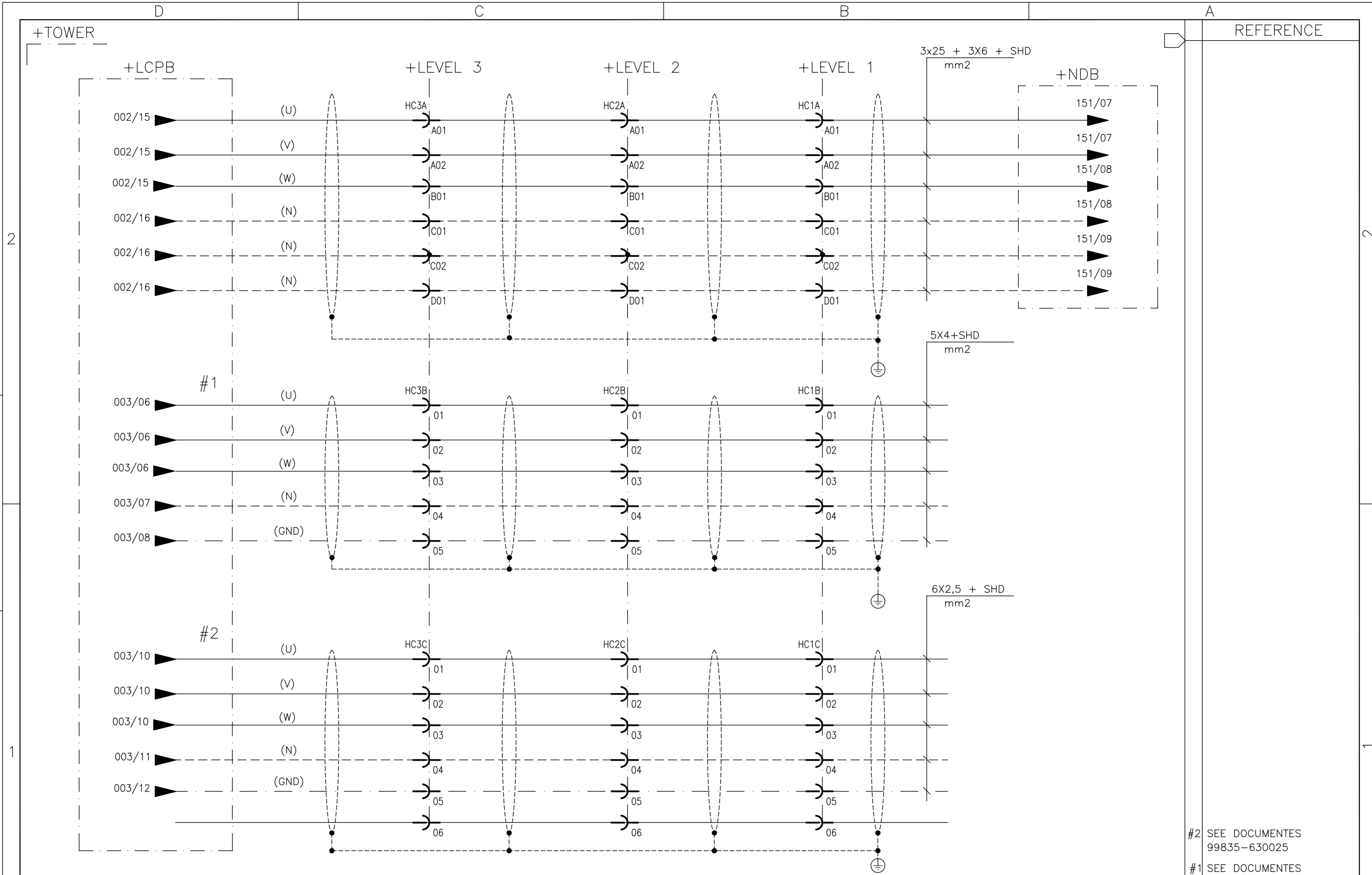
JOB N°: **99835**

TITLE:
SLIP RING SYSTEM
+HUB
CIRCUIT DIAGRAM

DWG N°: 99835-680050		
GRP N°: 680	DATE: 02/02/2006	
DESIGN GPE	SHEET: 504	
APPD JPI	CONT.: 505	

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FORMAT A3 - IMPSA Wind CAD SYSTEM



#2 SEE DOCUMENTES 99835-630025
 #1 SEE DOCUMENTES 99835-630020

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

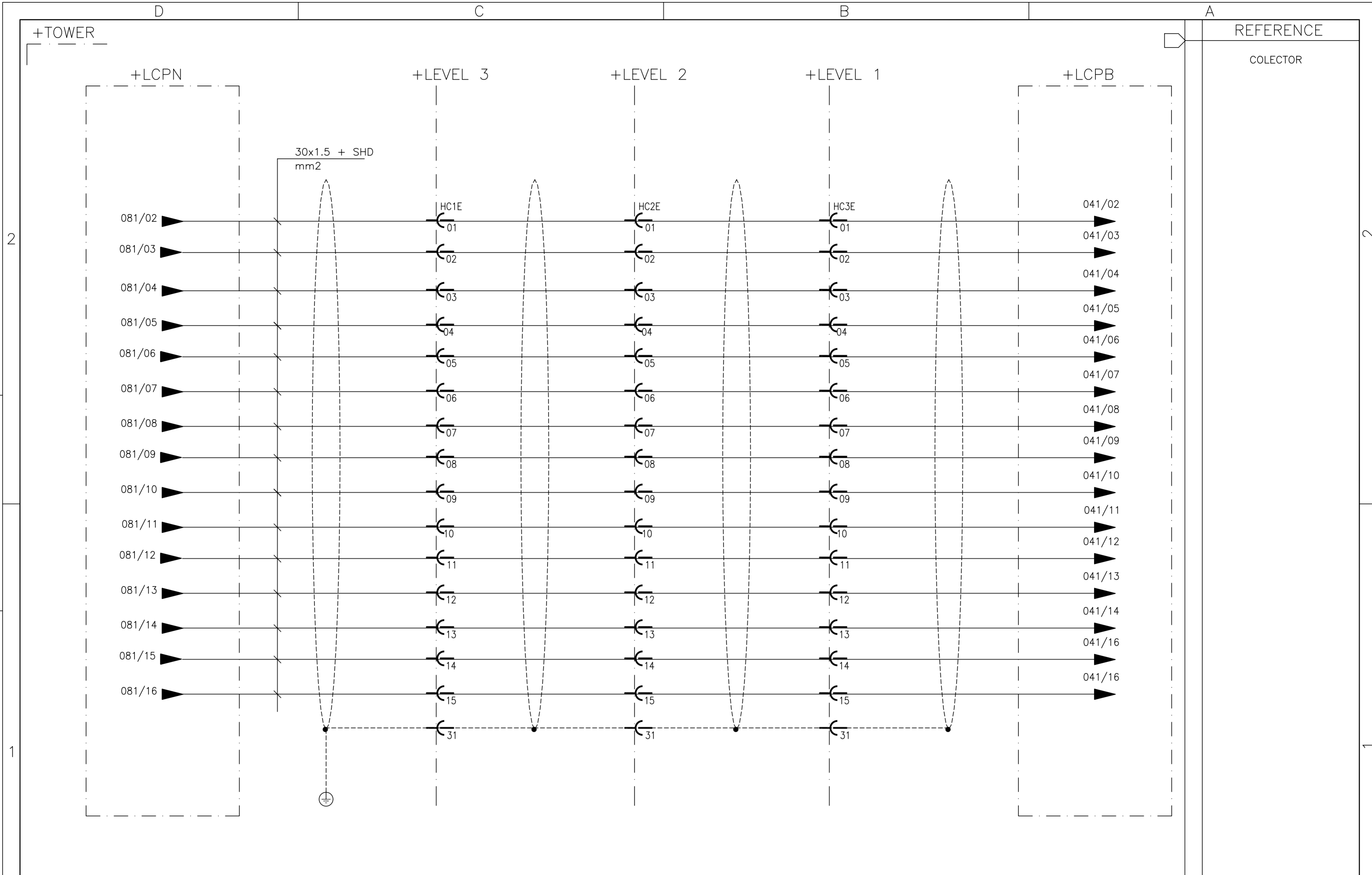
JOB Nº: **99835**

TITLE:
CONNECTORS
+TOWER
CIRCUIT DIAGRAM

DWG Nº:	99835-680050		
GRP Nº:	680	DATE:	02/02/2006
DESIGN	GPE	SHEET:	505
APPD	JPI	CONT.:	506

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FORMAT A3 - IMPSA Wind CAD SYSTEM



01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16

05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.



WIND GENERATOR
IWP-70

JOB Nº: **99835**

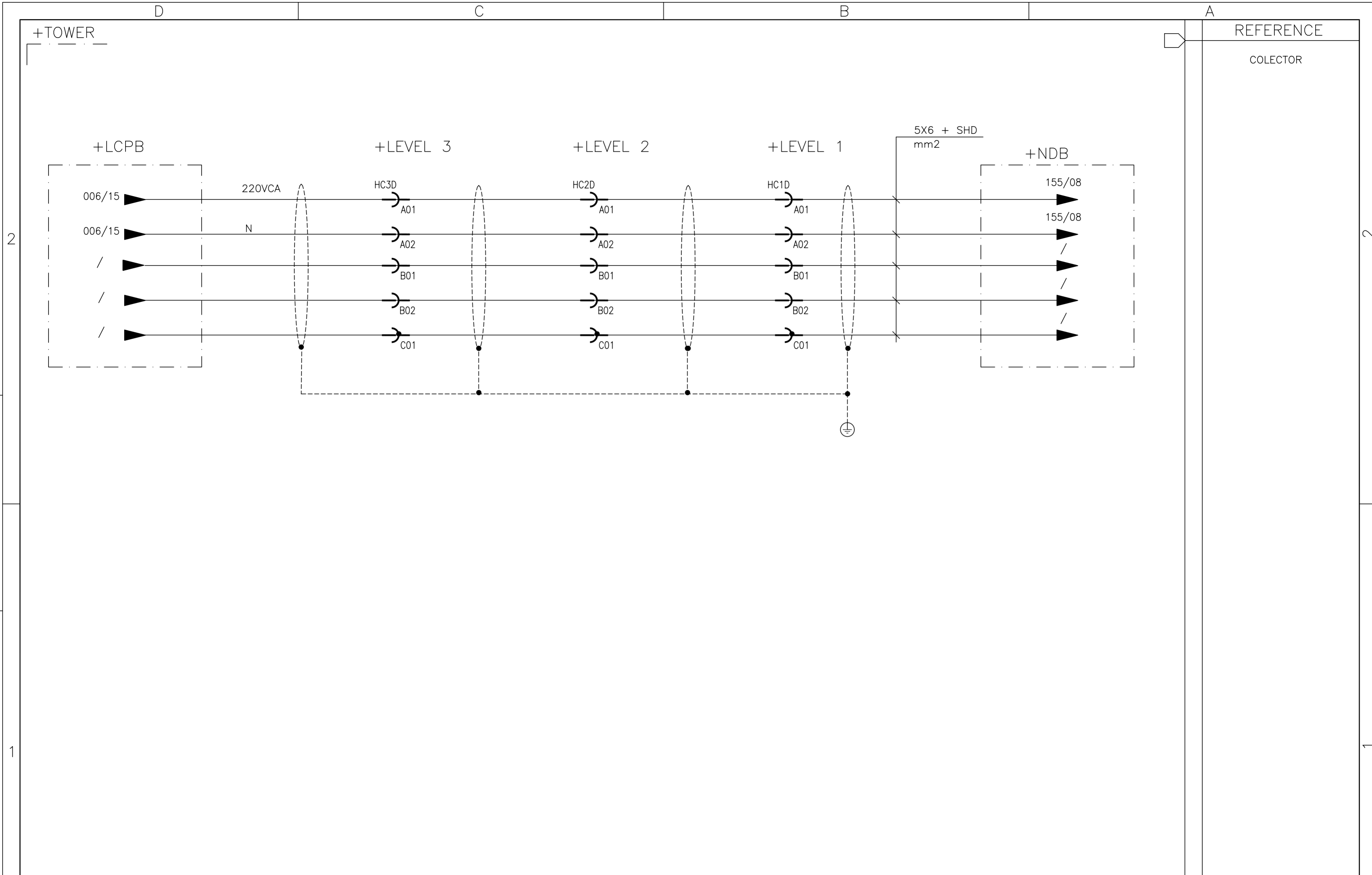
TITLE:
CONNECTORS
+TOWER
CIRCUIT DIAGRAM

DWG Nº:	99835-680050		
GRP Nº:	680	DATE:	02/02/2006
DESIGN	GPE	SHEET:	506
APPD	JPI	CONT.:	507

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FORMAT A3 - IMPSA Wind CAD SYSTEM



01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16

05	AS BUILT	26/07/10	LGO
REV.	DENOMINATION	DATA	SIGN.




WIND GENERATOR
IWP-70

JOB Nº: **99835**

TITLE:
CONNECTORS
+TOWER
CIRCUIT DIAGRAM

DWG Nº:	99835-680050		
GRP Nº:	680	DATE:	02/02/2006
DESIGN	GPE	SHEET:	507
APPD	JPI	CONT.:	508

REV - REV	DESCRIPCIÓN DE LA MODIFICACIÓN - DESCRIPTION OF THE MODIFICATION	FECHA - DATE	FIRMA - SIGNATURE
00	EMISION INICIAL / INITIAL RELEASE	FEB '07	OSO
01	MODIFICACIONES GENERALES / GENERAL MODIFICATIONS	MAY '07	OSO
02	MODIFICACIONES GENERALES / GENERAL MODIFICATIONS	FEB '08	OSO
03	MODIFICACIONES GENERALES / GENERAL MODIFICATIONS	ENE '09	PGI
04	MODIFICACIONES GENERALES / GENERAL MODIFICATIONS	NOV '12	PGI
05	CONFORME A OBRA / AS-BUILT	SET '13	PGI
06	CONFORME A OBRA / AS-BUILT	JUL '14	PGI

99835	1				
PROYECTO NRO. PROJECT Nº	CANTIDAD QUANTITY	OBSERVACIONES REMARKS		PEDIDO EN PLANO ORDERED ON DWG. Nº	POS. / ITEM
 MENDOZA - ARGENTINA		NOMBRE - NAME	FIRMA - SIGNATURE	FECHA - DATE	HOJA - SHEET
	PROYECTADO POR DESIGNED BY	ICSA		01/02/07	1 of 35
	REVISADO POR CHECKED BY	NRE		01/02/07	
APROBADO APPROVED BY	PGI		01/02/07		

WIND TURBINE IWP-70

TITULO TITLE

TABLERO CONVERTOR DE FRECUENCIA DIAGRAMAS DE CIRCUITOS

FREQUENCY CONVERTER BOARD CIRCUIT DIAGRAMS

DOCUMENTO NRO.
DOCUMENT NR.

99835-680055

REVISION - REVISION

06

DENOMINATION

DENOMINATION

DRAWING *	SHEET *	CONTENT INDEX
D907-02-01	01	CONTENT INDEX
D907-02-01	02	FRONT VIEW CEF100
D907-02-01	03,41	CIRCUIT DIAGRAMS

NOTES :

SHEET	REVISIONS INDEX					SHEET	REVISION N°							
	REVISION N°						REVISION N°							
	0	1	2	3	4		5	0	1	2	3	4	5	
01	X	X			X									
02	X	X	X		X									
03	X	X	X		X									
04	X	X			X									
05	X	X			X									
06	X	X	X		X									
07	X	X	X		X									
08	X	X			X									
09	X	X			X									
10	X	X	X		X									
11	X	X	X		X									
12	X	X	X		X									
13	X	X	X		X									
14	X	X	X		X									
15	X	X	X		X									
16	X	X	X		X									
17	X	X	X		X									
18	X	X	X		X									
19	X	X	X		X									
20	X	X	X		X									
21	X	X	X		X									
22	X	X	X		X									
23	X	X	X		X									
24	X	X	X		X									
25	X	X	X		X									
26	X	X	X		X									
27	X	X	X		X									
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29	X	X	X		X									
30	X	X	X		X									
31	X	X	X		X									
32	X	X	X		X									
33	X	X	X		X									

REV.	DENOMINATION	DATE	SIGN	DWG N°	EDITION DATE
04	GENERAL CHANGES	03/09/12	DAR	D9706-02-01	01/11/2006
03	UP DATE	23/01/09	UFE		
02	AS BUILT	17/06/08	UFE		
01	AS BUILT	22/10/07	AGJ		

JOB N°	STATIC FREQUENCY CONVERTER	DESIGN	JVA	SHEET
D9706	WIND GENERATOR	APPD	FUB	01
	CONTROL SYSTEM			02
	CONTENT INDEX			



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+CONV

D

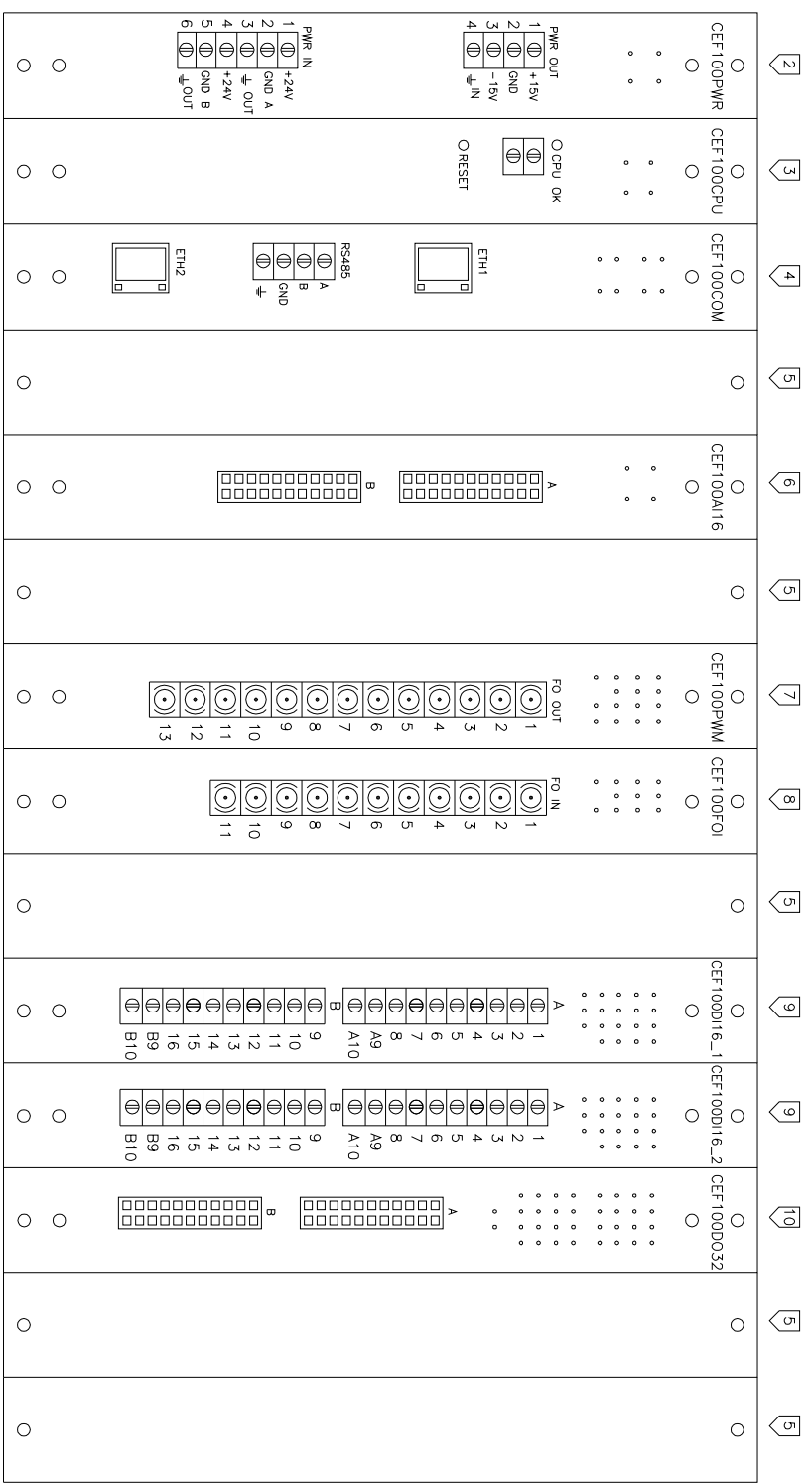
C

B

A

REFERENCES

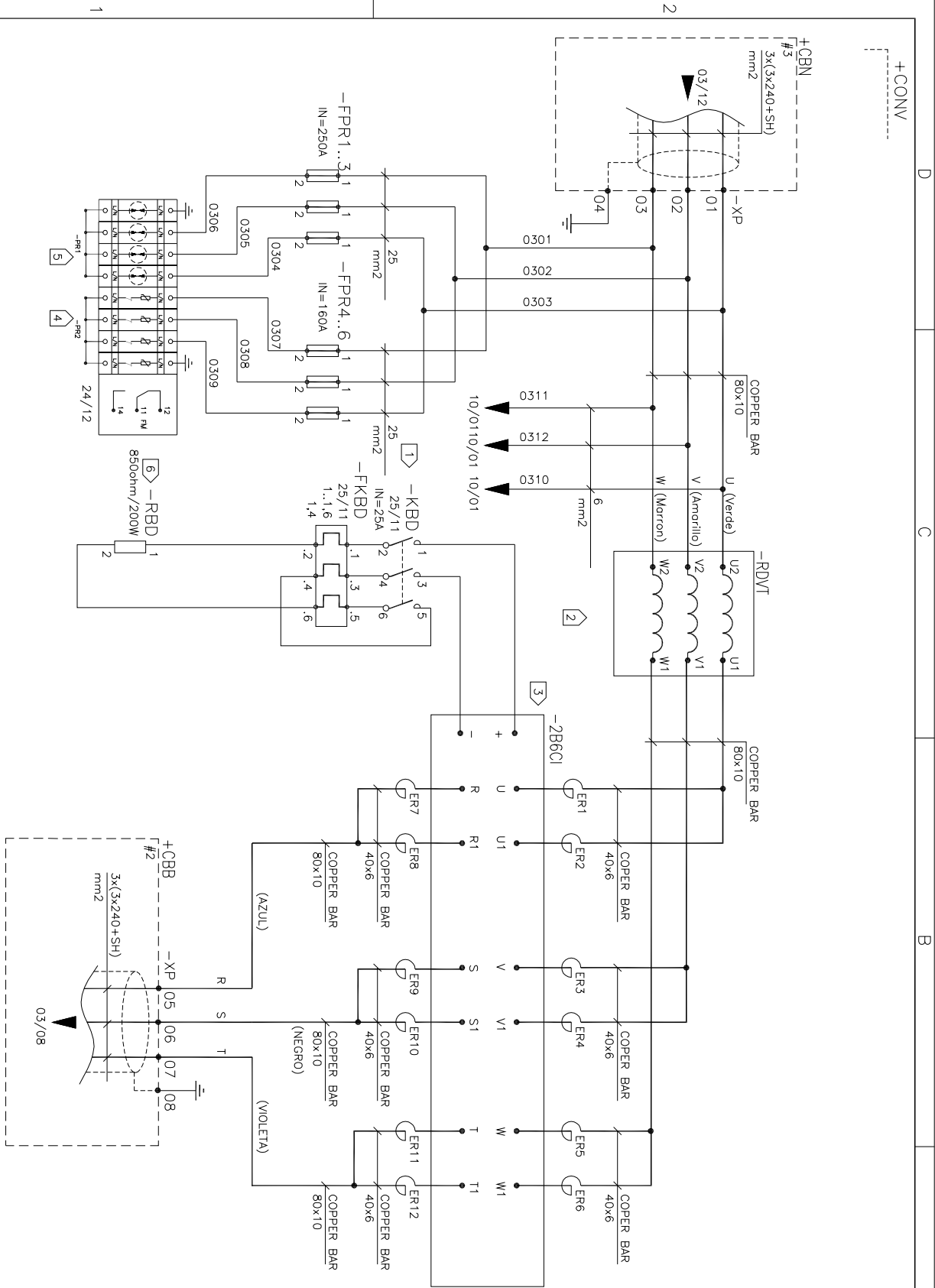
- 1. CONTROLLER CEF-100
- 2. POWER SUPPLY
- 3. CPU
- 4. COMMUNICATION BOARD
- 5. SPARE
- 6. ANALOGIC INPUT
- 7. FIBER OPTIC OUTPUT
- 8. FIBER OPTIC INPUT
- 9. DIGITAL INPUT
- 10. DIGITAL OUTPUT



01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
					DWG N°	D9706-02-01	EDITION DATE	01/11/2006	JOB	N° D9706	STATIC FREQUENCY CONVERTER	WIND GENERATOR	CONTROL SYSTEM	CIRCUIT DIAGRAMS	
REV.	GENERAL CHANGES	DENOMINATION	DATE	DAR	TITLE		STATIC FREQUENCY CONVERTER 1.5MVA		GROUP	STATIC FREQUENCY CONVERTER + CONV - CIRCUIT DIAGRAMS					
			03/09/12												

DESIGN JVA SHEET 02
 APPD FUB CONT. 03

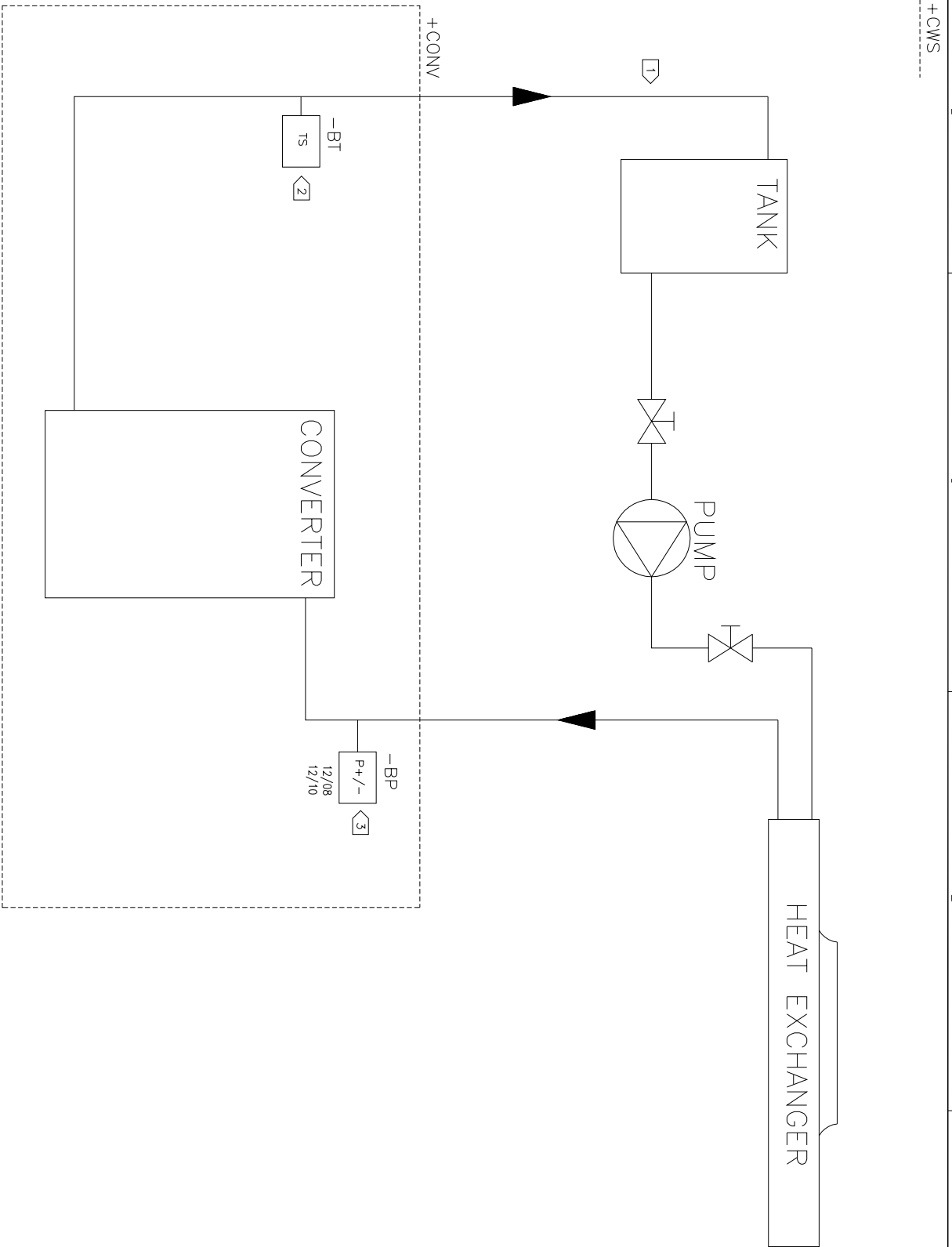
INGENIERIA Y COMPUTACION S.A.
 MENDOZA-ARGENTINA



- REFERENCES
1. BUS DC DISCHARGE CONTACTOR
 2. THREE PHASE DV/DI REACTOR
 3. 2B6C1 1,5 MVA
 4. OVERVOLTAGE PROTECTION
 5. SURGE ARRESTER
 6. DISCHARGE RESISTOR

- DRAWINGS
- #1 DRAWINGS 99835-680050
 - #2 DRAWINGS D9706-02-04
 - #3 DRAWINGS D9706-02-07

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
UP DATE		19/12/08		UFE		D9706-02-01		EDITION DATE		01/11/2006		JOB		Nº D9706	
AS BUILT		19/06/08		UFE		STATIC FREQUENCY CONVERTER		WIND GENERATOR		GROUP		Nº D9706		CONTROL SYSTEM	
AS BUILT		22/10/07		AGU		+CONV - CIRCUIT DIAGRAMS		CIRCUIT DIAGRAMS		CIRCUIT DIAGRAMS		CIRCUIT DIAGRAMS		CIRCUIT DIAGRAMS	
REV.		DENOMINATION		DATE		SIGN		TITLE		GROUP		GROUP		GROUP	
DESIGN		JVA		SHEET		03		APPD		FUB		CONT.		04	
INGENIERIA Y COMPUTACION S.A.		MENDOZA-ARGENTINA													



REFERENCES

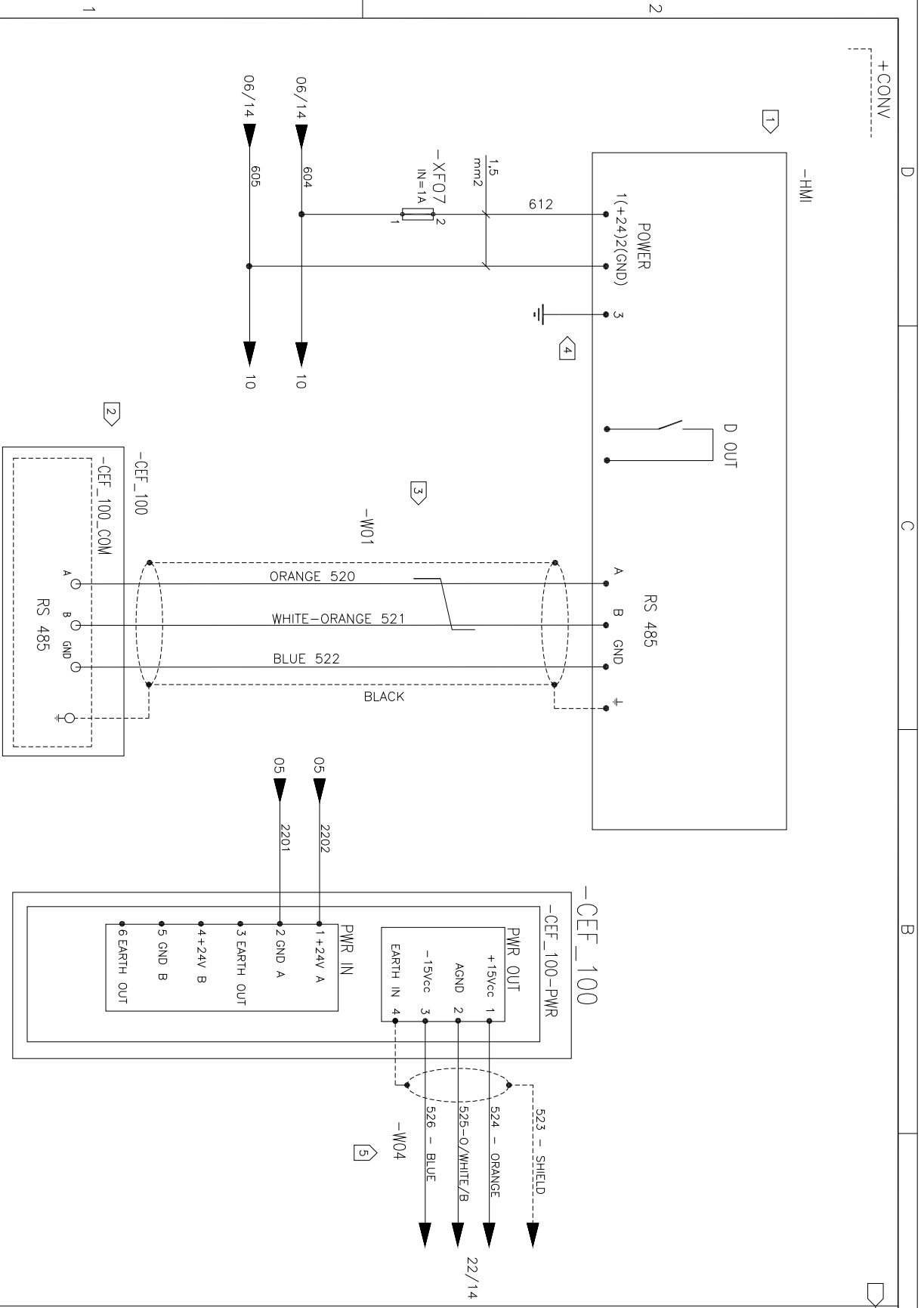
- 1. STAINLESS STEEL PIPE
1.2 mm THICK 1 INCH
- 2. HOT TEMPERATURE WATER
- 3. PRESSURE PROTECTION

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
REV.		GENERAL CHANGES		DATE		DAR		SIGN		TITLE		DWG N°		EDITION DATE	
01	AS BUILT	22/10/07	AGU		D9706-02-01		01/11/2006		JOB N° D9706		STATIC FREQUENCY CONVERTER WIND GENERATOR		CONTROL SYSTEM CIRCUIT DIAGRAMS		
DENOMINATION		DATE		SIGN		TITLE		DWG N°		JOB N°		STATIC FREQUENCY CONVERTER WIND GENERATOR		CONTROL SYSTEM CIRCUIT DIAGRAMS	
D		D		D		C		C		D		D		A	



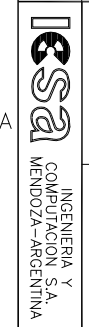
INGENIERIA Y COMPUTACION S.A. MENDOZA-ARGENTINA

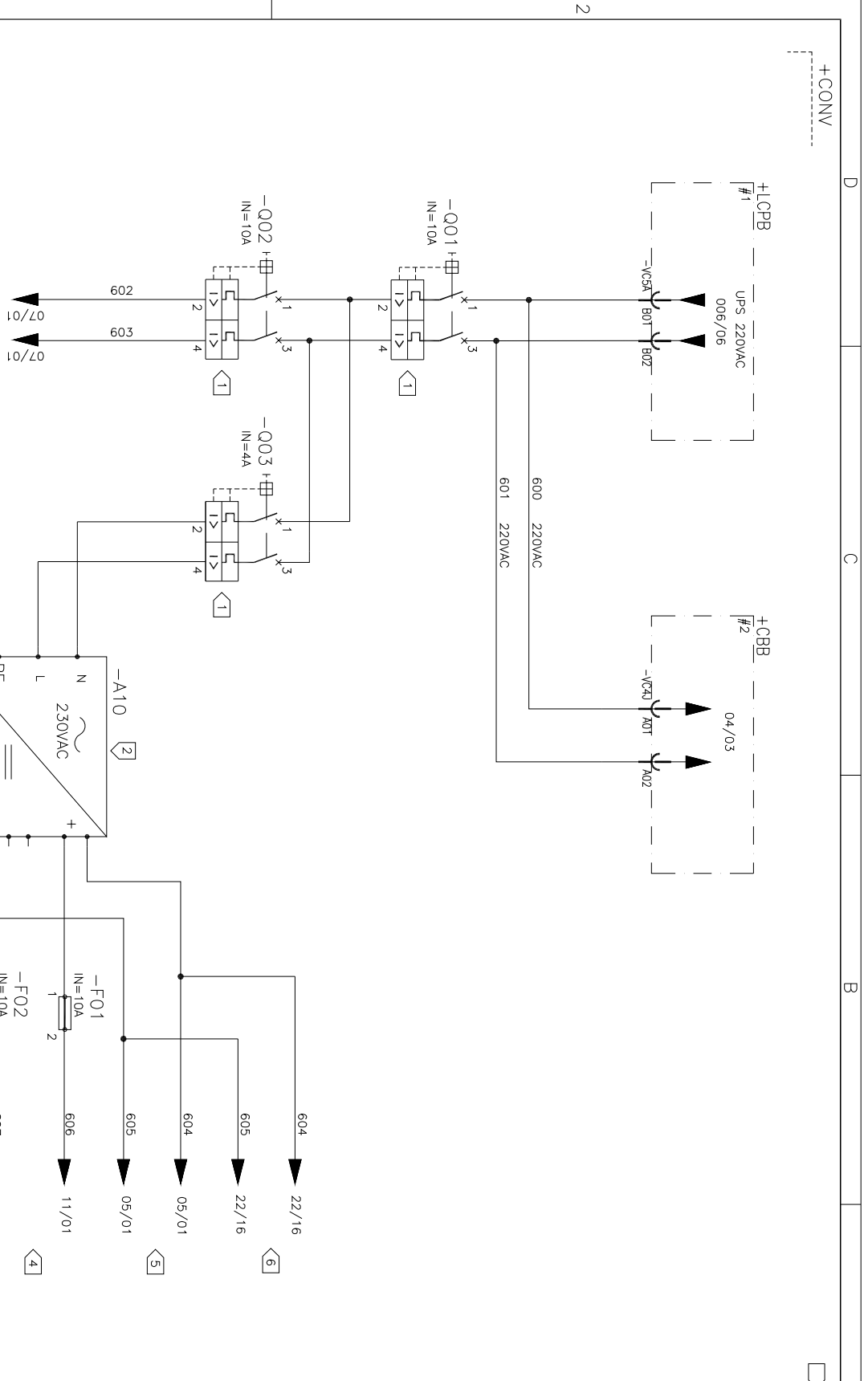
DESIGN JVA SHEET 04
APPD FUB CONT. 05



- REFERENCES
1. HUMAN MACHINE INTERFACE
 2. COMUNICACION BOARD CEF-100-COM
 3. BELDEN 9842 CABLE
 4. CONTROL PANEL GROUND BAR - WGB04
 5. 9842 BELDEN CABLE

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	
REV.					DWG N°		EDITION DATE		JOB		STATIC FREQUENCY CONVERTER		DESIGN		SHEET	
05 GENERAL CHANGES					D9706-02-01		01/11/2006		N° D9706		WIND GENERATOR		JVA		05	
04 GENERAL CHANGES					+CONV - CIRCUIT DIAGRAMS				GROUP		CONTROL SYSTEM		APPD		FUB	
03 DENOMINATION					TITLE		DATE		SIGN		CIRCUIT DIAGRAMS		FUB		CONT.	
02					16/07/14		03/09/12		ICA		DAR		APPD		FUB	
01					16/07/14		03/09/12		ICA		DAR		APPD		FUB	





REFERENCES

1. THERMOMAGNETIC CIRCUIT BREAKER
2. AUXILIARY POWER SUPPLY 220VAC / 24VDC
3. CONVERTER GENERATOR AND LINE SIDE FEEDING
4. CONTROL FEEDING
5. -CEF-100-110-SK AND HMI MODULE
6. 110-SK

- #1 DRAWINGS
99835-680050
- #2 DRAWINGS
D9706-02-04
- #3 DRAWINGS
D9706-02-07

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
GENERAL CHANGES		16/07/14		ICA	DWG N° D9706-02-01		EDITION DATE		01/11/2006		JOB N° D9706		STATIC FREQUENCY CONVERTER		
GENERAL CHANGES		03/09/12		DAR							WIND GENERATOR				
UP DATE		19/12/08		UFE							CONTROL SYSTEM				
AS BUILT		22/10/07		AGU							CIRCUIT DIAGRAMS				
REV.		DENOMINATION		DATE	SIGN										

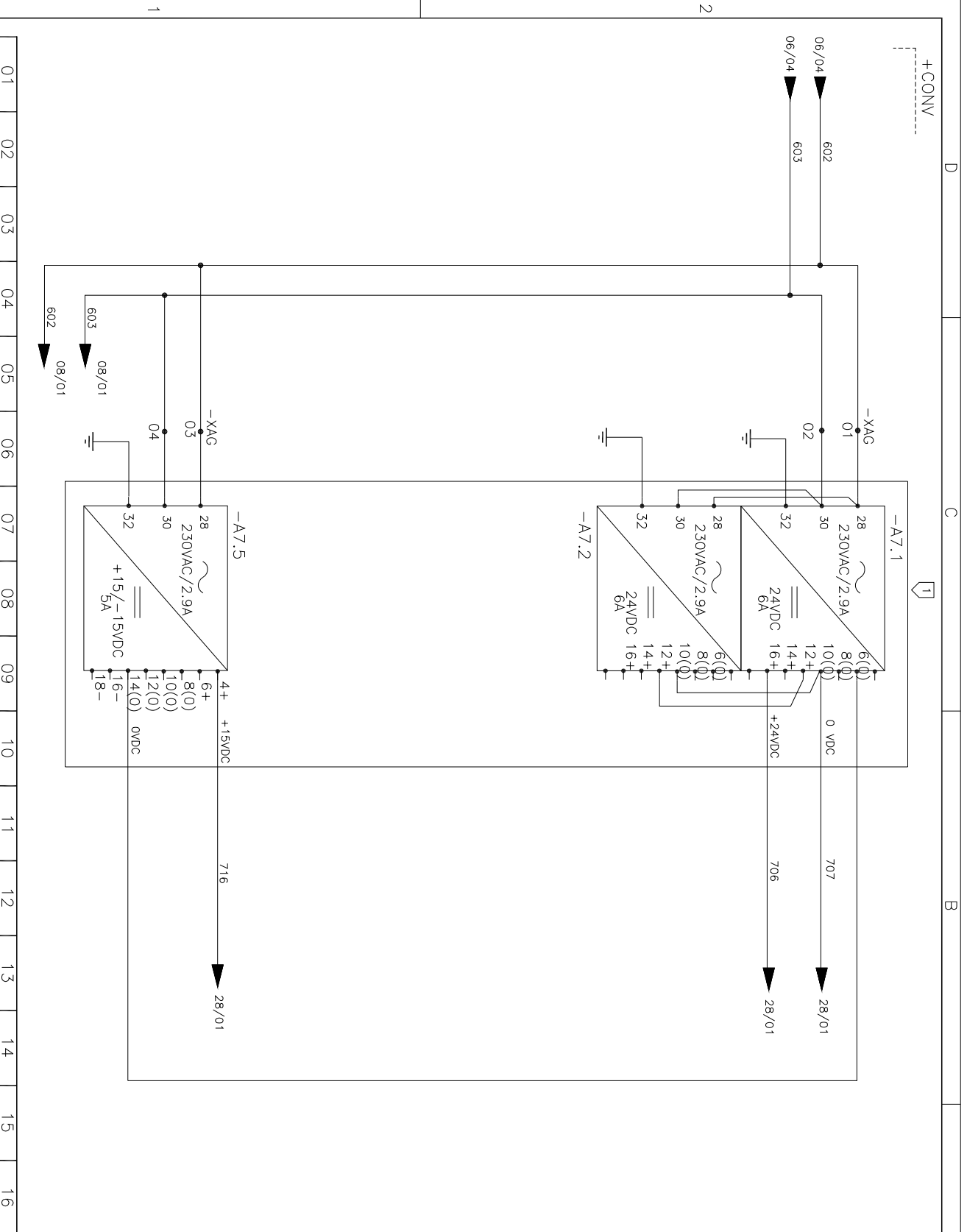
DESIGN	JVA	SHEET	06
APPD	FUB	CONT.	07

ICESA INGENIERIA Y COMPUTACION S.A.
MENDOZA-ARGENTINA

REFERENCES

1. POWER SUPPLY CONV. LINE SIDE

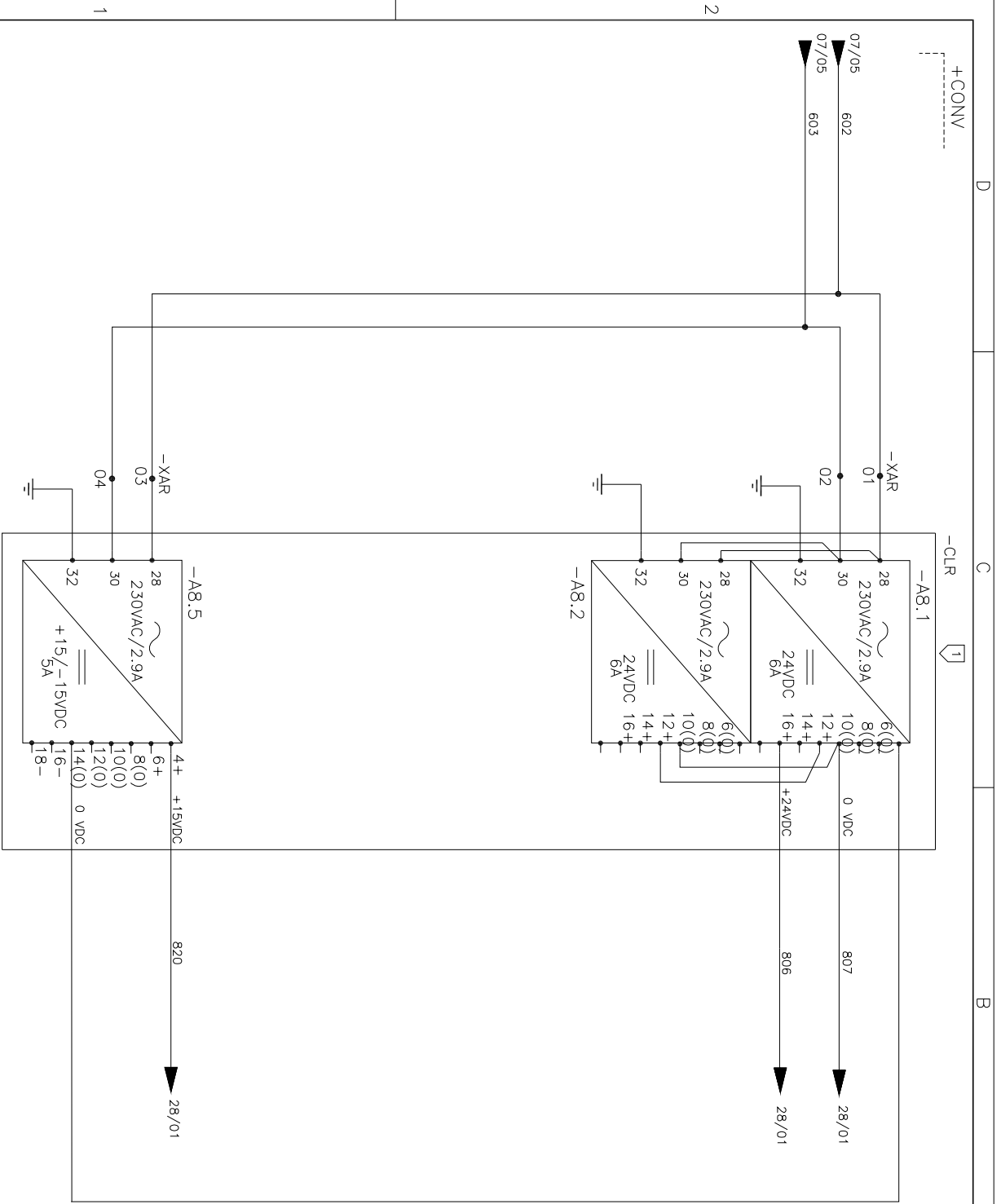
- #1 DRAWINGS 99835-670050
- #2 DRAWINGS D9706-02-04
- #3 DRAWINGS D9706-02-07



01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
GENERAL CHANGES		16/07/14		ICA		D9706-02-01		EDITION DATE 01/11/2006		JOB Nº D9706		STATIC FREQUENCY CONVERTER WIND GENERATOR			
GENERAL CHANGES		03/09/12		DAR		D9706-02-01		EDITION DATE 01/11/2006		JOB Nº D9706		STATIC FREQUENCY CONVERTER WIND GENERATOR			
AS BUILT		22/10/07		AGJ		D9706-02-01		EDITION DATE 01/11/2006		JOB Nº D9706		CONTROL SYSTEM CIRCUIT DIAGRAMS			
DENOMINATION				SIGN		D9706-02-01		EDITION DATE 01/11/2006		JOB Nº D9706		CONTROL SYSTEM CIRCUIT DIAGRAMS			

ICSA INGENIERIA Y COMPUTACION S.A. MENDOZA-ARGENTINA

DESIGN	JVA	SHEET	07
APPD	FUB	CONT.	08



REFERENCES

1: POWER SUPPLY CONV. GENERATOR SIDE

- #1 DRAWINGS 99835-680050
- #2 DRAWINGS D9706-02-04
- #3 DRAWINGS D9706-02-07

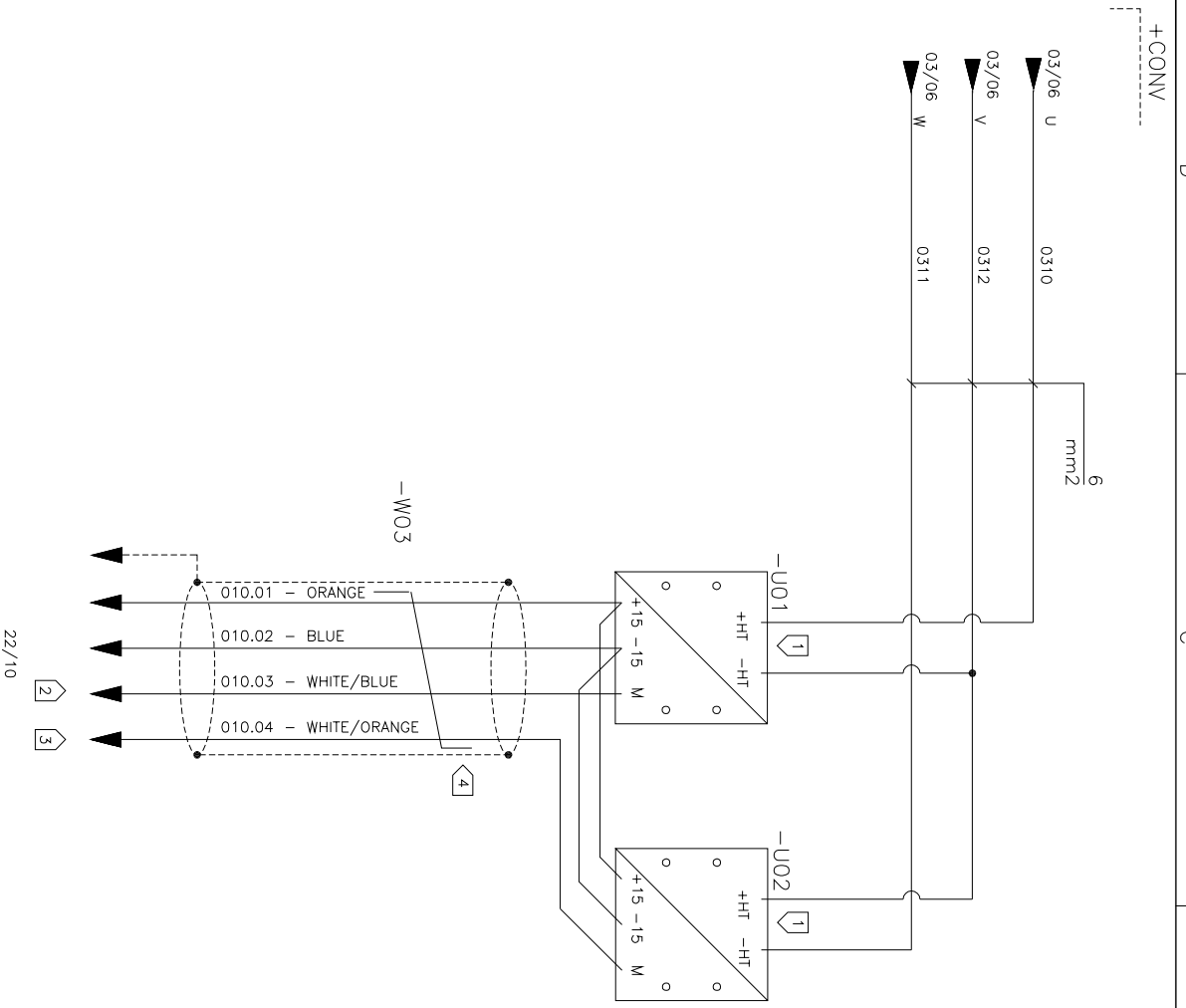
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GENERAL CHANGES		03/09/12		DAR	D9706-02-01		EDITION DATE		01/11/2006		JOB Nº		D9706		WIND GENERATOR	
AS BUILT		22/10/07		AGJ	D9706-02-01		EDITION DATE		01/11/2006		JOB Nº		D9706		CONTROL SYSTEM	
DENOMINATION				SIGN	D9706-02-01		EDITION DATE		01/11/2006		JOB Nº		D9706		CIRCUIT DIAGRAMS	

DESIGN JVA SHEET 08
 APPD FUB CONT. 10

ICESA INGENIERIA Y COMPUTACION S.A.
 MENDOZA-ARGENTINA

2

1



22/10

REFERENCES

- 1. VOLTAGE TRANSDUCER
- 2. VOLTAGE LINE UV
- 3. VOLTAGE LINE VW
- 4. 3107A BELDEN CABLE

- #1 DRAWINGS
99835-680050
- #2 DRAWINGS
D9706-02-04
- #3 DRAWINGS
D9706-02-07

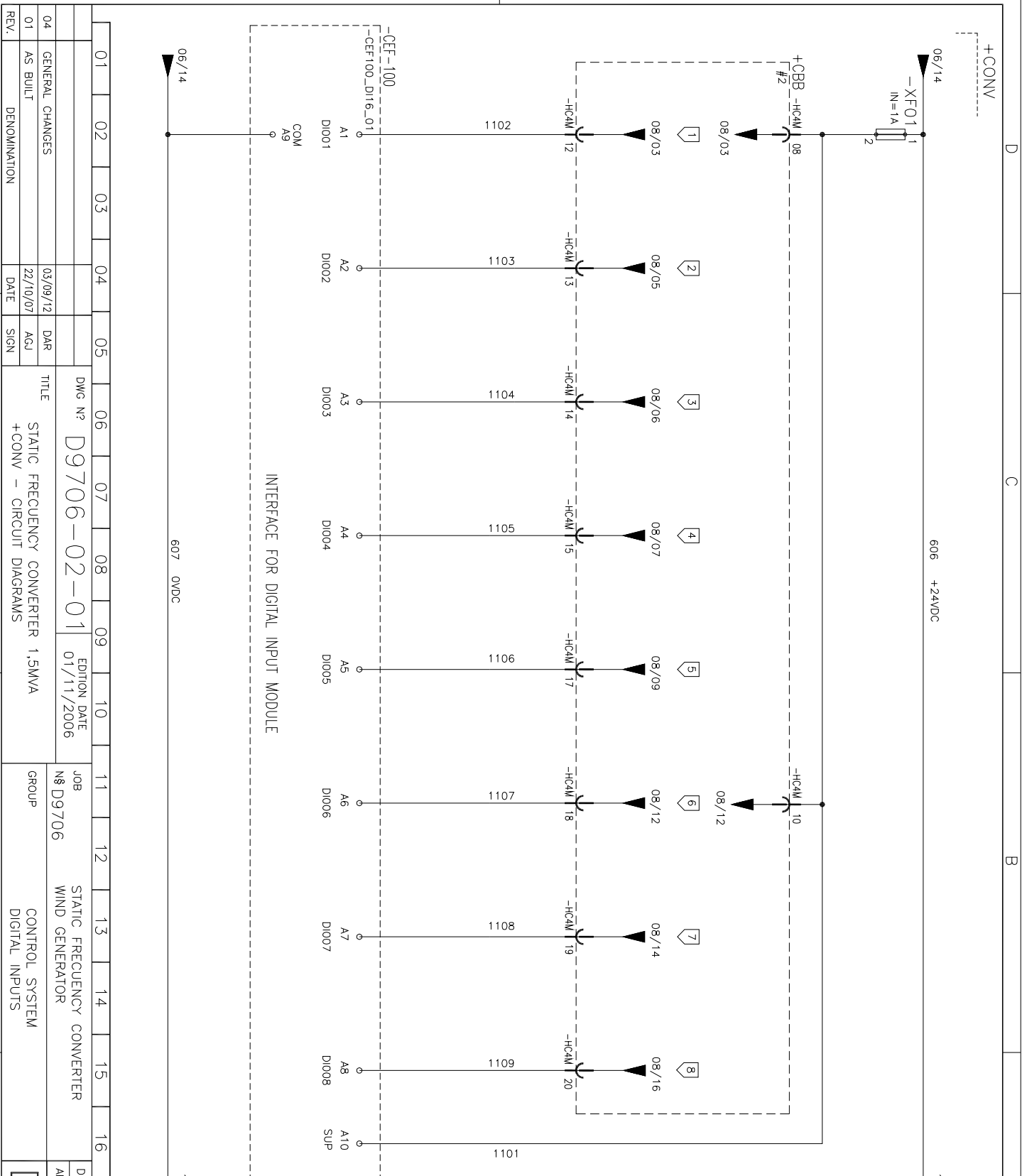
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GENERAL CHANGES		03/09/12		DAR	DWG N° D9706-02-01		EDITION DATE 01/11/2006		JOB N° D9706		STATIC FREQUENCY CONVERTER WIND GENERATOR				
AS BUILT		19/06/08		UFE	TITLE		STATIC FREQUENCY CONVERTER 1,5MVA					CONTROL SYSTEM			
AS BUILT		22/10/07		AGU	+ CONV - CIRCUIT DIAGRAMS		VOLTAGE ANALOGS SIGNALS					APPD			
DENOMINATION		DATE		SIGN	GROUP		DESIGN JVA					SHEET 10			
							APPD FUB					CONT. 11			



INGENIERIA Y COMPUTACION S.A. MENDOZA-ARGENTINA

1

2



- REFERENCES
1. CIRCUIT BREAKER OPENED (OF)
 2. CIRCUIT BREAKER CLOSED (OF) & CAPACITOR BANK OK
 3. CIRCUIT BRAKER SPRING CHARGED (MCH)
 4. CIRCUIT BREAKER OVERCURRENT, OVERPOWER OR SHORTCIRCUIT TRIP
 5. CIRCUIT BREAKER GRID LOSS SIGNAL
 6. CIRCUIT BREAKER READY TO CLOSE (PF)
 7. PRECHARGE CONTACTOR OPENED
 8. COMMAND VOLTAGE FAILURE

- #1 DRAWINGS 99835-680050
- #2 DRAWINGS D9706-02-04
- #3 DRAWINGS D9706-02-07

DESIGN	JVA	SHEET	11
APPD	FUB	CONT.	12

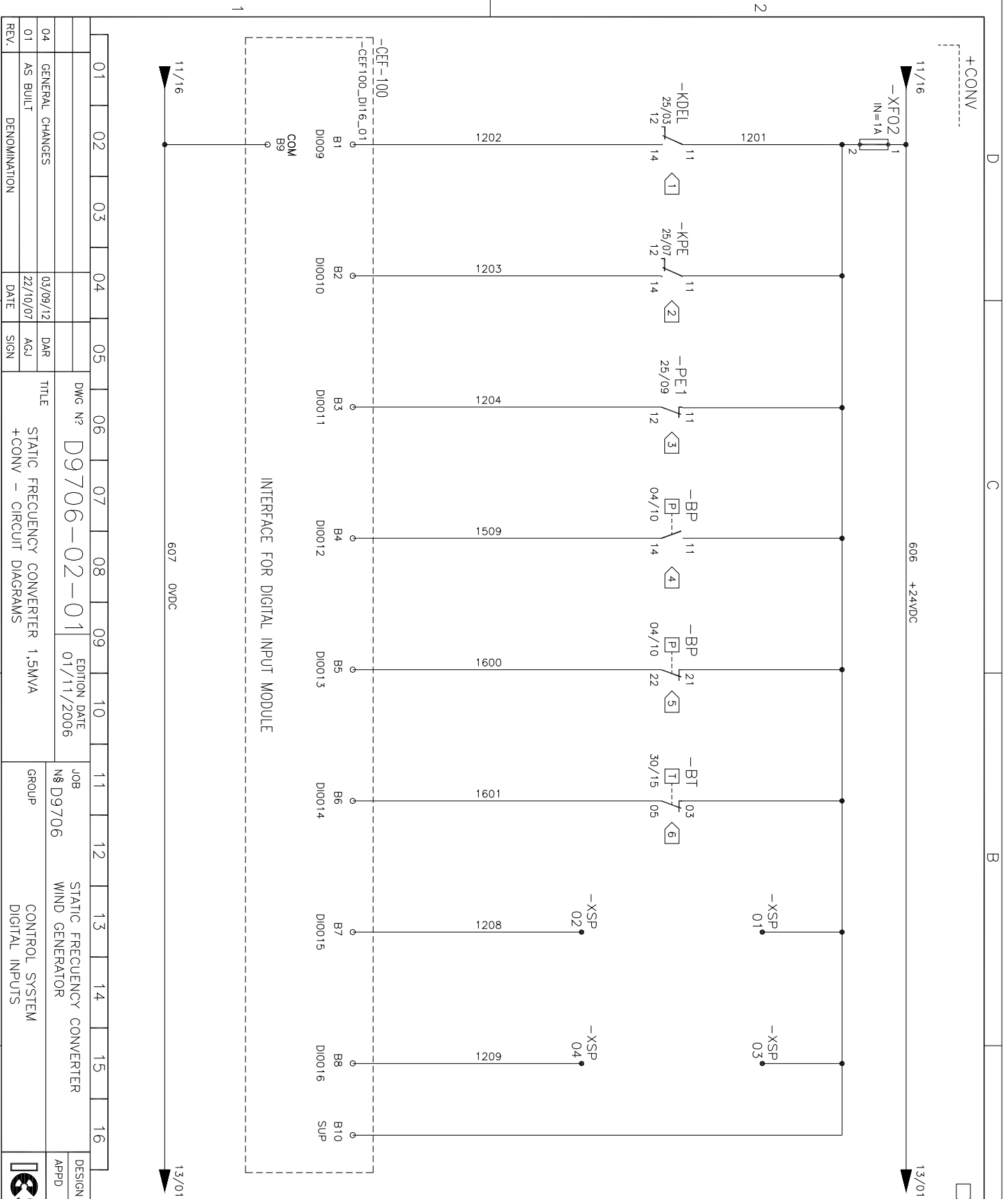


GROUP	CONTROL SYSTEM DIGITAL INPUTS
JOB N°	D9706
STATIC FREQUENCY CONVERTER	WIND GENERATOR
EDITION DATE	01/11/2006
DWG N°	D9706-02-01
TITLE	STATIC FREQUENCY CONVERTER 1.5MVA +CONV - CIRCUIT DIAGRAMS

DAR	AGJ	SIGN
DATE	22/10/07	DENOMINATION
DWG N°	D9706-02-01	EDITION DATE
DATE	03/09/12	TITLE
DAR	AGJ	SIGN
DATE	22/10/07	DENOMINATION

REV.	01	AS BUILT
REV.	04	GENERAL CHANGES

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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REFERENCES

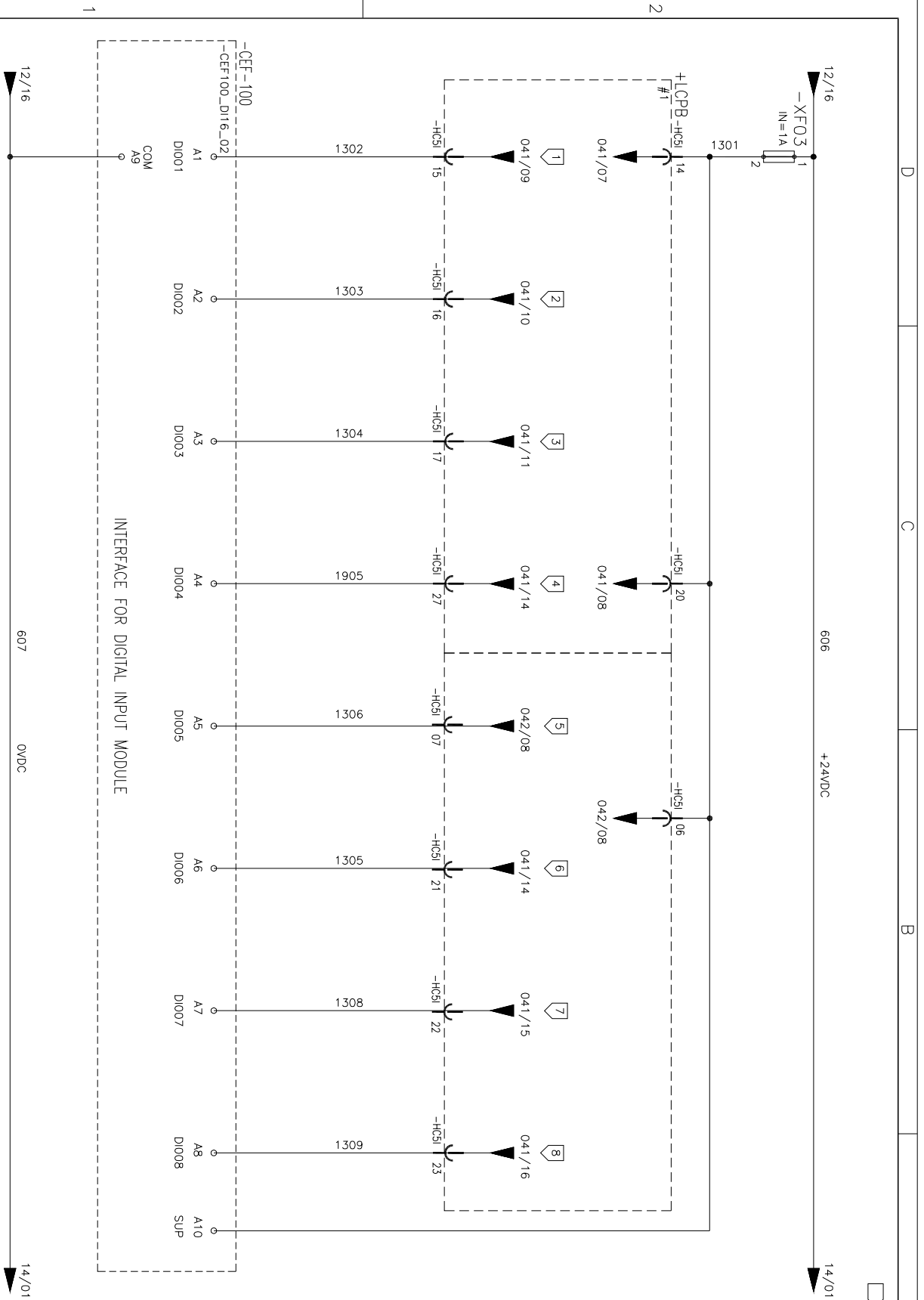
- 1. BASE CIRCUIT BREAKER
- 2. ELECTRICAL FAULT (SDF) FROM +LCPB
- 3. EMERGENCY SHUTDOWN COMMAND MANUAL
- 4. EMERGENCY SHUTDOWN PUSH BOTTON
- 5. CWS LOW PRESSURE
- 6. CWS HIGH PRESSURE
- 7. CWS HIGH TEMPERATURE
- 8. WATER OUTPUT

- #1 DRAWINGS 99835-680050
- #2 DRAWINGS D9706-02-04
- #3 DRAWINGS D9706-02-07

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
DWG N° D9706-02-01										JOB N° D9706		STATIC FREQUENCY CONVERTER WIND GENERATOR			
EDITION DATE 01/11/2006										GROUP		CONTROL SYSTEM DIGITAL INPUTS			
TITLE STATIC FREQUENCY CONVERTER 1,5MVA +CONV - CIRCUIT DIAGRAMS										DATE 22/10/07		SIGN			
REV. 01 AS BUILT										DAR AGJ		DATE 03/09/12			
GENERAL CHANGES										DAR AGJ		DATE 03/09/12			
DENOMINATION										SIGN		DATE 22/10/07			

DESIGN	JVA	SHEET	12
APPD	FUB	CONT.	13

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REFERENCES

NACELLE CIRCUIT BREAKER

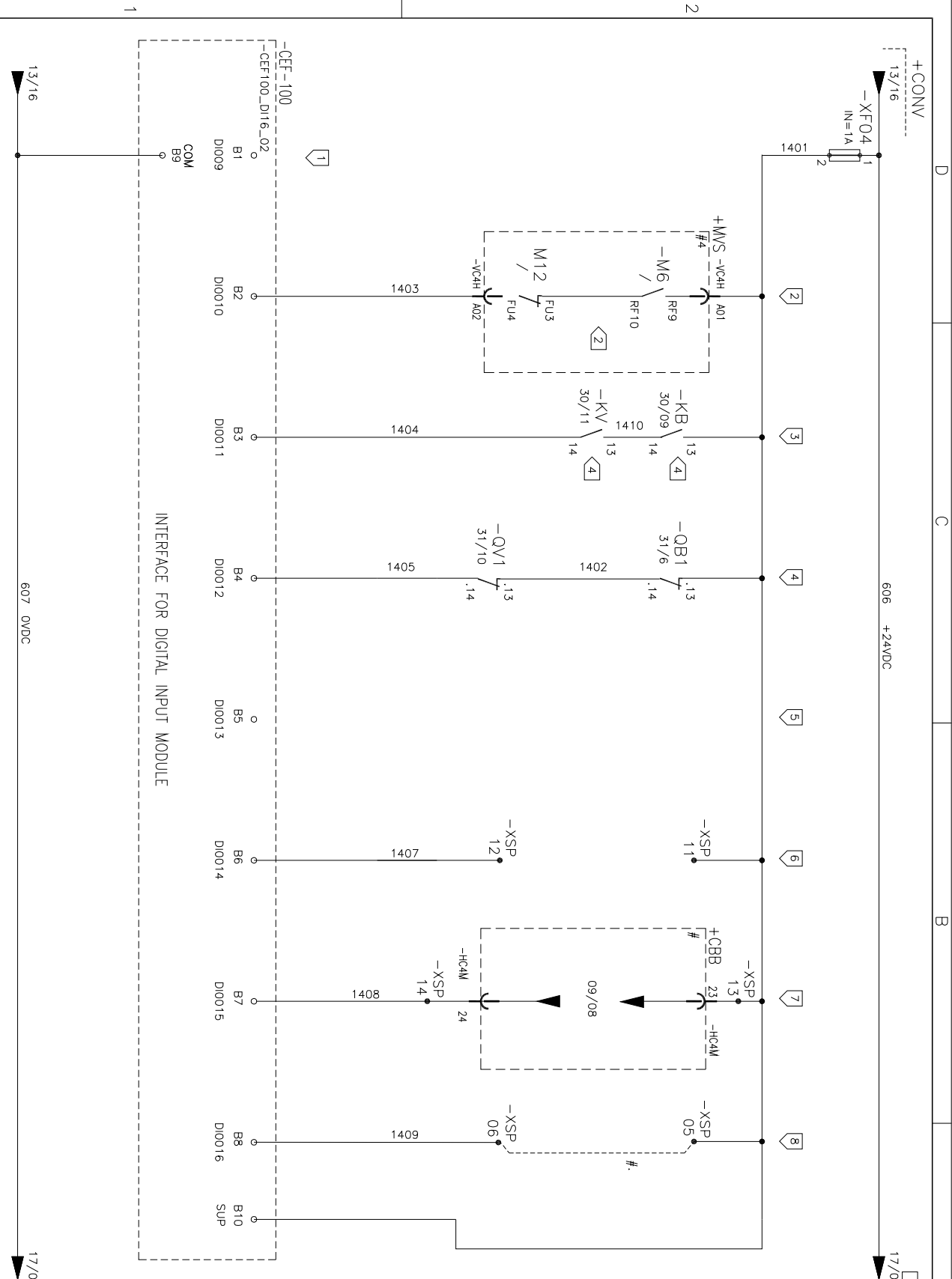
1. CIRCUIT BREAKER OPENED
2. CIRCUIT BREAKER CLOSED
3. CIRCUIT BREAKER SPRING CHARGED OK
4. SPARE
5. CONVERTER STARTUP COMMAND BY PLC
6. READY TO CLOSE
7. CBN FUSES OK
8. COMMAND VOLTAGE FAILURE

- #1 DRAWINGS
99835-690050
- #2 DRAWINGS
D9706-02-04
- #3 DRAWINGS
D9706-02-07
- #4 DRAWINGS

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
DWG N° D9706-02-01 EDITION DATE 01/11/2006										JOB N° D9706		STATIC FREQUENCY CONVERTER WIND GENERATOR			
TITLE STATIC FREQUENCY CONVERTER 1.5MVA + CONV - CIRCUIT DIAGRAMS										GROUP		CONTROL SYSTEM DIGITAL INPUTS			
GENERAL CHANGES		03/09/12		DAR		22/10/07		AGJ		SIGN		DENOMINATION			
AS BUILT		DATE		SIGN		DENOMINATION				DENOMINATION					

DESIGN	JVA	SHEET	13
APPD	FUB	CONT.	14

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 MENDOZA-ARGENTINA



INTERFACE FOR DIGITAL INPUT MODULE

REFERENCES

1. SPARE
2. SWITCH GEAR CLOSED AND FUSES OK
3. CWS STARTED AND OK
4. CWS READY
5. CWS SPARE
6. SPARE
7. CBB TEMP OK
8. POWER SUPPLES OK

#1 DRAWINGS
99835-680050

#2 DRAWINGS
D9706-02-04

#3 DRAWINGS
D9706-02-07

#4 DRAWINGS

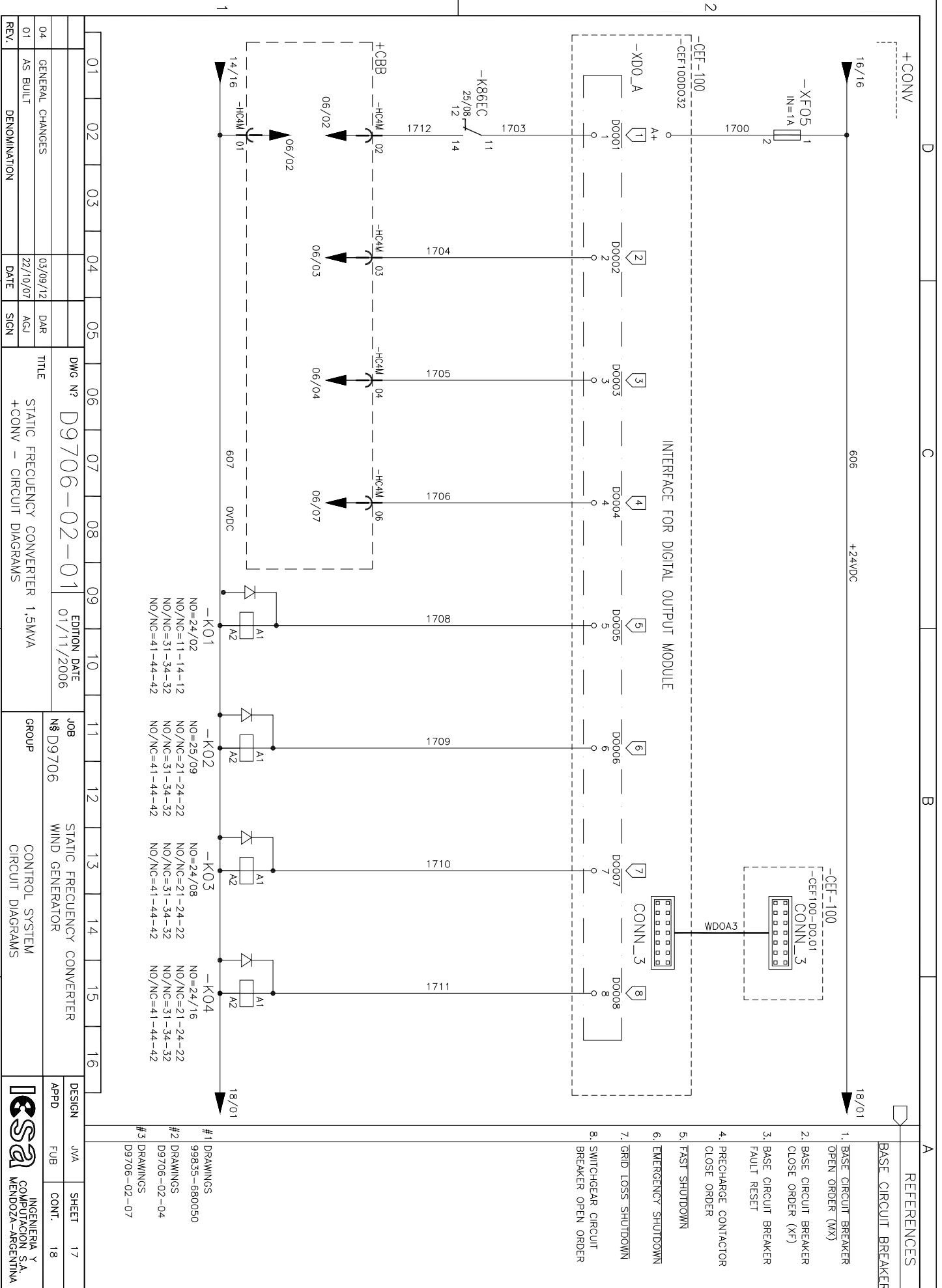
#1 DRAWINGS
99835-680050

#2 DRAWINGS
D9706-02-04

#3 DRAWINGS
D9706-02-07

#4 DRAWINGS

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	
REV.					DWG N°		EDITION DATE		JOB		STATIC FREQUENCY CONVERTER		DESIGN		SHEET	
04 GENERAL CHANGES					D9706-02-01		01/11/2006		N° D9706		WIND GENERATOR		APPD		14	
01 AS BUILT					D9706-02-01		01/11/2006		N° D9706		CONTROL SYSTEM		FUB		17	
DENOMINATION					DATE		SIGN		GROUP		DIGITAL INPUTS		ICESA		INGENIERIA Y COMPUTACION S.A. MENDOZA-ARGENTINA	



- REFERENCES**
- 1. BASE CIRCUIT BREAKER OPEN ORDER (MX)
 - 2. BASE CIRCUIT BREAKER CLOSE ORDER (XF)
 - 3. BASE CIRCUIT BREAKER FAULT RESET
 - 4. RECHARGE CONTACTOR CLOSE ORDER
 - 5. FAST SHUTDOWN
 - 6. EMERGENCY SHUTDOWN
 - 7. GRID LOSS SHUTDOWN
 - 8. SWITCHGEAR CIRCUIT BREAKER OPEN ORDER

- DRAWINGS**
- #1 DRAWINGS 99835-680050
 - #2 DRAWINGS D9706-02-04
 - #3 DRAWINGS D9706-02-07

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
DWG N° D9706-02-01										EDITION DATE 01/11/2006		JOB N° D9706			
TITLE STATIC FREQUENCY CONVERTER 1.5MVA										GROUP CONTROL SYSTEM		CIRCUIT DIAGRAMS			
GENERAL CHANGES										DATE		SIGN			
AS BUILT										22/10/07		AGU			
DENOMINATION										DATE		SIGN			

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DESIGN JVA SHEET 17
APPD FUB CONT. 18

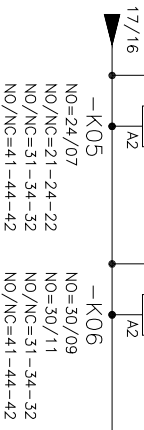
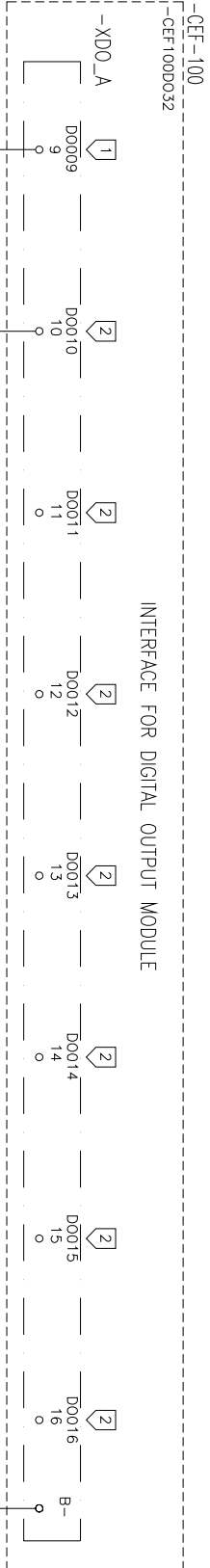
+CONV

606 +24VDC

19/01
1. CONVERTER READY TO CONNECT

2. CMS SYSTEM START

REFERENCES



-K05
NO=24/07
NO/NG=21-24-22
NO/NC=31-34-32
NO/NC=41-44-42

-K06
NO=30/09
NO=30/11
NO/NC=31-34-32
NO/NC=41-44-42

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
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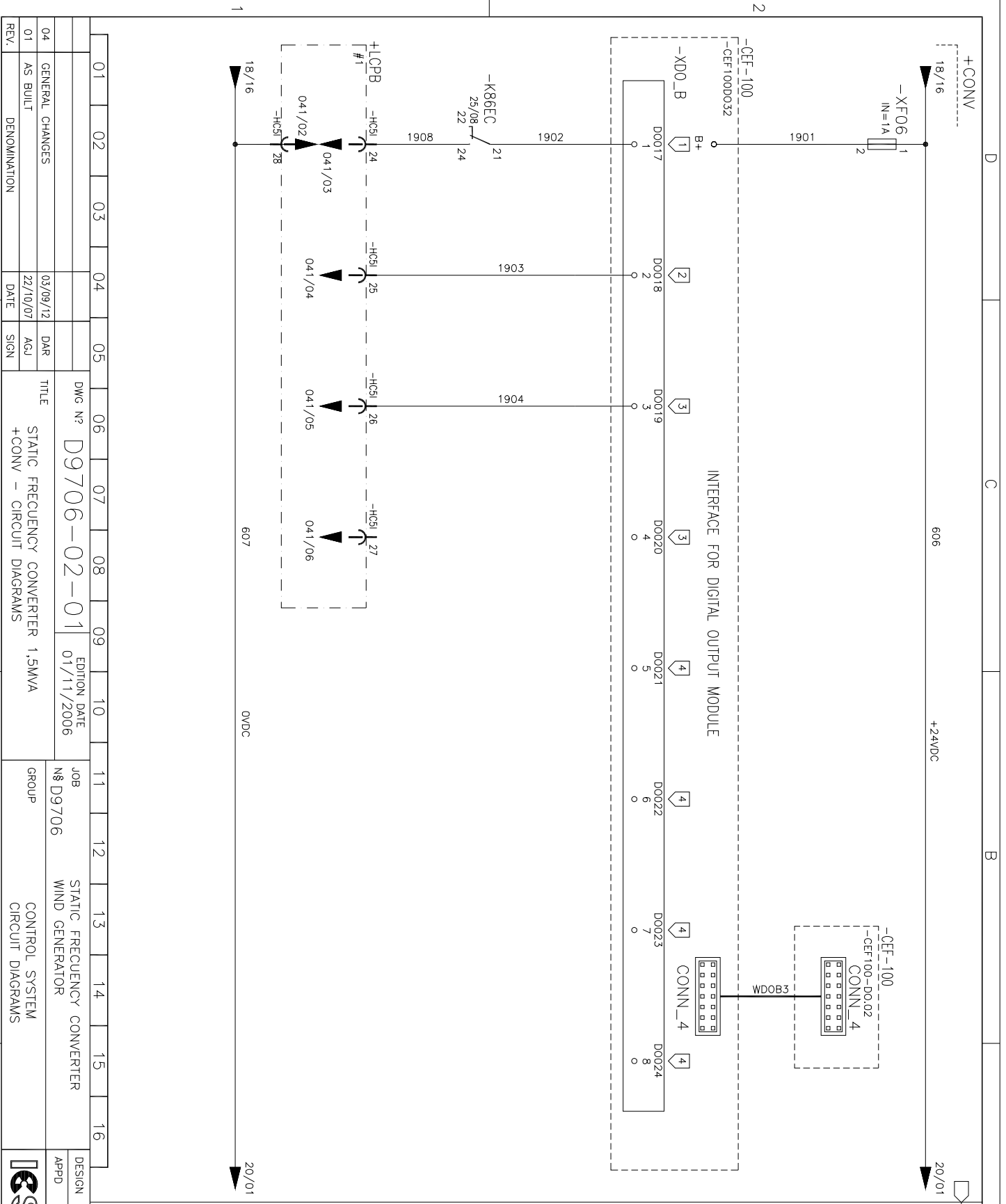
04	GENERAL CHANGES	03/09/12	DAR	DWG N°	D9706-02-01		EDITION DATE	01/11/2006		JOB	N° D9706		STATIC FREQUENCY CONVERTER		
02	AS BUILT	17/06/08	UFE	TITLE	STATIC FREQUENCY CONVERTER 1.5MVA										
01	AS BUILT	22/10/07	AGJ	TITLE	+CONV - CIRCUIT DIAGRAMS										
REV.	DENOMINATION	DATE	SIGN												

- #1 DRAWINGS
99835-680050
- #2 DRAWINGS
D9706-02-04
- #3 DRAWINGS
D9706-02-07

DESIGN	JVA	SHEET	18
APPD	FUB	CONT.	19



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REFERENCES

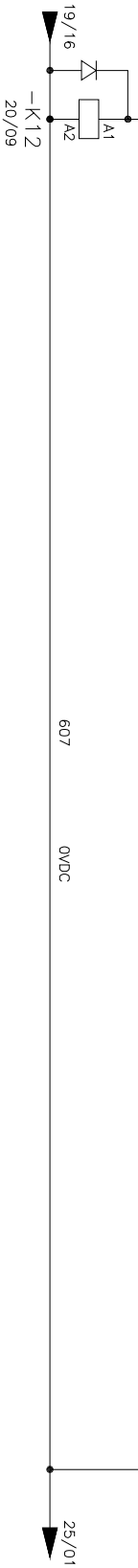
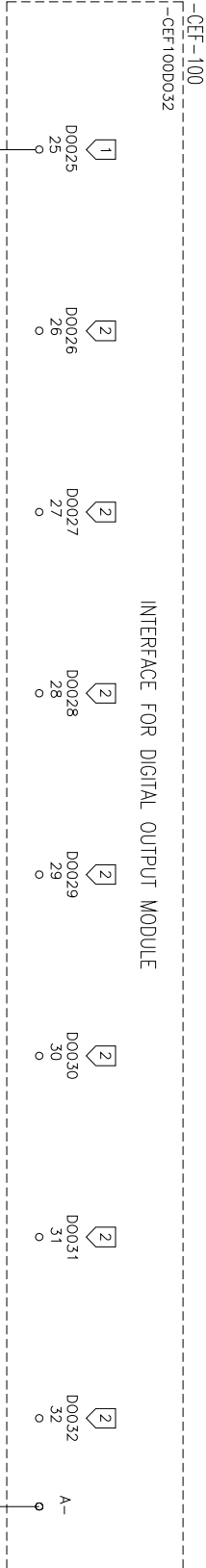
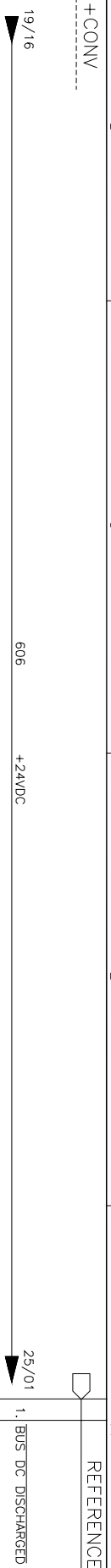
- 1. MACELLE CIRCUIT BREAKER
- 2. MACELLE CIRCUIT BREAKER OPEN ORDER
- 3. MACELLE CIRCUIT BREAKER CLOSE ORDER
- 4. SPARE EQUIPED
- 4. SPARE

- #1 DRAWINGS
99835-680050
- #2 DRAWINGS
D9706-02-04
- #3 DRAWINGS
D9706-02-07

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
					DWG N°	D9706-02-01		EDITION DATE							
					TITLE	STATIC FREQUENCY CONVERTER 1,5MVA									
					DATE	22/10/07		SIGN							
					DENOMINATION	+CONV - CIRCUIT DIAGRAMS									

DESIGN	JVA	SHEET	19
APPD	FUB	CONT.	20





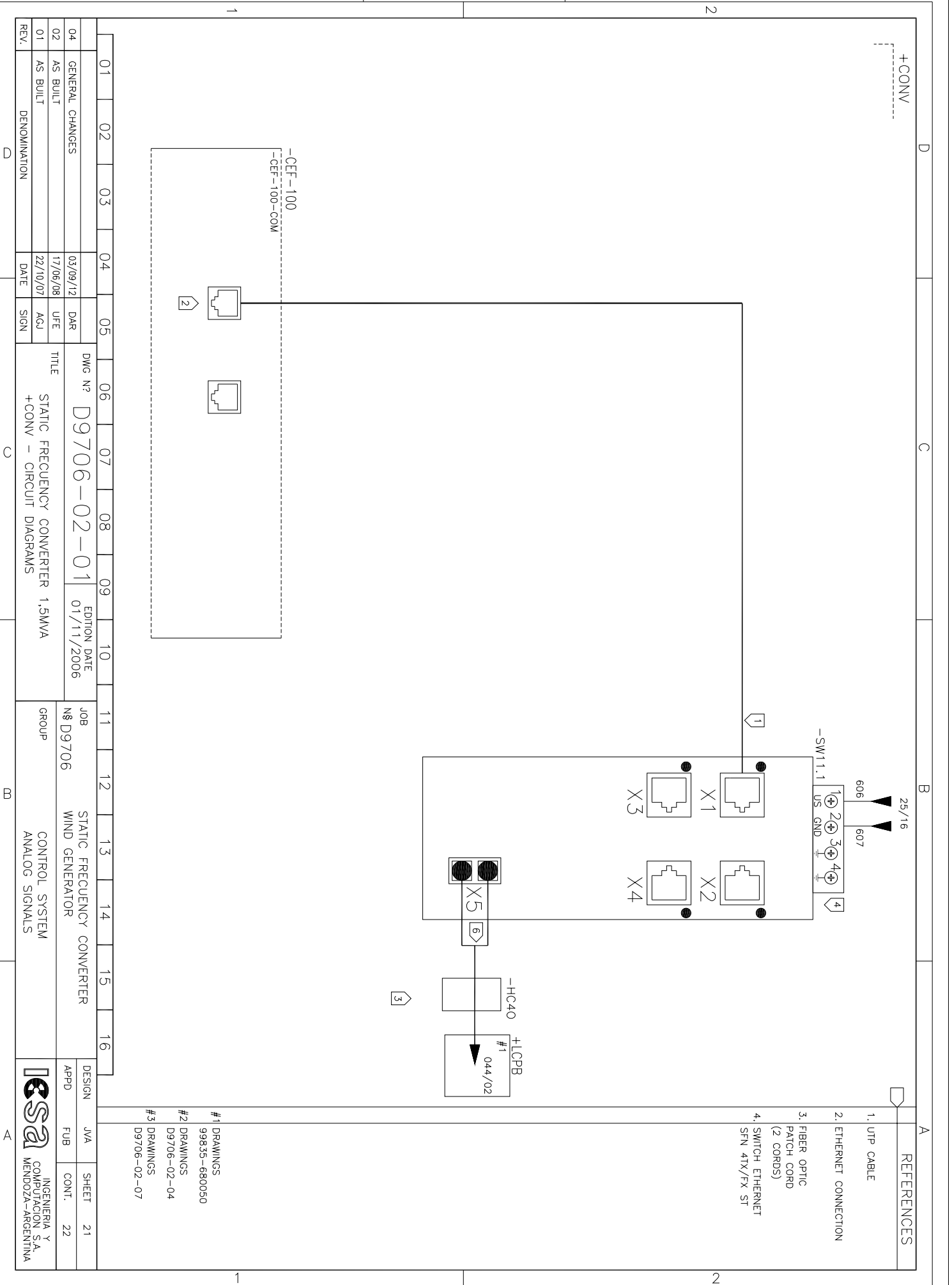
REFERENCES

1. BUS DC DISCHARGED

- #1 DRAWINGS
99835-680050
- #2 DRAWINGS
D9706-02-04
- #3 DRAWINGS
D9706-02-07

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
DWG N° D9706-02-01 EDITION DATE 01/11/2006 TITLE STATIC FREQUENCY CONVERTER 1,5MVA +CONV - CIRCUIT DIAGRAMS										JOB N° D9706 STATIC FREQUENCY CONVERTER WIND GENERATOR		GROUP CONTROL SYSTEM DIGITAL OUTPUTS		DESIGN JVA SHEET 20 APPD FUB CONT. 21	
GENERAL CHANGES 04 AS BUILT 03/09/12 22/10/07 DATE DAR AGJ				DENOMINATION SIGN		#1 DRAWINGS 99835-680050 #2 DRAWINGS D9706-02-04 #3 DRAWINGS D9706-02-07									






REFERENCES

- 1. UTP CABLE
- 2. ETHERNET CONNECTION
- 3. FIBER OPTIC PATCH CORD (2 CORDS)
- 4. SWITCH ETHERNET SFN 4TX/FX ST

- #1 DRAWINGS 99835-680050
- #2 DRAWINGS D9706-02-04
- #3 DRAWINGS D9706-02-07

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16		
GENERAL CHANGES		03/09/12		DAR	DWG N° D9706-02-01		EDITION DATE 01/11/2006		JOB N° D9706		STATIC FREQUENCY CONVERTER WIND GENERATOR		CONTROL SYSTEM ANALOG SIGNALS				
02	AS BUILT		17/06/08		UFE												
01	AS BUILT		22/10/07		AGJ												
REV.	DENOMINATION		DATE		SIGN		TITLE		GROUP		DESIGN		SHEET		APPD		
							STATIC FREQUENCY CONVERTER 1.5MVA		CONTROL SYSTEM ANALOG SIGNALS		JVA		21		FUB		
							+CONV - CIRCUI		ANALOG SIGNALS		CONT.		22		ICESA		


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