



## **IMMOBILIARE NUOVA SEDE**

**COSTRUZIONE DELLA NUOVA SEDE DELLA CASSA DI  
RISPARMIO DI FIRENZE - AUTORIMESSA PUBBLICA**

**IMPIANTI ELETTRICI - TERMOMECCANICI E ANTINCENDIO**

**SPECIFICHE MATERIALI N° 02**

**Descrizione: Gruppo elettrogeno**

**Marca: PRAMAC**

**Modelli:**

**- GLS 30**

# STAMFORD®

## SX460 AUTOMATIC VOLTAGE REGULATOR (AVR)

### SPECIFICATION, INSTALLATION AND ADJUSTMENTS

#### GENERAL DESCRIPTION

SX460 is a half-wave phase-controlled thyristor type Automatic Voltage Regulator (AVR) and forms part of the excitation system for a brush-less generator.

In addition to regulating the generator voltage, the AVR circuitry includes under-speed and sensing loss protection features. Excitation power is derived directly from the generator terminals.

Positive voltage build up from residual levels is ensured by the use of efficient semiconductors in the power circuitry of the AVR.

The AVR is linked with the main stator windings and the exciter field windings to provide closed loop control of the output voltage with load regulation of  $\pm 1.0\%$ .

In addition to being powered from the main stator, the AVR also derives a sample voltage from the output windings for voltage control purposes. In response to this sample voltage, the AVR controls the power fed to the exciter field, and hence the main field, to maintain the machine output voltage within the specified limits, compensating for load, speed, temperature and power factor of the generator.

A frequency measuring circuit continually monitors the generator output and provides output under-speed protection of the excitation system, by reducing the output voltage proportionally with speed below a pre-settable threshold. A manual adjustment is provided for factory setting of the under frequency roll off point, (UFRO). This can easily be changed to 50 or 60 Hz in the field by push-on link selection.

Provision is made for the connection of a remote voltage trimmer, allowing the user fine control of the generator's output.

#### TECHNICAL SPECIFICATION

##### INPUT

Voltage	Jumper selectable 95-132V ac or 190-264V ac
Frequency	50-60 Hz nominal
Phase	1

##### OUTPUT

Voltage	max 90V dc at 207V ac input
Current	continuous 4 A dc intermittent 6 A for 10 secs
Resistance	15 ohms minimum

##### REGULATION

$\pm 1.0\%$  (see note 1)

##### THERMAL DRIFT

0.05% per deg. C change in AVR ambient (note 2)

##### TYPICAL SYSTEM RESPONSE

AVR response	20 ms
Field current to 90%	80 ms
Machine Volts to 97%	300 ms

##### EXTERNAL VOLTAGE ADJUSTMENT

$\pm 10\%$  with 1 k ohm 1 watt trimmer (see note 3)

##### UNDER FREQUENCY PROTECTION

Set point	95% Hz (see note 4)
Slope	170% down to 30 Hz

##### UNIT POWER DISSIPATION

10 watts maximum

##### BUILD UP VOLTAGE

4 Volts @ AVR terminals

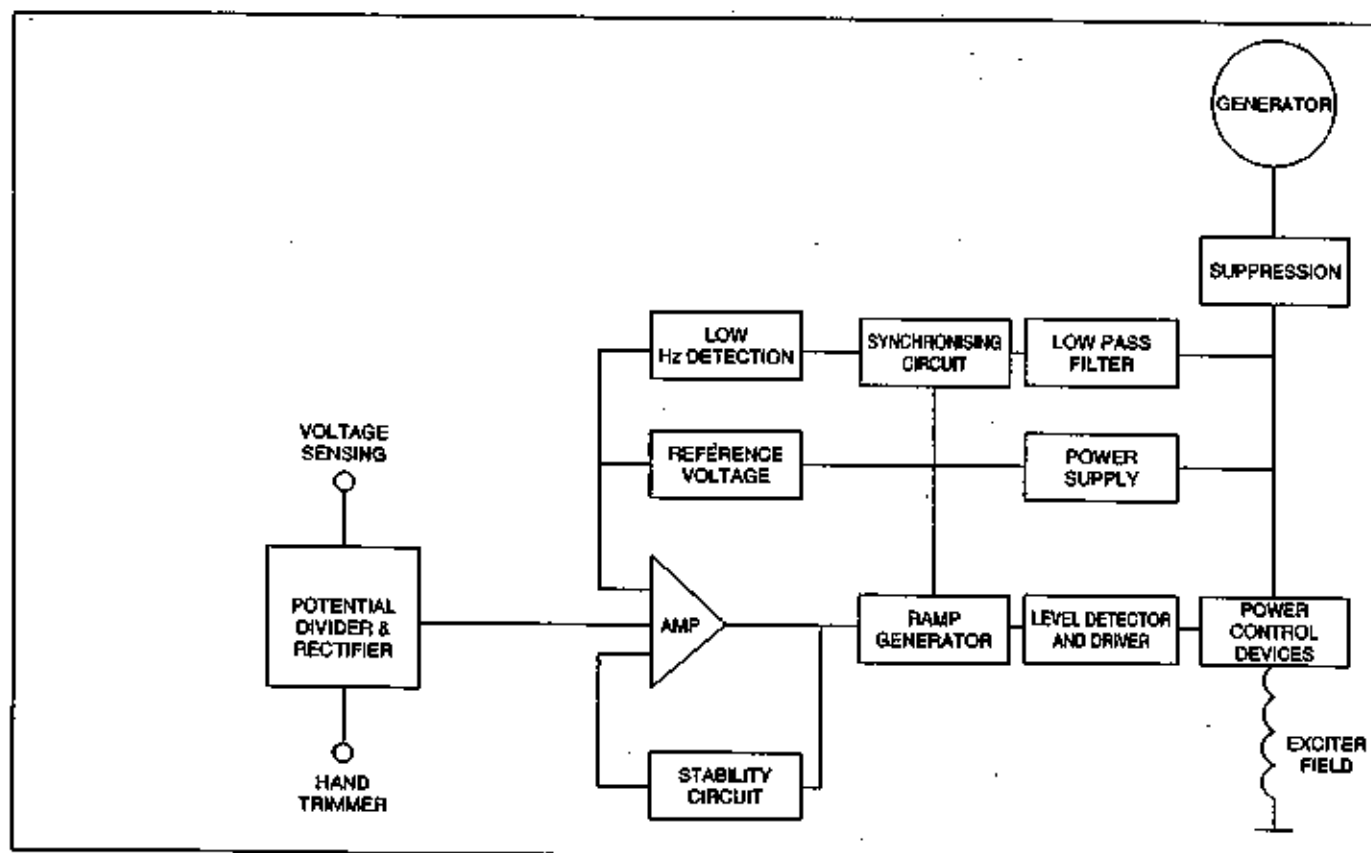
##### ENVIRONMENTAL

Vibration	20-100 Hz 100Hz - 2kHz	50mm/sec 3.3g
Operating temperature		-40 to +70°C
Relative Humidity	0-70°C	95% (see note 5)
Storage temperature		-55 to +80°C

##### NOTES

1. With 4% engine governing
2. After 10 minutes.
3. Applies to Mod status F onwards. Generator de-rate may apply. Check with factory.
4. Factory set, semi-sealed, jumper selectable
5. Non condensing.

## DESIGN DETAILS



The main functions of the AVR are:

**Potential Divider and Rectifier** takes a proportion of the generator output voltage and attenuates it. This input chain of resistors includes the range potentiometer and hand trimmer which adjust the generator voltage. A rectifier converts the a.c. into d.c. for further processing.

The **Amplifier (Amp)** compares the sensing voltage to the **Reference Voltage** and amplifies the difference (error) to provide a controlling signal for the power devices. The **Ramp Generator** and **Level Detector and Driver** infinitely control the conduction period of the **Power Control Devices** and hence provides the excitation system with the required power to maintain the generator voltage within specified limits.

The **Stability Circuit** provides adjustable negative ac feedback to ensure good steady state and transient performance of the control system.

The **Low Hz Detector** measures the period of each electrical cycle and causes the reference voltage to be reduced approximately linearly with speed below a presettable threshold. A Light Emitting Diode gives indication of underspeed running.

The **Synchronising circuit** is used to keep the **Ramp Generator** and **Low Hz Detector** locked to the generator waveform period.

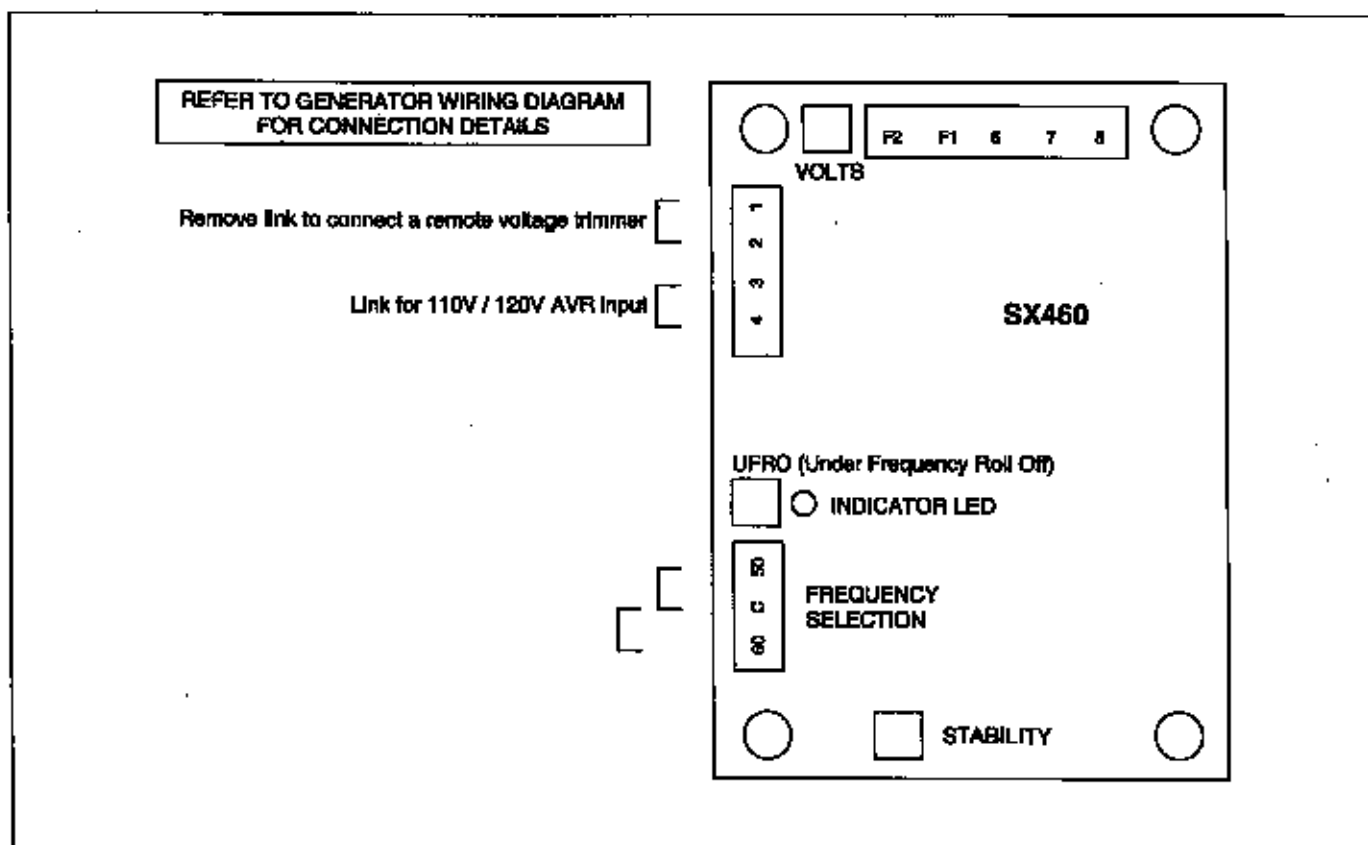
The **Low Pass Filter** prevents distorted waveforms affecting the operation of the AVR.

**Power Control Devices** vary the amount of exciter field current in response to the error signal produced by the Amplifier.

**Suppression** components are included to prevent sub cycle voltage spikes damaging the AVR components and also to reduce the amount of conducted noise on the generator terminals.

The **Power Supply** provides the required voltages for the AVR circuitry.

## FITTING AND OPERATING



SUMMARY OF AVR CONTROLS		
CONTROL	FUNCTION	DIRECTION
VOLTS	TO ADJUST GENERATOR OUTPUT VOLTAGE	CLOCKWISE INCREASES OUTPUT VOLTAGE
STABILITY	TO PREVENT VOLTAGE HUNTING	CLOCKWISE INCREASES THE DAMPING EFFECT
UFRO	TO SET THE UFRO KNEE POINT	CLOCKWISE REDUCES THE KNEE POINT

### ADJUSTMENT OF AVR CONTROLS

#### VOLTAGE ADJUSTMENT

The generator output voltage is set at the factory, but can be altered by careful adjustment of the VOLTS control on the AVR board, or by the external hand trimmer if fitted. Terminals 1 and 2 on the AVR will be fitted with a shorting link if no hand trimmer is required. Terminals 3 and 4 are linked only for special low voltage applications.

**CAUTION** Do not increase the voltage above the rated generator voltage. If in doubt, refer to the rating plate mounted on the generator case.  
**CAUTION** Do not ground any of the hand trimmer terminals as these could be above earth potential. Failure to observe this could cause equipment damage.

If a replacement AVR has been fitted or re-setting of the VOLTS adjustment is required, proceed as follows:

#### CAUTION

- Before running generator, turn the VOLTS control fully anti-clockwise.
- Turn remote volts trimmer (if fitted) to midway position.
- Turn STABILITY control to midway position.
- Connect a suitable voltmeter (0-300V ac) across line to neutral of the generator.
- Start generator set, and run on no load at nominal frequency e.g. 50-53Hz or 60-63Hz.
- If the red Light Emitting Diode (LED) is illuminated, refer to the Under Frequency Roll Off (UFRO) adjustment.
- Carefully turn VOLTS control clockwise until rated voltage is reached.
- If instability is present at rated voltage, refer to stability adjustment, then re-adjust voltage if necessary.
- Voltage adjustment is now completed.

## **FITTING AND OPERATING**

### **STABILITY ADJUSTMENT**

The AVR includes a stability or damping circuit to provide good steady state and transient performance of the generator.

The correct setting can be found by running the generator at no load and slowly turning the stability control anti-clockwise until the generator voltage starts to become unstable.

The optimum or critically damped position is slightly clockwise from this point (i.e. where the machine volts are stable but close to the unstable region).

### **UNDER FREQUENCY ROLL OFF (UFRO) ADJUSTMENT**

The AVR incorporates an underspeed protection circuit which gives a volts/Hz characteristic when the generator speed falls below a presettable threshold known as the "knee" point.

The red Light Emitting Diode (LED) gives indication that the UFRO circuit is operating.

The UFRO adjustment is preset and sealed and only requires the selection of 50 / 60Hz using the jumper link.

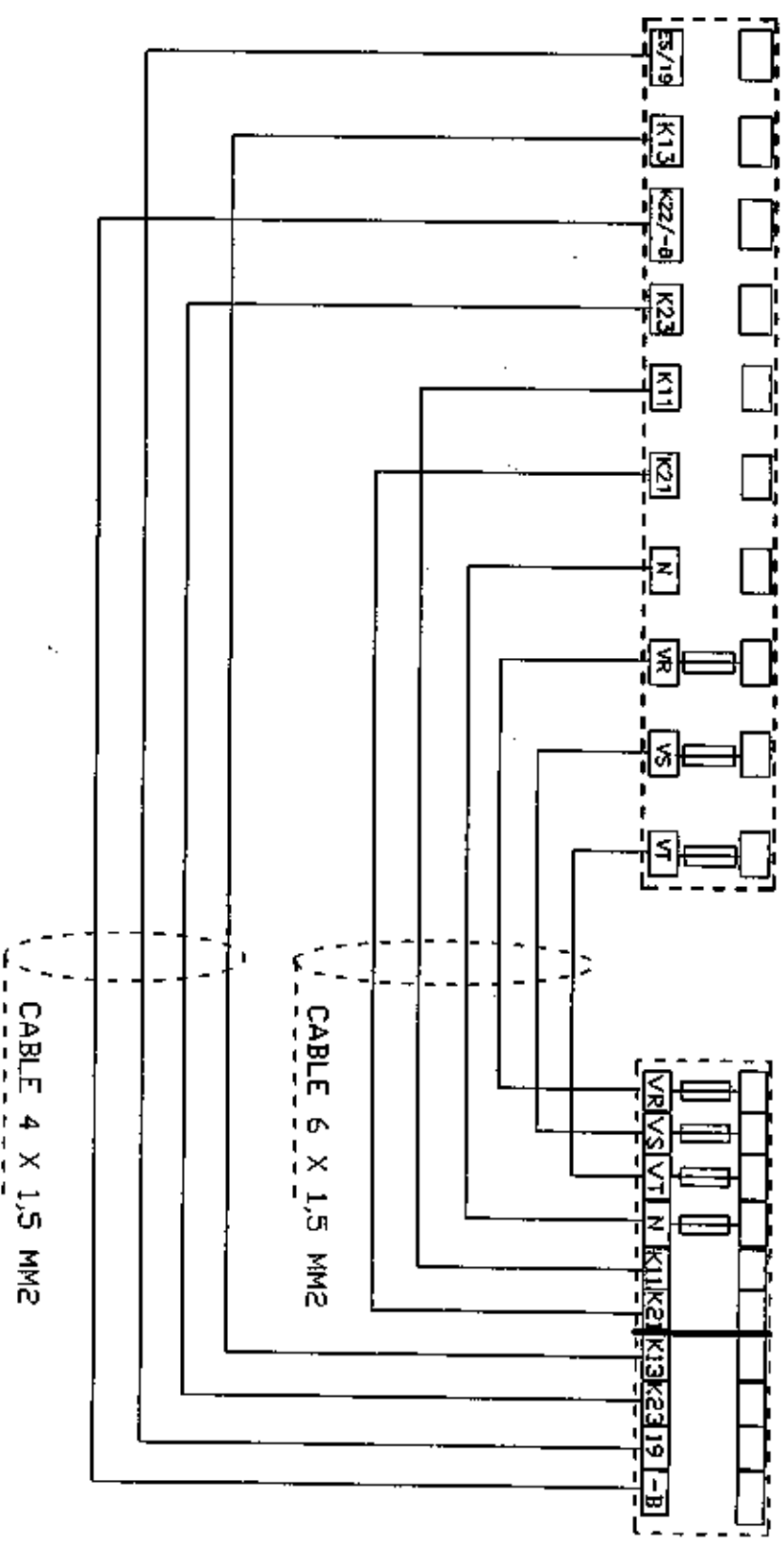
For optimum setting, the LED should illuminate as the frequency falls just below nominal, i.e. 47Hz on a 50Hz system or 57Hz on a 60Hz system.

# **STAMFORD**

Barnack Road • Stamford • Lincolnshire • PE9 2NB  
Tel: 00 44 (0)1780 484000 • Fax: 00 44 (0)1780 484100

# BORNERO CUADRO ACP PLINTH BOARD ACP PANEL

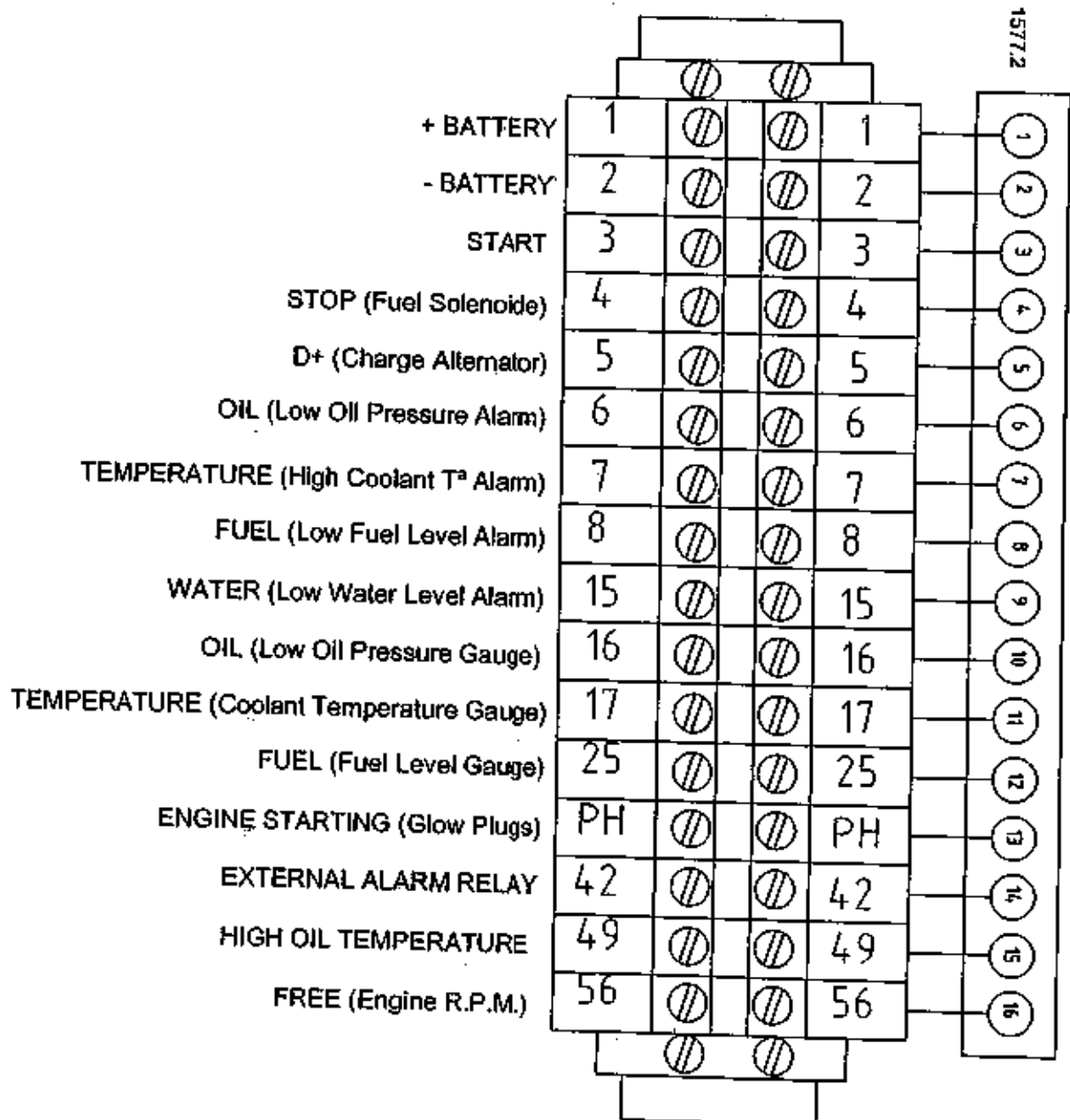
# BORNERO CUADRO LTS PLINTH BOARD LTS PANEL



CONEXION CUADRO ACP CON  
CUADRO LTS  
CONNECTION OF ACP PANEL  
TO LOAD TRANSFER SWITCH

SMSW194001		Rev04			
Fecha: 26/01/05		Rev03			
Pag: 1		Rev02			
Autor: H.ERICSSON		Rev01	Autor:	Fecha:	Descrip:

\* 16 PLINTHS R/C 2,5-4 PA CODE 15772  
 \* 2 BUMPERS  
 \* SILKSCREEN MARKER  
 \* DIN RAIL (120 MM)



MULTIPIN TO  
BOARD

ENGINE

ENGINE PLINTH ROW

SM5W110033

Fecha: 17/10/2006

Pág:

Autor: Manuel Sánchez

Rev01

Autor:

Fecha:

Descrip:

Rev04

Rev03

Rev02

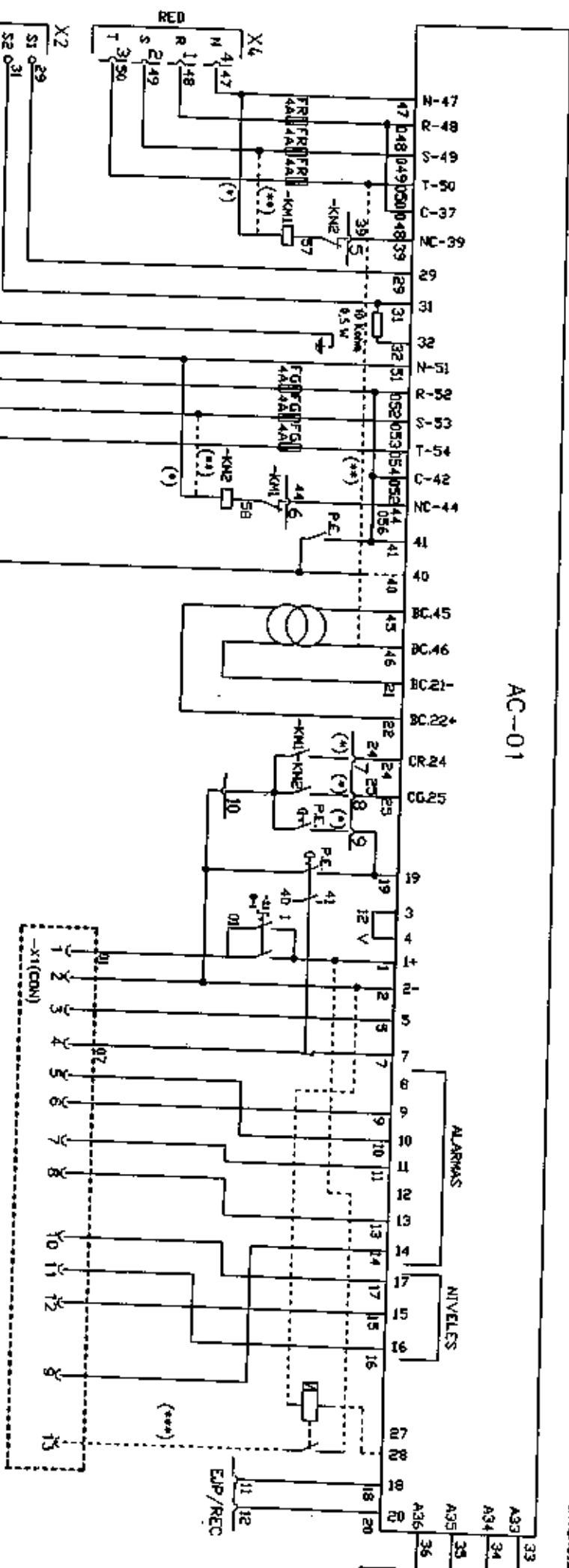






TRAFES DE  
INTENSIDAD

AC-01



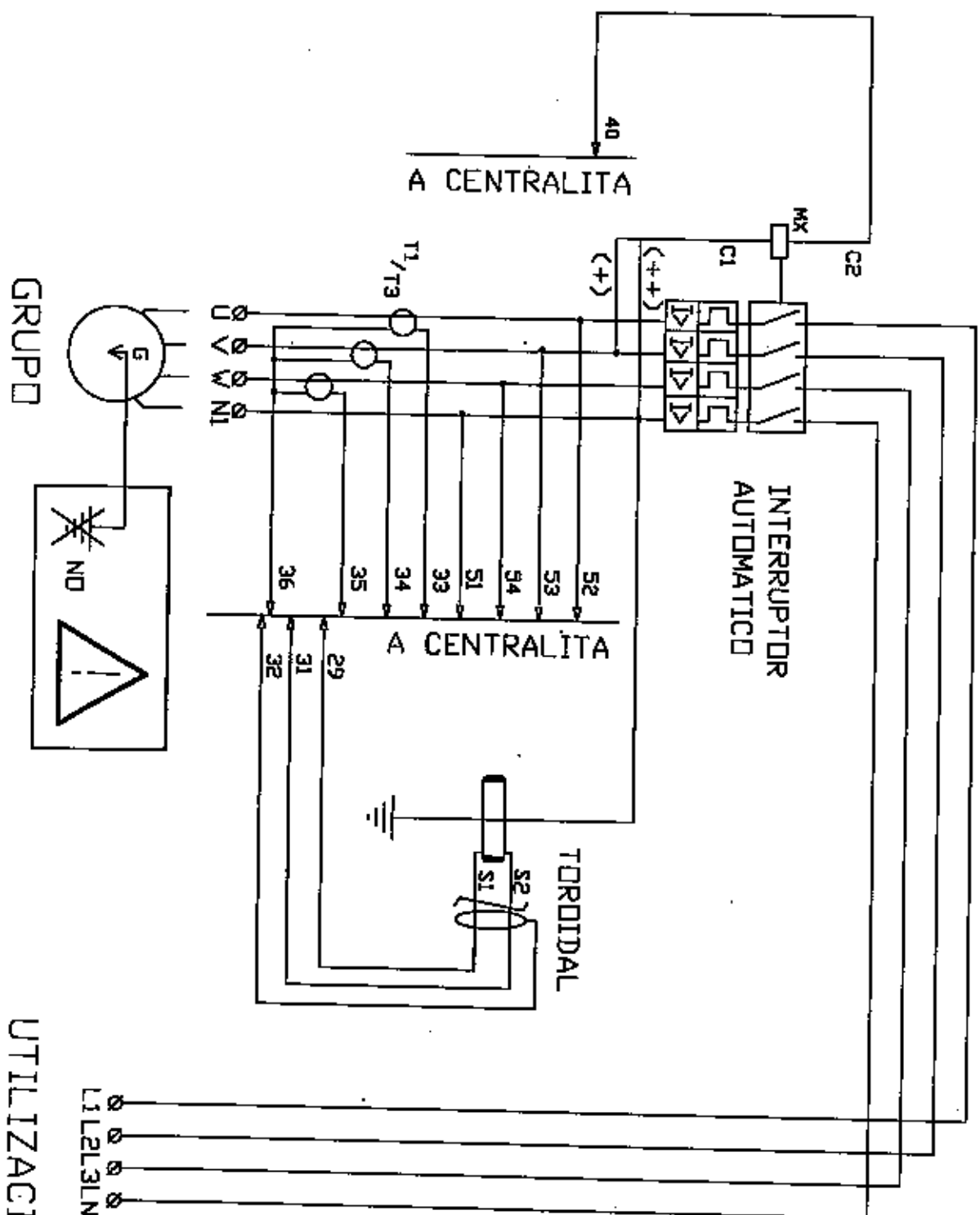
X1-CONECTOR MOTOR  
X2-CONEXIÓN GRUPO  
X4-CONECTOR LTS  
(\*)-CONEXIÓN EN LTS  
(\*\*)-CONEXIÓN A 230V  
(\*\*\*)- Opción de  
conexión de buje de  
precabado

BIDDERO X4		LTS	
1 R-48	TENSION	20RMS	CABLE A LTS
2 S-49		VR	
3 T-50		VS	
4 N-47	RED	VT	6 x 1,5
5 RED -KHI MANDO NC-39		N	
6 GRUPO-KHE MANDO NC-44		K11	
7 RED -KHI POS. CR 24	GRUPO	K12	
8 GRUPO -KHE POS. CR 25		K13	
9 PAJO DE EMERGENCIA B		K14	4 x 1,5
10 NEGATIVO BAT. 2	PATILLA 10	19	mm2
11 PATILLA 10		-B	
12 PATILLA 20		EJP/REC	

ESQUEMA DE CONTROL (AC-01)  
MOTOR, ALTERNADOR Y RED  
CONEX. Y-VY; DEUTZPERKINS

SM5W144013

SMSW144013						
Fecha: 11/04/2005	Pág: 2	Rev04	Domingo Fernández	04/09/2007	Rev08	
		Rev03	Manuel Sánchez	19/10/2006	Rev07	
		Rev02	Amando Fernández	10/01/2006	Rev06	
Autor: Amando Fdez Corbeira		Rev01	Amando Fernández	15/09/2005	Rev05	Domingo Fernández
						26/10/2007



(+) CONEXION A 230V III AC  
(++) CONEXION A 400V III AC

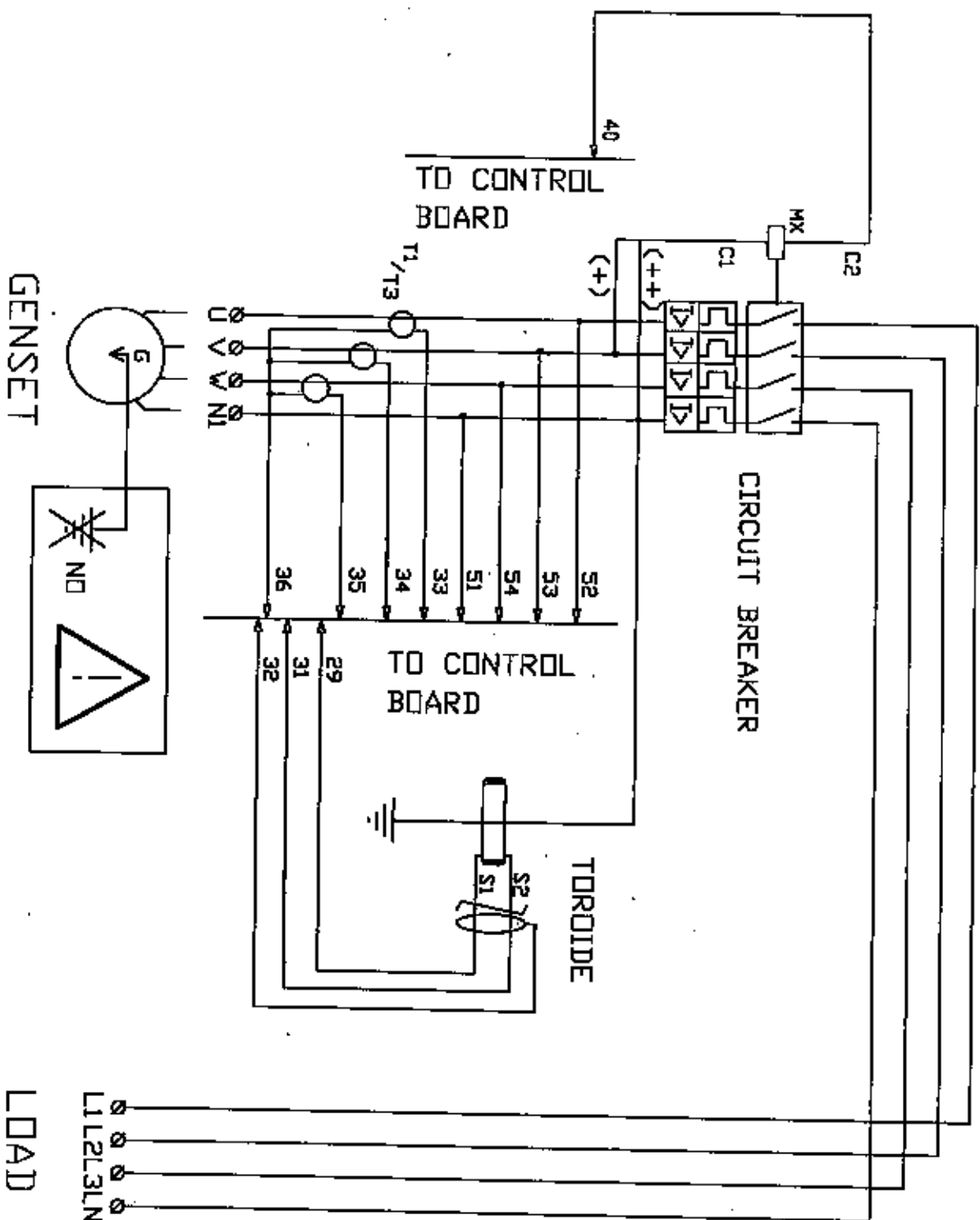
KVA   
VCA   
HZ   
VCC

ESQUEMA DE FUERZA (AC-01)  
PROTECCIÓN Y MEDIDA  
CONEX. Y-YY; MAGNET: 4P

SM5W104006

Fecha: 27/10/2004  
Pág: 1  
Autor: Håkan Ericsson

Rev04	Rev05	Rev06	Rev07	Rev08
Rev03	Rev04	Rev05	Rev06	Rev07
Rev02	Rev03	Rev04	Rev05	Rev06
Rev01	Rev02	Rev03	Rev04	Rev05



(+) CONNECTION FOR 230V III AC  
 (++) CONNECTION FOR 400V III AC

KVA   
 VCA   
 HZ   
 VCC

POWER DIAGRAM (AC-01)  
 PROTECTION & MEASURED  
 CONNEC. Y-Y; C-B: 4P

SMSW104006

Fach: 27/10/2004  
 Autor: Håkan Eriksson

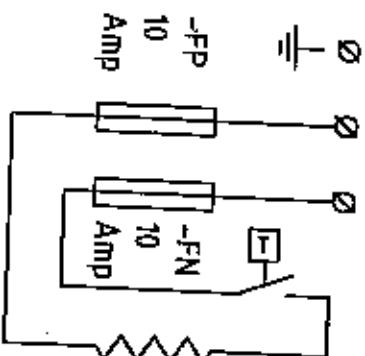
Rev04  
 Rev03  
 Rev02  
 Rev01

Rev06  
 Rev07  
 Rev08  
 Rev05

0	1	2	3	4	5	6	7	8	9
ENGINE COOLANT / OIL PRE-HEATER									
MOUNTED ON THIS GEN SET									
		PROTECTIVE EARTH							
		PHASE "R" MAINS PHASE "L1" LOAD							
		PHASE "N"/"S" MAINS PHASE "LN"/"L2" LOAD							
		THERMOSTATE							
		HEATING RESISTANCE							
ALTERNATOR ANTICONDENSATION-HEATER									
		PROTECTIVE EARTH							
		PHASE "R" MAINS PHASE "L1" LOAD							
		PHASE "N"/"S" MAINS PHASE "LN"/"L2" LOAD							
		HEATING RESISTANCE							

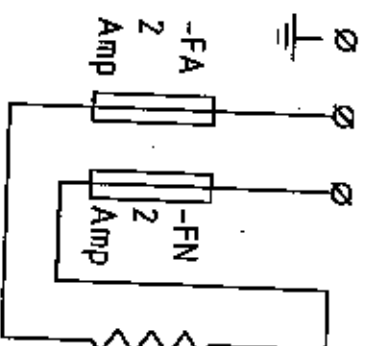
AST & MCP 208 -230V 50/60 Hz

AMP1 & 2 R N/S  
ACP1 & 2 VR N/V/S  
ACP1 VOLVO Y DEUTZ 1015 L1 LN/L2



AST & MCP 208 -230V 50/60 Hz

AMP1 & 2 R N/S  
ACP1 & 2 VR N/V/S  
ACP1 VOLVO Y DEUTZ 1015 L1 LN/L2



# CONTROL DIAGRAM ENGINE & ALTERNATOR PREHEATING

SM5W180004

Fecha: 06/07/2004 Page: 1  
Autor: Armando Fdez Corbela

Rev04	Rev03	Rev02	Rev01	Rev08	Rev07	Rev06	Rev05



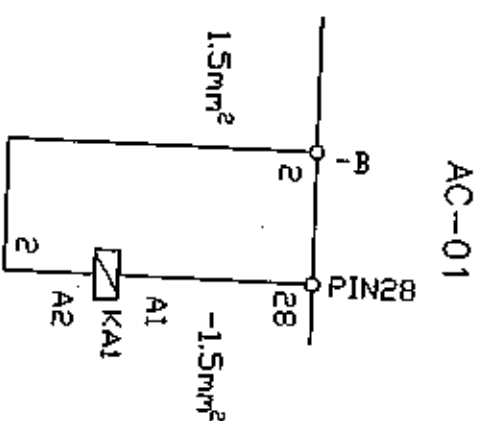
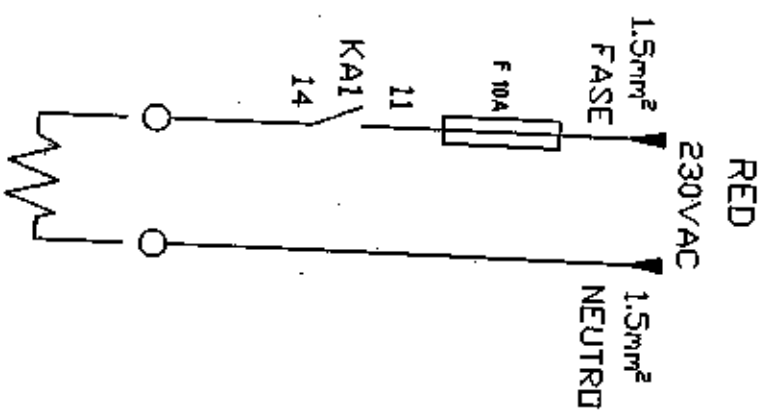
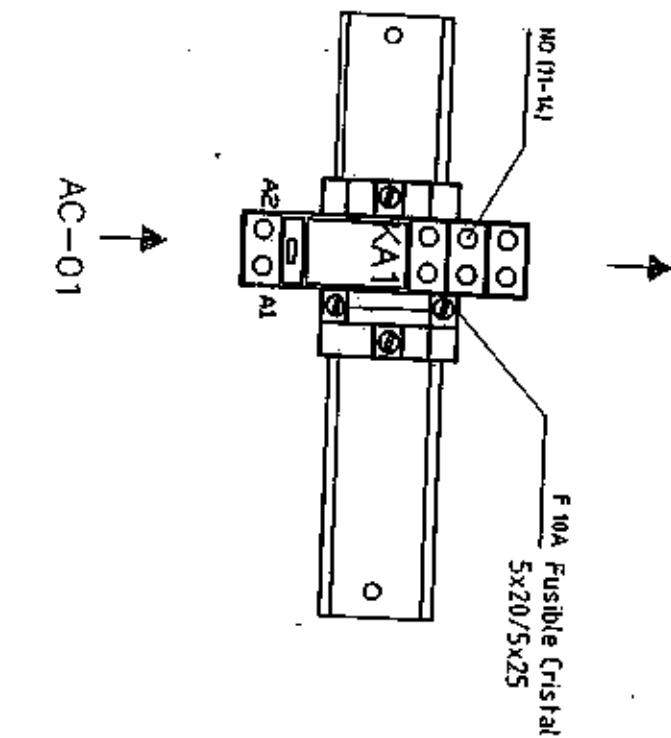
RESISTENCIA DE PRECALENTAMIENTO MOTORES REFRIGERADOS POR AGUA HASTA 200KVA

MONTAJE BORNERO  
SOBRE DIN AUXILIAR

ESQUEMA ELÉCTRICO

RESISTENCIA PRECALENTAMIENTO

AC-01



KA1: RELÉ 12/24 VCC

General Electric - PROCTICB

RESISTENCIA DE PRECALENTAMIENTO  
750V/230VAC

ESQUEMA DE CONTROL (AC-01)  
RESISTENCIA DE PRECALENTAMIENTO 230VAC

SM5W180016

Fecha: 04/12/2006

Pág: 1

Autor: G. LÓPEZ

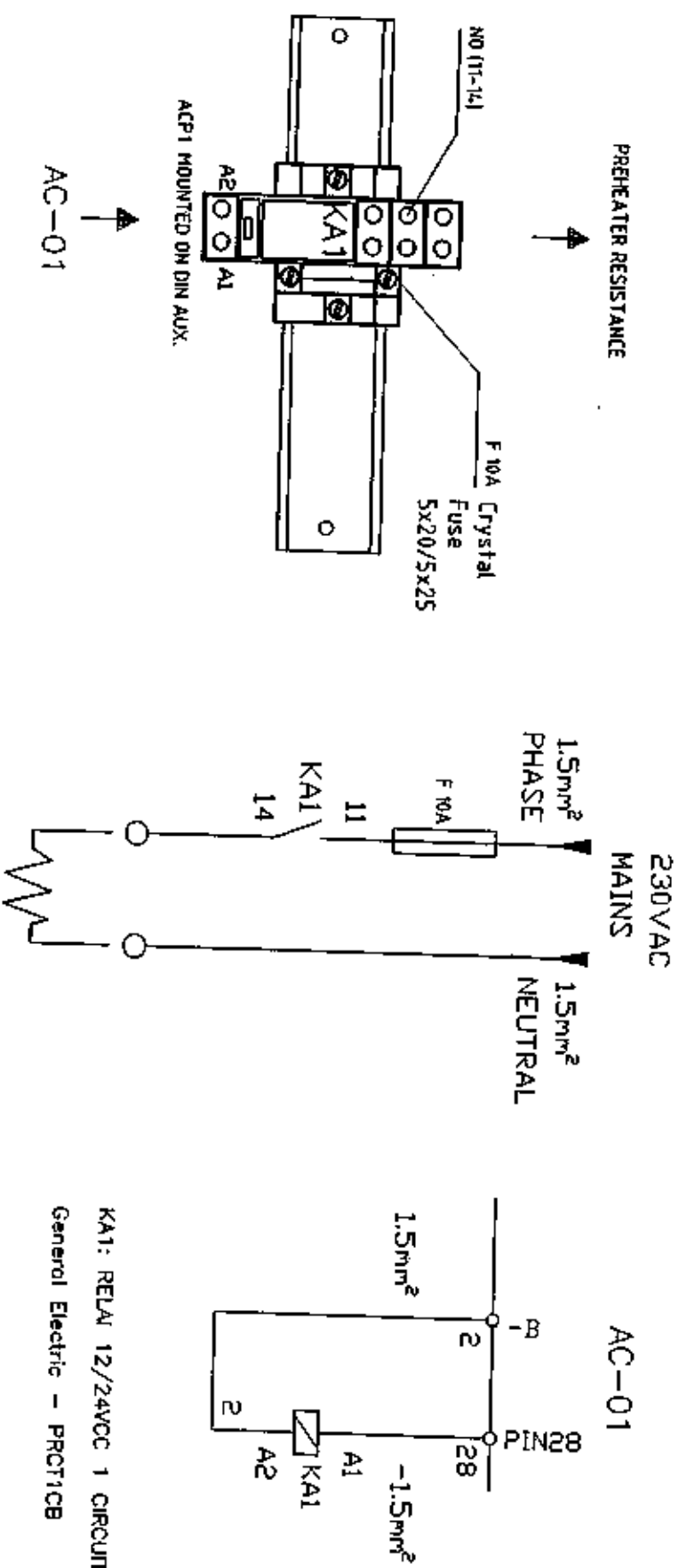
Rev04		Rev05	
Rev03		Rev07	
Rev02		Rev06	
Rev01		Rev05	

J.J. Alcaraz / D. Saura

01/02/2007

Rev05

PLINTH BOARD



CONTROL DIAGRAM (AC-01)  
PREHEATER RESISTANCE

SMSW180016

Fecha: 04/12/2006  
Autor: G. LÓPEZ

Rev04	Rev05	Rev06	Rev07	Rev08
Rev03	Rev04	Rev05	Rev06	Rev07
Rev02	Rev03	Rev04	Rev05	Rev06
Rev01	Rev02	Rev03	Rev04	Rev05

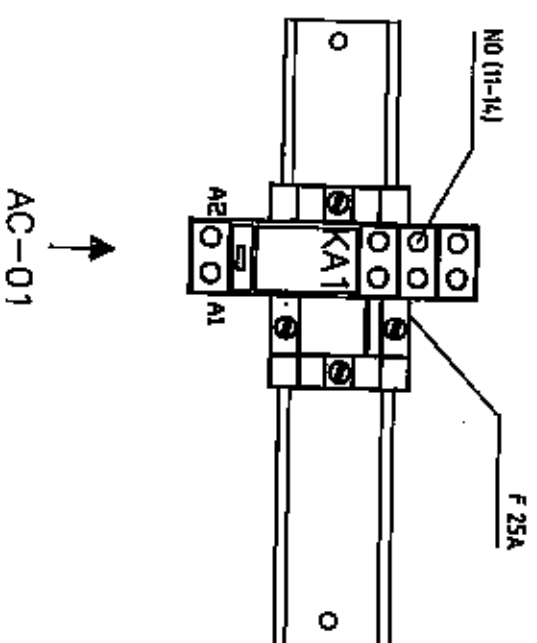
Pág: 1  
Rev01 J.J. Alcaraz / D. Sauro 01/02/2007  
Rev02 Domingo Fernandez 14/05/2007  
Rev03  
Rev04  
Rev05



# PLINTH BOARD

ACP1 MOUNTED ON DIN AUX.

FUEL TRANSFER PUMP

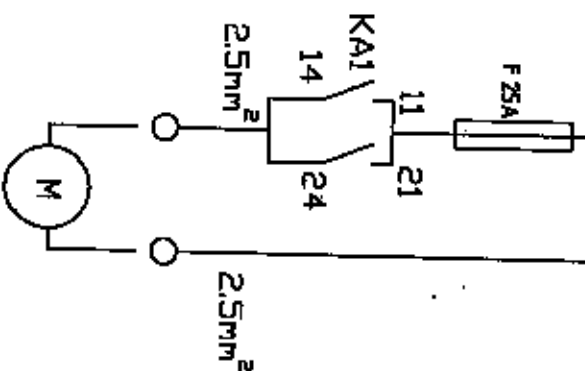


## ELECTRIC DIAGRAM

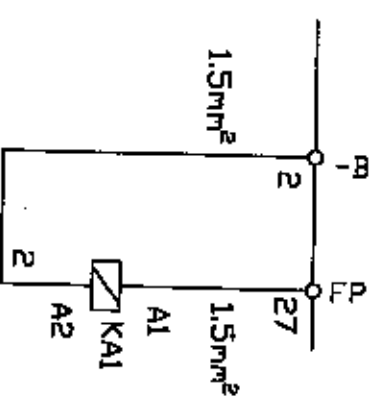
BATTERY

12VCC

+Bat -Bat



AC-01

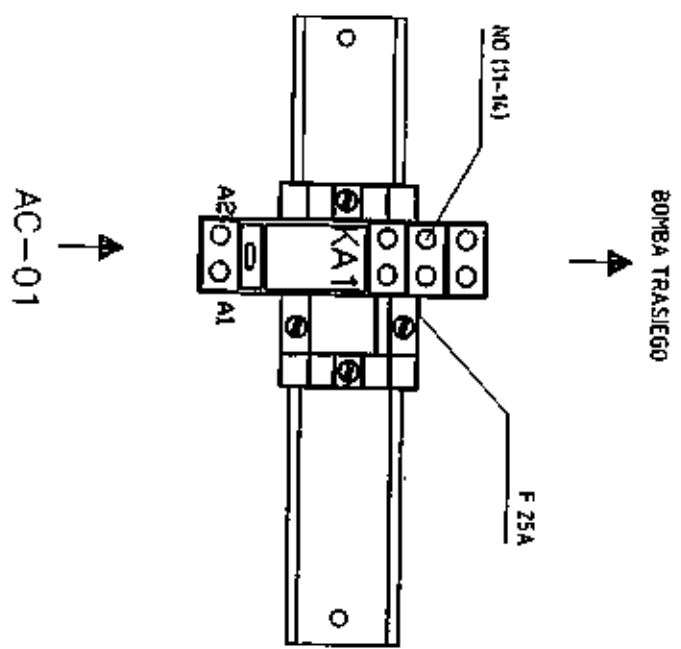


CONTROL DIAGRAM (AC-01)  
12VCC "BY PASS 2000" FUEL TRANSFER PUMP

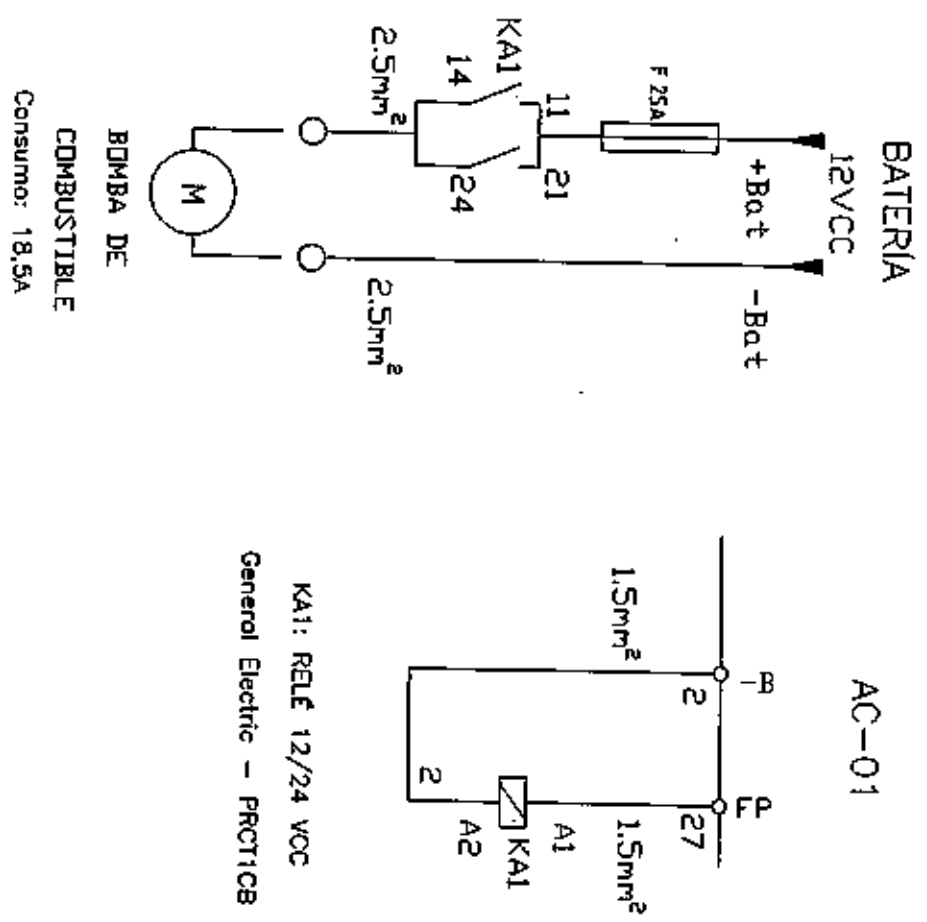
**SMSW184007**

Revis4		Revis5	
Revis3		Revis7	
Fecha: 23/01/2007	Pág: 1	Revis2	
Autor: Manuel Sánchez		Revis1	
		Revis6	
		Revis8	
		Revis9	
		Revis10	
		Revis11	
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		Revis97	
		Revis98	
		Revis99	
		Revis100	

MONTAJE BORNERO  
SOBRE DIN AUXILIAR



ESQUEMA ELÉCTRICO



ESQUEMA DE CONTROL (AC-01)  
BOMBA DE TRASIEGO DE COMBUSTIBLE A  
12VCC "BY PASS 2000"

SM5W184007

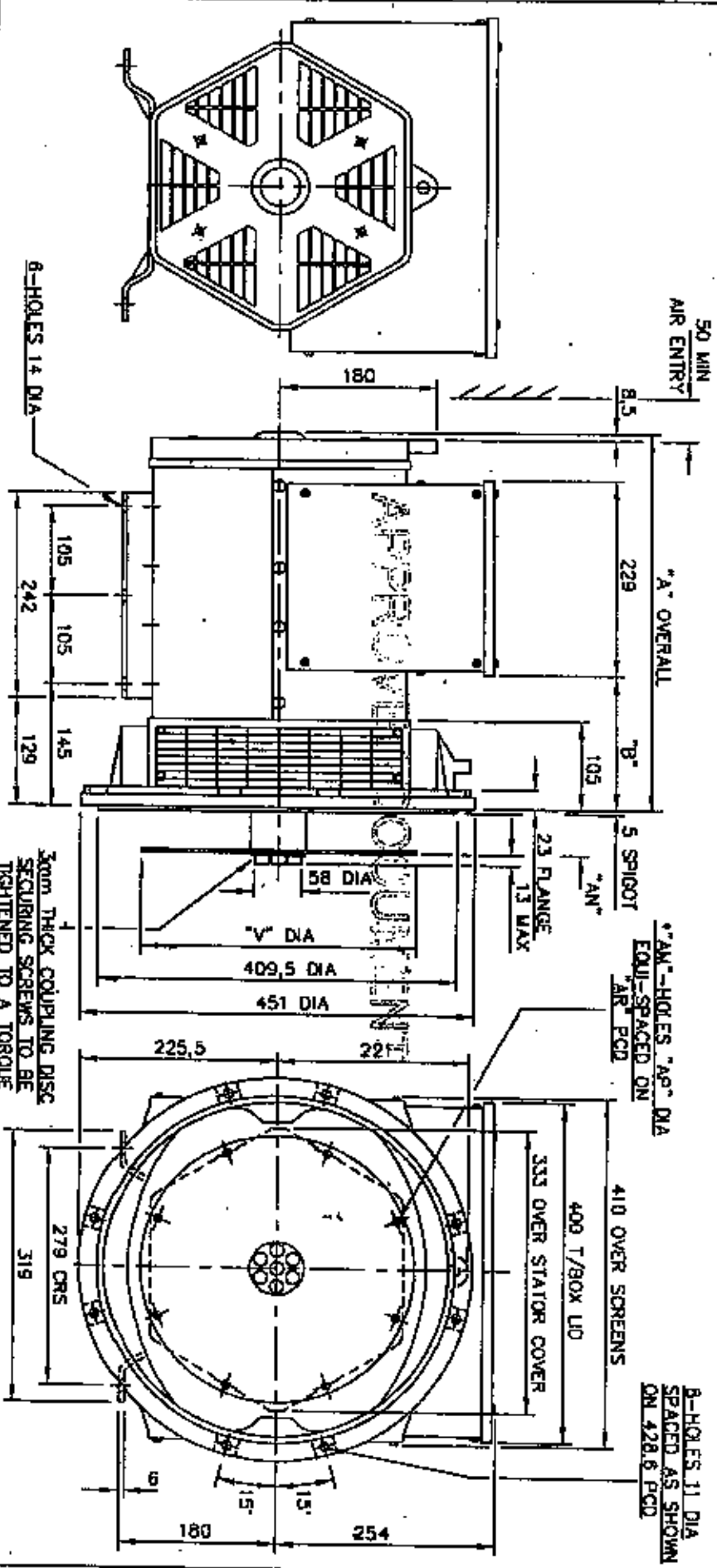
Fecha: 23/01/2007  
Pag: 1  
Autor: Manuel Sánchez

Rev04		Rev08	
Rev03		Rev07	
Rev02		Rev06	
Rev01	JJ Alcaraz/Sancho Sánchez	Rev05	

FIRST W.D.

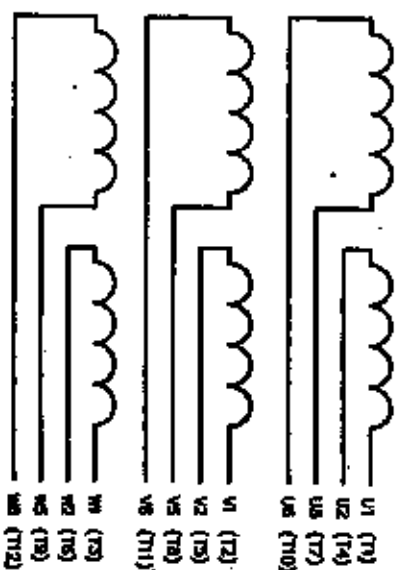
DIMENSIONS			
	FRAME	"A"	"B"
2-POLE	184 E	443.5	159
	184 F	533.5	249
	184 G	533.5	249
4-POLE	182 H	493.5	209
	182 J	493.5	209
	182 K	533.5	249

COUPLING DISC					
SAE	"AN"	"AM"	"AP"	"AR"	"V"
8	61.90	6	11	244.5	263.4
10	53.98	8	11	295.3	314.2
11.5	39.88	8	11	333.4	352.3



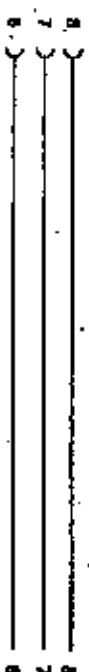
1-2884-02 H USD 18.08.06 CHANGE OF COMPANY NAME OF 7.6 kVdm (75 Nm)		CERTIFIED PRINT (ONLY IF SIGNED)		BC182/184 1-BEARING ALTERNATOR SAE 3 ADAPTOR SAE 8 10 & 11.5 COUPLING		SCALE FIRST W.O.		ISSUE	
4/7204/02 G SMC 26.11.04 REFERENCE TO 2 X COUPLING DISCS ON SAE11.5 REDUCED (NOW 1)	4/7207/1 F JMS 12.8.59 111 HOLES WERE H.O.S FOR 1/2" DIA SAE 8 OR 7.6 DISC	4/7207/2 E JMS 27.8.59 111 HOLES WERE H.O.S FOR 1/2" DIA SAE 10 AND 11.5 OR 7.6 DISCS	4/7184/7 D A.L.B. 25.11.58 23 FLANGE THICKNESS WAS 1/4"	4/4024/2 C M.L.W. 11.7.58 NOTE - 2 DISC COUPLING FOR SAE 11.5 ONLY ADDED.	3/2404/1 B R.L.B. 14.9.54 DETAILS OF SAE 8 COUPLING DISC ADDED	1/8402/2 A C.E.R. 4.5.53 ORIGINAL ISSUE	MOD. ISSUE	DRAWN	DATE
DATE				DATE		DATE		DATE	
CHECKED				CHECKED		CHECKED		CHECKED	
APPROVED				APPROVED		APPROVED		APPROVED	
QUINN'S GENERATOR TECHNOLOGIES LTD. STAMFORD ENGLAND				QUINN'S GENERATOR TECHNOLOGIES LTD. STAMFORD ENGLAND		QUINN'S GENERATOR TECHNOLOGIES LTD. STAMFORD ENGLAND		QUINN'S GENERATOR TECHNOLOGIES LTD. STAMFORD ENGLAND	
D13-2042				D13-2042		D13-2042		D13-2042	
H				H		H		H	

MAIN STATOR (12 ENDS)



**(7) → NEKA EQUIVALENT**

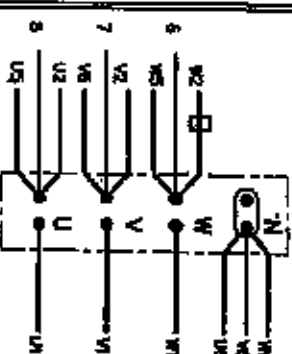
**CONNECT TO  
AIR**



DEPENDENT ON AIR TYPE MULTIPLE LEADS (0,2,4) WILL BE RETURNED  
LEAD 0 MAY NOT BE REQUIRED  
FULL DETAILS ARE SHOWN ON THE PAGE DIAGRAM.

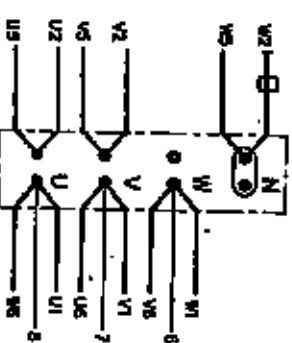
## MAIN TERMINAL CONNECTIONS

**SERIES STAR 3PH 4W  
OUTPUT TERMINALS 4V, 24V.**



☐ DROP C/T POSITION (when fitted)  
CONNECTIONS ARE SHOWN ON BUS DIAGRAM

**SERIES DELTA 3PH 4W**  
**OUTPUT TERMINALS U.V.W.N.**

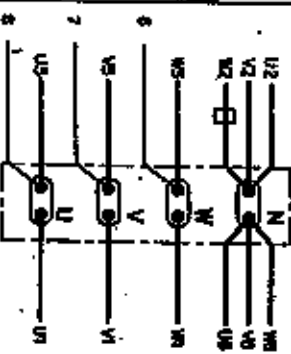


☐ DROP Q/T POSITION(when set)  
CONNECTIONS ARE SHOWN ON BASE DIAGRAM

## ALL CONNECTIONS

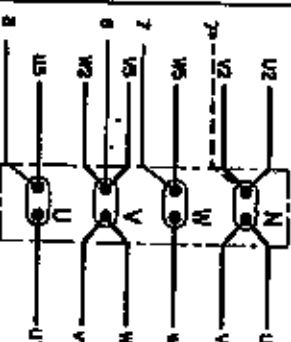
FOR ALTERNATIVE C/T  
POSITIONS REFER  
TO THE FACTORY

PARALLEL STAR 3PH 4W  
OUTPUT TERMINALS 4X1/2"



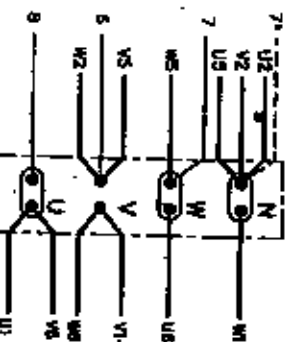
☐ PROOF C/T POSITION (when filled)  
DIRECTIONS ARE SHOWN ON BASE DIAGRAM

PARALLEL 26 ZAG 1PH 3W  
-OUTPUT TERMINALS HIGH VOLTS L.V.  
LOW VOLTS L.N. AND H.N.



**DETAILS ARE SHOWN ON BASE DIAGRAM**

**DOUBLE DELTA 1PH 3 WIRE  
OUTPUT TERMINALS HIGH VOLTS U.W.**  
1 PHASE WITH 1 IN AND 1 PH



7\* ALTERNATIVE FOR AWR IN LOW VOLT MODE  
DETAILS ARE SHOWN ON BASE DIAGRAM

### CONNECTION DIAGRAM

**CERTIFIED PRINT**  
**(ONLY IF SIGNED)**

---  
SERIES

### OTHER FEATURES

DATE	BY
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**END**

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**DRAWING P.N. 51:**

NG 2/3

047440

CHD	15
1987	15

# INTERNATIONAL

DAI-A10

NOTED

**STANDARD FORM NO. 64**

**SHEET 1 OF 1**

## TESTS

## TESTS

## TESTS

## TESTS





# CERTIFICADO BANCO DE PRUEBAS TEST RESULT CERTIFICATE

Código: CA-PC-01-03

Versión: 02

Nº SERIE MAQUINA  
SERIAL NUMBER GENSERT

OPERADOR  
BANCO PRUEBAS  
JUAN GARCIA

OPERADOR CONTROL  
CALIDAD  
YOLANDA ALCALA

PEE2416986

CONTROL FUNCIONAL ALTERNADOR		ALTERNATOR CHECKING	
Comprobación visual apriete tornillería unidad motor/alternador	OK	Visual verification press of screws engine/alternator	
Tapa alternador cerrada y apriete tornillos	OK	Breast of the cover of the alternator tight	
CONTROL GENERAL GRUPO		CONTROL GENSERT CHECKING	
Comprobación sentido de giro ventilador (Grupos aire)	N/A	Verification of fan turning (Gensert air-cooled)	
Comprobación orden conexión enchufes trifásicos/mono-fásicos	N/A	Electrical sockets connection orden verification	
Parada emergencia (manobra-parada grupo, fuerza disparo int-magnetotérmico)	OK	Emergency stop check	
Test diferencial mediante pulsador (control pulsador test diferencial)	OK	Differential test by means of push-button (control push-button differential test)	
Test diferencial mediante comprobador puesta tierra	N/A	Differential test by means of earthing	
CONTROL FUNCIONAL MOTOR		ENGINE FUNCTION CHECKING	
Comprobación niveles lubricante/refrigerante	OK	Check level lubricant/coolant	
Indicador nivel combustible	OK	Fuel Level Gauge	
Indicador nivel refrigerante	OK	Temperature gauge	
Indicador nivel presión aceite	N/A	Oil Pressure Gauge	
Comprobación alarma rotura correa	N/A	Belt break alarm, engine shut down	
Comprobación alarma carga batería D +	OK	D + Alarm	
Comprobación alarma presión aceite	OK	Low Oil Pressure Alarm	
Comprobación alarma Temperatura refrigerante	OK	High Temperature Alarm	
Comprobación alarma reserva combustible	OK	Low Fuel Level Alarm	
Comprobación complementos y opcionales	OK	Check of supplements and optionals	
CONTROL GENERAL GRUPO EN CARGA		CHECK LOAD CONTROL GENSERT	
Regulación interruptor magnetotérmico	N/A	Circuit break protection setting	
Comprobación tensión en carga	OK	Voltage measure on load	
Comprobación intensidad en carga	OK	Current measure on load	
Comprobación frecuencia en carga	OK	Frequency measure on load	
Comprobación apriete correcto montaje instrumentos cuadro control	OK	Check of right assembly (press) of instruments on control panel	
Comprobación modelo y funcionamiento contactores (solo AMF)	N/A	Model and contactor verification	
CONTROL GENERAL DESPUES DE LA PRUEBA		AFTER TEST CHECKING	
Comprobación pérdidas aceite/apriete tornillo coque extracción aceite	OK	Check of oil leakages / press checking of screw for oil draining	
Comprobación pérdidas refrigerante	N/A	Check of cooling leakages	
Comprobación pérdidas gasoil, control manguitos.	OK	Check of fuel leakages, hoses control	
Comprobación tensión (fase-fase / fase-neutro)	OK	Voltage checking (Phase-Phase / Phase - neutre)	
Comprobación frecuencia en vacío	OK	Test frequency at no load	

OBSERVACIONES:  
OBSERVATIONS:

<b>Dichiarazione CE di Conformità</b> <b>Conformity declaration</b> <b>Konformitätserklärung</b> <b>Declaration de conformité</b> <b>Declaración de conformidad</b> <b>Overensstemmelseserklæring</b>		<b>Declaração Conformidade</b> <b>Vaatimustenmukaisuusvakuutus</b> <b>Erklæring om EU-overensstemmelse</b> <b>Δοκασία Συμμόρφωσης με τις Οδηγίες ΕΕ</b> <b>Inngitt på tilførmighet</b> <b>Conformitetsverklaring</b>
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**PRAMAC IBERICA S.A., Parque Empresarial Polaris, C/Mario Campinoti, 1 Autovia Murcia-San Javier KM.18  
- 30951 - Batsicas Torre Pacheco (Murcia) - España**

Fabricante e detentore della documentazione tecnica - Manufacturer and owner of technical publications - Hersteller und Besitzer der technischen Dokumentation - Fabricant et détenteur de la documentation technique - Fabricante y propietario de la documentación técnica - Fabricante e detentor da documentação técnica - Prodávateľ a držiteľ technických dokumentov - Fabrikant og innehaver af tekniske dokumentation - Valmistaja ja teknisten dokumenttien haltaja - Käyttäjän ja valmistajan yhteinen tekninen dokumentaatio - Tilittäjä och innehavare av tekniska dokumentation

Dichiara sotto la Sua sola responsabilità che la macchina  
Declares full and sole responsibility that the machine  
Erklärt unter ihre Eigenverantwortung, dass die Maschine  
Déclare sous sa seule responsabilité que la machine  
Declaro, bajo su sola responsabilidad, que la máquina  
Under eget ansvar, et maskinen

Declara abaixo a sua somente responsabilidade que a máquina  
Otteen täyden vastuun todistaa täten, että laite  
Erklærer på eget ansvar at maskinen  
Tilskjennager under Eget ansvar at maskinen  
Δηλώνει με μόνον του ευθύνη ότι το παζαβιγίτ  
Verklaart onder eigen verantwoordelijkheid dat de machine

### GENERATING SET

Modello, Model, Modell, Models, Modelo Modelo, Model, Model, Modell, Modelo, Model

GSL30

N°Serie, Serial No, Serien Nr, N°de serie N, Serie, Serí, Ser, N°de serie, Seriennummer Seriennummer, Serie nr., Ap. Zapis, Serie nr.

PEE2416986

Anno costruzione, Year of construction, Baujahr, Année de construction, Año de construcción, Fabrikationsår, Ano de Construção, Valmistusvuosi, Byggningsår, Konstruktionsår, Ετος κατασκευής, Byggningsår

2007

Alla quale questa Dichiarazione si riferisce è conforme alla Direttiva  
To which this Declaration refers to in conformity with the Directive  
Auf der sich diese Erklärung bezieht, entspricht die Maschine  
À laquelle se réfère cette Déclaration est conforme à la Directive  
A la qual esta Declaração está conforme a la Directiva  
Al qual esta declaração se refere é conforme a la Directiva  
Year this Verklaring betrekking op heeft, overeenkomst de richtlijn  
Hovori denna uttæring henstår, er i overensstemmelse til Direktiv  
Bemdenet erklæringen gjælder er i overensstemmelse med Direktivets  
Til hvilken denna Erklæring hänseer, är överensstämmer Direktiv  
до којого овој е додана овој документ е соодветен со директивата  
Jälle tämä todistus on annettu, mukainen Direktiivin

**2000/14/CE** - procedura di valutazione di garanzia di qualità totale di cui all'articolo VII (notified body BSMH - Luxembourg-88490) - evaluation procedure of total quality assurance as per annex VII - Bewertungsverfahren für die Garantie der Gesamtqualität nach Anlage VII - procédure d'évaluation de garantie de qualité totale, voir annexe VII - procedimiento de evaluación de garantía de calidad total, ver. anexo VII - beoordelingsprocedure van totale kwaliteit op grond van de bijlage VIII - procedimento de avaliação de garantia de qualidade total em ref. ao anexo VIII - prosedyre for garanti-evaluering på grunnlag av kvalitetsgaranti i vedlegg VIII - förfarandegång för kvalitetsgaranti i överensstemmelse med bilaga - bilaga VIII - esthetn kvalitets i överensstemmelse med bilaga VIII - διαδικασία αξιολόγησης διασφάλισης ολικής ποιότητας που προβλέπει το άρθρο 7 της Οδηγίας VII - vurderingsprocedur med garanti for en absolut kvalitet i overensstemmelse med bilaga VIII

Livello di potenza sonora misurato LWA: Measured sound power level LWA: Gemessener Schalleistungspegel LWA: Niveau de puissance sonore mesuré LWA: Nível de potência sonora medido LWA: Gemeeten geluidvermogen LWA: Nível de potência sonora medida LWA: Lyökytönsä taso LWA: Mittitytönsä LWA: Äänvoimakkuus mitattu LWA: Mittipölyn oimutus tasomääritys LWA: LWA-uppmätt ljudeffektivitet	<b>88</b>  dB	Livello di potenza sonora garantito LWA: Guaranteed sound power level LWA: Garantierter Schalleistungspegel LWA: Niveau de puissance sonore garanti LWA: Nível de potência sonora garantida LWA: Öngarandált teljesítmény LWA: Nível de potência sonora garantida LWA: Garantert lyökytönsä taso LWA: Garantert lyökytönsä LWA: Taksama äänivoimakkuus LWA: Δοκασολογική ομολογία ισχύος LWA: LWA-garantied ljudeffektivitet	<b>89</b>  dB
--	---------------------	---	---------------------

**98/37/CE - 89/336/CE - 73/23/CE** e successive modifiche e integrazioni - and subsequent modification and integrations - einschließlich nachfolgender Änderung und Ergänzungen - et aux modifications successives et intégrations - y sucesivas modificaciones e integraciones - e sucessivas modificações e integrações - en daend følgende wijzigingen en aanvullingen - og senere modificeringer og suppleringer - med efterfølgende ændringer og integrationer - därpå efterfølgende förändringar och tillägg - tot je nač zaslovenjs, popravila, dopolnila, izboljšanja, razširitve in očitne spremembe na očitne spremembe VII - verändringsprocedur med garanti för en absolut kvalitet i överensstemmelse med bilaga VIII

Il Responsabile, Authorized by, Der Verantwortliche, Le Responsable, El Responsable, Den Ansvarlige, O Responsável, Vastavaa tallinen edustaja, Ansvarlig person, Ansrig, O Yuzovnyy, De verantwoordelijke

**JORGE VERDÚ FERRER**

Firma, Unterschrift, Signed, Signature, Firma, Underskrift, Firma, Allekirjoitus, Underskrift, Underskrift, Υπογραφή, Handtekening





**Generator  
Technologies**

**STAMFORD**

**STAMFORD**

**Certificate of Conformity**

Quality System Approval  
ISO 9001/2000

Generator Build to :  
Bs 5000: Part 3

Generator tested to:  
GB 755-87 BS 4999: Part 143

Frame size  
Serial number  
Manufacture date

BCM184F1  
107J2778  
27.10.07

Quality Manager

Electrical Test

Final Inspection

T05

T11

Date : 27.10.07





**Generator  
Technologies**

**STAMFORD**

STAMFORD IBERICA SA,  
POL.IND." & Chr(34) & "LOS LINARES  
AVDA DE FUENLABRADA, 38,  
E-28970, HUMANES DE MADRID.

**TEST CERTIFICATE (Standard)**

Machine Sr No: I07J2778  
Frame size BCI184F1

Customer PO:  
Winding 311

**RATING DATA**

KVA	27.50	Volts	400	Insulation	CLASS H
KW	22	Phase	3	Rating	CONT
Amps	40.00	Wire	4	RPM	1500
PF	0.8	Hz	50	Enclosure	IP23
Ambient	40				

**TEST DATA NO-LOAD**

Volts	400
Hz	50
Amps	0
P.F	0
Max WattLoss	

**H.V FLASH TEST FOR 1 MINUTE**

Stator	2.0KV
Rotor	2.0KV

**COLD RESISTANCE VALUES**

Stator	0.4660 Ohm +/-10%
Rotor	0.7400 Ohm +/-10%

**STANDARDS**

Generator conforms to BS 5000 :Part 3  
Tested in accordance with BS 4999 : Part 143 (Routine)  
Rotor dynamically balanced to BS 6861 : Part 1 (Grade 2.5)

**REMARKS**

Clockwise drive-end rotation gives sequence U V W

Date : 27.10.07

Approved by: N.S.Ghamandi  
Quality Manager



## 4.7 **Notes**

[illegible]**UNEMPLOYMENT BENEFIT INSURANCE**

**INTELLIGENCE INFORMATION**  
 L. CRISTINO E L'ATTUALITÀ SONO INTRINSECAMENTE COLLEGATE. IL MONDO È UNO, IL PAESE È UNO, IL LINGUAGGIO È UNO. IL MONDO È UNO, IL PAESE È UNO, IL LINGUAGGIO È UNO. IL MONDO È UNO, IL PAESE È UNO, IL LINGUAGGIO È UNO.



20 JUL 1963 15 00Z

**ATTENTION:** Il est fortement déconseillé de laisser les personnes âgées se déplacer seules. Elles doivent être accompagnées par un proche ou un professionnel de santé.

[illegible][illegible][illegible]

**22** **Confidential**

In conducting this research, I have been in frequent contact with several of the authors, who have indicated that the study is being used in a variety of ways. For example, it is reported to be included in MSc, PhD and company curriculum in marketing, as well as a source of research data in marketing. It is also being used as a source of data for a variety of other research.

14	FLYMASTER ITEM
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**Examining a health organization's budget requires a number of steps:**

**21** **4115 RIVINGTON BL**

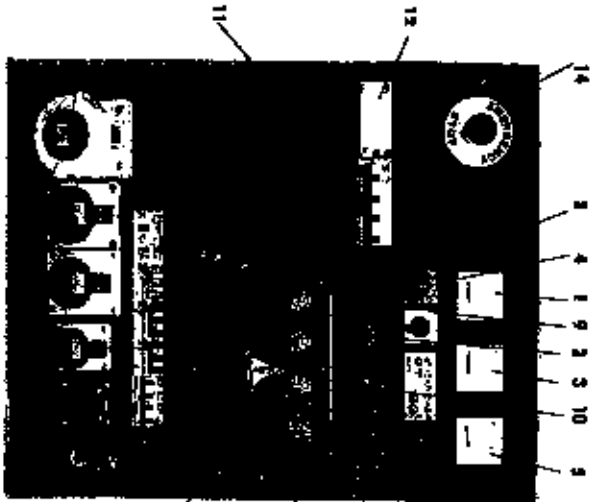
### Tip 4: Collaboration

**Tip & commentary**

- [illegible]

### DISPOSIZIONE CILINDRO ELETTRICO

### What's the question for the question "What's the question?"



## Font



## 23. Минимум 75 баллов

[illegible][illegible]

## 2.7 Физический анализ

5. **Stabilità del risultato.** I risultati ottenuti da un'indagine di marketing non devono essere considerati definitivi, ma vanno interpretati come indicatori di tendenza. È importante ricordare che i dati di marketing sono solo una rappresentazione della realtà e che possono essere influenzati da una serie di fattori, come ad esempio la qualità dei dati, la metodologia di raccolta e l'interpretazione dei risultati. Pertanto, è importante che i risultati di marketing siano interpretati con cautela e che vengano utilizzati solo come indicatori di tendenza.

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[illegible][illegible]

**DATE - 04/06/2011**

and, therefore, they are an important source of information on the health status of the population. Long-term studies of large data sets are needed to evaluate the use of these data.

[illegible]

## 23. ENDING CHRONICLES

La gestione degli investimenti è stata data grande rilievo al tavolo dell'ANCI, ripreso anche dallo stesso Garino, che ha sottolineato la necessità di intervenire in materia di riqualificazione del territorio.

- **Common diseases** - caused by **environmental pollution**, influenced by **genetics**, **life expectancy** or **behavioral** and **preventive** of **genetic** risks, or **infectious**
  - **Infectious** - **infectious diseases** caused by **infectious** (bacteria, viruses, fungi, parasites, etc.)
  - **Non-infectious** - **non-infectious diseases** caused by **environmental** factors (diet, lifestyle, etc.)
  - **Genetic** - **genetic diseases** caused by **genetic** factors (chromosomes, genes, etc.)
  - **Life expectancy** - **life expectancy** (average lifespan) and **life expectancy** (maximum lifespan)
  - **Behavioral** - **behavioral diseases** caused by **behavioral** factors (diet, lifestyle, etc.)
- **Preventive** - **preventive measures** (vaccination, screening, etc.) to **prevent** **infectious** diseases
- **Genetic** - **genetic diseases** caused by **genetic** factors (chromosomes, genes, etc.)
- **Life expectancy** - **life expectancy** (average lifespan) and **life expectancy** (maximum lifespan)
- **Behavioral** - **behavioral diseases** caused by **behavioral** factors (diet, lifestyle, etc.)

100

[illegible]

**MISSION**

- **Cholesterol** is broken into lipoproteins, which are responsible for moving the lipids
- **ATRIPOBOL**: if synthesis of apolipoproteins and lipids by liver fails, causing problems to move lipids, a rare metabolic disease. The liver must be removed and transplanted

## Industry is expanding its

data obtained previously (unpublished).  
 Completed 100 work packages and 1000 hours (unpublished). For example, all the activities of the project were completed.

# E

**SYSTEMS**—A series of systems are being developed by the U.S. Army to improve the performance of its soldiers. The systems include a new type of helmet, a new type of uniform, and a new type of footwear. The helmet is designed to protect the soldier's head from bullets and shrapnel. The uniform is designed to protect the soldier's body from the elements and to provide camouflage. The footwear is designed to provide the soldier with a comfortable and supportive shoe.

## 1

1. The first step is to identify the problem or question that needs to be addressed. This involves understanding the context and the specific requirements of the task.

**Plasma cells present in multiple tissue areas**

<sup>a</sup> The values represent the proportion of respondents who reported having been exposed to violence.

**Unsupervised methods with hierarchical clustering**

[illegible]



