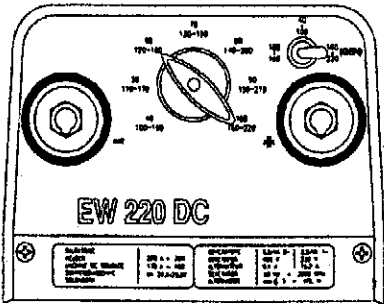
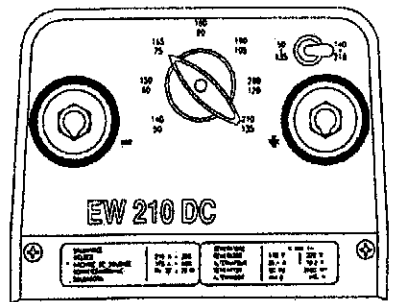
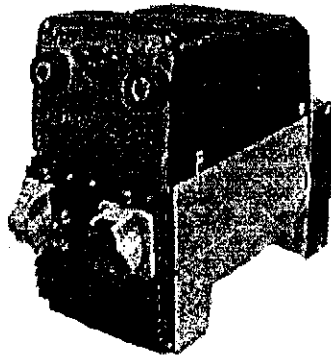
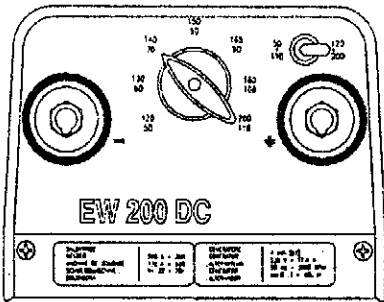
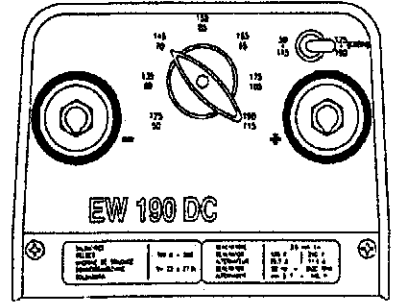
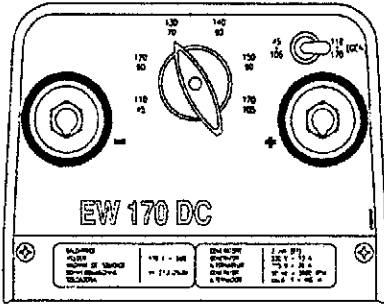


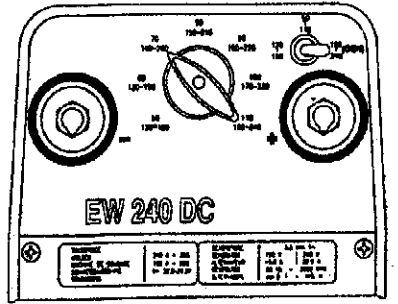
SIP (Industrial Products) Ltd
 Gelders Hall Road
 Shepshed
 Loughborough
 Leicestershire
 LE12 9NH



Alley Cat DC Welder Generators.

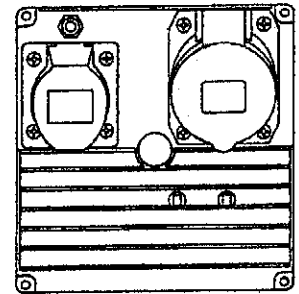
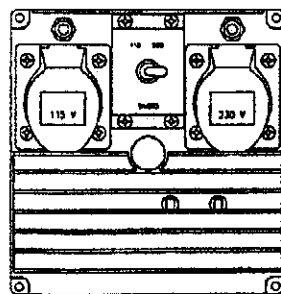
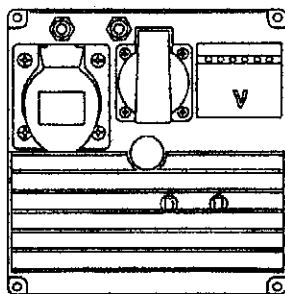
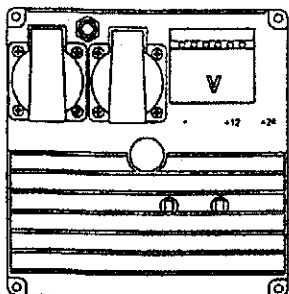


(50Hz)



(60Hz)

options



EW 220 DC

General Information

The aim of these instructions is to indicate the correct conditions for use and maintenance of these welding machines.

PRELIMINARY CHECKS

Be sure to examine the machine thoroughly to ensure no damage has occurred during transportation.

STORAGE

If the machine is not to be used for long periods, the machine must be stored in a dry place, indoors. Before using it again after a long period of inactivity, check that all the windings are correctly insulated, only values higher than $2M\Omega$ is acceptable. Otherwise, dry the welding machine alone in an oven at about 60 - 80 °C.

INSTALLATION

Before starting up, ensure the connections are in good condition and that there are no impediments to the turning of the rotor. Ensure that the openings for air intake and expulsion are not blocked, and ensure that the welding machine does not take in hot air expelled by the welding machine itself and or by the motor.

ELECTRIC CONNECTION

Respect the regulations in force in the country of use. If it is being used as an alternator, check that the plate data comply with the characteristics of the system to which the machine will be connected and connect the unit to earth.

MAINTENANCE

Check that there are no irregular situations, such as vibration, noise or blocked air outlets.

Instructions for Welding.

The welding cable must of the minimum length necessary, they must be kept close together and on the ground. Do not use cables on which the insulation is damaged or spoilt in any way, or insufficient cross sectional area.

EQUIPOTENTIAL CONNECTION AND EARTHING

Follow the National requirements for the equipotential connection of the metal components in the vicinity of the welding system and for earthing if necessary.

PREPARING THE PARTS.

The preparation varies depending on the type of joint, the thickness, the position and the accessibility of the work. In general the edges to be welded must be prepared by cleaning off any paint, rust or other contaminating substances. For flat welding up to a thickness of 10 to 12mm the 'V' preparation is normally used. While for greater thicknesses it is preferred to use the 'X' preparation with upside down re-welding or 'U' preparation without re-welding.

CHOOSING THE ELECTRODE

The welders in the EW DC series are suitable for any type of electrode (rutile, basic, cellulose). The electrode diameter depends on the thickness of the material, the position of the part and the type of joint. Larger diameters of course require greater currents and involve a greater amount heat in welding.

When making a weld in position it is convenient to use smaller diameters and several passes to reduce the flow of the weld pool.

CHOOSING THE CURRENT.

The range of current is recommended by the electrode manufacturer and is usually indicated on the electrode container.

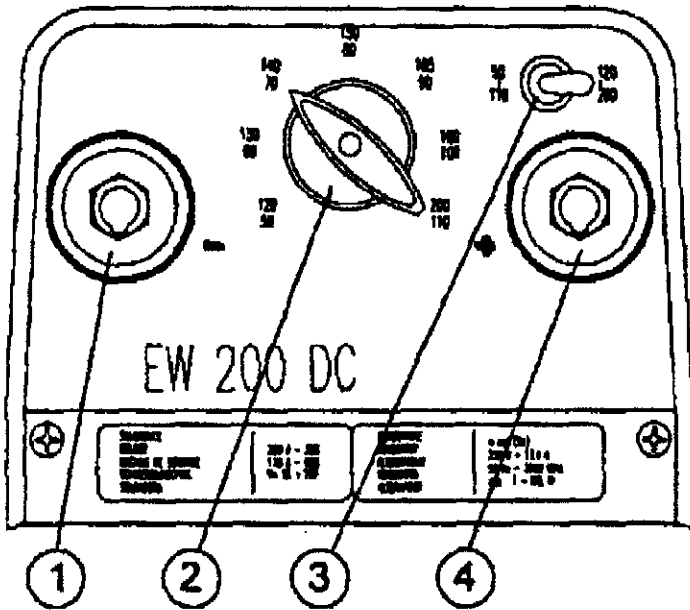
WELDING

The arc is struck by rubbing the tip of the electrode on the part connected to the earth cable and then drawing back the electrode to the normal welding distance. If the movement is too fast then the arc goes out, if the movement is too slow then the electrode sticks and you must pull sideways to free it.

Welding consists of depositing drops of molten metal on the part. As it burns, the electrode coating provides the protective gas for the weld pool. Welding may be carried out with different techniques, the choice of which depends on various factors.

In general, the electrode is kept tilted and is moved by making oscillating movements between the two edges that are to be joined so as to avoid excessive build up of weld material in the centre of the weld. At the end of each pass it is necessary to allow cooling of the weld to allow removal of the slag using a chipping hammer and wire brush.

Operation Procedure



1. Earth Cable Socket
2. Rated Value Selector
3. Range Selector
4. Welding Electrode Cable Socket

Operation As A Generator.

Turn selector 3 to 'GEN' (Except EW200DC and EW210DC for which the selector position is immaterial). Connect the plug to the socket. Start device.

Operation As A Welder.

Insert the jack of the earth cable in the socket (1) (or 4 to weld with reverse polarity). Connect the earth clamp to the work to be welded. Insert the jack of the electrode to the socket (4) (or 1 to weld with reverse polarity). Set the required current range with selector (3). Set the welding current with selector (2) (black scale for the low range, Blue scale for the medium range(*), red scale for the high range). Weld.

Attention: during welding the generator sockets are live, but the voltage value is low and unstable. So for safety reason, it is recommended to disconnect the user loads during welding.

The welding machine can give the maximum current only for a limited time. After which it must be allowed to cool (see indication on the plate). So when working with high currents, if the thermal protection trips, you must wait a few minutes for it to reset automatically.

(*) Only in models EW220(M)DC and EW240DC

WELDING PROBLEMS	
Too many Splashes	Log Arc, High Current
Sticking	Arc is too long, Current too low.
Craters	Electrode moving away too fast when removed.
Inclusions	Bad cleaning between passes, Bad distribution of passes, Poor electrode movement
Insufficient penetration	Welding current too low, Narrow caulking iron, No chipping at root, Electrode speed too fast
Blow holes and porosity	Arc is too long, Moisture in electrodes.
Cracks	Current too high, Dirty material, Hydrogen in weld (in the coating of the electrode)

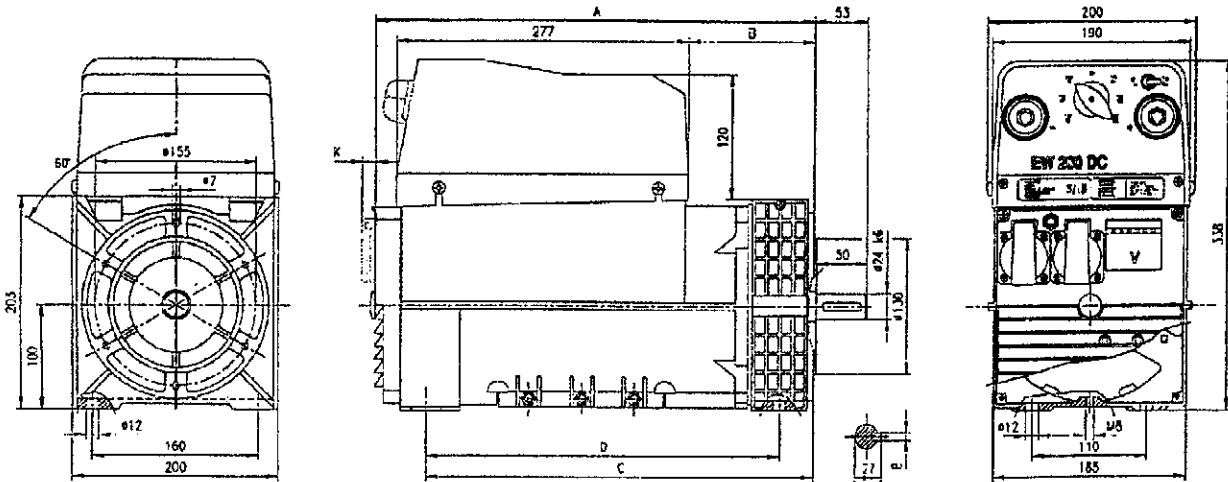


Do not touch the welding equipment during operation or immediately after operation as some parts will get very hot. Electric rotating machines have dangerous parts, when operating they have live and rotating components. Therefore, improper use, removal of covers, disconnection of protective devices and inadequate maintenance can cause personal injury or damage to property. All servicing, and maintenance should be carried out by qualified personnel only.

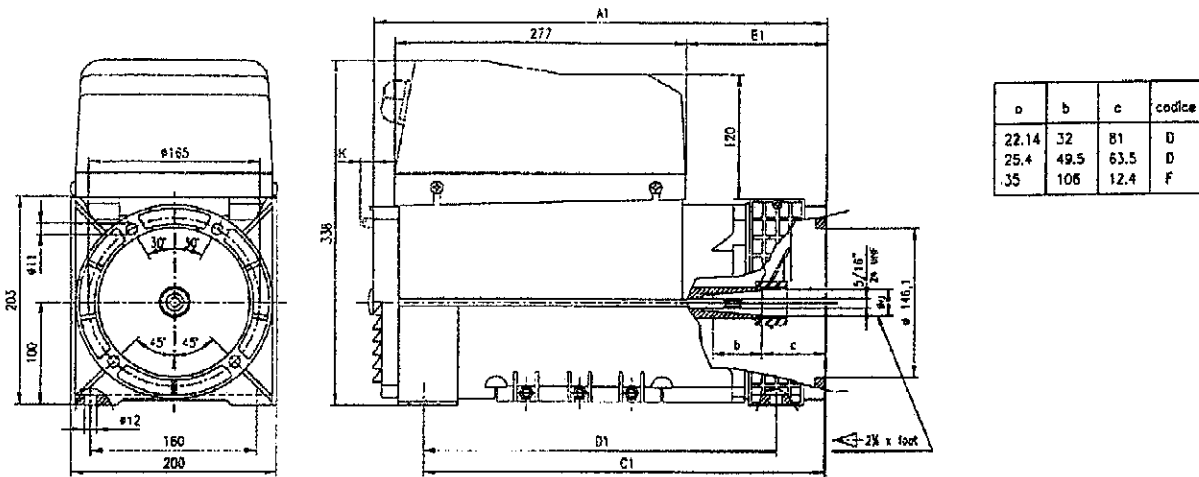
CARATTERISTICHE	MEAN FEATURES	EIGENSCHAFTEN	CARACTERISTRIQUES	CARACTERISTICAS	EW 178 DC	EW 200 DC	EW 226 DC	EW 228 MDC	EW 190 DC	EW 218 DC	EW 240 MDC
VELOCITA'	SPEED	DREHZAHN	VITESSE	VELOCIDAD	3000 r.p.m.	3000 r.p.m.	3000 r.p.m.	3000 r.p.m.	3600 r.p.m.	3600 r.p.m.	3600 r.p.m.
CLASSE D'ISOLAM.	INSULATION CLASS	ISOLATIONSKLASSE	ISOLEMENT	ANSLAMMENTO	H	H	H	H	H	H	H
PROTEZIONE	PROTECTION	SCHÜTZ	PROTECTION	PROTECCION	IP21	IP21	IP21	IP21	IP21	IP21	IP21
PESO (IM B35)	WEIGHT (IM B35)	GEWICHT (IM B35)	POIDS (IM B35)	PESO (IM B35)	34kg	43kg	44kg	44kg	34kg	43kg	43kg
SALDATRICE	WELDER	SCHWEISS-MASCHINE	MACHINE DE SOUDAGE	SOLDADORA							
CORRENTE DI SALDATURA (DC)	WELDING CURRENT (DC)	SCHWEISSSTROM (DC)	COURANT DE SOUDAGE (DC)	CORRIENTE DE SALDATURA (DC)	45 - 105A 110 - 170A	50 - 110A 120 - 200A 160 - 220A	40 - 100A 100 - 160A 160 - 220A	40 - 100A 100 - 160A	50 - 115A 125 - 190A	50 - 135A 140 - 210A 180 - 240A	50 - 110A 120 - 180A
TENSIONE DI SALDATURA	STRIKE VOLTAGE	EINSEZSPANNUNG	TENSION D'AMORCAGE	VOLTAGE DE CEBADO	80V	75V	73V	76V	82V	82	90
TENSIONE DI SALDATURA	WELDING VOLTAGE	SCHWEISSPANNUNG	TENSION DE SOUDAGE	VOLTAGE DE SALDAJURA	21.8 - 28.8V	22 - 28V	21.6 - 28.8V	21.6 - 28.8V	22 - 27.6V	22 - 28.4V	22 - 29.6V
TIPO DI ELETTRODI SALDABILI: SODABILI: TUTTI I TIPI, COMPRESI I BASICI E CELLULOSICI	WELDABLE ELECTRODES: ALL TYPES INCLUDED BASIC AND CELLULOSIC	TYPE ELECTRODE SCHWEISSBAR: ALLE TIPIEN ENGESCHLIESST ICH DER JEINIGE AUS ZELULOSE	TYPE ELECTRODES SOUDABLE: TOUTS TIYPES, COMPRES LES BASIQUES ET CELLULOSES	TIPO ELECTRODOS SODABLE: TODOS LOS TIPOS INCLUIDOS LOS BASICOS Y CELLULOSICOS							
SERVIZIO	DUTY	DIENST	SERVICE	SERVICIO	170A 50%	170A 60% 200A 35%	170A 60% 220A 35%	170A 60% 220A 35%	190A 50%	210A 35% 170A 60%	240A 35% 180A 60%
POTENZA ASSORBITA	DRIVING POWER	LEISTUNGS-AUFNAHME	PUISSANCE ABSORBEE	POTENCIA ABSORBIDA	7.5kW (9.5HP)	8.5kW (11.5HP)	9kW (12.5HP)	9kW (12.5HP)	8kW (11HP)	10kW (13HP)	11kW (15HP)
GENERATORE	ALTERNATOR	GENERATOR	ALTERNATEUR	ALTERNADOR							
TRIFASE	THREE-PHASE	DREI-PHASIGER	TRIPHASE	TRIFASICO							
POTENZA	POWER	LEISTUNG	PUISSANCE	POTENCIA			6.5kVA (S1) 400V				
TENSIONE	VOLTAGE	SPANNUNG	TENSION	VOLTAGE			9.4A 50Hz				
CORRENTE (MAX S1)	CURRENT (MAX S1)	STROM (MAX S1)	COURANT (MAX S1)	CORRIENTE (MAX S1)							
FREQUENZA	FREQUENCY	FREQUENZ	FREQUENCE	FRECUENCIA							
COS φ	COS φ	COS φ	COS φ	COS φ							
MONOFASE	SINGLE-PHASE	EINPHASIGER	MONOPHASE	MONOFASICO							
POTENZA	POWER	LEISTUNG	PUISSANCE	POTENCIA			3.5kVA (S1) 230V	5 kVA (S1) 115 - 230V	3.5kVA (S1) 120 - 240V	4 kVA (S1) 120 - 240V	5.5kVA (S1) 120 - 240V
TENSIONE	VOLTAGE	SPANNUNG	TENSION	TENSION			15.2A 50 Hz	43.5 - 21.7A 50 Hz	28.1 - 14.6A 60 Hz	33.3 - 16.7A 60 Hz	46 - 23a 60 Hz
CORRENTE (MAX S1)	CURRENT (MAX S1)	STROM (MAX S1)	COURANT (MAX S1)	CORRIENTE (MAX S1)							
FREQUENZA	FREQUENCY	FREQUENZ	FREQUENCE	FRECUENCIA							
COS φ	COS φ	COS φ	COS φ	COS φ							
La saldatrice è fornita di protezione termica (autoriscaltabile) contro i sovraccarichi.	The welder is supplied with thermal breaker (autoresistable) against overload.	Die Schweißmaschine ist mit einem Überlastungsschutz geliefert.	La machine est protégée avec un dispositif thermique (avec réajustement).	La soldadora la suministra con un dispositivo termico que se restablece automaticam.							

OVERALL DIMENSIONS

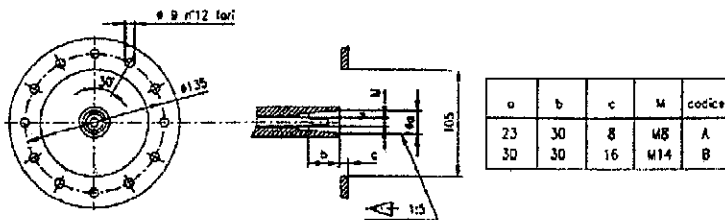
FORMA COSTRUTTIVA SHAPE FORME DE CONSTRUCTION BAUFORM FORMA DE CONSTRUCCION: B34 (B3/B14) cod. E



FORMA COSTRUTTIVA SHAPE FORME DE CONSTRUCTION BAUFORM FORMA DE CONSTRUCCION: B35 (J609b) cod. ...



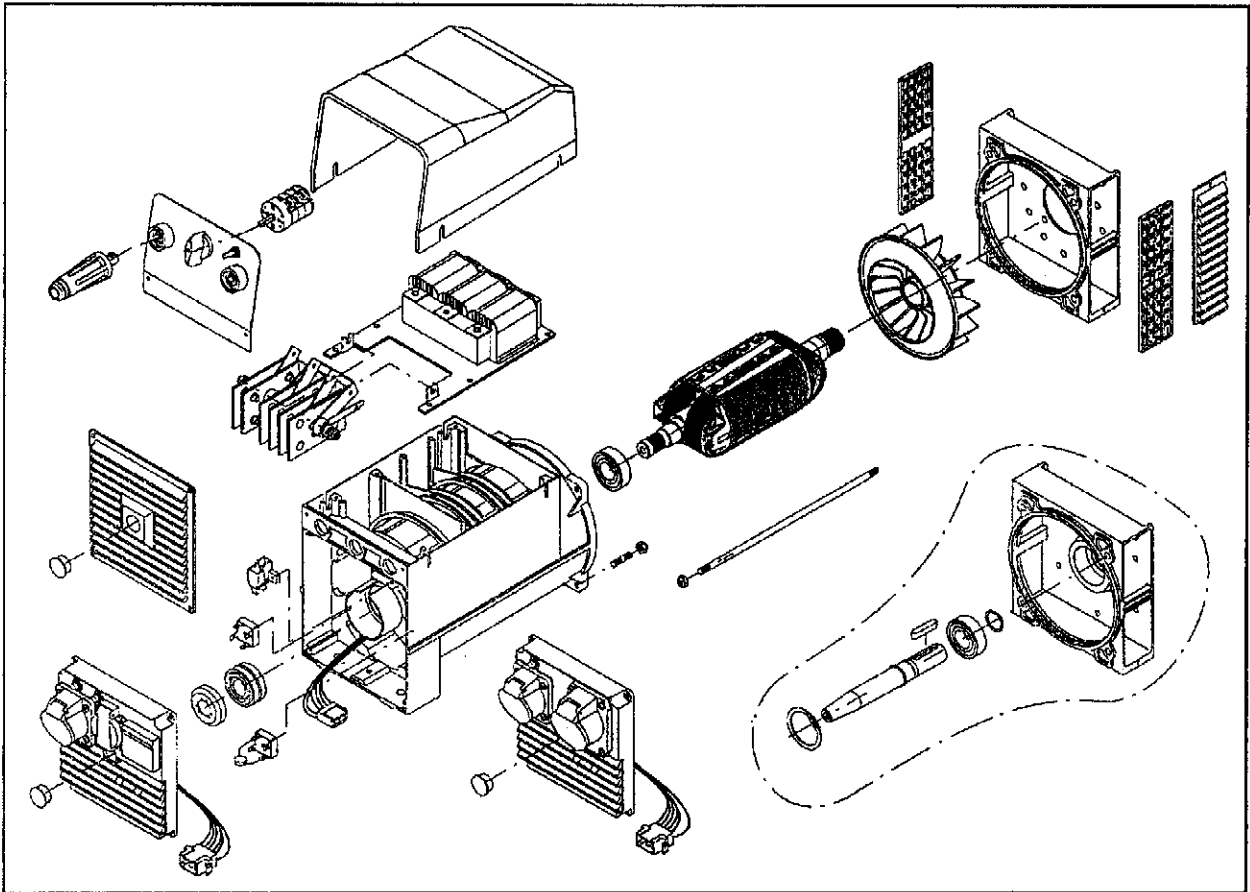
FORMA COSTRUTTIVA SHAPE FORME DE CONSTRUCTION BAUFORM FORMA DE CONSTRUCCION: B35 (C.23-C.30) cod. ...



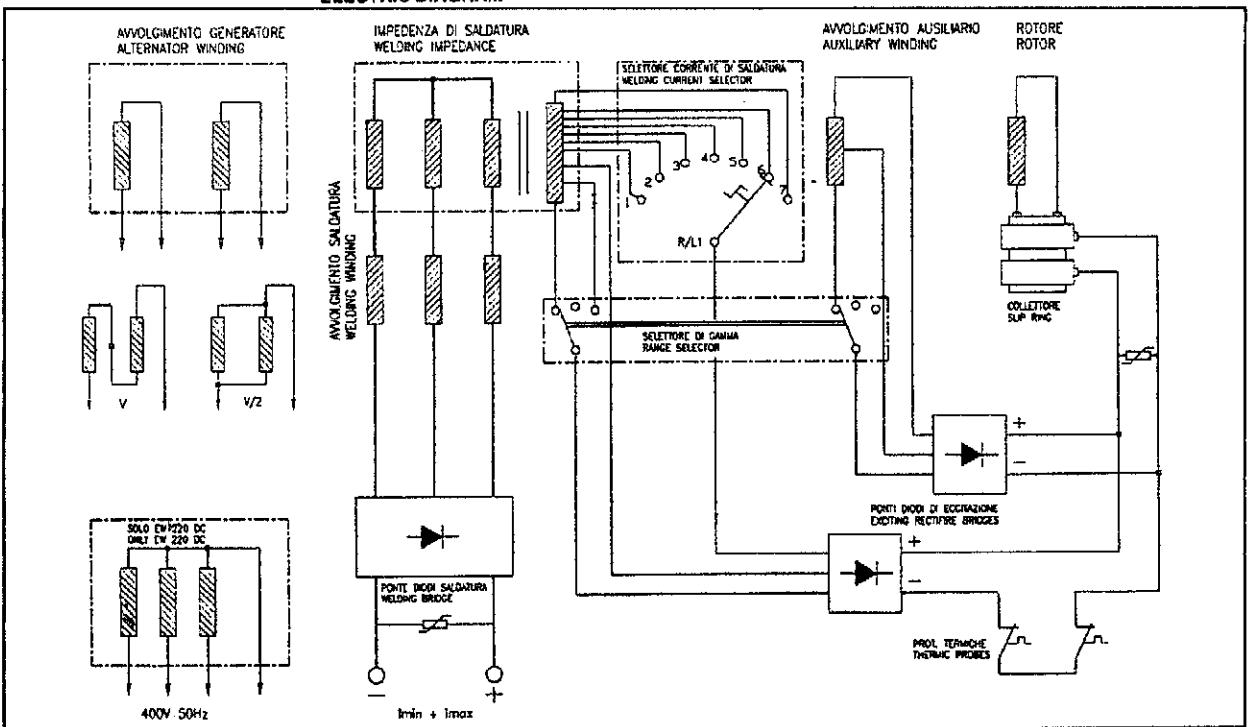
TYPE	Hz	B34 - B35 J609a B35 C.23-C.30				B35 J609b			
		A	B	C	D	A1	B1	C1	D1
EW 170 DC	50	365	69	315	282	381	85	331	282
EW 190 DC	50	365	69	315	282	381	85	331	282
EW 200 DC	50	420	124	370	337	436	140	386	337
EW 210 DC	60	420	124	370	337	436	140	386	337
EW 220 DC	50	420	124	370	337	436	140	386	337
EW 240 DC	50	420	124	370	337	436	140	386	337

	K
Press socket	14
Press CEE socket	45

EXPLODED VIEW



ELECTRIC DIAGRAM



DICHIARAZIONE DI CONFORMITÀ CONFORMITY CERTIFICATE KONFORMITÄTSERKLÄRUNG

La società

The company

Die Firma

SINCRO s.r.l.

Via Tèzze,3 - Loc. Cereda - 36073 - Cornedo Vicentino - (Vi) ITALY

dichiara sotto la propria responsabilità che
le saldatricideclares under its own responsibility that
the welding machineserklärt in eigener Verantwortung, daß die
Schweißmaschinen

serie EW-DC

series EW-DC

Serie EW-DC

sono costruite e collaudate in accordo alle
norme di seguito indicate:are made and tested in compliance with the
standards listed below:in Übereinstimmung mit den nachstehend
angegebenen Normen konstruiert und
abgenommen wurden:

CEI EN 60034-1 (IEC 34.1,34.5 - CEI 2-3 - NF 51.100 - VDE 0530 - BS 4999-5000)

CEI EN 60204-1 (CEI 44-5)

EN 292-1,292-2

EN 60974-1 (IEC 974-1)

e risultano conformi:

and they comply:

und den folgenden Bestimmungen entsprechen:

1) ai requisiti generali di sicurezza stabiliti
dalla Direttiva Bassa Tensione del 19
Febbraio 1973 (73/23 CEE), recepita in
Italia con la legge n°791 del 18 Ottobre
1977.

1) with the general safety requirements
established by the Low Voltage Directive of
19 February 1973 (73/23 EEC), assimilated
in Italy with law n°791 of 18 October 1977.

1) den allgemeinen Sicherheitsanforderungen
der Direktive zur Niederspannung vom 19.
Februar 1973 (73/23 EWG), die in Italien
mit Gesetz Nr. 791 vom 18. Oktober 1977
angenommen wurde.

2) alla Direttiva 89/336 CEE (mod. dalla
93/68 CEE) riguardante il ravvicinamento
delle legislazioni degli stati membri in mate-
ria di compatibilità elettromagnetica.
La verifica di compatibilità è stata condotta
in base alle seguenti norme:

2) with Directive 89/336 EEC (mod. by
93/68 EEC) concerning the reconciliation of
the legislation of member countries on the
subject of electromagnetic compatibility.
Compatibility was checked according to the
following standards:

2) der Direktive 89/336 EWG (modifiziert
durch 93/68 EWG) bezüglich der
Annäherung der Gesetzgebung der
Mitgliedsstaaten auf dem Gebiet der elektro-
magnetischen Kompatibilität.
Die Überprüfung der Kompatibilität wurde
gemäß den folgenden Normen durchgeführt:

EN 55011 (CEI 110-6)
EN 50081-1 (CEI 110-7)
EN 50082-1 (CEI 110-8)
EN 50199

Le saldatrici oggetto della presente dichia-
razione sono da intendersi come compo-
nenti; pertanto vige il divieto di messa in
servizio prima che le macchine in cui saran-
no incorporati siano dichiarate conformi
alle direttive riguardanti la sicurezza (CEE
89/392, art.4, allegato 2, lettera B; CEE
91/368, art.1) e la compatibilità elettroma-
gnetica.

The welding machines to which this decla-
ration refers are to be understood as compo-
nents; it is therefore forbidden to put
them into operation before the machines in
which they are to be incorporated have
been declared as conforming with the direc-
tives on safety (EEC 89/392, art.4, enclosu-
re 2, letter B; EEC 91/368, art.1).

Die Schweißmaschinen, die Gegenstand der
vorliegenden Erklärung sind, verstehen sich
als Komponenten. Es ist daher verboten, sie
in Betrieb zu nehmen, bevor die Maschinen,
in die sie eingebaut werden, nicht ihrerseits
als mit den Direktiven zur Sicherheit (EWG
89/392, Art. 4, Anlage 2, Absatz B; EWG
91/368, Art. 1) und zur elektromagneti-
schen Kompatibilität übereinstimmend
erklärt wurden.

Cereda di Cornedo, il 02/01/97

SINCRO s.r.l.
L'amministratore unico
The chairman
Der Alleingeschäftsführer
SOGA LINA

