

# TECHNICAL HANDBOOK

## Matrix L33-ER



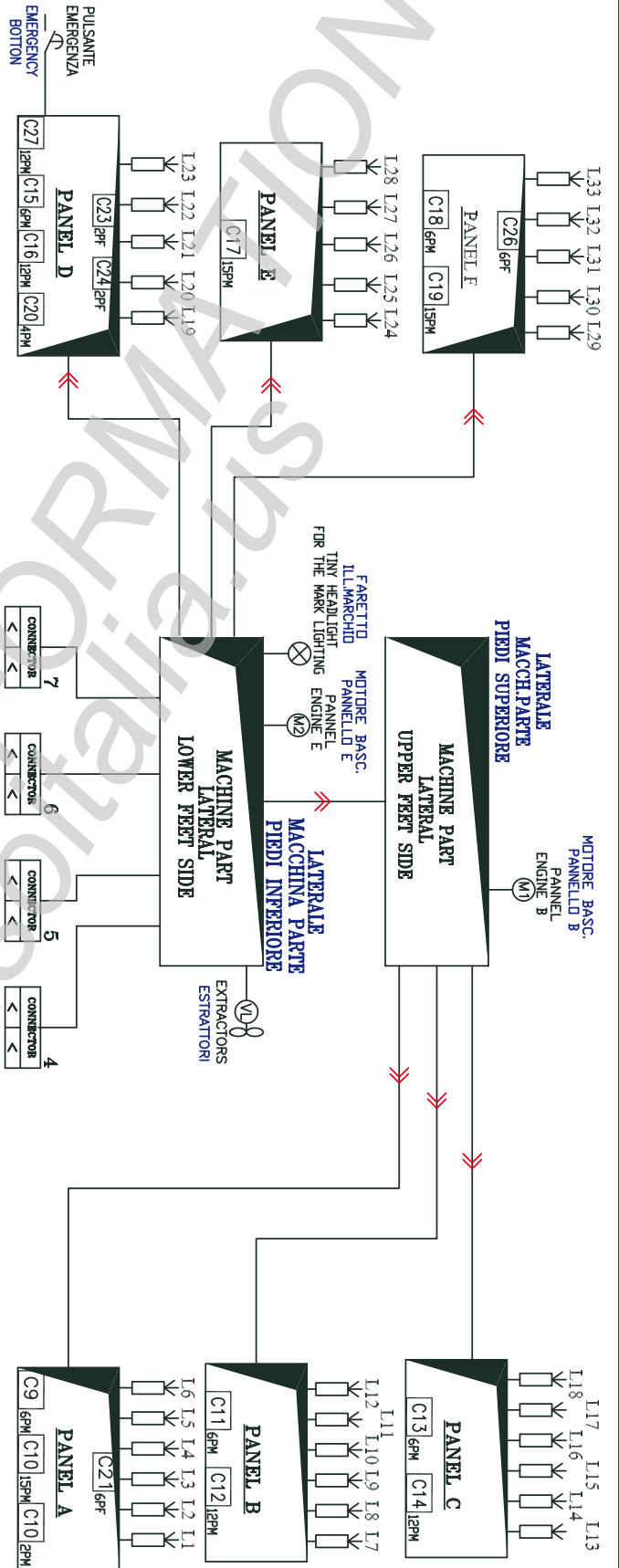
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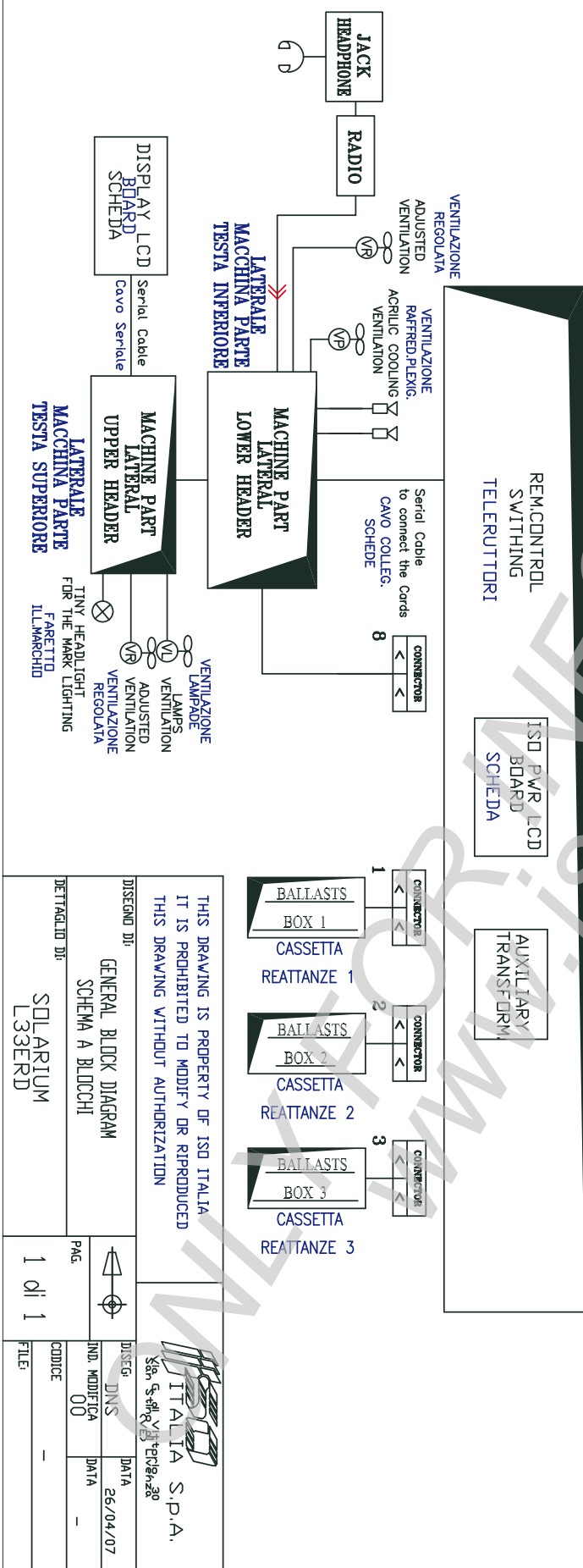
**Read all precautions and  
instructions in this manual  
before using this equipment.**

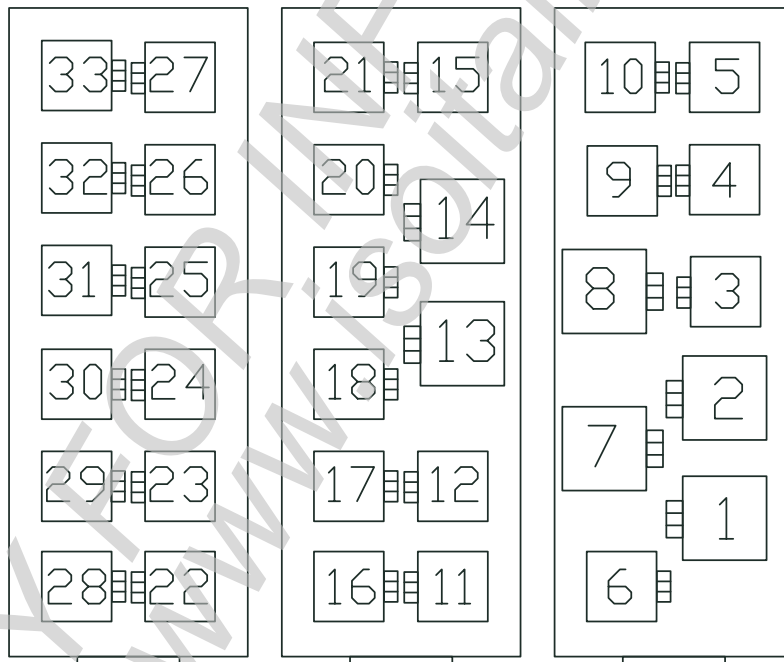
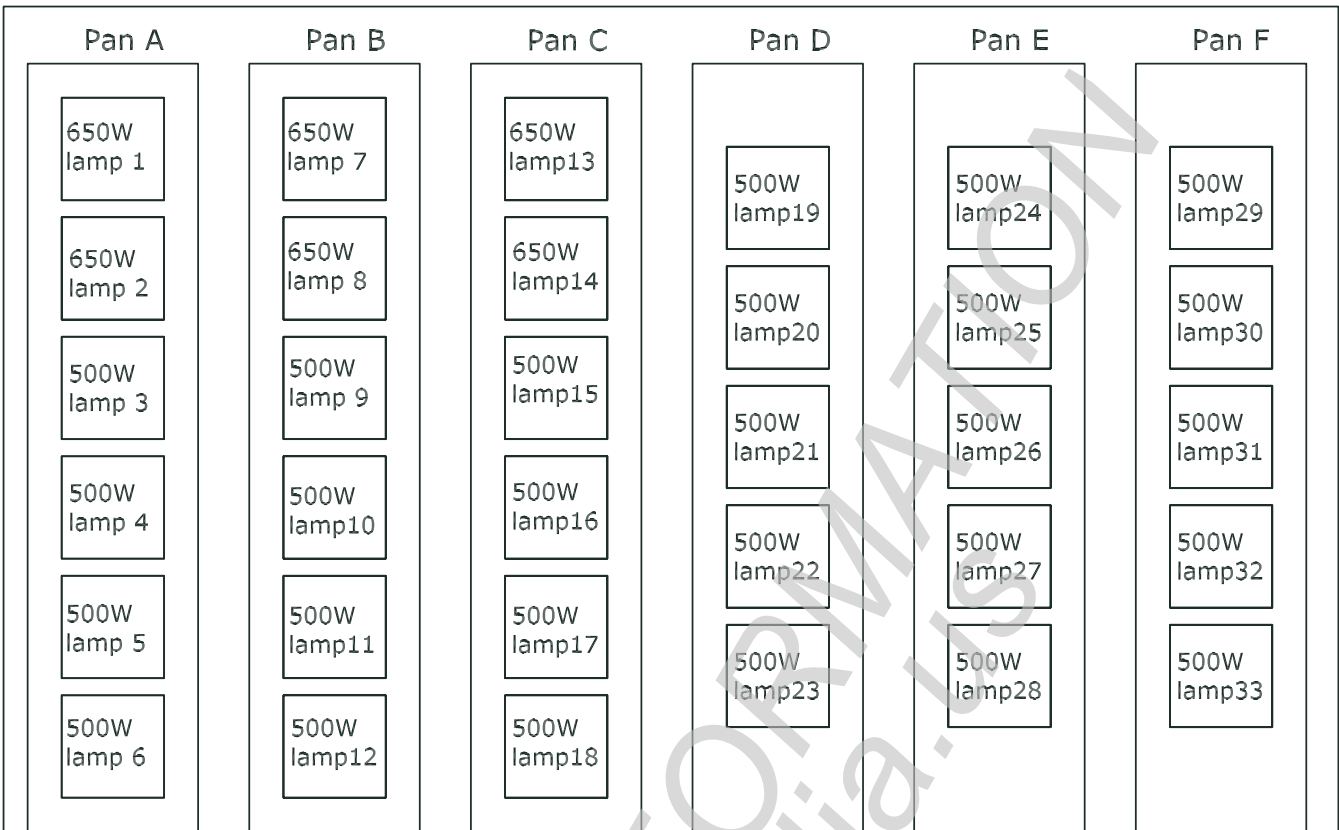


# PARTE INFERIORE LOWER PART





# UPPER PART PARTE SUPERIORE





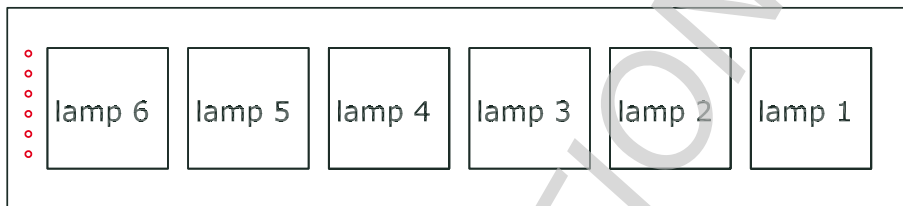
Cassetta n°3 Ballast house n°3      Cassetta n°2 Ballast house n°2      Cassetta n°1 Ballast house n°1

THIS DRAWING IS PROPERTY OF ISO ITALIA IT IS PROHIBITED TO MODIFY OR RIPRODUCED THIS DRAWING WITHOUT AUTHORIZATION		 ITALIA S.p.A. Via G. Galvani, 20 San G. Viterbo (VT)	
DISEGNO DI: BALLAST AND LAMPS POSITION		DISEG: DNS IND. MODIFICA: -	DATA: 05/02/06 DATA: -
DETTAGLIO DI: SOLARIUM L33UL/ER	SCALA: 1:1	CODICE: - FILE:	

HEAD SIDE  
LATO TESTA

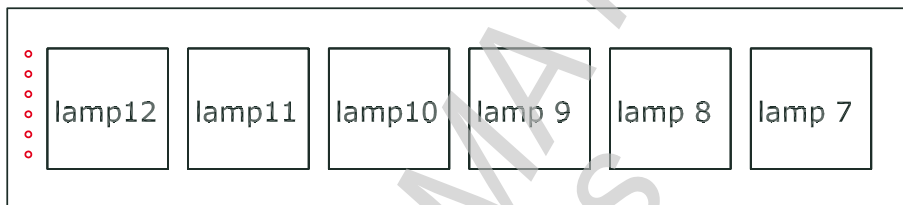
Pann A

led 1  
led 2  
led 3  
led 4  
led 5  
led 6



Pann B

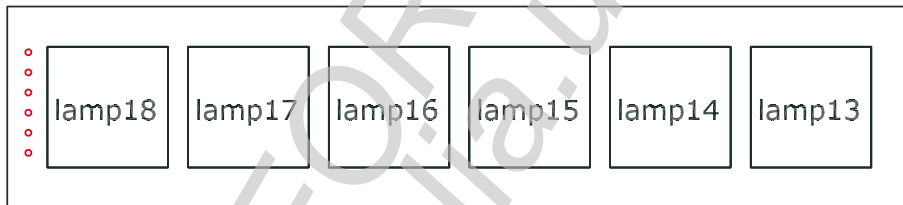
led 7  
led 8  
led 9  
led 10  
led 11  
led 12



Pann C

FOOT SIDE

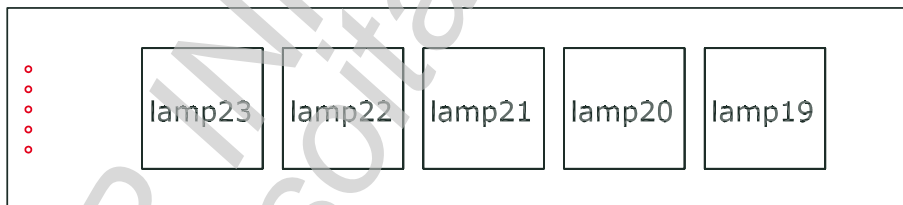
led 13  
led 14  
led 15  
led 16  
led 17  
led 18



Pann D

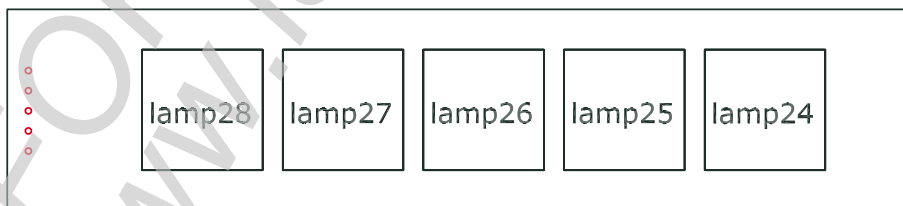
LATO PIEDI

led 19  
led 20  
led 21  
led 22  
led 23



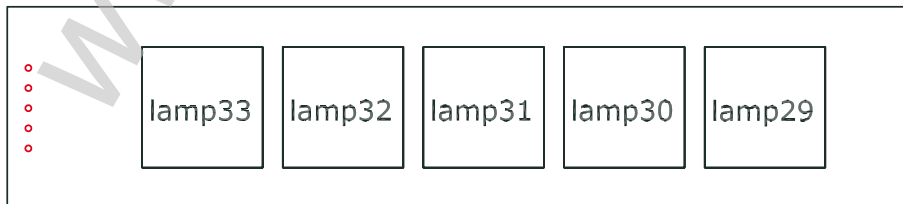
Pann E

led 24  
led 25  
led 26  
led 27  
led 28



Pann F

led 29  
led 30  
led 31  
led 32  
led 33



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ITALIA S.p.A.

88-5-Strada 13-Prato-50139

DISEGNO DI: SDLARIUM L33  
IND. MODIFICA: 00  
CODICE: -  
FILE: -

DATA: 09/01/06  
DATA: -

DETTAGLIO DI: Correspondence LED to filters

## TERMINAL BOARD OF THE ELECTRIC BOARD

### N° Description

PE Ground

1 General Neutral

2 Supply phase of the auxiliary circuit

3 Supply Neutral of the auxiliary circuit

### Face Start

4 Phase L1 – supply of the face lamp 1/2/7

5 Neutral or second supply phase of the face lamp 1/2/7

6 Supply Neutral of the face lamp 1/2/7 (for 400 V 3F+ N)

7 Supply Phase L2 of the face lamp 1/2/7 (for 230V 3F)

8 Supply Phase L2 of the face lamp 8/13/14

9 Neutral or second supply phase of the face lamps 8/13/14

10 Supply Neutral of the face lamp 8/13/14 (for 400 V 3F+ N)

11 Supply Phase L3 of the face lamp 8/13/14 (for 230V 3F)

### First Body Start

12 Supply Phase L1 of the lamps 3/19/20/21 - upfor body

13 Neutral or second supply phase of the lamp 3/19/20/21- upfor body

14 Supply Neutral of the lamps 3/19/20/21 - upfor body (for 400 V 3F+ N)

15 Supply Phase L2 of the lamps 3/19/20/21 - upfor body (for 230V 3F)

16 Supply Phase of the L2 lamps 9/24/25/26 - upfor body

17 Neutral or second supply phase of the lamps 9/24/25/26 - upfor body

18 Supply Neutral of the lamps 9/24/25/26 - upfor body (for 400 V 3F+ N)

19 Supply Phase L3 of the lamps 9/24/25/26 - upfor body (for 230V 3F)

20 Supply Phase L3 of the lamps 15/29/30/31 - upfor body

21 Neutral or second supply phase of the lamps 15/29/30/31 - upfor body

22 Supply Neutral of the lamps 15/29/30/31 - upfor body (for 400 V 3F+ N)

23 Supply Phase L1 of the lamps 15/29/30/31 - upfor body (for 230V 3F)

### Second Body Start

24 Supply Phase L1 of the lamps 4/5/6/22/23 - upfor body

25 Neutral or second supply phase of the lamps 4/5/6/22/23 - upfor body

26 Supply Neutral of the lamps 4/5/6/22/23 - upfor body (for 400 V 3F+ N)

27 Supply Phase L2 of the lamps 4/5/6/22/23 - upfor body (for 230V 3F)

28 Supply Phase L2 of the lamps 10/11/12/27/28 - upfor body

29 Neutral or second supply phase of the lamps 10/11/12/27/28 - upfor body

30 Supply Neutral of the lamps 10/11/12/27/28 - upfor body (for 400 V 3F+ N)

31 Supply Phase L3 of the lamps 10/11/12/27/28 - upfor body (for 230V 3F)

32 Supply Phase L3 of the lamps 16/17/18/32/33 - upfor body

33 Neutral or second supply phase of the lamps 16/17/18/32/33 - upfor body

34 Supply Neutral of the lamps 16/17/18/32/33 - upfor body (for 400 V 3F+ N)

35 Supply Phase L1 of the lamps 16/17/18/32/33 - upfor body (for 230V 3F)

36 External Start (coin box)

37 External Start (coin box)

38 contact NO teleruptor

39 contact NO teleruptor

40 nc

41 nc

42 emergency botton

43 emergency botton

# WIRING DIAGRAM

## Protective covering - ballasts box 1

### Connector n°1

- 1 Ballast output of the lamp n° 1
- 2 Ballast input of the lamp n° 1
- 3 Ballast output of the lamp n° 2
- 4 Ballast input of the lamp n° 2
- 5 Ballast output of the lamp n° 3
- 6 Ballast input of the lamp n° 3
- 7 Ballast output of the lamp n° 4
- 8 Ballast input of the lamp n° 4
- 9 Ballast output of the lamp n° 5
- 10 Ballast input of the lamp n° 5
- 11 Ballast output of the lamp n° 6
- 12 Ballast input of the lamp n° 6
- 13 Ballast output of the lamp n° 7
- 14 Ballast input of the lamp n° 7
- 15 Ballast output of the lamp n° 8
- 16 Ballast input of the lamp n° 8
- 17 Ballast output of the lamp n° 9
- 18 Ballast input of the lamp n° 9
- 19 Ballast output of the lamp n° 10
- 20 Ballast input of the lamp n° 10
- 21:24 N.c.
- Ground

## Protective covering - ballasts box 2

### Connector n°2

- 1 Ballast output of the lamp n° 11
- 2 Ballast input of the lamp n° 11
- 3 Ballast output of the lamp n° 12
- 4 Ballast input of the lamp n° 12
- 5 Ballast output of the lamp n° 13
- 6 Ballast input of the lamp n° 13
- 7 Ballast output of the lamp n° 14
- 8 Ballast input of the lamp n° 14
- 9 Ballast output of the lamp n° 15
- 10 Ballast input of the lamp n° 15
- 11 Ballast output of the lamp n° 16
- 12 Ballast input of the lamp n° 16
- 13 Ballast output of the lamp n° 17
- 14 Ballast input of the lamp n° 17
- 15 Ballast output of the lamp n° 18
- 16 Ballast input of the lamp n° 18
- 17 Ballast output of the lamp n° 19
- 18 Ballast input of the lamp n° 19
- 19 Ballast output of the lamp n° 20
- 20 Ballast input of the lamp n° 20
- 21 Ballast output of the lamp n° 21
- 22 Ballast input of the lamp n° 21
- 23:24 N.c.
- Ground

## Protective covering - ballasts box 3

### Connector n°3

- 1 Output of the lamp n° 22 ballast
- 2 Input of the lamp n° 22 ballast
- 3 Output of the lamp n° 23 ballast
- 4 Ballast input of the lamp n° 23
- 5 Ballast output of the lamp n° 24
- 6 Ballast input of the lamp n° 24
- 7 Ballast output of the lamp n° 25
- 8 Ballast input of the lamp n° 25
- 9 Ballast output of the lamp n° 26
- 10 Ballast input of the lamp n° 26
- 11 Ballast output of the lamp n° 27
- 12 Ballast input of the lamp n° 27
- 13 Ballast output of the lamp n° 28
- 14 Ballast input of the lamp n° 28
- 15 Ballast output of the lamp n° 29
- 16 Ballast input of the lamp n° 29
- 17 Ballast output of the lamp n° 30
- 18 Ballast input of the lamp n° 30
- 19 Ballast output of the lamp n° 31
- 20 Ballast input of the lamp n° 31
- 21 Ballast output of the lamp n° 32
- 22 Ballast input of the lamp n° 32
- 23 Ballast output of the lamp n° 33
- 24 Ballast input of the lamp n° 33
- Ground

## Protective covering - lamps

### Connector n°4

- 1 Ballast output of the lamp n° 1
- 2 Neutral or second phase-lamp n°1
- 3 Ballast output of the lamp n° 2
- 4 Neutral or second phase-lamp n°2
- 5 Ballast output of the lamp n° 3
- 6 Neutral or second phase-lamp n°3
- 7 Ballast output of the lamp n° 4
- 8 Neutral or second phase-lamp n°4
- 9 Ballast output of the lamp n° 5
- 10 Neutral or second phase-lamp n° 5
- 11 Ballast output of the lamp n° 6
- 12 Neutral or second phase-lamp n° 6
- 13 Ballast output of the lamp n° 7
- 14 Neutral or second phase-lamp n° 7
- 15 Ballast output of the lamp n° 8
- 16 Neutral or second phase-lamp n° 8
- 17 Ballast output of the lamp n° 9
- 18 Neutral or second phase-lamp n° 9
- 19 Ballast output of the lamp n° 10
- 20 Neutral or second phase-lamp n°10
- 21 Ballast output of the lamp n° 11
- 22 Neutral or second phase-lamp n°11
- 23 Ballast output of the lamp n° 12
- 24 Neutral or second phase-lamp n°12
- Ground

## Protective covering - lamps

### Connector n°5

- 1 Ballast output of the lamp n° 13
- 2 Neutral or second phase-lamp n°13
- 3 Ballast output of the lamp n° 14
- 4 Neutral or second phase-lamp n°14
- 5 Ballast output of the lamp n° 15
- 6 Neutral or second phase-lamp n°15
- 7 Ballast output of the lamp n° 16
- 8 Neutral or second phase-lamp n°16
- 9 Ballast output of the lamp n° 17
- 10 Neutral or second phase-lamp n°17
- 11 Ballast output of the lamp n° 18
- 12 Neutral or second phase-lamp n°18
- 13 Channel 1 for filter Pan A and B
- 14 Channel 1 for filter Pan A and B
- 15 Channel 2 for filter Pan C
- 16 Channel 2 for filter Pan C
- Ground

## Protective covering - lamps

### Connector n°6

- 1 Ballast output of the lamp n° 19
- 2 Neutral or second phase-lamp n°19
- 3 Ballast output of the lamp n° 20
- 4 Neutral or second phase-lamp n°20
- 5 Ballast output of the lamp n° 21
- 6 Neutral or second phase-lamp n°21
- 7 Ballast output of the lamp n° 22
- 8 Neutral or second phase-lamp n°22
- 9 Ballast output of the lamp n° 23
- 10 Neutral or second phase-lamp n°23
- 11 Ballast output of the lamp n° 24
- 12 Neutral or second phase-lamp n°24
- 13 Ballast output of the lamp n° 25
- 14 Neutral or second phase-lamp n°25
- 15 Ballast output of the lamp n° 26
- 16 Neutral or second phase-lamp n°26
- 17 Ballast output of the lamp n° 27
- 18 Neutral or second phase-lamp n°27
- 19 Ballast output of the lamp n° 28
- 20 Neutral or second phase-lamp n°28
- 21 Ballast output of the lamp n° 29
- 22 Neutral or second phase-lamp n°29
- 23 Ballast output of the lamp n° 30
- 24 Neutral or second phase-lamp n°30
- Ground

**Protective covering–lamps and other****Connector n°7**

- 1 Ballast output of the lamp n° 31
- 2 Neutral or second phase-lamp n°31
- 3 Ballast output of the lamp n° 32
- 4 Neutral or second phase-lamp n°32
- 5 Ballast output of the lamp n° 33
- 6 Neutral or second phase-lamp n°33
- 7 Supply neutral of the extractors
- 8 Supply phase of the extractors
- 9 Supply of the header engine
- 10 Supply of the header engine
- 11 Supply of the panel engine B and E
- 12 Supply of the panel engine B and E
- 13 Supply mark lamp
- 14 Supply mark lamp
- 15 Led test
- 16 Led test
- Ground

**Protective covering - auxiliary service****Connector n°8**

- 1 Supply neutral of the lamp ventilation
- 2 Supply phase of the lamp ventilation
- 3 Supply neutr.of the adjust ventilation
- 4 Supply phase of the adjust ventilation
- 5 Emergency button contact
- 6 Emergency button contact
- 7 Electromecc. Key contact
- 8 Electromecc. Key contact
- 9 Positive of the radio supply
- 10 Negative of the radio supply
- 11 positive left radio
- 12 negative left radio
- 13 positive right radio
- 14 negative right radio
- 15 positive left sintesis
- 16 negative left right sintesis
- 17 positive right sintesis
- 18 thermal probe
- 19 thermal probe
- 20 Channel 3 for filter Pan D
- 21 Channel 3 for filter Pan D
- 22 Channel 4 for filter Pan E and F
- 23 Channel 4 for filter Pan E and F
- 24 N.C.
- Ground

**Panel PA****Connector n°9**

- 1 Ballast output of the lamp n° 1
- 2 Neutral or second phase-lamp n° 1
- 3 Ballast output of the lamp n° 2
- 4 Neutral or second phase-lamp n° 2
- 5 Ground
- 6 N.C.

**Connector n°10**

- 1 Ballast output of the lamp n° 3
- 2 Neutral or second phase-lamp n° 3
- 3 Ballast output of the lamp n° 4
- 4 Neutral or second phase-lamp n° 4
- 5 Ballast output of the lamp n° 5
- 6 Neutral or second phase-lamp n° 5
- 7 Ballast output of the lamp n° 6
- 8 Neutral or second phase-lamp n° 6
- 9 Supply of the panel engine PB
- 10 Supply of the panel engine PB
- 11 Supply neutral of the adjusted ventil.
- 12 Supply phase of the adjusted ventil.
- 13 board control filters contact
- 14 board control filters contact
- 15 N.C.

**Connector n°21**

- 1 Supply of the panel engine PB
- 2 Supply of the panel engine PB
- 3 Supply neutral of the adjusted ventil.
- 4 Supply phase of the adjusted ventil.
- 5 Contact of the thermal probe
- 6 Contact of the thermal probe
- 7:9 N.C.

**Connector n°28**

- 1 Contact of the thermal probe
- 2 Contact of the thermal probe
- 3 contact protective part in tension
- 4 contact protective part in tension

**Panel PB****Connector n°11**

- 1 Ballast output of the lamp n° 7
- 2 Neutral or second phase-lamp n° 7
- 3 Ballast output of the lamp n° 8
- 4 Neutral or second phase-lamp n° 8
- 5 Ground
- 6 N.C.

**Connector n°12**

- 1 Ballast output of the lamp n° 9
- 2 Neutral or second phase-lamp n° 9
- 3 Ballast output of the lamp n° 10
- 4 Neutral or second phase-lamp n°10
- 5 Ballast output of the lamp n° 11
- 6 Neutral or second phase-lamp n°11
- 7 Ballast output of the lamp n° 12
- 8 Neutral or second phase-lamp n°12
- 9 board control filters contact
- 10 board control filters contact
- 11 contact protective part in tension
- 12 contact protective part in tension

**Panel PC****Connector n°13**

- 1 Ballast output of the lamp n° 13
- 2 Neutral or second phase-lamp n°13
- 3 Ballast output of the lamp n° 14
- 4 Neutral or second phase-lamp n°14
- 5 Ground
- 6 N.C.

**Connector n°14**

- 1 Ballast output of the lamp n° 15
- 2 Neutral or second phase-lamp n°15
- 3 Ballast output of the lamp n° 16
- 4 Neutral or second phase-lamp n°16
- 5 Ballast output of the lamp n° 17
- 6 Neutral or second phase-lamp n°17
- 7 Ballast output of the lamp n° 18
- 8 Neutral or second phase-lamp n°18
- 9 board control filters contact
- 10 board control filters contact
- 11 contact protective part in tension
- 12 contact protective part in tension

## Panel PD

### Connector n°15

- 1 Ballast output of the lamp n° 19
- 2 Neutral or second phase-lamp n°19
- 3 Ballast output of the lamp n° 20
- 4 Neutral or second phase-lamp n°20
- 5 Ground
- 6 N.C.

### Connector n°16

- 1 Ballast output of the lamp n° 21
- 2 Neutral or second phase-lamp n°21
- 3 Ballast output of the lamp n° 22
- 4 Neutral or second phase-lamp n°22
- 5 Ballast output of the lamp n° 23
- 6 Neutral or second phase-lamp n°23
- 7 Supply neutral of the extractors
- 8 Supply phase of the extractors
- 9 Supply of the header engine
- 10 Supply of the header engine
- 11 Filters micro-switch contact
- 12 Filters micro-switch contact
- 13 contact protective part in tension
- 14 contact protective part in tension
- 15 N.C.

### Connector n°20

- 1 Emergency button contact
- 2 Emergency button contact
- 3 Electromecc. Key contact
- 4 Electromecc. Key contact
- 5 Led test
- 6 Led test

### Connector n°23

- 1 Supply neutral extractors
- 2 Supply phase extractors
- Ground

### Connector n°24

- 1 Supply of the header engine
- 2 Supply of the header engine

### Connector N°27

- 1 Positive supply radio
- 2 Negative supply radio
- 3 left positive radio (sintesis)
- 4 Output left negative radio (sintesis)
- 5 Output right positive radio (sintesis)
- 6 Output right negativradio (sintesis)
- 7 Output left positive sintesis
- 8 Output com. left-right negative sintesis
- 9 Output right positive sintesis
- 10 Output left positive headphone
- 11 Output com.left-right negative headphone
- 12 Output right positive headphone

## Panel PE

### Connector n°17

- 1 Ballast output of the lamp n° 24
- 2 Neutral or second phase-lamp n° 24
- 3 Ballast output of the lamp n° 25
- 4 Neutral or second phase-lamp n° 25
- 5 Ballast output of the lamp n° 26
- 6 Neutral or second phase-lamp n° 26
- 7 Ballast output of the lamp n° 27
- 8 Neutral or second phase-lamp n° 27
- 9 Ballast output of the lamp n° 28
- 10 Neutral or second phase-lamp n° 28
- 11 board control filters contact
- 12 board control filters contact
- 13 contact protective part in tension
- 14 contact protective part in tension
- 15 Ground

## Panel PF

### Connector n°18

- 1 Ballast output of the lamp n° 29
- 2 Neutral or second phase-lamp n° 29
- 3 Ballast output of the lamp n° 30
- 4 Neutral or second phase-lamp n° 30
- 5 Ground
- 6 N.C.

### Connector n°19

- 1 Ballast output of the lamp n° 31
- 2 Neutral or second phase-lamp n° 31
- 3 Ballast output of the lamp n° 32
- 4 Neutral or second phase-lamp n° 32
- 5 Ballast output of the lamp n° 33
- 6 Neutral or second phase-lamp n° 33
- 7 Supply of the panel engine PE
- 8 Supply of the panel engine PE
- 9 Supply of the mark lamp
- 10 Supply of the mark lamp
- 11 board control filters contact
- 12 board control filters contact
- 13 thermal probe
- 14 thermal probe
- 15 N.C.

### Connector n°33

- 1 contact protective part in tension
- 2 contact protective part in tension

### Connector n°26

- 1 Supply of the panel engine PE
- 2 Supply of the panel engine PE
- 3 Supply of the mark lamp
- 4 Supply of the mark lamp
- 5 Contact of the thermal probe
- 6 Contact of the thermal probe
- 7:9 N.C.

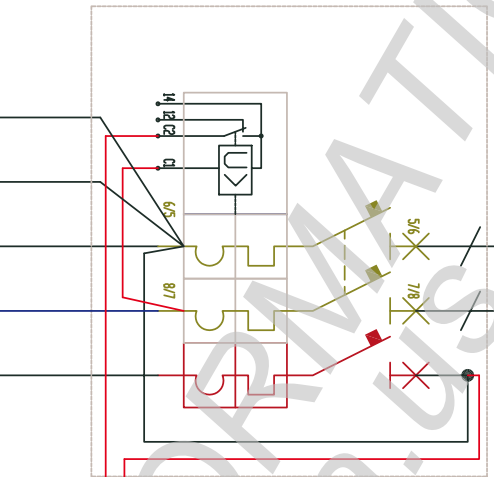


ALIMENTAZIONE 230V~  
SUPPLY 230V~

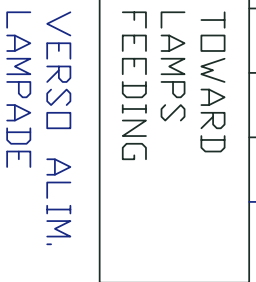


INTERRUTTORE GENERALE  
GENERAL BREAKER  
L33ER/BD 2x100A

INTERRUTTORE AUSILIARIO  
AUXILIARY BREAKER  
1 x 16 A



AL PULSANTE  
DI EMERGENZA  
TO THE EMERGENCY  
BUTTON



TOWARD  
AUXILIARY  
FEEDING

TOWARD  
LAMPS  
FEEDING

LEGEND/LEGENDA

SYMBOL/SIMBOLI	DESCRIPTION/DESCRIZIONE
	MAGNETOTHERMIC CIRCUIT SWITCH 3/4 POLE
	INTERRUTTORE MAGNETOTHERMICO 3/4 POLI
	MAGNETOTHERMIC AUXILIARY SWITCH
	MAGNETOTHERMICO ALIMENTAZIONE AUSILIARIO
	SHUNT TRIP BOBINA DI SGANCIO
	EMERGENCY PUSH BUTTON/PULSANTE EMERGENZA

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Via S. Rita, 20  
36015 S. Maria del Monte (VI)

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L33ERB/D

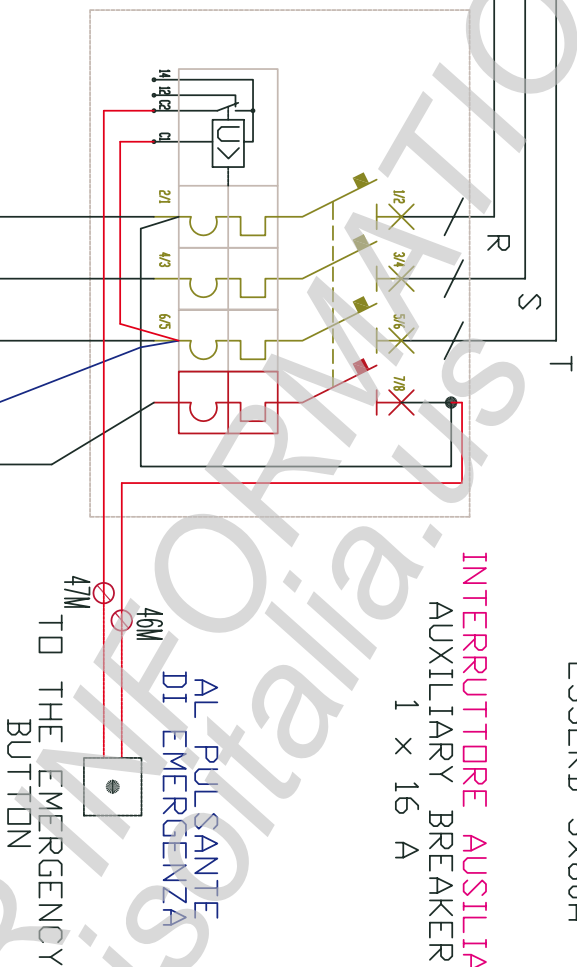
SCHEMA UNIFILARE CENTRAL. ALIMENTAZIONE  
GENERAL UNIFILAR DIAGRAM OF THE SUPPLY

DATE: 15/09/06  
MODIFIED: DATA 17/05/07

ALIMENTAZIONE 230V-3~  
SUPPLY 230V-3~

INTERRUTTORE GENERALE  
GENERAL BREAKER  
L33ERD 3x80A

INTERRUTTORE AUSILIARIO  
AUXILIARY BREAKER  
1 x 16 A



TOWARD  
LAMPS  
FEEDING  
VERSOD ALIM.  
LAMPADDE

TOWARD  
AUXILIARY  
FEEDING  
VERSOD ALIM.  
AUSILIARIO

### LEGEND/LEGENDA

SYMBOL/SIMBOLI	DESCRIPTION/DESCRIZIONE
	MAGNETOTHERMIC CIRCUIT SWITCH 3/4 POLE
	INTERRUTTORE MAGNETOTERMICO 3/4 POLI
	MAGNETOTHERMIC AUXILIARY SWITCH
	MAGNETOTERMICO ALIMENTAZIONE AUSILIARIO
	SHUNT TRIP
	BOBINA DI SGANCIO
	EMERGENCY PUSH BUTTON/PULSANTE EMERGENZA

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00187 Roma

DISCEND. DR.	SCHEMA UNIFILARE CENTRAL. ALIMENTAZIONE	DISCEND.	DNS	DATA	15/09/06
GENERAL UNIFILAR DIAGRAM OF THE SUPPLY		MOD. MODIFICA	01	DATA	17/05/07

DETTAGLIO DR.  
SOLARIUM  
L33ERD

PAGG.		FILE	

ALIMENTAZIONE 400V-3N~  
SUPPLY 400V-3N~

INTERRUTTORE GENERALE  
GENERAL BREAKER  
L33ERD 4x40A

INTERRUTTORE AUSILIARIO  
AUXILIARY BREAKER  
1 x 16 A








AL PULSANTE  
DI EMERGENZA  
TO THE EMERGENCY  
BUTTON

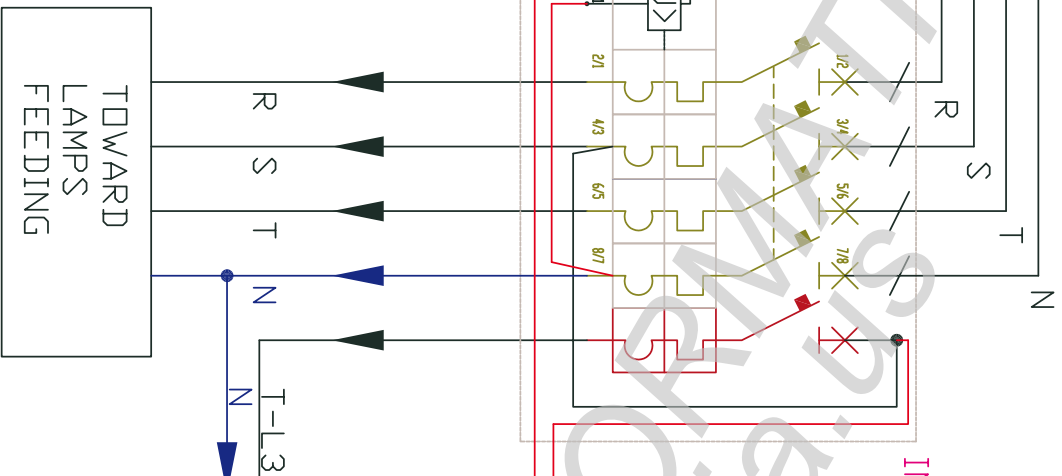
TOWARD  
AUXILIARY  
FEEDING

VERSOD ALIM,  
AUSILIARIO

TOWARD  
LAMPS  
FEEDING

VERSOD ALIM,  
LAMPAD

LEGEND/LEGENDA	
SYMBOL/SIMBOLI	DESCRIPTION/DESCRIZIONE
	MAGNETOTERMIC CIRCUIT SWITCH 3/4 POLE
	INTERRUTTORE MAGNETOTERMICO 3/4 POLI
	MAGNETOTERMIC AUXILIARY SWITCH
	MAGNETOTERMICO ALIMENTAZIONE AUSILIARIO
	SHUNT TRIP
	BOBINA DI SGANCIO
	EMERGENCY PUSH BUTTON/PULSANTE EMERGENZA



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DISCENDI DA:  
SCHEMA UNIFILARE CENTRALI ALIMENTAZIONE  
GENERAL UNIFILAR DIAGRAM OF THE SUPPLY

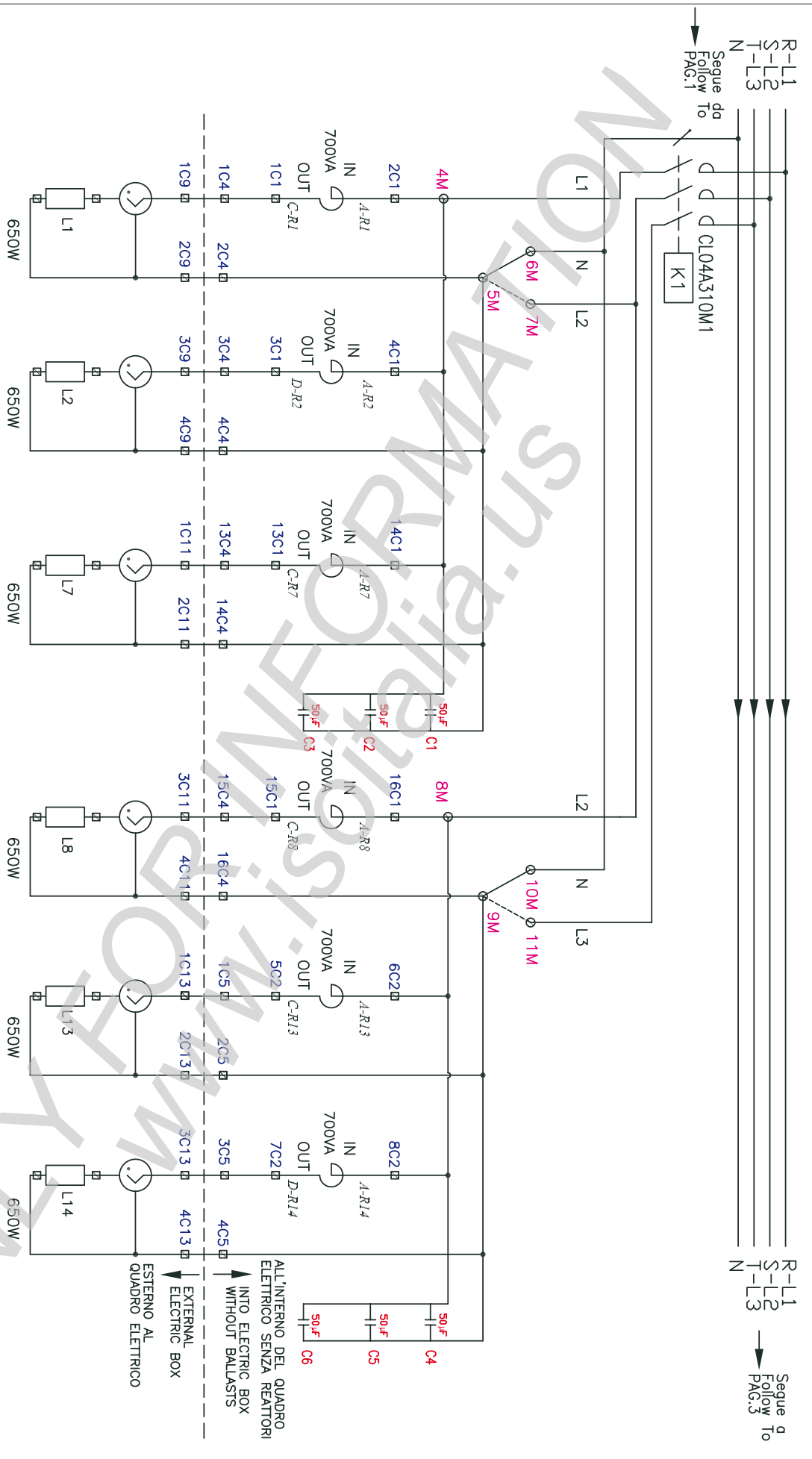
DEFINIZIONE DA:  
SOLARIUM  
L33ERD

DISCEN  
DMS  
15/09/06

MODIFICA  
01  
DATA  
17/05/07

FILE



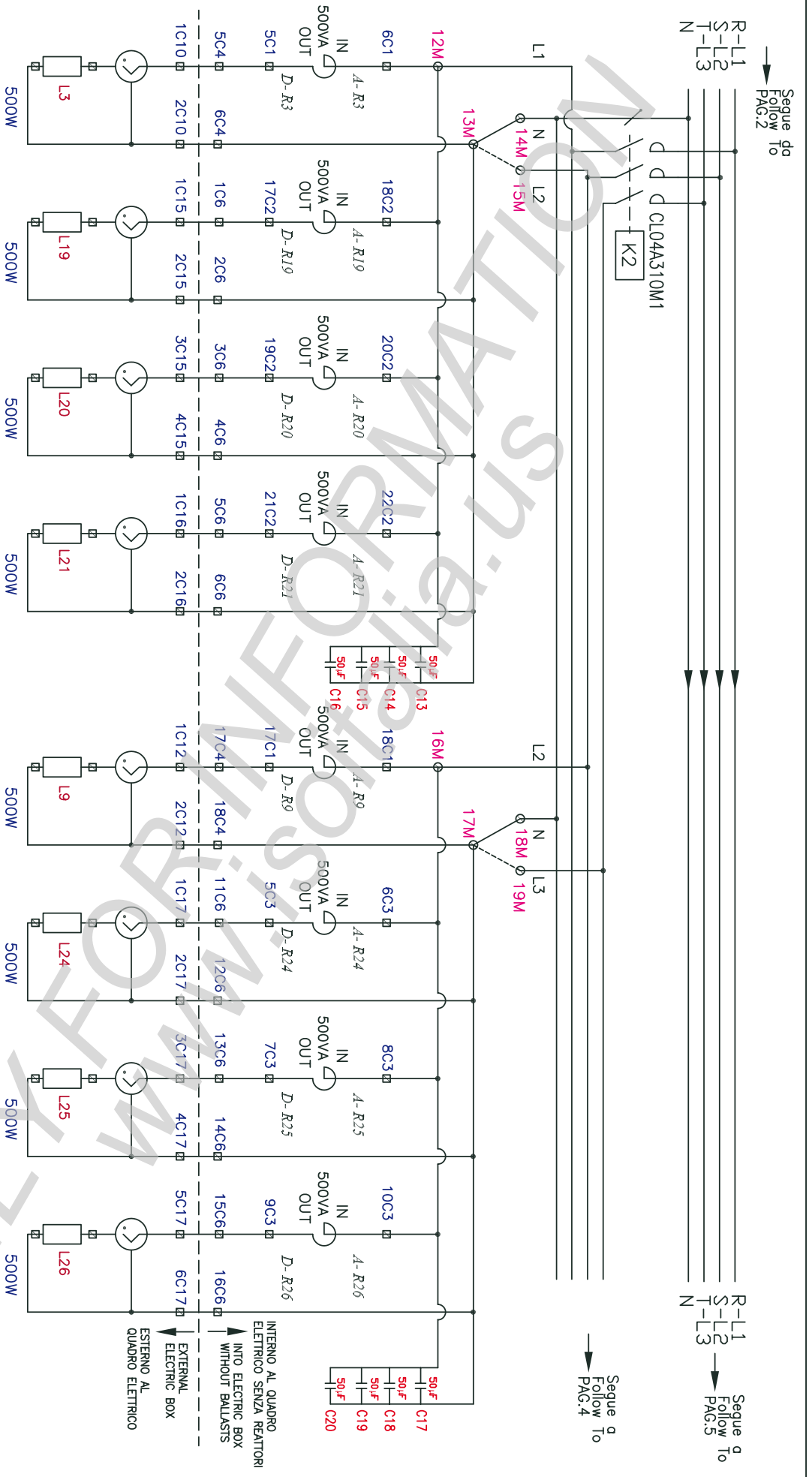


CONNECTIONS:  
 400V 3N~: 5M-9M-13M -----> 6M-10M-14M  
 230V 3~ : 5M-9M-13M -----> 7M-11M-15M

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 Via S. Rita 10, 20139 Milano, Italia  
 Tel. +39 02 57491111 Fax +39 02 57491112

DISEGNO DI: GENERAL UNIFILAR DIAGRAM		DISEGNO DATA DMS 07/02/06	
DETTAGLIO DI: -START FACE-		IND. MODIFICA 00	
SOLARIUM L33ER/UL		CODICE -	
PAGG. 3 di 7		FILE: -	



**CONNECTIONS:**

400V 3N~ : 17M-21M-25M -----> 18M-22M-26M  
 230V 3~ : 17M-21M-25M -----> 19M-23M-27M

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 Via S. Vittorino 20  
 36060 S. Vito del Trevisano (TV)

DISSEGNO DI: GENERAL UNIFILAR DIAGRAM  
 -1a START BODY-

DISSEGNO: DNS DATA: 06/02/06  
 IND. MODIFICA: 00 DATA: -

DETTAGLIO DI: SOLARIUM  
 L33ER/U/L

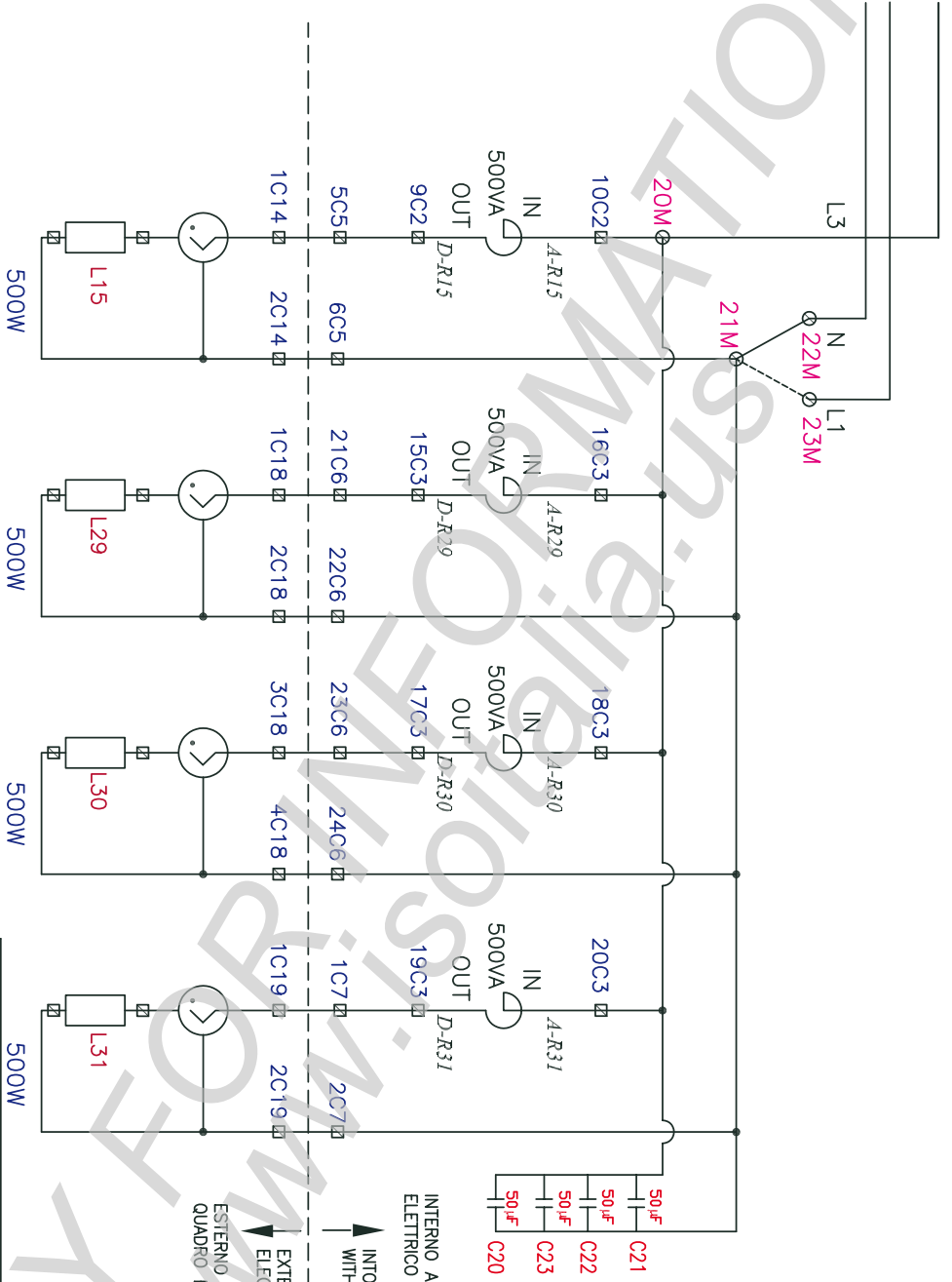
PAGG: 4 di 7

CODICE: -  
 FILE: -

Segue da  
Follow to  
PAG.3

LINE FROM TELER.K2  
LINEA DA TELER.K2

L3  
L2  
L1  
N



50µF C21  
50µF C22  
50µF C23  
50µF C20

INTERNO AL QUADRO  
ELETTICO SENZA REATTORI  
INTO ELECTRIC BOX  
WITHOUT BALLASTS

ESTERNO AL  
QUADRO ELETTICO  
EXTERNAL  
ELECTRIC BOX

CONNECTIONS:

400V 3N~ : 17M-21M-25M -----> 18M-22M-26M  
230V 3~ : 17M-21M-25M -----> 19M-23M-27M

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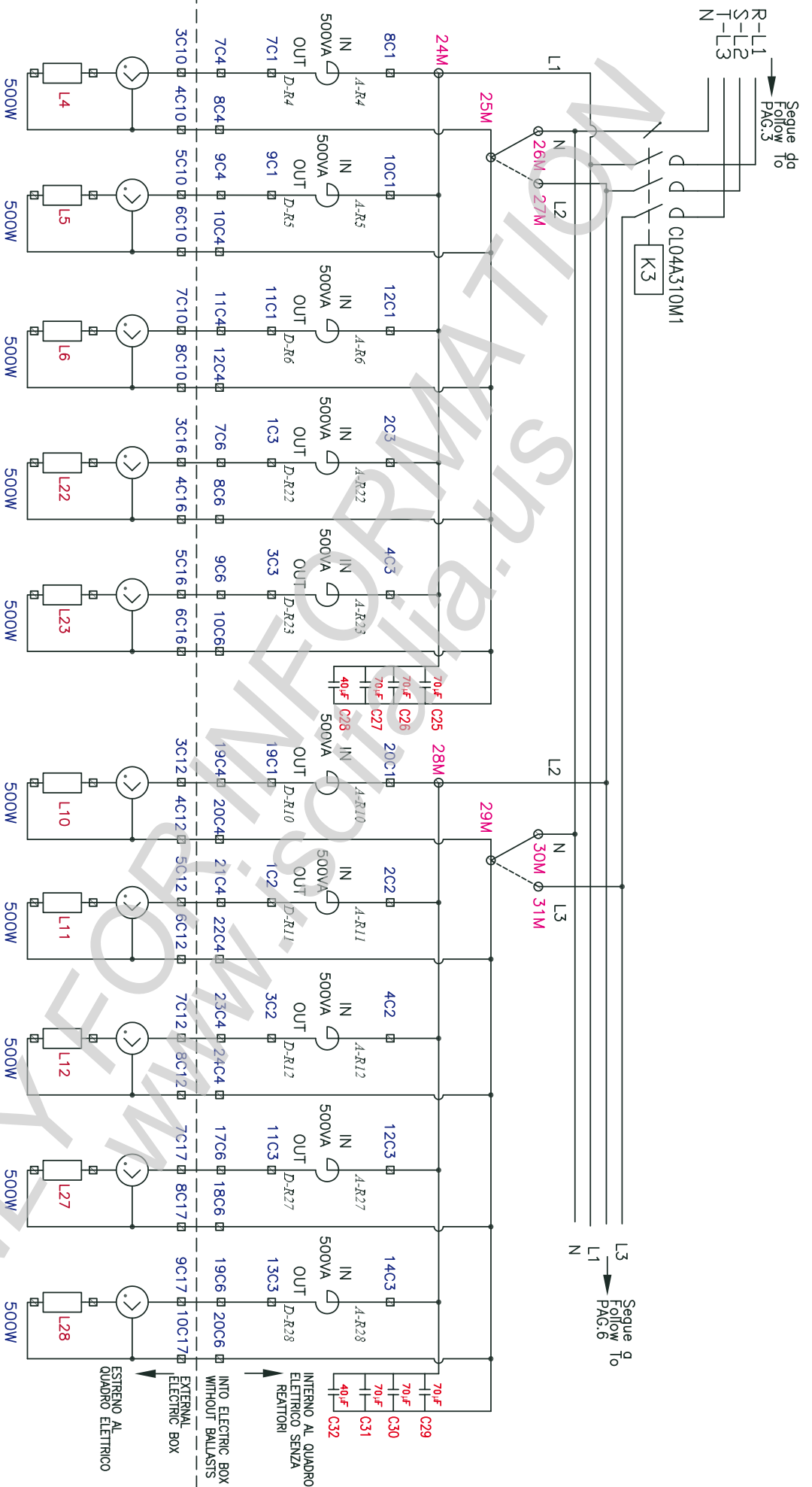


DISSEGNO DI:  
GENERAL UNIFILAR DIAGRAM  
- 1b BODY START-

PAGG. 6 di 7

DISSEG. DNS DATA 07/02/06  
IND. MODIFICA 00 DATA -  
CODICE -  
FILE:

DETTAGLIO DI:  
SOLARIUM  
L33ER/UL



**CONNECTIONS:**

400V 3N~ : 29M-33M-37M -----> 30M-34M-38M  
 230V 3~ : 29M-33M-37M -----> 31M-35M-39M

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DISSEG. DI: GENERAL UNIFILAR DIAGRAM  
 DETTAGLIO DI: -IIa START BODY-  
 SOLARIUM  
 L3SER/UL

5 di 7

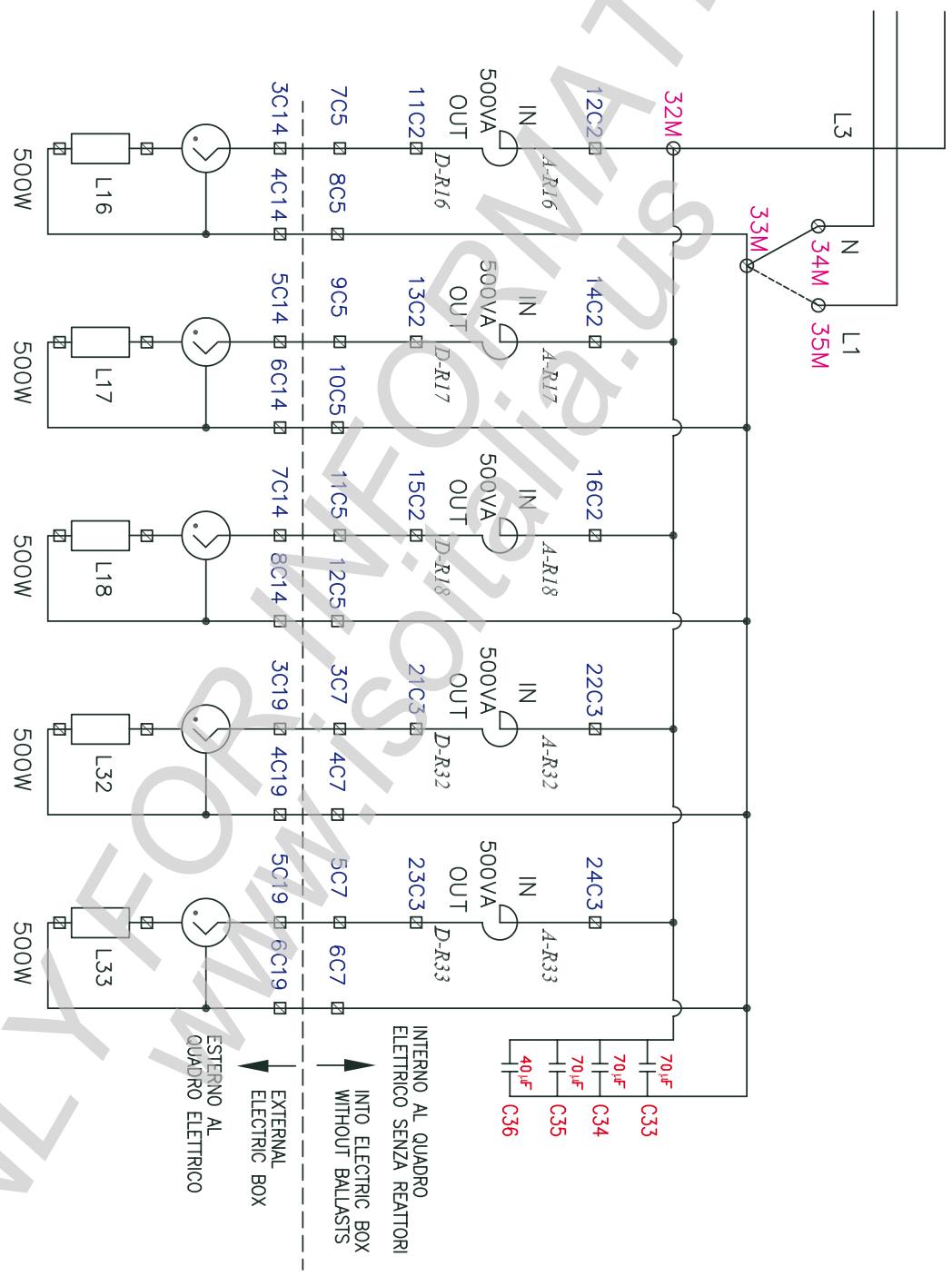
DATA: 06/02/06  
 IND. MODIFICA: 00  
 CODICE: -  
 FILE: -

ESTERNO AL QUADRO ELETTRICO  
 INTORNO AL QUADRO ELETTRICO SENZA REATTORI  
 INTORNO AL QUADRO ELETTRICO SENZA BALLASTI  
 ESTERNO AL QUADRO ELETTRICO

ISD ITALIA S.p.A.  
 Via S. Stefano 20  
 36010 Bussolengo (VI)

Segue da  
Follow to  
PAG.5

LINEA DA K3  
LINE FROM K3



CONNECTIONS:

400V 3N~ : 29M-33M-37M -----> 30M-34M-38M  
 230V 3~ : 29M-33M-37M -----> 31M-35M-39M

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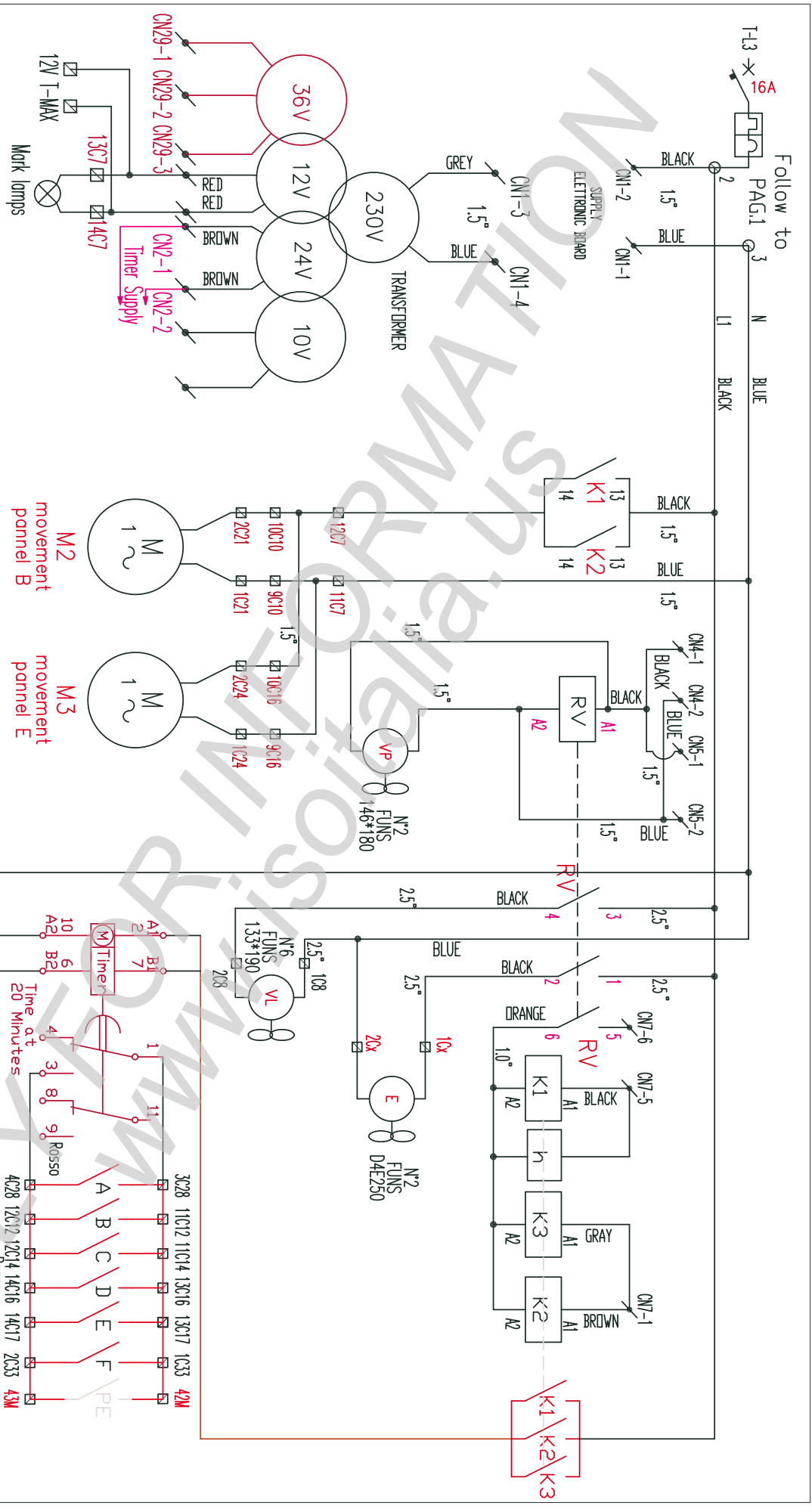
DESIGN DI:  
 GENERAL UNIFILAR DIAGRAM  
 -IIB BODY START-

DETTAGLIO DI:

SOLARIUM  
 L33ER/UL

PAGE:	7 di 7	DESIGN:	DNS	DATA:	07/02/06
CODICE:		IND. MODIFICA:	00	DATA:	
FILE:					



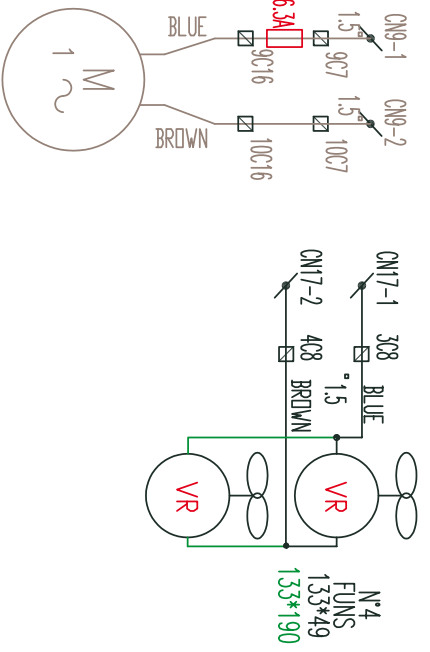
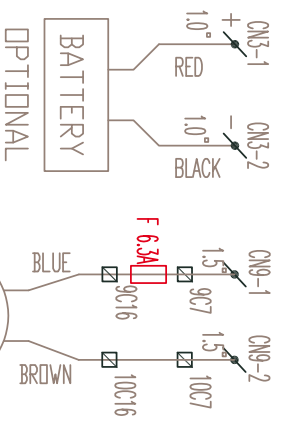
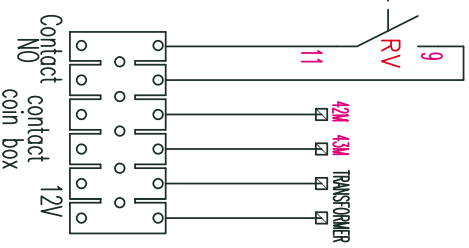
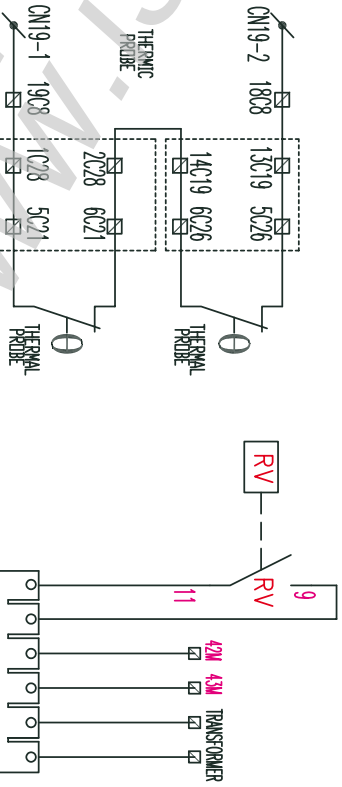
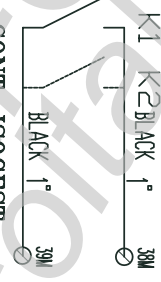
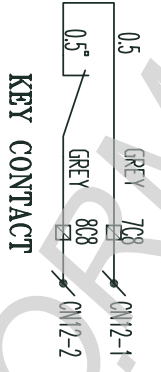
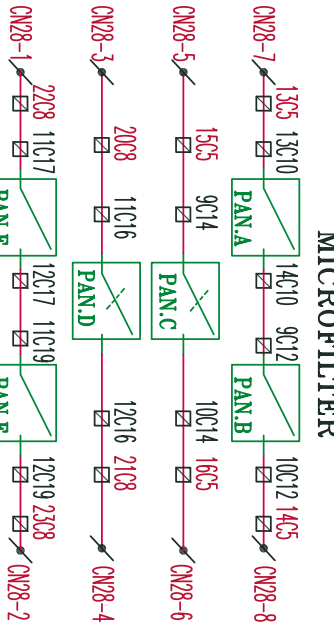
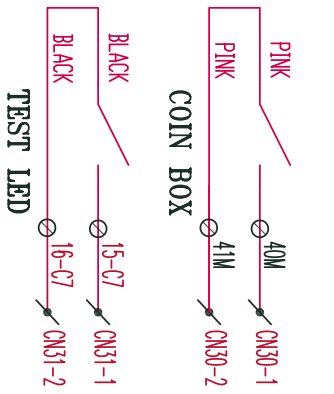
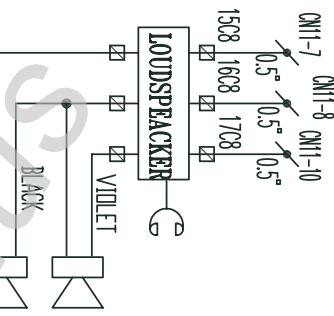
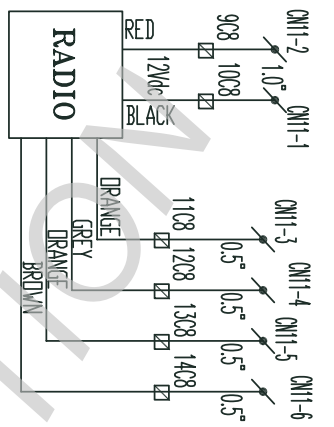


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DISTENDI DI:		DISEGNO:	
GENERAL UNIFILAR DIAGRAM		DMS	
AUXILIARY SUPPLY		IND. MODIFICA	
		00	
		DATA	
		16/03/06	

DETTAGLIO DI:		PAGG	
SOLARIUM		1 di 2	
L3SERVUL		CODICE	
		-	
		FILE:	
		-	

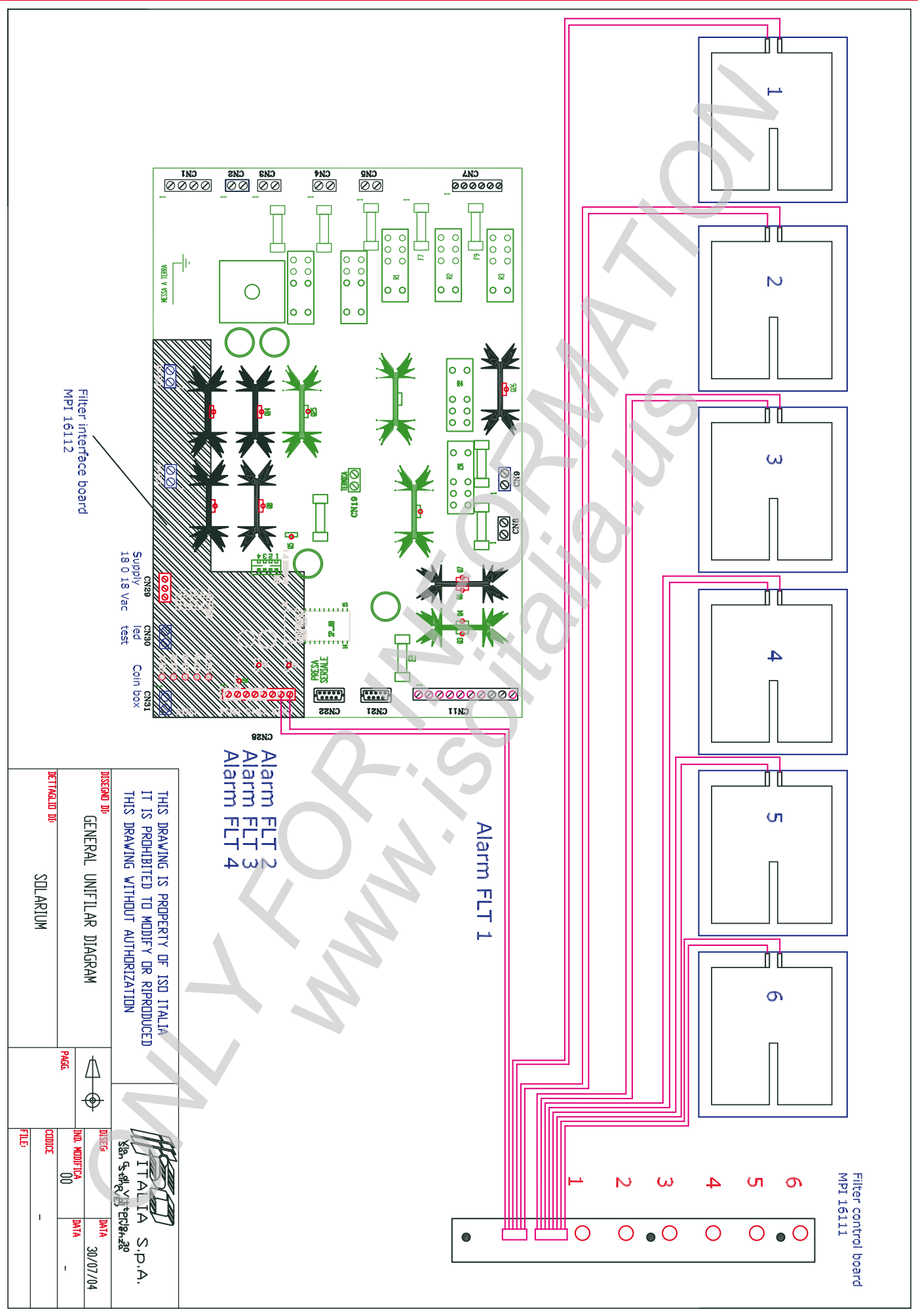


MOTOR MOV. CANOPY  
OPTIONAL

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DISTEND DI:	GENERAL UNIFILAR DIAGRAM	DISTEN:	DATA
DETTAGLIO DI:	AUXILIARY SUPPLY	IND. MODIFICA:	DATA
	SOLARIUM	PAGG:	16/03/06
	L33ER/UL	2 di 2	00
		FILE:	



Alarm FLT 1  
 Alarm FLT 2  
 Alarm FLT 3  
 Alarm FLT 4

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GENERAL UNIFILAR DIAGRAM

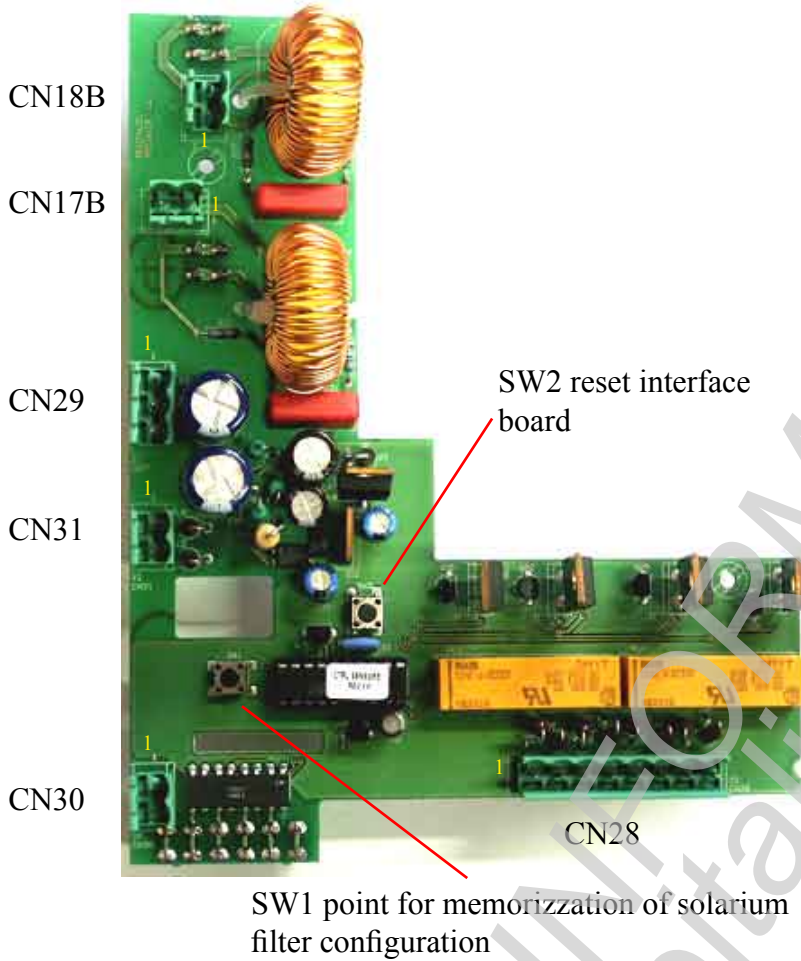
SOLARUM

  
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 Via S. Maria delle Grazie, 20  
 37060 S. Maria delle Grazie (Verona)

DESIGN	DATA
NOV. MODIFICA	30/07/04
CODICE	
FILE	

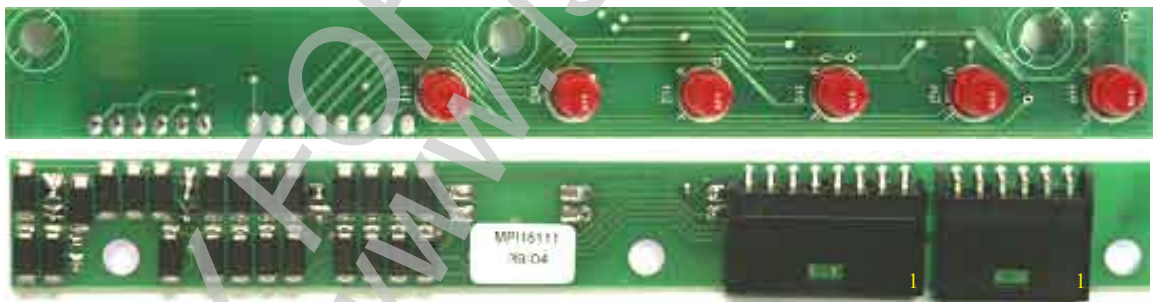
## BOARD CONFIGURATION

### FILTER BROKEN INTERFACE – MPI16112



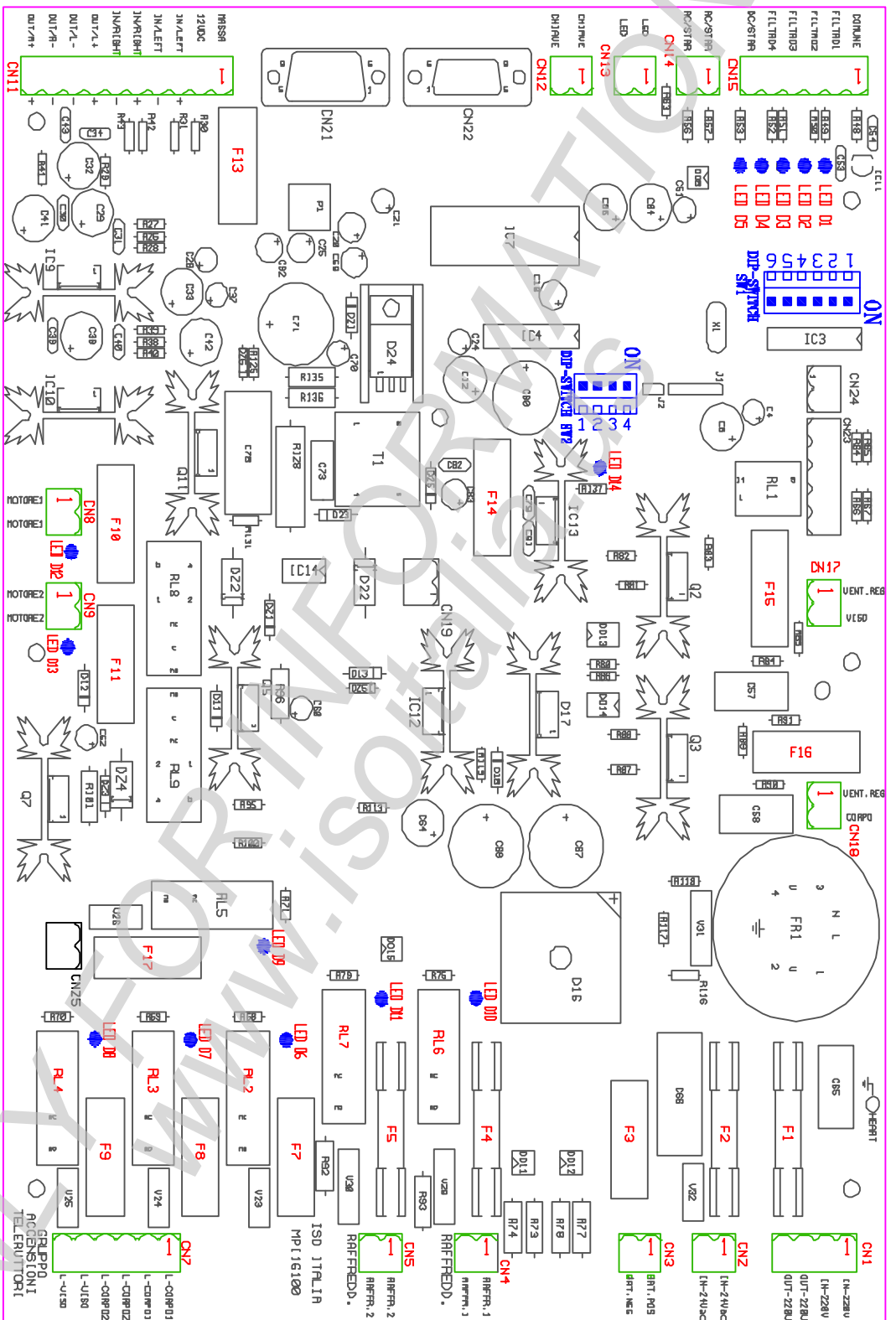
	<b>Connector ( CN 17B )</b>
1:	face adjusted ventilation (phase)
2:	face adjusted ventilation (neutral)
	<b>Connector ( CN 18B )</b>
1:	body adjusted ventilation (phase)
2:	body adjusted ventilation (neutral)
	<b>Connector ( CN 28 )</b>
1:	alarm filter 4 (red)
2:	alarm filter 4 (black)
3:	alarm filter 3 (red)
4:	alarm filter 3 (black)
5:	alarm filter 2 (red)
6:	alarm filter 2 (black)
7:	alarm filter 1 (red)
8:	alarm filter 1 (black)
	<b>Connector ( CN 29 )</b>
1:	supply board 18V
2:	supply board 0V
3:	supply board 18V
	<b>Connector ( CN 31 )</b>
1:	led test contact
2:	led test contact
	<b>Connector ( CN 30 )</b>
1:	remote start
2:	remote start
<b>SW1</b>	memorization n° filter
<b>SW2</b>	reset board

### FILTER BROKEN BOARD – MPI16111 - MPI16111A



	<b>Connector ( CONN 1 )</b>
1:	supply + (red)
2:	supply - (black)
3:	filter 1
4:	filter 1
5:	filter 2
6:	filter 2
	<b>Connector ( CONN 2 )</b>
1:	filter 3
2:	filter 3
3:	filter 4
4:	filter 4
5:	filter 5
6:	filter 5
7:	filter 6
8:	filter 6

CONN 2      CONN 1



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40014 - BOLOGNA - ITALY

DESIGNED BY:

SPWR BOARD

DATA

DETAILS NO.:

SOLARIUM

DATA

PAGE:

FILE:

## CIRCUIT BOARD CONFIGURATION ISO SPWR MPI16300

Terminal ( CN 1 )		Terminal ( CN 14 )		Deep-switches SW 2 (4 ways)	
1:	Input 230Vac (neutral)	1:	Control with voltage from 12 to 24 Vac	Enable vocal messages	
2:	Input 230Vac (phase)	2:	Control with voltage from 12 to 24 Vac	(ON position: enabled alarm)	
3:	Output 230Vac for transformer			1:	Start section messages
4:	Output 230Vac for transformer			2:	Middle section messages
		<b>Terminal ( CN 15 )</b>		3:	End section messages
		1:	Common token unit — filter micro switches	4:	Personalized message
<b>Terminal ( CN 2 )</b>		2:	Input filter micro switch consent 1		
1:	Input 24Vac	3:	Input filter micro switch consent 2		
2:	Input 24Vac	4:	Input filter micro switch consent 3		
		5:	Input filter micro switch consent 4	<b>RAPID FUSES</b>	
<b>Terminal ( CN 3 )</b>		6:	Input token unit command	F1:	10A 6.3x32 (input 230 Vac)
1:	Positive battery power supply (12Vdc)			F2:	10A 6.3x32 (input 24 Vac)
2:	Negative battery power supply (12Vdc)	<b>Terminal ( CN 17 )</b>		F3:	10A 5x20 (battery power supply )
		1:	Adjusted face ventilation (phase)	F4:	10A 6.3x32 (cooling face ventilation)
<b>Terminal ( CN 4 )</b>		2:	Adjusted face ventilation (neutral)	F5:	10A 6.3x32 (cooling body 1 ventilation)
1:	Face lamps cooling (phase)			F6:	not used
2:	Face lamps cooling (neutral)	<b>Terminal ( CN 18 )</b>		F7:	3.15A 5x20 (body 1 remote switch)
		1:	Adjusted body ventilation (phase)	F8:	3.15A 5x20 (body 2 remote switch)
<b>Terminal ( CN 5 )</b>		2:	Adjusted body ventilation (neutral)	F9:	3.15A 5x20 (face remote switch)
1:	Body lamps cooling 1 (phase)			F10:	6.3A 5x20 (motor 1 supply)
2:	Body lamps cooling 1 (neutral)	<b>Terminal ( CN 19 )</b>		F11:	6.3A 5x20 (motor 2 supply)
		1:	Thermostat contact input	F12:	not used
<b>Terminal ( CN 7 )</b>		2:	Thermostat contact input	F13:	3.15A 5x20 (radio supply)
1:	Remote switch command 1 of the body lamp			F14:	250mA 5x20 (auxiliary supply)
2:	Remote switch command 1 of the body lamp	<b>Terminal ( CN 21 )</b>		F15:	6.3A 5x20 (adjusted face ventilation)
3:	Remote switch command 2 of the body lamp	Connection for synthesis and serial		F16:	6.3A 5x20 (adjusted body ventilation)
4:	Remote switch command 2 of the body lamp			F17:	3.15A 5x20 (conditioner remote switch)
5:	Remote switch command 1 of the face lamp	<b>Terminal ( CN 22 )</b>		<b>RELAYS</b>	
6:	Remote switch command 1 of the face lamp	1(+) 5(-)	Contact input for personal message recording. Close contact: start recording	R1:	Inverter reference command
		3:	earth	R2:	Remote switch command of the body 1 lamps
<b>Terminal ( CN 8 )</b>		7:	left audio signals input	R3:	Remote switch command of the body 2 lamps
1:	Power supply motor 1	8:	right audio signals input	R4:	Remote switch command
2:	Power supply motor 1			R5:	Conditioner command
		<b>Terminal ( CN 23 )</b>		R6:	Cooling command of the face lamps
<b>Terminal ( CN 9 )</b>		1:	Selection Common of the inverter reference	R7:	Cooling command of the body 1 lamps
1:	Power supply motor 2	2:	Level 4 (max) of the inverter reference	R8:	Motor 1 command
2:	Power supply motor 2	3:	Level 3 of the inverter reference	R9:	Motor 2 command
		4:	Level 2 of the inverter reference	<b>LEDS</b>	
<b>Terminal ( CN 11 )</b>		5:	Level 1 (min) of the inverter reference	D1 D4	Consent indicator of the filter 1-2-3-4
1:	Negative radio power supply (earth)	<b>Terminal ( CN 24 )</b>		D5:	Consent indicator of the token unit input
2:	Positive radio power supply	Output of the inverter reference (positive)		D6:	Command of the body 1 lamps
3:	Left input (positive)	Output of the inverter reference (Negative)		D7:	Command of the body 2 lamps
4:	Left input (negative)			D8:	Command of the face lamps
5:	Right input (positive)	<b>Terminal ( CN 25 )</b>		D9:	Conditioner command
6:	Right input (negative)	Remote switch of the conditioner		D10:	Cooling command of the face lamps
7:	Left output (positive)	Remote switch of the conditioner		D11:	Cooling command of the body 1 lamps
8:	Left output (negative) (earth connection)			D12:	Motor 1 running
9:	Right output (negative) (earth connect.)	<b>Deep-switches SW1 (6 ways)</b>		D13:	Motor 2 running
10:	Right output (positive)	Disable filter alarms and cooling lamp alarms		D14:	Internal supply 12 Vdc
<b>Terminal ( CN 12 )</b>		(ON position: disabled alarm)			
1:	Key control for locking selection	1:	Filter alarm 1		
2:	Key control for locking selection	2:	Filter alarm 2		
		3:	Filter alarm 3		
<b>Terminal ( CN 13 )</b>		4:	Filter alarm 4		
1:	Positive token unit LED	5:	Cooling body lamp alarm		
2:	Negative token unit LED	6:	Cooling face lamp alarm		

## CHART FOR SETTING KEYS

V = display      M= modify

### Combination 1 (B - A)

LED	Description	Preset	Min	Max	Mode
C	Programme 1 duration	15	1	60	V+ M
D	Programme 2 duration	10	1	60	V+ M
E	Programme 3 duration	5	1	60	V+ M

### Combination 2 (C) for 10 seconds

	Display only time 1	15	1	60	V
--	---------------------	----	---	----	---

### Combination 3 (B - I)

C	Number of times switched on	0	0	9999	V
D	Display of face lamp operating hours	0	0	9999	V
E	Display of body lamp operating hours	0	0	9999	V
H	Display of hours accumulated for replacement of face lamps	0	0	1000	V
I	Display of hours accumulated for replacement of body lamps	0	0	1000	V
A	Display of hours accumulated for periodic maintenance	0	0	1000	V

### Combination 4 (B - C - A)

C	Zeroing number of times switched on	0	0	9999	V+M
D	Zeroing of face lamp operation hours	0	0	9999	V+M
E	Zeroing of body lamp operation hours	0	0	9999	V+M
H	Zeroing of hours accumulated for face lamp replacement	0	0	1000	V+M
I	Zeroing of hours accumulated for body lamp replacement	0	0	1000	V+M
A	Zeroing of hours accumulated for periodic maintenance	0	0	1000	V+M

### Combination 5 (B - D - A)

C	Token unit enable / Number of tokens	0 = off	0	6	V+M
D	Fixed time allotted to each token	5	1	12	V+M
E	Time available to press start after consent	3	0	10	V+M
H	Lock out start functions at end of session	90	60	240	V+M

### Combination 6 (B - E - A)

C	Setting of hours for face lamp replacement	450	50	1000	V+M
D	Setting of hours for body lamp replacement	450	50	1000	V+M
E	Setting of hours for periodic maintenance	450	50	1000	V+M
H	Start locked out time after no. of operating hours	0	0	250	V+M
I	Session time up or down	Down	Down	Up	V+M
A	Abilitation for the automatic return of motor 2	OFF	ON	OFF	V+M
F	Setting seconds for the inversion movement of the motor 2	15	1	30	V+M

APPARATUS IDENTIFICATION .....	1
BLOCK DIAGRAM .....	2
CONTACT OF THE ELECTRIC BOARD .....	5
WIRING DIAGRAM .....	6
POWER SUPPLY MODULE .....	9
ELECTRIC DIAGRAM FACE .....	11
ELECTRIC DIAGRAM BODY 1a .....	12
ELECTRIC DIAGRAM BODY 1b .....	13
ELECTRIC DIAGRAM BODY 2a .....	14
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