

INDICE

LINEA MONOFASE SCHEMA 2

LINEA MONOFASE **SCHEMA 2**

GUIDA

CABINA SECONDARIA DELLA RETE

INTERRUTTORI A BORDO MACCHINA

DORSALE PRINCIPALE [m] **4**

DORSALE 1 **DORSALE 2** **DORSALE 3** **DORSALE 4** **DORSALE 5** **DORSALE 6**

CABINA **kw** **C rif**

Linea C1 **Linea C2** **Linea C3** **Linea C4** **Linea C5** **Linea C6** **Linea C7** **Linea C8**

[m] **4**

Dorsale principale [m] **4**
Frequenza f [Hz] **50**
Alimentazione V [V] **220**

ARG **0** **cdt %** **2** **cosφrif** **0,92**

Pot [W] **QL [VAR]** **QC [VAR]** **S [VA]** **I [A]** **COS φ** **ΦZ [°]**

CARICO 1	1500				30	
CARICO 2				10	0,8	
CARICO 3				16	0,8	
CARICO 4						
CARICO 5						
CARICO 6						
CARICO 7						
CARICO 8						

IMPOSTAZIONI GENERALI

CALCOLI INIZIALI

DORSALE **DORSALE 1**
CARICO 1 **DORSALE 2**
CARICO 2 **DORSALE 3**
CARICO 3 **DORSALE 4**
CARICO 4 **DORSALE 5**
CARICO 5 **DORSALE 6**
CARICO 6 **CARICO 7**
CARICO 7 **CARICO 8**

VALUTAZIONE c.d.t.

FINALI E PER ESPERTI

HELP

UTILITY

TABELLA

1

INDICE

[RITORNA](#)

CARICO CONVENZIONALE

CARICO CONVENZIONALE			
	[W]	[VAR]	[VA]
	Pconv	Qconv	Sconv
CARICO 1	1500	866,025	1732,05
CARICO 2	1760	1320	2200
CARICO 3	2816	2112	3520
CARICO 4	0	0	0
CARICO 5	0	0	0
CARICO 6	0	0	0
CARICO 7	0	0	0
CARICO 8	0	0	0

CARICO CONVENZIONALE

	MOD	ARG
I1 =	7,87296	-30
I2 =	10	-36,8699
I3 =	16	-36,8699
I4 =		
I5 =		
I6 =		
I7 =		
I8 =		
IT =	25,3722	-35,2747

IMPEDENZA DEI CARICHI

	MOD	ARG	
Z1 =	27,9438	30	[Ω]
Z2 =	22	36,8699	[Ω]
Z3 =	13,75	36,8699	[Ω]
Z4 =			[Ω]
Z5 =			[Ω]
Z6 =			[Ω]
Z7 =			[Ω]
Z8 =			[Ω]
Zeq =	8,67092	35,2747	[Ω]

PT =	4557	[W]
QT =	3223,519	[VAR]
ST =	5581,875	[VA]
It =	25,37216	[A]
Zeq =	8,670922	[Ω]
Φm =	35,27473	[°]

$$\cos \varphi_m = 0,81639$$

$$\varphi_m = 35,2747 [°]$$

$$\sin \varphi_m = 0,5775$$

$$\varphi_m = 35,2747 [°]$$

$$\tan \varphi_m = 0,70738$$

$$\varphi_m = 35,2747 [°]$$

Rifasamento per $\cos \varphi_r = 0,92$ $\varphi_r = 23,0739$

$$Crif = 8,4E-05 [F]$$

$$Lrif = [H]$$

non necessita di rif induttivo

$$I_{rif} = 22,5148 [A]$$

$$P_{conv} = \frac{P}{\eta} \times K_u \times K_c$$

$$Q_{conv} = \frac{Q}{\eta} \times K_u \times K_c$$

$$S_{conv} = \sqrt{P_{conv}^2 + Q_{conv}^2}$$

$$I_{rif} = \frac{P_T}{V \cdot \cos \varphi_r}$$

$$PT = K_{reg} \times \sum P_{conv}$$

$$QT = K_{reg} \times \sum Q_{conv}$$

$$ST = \sqrt{PT^2 + QT^2}$$

$$Crif = \frac{P(\tan \varphi_m - \tan \varphi_r)}{\omega V^2}$$

$$Lrif = \frac{\omega V^2}{P(\tan \varphi_m - \tan \varphi_r)}$$

INDICE

VALUTAZIONE della c.d.t.

[RITORNA](#) [STAMPA](#)

dorsale principale		DORSALE_1	DORSALE_2	DORSALE_3	DORSALE_4	DORSALE_5	DORSALE_6
c.d.t [V]	0,946696	0,77183	1,14954	0	0	0	0
Sez [mm ²]	4	4	1,5	0	0	0	0

	Linea C1	Linea C2	Linea C3	Linea C4	Linea C5	Linea C6	Linea C7	Linea C8
c.d.t [V]	0,61233	0,71846	1,14954	0	0	0	0	0
%	0,27833	0,32657	0,52252					

tratto	A-B	A-C	A-D	A-E	A-F	A-G	A-H	A-I
c.d.t [V]	1,55902	1,66516	2,09624	0,9467	0,9467	0,9467	0,9467	0,9467
c.d.t%	0,70865	0,75689	0,95284	0,43032	0,43032	0,43032	0,43032	0,43032

4% V

c.d.t. AMMISSIBILE	2 %	8,8 [V] MAX
PUNTI CRITICI da valutare	DORSALE_2	1,14954 [V]
	Linea C3	1,14954 [V]
MAX c.d.t.	0,95284 %	2,09624 [V]
c.d.t. tot sulle dorsali		2,86806 [V]

DORSALE_F	DORSALE_1	DORSALE_2	DORSALE_3	DORSALE_4	DORSALE_5	DORSALE_6
-----------	-----------	-----------	-----------	-----------	-----------	-----------

C_SEZ	<	>	<	>	<	>	<	>	<	>
-------	---	---	---	---	---	---	---	---	---	---

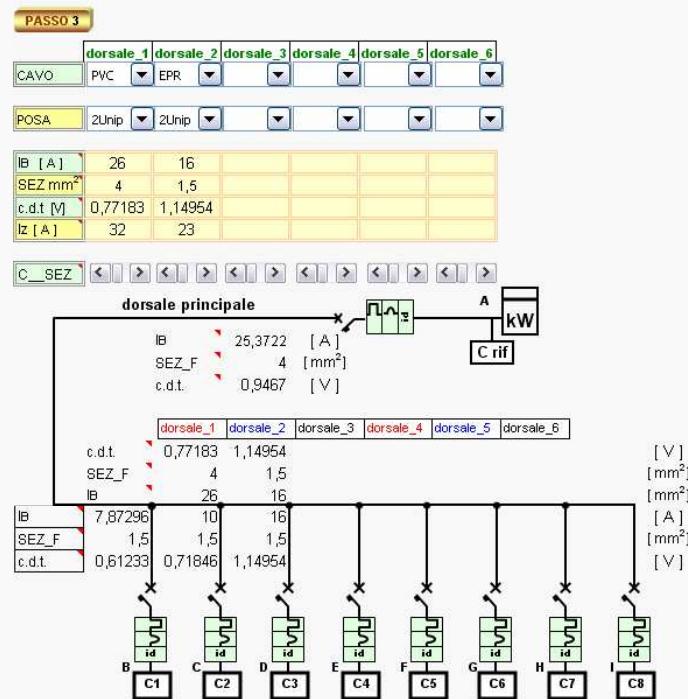
Linea C1	Linea C2	Linea C3	Linea C4	Linea C5	Linea C6	Linea C7	Linea C8
----------	----------	----------	----------	----------	----------	----------	----------

C_SEZ	<	>	<	>	<	>	<	>	<	>
-------	---	---	---	---	---	---	---	---	---	---

3

INDICE

RIEPILOGO E VALUTAZIONE FINALE																																																																																																											
		RITORNA		GUIDA		STAMPA																																																																																																					
PASSO 1																																																																																																											
<table border="1"> <thead> <tr> <th>D_PR</th> <th>CARICO1</th> <th>CARICO2</th> <th>CARICO3</th> <th>CARICO4</th> <th>CARICO5</th> <th>CARICO6</th> <th>CARICO7</th> <th>CARICO8</th> </tr> </thead> <tbody> <tr> <td>CAVO</td> <td>EPR</td> <td>EPR</td> <td>EPR</td> <td>EPR</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>									D_PR	CARICO1	CARICO2	CARICO3	CARICO4	CARICO5	CARICO6	CARICO7	CARICO8	CAVO	EPR	EPR	EPR	EPR																																																																																					
D_PR	CARICO1	CARICO2	CARICO3	CARICO4	CARICO5	CARICO6	CARICO7	CARICO8																																																																																																			
CAVO	EPR	EPR	EPR	EPR																																																																																																							
PASSO 2																																																																																																											
<table border="1"> <thead> <tr> <th>POSA</th> <th>2Unip</th> <th>2Unip</th> <th>2Unip</th> <th>2Unip</th> <th>2Unip</th> <th>2Unip</th> <th>2Unip</th> <th>2Unip</th> </tr> </thead> <tbody> <tr> <td>IB [A]</td> <td>25,3722</td> <td>7,87296</td> <td>10</td> <td>16</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>SEZ mm²</td> <td>4</td> <td>1,5</td> <td>1,5</td> <td>1,5</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>c.d.t [V]</td> <td>0,9467</td> <td>0,61233</td> <td>0,71846</td> <td>1,14954</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Iz [A]</td> <td>42</td> <td>23</td> <td>23</td> <td>23</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>									POSA	2Unip	IB [A]	25,3722	7,87296	10	16					SEZ mm ²	4	1,5	1,5	1,5					c.d.t [V]	0,9467	0,61233	0,71846	1,14954					Iz [A]	42	23	23	23																																																																	
POSA	2Unip																																																																																																										
IB [A]	25,3722	7,87296	10	16																																																																																																							
SEZ mm ²	4	1,5	1,5	1,5																																																																																																							
c.d.t [V]	0,9467	0,61233	0,71846	1,14954																																																																																																							
Iz [A]	42	23	23	23																																																																																																							
<table border="1"> <thead> <tr> <th>C_SEZ</th> <th><</th> <th>></th> <th><</th> <th>></th> <th><</th> <th>></th> <th><</th> <th>></th> </tr> </thead> </table>									C_SEZ	<	>	<	>	<	>	<	>																																																																																										
C_SEZ	<	>	<	>	<	>	<	>																																																																																																			
SELETTA DEGLI Interruttori MAGNETOTERMICI																																																																																																											
<table border="1"> <thead> <tr> <th>SCEGLI</th> <th>FISSO C</th> <th>FISSO C</th> <th>FISSO B</th> <th>REGOL C</th> <th></th> <th></th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>In [A]</td> <td>32</td> <td>8</td> <td>12,5</td> <td>20</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Iz [A]</td> <td>42</td> <td>23</td> <td>23</td> <td>23</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Inf [A]</td> <td>36,16</td> <td>9,04</td> <td>14,125</td> <td>16,8</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>If [A]</td> <td>46,4</td> <td>11,6</td> <td>18,125</td> <td>21,6</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>CAMB_INT</td> <td><</td> <td>></td> <td><</td> <td>></td> <td><</td> <td>></td> <td><</td> <td>></td> </tr> <tr> <td>ERR</td> <td colspan="7"></td> <td></td> </tr> <tr> <td>Inr reg term</td> <td>32</td> <td>8</td> <td>12,5</td> <td>16</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>reg term</td> <td>In</td> <td>In</td> <td>In</td> <td>0,8 In</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Icc reg mag</td> <td>320</td> <td>80</td> <td>62,5</td> <td>100</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>reg mag</td> <td>10 In</td> <td>10 In</td> <td>5 In</td> <td>5 In</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>									SCEGLI	FISSO C	FISSO C	FISSO B	REGOL C					In [A]	32	8	12,5	20					Iz [A]	42	23	23	23					Inf [A]	36,16	9,04	14,125	16,8					If [A]	46,4	11,6	18,125	21,6					CAMB_INT	<	>	<	>	<	>	<	>	ERR									Inr reg term	32	8	12,5	16					reg term	In	In	In	0,8 In					Icc reg mag	320	80	62,5	100					reg mag	10 In	10 In	5 In	5 In				
SCEGLI	FISSO C	FISSO C	FISSO B	REGOL C																																																																																																							
In [A]	32	8	12,5	20																																																																																																							
Iz [A]	42	23	23	23																																																																																																							
Inf [A]	36,16	9,04	14,125	16,8																																																																																																							
If [A]	46,4	11,6	18,125	21,6																																																																																																							
CAMB_INT	<	>	<	>	<	>	<	>																																																																																																			
ERR																																																																																																											
Inr reg term	32	8	12,5	16																																																																																																							
reg term	In	In	In	0,8 In																																																																																																							
Icc reg mag	320	80	62,5	100																																																																																																							
reg mag	10 In	10 In	5 In	5 In																																																																																																							
<table border="1"> <thead> <tr> <th colspan="9">CARATTERISTICHE DEGLI Interruttori</th> </tr> <tr> <th>dorsale_P</th> <th>CARICO1</th> <th>CARICO2</th> <th>CARICO3</th> <th>CARICO4</th> <th>CARICO5</th> <th>CARICO6</th> <th>CARICO7</th> <th>CARICO8</th> </tr> </thead> <tbody> <tr> <td>Icc_max</td> <td>2657,88</td> <td>2369,35</td> <td>2205,01</td> <td>1821,63</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Icu</td> <td>3 kA</td> <td>3 kA</td> <td>3 kA</td> <td>3 kA</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>IC_r</td> <td>6551,01</td> <td>3744,69</td> <td>3352,94</td> <td>2634,11</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>qcc</td> <td>81,3731</td> <td>55,7282</td> <td>50,527</td> <td>39,6214</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Icm</td> <td>9 kA</td> <td>4,5 kA</td> <td>4,5 kA</td> <td>4,5 kA</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>									CARATTERISTICHE DEGLI Interruttori									dorsale_P	CARICO1	CARICO2	CARICO3	CARICO4	CARICO5	CARICO6	CARICO7	CARICO8	Icc_max	2657,88	2369,35	2205,01	1821,63					Icu	3 kA	3 kA	3 kA	3 kA					IC_r	6551,01	3744,69	3352,94	2634,11					qcc	81,3731	55,7282	50,527	39,6214					Icm	9 kA	4,5 kA	4,5 kA	4,5 kA																																								
CARATTERISTICHE DEGLI Interruttori																																																																																																											
dorsale_P	CARICO1	CARICO2	CARICO3	CARICO4	CARICO5	CARICO6	CARICO7	CARICO8																																																																																																			
Icc_max	2657,88	2369,35	2205,01	1821,63																																																																																																							
Icu	3 kA	3 kA	3 kA	3 kA																																																																																																							
IC_r	6551,01	3744,69	3352,94	2634,11																																																																																																							
qcc	81,3731	55,7282	50,527	39,6214																																																																																																							
Icm	9 kA	4,5 kA	4,5 kA	4,5 kA																																																																																																							
PASSO 6																																																																																																											
<table border="1"> <thead> <tr> <th colspan="9">LUNGHEZZA MASSIMA DELLA LINEA</th> </tr> <tr> <th>L_max</th> <th>41,1985</th> <th>61,7978</th> <th>79,1011</th> <th>49,4382</th> <th></th> <th></th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>LINEA</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>OK</td> <td>OK</td> <td>OK</td> <td>OK</td> <td>OK</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Icc_min</td> <td>320</td> <td>80</td> <td>62,5</td> <td>100</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>SI_INT</td> <td>SI_INT</td> <td>SI_INT</td> <td>SI_INT</td> <td>SI_INT</td> <td>SI_INT</td> <td>SI_INT</td> <td>SI_INT</td> <td>SI_INT</td> </tr> <tr> <td>NO_INT</td> <td>NO_INT</td> <td>NO_INT</td> <td>NO_INT</td> <td>NO_INT</td> <td>NO_INT</td> <td>NO_INT</td> <td>NO_INT</td> <td>NO_INT</td> </tr> </tbody> </table>									LUNGHEZZA MASSIMA DELLA LINEA									L_max	41,1985	61,7978	79,1011	49,4382					LINEA	4	3	3	3					OK	OK	OK	OK	OK					Icc_min	320	80	62,5	100					SI_INT	SI_INT	SI_INT	SI_INT	SI_INT	SI_INT	SI_INT	SI_INT	SI_INT	NO_INT																																												
LUNGHEZZA MASSIMA DELLA LINEA																																																																																																											
L_max	41,1985	61,7978	79,1011	49,4382																																																																																																							
LINEA	4	3	3	3																																																																																																							
OK	OK	OK	OK	OK																																																																																																							
Icc_min	320	80	62,5	100																																																																																																							
SI_INT	SI_INT	SI_INT	SI_INT	SI_INT	SI_INT	SI_INT	SI_INT	SI_INT																																																																																																			
NO_INT	NO_INT	NO_INT	NO_INT	NO_INT	NO_INT	NO_INT	NO_INT	NO_INT																																																																																																			



INDICE

LINEA MONOFASE SCHEMA 2														
RITORNA		INTERRUTTORE I.A.M.T												
STAMPA	P	Q	S	I	Zeq =	φ =	Crif =	Lrif =	In	Iz	Inf	If	tipo	sez
	[W]	[VAR]	[VA]	[A]	[Ω]	[°]	[F]	[H]	[A]	[A]	[A]	[A]		[mm ²]
dorsale P	4557	3223,5	5581,9	25,37	8,671	35,27	8,4E-05		32	42	36,16	46,4	FISSO C	4
carico 1	1500	866,03	1732,1	7,873	27,94	30	1,5E-05		8	23	9,04	11,6	FISSO C	1,5
carico 2	1760	1320	2200	10	22	36,87	3,8E-05		12,5	23	14,13	18,13	FISSO B	1,5
carico 3	2816	2112	3520	16	13,75	36,87	6E-05		20	23	16,8	21,6	REGOL C	1,5
carico 4	0	0	0											
carico 5	0	0	0											
carico 6	0	0	0											
carico 7	0	0	0											
carico 8	0	0	0											
UNI														
C.D.T [V]														
dorsale P	4557	3223,5	5581,9	25,37			0,9467							4
dorsale 1	4576	3432	5720	26			0,7718							4
dorsale 2	2816	2112	3520	16			1,1495							1,5
dorsale 3	0	0	0	0										
dorsale 4	0	0	0	0										
dorsale 5	0	0	0	0										
dorsale 6	0	0	0	0										
TOT					2,8681									