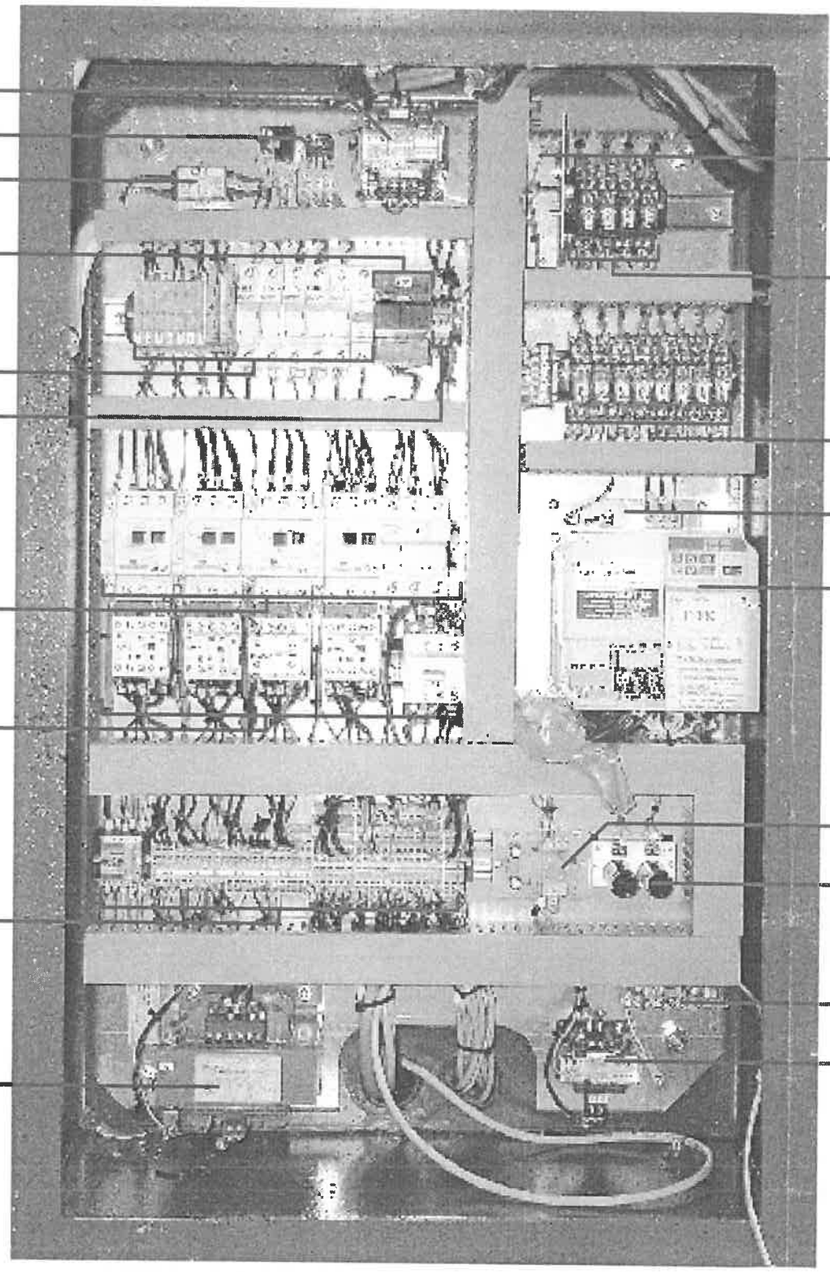
Schematic diagram



TYPE OF DISTRIBUTOR	CUBICLE DISTRIBUTOR		
FIELD COUNT	1	PARTING	-
PROTECTION-CLOSE	IP32	OPEN	IP00
MAIN	FROM BEHIND	TERMINALS	FROM BEHIND
SIZE(mm)	WIDTH 550mm	HEIGHT 1020mm	DEPTH 320mm
COLOURING	-		

VOLTAGE SYSTEM	PROTECTION AGAINST DANGEROUS CONTACT
3/N/PE AC 400V 50Hz, TN-S	SELF-DISCONNECTION FROM SOURCE
2 24VDC, PELV	LOW VOLTAGE

1 2 3 4 5 6 7 8 9

PEGAS GONDA

Investor: PEGAS-GONDA s.r.o.	Constructor: Ing.Kopáček	Last changed:	Ref.: =RM
Order number: IZ 4/09 EL	Apr.:		Date: 15.3.2010
Project title: **Saw.machine 600 CAMEL X**	Page title: **Distributor RM**		Scale: 1:1
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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

version SW : 1.18.par
parameters : 409.par

CROSS-REFERENCE PLC bin.outputs -A1 14
TYPE: REFERENCE TABLE IN/OUT

TERMINAL	ADRESS	DESCRIPTION		MEANING
21.01 13, 14	Q01	FRAME-UP	(KA2)	Y2
21.03 13, 14	Q03	FIX VICE CLOSE	(KA3)	Y3
21.05 13, 14	Q05	FIX VICE OPEN	(KA3A+KA1C(SQ3))	Y3A
21.07 13, 14	Q07	reserve		
21.09 13, 14	Q09	reserve		
21.11 13, 14	Q11	reserve		
22.02 13, 14	Q02	reserve		
22.04 13, 14	Q04	reserve		
22.06 13, 14	Q06	reserve		
22.08 13, 14	Q08	FRAME-UNLOCK	(KA9+KM2)	Y9
22.10 13, 14	Q10	reserve		
22.12 13, 14	Q12	TENSING OF BAND	(KA11)	Y11
25.17 13, 14	Q17	BAND LEAVE OFF	(KA12)	Y12
25.19 13, 14	Q19	reserve		
25.21 13, 14	Q21	reserve		
25.23 13, 14	Q23	HYDRAULICS		KM2
25.25 13, 14	Q25	EMULSION		KM3
25.27 13, 14	Q27	STAGING DEVICE	(+KA1D(SQ27))	KM5
26.18 13, 14	Q18	reserve		
26.20 13, 14	Q20	VICE Nr.3 CLOSE	(KA38)	Y38
26.22 13, 14	Q22	VICE Nr.3 OPEN	(KA39)	Y39
26.24 13, 14	Q24	DRIVE OF BAND	(KA1A(SQ1+SQ1A) +KA1B(SQ2+SQ2A))	KM6
26.26 13, 14	Q26	APPLICATOR		AP
26.28 13, 14	Q28	reserve		
	ANALOG1-CN15	FREQUENCY CONVERTER		A9
	ANALOG2-CN16	PROPORT.VALVE		Y1

CROSS-REFERENCE PLC bin.inputs

TERMINAL	ADRESS	DESCRIPTION		MEANING
31.01 13, 14	I01	EMERGENCY STOP		ok=1
31.03 13, 14	I03	OPEN COVER	(KA1A(SQ1+SQ1A))	ok=1
31.05 13, 14	I05	TENSING OF BAND +OIL PRESSURE	(KA1B(SQ2+SQ2A))	ok=1
31.07 13, 14	I07	BLOCKER OPENING OF VICE	(KA1C(SQ3))	ok=1
31.09 13, 14	I09	FRAME DOWN	(SQ4 or SQ4A)	dole=1
31.11 13, 14	I11	reserve		
32.02 13, 14	I02	reserve		
32.04 13, 14	I04	reserve		
32.06 13, 14	I06	reserve		
32.08 13, 14	I08	reserve		
32.10 13, 14	I10	reserve		
32.12 13, 14	I12	reserve		
35.17 13, 14	I17	HYDRAULICS OVERCURRENT	(QF2)	ok=1
35.19 13, 14	I19	STAGING DEVICE OVERCURRENT	(QF5+KA1D(SQ27))	ok=1
35.21 13, 14	I21	EMULS.PUMP OVERCURRENT	(QF6)	ok=1
35.23 13, 14	I23	BRUSH OVERCURRENT	(QF8)	ok=1
35.25 13, 14	I25	reserve		
35.27 13, 14	I27	FREQ.CONVERTER A9 -FAULT	(A9)	ok=1
36.18 13, 14	I18	reserve		
36.20 13, 14	I20	reserve		
36.22 13, 14	I22	reserve		
36.24 13, 14	I24	reserve		
36.26 13, 14	I26	reserve		
36.28 13, 14	I28	reserve		
	ENC2-CN12	FRAME LOCATION		BQ9
	ANALOG1-CN15	FREQUENCY CONVERTER		A9

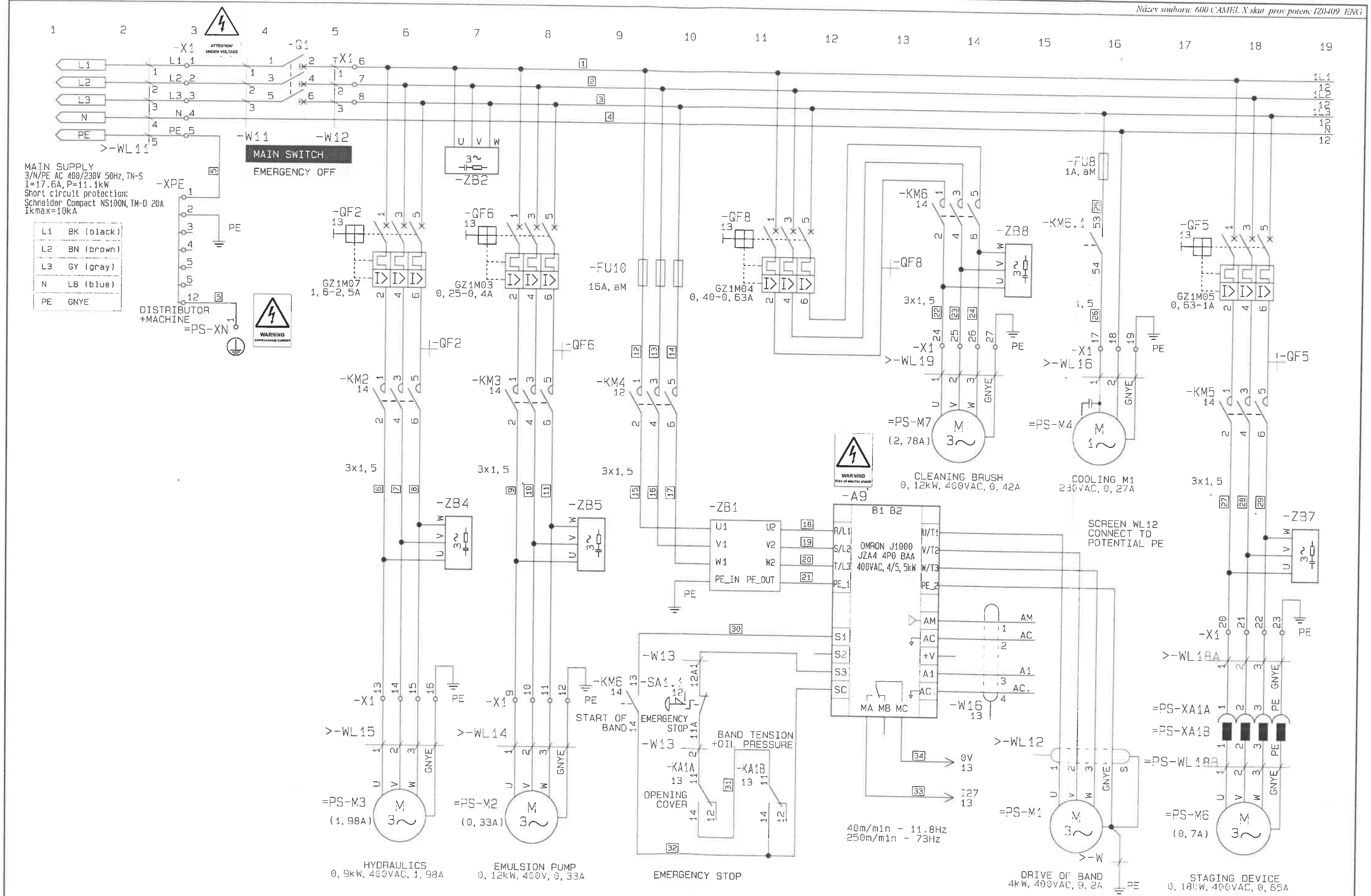
FRAME UP
Q23 + Q1(Y2) + Q08(Y9)

FRAME DOWN
Q23 + Q08(Y9) + DAC2(Y1)

PEGAS GONDA	Investor: PEGAS-GONDA s.r.o.	Constructor: Ing.Kopáček	Last changed:	Ref.: =RM
	Order number: IZ 4/09 EL	Apr.:		Date: 15.3.2010
	Project title: **Saw.machine 600 CAMEL X**	Page title: **Ref.table bin.IN/OUT**		Scale: 1:1
				Page 9 of 35

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

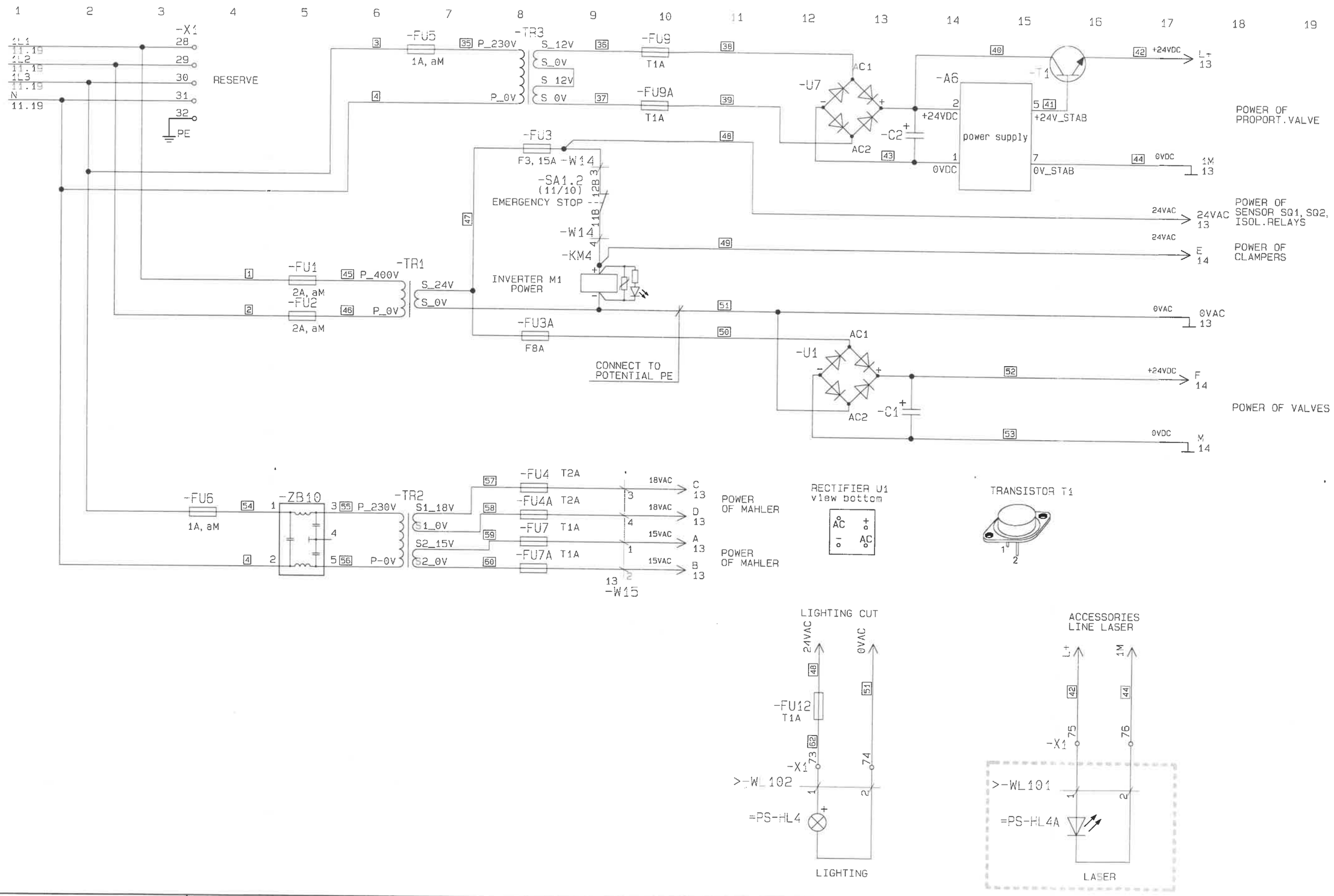
A1-03=2220	Resets all parameters to factory default settings.	0
B1-01=1	Selects the frequency reference input source.	1
B1-02=1	Selects the run command input source.	1
B1-04=1	Permits or prohibits reverse operation.	0
(B1-14=0)	Sets the phase order for drive output terminals U/T1, V/T2 and W/T3.	0
C1-01=4s	Sets the time to accelerate from 0 to maximum frequency.	10s
C1-02=4s C1-09=4s	Sets the time to decelerate from maximum frequency to 0.Sets the time to decelerate from maximum frequency to 0 for the multi-function input fast-stop function.	10s
C6-01=0 C6-02=4	Selects the load rating for the drive.Selects the carrier frequency.	C6-01=1 C6-02=3
E1-04=73	**COEFFICIENT.** Max Output Frequency (max.speed 250m/min).	50Hz
E1-05=400V	Max Output Voltage.	400VAC
E1-07=14Hz	Mid Output Frequency.	to the mode management
E1-08=100V	Mid Output Frequency Voltage.	to the type of management
E2-01=9,2A	Sets the motor nameplate full load current in amperes (A).	to the performance
H1-03=17	Multi-Function Digital Input Terminal S3 Function Selection.	24
H2-01=6	Multi-Function Digital Output Settings -Drive Ready.	E
H3-04=16%	Terminal A1 Bias Setting (min.speed 40m/min, 11.8Hz)	0%
H4-01=103	Selects the data to be output through multifunction analog output terminal AM.	102
H4-02=110	**COEFFICIENT.** Sets terminal AM output level when selected monitor is at 100%. Maximum output voltage is 10 V.	100%
L1-01=1	Motor Overload Protection Selection.	0
L1-02=1min.	Motor Overload Protection Time.	1min.
O1-02=4	User Monitor Selection After Power Up.	


MAIN SUPPLY
3/N/PE AC 400/230V 50Hz, TN-S
I=17.6A, P=11.1kW
Short circuit protection:
Schneider Compact NS100N, TM-D 20A
Ikmax=10kA
L1 BK (black)
L2 BN (brown)
L3 GY (gray)
N LB (blue)
PE GNYE
DISTRIBUTOR
+MACHINE
=PS-XN
-XPE
>-WL11
-W11
-W12
MAIN SWITCH
EMERGENCY OFF
-Q1
-ZB2
-QF2
GZ1M07
1,6-2,5A
-QF6
GZ1M03
0,25-0,4A
-FU10
16A, aM
-QF8
GZ1M04
0,40-0,63A
-KM6
-ZB8
-KM6.1
-FU8
1A, aM
-QF5
GZ1M05
0,63-1A
-KM2
-KM3
-KM4
-KM5
3x1,5
-ZB4
-ZB5
-ZB1
-A9
B1 B2
OMRON J1000
JZA4 4P0 BAA
400VAC, 4/5,5kW
-ZB7
SCREEN WL12
CONNECT TO
POTENTIAL PE
>-WL19
=PS-M7
(2,78A)
CLEANING BRUSH
0,12kW, 400VAC, 0,42A
>-WL16
=PS-M4
COOLING M1
230VAC, 0,27A
>-WL15
=PS-M3
(1,98A)
HYDRAULICS
0,9kW, 400VAC, 1,98A
>-WL14
=PS-M2
(0,33A)
EMULSION PUMP
0,12kW, 400V, 0,33A
-KM6
START OF
BAND
-W13
-SA1.1
EMERGENCY
STOP
BAND TENSION
+OIL PRESSURE
-KA1A
-KA1B
OPENING
COVER
EMERGENCY STOP
-W16
0V
I27
40m/min - 11,8Hz
250m/min - 73Hz
>-WL12
=PS-M1
DRIVE OF BAND
4kW, 400VAC, 9,2A
>-WL18A
=PS-XA1A
=PS-XA1B
=PS-WL18B
=PS-M6
(0,7A)
STAGING DEVICE
0,18kW, 400VAC, 0,65A

Investor:	PEGAS-GONDA s.r.o.
Order number:	IZ 4/09 EL
Project title:	Saw.machine 600 CAMEL X

Constructor:	Ing.Kopáček
Apr.:	
Page title:	Drives
Last changed:	

Ref.:	=RM
Date:	15.3.2010
Scale:	1:1



PEGAS GONDA	Investor: PEGAS-GONDA s.r.o.	Constructor: Ing.Kopáček	Last changed:	Ref.: =RM
	Order number: IZ 4/09 EL	Apr.:		Date: 15.3.2010
	Project title: **Saw.machine 600 CAMEL X**	Page title: **Power supply, accessories**		Scale: 1:1
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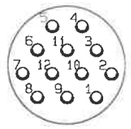
CONNECTOR
WIRING BQ9
page soldering



CONNECTION OF IRC SENSOR BQ9:	
IRC	MAHLER
2 PK (pink)	+24V
3 BU (blue)	Z
8 GN (green)	B
5 YE (yellow)	A
9 GND	GND
10 BK black)	0V
11 BN (brown)	0V
12 RD (red)	+24V

frame down-
displayed value BQ9->0mm

=PS-BQ9

LOCATION
OF FRAME

500pulses

>-WS48

PK BU YE GN GND BK BN RD

S

PE

EMERGENCY STOP

HYDRAULICS OVERCURRENT

STAGING DEVICE OVERCURRENT

EMULS.PUMP OVERCURRENT

BRUSH OVERCURRENT

cover open

band tension

blocking opening fix vice

staging device -blockages

-KV4 (10/13)

-QF2 (11/6)

-QF5 (11/18)

-QF6 (11/8)

-QF8 (11/12)

KA1A

KA1B

KA1C

KA1D

I27 11.14

0V 11.14

FREQ.CONVERTER A9 -FAULT

I27 I01 I17 I19 I21 I23 I03 I05 I07 I09 I12

CN31, CN32, CN35

=US

FRAME DOWN

reserve

-SQ4 -SQ4A

>-WS10 >-WS16

-X1

0VDC

-A1

CN11 ENCODER1	CN12 ENCODER2	CN31 INPUT	CN32 INPUT	CN33 INPUT	CN35 INPUT	CN36 INPUT	CN37 INPUT
CN1 POWER	ANALOG1 CN15	ANALOG2 CN16	OUTPUT CN21	OUTPUT CN22	OUTPUT CN25	OUTPUT CN26	
GND 15VacA 15VacB gnd 18VacA 18VacB	15.+Uan 15.-Uan 15.0Uan 15.+0UT 15.0OUT	16.+Uan 16.-Uan 16.0Uan 16.+0UT 16.0OUT	21.C01-06 21.01 21.03 21.05 21.07 21.09 21.11 21.C07-12 22.C01-06 22.02 22.04 22.06 22.08 22.10 22.12 22.C07-12 25.C47-22 25.17 25.19 25.21 25.23 25.25 25.27 25.C23-28 26.C17-22 26.18 26.20 26.22 26.24 26.26 26.28 26.C23-28				

-W16 (11/14)

AM AC A1 AC

-W17

0-10V 1M PE

L+ 12 +24VDC 42

-X1

>-WL31

=PS

-Y1

FRAME DOWN

PROPORT. VALVE

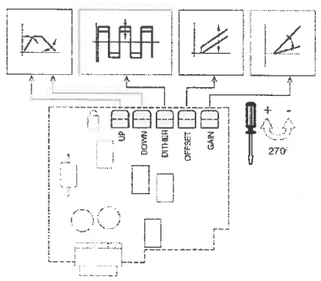
+24VDC 0-10V n.c. 0VDC

>-WL31-CONNECTOR front view

0VDC 1M 12

-W15

15VAC 15VAC 18VAC 18VAC PE 12 GNYE



=PS

OPEN COVER left right

TENSING OF BAND +OIL PRESSURE

BLOCKER OPENING OF VICE

EXTRACTOR JAMMING

-SQ1 -SQ1A -SQ2 -SQ2A -SQ27

>-WS17B >-XB1B >-XB1A >-WS17A

>-WS11 >-WS11A >-WS12 >-WS12A >-WS13 rezerva

-X1

24VAC 12, 14 24VAC 48

-KA1A -KA1B -KA1C -KA1D

0VAC 51

0VAC 12, 14

PEGAS GONDA	Investor: PEGAS-GONDA s.r.o.	Constructor: Ing.Kopáček	Last changed:	Ref.: =RM
	Order number: IZ 4/09 EL	Apr.:		Date: 15.3.2010
	Project title: **Saw.machine 600 CAMEL X**	Page title: **Inputs of control system**		Scale: 1:1
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-A1
(9/2)
MAHL-ABF/10E0

CN11 ENCODER1 · CN12 ENCODER2 · CN31 INPUT · CN32 INPUT · CN33 INPUT · CN35 INPUT · CN36 INPUT · CN37 INPUT

CN1 POWER · ANALOG1 CN15 · ANALOG2 CN16 · OUTPUT CN21 · OUTPUT CN22 · OUTPUT CN25 · OUTPUT CN26

Wiring KA..

Relay RJ2S-CL

Socket SJ2S-07L

(TOP VIEW)

24VAC 13 — separated wires for anyone clamp

F 12 — separated wires for anyone clamp

CN21, CN22, CN25

CN26

-KA2 -KA3 -KA3A -KA9 -KA11 -KA12 -KA38 -KA39

0VAC 13

F 12 24VDC

-KA1C 13 — BLOCKING OPENING VICES

-KA9 14

-KA2 14 -KA3 14 -KA3A 14 -KM2 14 -KA11 14 -KA12 14 -KA38 14 -KA39 14

NOTE: MAX.6 VALVES AT THE SAME TIME

HYDRAULICS

-KA1D 13 — EXTRACTOR JAMMING

-X1

>-WL34 =PS >-WL36 >-WL37 >-WL47 >-WL50 >-WL51 >-WL81 >-WL82

-Y2 VD2 -Y3 VD3 -Y3A VD3A -Y9 VD9 -Y11 VD11 -Y12 VD12 -Y38 VD38 -Y39 VD39

M 12 0VDC

-KM2 -KM3 -KM5 -KM6

>-WL103 =PS-AP

0VAC

FRAME-UP · FIX VICE CLOSE · FIX VICE OPEN · FRAME-UNLOCK · TENSING OF BAND · BAND LEAVE OFF · VICE Nr.3 CLOSE · VICE Nr.3 OPEN

HYDRAULICS · EMULSION · STAGING DEVICE · DRIVE OF BAND · ACCESSORIES APPLICATOR

PEGAS GONDA	Investor: PEGAS-GONDA s.r.o.	Constructor: Ing.Kopáček	Last changed:
	Order number: IZ 4/09 EL	Apr.:	Ref.: =RM
	Project title: **Saw.machine 600 CAMEL X**	Page title: **Outputs of control system**	Date: 15.3.2010
			Scale: 1:1
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