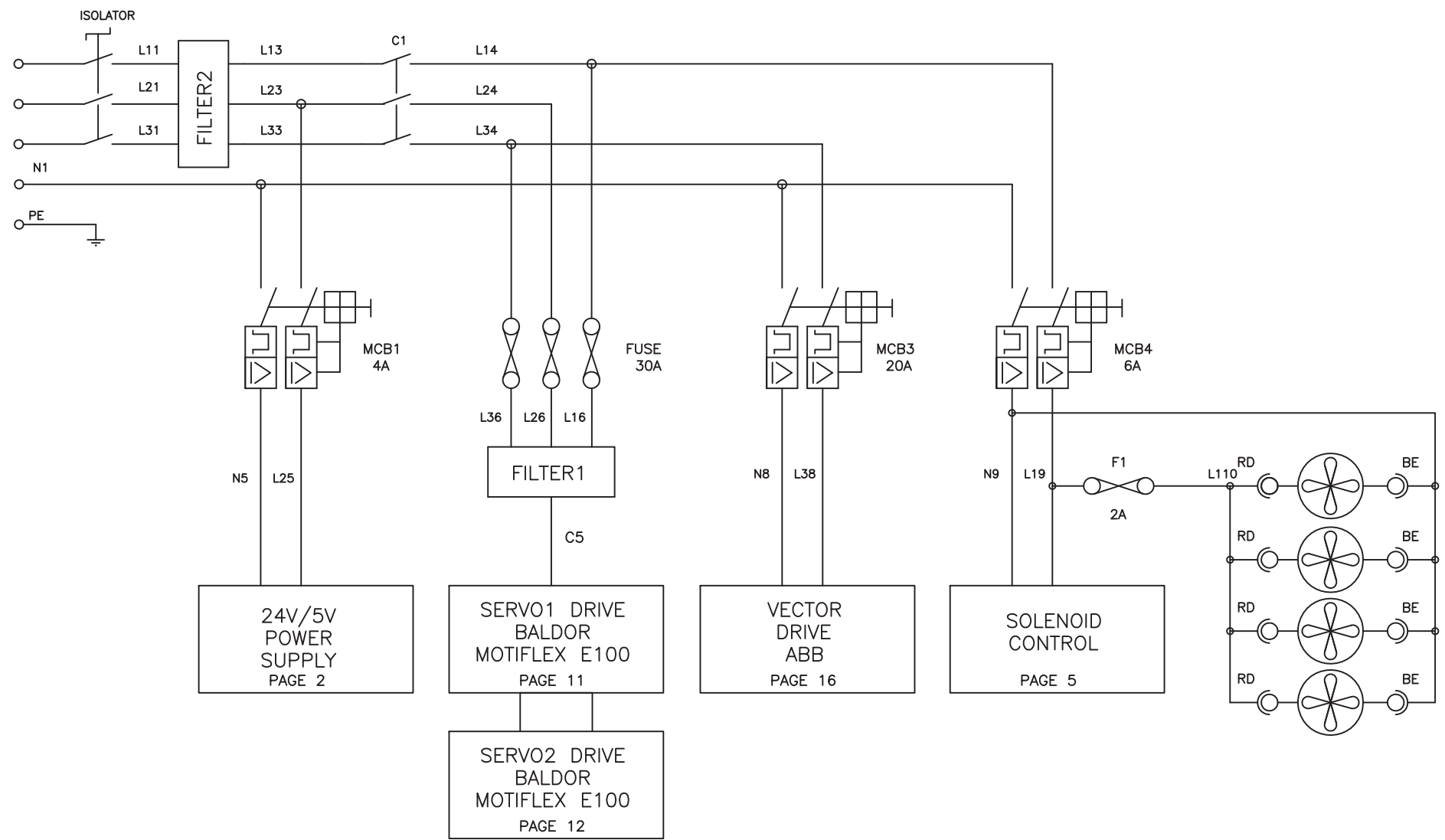


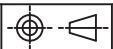
DRAWING FILENAME	800641
ISSUE	
A	25/04/2007
B	24/09/2007
LTSO	
C	03/01/2007
MJC	
D	05/02/2008
MJC / LTSO MODS AFTER BUILD 44104	
E	17/03/2008
INTERFACE ADDED	
F	21/04/2008
INTERFACE REMOVED R12 ADDED	
G	18/06/2008
CHANGES TO SAFETY CIRCUIT	
H	24/09/2008
AMENDMENTS TO SAFETY CIRCUIT LTSO	

AC DISTRIBUTION



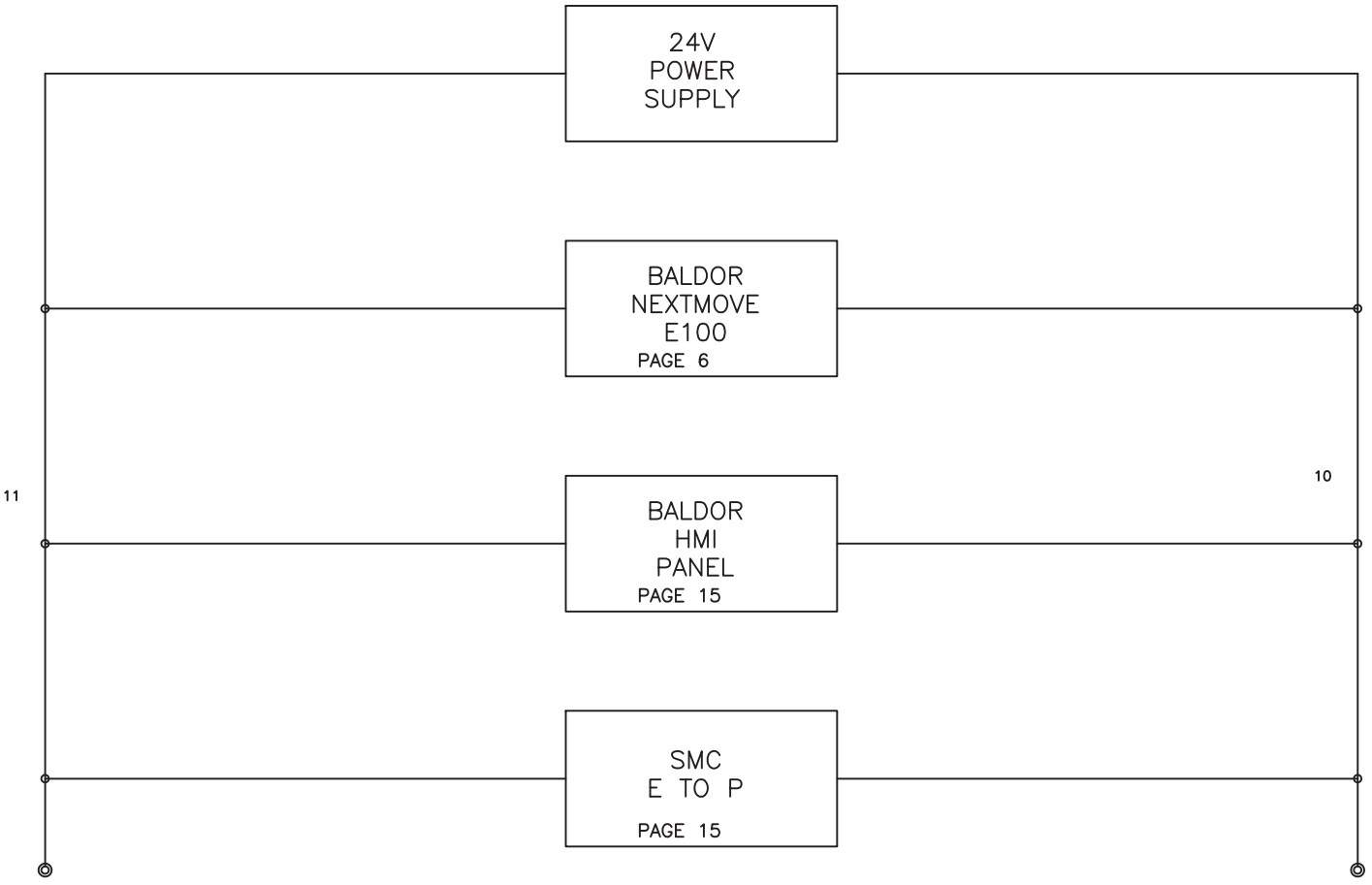
ALL DIMENSIONS IN mm UNLESS OTHERWISE STATED TOLERANCES EXCEPT WHERE OTHERWISE STATED	DRAWN	MJC	MATERIAL	TITLE
WHOLE NOS. ±0.4 HOLE DIAS. +0.10 1 DEC. PL. ±0.2 -0.03 2 DEC. PL. ±0.1 ANGLES ±0°30'	APP'D		PFE MAT'L CODE	DPU-20 ELECTRICAL SCHEMATIC
REFERENCE DIMENSIONS ARE NOT CRITICAL (DO NOT INSPECT)	SCALE		FINISH	DRG. NO. 800641

DRAWING FILENAME	800641
ISSUE	
A	25/04/2007
B	24/09/2007
	LTSO
C	03/01/2007
	MJC
D	05/02/2008
	MJC / LTSO MODS AFTER BUILD 44104
E	17/03/2008
	INTERFACE ADDED
F	21/04/2008
	INTERFACE REMOVED R12 ADDED
G	18/06/2008
	CHANGES TO SAFETY CIRCUIT
H	24/09/2008
	AMENDMENTS TO SAFETY CIRCUIT LTSO



COMPUTER GENERATED DRAWING - DO NOT CHANGE MANUALLY DO NOT SCALE

24V DISTRIBUTION 1

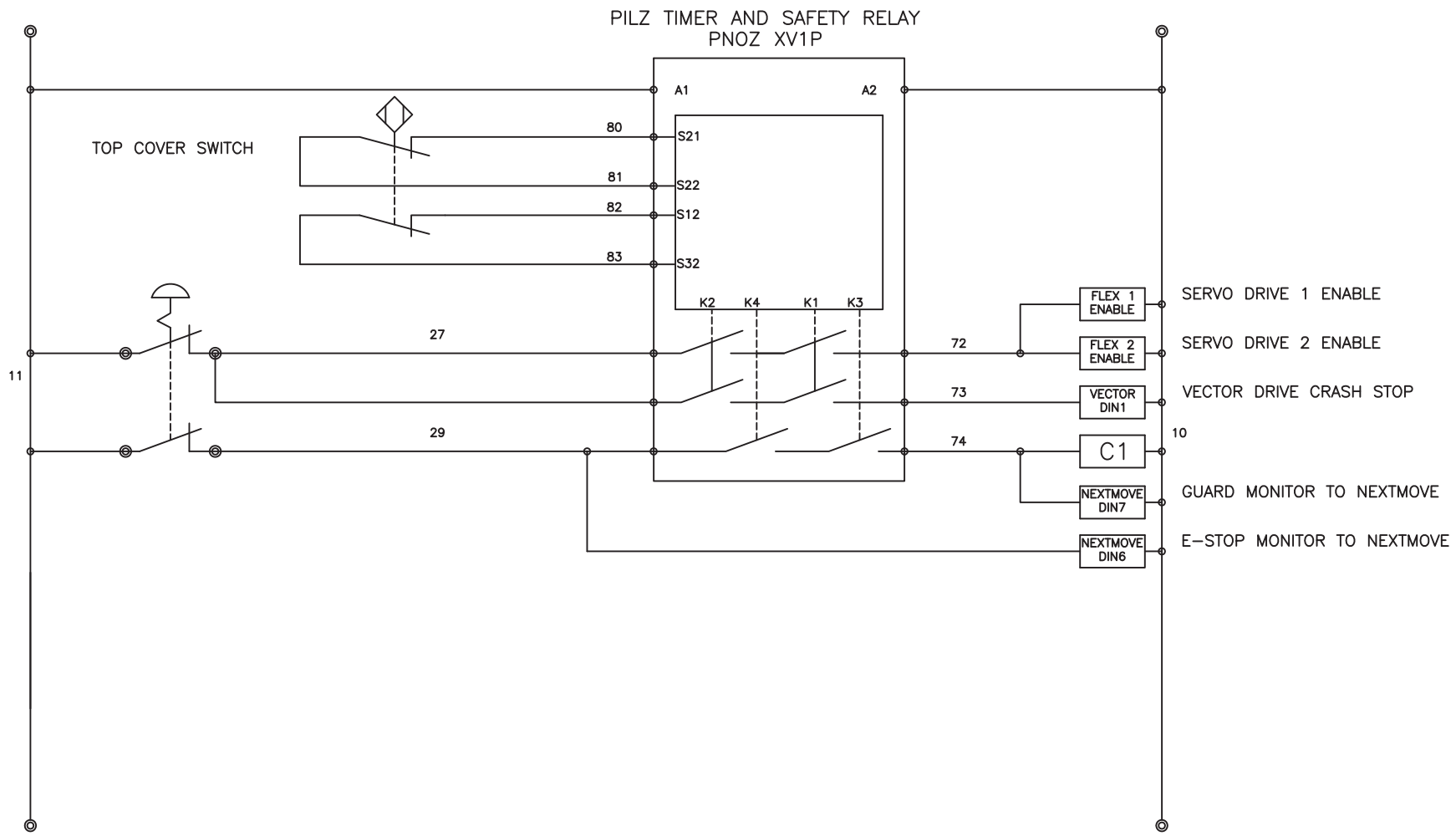


SHEET 2 OF 16

ALL DIMENSIONS IN mm UNLESS OTHERWISE STATED		DRAWN	MJC	MATERIAL	TITLE DPU-20 ELECTRICAL SCHEMATIC
TOLERANCES EXCEPT WHERE OTHERWISE STATED					
WHOLE NOs.	±0.4	HOLE DIAS.	+0.10	FINISH	
1 DEC. PL.	±0.2		-0.03		
2 DEC PL.	±0.1	ANGLES	±0°30'		
REFERENCE DIMENSIONS ARE NOT CRITICAL (DO NOT INSPECT)					

DRAWING FILENAME 800641
ISSUE
A 25/04/2007
B 24/09/2007 LTSO
C 23/01/2007 MJC
D 05/02/2008
MJC / LTSO MODS AFTER BUILD 44104
E 17/03/2008
INTERFACE ADDED
F 21/04/2008
INTERFACE REMOVED R12 ADDED
G 18/06/2008
CHANGES TO SAFETY CIRCUIT
H 24/09/2008
AMENDMENTS TO SAFETY CIRCUIT LTSO

24V DISTRIBUTION CIRCUIT2

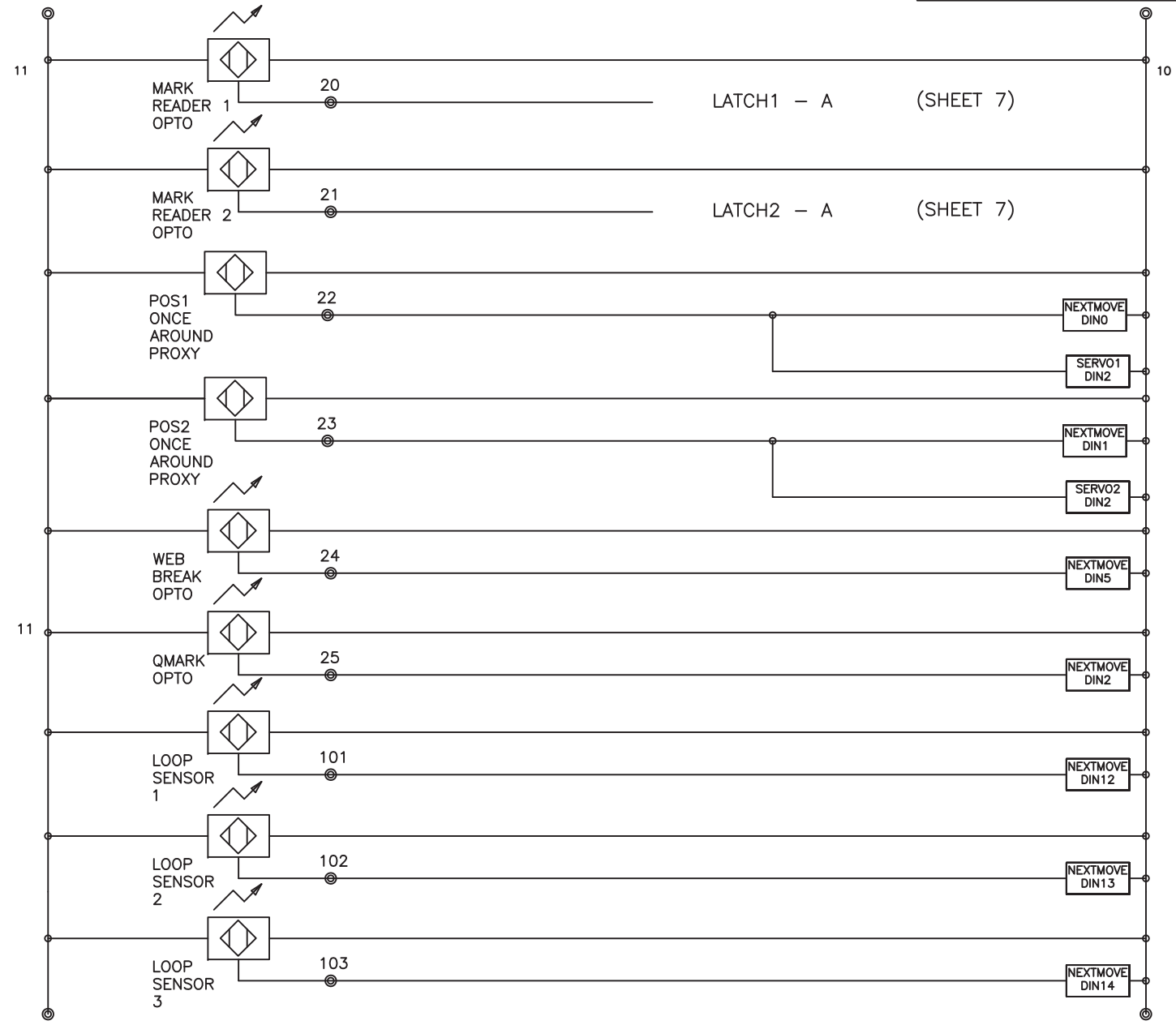


ALL DIMENSIONS IN mm UNLESS OTHERWISE STATED		DRAWN	MJC	MATERIAL	TITLE
TOLERANCES EXCEPT WHERE OTHERWISE STATED					
WHOLE NOs. ±0.4	HOLE DIAS. +0.10	APP'D	SCALE	PFE MAT'L CODE	DRG. NO. 800641
1 DEC. PL. ±0.2	-0.03			FINISH	
2 DEC. PL. ±0.1	ANGLES ±0°30'			REFERENCE DIMENSIONS ARE NOT CRITICAL (DO NOT INSPECT)	

DRAWING FILENAME	800641
ISSUE	
A	25/04/2007
B	24/09/2007 LTSO
C	03/01/2007 MJC
D	05/02/2008
MJC / LTSO MODS AFTER BUILD 44104	
E	17/03/2008
INTERFACE ADDED	
F	21/04/2008
INTERFACE REMOVED R12 ADDED	
G	18/06/2008
CHANGES TO SAFETY CIRCUIT	
H	24/09/2008
AMENDMENTS TO SAFETY CIRCUIT LTSO	

COMPUTER GENERATED DRAWING - DO NOT CHANGE MANUALLY
DO NOT SCALE

24V DISTRIBUTION CIRCUIT3

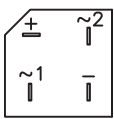
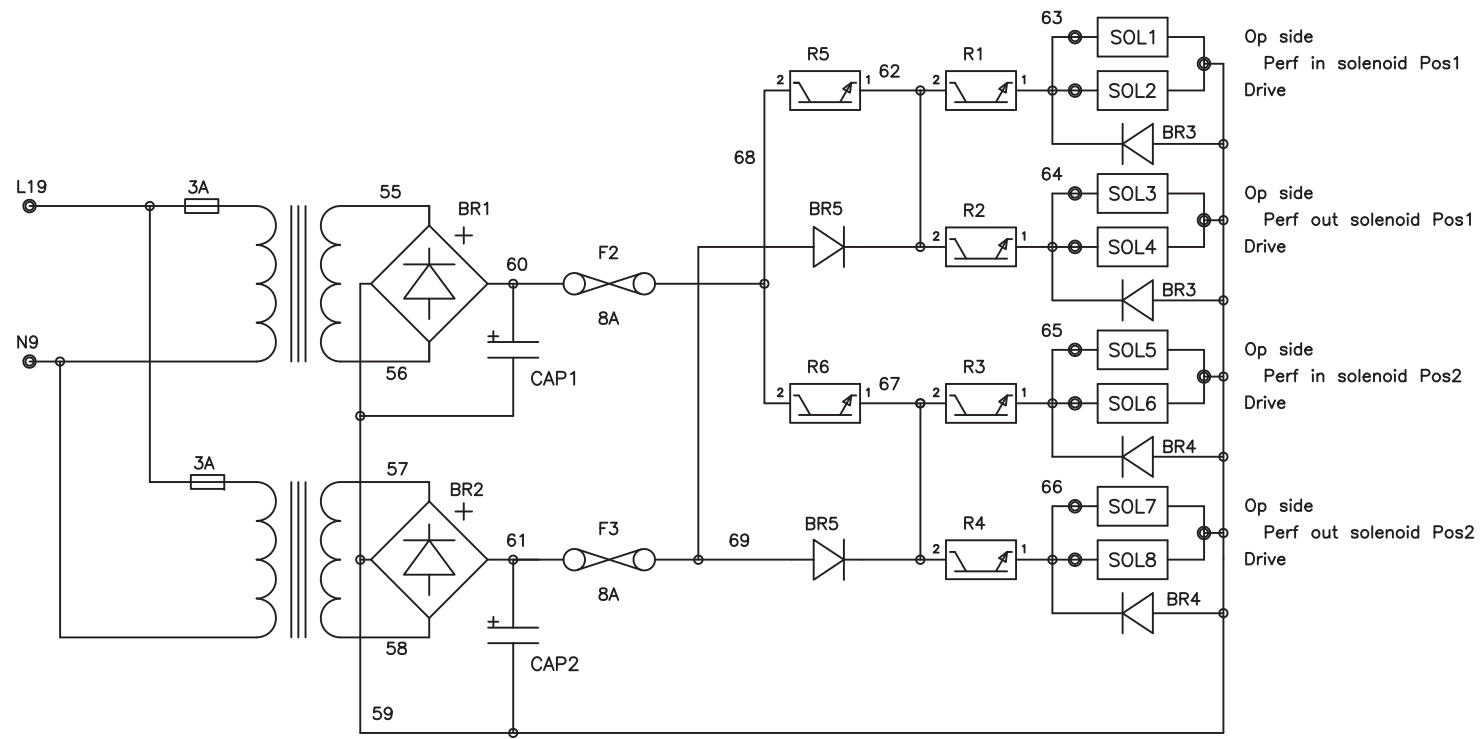


SHEET 4 OF 16

ALL DIMENSIONS IN mm UNLESS OTHERWISE STATED TOLERANCES EXCEPT WHERE OTHERWISE STATED	DRAWN	MJC	MATERIAL	TITLE
WHOLE NOs. ±0.4 HOLE DIAS. +0.10 1 DEC. PL. ±0.2 -0.03 2 DEC PL. ±0.1 ANGLES ±0°30'	APP'D		PFE MAT'L CODE	DPU-20 ELECTRICAL SCHEMATIC
REFERENCE DIMENSIONS ARE NOT CRITICAL (DO NOT INSPECT)	SCALE		FINISH	DRG. NO. 800641

DRAWING FILENAME	800641	
ISSUE		
A	25/04/2007	
B	24/09/2007	LTSO
C	03/01/2007	MJC
D	05/02/2008	
MJC / LTSO	MODS AFTER BUILD 44104	
E	17/03/2008	
INTERFACE	ADDED	
F	21/04/2008	
INTERFACE	REMOVED	
R12	ADDED	
G	18/06/2008	
CHANGES	TO SAFETY	CIRCUIT
H	24/09/2008	
AMENDMENTS	TO SAFETY	CIRCUIT
LTSO		

SOLENOID CONTROL CIRCUIT



BRIDGE RECTIFIER
DETAILS

ALL DIMENSIONS IN mm UNLESS OTHERWISE STATED	DRAWN	MJC	MATERIAL	TITLE
TOLERANCES EXCEPT WHERE OTHERWISE STATED	APP'D		PFE MAT'L CODE	DPU-20 ELECTRICAL SCHEMATIC
WHOLE NOs. ±0.4	SCALE		FINISH	DRG. NO.
1 DEC. PL. ±0.2				800641
2 DEC PL. ±0.1				
REFERENCE DIMENSIONS ARE NOT CRITICAL (DO NOT INSPECT)				

DRAWING FILENAME	800641	
ISSUE		
A	25/04/2007	
B	24/09/2007	LTSO
C	03/01/2007	MJC
D	05/02/2008	
MJC / LTSO MODS AFTER BUILD 44104		
E	17/03/2008	
INTERFACE ADDED		
F	21/04/2008	
INTERFACE REMOVED R12 ADDED		
G	18/06/2008	
CHANGES TO SAFETY CIRCUIT		
H	24/09/2008	
AMENDMENTS TO SAFETY CIRCUIT LTSO		

Controller termination details page 8,9 and 10



COMPUTER GENERATED DRAWING - DO NOT CHANGE MANUALLY DO NOT SCALE

E100 AND MOTION CONTROL

LATCH CONTROL 1
(see sheet 16 for details)
LATCH CONTROL 2

OVERVOLT 1

OVERVOLT 2

COVER OVERRIDE

INTEFACE RELAY 8
(READY TO LINE)

INTEFACE RELAY 9
(STOP TO LINE)

INTEFACE RELAY 10
(JOG TO LINE)

INTEFACE RELAY 11

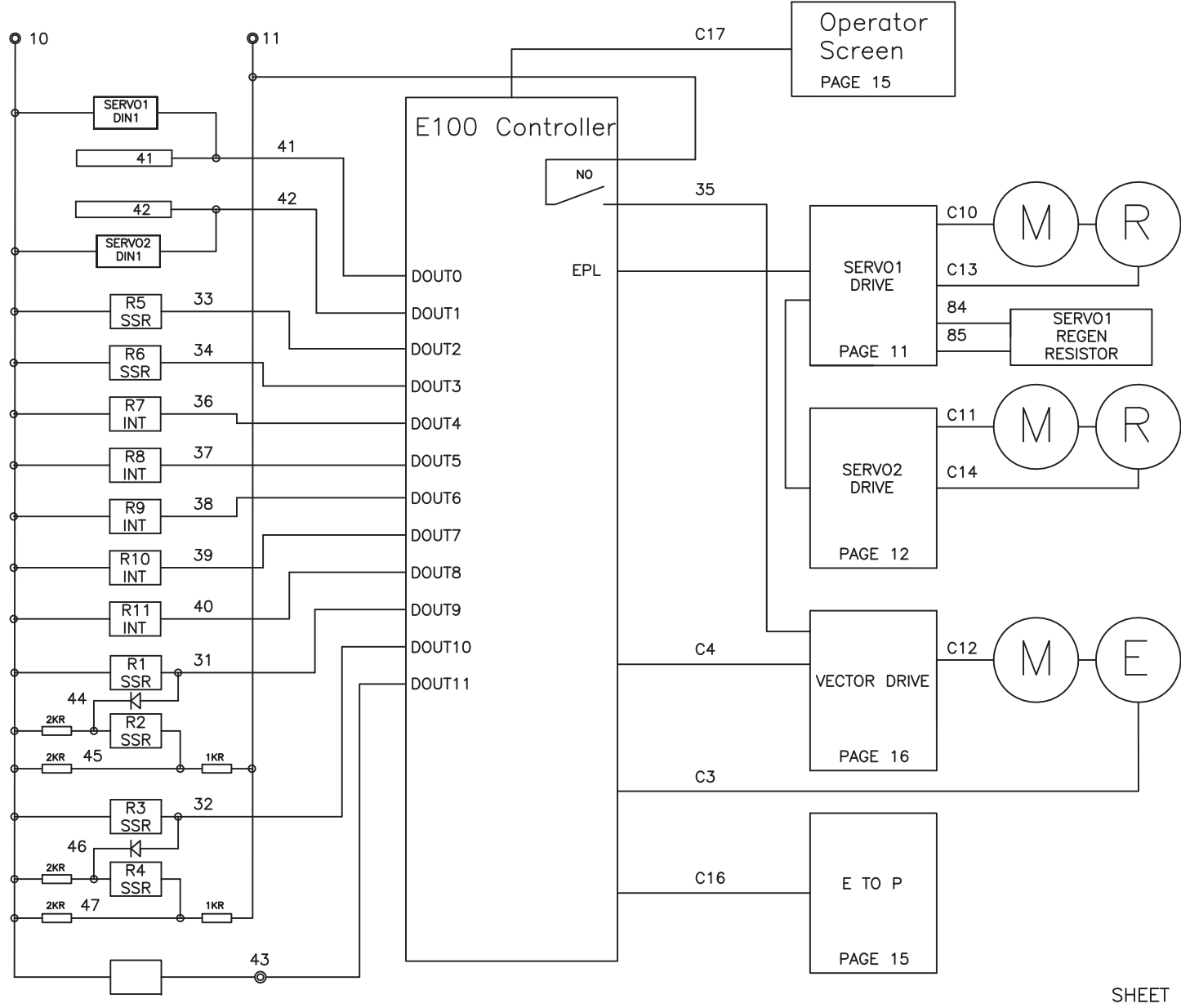
POS1 PERF IN

POS1 PERF OUT

POS2 PERF IN

POS2 PERF OUT

GRIPPER VALVE
(DPU-20 ONLY)



SHEET 6 OF 16

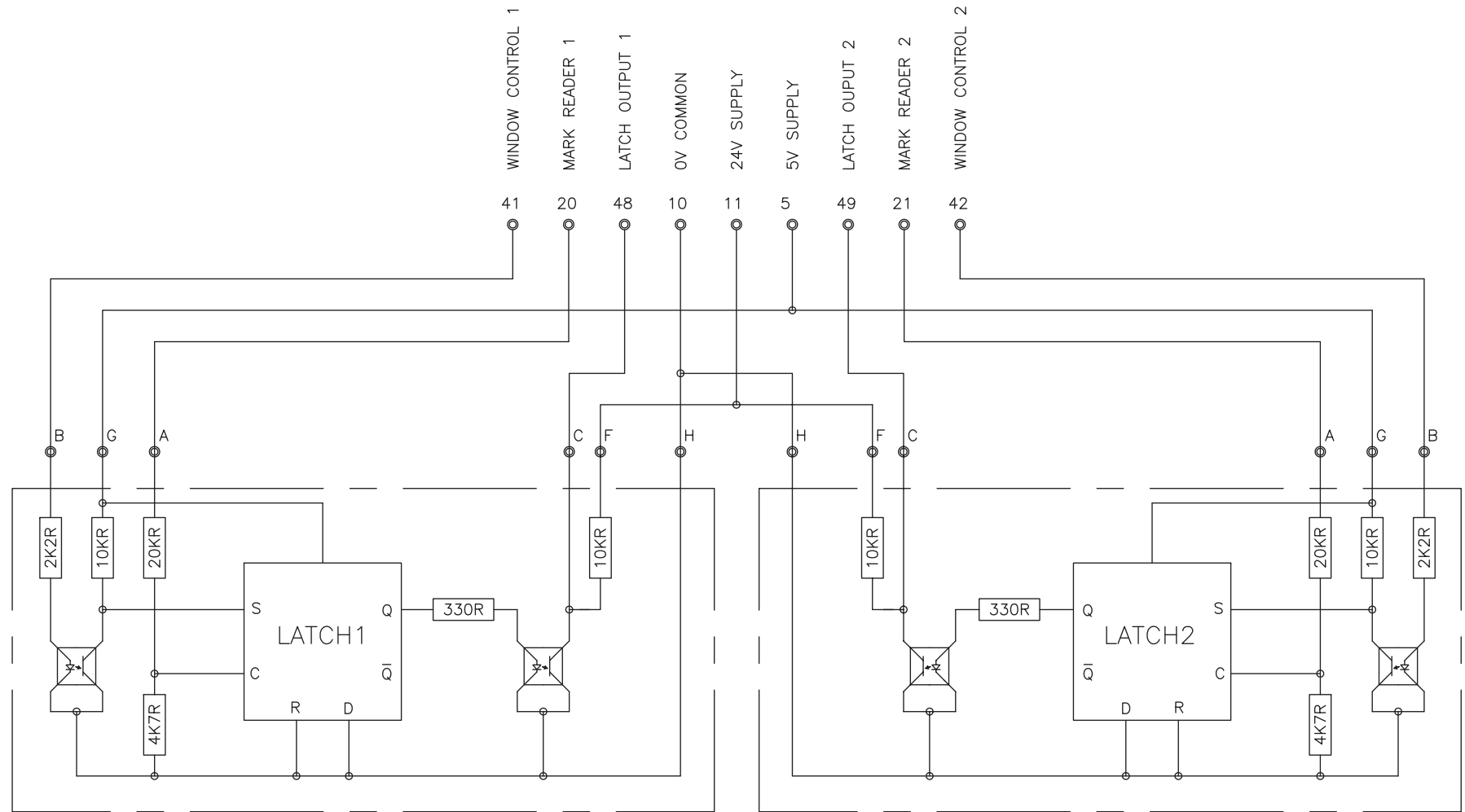
ALL DIMENSIONS IN mm UNLESS OTHERWISE STATED	
TOLERANCES EXCEPT WHERE OTHERWISE STATED	
WHOLE NOs. ±0.4	HOLE DIAS. +0.10
1 DEC. PL. ±0.2	-0.03
2 DEC PL. ±0.1	ANGLES ±0°30'
REFERENCE DIMENSIONS ARE NOT CRITICAL (DO NOT INSPECT)	

DRAWN	MJC	MATERIAL
APP'D		PFE MAT'L CODE
SCALE		FINISH

TITLE	DPU-20 ELECTRICAL SCHEMATIC
DRG. NO.	800641

DRAWING FILENAME 800641
ISSUE
A 25/04/2007
B 24/09/2007 LTSO
C 03/01/2007 MJC
D 05/02/2008
MJC / LTSO MODS AFTER BUILD 44104
E 17/03/2008
INTERFACE ADDED
F 21/04/2008
INTERFACE REMOVED R12 ADDED
G 18/06/2008
CHANGES TO SAFETY CIRCUIT
H 24/09/2008
AMENDMENTS TO SAFETY CIRCUIT LTSO

INPUT LATCHING



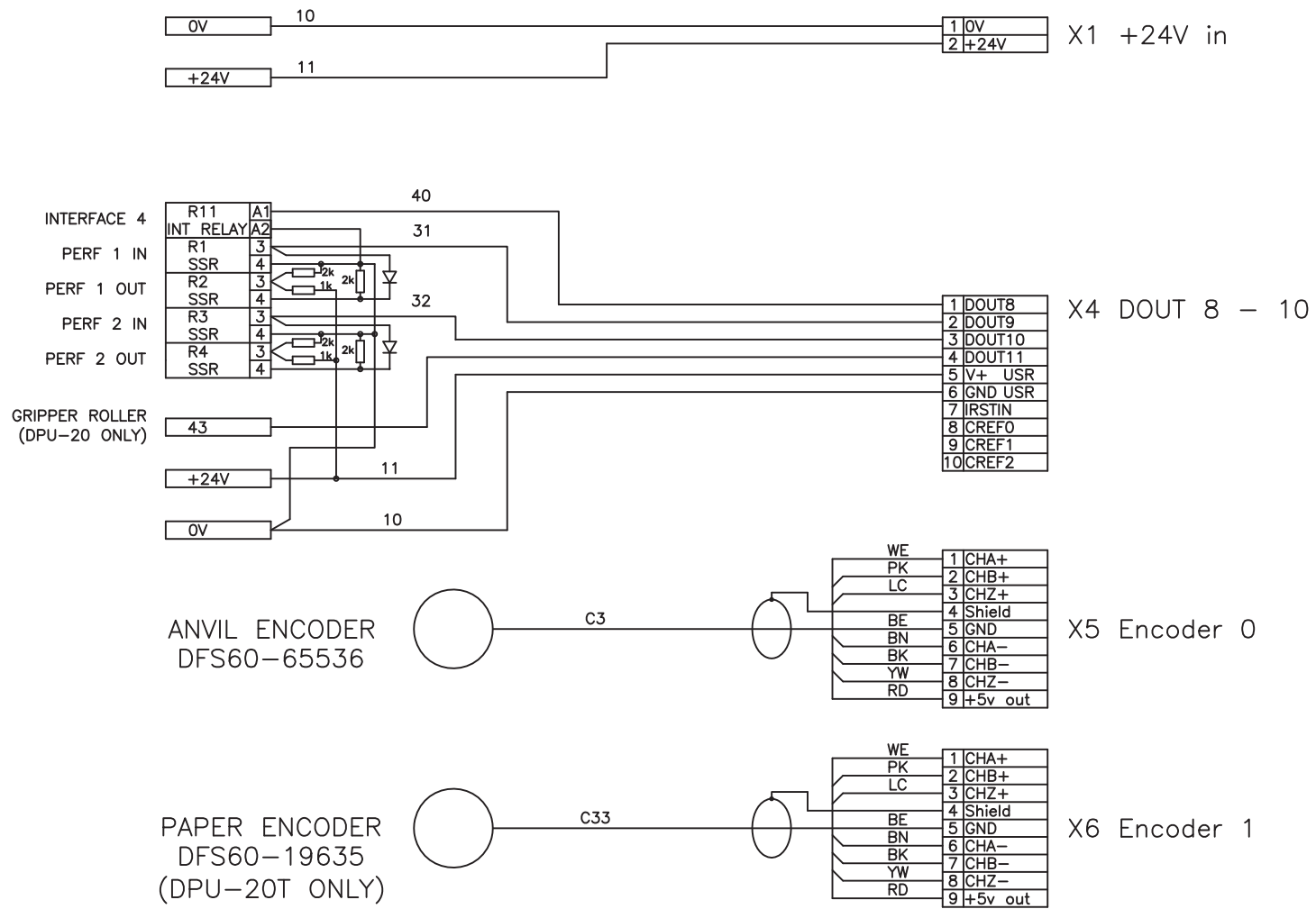
CIRCUIT ASSEMBLED ON 2 PCB's RS
 426-301, MOUNTED IN TERMINAL RS
 426-294, END COVERS RS 426-317
 SEE DRG NO 800645

ALL DIMENSIONS IN mm UNLESS OTHERWISE STATED TOLERANCES EXCEPT WHERE OTHERWISE STATED	DRAWN	MJC	MATERIAL	TITLE
WHOLE NOs. ±0.4 HOLE DIAS. +0.10 1 DEC. PL. ±0.2 -0.03 2 DEC PL. ±0.1 ANGLES ±0°30'	APP'D		PFE MAT'L CODE	DPU-20 ELECTRICAL SCHEMATIC
REFERENCE DIMENSIONS ARE NOT CRITICAL (DO NOT INSPECT)	SCALE		FINISH	DRG. NO. 800641

DRAWING FILENAME	800641
ISSUE	
A	25/04/2007
B	24/09/2007
LTSO	
C	03/01/2007
MJC	
D	05/02/2008
MJC / LTSO MODS AFTER BUILD 44104	
E	17/03/2008
INTERFACE ADDED	
F	21/04/2008
INTERFACE REMOVED R12 ADDED	
G	18/06/2008
CHANGES TO SAFETY CIRCUIT	
H	24/09/2008
AMENDMENTS TO SAFETY CIRCUIT LTSO	

COMPUTER GENERATED DRAWING - DO NOT CHANGE MANUALLY
DO NOT SCALE

E100 TERMINATION 1



ALL DIMENSIONS IN mm UNLESS OTHERWISE STATED		DRAWN	MJC	MATERIAL	TITLE
TOLERANCES EXCEPT WHERE OTHERWISE STATED					
WHOLE NOS. ±0.4	HOLE DIAS. +0.10	SCALE	FINISH	800641	
1 DEC. PL. ±0.2	-0.03				REFERENCE DIMENSIONS ARE NOT CRITICAL (DO NOT INSPECT)
2 DEC. PL. ±0.1	ANGLES ±0°30'				

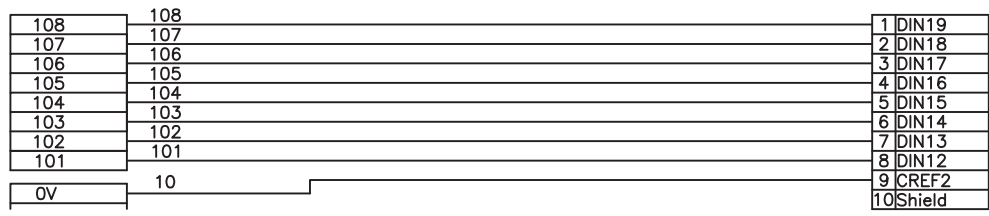
DRAWING FILENAME	800641
ISSUE	
A	25/04/2007
B	24/09/2007
LTSO	
C	03/01/2007
MJC	
D	05/02/2008
MJC / LTSO MODS AFTER BUILD 44104	
E	17/03/2008
INTERFACE ADDED	
F	21/04/2008
INTERFACE REMOVED R12 ADDED	
G	18/06/2008
CHANGES TO SAFETY CIRCUIT	
H	24/09/2008
AMENDMENTS TO SAFETY CIRCUIT LTSO	



COMPUTER GENERATED DRAWING - DO NOT CHANGE MANUALLY DO NOT SCALE

E100 TERMINATION 2

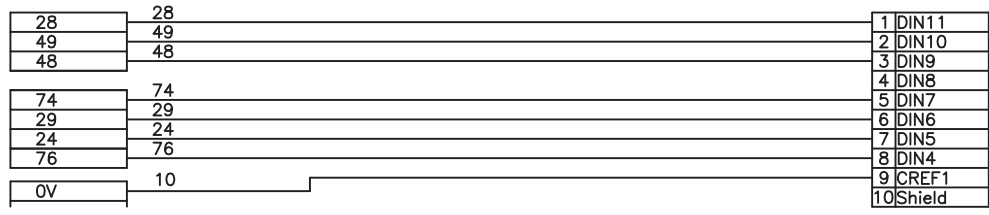
Interface signal 8
Interface signal 7
Interface signal 6
Interface signal 5
Interface signal 4
Loop sensor 3
Loop sensor 2
Loop sensor 1



X8 DIN 12 - 19

VECTOR FAULT
LATCH2 OUTPUT
LATCH1 OUTPUT

Top guard
Internal E-stop line
Web break
Cover monitor

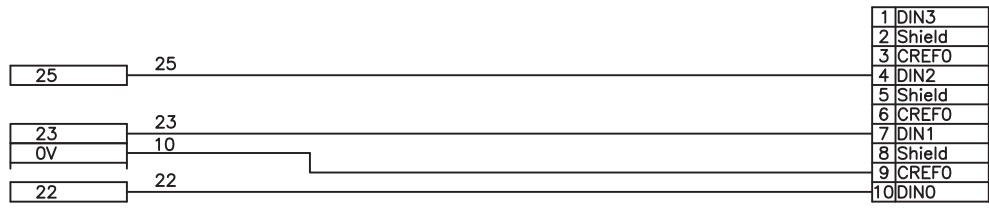


X9 DIN 4 - 11

QMARK SENSOR

REF2

REF1



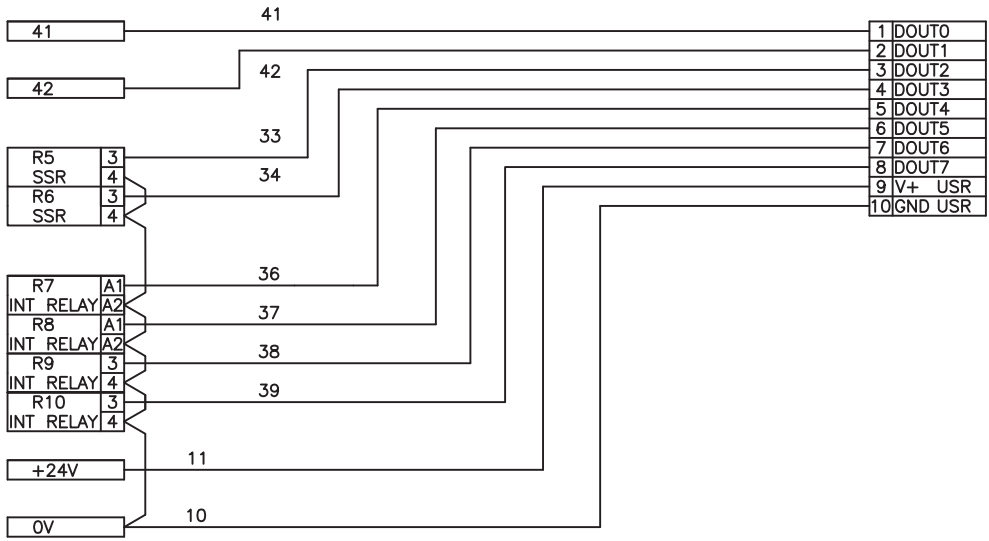
X10 DIN 0 - 3

ALL DIMENSIONS IN mm UNLESS OTHERWISE STATED		DRAWN	MJC	MATERIAL	TITLE
TOLERANCES EXCEPT WHERE OTHERWISE STATED					
WHOLE NOs. ±0.4	HOLE DIAS. +0.10	SCALE	FINISH	800641	
1 DEC. PL. ±0.2	-0.03				
2 DEC. PL. ±0.1	ANGLES ±0°30'	REFERENCE DIMENSIONS ARE NOT CRITICAL (DO NOT INSPECT)			
					DPU-20 ELECTRICAL SCHEMATIC

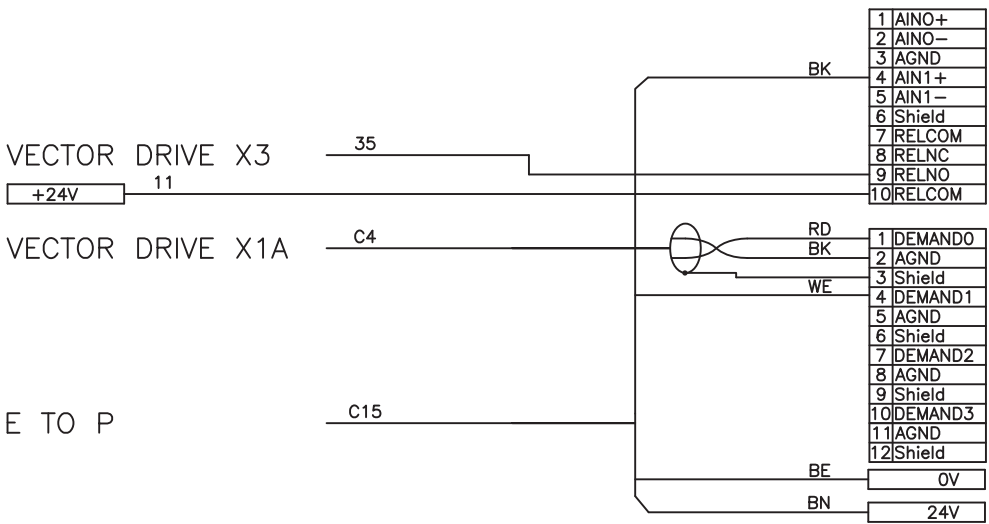
DRAWING FILENAME	800641
ISSUE	
A	25/04/2007
B	24/09/2007
LTSO	
C	03/01/2007
MJC	
D	05/02/2008
MJC / LTSO MODS AFTER BUILD 44104	
E	17/03/2008
INTERFACE ADDED	
F	21/04/2008
INTERFACE REMOVED R12 ADDED	
G	18/06/2008
CHANGES TO SAFETY CIRCUIT	
H	24/09/2008
AMENDMENTS TO SAFETY CIRCUIT LTSO	

E100 TERMINATION 3

- LATCH CONTROL 1
- LATCH CONTROL 2
- OVERVOLT1
- OVERVOLT2
- COVER OVERRIDE
- READY TO LINE
- STOP TO LINE
- JOG TO LINE
- STOP TO LINE

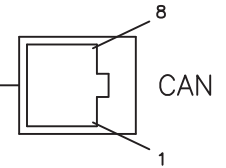


X11 DOUT 0 - 7



X12 AINO-1, RELAY

X13 AOUT 0-3

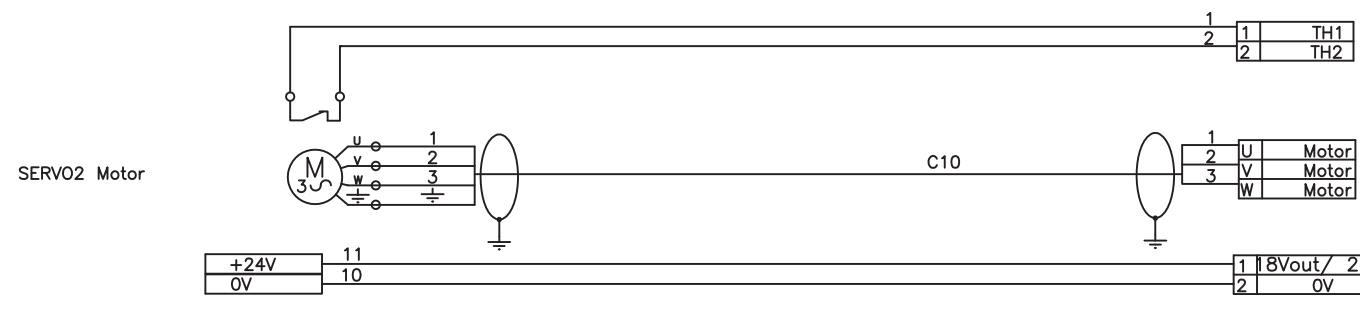
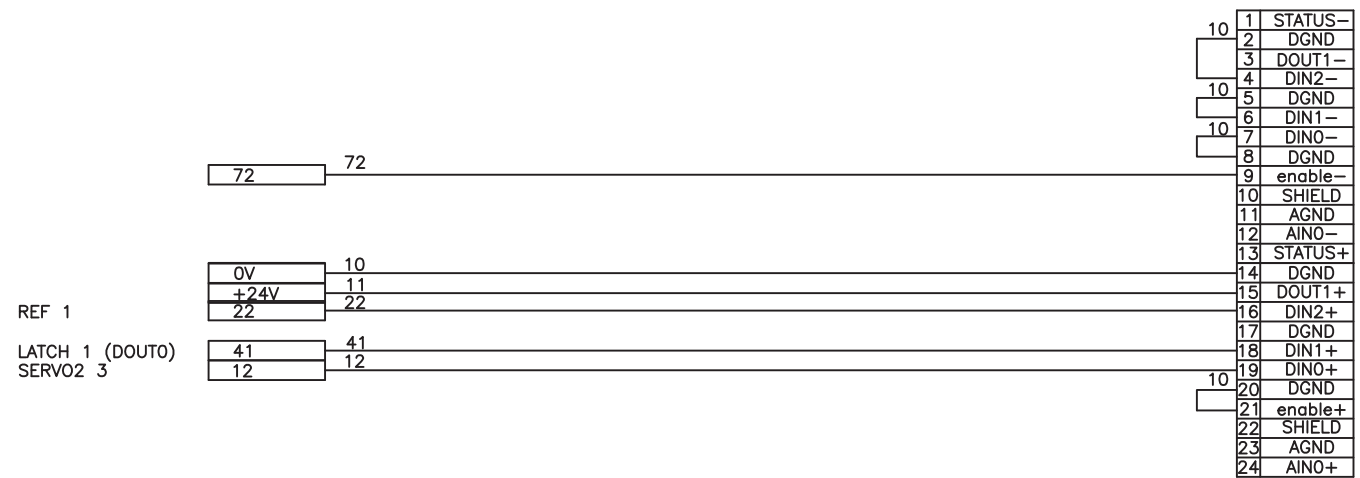
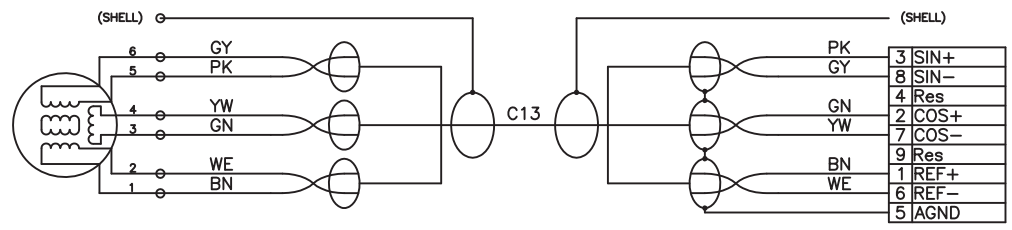


CAN

ALL DIMENSIONS IN mm UNLESS OTHERWISE STATED		DRAWN	MJC	MATERIAL	TITLE
TOLERANCES EXCEPT WHERE OTHERWISE STATED					
WHOLE NOs. ±0.4	HOLE DIAS. +0.10	APP'D	SCALE	PFE MAT'L CODE	DRG. NO.
1 DEC. PL. ±0.2	-0.03			FINISH	
2 DEC PL. ±0.1	ANGLES ±0°30'			800641	
REFERENCE DIMENSIONS ARE NOT CRITICAL (DO NOT INSPECT)					

DRAWING FILENAME	800641
ISSUE	
A	25/04/2007
B	24/09/2007
LTSO	
C	03/01/2007
MJC	
D	05/02/2008
MJC / LTSO MODS AFTER BUILD 44104	
E	17/03/2008
INTERFACE ADDED	
F	21/04/2008
INTERFACE REMOVED R12 ADDED	
G	18/06/2008
CHANGES TO SAFETY CIRCUIT	
H	24/09/2008
AMENDMENTS TO SAFETY CIRCUIT LTSO	

SERVO1 DRIVE TERMINATION

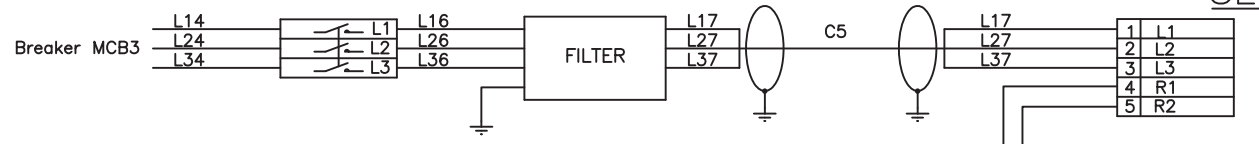


ALL DIMENSIONS IN mm UNLESS OTHERWISE STATED TOLERANCES EXCEPT WHERE OTHERWISE STATED WHOLE NOs. ±0.4 HOLE DIAS. +0.10 1 DEC. PL. ±0.2 -0.03 2 DEC. PL. ±0.1 ANGLES ±0°30' REFERENCE DIMENSIONS ARE NOT CRITICAL (DO NOT INSPECT)	DRAWN	MJC	MATERIAL	TITLE
	APP'D		PFE MAT'L CODE	DPU-20 ELECTRICAL SCHEMATIC
	SCALE		FINISH	DRG. NO.
				800641

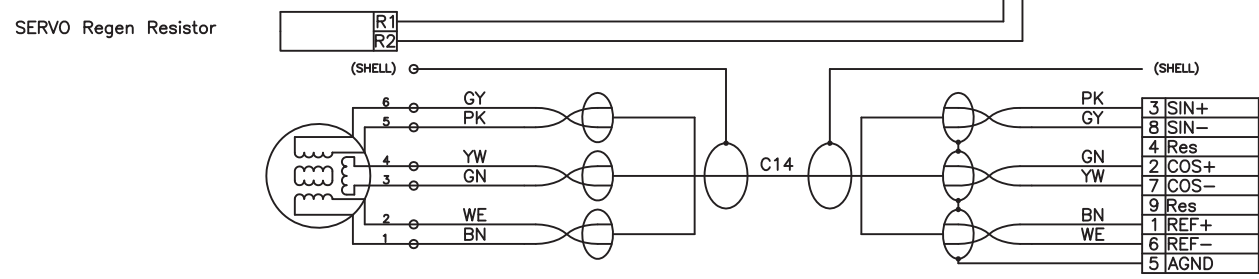
DRAWING FILENAME	800641
ISSUE	
A	25/04/2007
B	24/09/2007
C	03/01/2007
D	05/02/2008
MJC / LTSO MODS AFTER BUILD 44104	
E	17/03/2008
INTERFACE ADDED	
F	21/04/2008
INTERFACE REMOVED R12 ADDED	
G	18/06/2008
CHANGES TO SAFETY CIRCUIT	
H	24/09/2008
AMENDMENTS TO SAFETY CIRCUIT LTSO	

COMPUTER GENERATED DRAWING - DO NOT CHANGE MANUALLY DO NOT SCALE

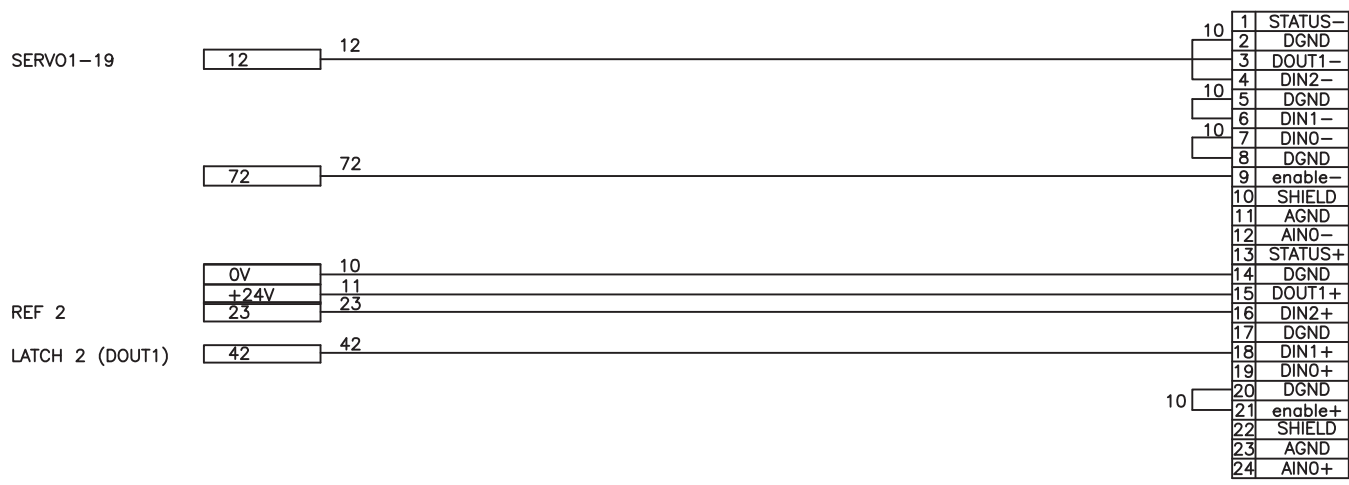
SERVO2 DRIVE TERMINATION



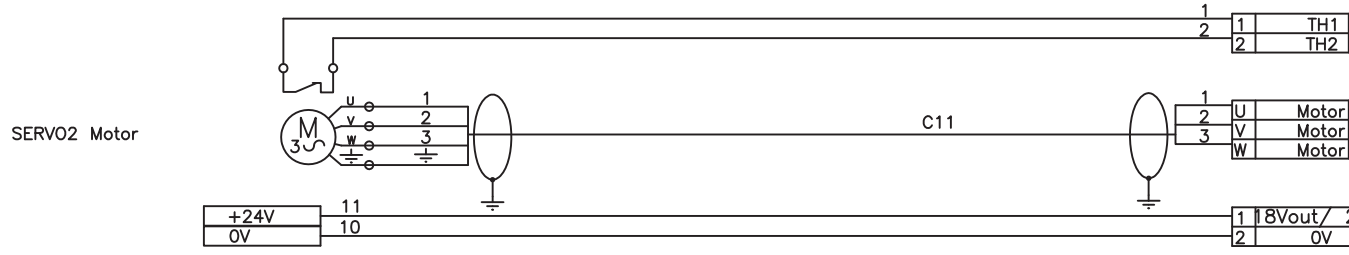
X1 POWER



Resolver input



X3 INPUT/OUTPUT



X16 MOTOR TEMPERATURE SWITCH

X17 MOTOR POWER OUT

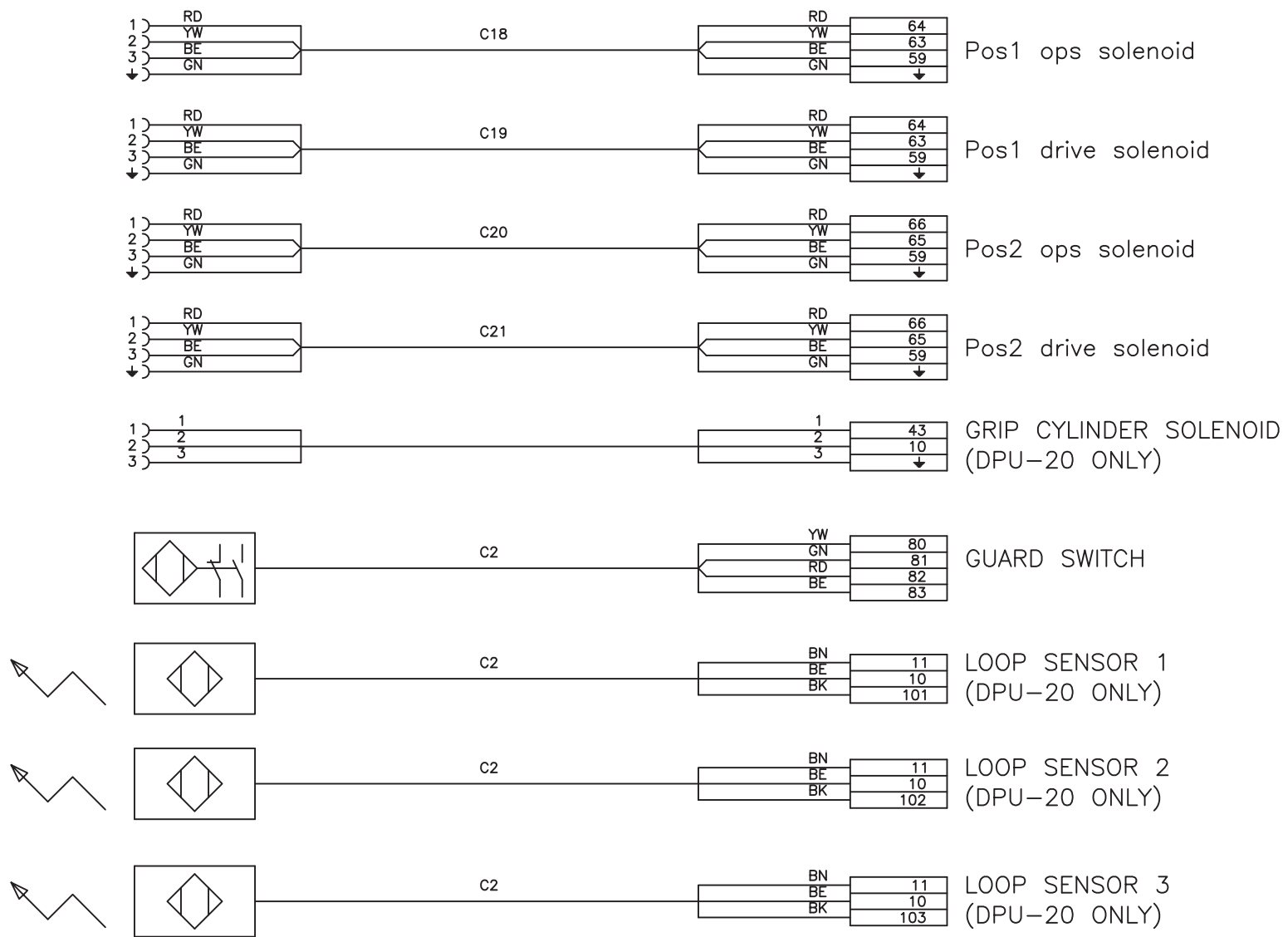
X2 18VDC OUTPUT/ 24VDC BACKUP INPUT

ALL DIMENSIONS IN mm UNLESS OTHERWISE STATED		DRAWN	MJC	MATERIAL	TITLE
TOLERANCES EXCEPT WHERE OTHERWISE STATED					
WHOLE NOS. ±0.4	HOLE DIAS. +0.10	SCALE	FINISH	800641	
1 DEC. PL. ±0.2	-0.03				
2 DEC. PL. ±0.1	ANGLES ±0°30'	REFERENCE DIMENSIONS ARE NOT CRITICAL (DO NOT INSPECT)			

DPU-20 ELECTRICAL SCHEMATIC	
800641	

DRAWING FILENAME	800641
ISSUE	
A	25/04/2007
B	24/09/2007
LTSO	
C	03/01/2007
MJC	
D	05/02/2008
MJC / LTSO	
MODS AFTER	
BUILD 44104	
E	17/03/2008
INTERFACE	
ADDED	
F	21/04/2008
INTERFACE	
REMOVED	
R12 ADDED	
G	18/06/2008
CHANGES TO	
SAFETY	
CIRCUIT	
H	24/09/2008
AMENDMENTS	
TO SAFETY	
CIRCUIT	
LTSO	

OUTPUT CABLING

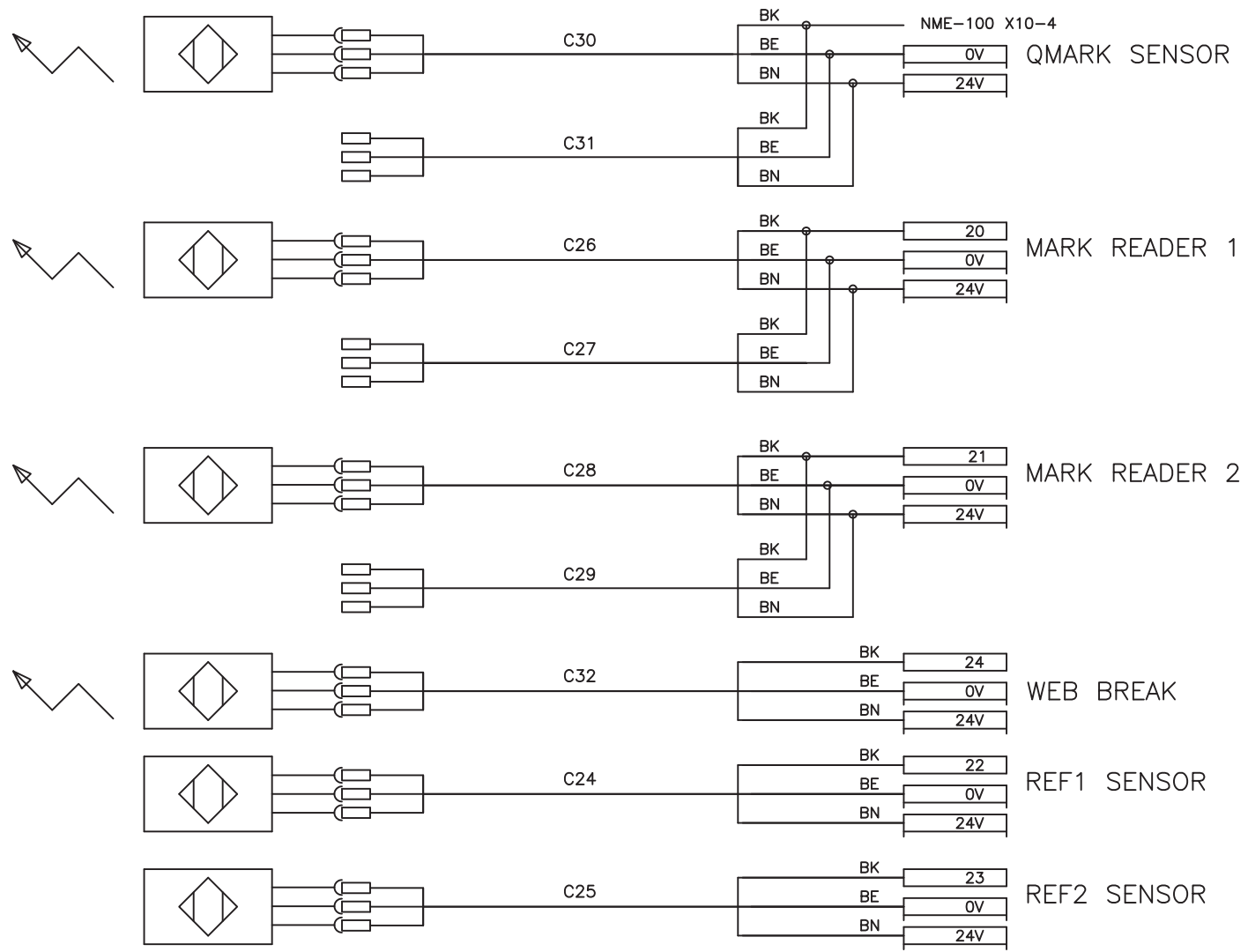


ALL DIMENSIONS IN mm UNLESS OTHERWISE STATED		DRAWN	MJC	MATERIAL		TITLE
TOLERANCES EXCEPT WHERE OTHERWISE STATED				PFE MAT'L CODE		
WHOLE NOs. ±0.4	HOLE DIAS. +0.10	APP'D	SCALE	FINISH		DPU-20 ELECTRICAL SCHEMATIC 800641
1 DEC. PL. ±0.2	-0.03			FINISH		
2 DEC. PL. ±0.1	ANGLES ±0°30'			FINISH		
REFERENCE DIMENSIONS ARE NOT CRITICAL (DO NOT INSPECT)						

DRAWING FILENAME	800641
ISSUE	
A	25/04/2007
B	24/09/2007
LTSO	
C	03/01/2007
MJC	
D	05/02/2008
MJC / LTSO MODS AFTER BUILD 44104	
E	17/03/2008
INTERFACE ADDED	
F	21/04/2008
INTERFACE REMOVED R12 ADDED	
G	18/06/2008
CHANGES TO SAFETY CIRCUIT	
H	24/09/2008
AMENDMENTS TO SAFETY CIRCUIT LTSO	

COMPUTER GENERATED DRAWING - DO NOT CHANGE MANUALLY
DO NOT SCALE

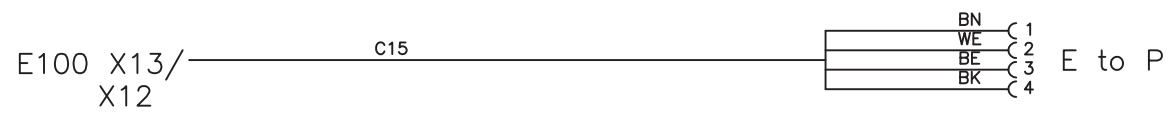
Output/Input Cabling



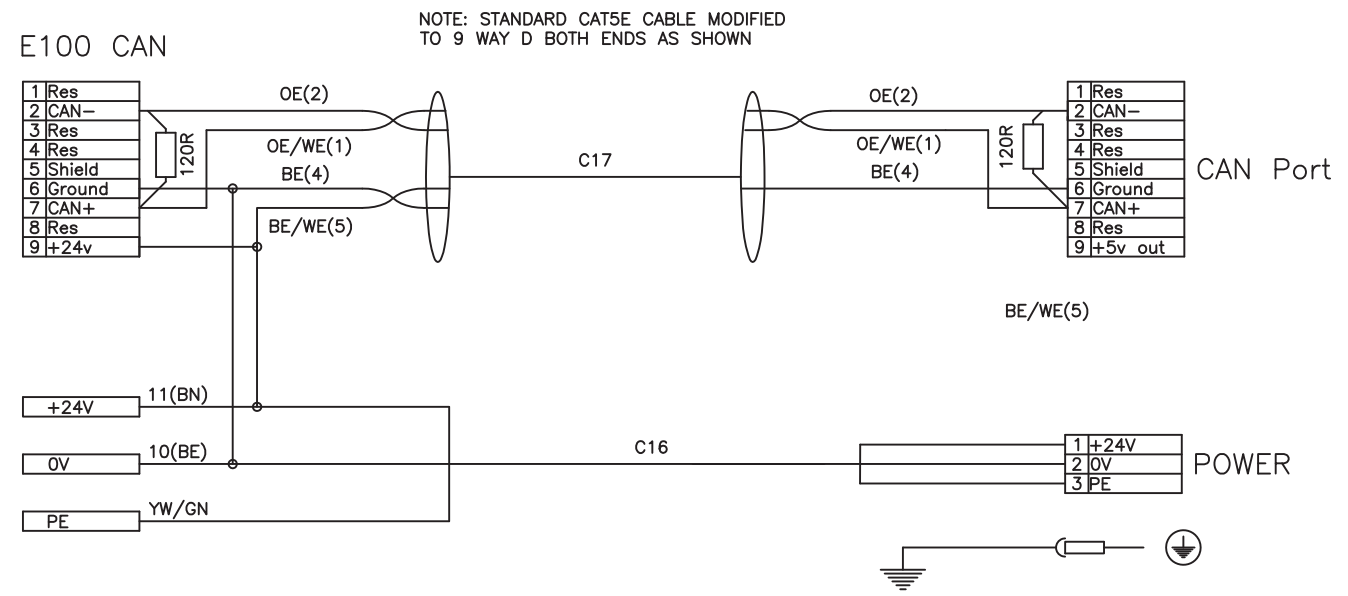
ALL DIMENSIONS IN mm UNLESS OTHERWISE STATED		DRAWN	MJC	MATERIAL	TITLE
TOLERANCES EXCEPT WHERE OTHERWISE STATED					
WHOLE NOs. ±0.4	HOLE DIAS. +0.10	SCALE	FINISH	800641	
1 DEC. PL. ±0.2	-0.03				
2 DEC PL. ±0.1	ANGLES ±0°30'				
REFERENCE DIMENSIONS ARE NOT CRITICAL (DO NOT INSPECT)					

DRAWING FILENAME	800641
ISSUE	
A	25/04/2007
B	24/09/2007 LTSO
C	03/01/2007 MJC
D	05/02/2008
MJC / LTSO MODS AFTER BUILD 44104	
E	17/03/2008
INTERFACE ADDED	
F	21/04/2008
INTERFACE REMOVED R12 ADDED	
G	18/06/2008
CHANGES TO SAFETY CIRCUIT	
H	24/09/2008
AMENDMENTS TO SAFETY CIRCUIT LTSO	

E to P TERMINATION



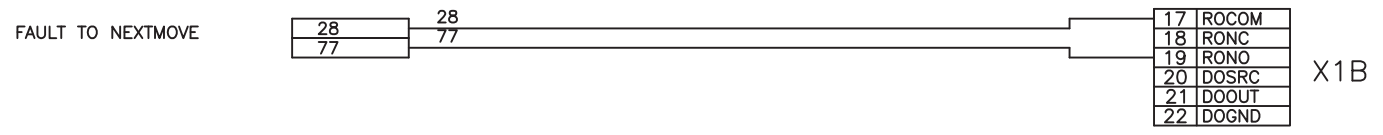
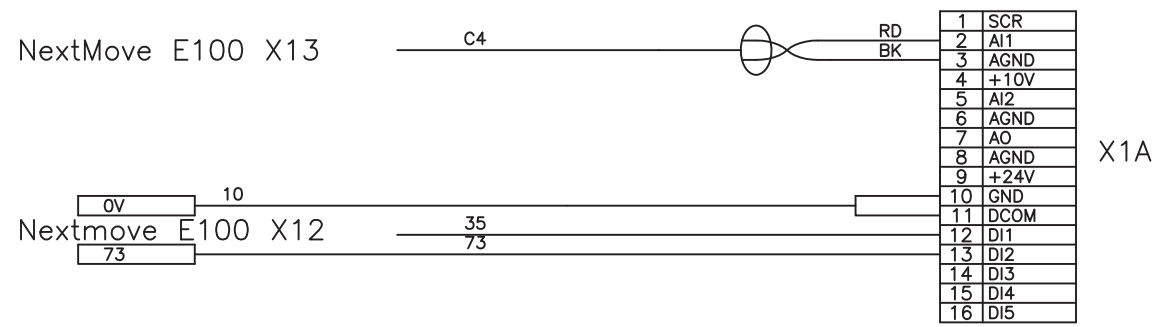
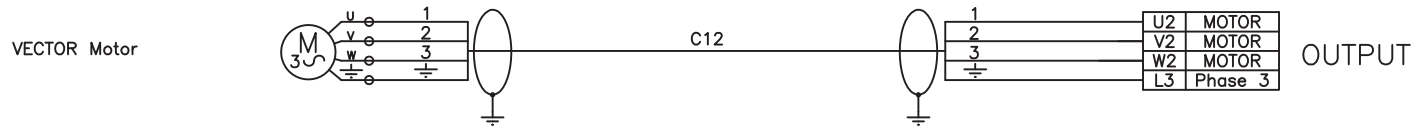
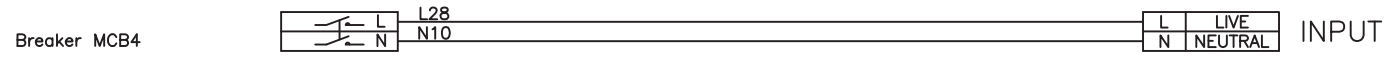
HMI TERMINATION



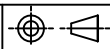
ALL DIMENSIONS IN mm UNLESS OTHERWISE STATED TOLERANCES EXCEPT WHERE OTHERWISE STATED WHOLE NOs. ±0.4 HOLE DIAS. +0.10 1 DEC. PL. ±0.2 -0.03 2 DEC PL. ±0.1 ANGLES ±0°30'	DRAWN MJC APP'D SCALE	MATERIAL PFE MAT'L CODE FINISH	TITLE DPU-20 ELECTRICAL SCHEMATIC DRG. NO. 800641
REFERENCE DIMENSIONS ARE NOT CRITICAL (DO NOT INSPECT)			

DRAWING FILENAME	800641
ISSUE	
A	25/04/2007
B	24/09/2007
LTSO	
C	03/01/2007
MJC	
D	05/02/2008
MJC / LTSO MODS AFTER BUILD 44104	
E	17/03/2008
INTERFACE ADDED	
F	21/04/2008
INTERFACE REMOVED R12 ADDED	
G	18/06/2008
CHANGES TO SAFETY CIRCUIT	
H	24/09/2008
AMENDMENTS TO SAFETY CIRCUIT LTSO	

VECTOR TERMINATION

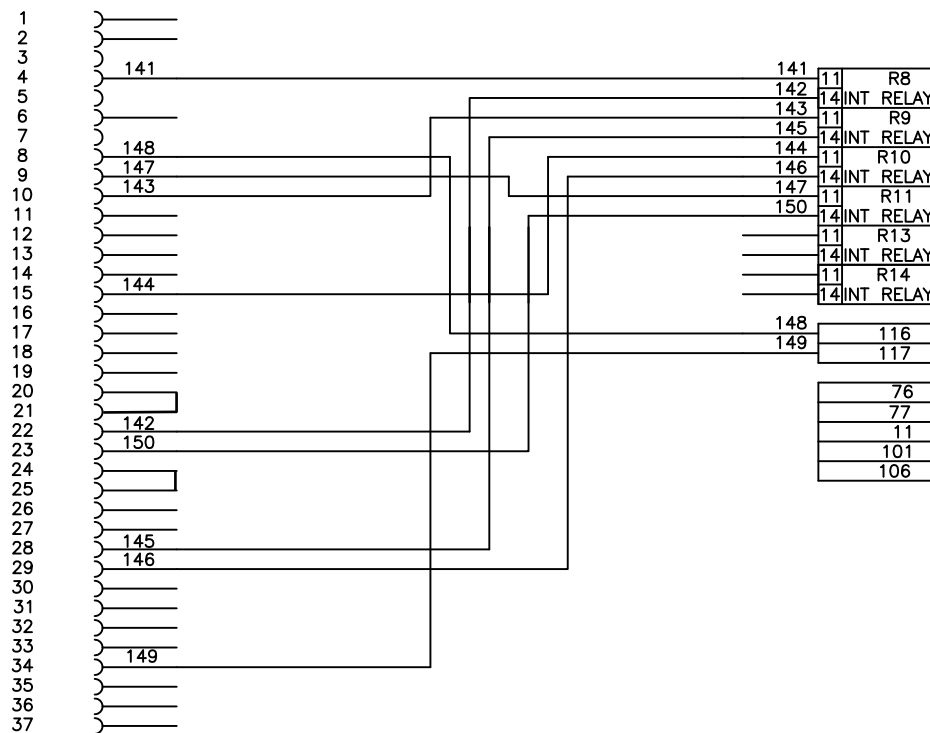


ALL DIMENSIONS IN mm UNLESS OTHERWISE STATED		DRAWN	MJC	MATERIAL	TITLE
TOLERANCES EXCEPT WHERE OTHERWISE STATED					
WHOLE NOs. ±0.4	HOLE DIAS. +0.10	APP'D	SCALE	PFE MAT'L CODE	DRG. NO.
1 DEC. PL. ±0.2	-0.03			FINISH	
2 DEC. PL. ±0.1	ANGLES ±0°30'			REFERENCE DIMENSIONS ARE NOT CRITICAL (DO NOT INSPECT)	
					800641



OPTION MATTI INTERFACE

Matti interface



READY TO INTERFACE
STOP TO INTERFACE
JOG TO INTERFACE
SLAVE CONNECTED

6 BBPI

ALL DIMENSIONS IN mm UNLESS OTHERWISE STATED	
TOLERANCES EXCEPT WHERE OTHERWISE STATED	
WHOLE NOs. ±0.4	HOLE DIAS. +0.10
1 DEC. PL. ±0.2	-0.03
2 DEC. PL. ±0.1	ANGLES ±0°30'
REFERENCE DIMENSIONS ARE NOT CRITICAL (DO NOT INSPECT)	

DRAWN	LTSO	MATERIAL
APP'D		PFE MAT'L CODE
SCALE		FINISH

TITLE	DPU-20 MATTI INTERFACE
DRG. NO.	800649