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## AQUA COOLING SOLUTIONS LIMITED

UNIT D4 SEGENSWORTH BUSINESS CENTRE SEGENSWORTH ROAD, FAREHAM

HAMPSHIRE, PO15 5RQ

Tel.: +44 (0) 845 0941 800 Fax.: +44 (0) 845 0941 900

Customer :

Plant Designation : CP1

Drawing number : P15033

Project Number :

End User

Site Location :

Control panel by : Shellau

Incoming supply : 110VAC

Feeder

Control voltage : 24VDC

Manufacturing date : July 2015

Degree of protect. : IP65

Panel Location

## ISSUED FOR MANUFACTURE = 22/07/2015

Created on : 08. Jun. 2015

Responsible for project : Mike West

Date changed : 22. Jul. 2015

Editor : MDC

Highest Page No. : 135

No. of pages : 63

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		Date	08. Jun. 2015			AQUA COOLING	Cover Sheet	P15033		=	
		Editor	M. CARMODY		SOLU.	SOLUTIONS	Cover Sheet	1 13033		+	
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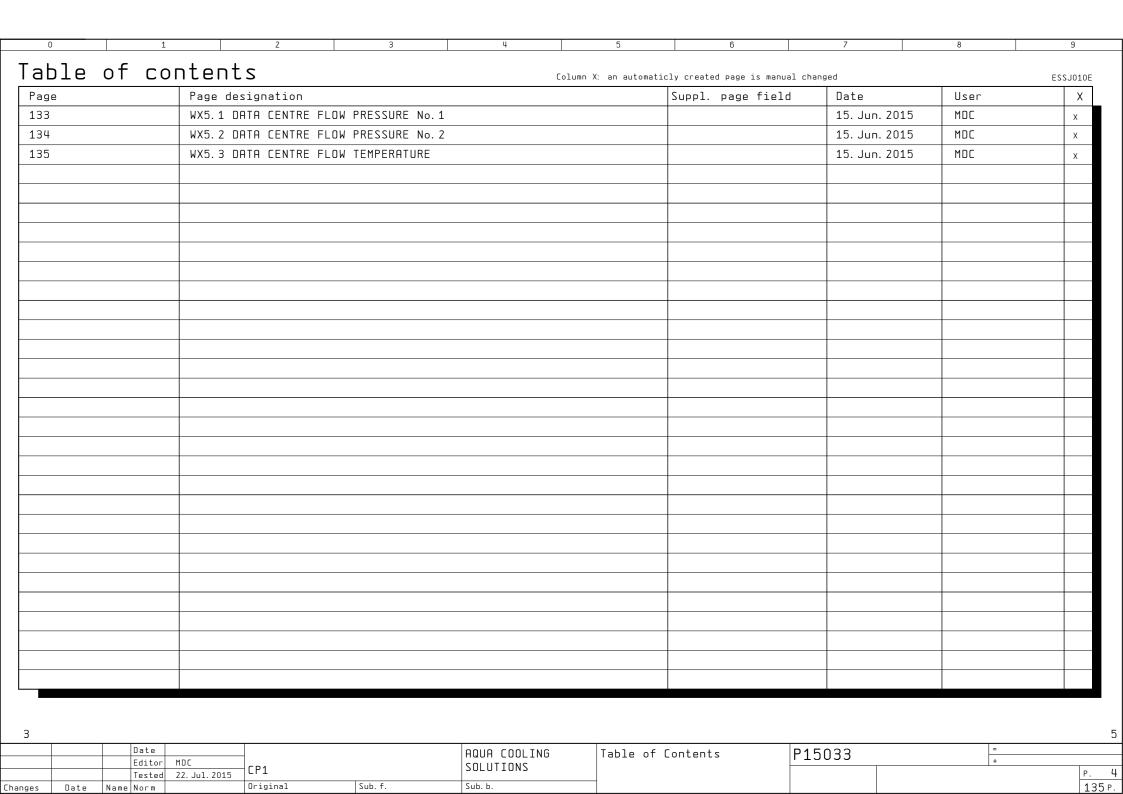
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4	Bill of Materials		21. Jul. 2015	TMC	
5	Bill of Materials		21. Jul. 2015	TMC	
02	X1CP2		15. Jun. 2015	MDC	X
06	-X4		15. Jun. 2015	MDC	X
07	-X5		15. Jun. 2015	MDC	X
08	Terminal strip and connector overview		15. Jun. 2015	MDC	Х
09	Cable overview		15. Jun. 2015	MDC	X
10	W40DI1 PUMP - RTP1 LPS ISOLATOR TO VSD		15. Jun. 2015	MDC	X
11	W40DI2 PUMP - CTP1 RECIRCULATION		15. Jun. 2015	MDC	Х
12	W40M1 PUMP - RTP1 LPS		15. Jun. 2015	MDC	Х
13	W40M2 PUMP - CTP1 RECIRCULATION		15. Jun. 2015	MDC	Х
14	W40TT5 CTP1 TEMPERATURE SENSOR		15. Jun. 2015	MDC	Х
15	W40VSD-M1 MODBUS NETWORK		15. Jun. 2015	MDC	Х
16	W40VSD-M2 MODBUS NETWORK		15. Jun. 2015	MDC	X
17	W40VSD1 VENTURI FLOW PRESSURE		15. Jun. 2015	MDC	Х
18	W40VSD2 CTP1 TEMPERATURE SENSOR		15. Jun. 2015	MDC	Х
19	W42FS1 VENTURI THERMAL FLOW SWITCH		15. Jun. 2015	MDC	Х
20	W42LS1 LEAK LEVEL SENSOR		15. Jun. 2015	MDC	Х
21	W42PT1 NEGATIVE VENTURI SUCTION No. 1		15. Jun. 2015	MDC	Х
22	W42PT2 NEGATIVE VENTURI SUCTION No. 2		15. Jun. 2015	MDC	Х
23	W43SV1 AIR RELEASE SOLENOID VALVE		15. Jun. 2015	MDC	Х
24	W51PT3 VENTURI INLET PRESSURE		15. Jun. 2015	MDC	Х
25	W51PT4 DATA CENTRE FLOW PRESSURE No. 1		15. Jun. 2015	MDC	Х
26	W51PT5 DATA CENTRE FLOW PRESSURE No. 2		15. Jun. 2015	MDC	Х
27	W51TT1 CHILLER FLOW TEMPERATURE		15. Jun. 2015	MDC	Х
28	W51TT2 CHILLER RETURN TEMPERATURE		15. Jun. 2015	MDC	х
29	W52TT3 DATA CENTRE RETURN TEMPERATURE		15. Jun. 2015	MDC	X
30	W52TT4 DATA CENTRE FLOW TEMPERATURE		15. Jun. 2015	MDC	Х
31	WX1-40VSD1 40VSD1 CONTROL		15. Jun. 2015	MDC	X
32	WX2-40VSD2 40VSD2 CONTROL		15. Jun. 2015	MDC	Х

Changes



0 1 2	3	4 5	6 7	8 9
	<u>GENERAL SPEC</u>	IFICATIONS AND TEC	HNICAL INFORMATION	
CONTROL PANEL DETAILS	SPECIFICATION	NOTE COMMENTS: -	PAINT FINISH	SPECIFICATION
TOTAL SIZE OF ENCLOSURE/CONTROL PANEL/S	800(H) x600(W) x250(D) mm		GLOSS: SEMI GLOSS: MATT: POWDER-COATED	etc RITTAL STANDARD PAINT FINISH
APPROXIMATE OVERALL WEIGHT			EXTERIOR COLOUR (EXCLUDING DOORS)	RITTAL POWDER-COATED TEXTURED (RAL 7035)
SYSTEM SUPPLY	1 PHASE/NEUTRAL/EARTH 110VAC/60Hz		EXTERIOR COLOUR (DOORS)	RITTAL POWDER-COATED TEXTURED (RAL 7035)
SYSTEM SUPPLY TYPE			INTERIOR COLOUR (EXCLUDING BACKPLAT	E) RITTAL POWDER-COATED TEXTURED (RAL 7035)
SYSTEM SUPPLY REQUIREMENTS	13AMP SUPPLY		INTERIOR COLOUR (INSIDE OF DOORS)	RITTAL POWDER-COATED TEXTURED (RAL 7035)
SYSTEM SUPPLY ALLOWANCES FOR DIVERSITY	DIVERSITY 100%FLC CONNECTED		MOUNTING PLATE/S	RITTAL STANDARD (ZINC PLATED)
SYSTEM SUPPLY DESIGN CURRENT REQUIREMENTS			BASE/PLINTH (FITTED)	RITTAL STANDARD (RAL 7022)
MAIN SUPPLY ISOLATOR TYPE 400AMP FUSE DISCONNECTOR	25AMP / 25kA MAIN ISOLATOR		CABLE CHAMBER (NOT FITTED)	RITTAL POWDER-COATED TEXTURED (RAL 7035)
SHORT CIRCUIT CAPACITY	10KA			
APPARENT POWER (KVA CONNECTED)		P = V x I x 1.732		
ACTIVE POWER (KW CONNECTED)		P = V x I x 1.732 x 0.8		
DC CONTROL POWER (WATTS CONNECTED)		POWER SUPPLY UNIT 400VAC/24VDC/60	MP/1440W.	
ENCLOSURE LIGHTS & SOCKETS, VOLTAGE	230VAC			
CONTROL & INDICATION VOLTAGE	24VDC			
PROTECTION	SPECIFICATION	COMMENTS: -	PLC EQUIPMENT	SPECIFICATION
BS/EN/IEC STANDARDS IMPLEMENTED	EN292/BSEN954-1/BSEN60204-1/BS7671	NOTE: -ALL APPLICABLE & RELEVANT S	TANDARDS etc. PLC MAKE	CAREL
DEGREE OF ENCLOSURE PROTECTION (IP RATING)	IP54		PLC TYPE	PC05
DETAILS OF EQUIPMENT BY BARRIER SCREENING	25VAC/60VDC AND ABOVE (IP20B)	NOTE: -DRY ENVIRONMENTS MAINTAINED	(EN60204) PLC INTERFACE	
EQUIPOTENTIAL BONDING IMPLEMENTED	YES	BS7671 STANDARDS		
AUTOMATIC DISCONNECTION INSTALLED	YES			
MANUFACTURERS SPECIFICATIONS IMPLEMENTED	YES			
EMC STANDARDS REQUIRED (SCREENING)	YES	MANUFACTURERS EMC REQUIREMENTS IM	PLEMENTED	
STANDARD LABELS TO BE FITTED	YES	HAZARDS/WARNING SIGNS AND VOLTAGE		
CHIMOMING EMBEES TO BE TITTED	1.23	THE THE STATE OF T		
CONDUCTORS AND TERMINATIONS	SPECIFICATION	COMMENTS: -	CABLE COLOURS	SPECIFICATION
MINIMUM SIZE OF POWER WIRING	1.5mm²		AC 460VAC POWER WIRING	BLACK
MINIMUM SIZE OF CONTROLS & I/O WIRING 24VDC	1.0mm² (I/O O.5mm²)		AC 230VAC POWER WIRING	BLACK
MINIMUM SIZE OF POWER TERMINALS	4. Omm TERMINATION		PROTECTIVE CONDUCTOR	GREEN/YELLOW
MINIMUM SIZE OF CONTROL TERMINALS	2.5mm TERMINATION		AC 110VAC POWER WIRING - 110V	RED
MAIN POWER BUSBAR SIZE			AC 110VAC POWER WIRING - OV	WHITE/RED
MAIN EARTH BUSBAR SIZE			DC CONTROL CIRCUITS +	DARK BLUE
EARTH BUSBAR POSITIONS			DC CONTROL CIRCUITS -	WHITE/BLUE
METHOD OF TERMINATING OUTGOING PROTECTIVE CONDUCTORS	BUSBAR AND/OR PE TERMINALS		NEUTRAL CIRCUITS	LIGHT BLUE
EXTERNAL CABLES, ENTRY POSITION	BOTTOM/TOP ENTRY		LIVE SIDE OF ISOLATOR CIRCUITS	ORANGE
METHOD OF FIXING/SUPPORTING OUTGOING CABLES	CABLE TRUNKING/TRAY		EXTERNALLY FED INTERLOCKS CIRCUITS	
SCHEMATIC SYMBOLS & CONTACT REFERENCE NUMBERS Etc	SYMBOLS BS EN 60617	EQUIPMENT PAGE-PATH NUMBERING.	EXTERNALLY FED INTERLOCKS CIRCUITS	· ·
				(22)
GENERAL COMMENTS: -			,	
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0E4 50/1	ADDRESS	PAGE	FUNCTION
SAL	U10	51/0	NEGATIVE PRESSURE VENTURI SUCTION
UTS	U 20	51/1	NEGATIVE PRESSURE VENTURI SUCTION
	U30	51/2	VENTURI INLET PRESSURE
	U 40	51/4	CHILLER FLOW TEMPERATURE
	U5O	51/5	CHILLER RETURN TEMPERATURE
	U6O	51/7	DATA CENTRE FLOW PRESSURE No. 1
	U70	51/8	DATA CENTRE FLOW PRESSURE No. 2
	U 80	51/8	TANK LEVEL (NOT SELECTED)
	U9O	52/3	DATA CENTRE RETURN TEMPERATURE
	U100	52/5	DATA CENTRE FLOW TEMPERATURE

50E4	ADDRESS	PAGE	FUNCTION
ANALOGUE	Y10	60/2	HEAT EXCHANGER PRIMARY CONTROL VALE CHILLER (NOT SELECTED)
0011 010	Y 20	60/3	NEGATIVE PRESURE CONTROL VALVE LPS (NOT SELECTED)
	Y30	60/4	SPARE
	Y 40	60/5	SPARE
	Y50	60/6	SPARE
	Y60	60/7	SPARE

0E4 50/1	ADDRESS	PAGE	FUNCTION
+vDC	ID10	53/0	RTP1 LPS PUMP INVERTER FAULT
TAL	ID20	53/1	SPARE
	ID30	53/2	SPARE
	ID40	53/3	SPARE
	ID50	53/4	CTP1 RECIRCULATION PUMP INVERTER FAULT
	ID60	53/5	SPARE
	ID70	53/6	SPARE
	ID80	53/7	SPARE
	ID90	54/0	LEAK DETECTION (NOT SELECTED)
	ID100	54/1	B. E. M. S. INTERLOCK
	ID110	54/2	24VDC CONTROL CIRCUIT HEALTHY
	ID120	54/3	VENTURI FLOW SENSOR
	ID13HO-	54/4	SPARE
	ID130	54/5	SPARE
	ID140	54/6	LEAK LEVEL SENSOR
	ID14HO-	54/7	SPARE
	ID15HO-	55/1	SPARE
	ID150	55/2	SELECTION SETPOINT HEAT EXCHANGER
	ID160	55/3	CONFIGURABLE INPUT No.1 (NOT SELECTED)
	ID16HO-	55/4	SPARE
	ID170	55/5	CONFIGURABLE INPUT No. 2 (NOT SELECTED)
	ID180	55/6	CONFIGURABLE INPUT No. 3 (NOT SELECTED)

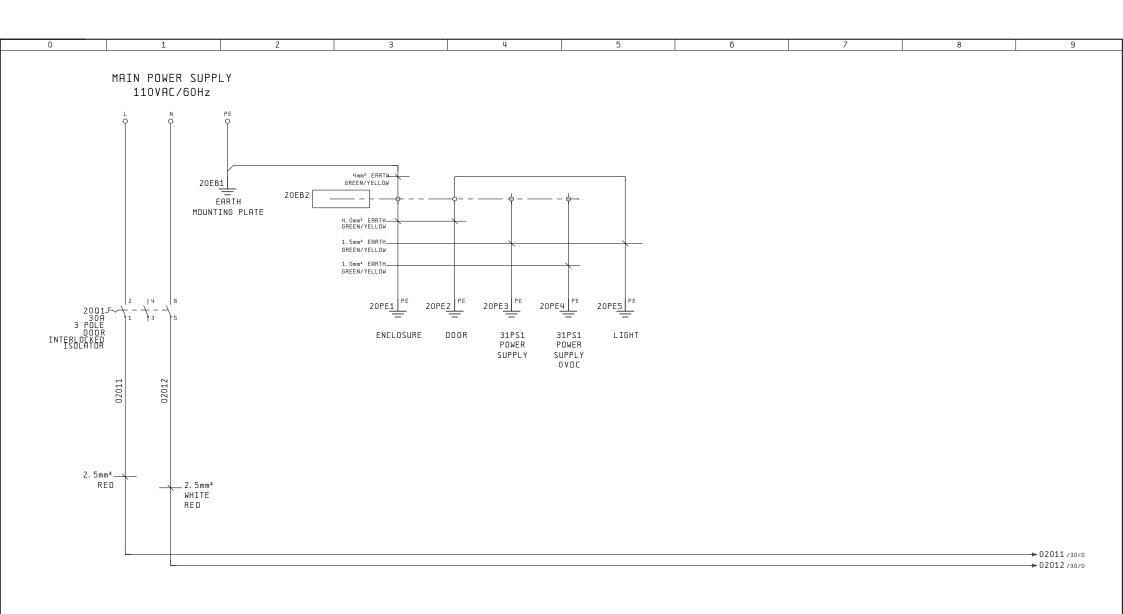
50E4[	ADDRESS	PAGE	FUNCTION					
50/1 DIGITAL								
OUTPUTS	N010		RTP1 + CTP1 PUMP ENABLE					
0017013	N D 20	61/1	AIR RELEASE SOLENOID VALVE					
	N D 30	61/2	SPARE					
	N 0 40	61/3	SPARE					
	N050	61/4	HIGH PRIORITY ALARM					
	N060		SPARE SPARE					
	ND80	61/8	SPARE					
	NC80 61/9		SPARE					
	N090	62/0	SPARE					
	N0100-	62/1	SPARE					
	N0110	62/2	SPARE					
	N0120-	62/4	SPARE					
	NC120	62/4	SPARE					
	N0130	62/6	CONFIGURABLE OUTPUT No.1 (NOT SELECTED)					
	NC130	62/6	SPARE					
	N0140	62/8	LPS PUMP No.1 ENABLE (NOT SELECTED)					
	NC140	62/8	SPARE					
	N0150-	63/2	LPS PUMP No. 2 ENABLE (NOT SELECTED)					
	NC150	63/3	SPARE					
	N0160	63/4	SPARE					
	N0170-	63/5	SPARE					
	NO180	63/6	SPARE					

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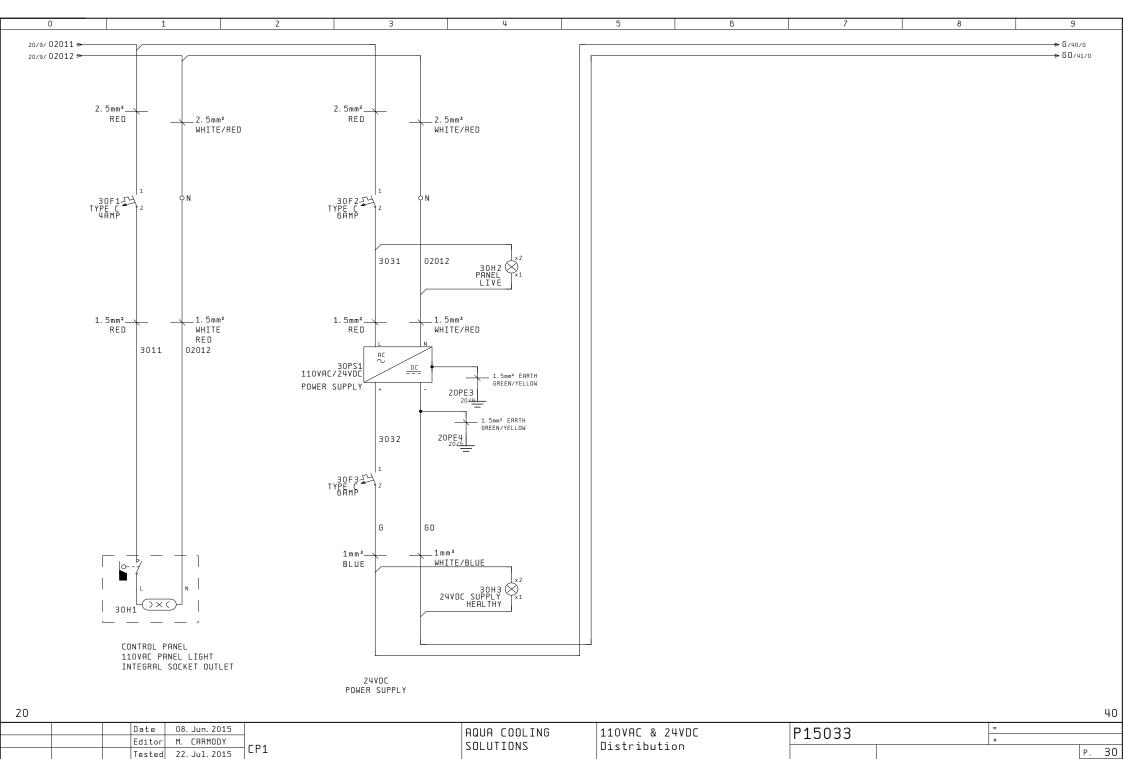
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10 30 Date 08. Jun. 2015 P15033 AQUA COOLING 110VAC Power Supply Editor M. CARMODY SOLUTIONS Main Distribution

CP1 Tested 22. Jul. 2015 Original Sub. f. Sub. b. Changes Date Name Norm



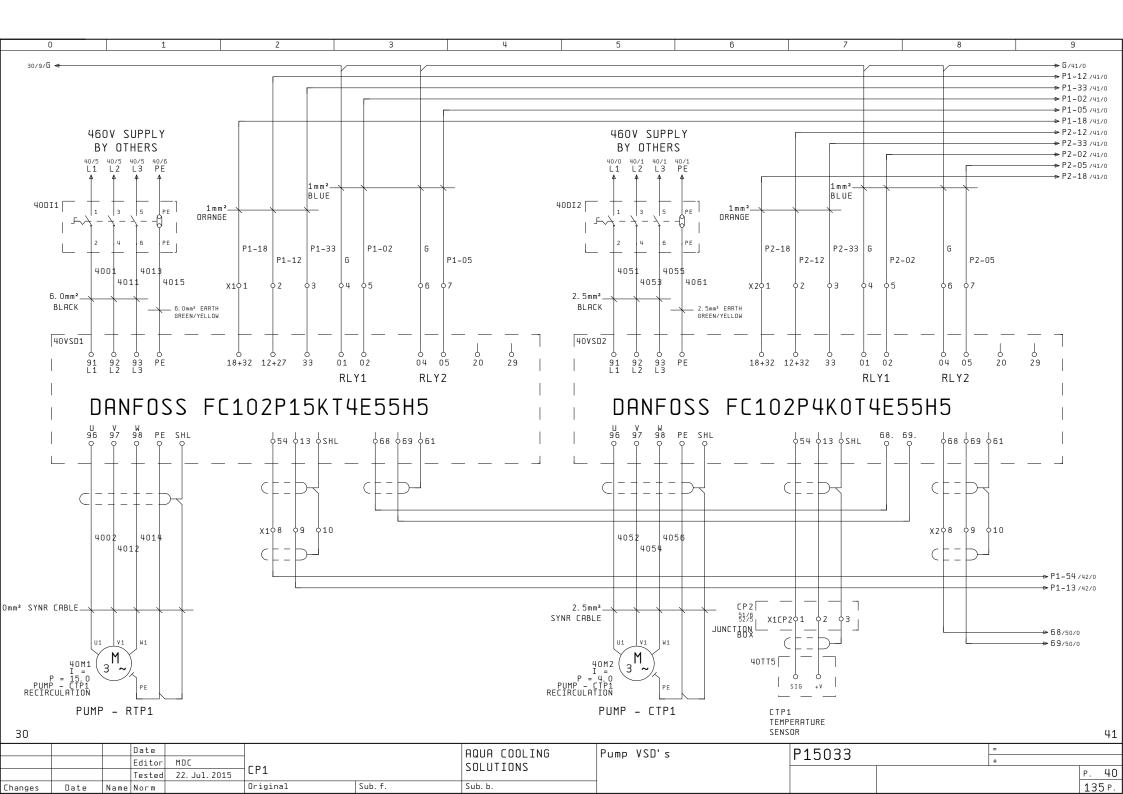
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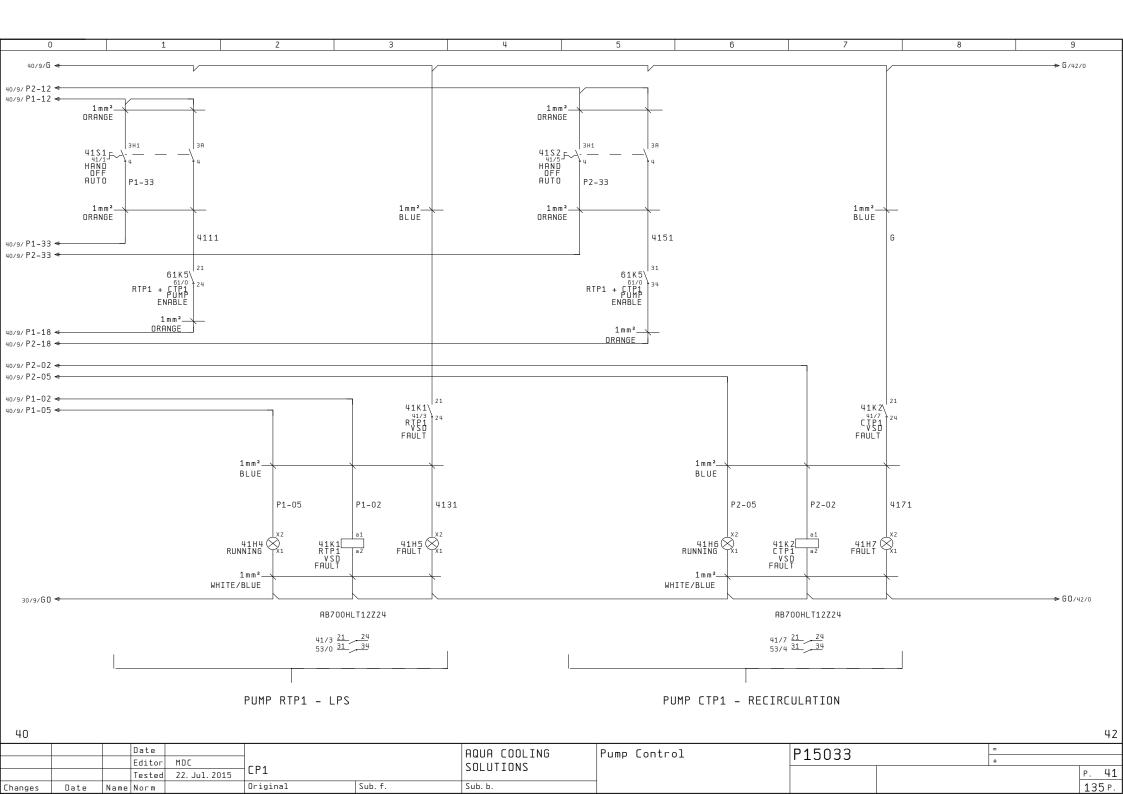
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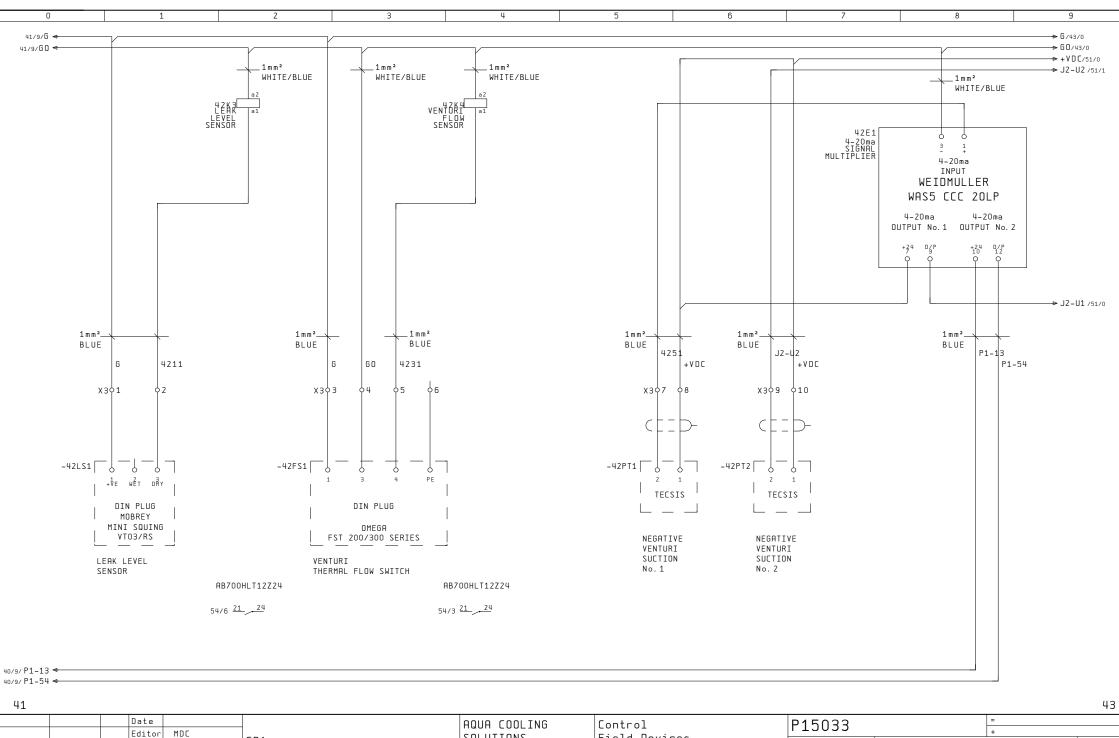
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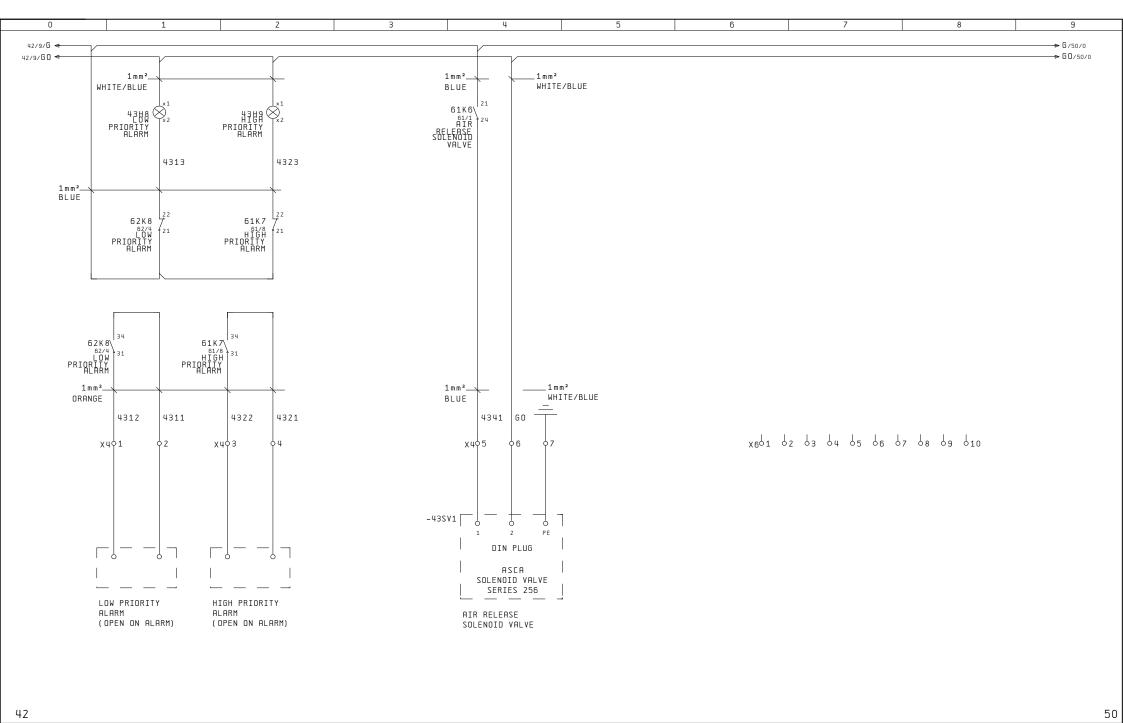
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Field Devices

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Р. 43 135 P.

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Editor

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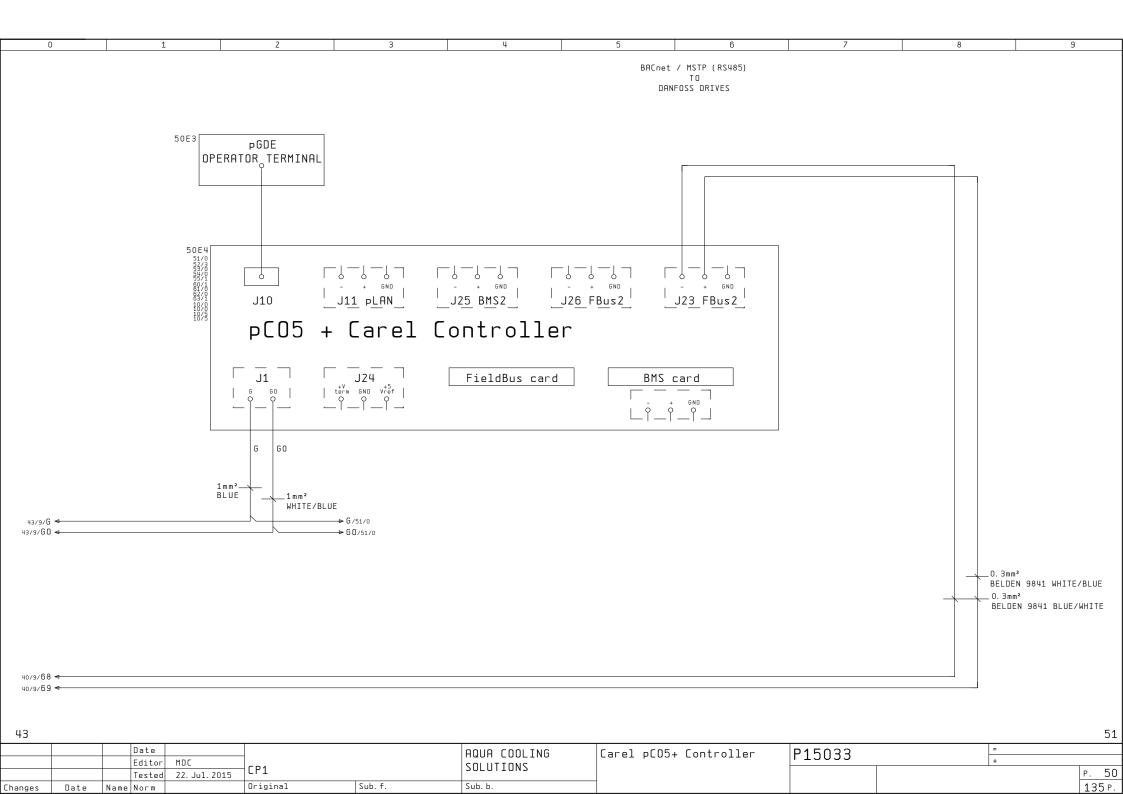
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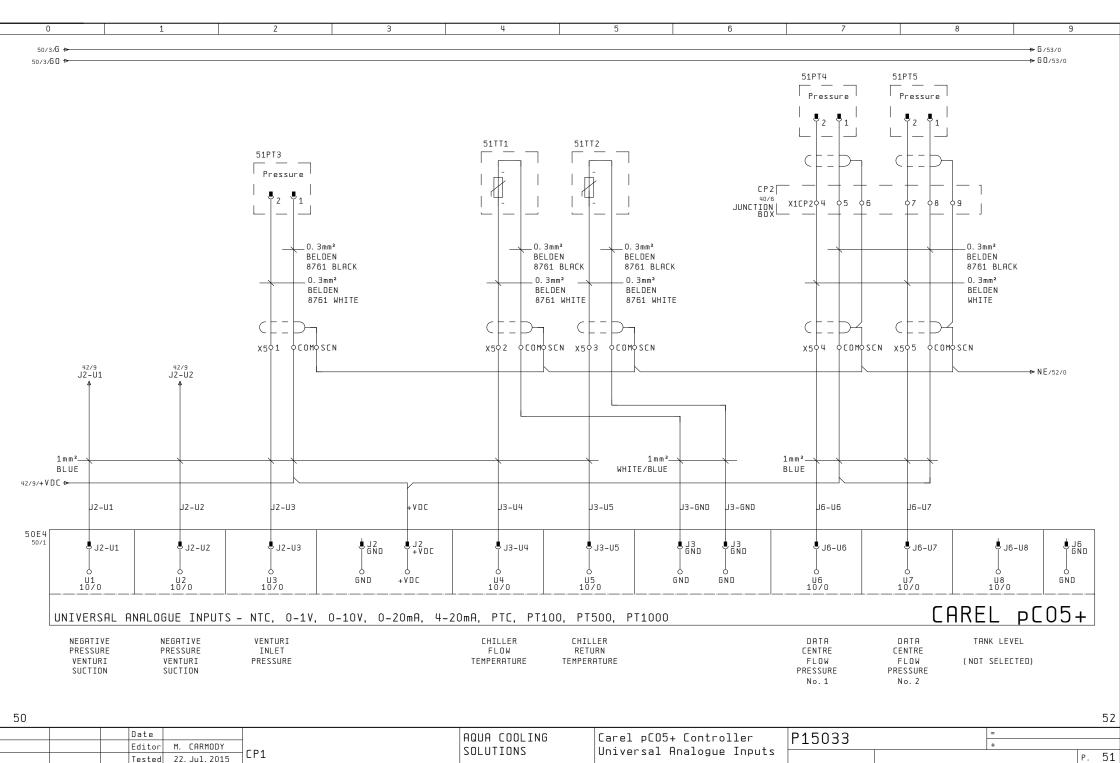
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AQUA COOLING

Control Field Devices

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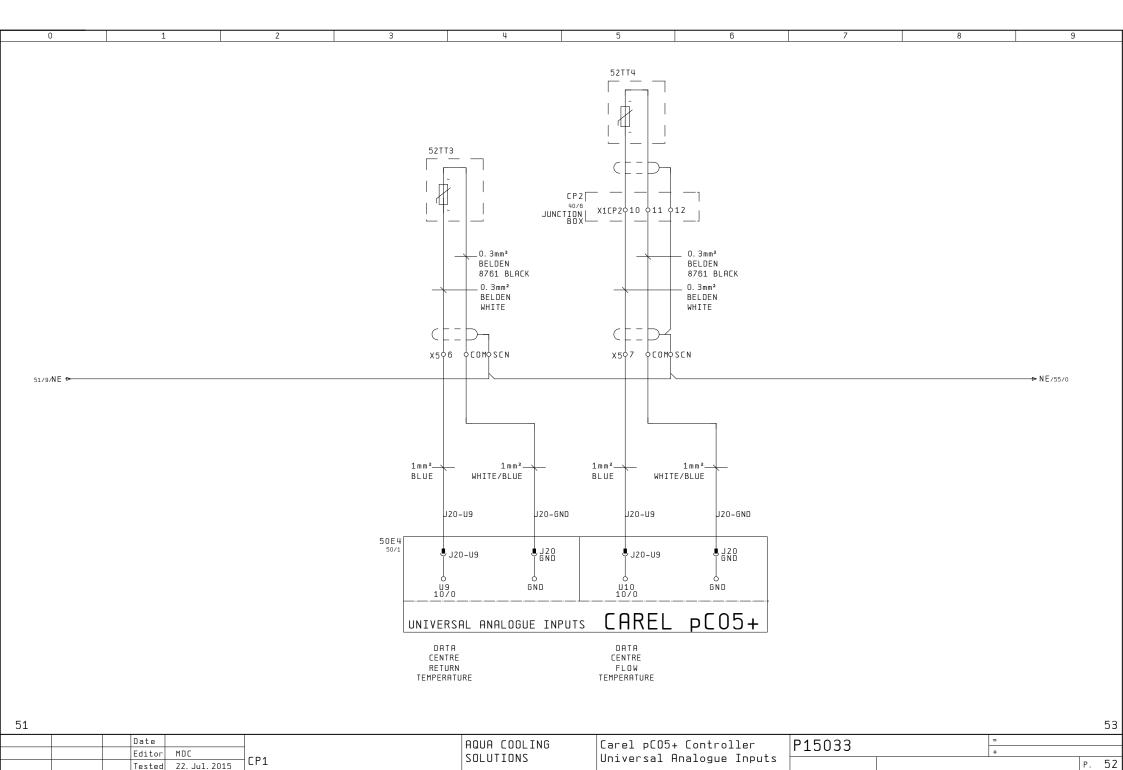
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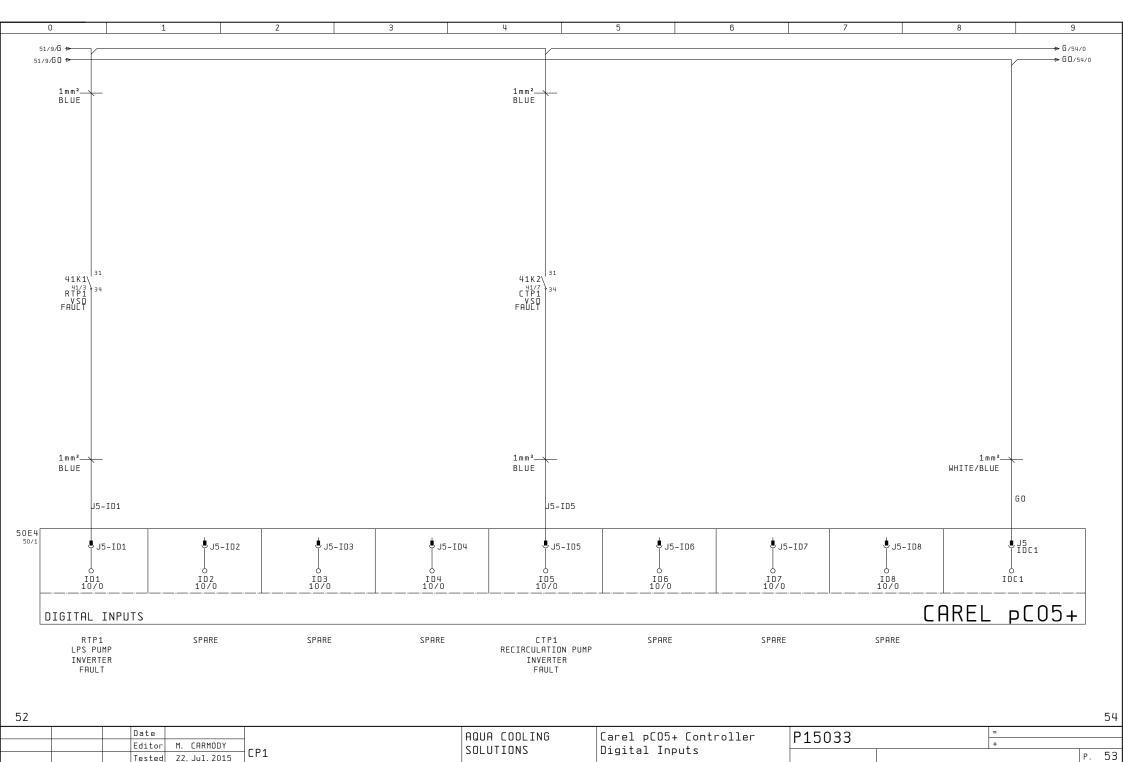
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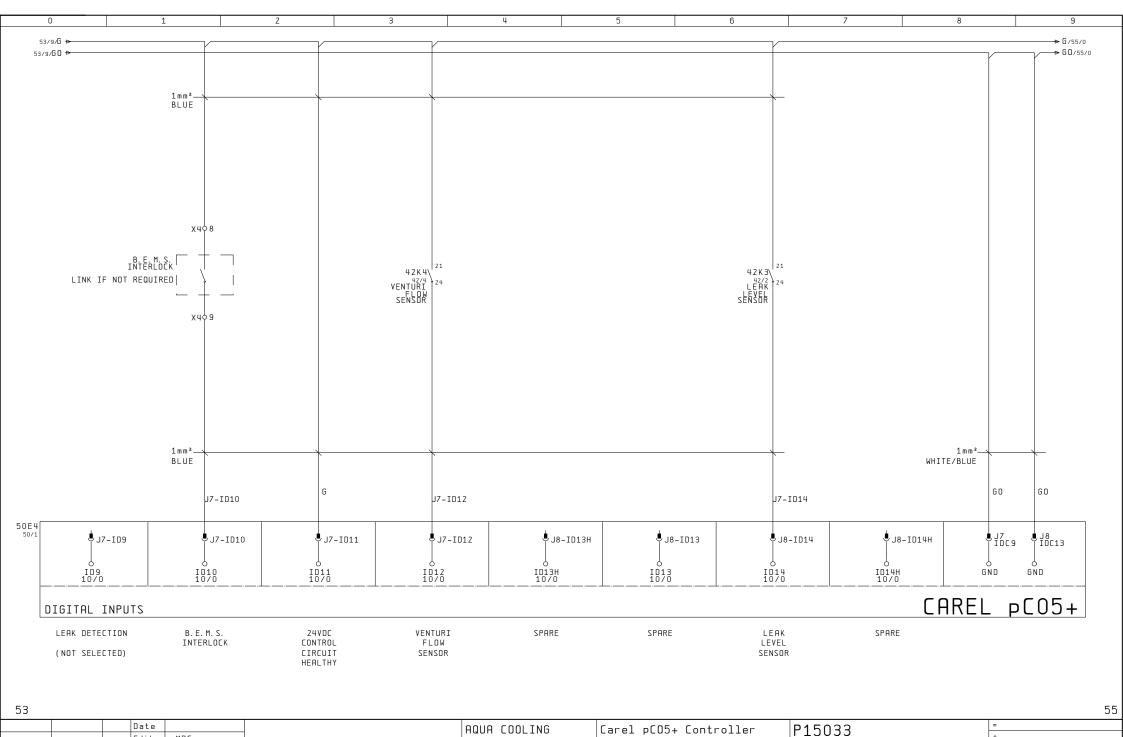
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Sub. b.

Digital Inputs

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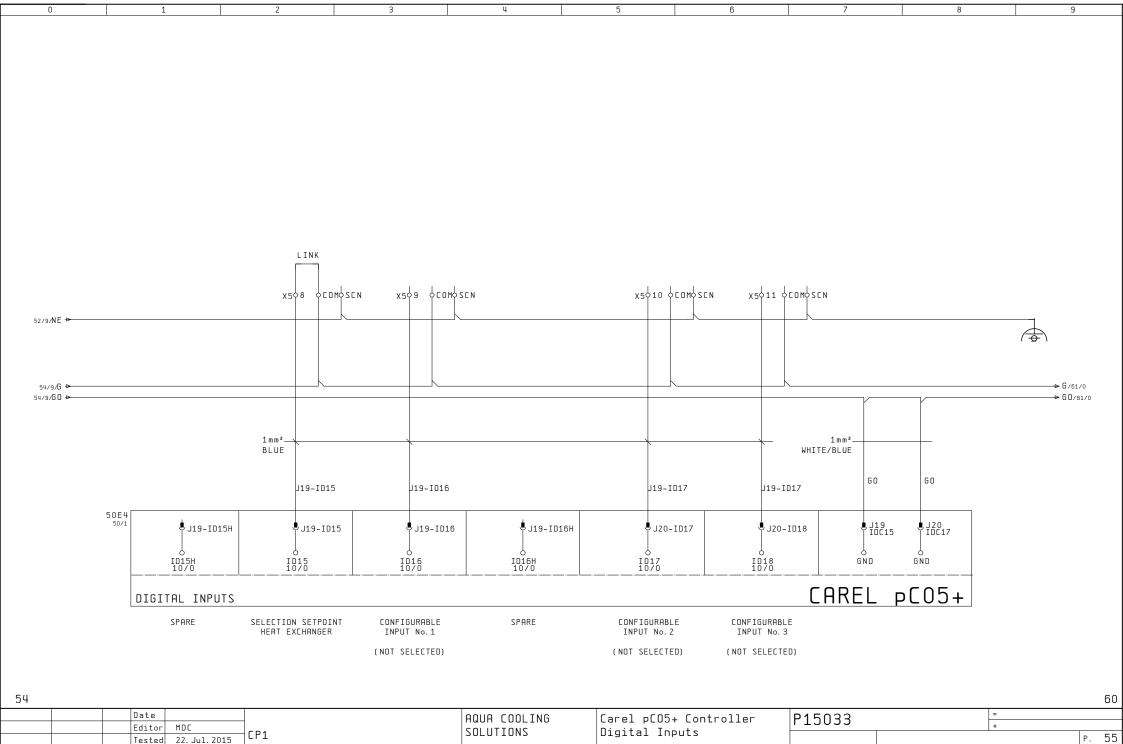
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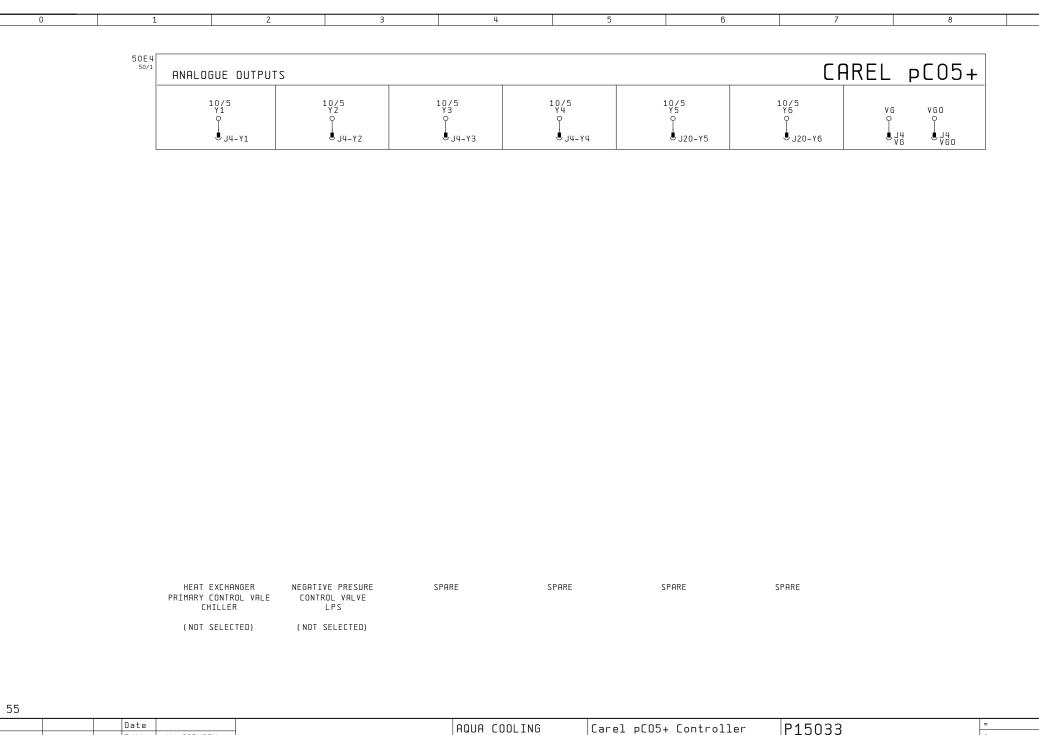
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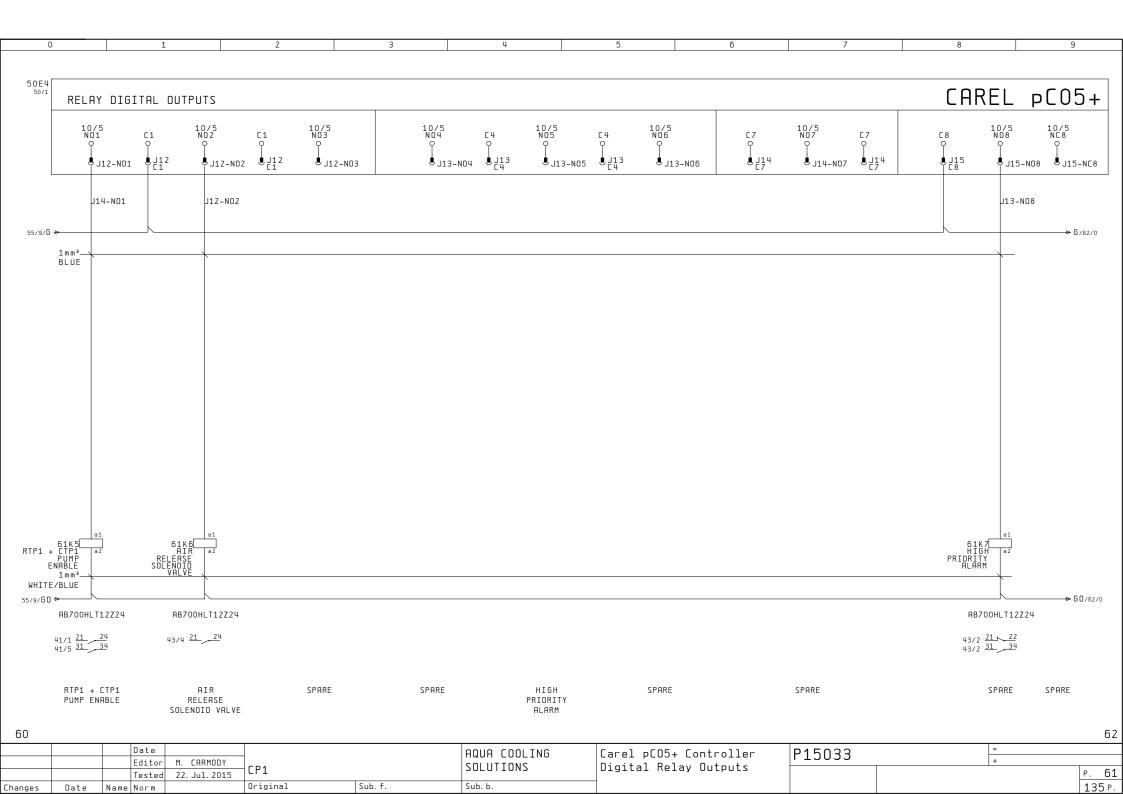
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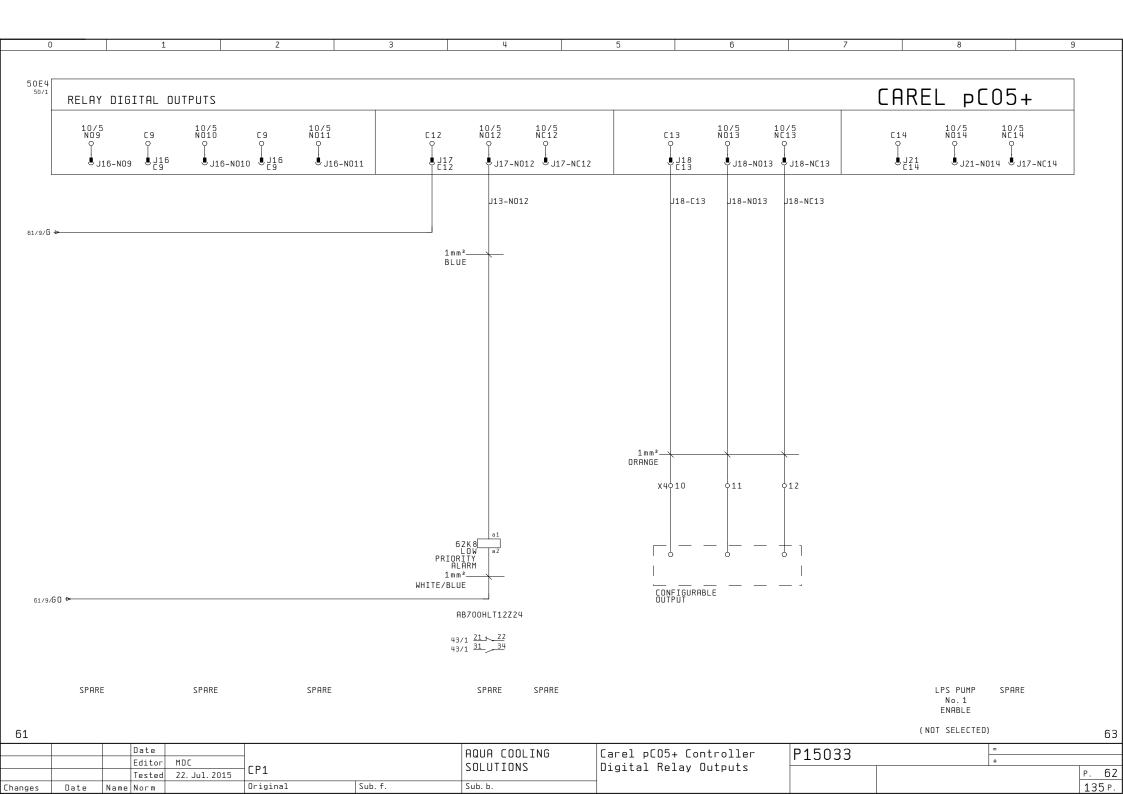
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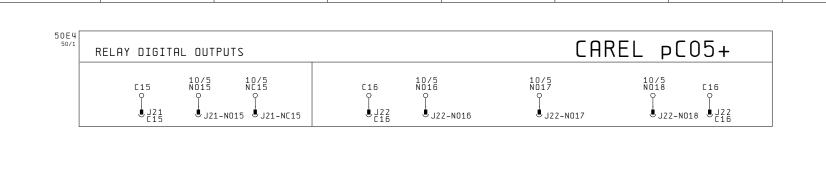


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| SOLUTIONS | Analogue Outputs | CP1 | C







LPS PUMP SPARE No. 2 ENABLE

SPARE

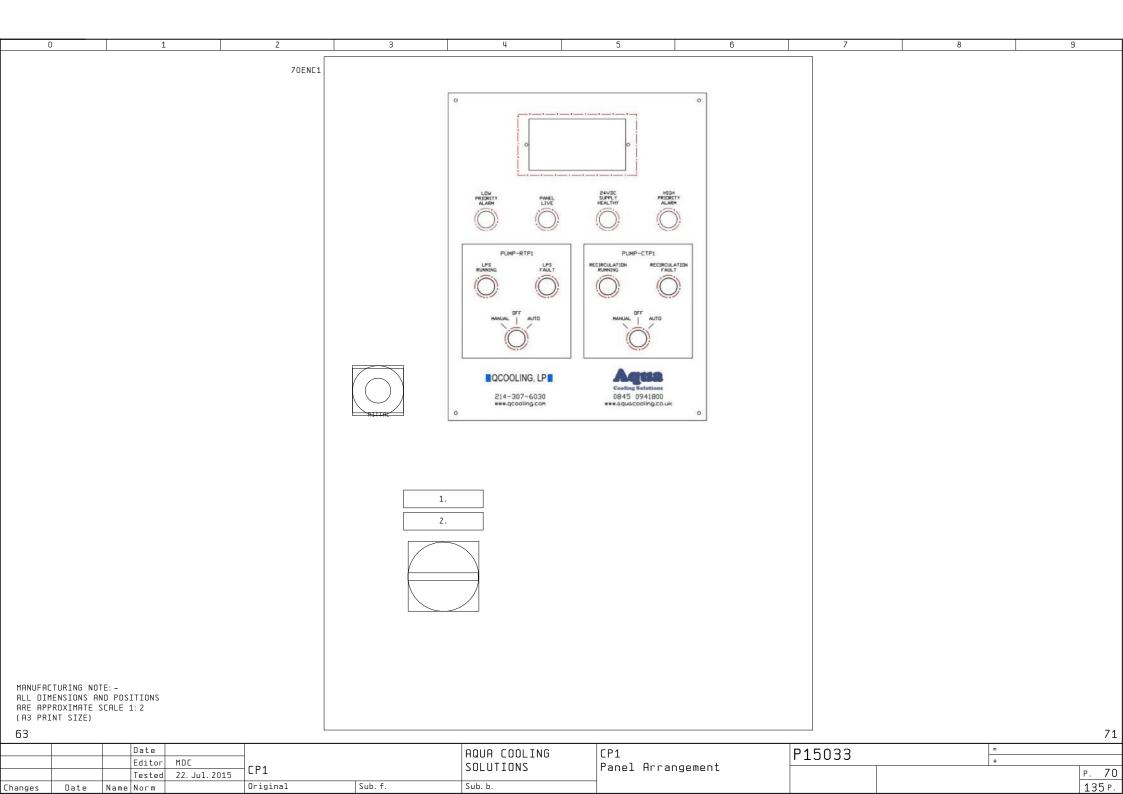
SPARE

SPARE

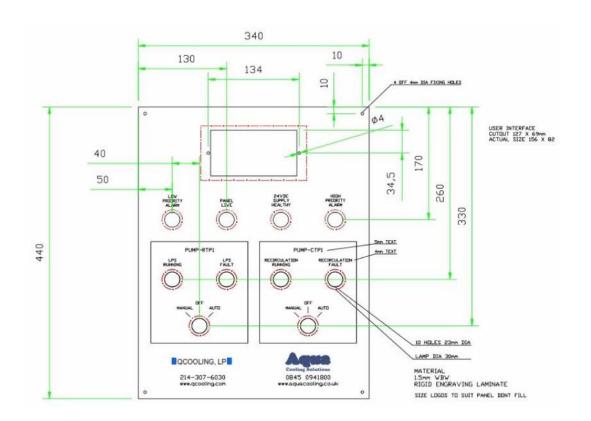
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		Tes	ted 22. Jul. 201	EP1		200011002	Digital Relay Outputs		P. 63
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71LAB1

DANGER 110VAC

71LAB2

ISOLATE HERE BEFORE OPENING DOOR

71LAB3

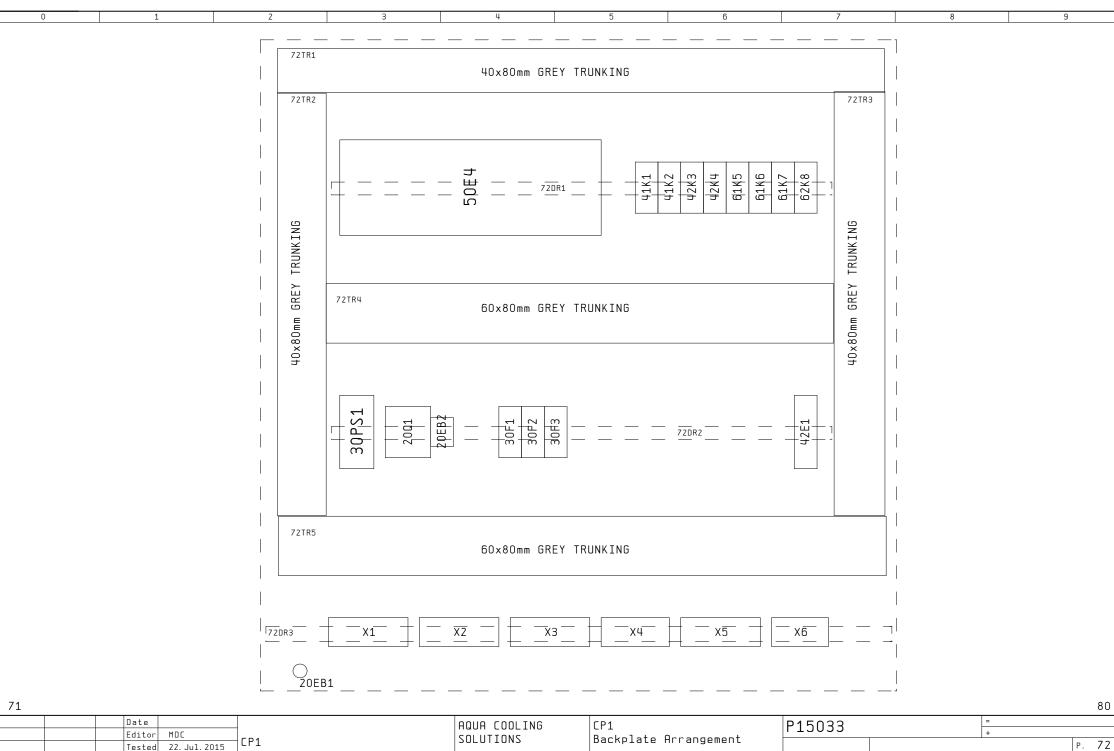
110V 24VDC SUPPLY VOLTAGE CONTROL VOLTAGE INCOMING CABLE SIZE IP RATING IP65 MANUFACTURING DATE JULY 2015 SCL GROUP PROJECT NUMBER P15033 SCL GROUP DRAWING NUMBER P15033/CP1 CLIENT AQUA COOLING SOLUTIONS CLIENT PROJECT NUMBER CNxxxx

71LAB4

NOTICE - AFTER COMMISSIONING THIS CONTROL PANEL SHOULD BE ISOLATED AND ALL TERMINATIONS TIGHTENED

70 72 Date P15033 AQUA COOLING CP1 Editor MDC SOLUTIONS Label Engraving Details CP1 P. 71 Tested 22. Jul. 2015

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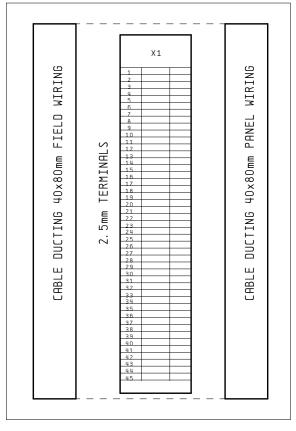
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> CP2 0 JUNCTION BOX 300mm 200mm

TERMINALS AS REQUIRED, SEE TERMINAL DIAGRAMS



MANUFACTURING NOTE: -ALL DIMENSIONS AND POSITIONS ARE APPROXIMATE SCALE 1: 2 (A3 PRINT SIZE)

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		Editor	MDC	] 		SOLUTIONS	Panel Arrangement	1 13033	+	
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DEVICE DESIGNAT	ION DESCRIPTION		MODEL TYPE/PART Nº	MANUFACTURER	UNIT QUANTITY	SCHEMATIC PAGE.PATH	LINE ITEM
2001	UL98 3 POLE 30A DISCONNECT SWITCH		AB194R-N30-1753	ALLEN BRADLEY	1	20. 1	1
2001	12" EXTENSION SHAFT		AB194R-RS1	ALLEN BRADLEY	1	20. 1	2
2001	AB194R BLACK PISTOL HANDLE		AB194R-PB	ALLEN BRADLEY	1	20. 1	3
2001	AB194R 3 POLE COVER		AB194R-30C3	ALLEN BRADLEY	2	20. 1	4
20EB1	M8x40mm BRASS HEX BOLT		M8X40	Merlin	1	20. 2	5
20EB1	M8 CUT WASHER		28M	Merlin	1	20. 2	6
20EB1	M8 BRASS WASHER		M8W	Merlin	5	20. 2	7
20EB1	M8 BRASS NUT		M8N	Merlin	3	20. 2	8
20EB2	4mm PE Terminal		57. 504. 9055. 0	WIELAND ELECTRIC	4	20. 2	9
30F1	4A 1 POLE AC C CURVE MCB		AB1489-M1C040	ALLEN BRADLEY	1	30. 1	10
30F1	4mm Terminal		57. 504. 0055. 0	WIELAND ELECTRIC	1	30. 1	11
30H1	120V 60Hz STANDARD LIGHT WITH DOOR OPERATED SWITCH		SZ 4138.250	Rittal Ltd	1	30. 1	12
30H1	Universal Bracket - AE/TP		SZ 2373.000	Rittal Ltd	2	30. 1	13
30H1	SZ CONNECTION CABLE - 3M		SZ 4315.150	Rittəl Ltd	1	30. 1	14
30F2	6A 1 POLE AC C CURVE MCB		AB1489-M1C060	ALLEN BRADLEY	1	30. 5	15
30F2	4mm Terminal		57. 504. 0055. 0	WIELAND ELECTRIC	1	30. 5	16
30F2	2.5/4mm END PLATE		07. 311. 0155. 0	WIELAND ELECTRIC	1	30. 5	17
30PS1	85264VAC 24VDC POWER SUPPLY 5A		AB1606XLE120E	ALLEN BRADLEY	1	30. 5	18
30F3	6A 1 POLE DC C CURVE MCB		AB1492-D1C060	ALLEN BRADLEY	1	30. 5	19
30H2	CLEAR PILOT LAMP		800FP-P7	ALLEN BRADLEY	1	30. 6	20
	·		,	1	1		
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	TION DESCRIPTION		MODEL TYPE/PART Nº	MANUFACTURER	UNIT	SCHEMATIC	LINE ITEM
DEALCE DESIGNA	PLASTIC MOUNTING LATCH			HINOPHETOREK	QUANTITY	PAGE. PATH	CODE Nº
30H2			800F-ALP	ALLEN BRADLEY	1	30. 6	21
30H2	110V WHITE LED MODULE		800F-N5W	ALLEN BRADLEY	1	30. 6	22
30H3	CLEAR PILOT LAMP		800FP-P7	ALLEN BRADLEY	1	30. 6	23
30Н3	PLASTIC MOUNTING LATCH		800F-ALP	ALLEN BRADLEY	1	30. 6	24
30H3	24VAC/DC WHITE LED MODULE		800F-N3W	ALLEN BRADLEY	1	30. 6	25
40VSD1	15. OKW IP55 INVERTER DRIVE		FC102P15KT4E55H5	DANFOSS	1	40. 0	26
40DI1	UL ENCLOSED STEEL FUSED DISCONNECT SWITCH		AB194R-FJ60-1753-PB	ALLEN BRADLEY	1	40. 0	27
40DI1	40A CLASS J SERIES FUSE		JKS-40	BUSSMAN	3	40. 0	28
X1	4mm Terminal		57. 504. 0055. 0	WIELAND ELECTRIC	7	40. 2	29
X1	TERMINAL END STOP		Z5. 522. 8555. 0	WIELAND ELECTRIC	2	40. 2	30
X1	4mm Knife Terminal		57. 504. 2055. 0	WIELAND ELECTRIC	3	40. 2	31
40VSD2	4. OKW IP55 INVERTER DRIVE		FC102P4K0T4E55H5	DANFOSS	1	40. 5	32
40DI2	UL ENCLOSED STEEL FUSED DISCONNECT SWITCH		AB194R-FJ30-1753-PB	ALLEN BRADLEY	1	40. 5	33
40DI2	20A CLASS J SERIES FUSE		JKS-20	BUSSMAN	3	40. 5	34
X2	4mm Terminal		57. 504. 0055. 0	WIELAND ELECTRIC	7	40. 6	35
X2	TERMINAL END STOP		Z5. 522. 8555. 0	WIELAND ELECTRIC	2	40. 6	36
X2	4mm Knife Terminal		57. 504. 2055. 0	WIELAND ELECTRIC	3	40. 6	37
CP2	200x200x80mm KL TERMINAL BOX		KL 1515.510	Rittal Ltd	1	40. 6	38
CP2	200x200x80mm KL MOUNTING PLATE		KL 1562.700	Rittal Ltd	1	40. 6	39
X1CP2	RAL 7035  2. 5mm Terminal		57. 503. 0055. 0	WIELAND ELECTRIC	12	40. 7	40
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90							92
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	NATION DESCRIPTION		MODEL TYPE/PART Nº	MANUFACTURER	UNIT	SCHEMATIC	LINE ITEM
DEALCE DESIG	2.5/4mm END PLATE			HINOPHETOKEK	QUANTITY	PAGE. PATH	CODE Nº
X1CP2			07. 311. 0155. 0	WIELAND ELECTRIC	1	40. 7	41
X1CP2	TERMINAL END STOP		Z5. 522. 8555. 0	WIELAND ELECTRIC	2	40. 7	42
4151	3 POSITION SELECTOR SWITCH		800FP-SM32	ALLEN BRADLEY	1	41. 1	43
4151	PLASTIC MOUNTING LATCH		800F-ALP	ALLEN BRADLEY	1	41. 1	44
4151	N.O. CONTACT BLOCK		800F-X10	ALLEN BRADLEY	2	41. 1	45
41H4	GREEN PILOT LAMP		800FP-P3	ALLEN BRADLEY	1	41. 2	46
41H4	PLASTIC MOUNTING LATCH		800F-ALP	ALLEN BRADLEY	1	41. 2	47
41H4	24VAC/DC GREEN LED MODULE		800F-N3G	ALLEN BRADLEY	1	41. 2	48
41K1	24VDC 2 POLE CHANGEOVER RELAY		AB700HLT12Z24	ALLEN BRADLEY	1	41. 3	49
41H5	RED PILOT LAMP		800FP-P4	ALLEN BRADLEY	1	41. 3	50
41H5	PLASTIC MOUNTING LATCH		800F-ALP	ALLEN BRADLEY	1	41. 3	51
41H5	24VAC/DC RED LED MODULE		800F-N3R	ALLEN BRADLEY	1	41. 3	52
4152	3 POSITION SELECTOR SWITCH		800FP-SM32	ALLEN BRADLEY	1	41. 5	53
4152	PLASTIC MOUNTING LATCH		800F-ALP	ALLEN BRADLEY	1	41. 5	54
4152	N. O. CONTACT BLOCK		800F-X10	ALLEN BRADLEY	2	41. 5	55
41H6	GREEN PILOT LAMP		800FP-P3	ALLEN BRADLEY	1	41. 6	56
41H6	PLASTIC MOUNTING LATCH		800F-ALP	ALLEN BRADLEY	1	41. 6	57
41H6	24VAC/DC GREEN LED MODULE		800F-N3G	ALLEN BRADLEY	1	41. 6	58
41 K 2	24VDC 2 POLE CHANGEOVER RELAY		AB700HLT12Z24	ALLEN BRADLEY	1	41. 7	59
41H7	RED PILOT LAMP		800FP-P4	ALLEN BRADLEY	1	41. 7	60
91		20110 500: 5115		D. F. C. C. C.		=	93
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DEVICE DESIGNA	TION DESCRIPTION		MODEL TYPE/PART Nº	MANUFACTURER	UNIT QUANTITY	SCHEMATIC PAGE. PATH	LINE ITEM
41H7	PLASTIC MOUNTING LATCH		800F-ALP	ALLEN BRADLEY	1	41. 7	61
41H7	24VAC/DC RED LED MODULE		800F-N3R	ALLEN BRADLEY	1	41. 7	62
Х3	4mm Knife Terminal		57. 504. 2055. 0	WIELAND ELECTRIC	5	42. 1	63
Х3	TERMINAL END STOP		Z5. 522. 8555. 0	WIELAND ELECTRIC	2	42. 1	64
хз	4mm Terminal		57. 504. 0055. 0	WIELAND ELECTRIC	5	42. 1	65
хз	2.5/4mm END PLATE		07. 311. 0155. 0	WIELAND ELECTRIC	1	42. 1	66
42K3	24VDC 2 POLE CHANGEOVER RELAY		AB700HLT12Z24	ALLEN BRADLEY	1	42. 2	67
42K4	24VDC 2 POLE CHANGEOVER RELAY		AB700HLT12Z24	ALLEN BRADLEY	1	42. 4	68
42E1	WASS CCC 20LP SIGNAL MULTIPLIER		KL8581160000	Weidmüller	1	42. 7	69
х4	4mm Terminal		57. 504. 0055. 0	WIELAND ELECTRIC	9	43. 1	70
х4	TERMINAL END STOP		Z5. 522. 8555. 0	WIELAND ELECTRIC	2	43. 1	71
х4	4mm Knife Terminal		57. 504. 2055. 0	WIELAND ELECTRIC	1	43. 1	72
43H8	YELLOW PILOT LAMP		800FP-P5	ALLEN BRADLEY	1	43. 1	73
43H8	PLASTIC MOUNTING LATCH		800F-ALP	ALLEN BRADLEY	1	43. 1	74
43H8	24VAC/DC WHITE LED MODULE		800F-N3W	ALLEN BRADLEY	1	43. 1	75
43H9	RED PILOT LAMP		800FP-P4	ALLEN BRADLEY	1	43. 2	76
43H9	PLASTIC MOUNTING LATCH		800F-ALP	ALLEN BRADLEY	1	43. 2	77
43H9	24VAC/DC RED LED MODULE		800F-N3R	ALLEN BRADLEY	1	43. 2	78
Х6	4mm Terminal		57. 504. 0055. 0	WIELAND ELECTRIC	10	43. 6	79
Х6	TERMINAL END STOP		Z5. 522. 8555. 0	WIELAND ELECTRIC	2	43. 6	80
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DEVICE DESIG	NATION DESCRIPTION		MODEL TYPE/PART Nº	MANUFACTURER	UNIT QUANTITY	SCHEMATIC PAGE.PATH	LINE ITEM
Х6	2.5/4mm END PLATE		07. 311. 0155. 0	WIELAND ELECTRIC	1	43. 6	81
50E3	PGD1 GRAPHICS TERMINAL		PGD1000FW0	Carel	1	50. 1	82
50E4	pCO5+ CAREL CONTROLLER LARGE FB/BMS, NO OPTO, NO USB		P+500B0A000L0	Carel	1	50. 1	83
X5	3 Tier Terminal		57. 503. 8855. 0	WIELAND ELECTRIC	7	51. 2	84
X5	TERMINAL END STOP		Z5. 522. 8555. 0	WIELAND ELECTRIC	2	51. 2	85
X5	70 WAY BLUE COMB		Z7. 267. 0027. 6	WIELAND ELECTRIC	1	51. 2	86
- X 4	4mm Knife Terminal		57. 504. 2055. 0	WIELAND ELECTRIC	1	54. 1	87
- X 4	4mm Terminal		57. 504. 0055. 0	WIELAND ELECTRIC	1	54. 1	88
- X 4	2.5/4mm END PLATE		07. 311. 0155. 0	WIELAND ELECTRIC	1	54. 1	89
-X5	3 Tier Terminal		57. 503. 8855. 0	WIELAND ELECTRIC	4	55. 2	90
61K5	24VDC 2 POLE CHANGEOVER RELAY		AB700HLT12Z24	ALLEN BRADLEY	1	61. 0	91
61K6	24VDC 2 POLE CHANGEOVER RELAY		AB700HLT12Z24	ALLEN BRADLEY	1	61. 1	92
61K7	24VDC 2 POLE CHANGEOVER RELAY		AB700HLT12Z24	ALLEN BRADLEY	1	61. 8	93
62K8	24VDC 2 POLE CHANGEOVER RELAY		AB700HLT12Z24	ALLEN BRADLEY	1	62. 4	94
70ENC1	800x600x250mm AE ENCLOSURE		AE 1058.500	Rittəl Ltd	1	70. 2	95
-71LAB1	105x20mm ENGRAVED LABEL - Y/B/Y		LAB8	CE Controls	1	71. 5	96
-71LAB2	105x20mm ENGRAVED LABEL - Y/B/Y		LAB8	CE Controls	1	71. 5	97
-71LAB3	RATING PLATE		LAB10	CE Controls	1	71. 5	98
-71LAB4	COMMISSIONING NOTICE		LAB11	CE Controls	1	71. 5	99
-72TR1	40X80mm NARROW TRUNKING		E154	Lovato Electric	1	72. 2	100
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	NATION DESCRIPTION		MODEL TYPE/PART Nº	MANUFACTURER	UNIT	SCHEMATIC PAGE. PATH	LINE ITEM
-72TR2	40X80mm NARROW TRUNKING		E154	Lovato Electric	1	72. 2	101
-72TR6	60x80mm NARROW TRUNKING		E114	Lovato Electric	1	72. 2	102
-72TR4	40X80mm NARROW TRUNKING		E154	Lovato Electric	1	72. 3	103
-72TR5	40X80mm NARROW TRUNKING		E154	Lovato Electric	1	72. 3	104
-72DR2	35mm X 15mm TOP HAT SLOTTED RAIL HEAVY DUTY		TS35HS	Lovato Electric	1	72. 6	105
-72DR3	35mm X 15mm TOP HAT SLOTTED RAIL HEAVY DUTY		TS35HS	Lovato Electric	1	72. 6	106
-72DR1	35mm X 15mm TOP HAT SLOTTED RAIL HEAVY DUTY		TS35HS	Lovato Electric	1	72. 6	107
-72TR3	40X80mm NARROW TRUNKING		E154	Lovato Electric	1	72. 7	108
-72DR4	35mm X 15mm TOP HAT SLOTTED RAIL HEAVY DUTY		TS35HS	Lovato Electric	1	72. 7	109
94							102
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PUMP - CTP							В	lac	k	-40TT				+ V	2	0			DVSD2		13 E					40/7
PUMP - CTP								_	SH	W4OTT				SHIELD	3				DVSD2		SHL		SH			40/7
		RESSURE No. 1					Whit	e	_	-51PT				2	4	р	UE	3 -X5			4 COM	W	/hit	e		51/7
		RESSURE No. 1				-	Blac	k H		-51PT				SHIELD	5 6	ρ 6		-X5			COM	<u> B</u>	lac			51/7
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AIR RELEA							1		BSV1			1		5 0			-61K9		24			X		43/4
AIR RELEA							2		BSV1			2		6 0			-43H9		x1	Ц			X	43/4
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Target design.   Targ	9 ESSK034
Strip designation	ESSK034
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Note	
CHILLER FLOW TEMPERATURE	Page/ path
CHILLER RETURN TEMPERATURE	51/2
DATA CENTRE FLOW PRESSURE No. 1	51/4
DATA CENTRE FLOW PRESSURE No. 2	51/5
DATA CENTRE RETURN TEMPERATURE   White	51/7
DATA CENTRE FLOW TEMPERATURE   White	51/8
VENTURI INLET PRESSURE         Black         -51PT3         1 COM         -X3         10         X         X         CHILLER FLOW TEMPERATURE         J3GND         X         X         D3GND         X         D3GND         X         D3GND         X         D3GND         D3GND         X         D3GND	52/3
CHILLER FLOW TEMPERATURE  Black  -51TT1  COM  -50E4  J3GND  X  DATA CENTRE FLOW PRESSURE No. 1  DATA CENTRE FLOW PRESSURE No. 2  DATA CENTRE FLOW PRESSURE No. 2  DATA CENTRE FLOW TEMPERATURE  Black  X1CP2  X1CP2  X1CP2  X1CP2  X1CP2  S COM  COM  -50E4  J3GND  X   X   -50E4  J3GND  X   X   -50E4  J3GND  X   -50E4  J3GND  X  -50E4  J3GND  X  -50E4  J3GND  X  -50E4  J3GND  X  -50E4  J3GND  X  -50E4  J3GND  X  -50E4  J3GND  X  -50E4  J3GND  X  -50E4  J2GND  X  -52TT3  COM  -50E4  J2OGND  X  X  -52TT3  X1CP2  11 COM  -50E4  J2OGND  X  X  -52TT3  X1CP2  11 COM  -50E4  J2OGND  X  -52TT3  XICP2  11 COM  -50E4  J2OGND  X  SHILLD SCN  CHILLER FLOW TEMPERATURE  CHILLER FLOW TEMPERATURE  SH W51TT1  SHIELD SCN  CHILLER FLOW TEMPERATURE  SH W51TT2  SHIELD SCN  -50E4  J2OGND  X  SH W51TT1  SHIELD SCN  -50E4  J2OGND  X  SH W51TT2  SHIELD SCN  -50E4  J2OGND  J	52/5
CHILLER RETURN TEMPERATURE  Black  -51TT2  COM  -50E4  J3GND  X  DATA CENTRE FLOW PRESSURE No. 1  Black  X1CP2  S COM  X1CP2  S COM  COM  COM  COM  COM  COM  COM  COM	51/2
DATA CENTRE FLOW PRESSURE No. 1  DATA CENTRE FLOW PRESSURE No. 2  DATA CENTRE RETURN TEMPERATURE  Black  SH  VICP2  X1CP2  S COM  GND -50E4  J20GND  X  VENTURI INLET PRESSURE  CHILLER FLOW TEMPERATURE  SH  W51TT1  W51TT2  SHIELD  SCN  GND -50E4  J20GND  X  COM  COM  COM  COM  COM  COM  COM	51/4 51/5
DATA CENTRE FLOW PRESSURE No. 2  DATA CENTRE RETURN TEMPERATURE  Black  DATA CENTRE FLOW TEMPERATURE  Black  VENTURI INLET PRESSURE  CHILLER FLOW TEMPERATURE  SH  W51TT2  SHIELD  SCN  GND  GND  GND  GND  GND  GND  GND  G	51/5
DATA CENTRE RETURN TEMPERATURE  Black  -52TT3  COM O GND -50E4  J20GND X  X1CP2  SHIELD SCN O SON O SO	51/8
DATA CENTRE FLOW TEMPERATURE  Black  VENTURI INLET PRESSURE  CHILLER FLOW TEMPERATURE  SH  W51PT3  SHIELD  SCN  CHILLER RETURN TEMPERATURE  SH  W51TT2  SHIELD  SCN  W51TT2  SHIELD  SCN  W51TT2	52/4
VENTURI INLET PRESSURE  CHILLER FLOW TEMPERATURE  SH W51PT3 SHIELD SCN CHILLER RETURN TEMPERATURE  SH W51TT1 SHIELD SCN W51TT2 SHIELD SCN	52/9
CHILLER FLOW TEMPERATURE SH W51TT1 SHIELD SCN CHILLER RETURN TEMPERATURE SH W51TT2 SHIELD SCN CHILLER RETURN TEMPERATURE	51/2
CHILLER RETURN TEMPERATURE SH W51TT2 SHIELD SCN	51/2
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n	51/3
DATA CENTRE FLOW PRESSURE No. 2 SH X1CP2 9 SCN	51/8
DATA CENTRE RETURN TEMPERATURE SH W52TT3 SHIELD SCN	52/4
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Terminal strip and connector overview ESSR001E Terminals Graphics page of Terminal strip and Text of the strip definition Sum of all Sum of all Total the terminal strip connector design. first last PΕ Ν number J4VG19-ID16H -50E4 0 0 90 -51PT3 2 0 1 2 0 -51PT4 2 2 0 0 1 -51PT5 1 2 0 0 2 -40VSD1 13 SHL 0 0 6 100 -40VSD2 13 0 0 6 SHL 101 X1CP2 1 12 0 0 12 102 -X1 1 0 0 10 10 103 -X2 0 1 10 0 10 104 -X3 1 10 1 0 10 105 -X4 1 9 1 0 9 106 -X5 SCN 0 21 107

107 109 Date 15. Jun. 2015 AQUA COOLING P15033 Terminal strip and Editor MDC SOLUTIONS connector overview CP1 P. 108 Tested 22. Jul. 2015 Original Sub. f. Sub. b.

Changes

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Cable overview ESSS002E Cable name Target Total Used Graphics-Source Crosssection Cable designation to Cable type Page Ьу Cores Cores  $mm^2$ Remark -40VSD1 4/PE PUMP - RTP1 LPS ISDLATOROTO VS -40DI1 W40DI1 YYNR 4/PE 6 W40DI2 -40DI2 -40VSD2 YYNR 4/PE 4/PE 2.5 PUMP - CTP1 RECIRCULAT10N SYNR 4/PE+SHIELD 2. 5 PUMP - RTP1 LPS W40M1 4/PE+SHIELD 112 -40M1 -40VSD1 4/PE+SHIELD 4/PE 2.5 PUMP - RTP1 LPS 112 SHIELD -40VSD1 4/PE+SHIELD O+SHIELD 2.5 PUMP - RTP1 LPS 112 SYNR W40M2 2.5 PUMP - CTP1 RECIRCULAT108 4/PE+SHIELD 4/PE+SHIELD -40VSD2 4/PE 2.5 -40M2 4/PE+SHIELD PUMP - CTP1 RECIRCULAT**108** 

	SHIELD	-40VSD2		4/PE+SHIELD	0+SHIELD	2. 5		PUMP - CTP1 RECIP	RCULAT <b>10</b> 8
W40TT5	X1CP2	-40TT5	8761	2+SHIELD	2+SHIELD	0.3	-	CTP1 TEMPERATURE	SENSOR14
W40VSD-M1	-40VSD1	-40VSD2	9841	2+SHIELD	2+SHIELD	0.3	-	MODBUS NETWORK	115
W40VSD-M2	-40VSD2	-X2	9841	2+SHIELD	2+SHIELD	0.3	-	MODBUS NETWORK	116
W40VSD1	-40VSD1	-X1	8761	2+SHIELD	2+SHIELD	0.3	-	VENTURI FLOW PRES	SSURE 117
N40VSD2	-40VSD2	X1CP2	8761	2+SHIELD	2+SHIELD	0.3	_	CTP1 TEMPERATURE	SENSOR18
142FS1	-X3	-42FS1	YYNR	4/PE	4/PE	0.75	_	VENTURI THERMAL F	-LDW S <b>W19</b> C
42LS1	-X3	-42LS1	YYNR	2	2	0.75	_	LEAK LEVEL SENSOF	₹ 120
142PT1	-X3	-42PT1	8761	2+SHIELD	2	0.3	_	NEGATIVE VENTURI	SUCTION1N
142PT2	-X3	-42PT2	8761	2+SHIELD	2	0.3	_	NEGATIVE VENTURI	SUCTI <b>DM</b> 2N
43SV1	-X4	-43SV1	YYNR	3/PE	3/PE	0.75	_	AIR RELEASE SOLEM	NOID VALZIE
51PT3	-51PT3	-X5	8761	2+SHIELD	2+SHIELD	0.3	_	VENTURI INLET PRE	SSURE124
151PT4	-51PT4	X1CP2	8761	2+SHIELD	2+SHIELD	0.3	_	DATA CENTRE FLOW	PRESSUR5
I51PT5	-51PT5	X1CP2	8761	2+SHIELD	2+SHIELD	0.3	-	DATA CENTRE FLOW	PRESSUR6
51TT1	-X5	-51TT1	8761	2+SHIELD	2+SHIELD	0.3	_	CHILLER FLOW TEMP	PERATURE7
51TT2	-X5	-51TT2	8761	2+SHIELD	2+SHIELD	0.3	_	CHILLER RETURN TE	MPERAIØRE
52TT3	-X5	-52TT3	8761	2+SHIELD	2+SHIELD	0.3	-	DATA CENTRE RETUR	RN TEMPERA
52TT4	X1CP2	-52TT4	8761	2+SHIELD	2+SHIELD	0.3	-	DATA CENTRE FLOW	TEMPERBOL
X1-40VSD1	-X1	-40VSD1	YYNR	8/PE	7	1.5	-	40VSD1 CONTROL	131
X2-40VSD2	-X2	-40VSD2	YYNR	8/PE	7	1.5	-	40VSD2 CONTROL	132
IX5. 1	X1CP2	-X5	8761	2+SHIELD	2+SHIELD	0.3	_	DATA CENTRE FLOW	PRESSUBE
IX5. 2	X1CP2	-X5	8761	2+SHIELD	2+SHIELD	0.3	_	DATA CENTRE FLOW	PRESS <b>UB</b> €
√X5. 3	X1CP2	-X5	8761	2+SHIELD	2+SHIELD	0.3	_	DATA CENTRE FLOW	TEMPER85L
				I					
	te 15. Jun. 2015		AQUA COOLIN	IG Coble avanutar	D41	E022		=	
	itor MDC		HUUH LUULIN	IG Cable overview	PT:	5033		+	

Editor MDC SOLUTIONS P. 109 Tested 22. Jul. 2015 135 P. Name Norm Original Sub. f. Sub. b. Changes Date

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ESSN001E		Cable length	Function	- 1	1	1	7 TEUT 1																		
		a . e a	Page/ path				40/1																		
		nductor	Сопп.	91L1	92L2	93L3	Д П																		
type		ores	Destination to	-40VSD1	-40VSD1	-40VSD1	-400501																		
IM Cable type	YYNR	No. of cores 4/PE	Cable	$\leftarrow$	2	m ¦	<u>т</u>																		
diagram			Сопп.	2	ħ	٥	<del>Т</del>																		
			Destination from	-40DI1	-40DI1	-40011	-40011																		
nnection		LPS VSD	Page/ path	0/0h	0/0h	0/0h	0/04																		
Interconn Cable designation	WHODIT	Remark PUMP - RTP1   ISOLATOR TO	Function	1	1	1	.T																		
109	Т	Date	15. Jun	2015						00:	505:	TNO	1,111,05					1-	2450				=		111
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ESSN001E		Cable length	Function	- 1	1	1	PUMP - CTP1																							
		ar ea	Page/ path	_			9/0h																							
		nductor 5	Сопп.	91L1	92L2	93L3	PE																							
Cur		s s o l o	Destination to	-40VSD2	-40VSD2	-40VSD2	-408802																							
	YYNR	No. of cores 4/PE	Cable	-	2	m	PE																							
diagram			Сопп.		Ŧ	9	PE																							
		RECIRCULATION VSD	Destination from	-40DI2	-40DI2	-40DI2	-40DI2																							
nnection		RECIR	Page/ path	40/2	40/2	40/2	40/2																							
Intercon	M40DI2	Remark PUMP - CTP1 F ISOLATOR TO	Function	1	1	- 1	PUMP - CTP1																							
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ESSN001E		Cable length	Function	PUMP - RTP1																										
		an nea	Page/ path	0/0h	40/1	40/1	40/1	40/1																						
		nductor 5	Сопп.	960	787	M98	PE	PE																						
	- Cybe	HIELD	Destination to	-40VSD1	-40VSD1	-40VSD1	-40VSD1	-40VSD1																						
	SYNR	No. of cores 4/PE+SI	Cable	-	2	m	PE	SH																						
diagram			Conn.	N1	٧1	ΜĦ	PE																							
			Destination from	-40M1	-40M1	-40M1	-40M1	SHIELD																						
nnection		LPS	Page/ path	0/0h	0/0h	0/0h	0/0h	40/1																						
	W40M1	Remark PUMP - RTP1 L VSD TO PUMP	Function	1	PUMP - RTP1	- 1	1	PUMP - RTP1																						
111																														113
		Date Editor Tested													OLIN NS	G	W40M PUMP	1 - F	RTP1	LPS		F	P150	33			+			P. 112

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ESSN001E		Cable length	Function	PUMP - CTP1																								
		area	Page/ path	40/2	40/2	40/2	9/0h	9/0h																				
		nductor 5	Сопп.	960	767	M98	PE	PE																				
		HIELD	Destination to	-40VSD2	-40VSD2	-40VSD2	-40VSD2	-40VSD2																				
	SYNR	No. of cores 4/PE+SI	Cable	$\vdash$	2	n	PE	SH																				
diagram			Сопп.	U1	٧1	M1	PE																					
		RECIRCULATION	Destination from	-40M2	-40M2	-40M2	-40M2	SHIELD																				
nnection		RECIR	Page/ path	40/2	40/2	40/2	40/2	9/0h																				
	M40M2	Remark PUMP - CTP1 F VSD TO PUMP	Function	PUMP - CTP1	PUMP - CTP1	- 1	PUMP - CTP1	PUMP - CTP1																				
112																												114
		Date Editor Tested	15. Jun MDC 22. Jul		$\Box$ _	P1					AQUA SOLU	COO TION	LING S	F	V40M2 PUMP	- C	TP1 R	ECIR	CULATI	ON	P15	033			+			P. 113

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ESSN001E			Cable length	I	Function																									
			area		Page/ path	9/0h	9/05																							
			Conductor a	0.3	Сопп.	>+	SIG	HIELD																						
	ש מ ת	$\leftarrow$		2+SHIELD 0	Destination to			W40TT5SHIELD																						
الله الله	1 GDT (	8761	No. of cores	2+5	Cable	Black	White	SH																						
agr a					Сопп.	2	⊣	m																						
ion diagr				SENSOR	Destination from	X1CP2	X1CP2	X1CP2																						
nnection					Page/ path	40/7	40/2	40/1																						
Interconn		W40TT5	Remark	CTP1 TEMPERATURE	Function	1	1	PUMP - CTP1																						
113																														115
				Date Editor Tested			-c	P1		Sut			AQUA SOLU	COO	LING	3	h	140TT TP1	5 TEMP	ERA'	TURE S	ENS	DR	P15	033			+		P. 11 <sup>4</sup>

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ESSN001E			Cable length	1	Function																					
			area		Page/ path	40/2	40/2																			
			Conductor	0.3	Conn.	68.	.69	HIELD																		
	and A	1		2+SHIELD C	Destination to			W40VSD-M1 SHIELD																		
am E	- A	9841	No. of cores	2+SH	Cable	68Blu/Whi	69Whi/Blu	TS .																		
diagra					Conn.	68B	469	91																		
					Destination from		-40VSD1	-40VSD1																		
nnection				XX XX	Page/ path	40/3	40/3	40/3																		
$\equiv$ $\Box$	רפחדה מפאדאוופודסוו	W40VSD-M1	Remark	MODBUS NETWORK	Function	1	1	PUMP - RTP1																		
.4																										1
				Date Editor Tested				P1				COOL	i	W	HOVSI DBU:	D-M1 S NET	ΓWΟF	RK		P15	033			+		P. 1

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		e 9			_																												
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type	<u> </u>	f cores	HIELE	Destinat	· <u>-</u> -	n																											
Cable	986	N .	2+8	Cable	8B1u/W	9Whi/B.																											
				Conr																													
				Destination fro	-40VSDZ	-40VSD2	-40VSD2																										
			RK	-		40/8	40/8																										
e designation	JVSD-M2	*	岁	1	- 1	1	1																										
Cable	) Md(	Remar	MOI	Funct	PUM	PUM	PUM																										117
				15. Jun.	. 2015								F	aqua	COOL	ING		W4	OVSD-	-M2					P15	<u> </u>				=			11/
				MDC 22. Jul.	. 2015	'	P1						5	OLUT	rions			MO	DBUS	NET	WORK			-						+			P. 116
	Cable type	designation Cable type VSD-M2 9841	Cable designation  W40VSD-M2  Remark  No. of cores  Cable type  W40VSD-M2  Output  Remark  No. of cores  Cable length	M40VSD-M2  Remark  MODBUS NETWORK  Cable type  9841  No. of cores  Conductor area  Cable length  2+SHIELD  0.3  -	Cable designation   Cable type   W40VSD-M2   9841	M40VSD-M2   9841	Cable designation   Cable designation   Cable designation   W40VSD-M2   9841	M40VSD-M2   9841	M40VSD-M2   9841	M40VSD-M2   9841	M40VSD-M2   M40VSD-M40VSD-M2   M40VSD-M2   M40VSD-M2	M40VSD-M2   9841	M40VSD-M2   9841   No. of cores   Conductor area   Coble Length   M40VSD-M2   9841   No. of cores   Conductor area   Coble Length   M0DBUS NETWORK   Z+SHIELD   O. 3   -	Ceble designetion	M40VSD-M2   Sept.   Conductor area   C	Material   Material	Mathematical   Math	Mathematical Court   Court	Mudovsource   Cobin designation   Cobin designation   Cobin designation   Mudovsource   September   Mudovsource   September   Cobin designation   Cobin designation	MAOVSD-M2   September   Manual   Manual   Manual   Manual   Made   Manual   Manual	Cable type   Cab	MAOVSD-M2   MAOV	M40 VS D-M2	M40 VSD-M2   September   Color   Col	19841   1998	MAOVSD-M2   MAOV	MATONSD-M2   MATONSD-M2   MATONSD-M2   MATONSD-M2   MATONSD-M3   MAT	MADVSD-M2   Sept   MADVSD-M2	MADVSD-NZ   Section   MADVSD-NZ   MADVSD-NZ	MOVSD-M2	MUNOVSD-M2   Sept.   Munovspectron   Sept.   Sept.   Munovspectron   Sept.   Sept.	MOVSD-N2   See   Const.   See   Const.   See   Const.   See   Se	W40VSD-M2

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ESSN001E			Cable length	I	Function																								
			area		Page/ path	40/2	40/2	40/2																					
			tor	<u>.</u>	Сопп.	თ	ω	10																					
	a d d d			2+SHIELD 0.	Destination to		-X1	-X1																					
الله الله	A761		No. of cores	2+SH	Cable	Black	White	HS.																					
gra					Сопп.	13	24	몽																					
ion diagr				SURE	Destination from		-40VSD1	-40VSD1																					
nnection				PRESSURE	Page/ path	40/5	40/2	40/2																					
	rable designation	T I O A O F M		VENTURI FLOW	Function	FLOW PRESSURE		FLOW PRESSURE																					
16																													118
			E	Date Editor Tested	15. Jun MDC 22. Jul			P1				AQUA SOLU	COO	LING	3	h V	140VS 'ENTL	D1 IRI F	LOW	PRESS	URE	P15	033			+		Р	. 117

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ESSNOO1E		Cable length	ı	Function																										
		area		Page/ path	40/2	40/J	40/2																							
		Conductor a	ო	Сопп.	2	$\leftarrow$	m																							
	type T		2+SHIELD 0.	Destination to			X1CP2																							
<b>E B</b>	Lable type 8761	No. of cores	Z+SI	Cable	ВТаск	White	HS																							
gr a				Сопп.	13	24	SH																							
ion diagr			SENSOR	Destination from	-40VSD2	-40VSD2	-40VSD2																							
nnection				Page/ path			40/2																							
	WHOVSD2	Remark	CTP1 TEMPERATURE				TEMPERTURE SENSOR																							
117																														119
			Date													ING	W4 CT	OVSD P1 T	2 EMPEF	RATURI	E SEN	ISOR	F	°150	)33			+		P. 118

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ESSN001E			Cable length	ı	Function																									
			area		Page/ path	42/2	42/2 112/2	42/2																						
			<u>_</u>	0.75	Сопп.	$\leftarrow$	m =	± H																						
	.ype	۲	ores		Destination to	-42FS1	-42FS1	-42F31 -42FS1																						
E .	Lable type	YYNR	No. of cores	4/PE	Cable	Н	2	o ا																						
diagram				Ŧ	Conn.	m	ש לב	n																						
				FLOW SWITCH	Destination from Conn.	-X3	EX-	- X3																						
nnection				IERMAL F	Page/ path	42/2	42/3 112/3	42/3 42/3																						
	Labie designation	W42FS1	Remark	VENTURI THER	Function	FLOW SWITCH	FLOW SWITCH	FLOW SWITCH																						
118			l r	Date	15. Jun.	2015							2110	רחמי	TNC	1101	)FC4							122			=	=		120
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ESSN001E		Cable length	ı	Function																				
		anea			42/0 42/0																			
		Conductor an	0.75		1+VE 3DRY																			
	type <b>~</b>	ores	<u> </u>		-42LS1 -42LS1																			
e E	Cable type YYNR	No. of cores	2	Cable	1 2																			
agra				Сопп.	1 2																			
ion diagr					- X3 - X3																			
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	Lable designation	Remark	LEAK LEVEL SE		LEAK LEVEL SENSOR LEAK LEVEL SENSOR																			
119			n. 1	15 '	2045													I				=		121
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			ductor	ლ .	Conn.	$\vdash$	2																					
	, y p e			2+SHIELD 0.	Destination to	-42PT1	-42PT1																					
a E	Lable type	8761	No. of cores	2+SF		Black	White	5																				
g L G				No. 1		ω	7																					
ion diagr				SUCTION N	Destination from Conn.	- X3	-X3																					
nnection				ENTURI	Page/ path	42/6	42/5																					
	Lable designation	W42PT1		NEGATIVE VENI			NEGATIVE VENTURI																					
120			1-		45	2015						ı										1_				=		122
			E	ditor	15. Jun. MDC 22. Jul.		СР			C,.L	£	S	OLUT	COOL:	LNG	NE	2PT1 GATI\	VE VE	NTURI	SUC	TION N	P1	5033			+		P. 121 135 P.
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ESSN001E			Cable length	I	Function																								
			area		Page/ path	42/6	42/6																						
			Conductor	0.3	Сопп.	$\leftarrow$	2																						
	- Lype			2+SHIELD 0	Destina		-42PT2																						
الله الله	A 7 K 1		No. of cores	2+SH	Cable	Black	White	HS.																					
gra				No. 2	Сопп.	10	6																						
ion diagr				SUCTION N	Destination from Conn.	-X3	-X3																						
nnection				'ENTURI	Page/ path	42/7	42/6																						
	ranze designation	7   17tm	Remark	NEGATIVE VEN			NEGATIVE VENTURI																						
121																													123
			1	Date Editor Tested	15. Jun MDC 22. Jul		c	P1				At St	DLUT	COOL IONS	ING	W	42PT EGAT	2 IVE	VEN	ΓURI S	SUCT	ION N	P15	5033			+		P. 122

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			area			h/£h	h/8h	43/4																						
			ductor	0.75	Сопп.	₽	2	Д																						
	ad A	•	ores		Destination to	-438V1	-43SV1	-435V1																						
a E	rable type	YYNR	No. of cores	3/PE	Cable	$\leftarrow$	2	A L																						
gra					Сопп.	Ŋ	9	7																						
ion diagr				OID VALVE	Destination from	hX-	hX-	hX-																						
nnection				SOLENOID	Page/ path	h/8h	h/8h	h/8h																						
	rabie designation	M43SV1		AIR RELEASE	Function			SOLENDID VALVE																						
122			1-	1-4-	15. Jun.	2045																	T_ :				=			124
			E	ditor	MDC 22. Jul.		CF			S 5	:	S	OLUT	COOL	ING	H]	I3SV1 IR RE	LEAS	SE S	SOLENO	ID \	/ALVE	P15	5033			4		Р.	123
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ESSN001E																										
ES		Cable length		ПО																						
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		area		Page/ path	51/2	7/72																				
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		ت		lon to	1 X X	-X5																				
d ()		cores	2+SHIELD	Destination to																						
المالية المالي	8761	No. of cores	2+SF		Black	Wnite SH																				
agr 6				Сопп.		2 HIELD																				
on diagr			PRESSURE	Destination from	-51PT3	-JIPI3 W51PT3 SHIEL																				
nnection				-		21/2																				
CO CO	W51PT3	ark	VENTURI INLET		INLET PRESSURE	INLET PRESSURE																				
123	SM2	Remark		Func	N P	INI INI																				125
172			Date	15. Jun.	. 2015	Τ				٥	חוום	COOLI	NG	W51PT	. 3					P15	J 3 3			=		173
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				PRESSURE	Destination from	-51PT4	-51PT4	W51PT4 SHIELD																						
nnection				FLOW	Page/ path	51/7	51/7	51/7																						
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E	Cable type	8761	No. of		Cable	Black	White	5																						
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			tor	0.3	Сопп.	2	2	HIELD																									
	, Vpe			2+SHIELD C	Destination to	-51111	-51111	W51TT1SHIELD																									
©	Cable type	8/61	No. of cores	2+SH		Black	White	동																									
agr a					Сопп.	СОМ	2	SCN																									
ion diagr				TEMPERATURE	Destination from	-X5	-X5	-X5																									
nnection					Page/ path	51/4	51/4	51/4																									
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			E	Date Editor Tested	15. Jun MDC 22. Jul		□,	P1					AQL SOL	JA C UTI	OOL I ONS	NG		W5 CH	S1TT:	1 ER F	LOW	TEMPE	ERAT	URE	P1	5033	3			+			P. 127
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a c	ע ב		2+SHIELD (	Destination to	-51172	-51TT2 ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	, , , , , , , , , , , , , , , , , , ,																				
	8761	No. of cores	2+SH		Black	White																					
agr a				Сопп.		e z																					
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			area		Page/ path F	52/3	52/3																								
			Conductor a	0.3	Сопп.		2	SHIELD																							
	type	•		2+SHIELD (	Destination to			W52TT3SHIELD																							
<b>©</b>	Cable type	8761	No. of cores		Cable		White	HS.																							
agr a				TURE	Сопп.	СОМ	9	SCN																							
ion diagr				'N TEMPERATURE	Destination from Conn.	-X5	-X5	- X5																							
nnection				RETURN	Page/ path	52/4	52/3	52/4																							
	Cable designation	W52TT3	Remark	DATA CENTRE I	≗.			RTN. TEMPERATURE																							
128																	 -														130
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a E e	8761	, o	2+S	Cable	Black	White	HS.																						
gr 6			R E	Сопп.	11	10	12																						
ion diagr			TEMPERATURE	Destination from	X1CP2	X1CP2	X1CP2																						
nnection			FLOW	Page/ path	52/5	52/5	52/5																						
erco	W52TT4		A CENTRE		FLOW TEMPERATURE		FLOW TEMPERATURE																						
129																													131
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		a e a		Page/ path	0/0h	0/0h	0/0h	0/0h	0/0h	0/0h	0/05																		
		ductor		Сопп.	18+32	12+27	33	01	02	04	05																		
0.17		ores	<u>←i</u>	Destination to	-40VSD1	-40VSD1	-40VSD1	-40VSD1	-40VSD1	-40VSD1	-40VSD1																		
المال	YYNR	No. of cores	8/PE	Cable	1	2	m	±	Ŋ	9	7	밆																	
gle				Сопп.	⊣	2	m	t	2	9	_																		
ion diagr				Destination from	-X1	-X1	-X1	-X1	-X1	-X1	-X1																		
nnection		0-		Page/ path	40/5	40/5	40/5	40/3	40/3	40/3	40/3																		
Interconn	WX1-40VSD1	Remark 40VSD1 CONTROL		Function	PUMP - RTP1	PUMP - RTP1	1	PUMP - RTP1	1	PUMP - RTP1	PUMP - RTP1																		
130														 			 		 		 			 					132
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40VSD1 CONTROL P. 131 135 P.

Thection diagram   Colores   Color	9
A   A   A   A   A   A   A   A   A   A	
Aight   Continue   C	
diagram       Cable type       YYNR       No. of cores     Incoductor at a core       AZ     1     1     5       -X2     2     -40VSD2     18+32       -X2     2     -40VSD2     18+32       -X2     3     -40VSD2     00       -X2     5     5     -40VSD2     00       -X2     5     5     -40VSD2     00       -X2     7     7     -40VSD2     00       -X2     7     7     -40VSD2     05       -X3     7     7     -40VSD2     05       -X3     8     -40VSD2     05       -X4     9     -40VSD2     05       -X5     7     7     -40VSD2     05       -X4     10     -40VSD2     05     06       -X5     10     -40VSD2     05     06       -X5     10	
diagram       Ceble type       No. of cores     Conductor of cores       1 1 1 400 SD2     1 1 5       -x2 2 2 -400 SD2     12+32 -400 SD2       -x2 3 3 -400 SD2     04       -x2 4 4 -400 SD2     04       -x2 5 5 -400 SD2     04       -x2 7 7 -400 SD2     05       -x2 8 6 6 -400 SD2     05       -x2 8 6 6 -400 SD2     04       -x3 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	
diagram         cable type         tion from from from from from from love         -x2       1       -4008502         -x2       2       -4008502         -x2       3       3       -4008502         -x2       4       4       -4008502         -x2       5       5       -4008502         -x2       7       7       -4008502         -x2       6       6       -4008502         -x2       7       7       -4008502         -x2       7       7       -4008502         -x2       7       7       -4008502         -x2       7       7       -4008502         -x3       7       7       -4008502         -x4       7       7       -4008502         -x4       7       7       -4008502         -x5       7       7       -4008502         -x6       6       -4008502       -4008502         -x7       7       7       -4008502         -x8       8       8       -4008502         -x8       8       9       -4008502         -x8       9       -4008502 <td></td>	
diagram	
diagram	
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Tnterconnec  [able designation]  WX2-40VSD2  Remark  40VSD2 CONTROL  CP1 TO VSD  Function  PUMP - CTP1	
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			Conductor a	3	Сопп.	СОМ	t	SCN																								
	Уре			2+SHIELD 0.	Destination to	-X5	-X5	-X5																								
a E	Lable type	8761	No. of cores	2+SF		Black	White	HS																								
g L G				No. 1	Сопп.	S		9																								
ion diagr				PRESSURE	Destination from	X1CP2	X1CP2	X1CP2																								
nnection				FLOW	Page/ path	51/7	51/7	51/7																								
erco	Lable designation	WX5.1	Remark	DATA CENTRE F		PRESS. No.	PRESS. No.	FLOW PRESS. No. 1																								
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			Conductor	<u>.</u> თ	Сопп.	COM	Ω	SCN																					
				2+SHIELD 0.	Destination to			- X5																					
	α 761 γ 761		No. of cores	2+SH	Cable	Black	White	王S																					
gra				No. 2	Сопп.	80	7	თ																					
ion diagr				PRESSURE	Destination from	X1CP2	X1CP2	X1CP2																					
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|DATA CENTRE FLOW PRESSURE No. 2 P. 134 135 P.

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	.ype			2+SHIELD 0.	Destination to	-X5	SX-	CX-																									
	Lable type		No. of	2+SF	Cable	Black	White	E/																									
diagram				RE	Conn.			12																									
				TEMPERATURE	Destination from Conn.	X1CP2	X1CP2	XILPZ																									
nnection				FLOW	Page/ path	52/5	52/5	c/7c																									
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134				. 1											1																		
			Date   15. Jun. 2015     Editor   MDC     Tested   22. Jul. 2015     CP1										AQU SOL	JTI	OOLI ONS	NG	WX5 DAT	. 3 A CE	NTRE	FLO	W TE	EMPERA	TURE	P150	33			+			P. 135		
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