DROPBOX DRAUGHTSMAN Your Engineerng Design Partner Phone No.:+254795474704 Your Engineering Design Partner Email: dropboxdraughtsman@gmail.com **⇔** CLIENT **INHOUSE** ⇔ PROJECT AUTOMATED PUMP PRACTICAL ⇔ BOARD DESCRIPTION **AUTOMATIC PUMP CONTROL** DDIH/001/2025 ⇔ DRAWING NUMBER **⇔** REVISION **APPROVAL**  NAME: ☼ DESIGNATION ; ⇔ COMPANY :... ⇔ DATE :

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## AUTOMATIC PUMP CONTROL

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STANDARDS	
MANUFACTURING STANDARD	KS IEC 61439-2
VOLTAGE PROTECTION	
RATED VOLTAGE (Un)	240 V
RATED IMPULSE WITHSTAND VOLTAGE (Uimp)	6 kV
RATED INSULATION VOLTAGE (Ui)	1000 V
CONTROL VOLTAGE	24 VDC
RATED OPERATIONAL VOLTAGE (Ue)	240 V
CURRENT PROTECTION	
RATED CURRENT (Ina)	125 A
RATED PEAK WITHSTAND CURRENT (Ipk)	6 kA
RATED CONDITIONAL SHORT-CIRCUIT CURRENT (Icc)	6 kA
RATED SHORT-TIME WITHSTAND CURRENT (Icw)	6 kA/1 sec
RATED DIVERSITY FACTOR (RDF)	0.7
NATURE OF SHORT CIRCUIT PROTECTIVE DEVICE	CIRCUIT BREAKER
MECHANICAL	
PAINT COLOUR	RAL 7035
DIMENSIONS ( L x D x H)	mm
WEIGHT (kgs)	WEIGHT
FORM OF SEPARATION	1
CABLE ENTRY/EXIT	TOP/ TOP
ELECTRICAL CONNECTION OF FUNCTIONAL UNITS	FFF
BUSBAR SIZE (mm²)	BUSBAR SIZE
EXTERNAL DESIGN	SINGLE CUBICLE
EXTERNAL CONDUCTOR MATERIAL	COPPER AND ALUMINIUM

GRID CONNECTION	
TYPE OF EARTH	TN-S
RATED FREQUENCY (fn)	50 Hz
LINE TO NEUTRAL VOLTAGE	24 VDC
LOCATION	
COUNTRY OF DESTINATION	KENYA
INDOOR/OUTDOOR	INDOOR
DEGREE OF PROTECTION	IP 64
PORTABILITY	STATIONARY
EMC CLASSIFICATION	В
POLLUTION DEGREE	3
SPECIAL SERVICE CONDITIONS	
PROTECTION OF PERSONS	
PROTECTION AGAINST ELECTRIC SHOCK	BASIC - BARRIER OR ENCLOSURE REQUIRE KEY TO OPEN
INTENDED USE BY	INSTRUCTED
OPERATION BY	AUTHORIZED PERSONS

POWER 415VAC - L1	RED	RD
POWER 415VAC - L2	YELLOW	YE
POWER 415VAC- L3	BLUE	BU
POWER 415VAC- N	BLACK	BL
EARTH PROTECTION	GREEN/YELLOW	GN/YE
AUX POWER 240VAC - L	RED	RD
AUX POWER 240VAC - N	BLACK	BK
CONTROL 240VAC - L	GREY	GY
CONTROL 240VAC - N	BLACK	BL
CONTROL +24VDC	BLUE	BU
CONTROL -24VDC	BLACK	BK
ANALOGUE SIGNALS+	VIOLET	VT
ANALOGUE SIGNALS-	YELLOW	YE
CONTROL CIRCUITS	1.0 mm	2
CURRENT CIRCUITS	2.5 mm	12
VOLTAGE CIRCUITS	1.5 mm	12

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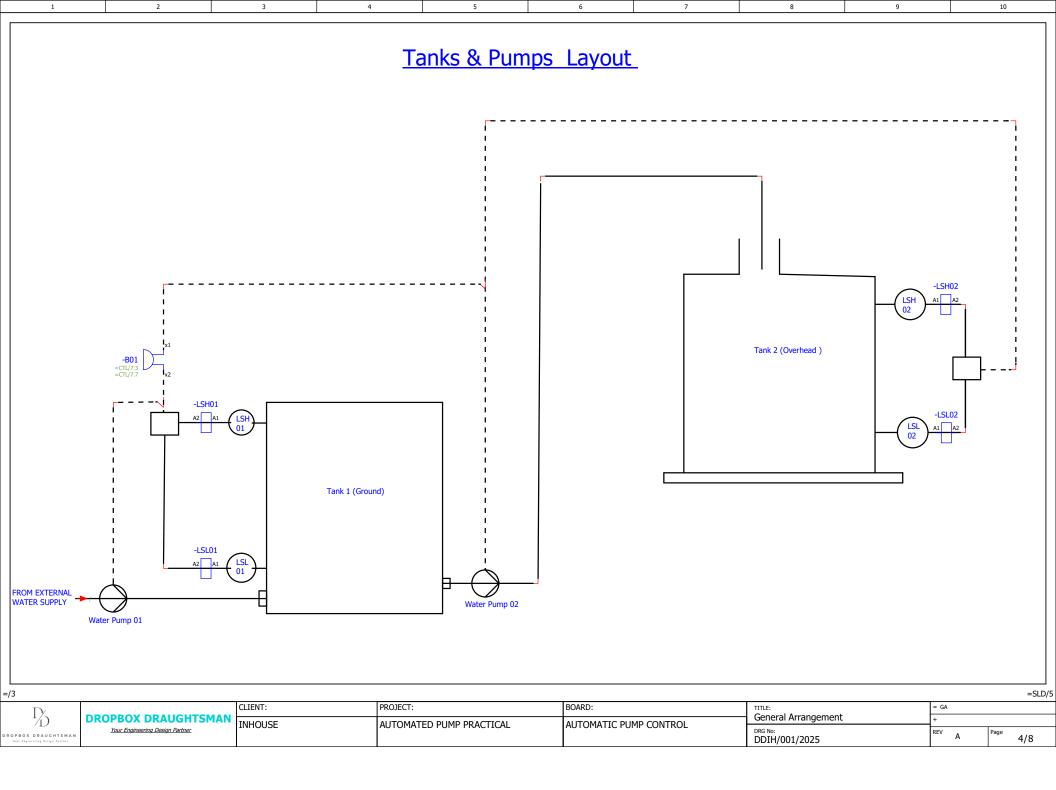
Page Number	Page Name	Page description	Remark
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4	=GA/4	General Arrangement	
5	=SLD/5	Single Line	
6	=SCH/6	Schematic	
7	=CTL/7	Controls	
1	=BOQ/1	BILL OF QUANTITIES	

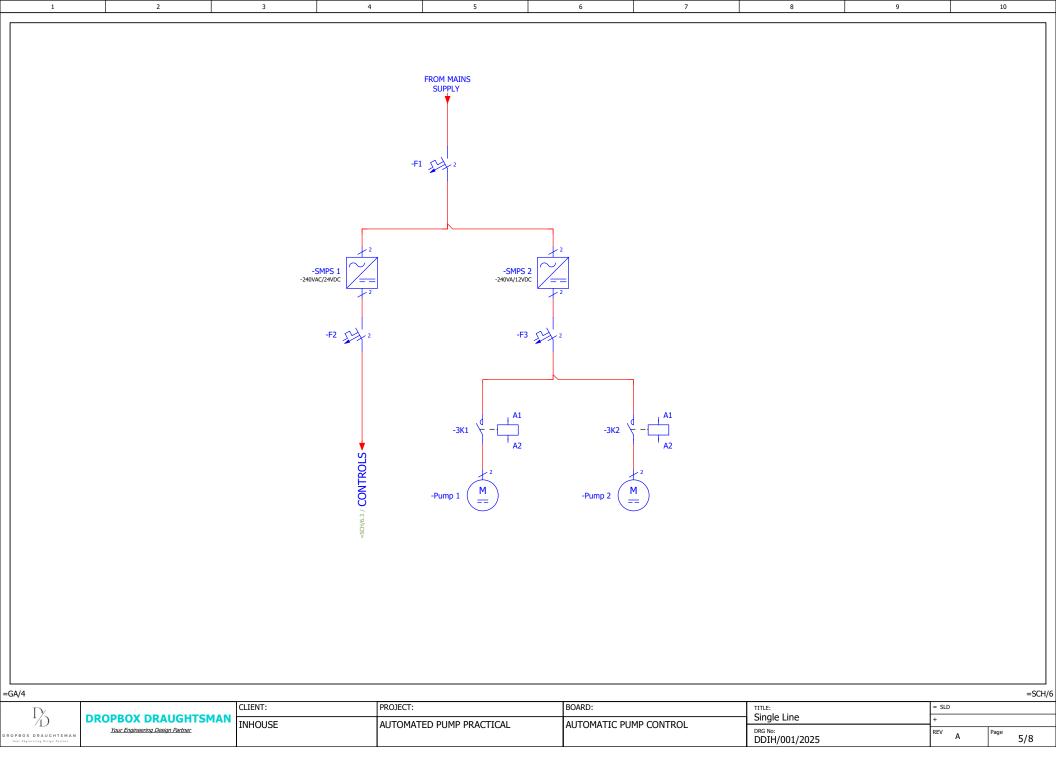
=GA/4 TITLE:
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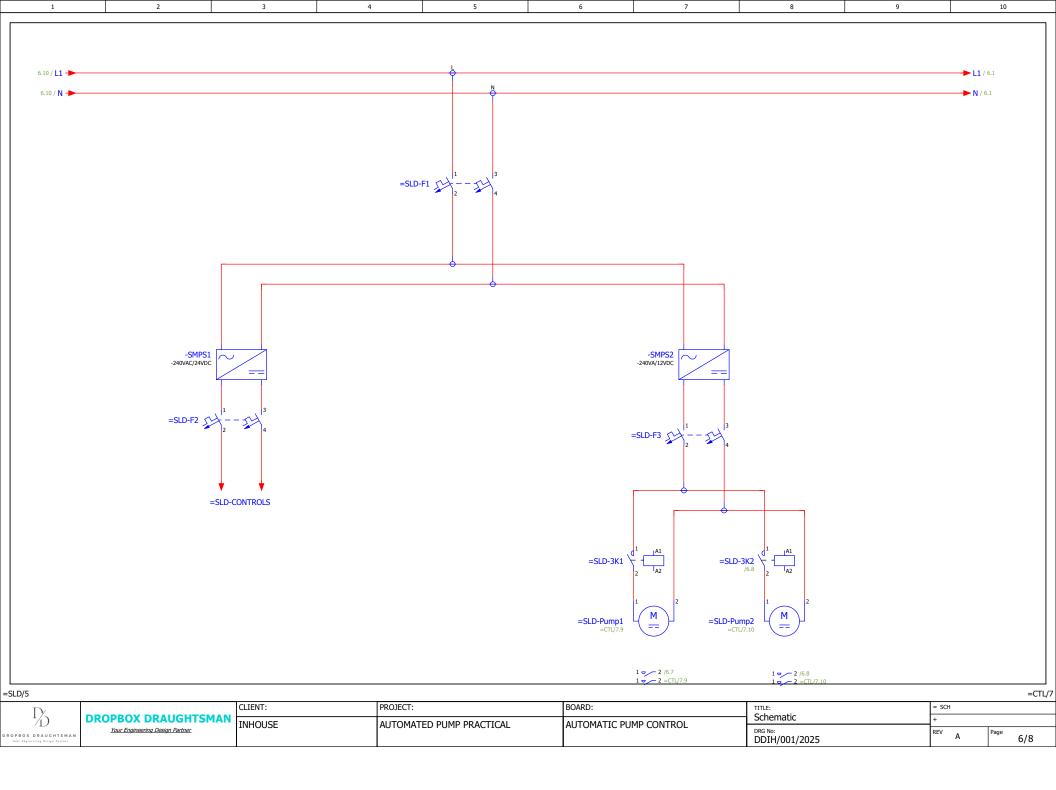
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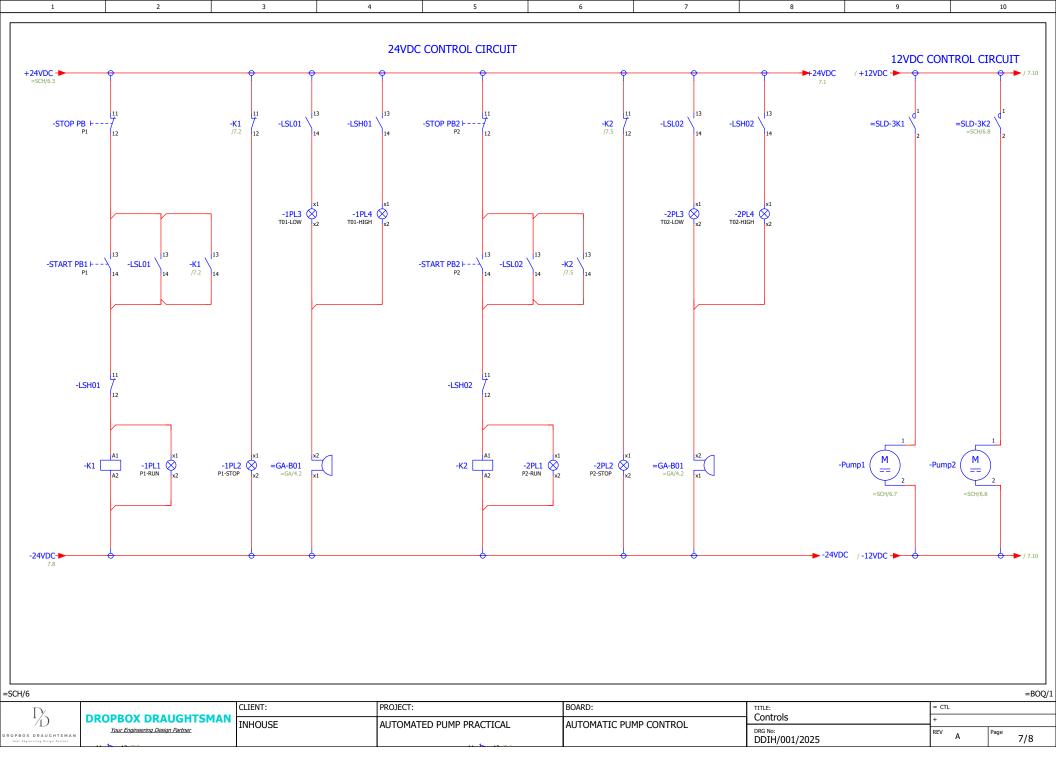
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## BILL OF MATERIALS

Symbol	Quantity	Designation	Rated Current of circuit (Inc)	Rated operational Voltage (Ue)	Rated impulse Voltage (Uimp)	Rated insulation Voltage (U <sub>i</sub> )	Rated Short Time Withstand Current (Icw)	Manufacturer	Catalogue number
1PL11PL4;2PL12PL4;3K1;3K2 B01;F1F3;K1;K2;LSH01;LSH02	0								
IPL11PL4;2PL12PL4;3K1;3K2 B01;F1F3;K1;K2;LSH01;LSH02 LSL01;LSL02;Pump1;Pump2;SMPS1 SMPS2;START PB1;START PB2 STOP PB;STOP PB2									
STOP PB;STOP PB2									

=CTL/7

TITLE: BILL OF QUANTITIES CLIENT: PROJECT: BOARD: **DROPBOX DRAUGHTSMAN** INHOUSE AUTOMATED PUMP PRACTICAL AUTOMATIC PUMP CONTROL Your Engineering Design Partner DRG No: DDIH/001/2025 DROPBOX DRAUGHTSMAN 8/8