



نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض و ابنیه تحت الارض

خرید پکیج پمپ های آب آتشنشانی ایستگاه تقویت فشار گاز بینک
(قرارداد BK-HD-GCS-CO-0023_00)



شماره پیمان:

۰۵۳ - ۰۷۳ - ۹۱۸۴

SCHMATIC DIAGRAM FOR DIESEL PUMP CONTROL PANEL

نسخه	سریال	نوع مدرک	رشته	تسهیلات	صادرکننده	بسته کاری	پروژه
V00	0002	DW	EL	120	KP	GCS	BK

شماره صفحه: 1 از 21

طرح نگهداشت و افزایش تولید ۲۷ مخزن

SCHMATIC DIAGRAM FOR DIESEL PUMP CONTROL PANEL

نگهداشت و افزایش تولید میدان نفتی بینک

V00	Apr. 2025	IFA	Kalaye Pump	M.Fakharian	S.Faramarzpour	
Rev.	Date	Purpose of Issue/Status	Prepared by:	Checked by:	Approved by:	CLIENT Approval

Status:

IFA: Issued for Approval
IFI: Issued for Information
AFC: Approved for Construction

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض خرید پکیج پمپ های آب آتشنشانی ایستگاه تقویت فشار گاز بینک (قرارداد BK-HD-GCS-CO-0023_00)																									
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SCHEMATIC DIAGRAM FOR DIESEL PUMP CONTROL PANEL																										
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V00	0002	DW	EL	120	KP	GCS	BK																			

REVISION RECORD SHEET

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1.0 INTRODUCTION

Binak oilfield in Bushehr province is a part of the southern oilfields of Iran, is located 20 km northwest of Genaveh city.

With the aim of increasing production of oil from Binak oilfield, an EPC/EPD Project has been defined by NIOC/NISOC and awarded to Petro Iran Development Company (PEDCO). Also, PEDCO (as General Contractor) has assigned the EPC-packages of the Project to "Hirgan Energy - Design and Inspection" JV.

2.0 GENERAL DEFINITION

The following terms shall be used in this document.

CLIENT:	National Iranian South Oilfields Company (NISOC)
PROJECT:	Binak Oilfield Development – Supply Of Fire Water Pumps
EPD/EPC CONTRACTOR (GC):	Petro Iran Development Company (PEDCO)
EPC CONTRACTOR/PURCHASER:	Joint Venture of: Hirgan Energy – Design & Inspection (D&I) Companies
VENDOR:	Kalaye Pump Company
EXECUTOR:	Executor is the party which carries out all or part of construction and/or commissioning for the project.
TPI:	Third Party Inspector.
SHALL:	Is used where a provision is mandatory.
SHOULD:	Is used where a provision is advisory only.
WILL:	Is normally used in connection with the action by CLIENT rather than by an EPC/EPD CONTRACTOR, supplier or VENDOR.
MAY:	Is used where a provision is completely discretionary.

3.0 SCOPE

The scope of this executive instruction includes all projects of Kalay-E-Pump Company and other common productions.

4.0 ATTACHMENT

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Panel Type (LV)		
☐ Free Standing	☒ Wall Mounting	
☐ MNS Structure	☐ 19" Rack (Simple)	☐ Flush Type
☐ AEG Structure	☐ 19" Rack (Swing)	☒ Surface Type
☐ RITTAL Structure	☐ Desk Type	☐ Semi-Flush Type
☐ Capacitor Bank		
☒ Front Access	☐ Back Access	☐ Front and Back Access
Panel (s) Dimension		
Height	900 mm	Depth 250 mm
Total width	700 mm	No. of Cubicles 1 Pcs.
Degree of Protection (IP)		
IP	65	☐ Indoor ☒ Outdoor
Finish Color		
Color RAL Code	3020	
Thickness	70-120 Micron	☐ Standard Thickness
Power Conductors Connections		
Incoming Feeder(s)	☒ Cable	☐ Busduct ☒ bottom ☐ top
Outgoing Feeder(s)	☒ Cable	☐ Busduct ☒ bottom ☐ top
Labeling Specification		
Background Colors	☒ Black ☐ White ☐ Yellow ☐ Blue ☐ Red	
Text Colors	☐ Black ☒ White	
Connection Type	☐ Screw ☒ Stick ☐ Stick & Screw	
Site Condition		
Altitude	12.5 Meter above see level	Humidity 93 %
Min. / Max. Ambient Temperature		+1 - +48 °C
Design Ambient Temperature		-- °C

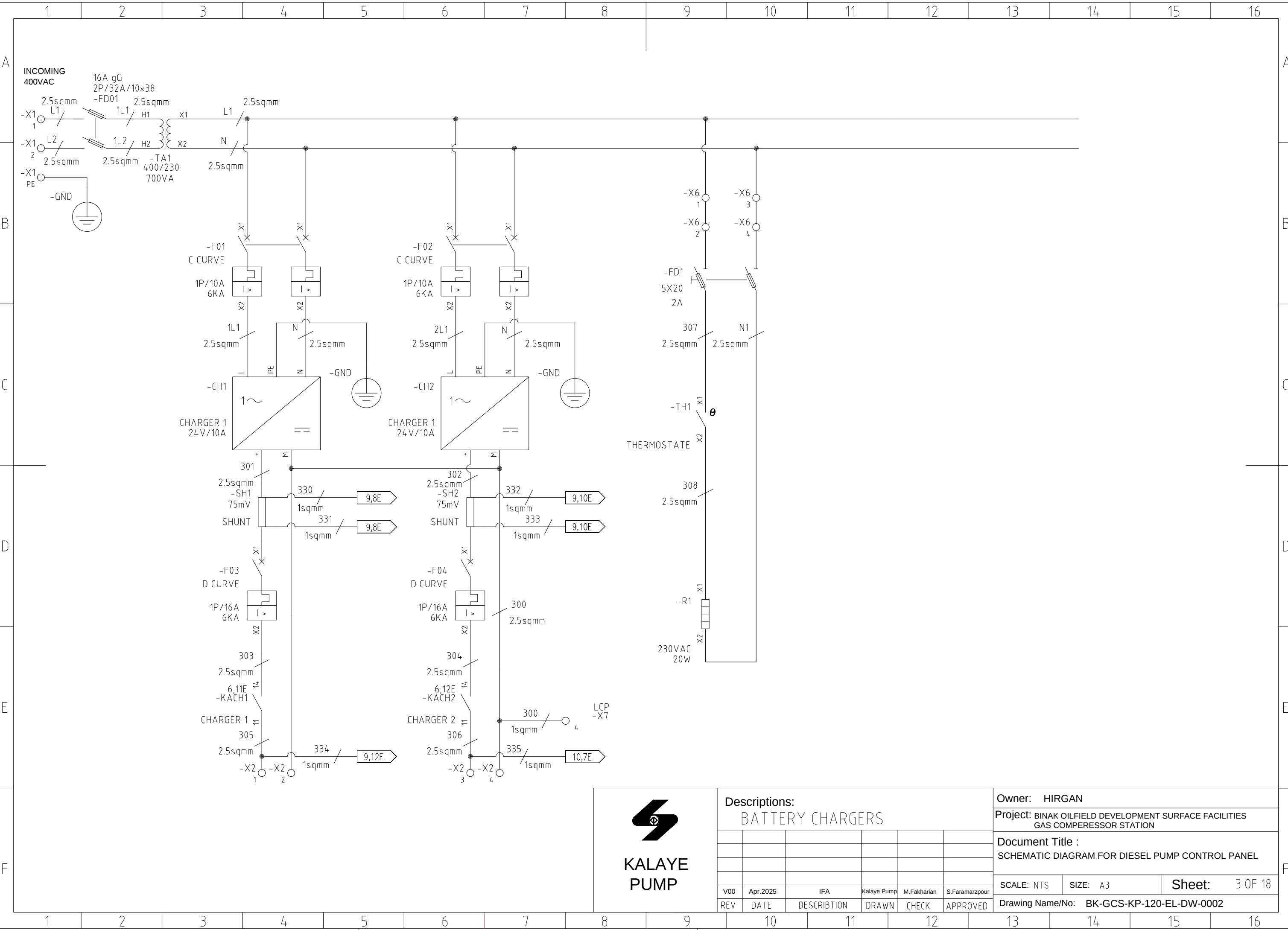
Electrical Characteristics									
	Series: 1	Series: 2							
Main Bus Bar Rated Current (In)	4 A	A							
Rated Short Circuit Withstand Current (Icw)	-- kA ☐ Sec	kA ☐ Sec							
Rated Peak Short Circuit Current (Ipk)	- kA	kA							
Rated Service Voltage (Ue)	230 V	V							
Insulation Voltage (Ui)	1000 V	V							
Rated Frequency	50 Hz	Hz							
Rated Power Frequency Withstand Voltage	-- kV	kV							
Rated Impulse Withstand Voltage (Uimp)	-- kV	kV							
Bus Bars Sizing & Covers									
Phases Bus Bar Sizing	Series : 1 - X - X - X - mm Series : 2 - X - X - X - mm								
Neutral Bus Bar Sizing	- X - X - X - mm								
PE Bus Bar Sizing	- X - X - X - mm								
Insulation	☐ Heat Shrink ☐ Standard Paint ☐ Bare								
Bus Bar Types	☐ Tin Plate ☐ Without Coating								
Connections Coating	☐ Silver Plate ☐ Tin Plate ☐ Without Coating								
Connections Insulation	☐ Shroud ☐ N/A								
Bus Bar Lables	☐ L1/L2/L3/N/PE Labels								
Auxiliary Circuit Supplys									
Incomings & bus Coupler	☐	☐	☐	☐	☐	☐	☐	☐	☐
Power Center - Outgoing (s)	☐	☐	☐	☐	☐	☐	☐	☐	☐
Motor Starter - Outgoing (s)	☐	☐	☐	☐	☐	☐	☐	☐	☐
Protection Relay Supply	☐	☐	☐	☐	☐	☐	☐	☐	☐
Spring Charge Motors Supply	☐	☐	☐	☐	☐	☐	☐	☐	☐
Signal Indicators Supply	☐	☐	☐	☐	☐	☐	☐	☐	☐
Heating	☐	☐	☐	☐	☐	☐	☐	☐	☐
Motor Space Heaters	☐	☐	☐	☐	☐	☐	☐	☐	☐

Wiring Specification							
	1mm ²	1.5mm ²	2.5mm ²	4mm ²	6mm ²		
Power Circuits (Minimum)	☐	☐	☒	☐	☐		
Control Circuits	☒	☐	☐	☐	☐		
CT's Secondary Circuits	☐	☐	☐	☐	☐		
PT's Secondary Circuits	☐	☐	☐	☐	☐		
Wire type	☒ Normal (PVC)		☐ Flame Retardant				
	Red	Yellow	Blue	Black	Other		
(L+) DC wires	☐	☐	☐	☒	-		
(L-) DC wires	☐	☐	☐	☒	-		
(Ph) AC wires	☐	☐	☐	☒	-		
(N) AC wires	☐	☐	☒	☐	-		
PLC I/O	☐	☐	☐	☒	-		
(PE) Protective Earth	☐	☐	☐	☐	Green/Yellow		
Glands and Gland Plates							
N/A	☐	Gland	☐	Gland Plate	☐	Gland Installation	☐
Gland Plate Type	Normal		☐	Non-Magnetic			☐
Metal Plates Specification							
Standard	☐	Structure	3 mm	Doors	3 mm	Plates	3 mm
Packing Specification							
☒ Entirely Wooden ☐ Standard							
KPCo. Standard : Wooden Pallet for free Standing Enclosures and Plastic Wrapping							
Spare Space and Terminals							
Spare Terminals & Rails		20 %	Spare Space		20 %		
Addioant Notes							

★ NOTE : GLAND WILL BE SUPPLIED AS LOOSE PART.

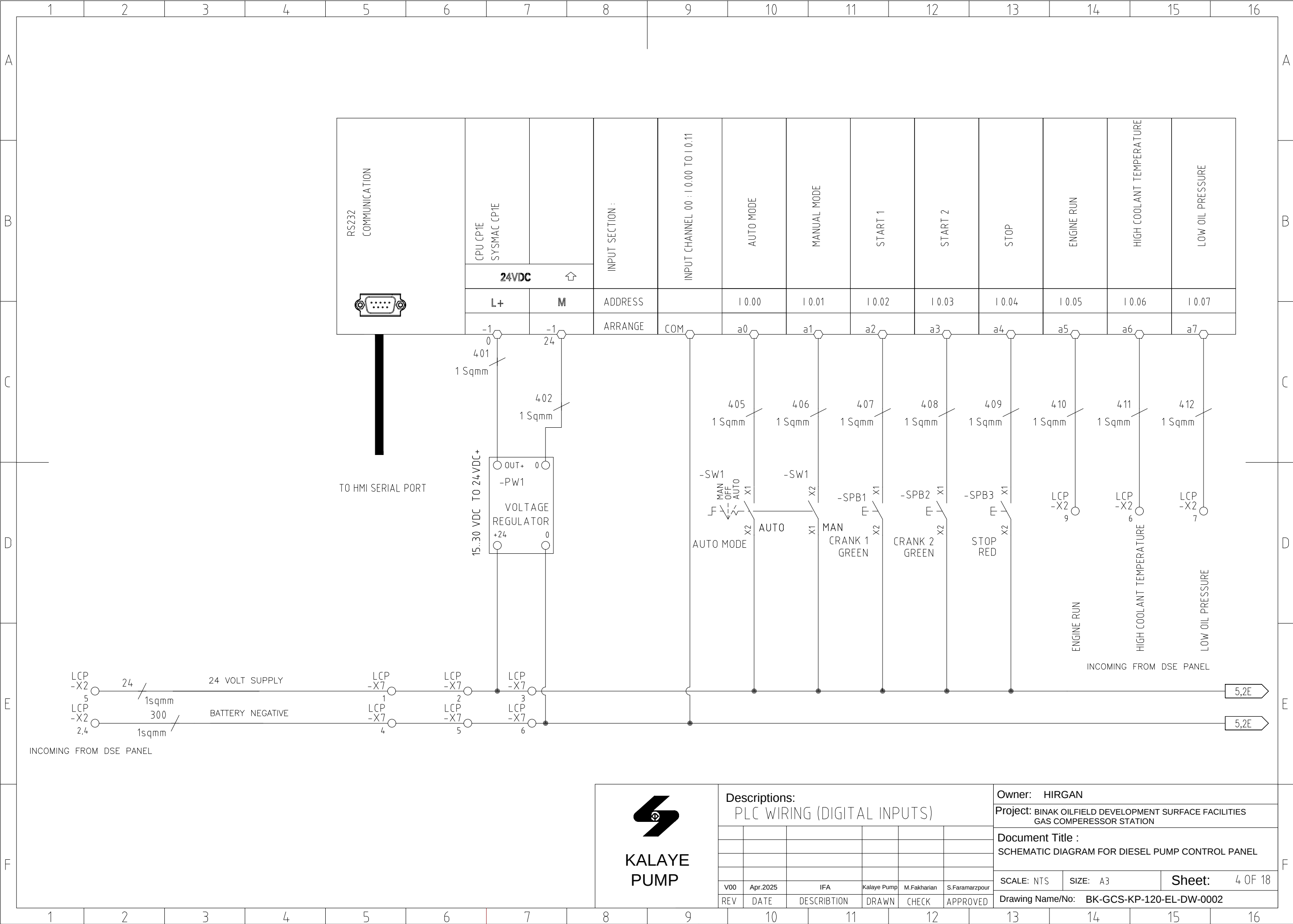
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							Project: BINAK OILFIELD DEVELOPMENT SURFACE FACILITIES GAS COMPERESSOR STATION		
							Document Title : SCHEMATIC DIAGRAM FOR DIESEL PUMP CONTROL PANEL		
							SCALE: NTS SIZE: A3 Sheet: 2 OF 18		
							Drawing Name/No: BK-GCS-KP-120-EL-DW-0002		
	V00	Apr.2025	IFA	Kalaye Pump	M.Fakharian	S.Faramarzpour			
REV	DATE	DESCRIPTION	DRAWN	CHECK	APPROVED				

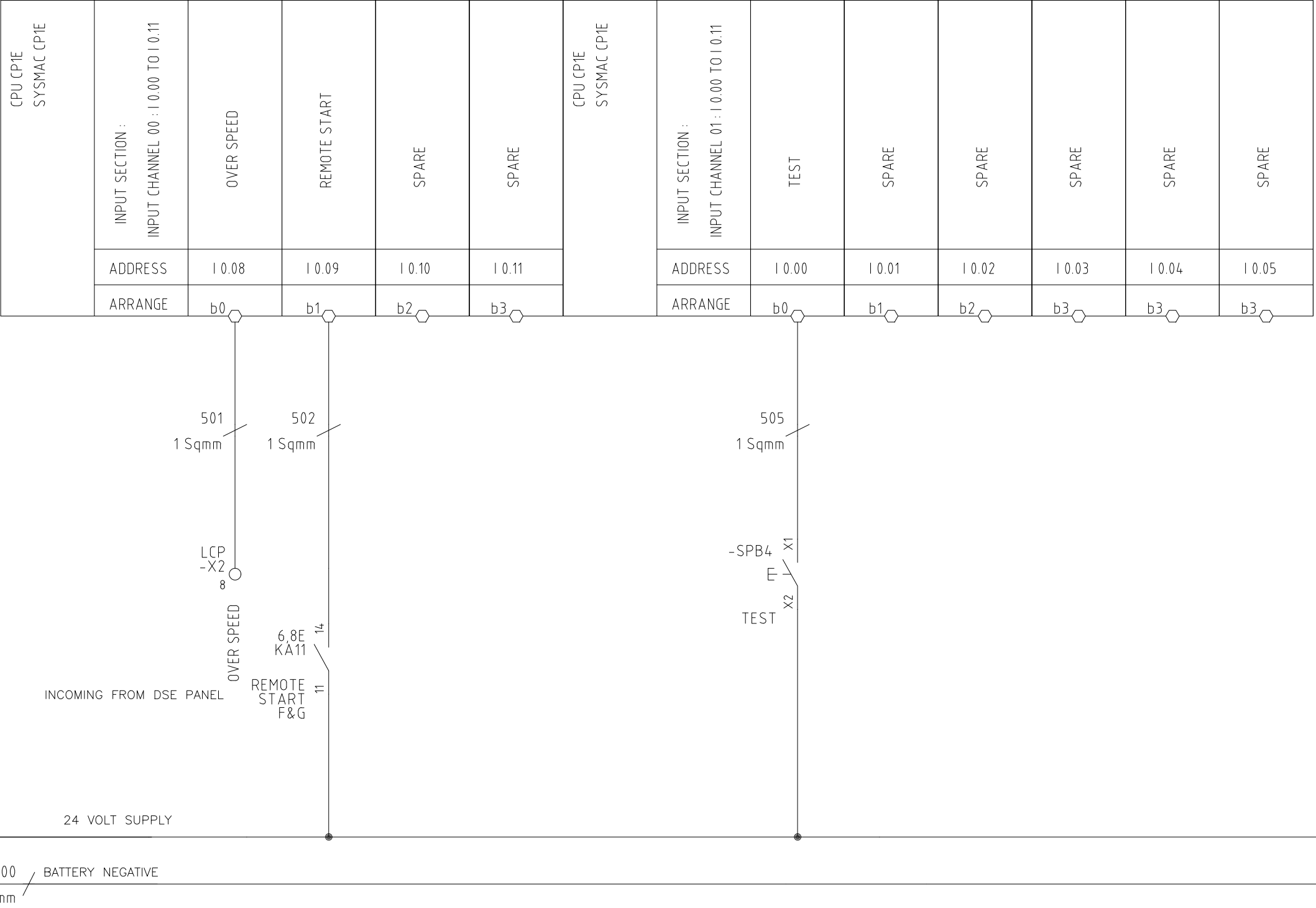
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 KALAYE PUMP	Descriptions: BATTERY CHARGERS					Owner: HIRGAN			
						Project: BINAK OILFIELD DEVELOPMENT SURFACE FACILITIES GAS COMPRESSOR STATION			
						Document Title : SCHEMATIC DIAGRAM FOR DIESEL PUMP CONTROL PANEL			
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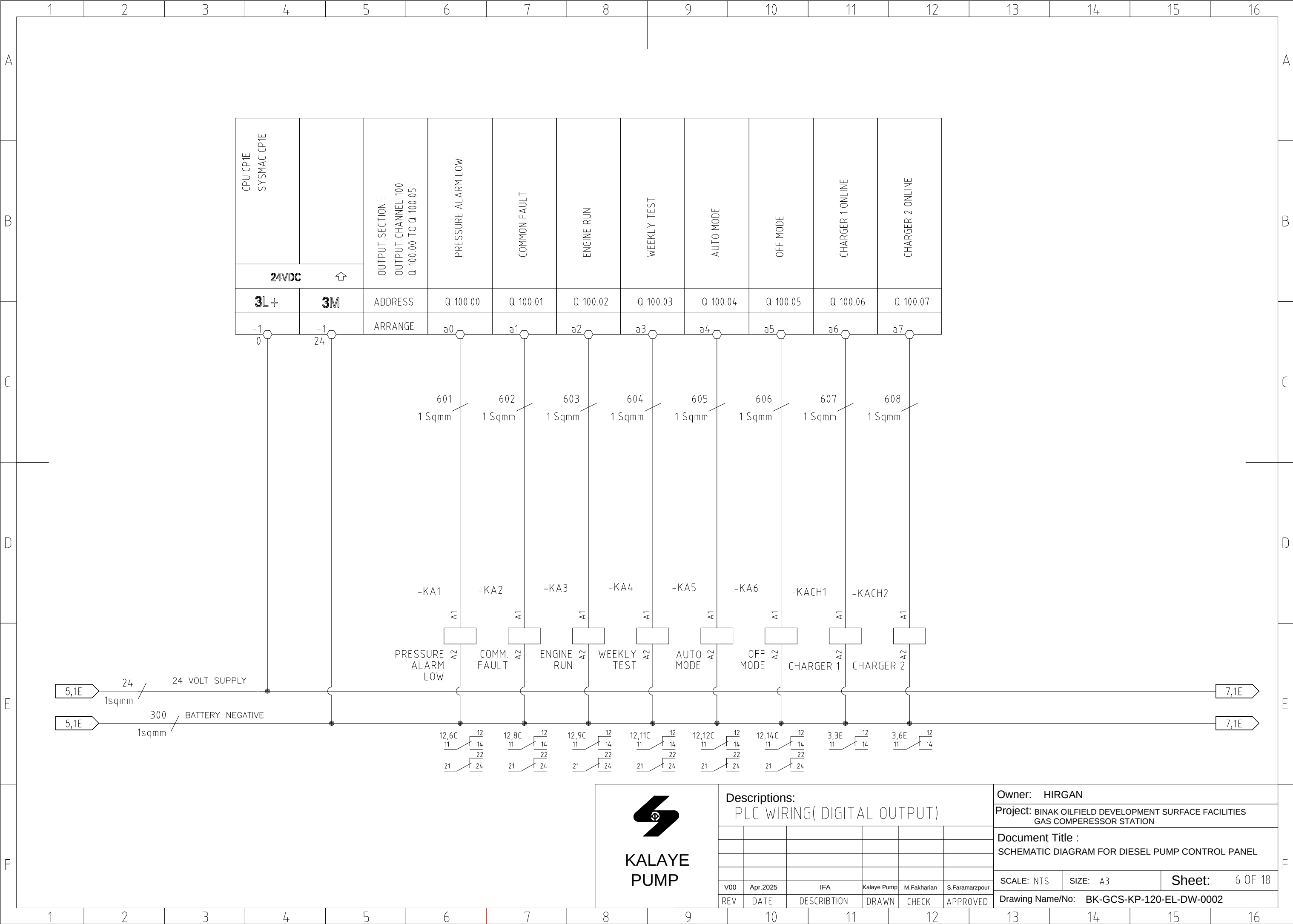
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 KALAYE PUMP	Descriptions: PLC WIRING (DIGITAL INPUTS)					Owner: HIRGAN			
						Project: BINAK OILFIELD DEVELOPMENT SURFACE FACILITIES GAS COMPRESSOR STATION			
						Document Title : SCHEMATIC DIAGRAM FOR DIESEL PUMP CONTROL PANEL			
	V00		Apr.2025	IFA	Kalaye Pump	M.Fakharian	S.Faramarzpour	SCALE: NTS SIZE: A3 Sheet: 5 OF 18	
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KALAYE
PUMP

Descriptions:

PLC WIRING(DIGITAL OUTPUT)

V00	Apr.2025	IFA	Kalaye Pump	M.Fakharian	S.Faramarzpour
REV	DATE	DESCRIPTION	DRAWN	CHECK	APPROVED

Owner: HIRGAN

Project: BINAK OILFIELD DEVELOPMENT SURFACE FACILITIES
GAS COMPERESSOR STATION

Document Title :
SCHEMATIC DIAGRAM FOR DIESEL PUMP CONTROL PANEL

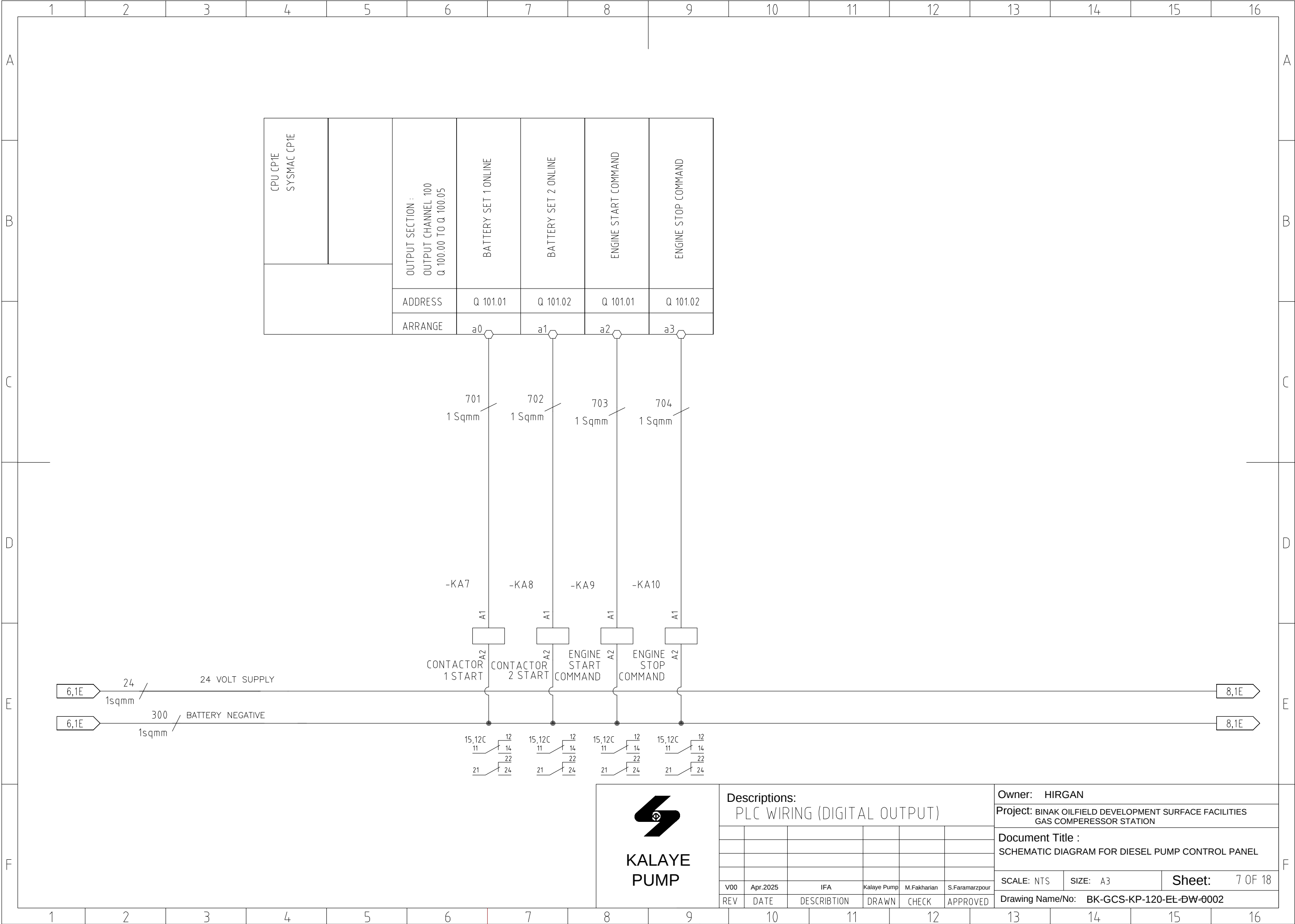
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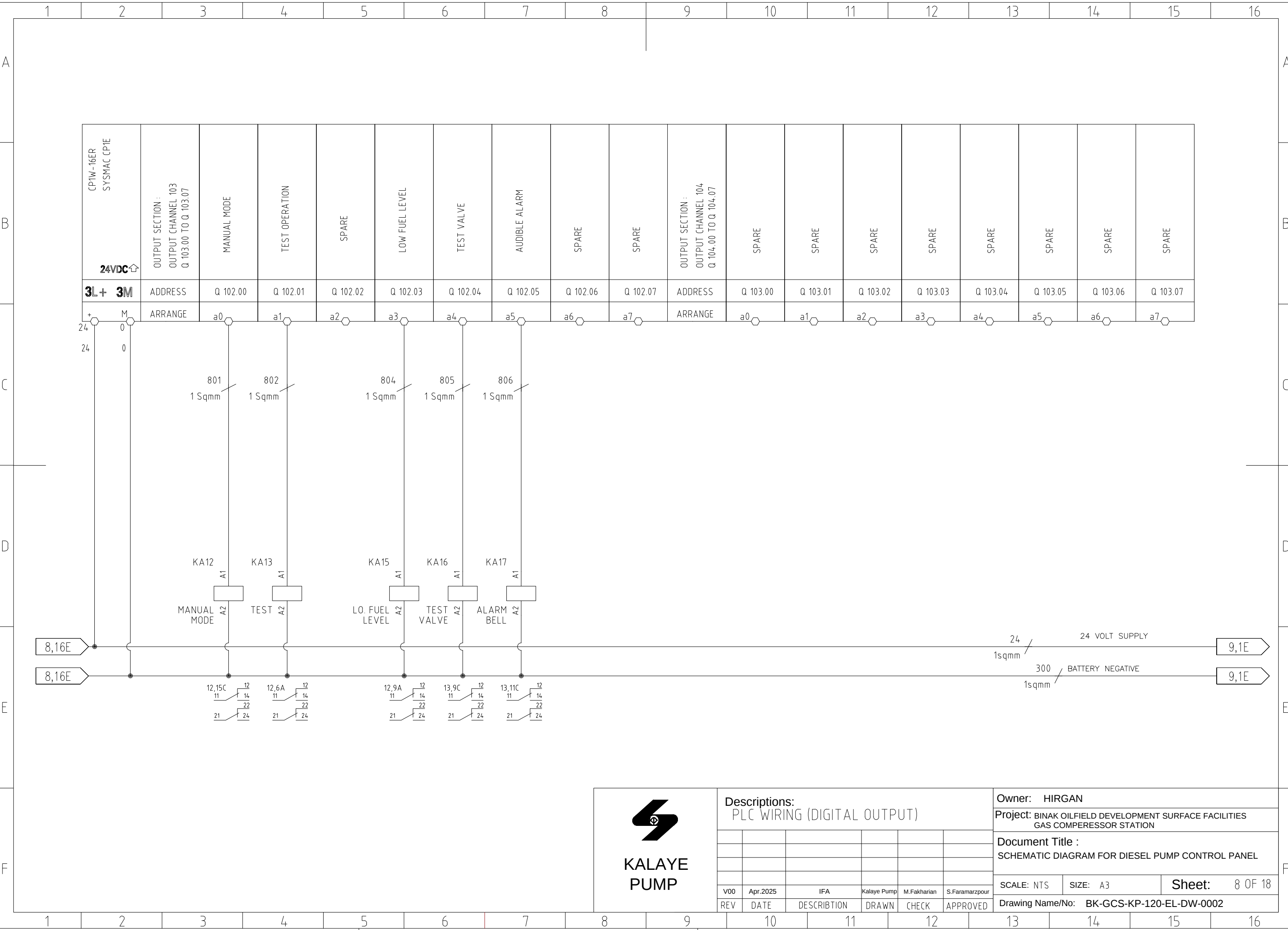
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KALAYE PUMP

Descriptions:
PLC WIRING (DIGITAL OUTPUT)

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Owner: HIRGAN

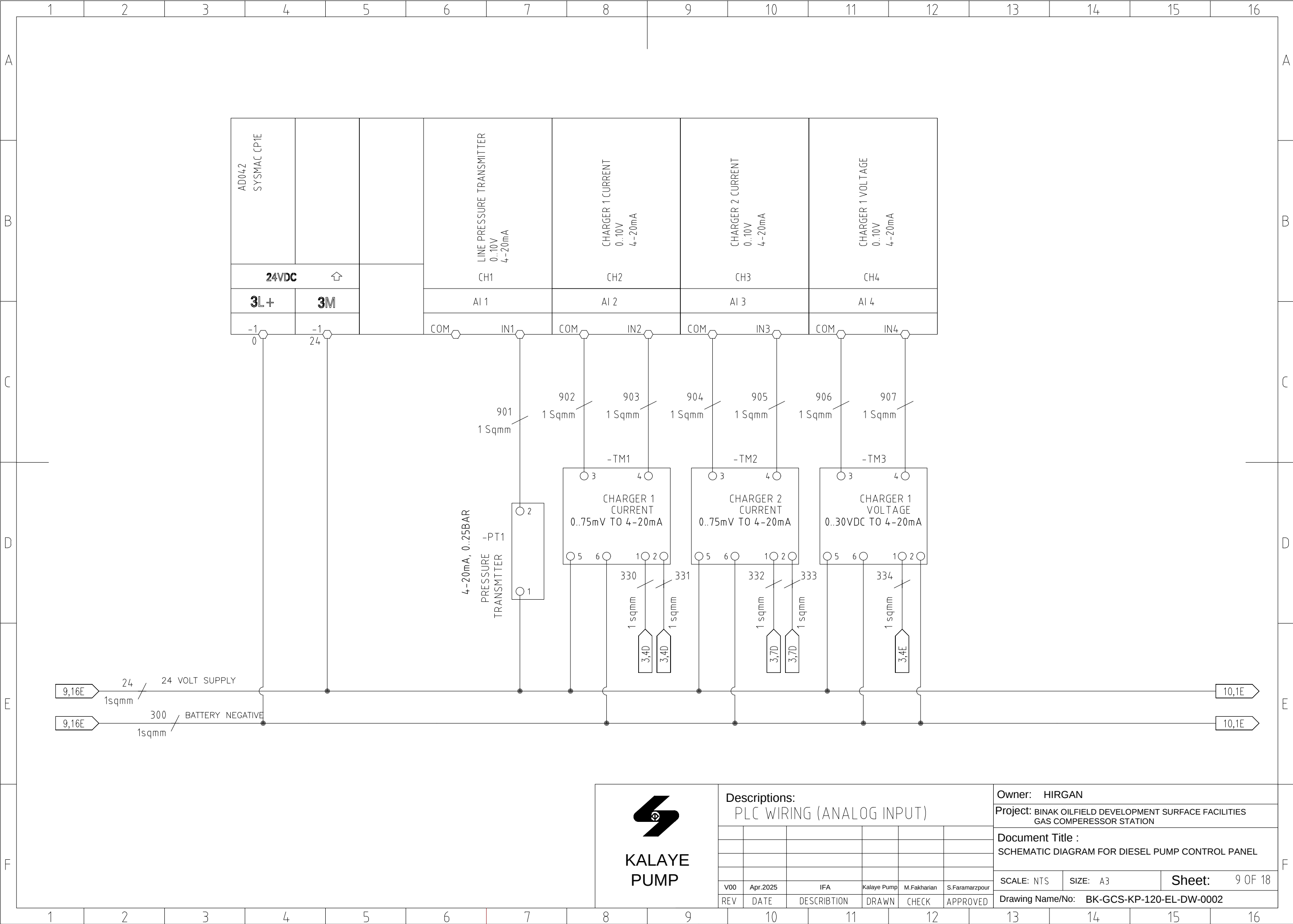
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GAS COMPRESSOR STATION

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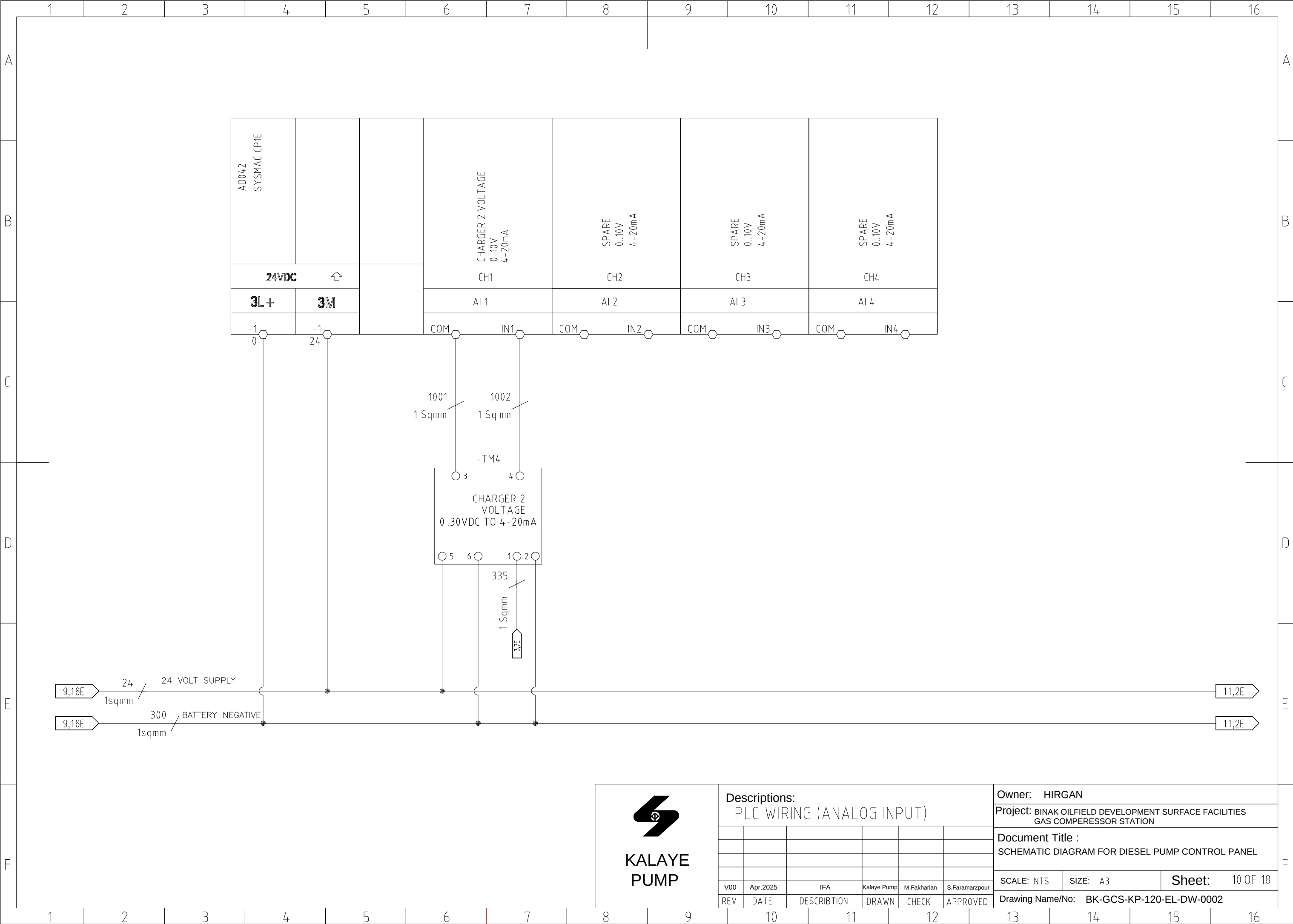
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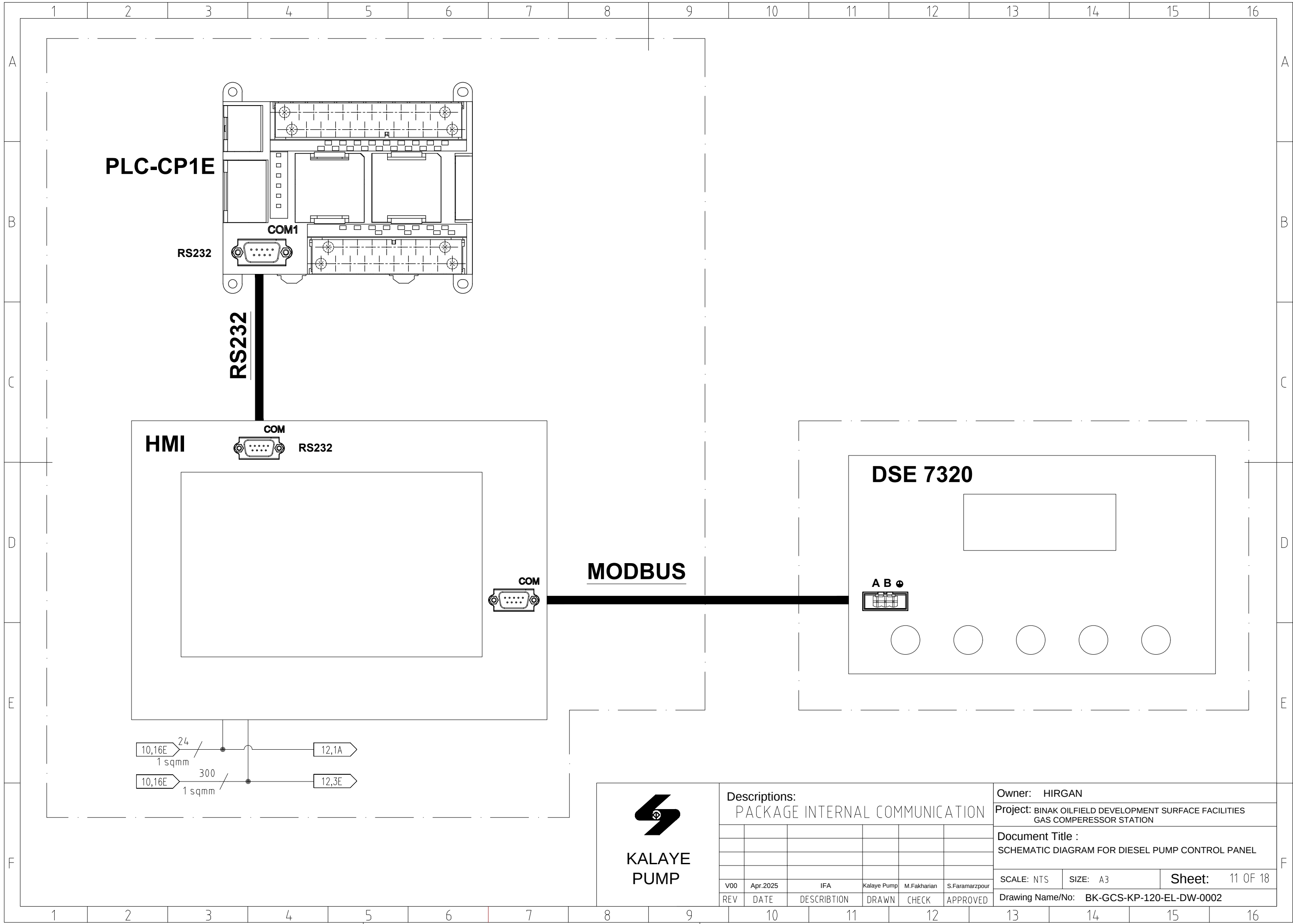
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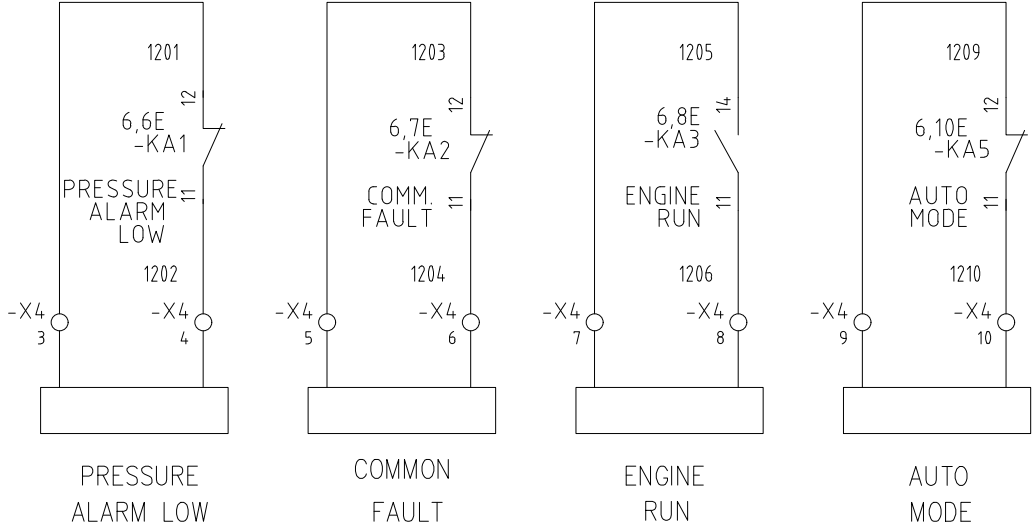
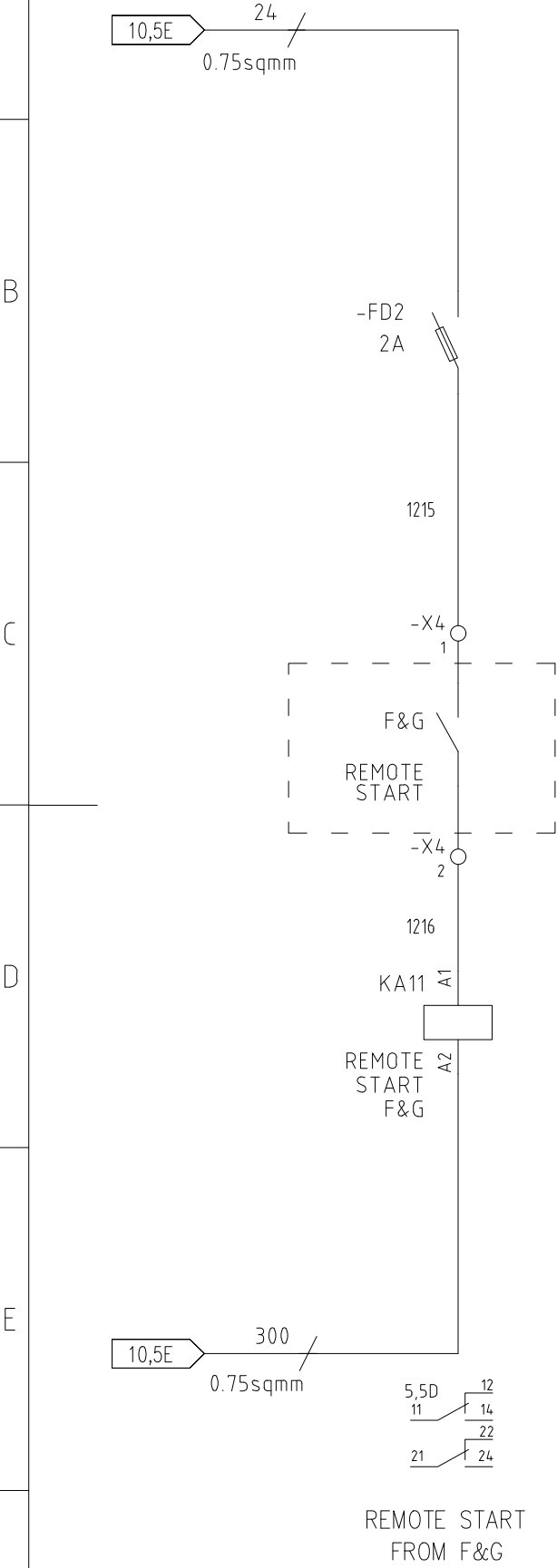
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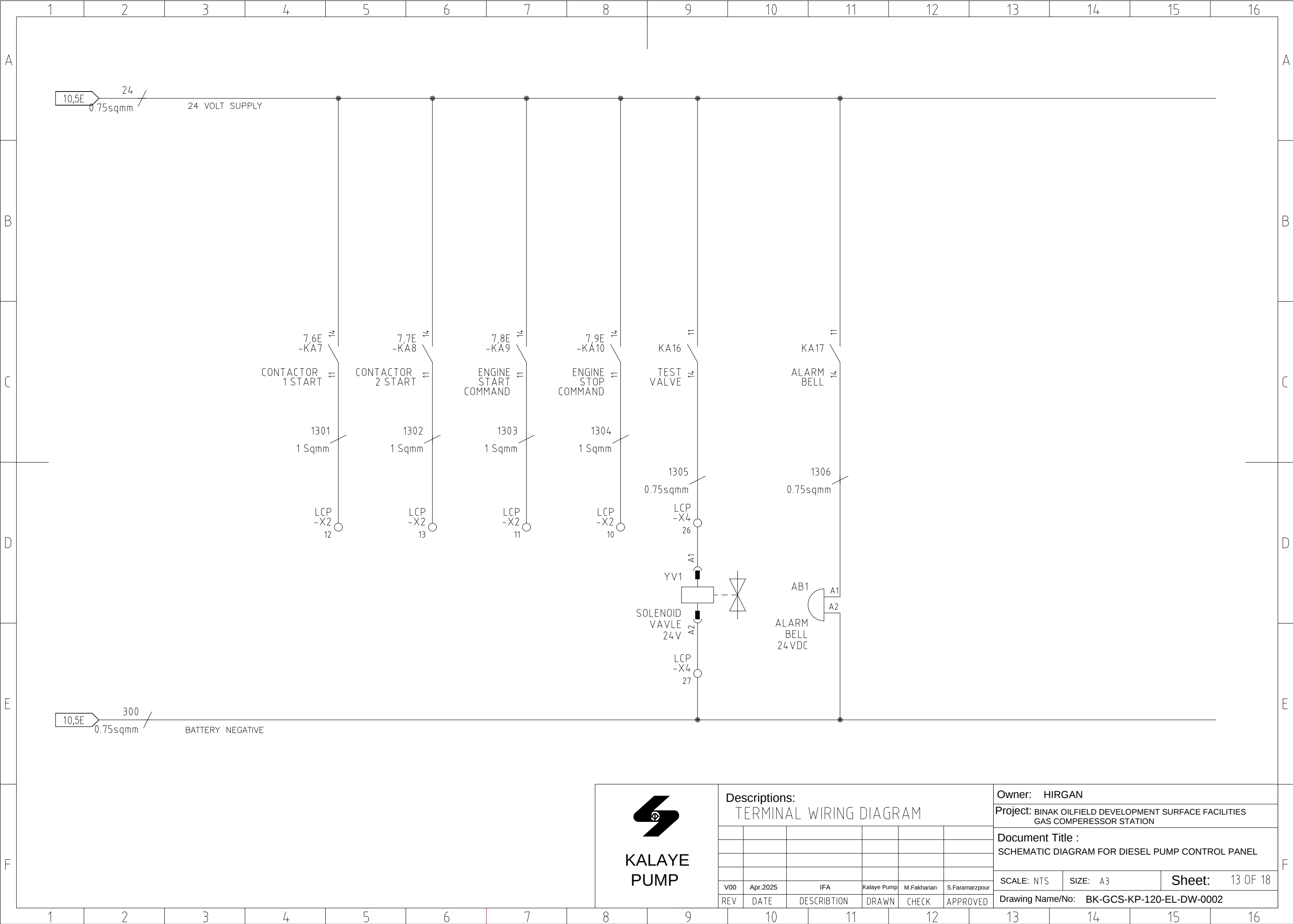
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SIGNAL INTERCONNECTION
BETWEEN LCP & F&G

 KALAYE PUMP	Descriptions: TERMINAL WIRING DIAGRAM					Owner: HIRGAN	
						Project: BINAK OILFIELD DEVELOPMENT SURFACE FACILITIES GAS COMPRESSOR STATION	
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						Sheet: 12 OF 18	
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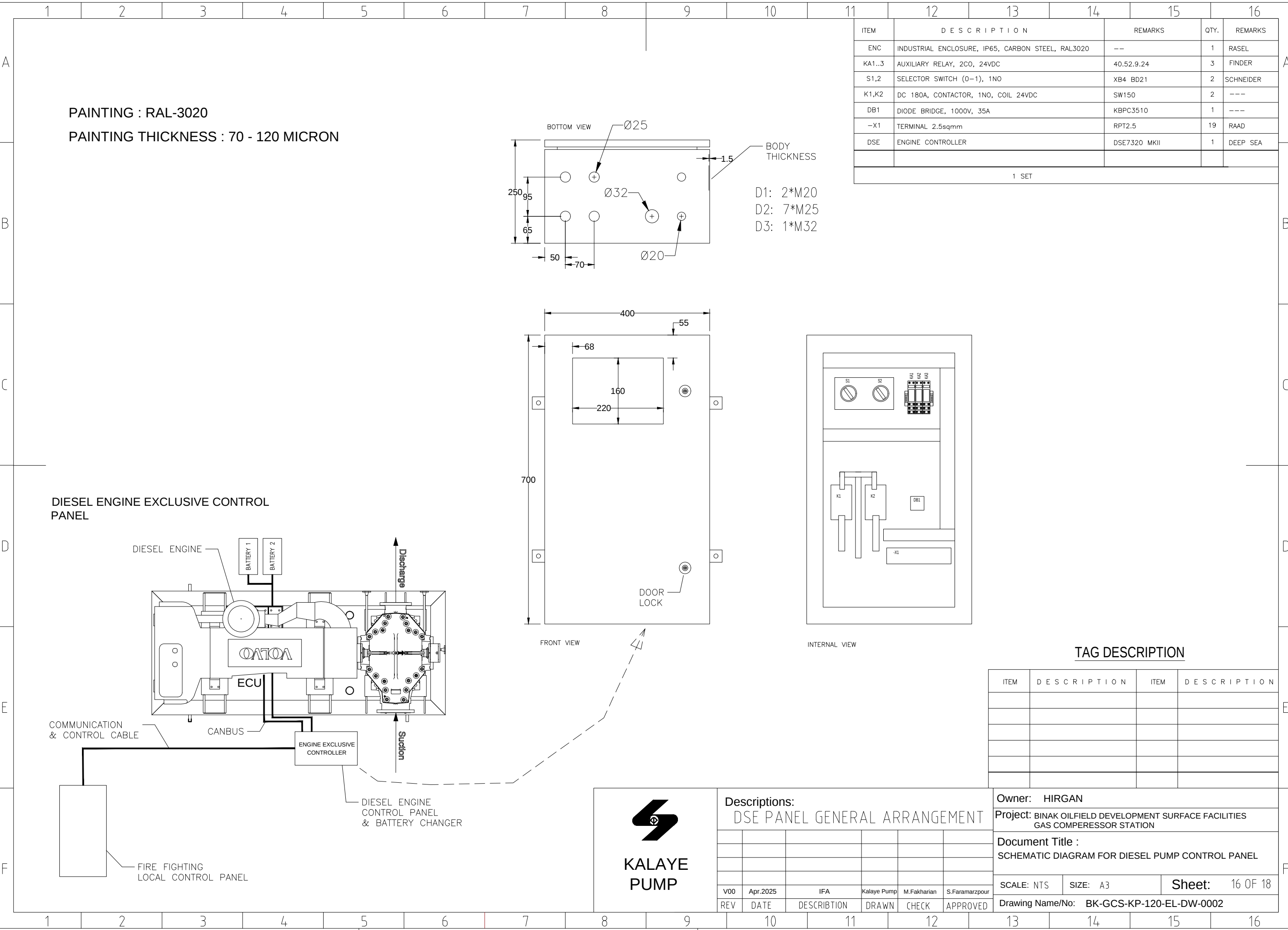
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Descriptions:
TERMINATION DIAGRAM

V00	Apr.2025	IFA	Kalaye Pump	M.Fakharian	S.Faramarzpour
REV	DATE	DESCRIPTION	DRAWN	CHECK	APPROVED

Drawing Name/No: BK-GCS-KP-120-EL-DW-0002

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ITEM	DESCRIPTION	REMARKS	QTY.	REMARKS
ENC	INDUSTRIAL ENCLOSURE, IP65, CARBON STEEL, RAL3020	--	1	RASEL
KA1..3	AUXILIARY RELAY, 2CO, 24VDC	40.52.9.24	3	FINDER
S1,2	SELECTOR SWITCH (0-1), 1NO	XB4 BD21	2	SCHNEIDER
K1,K2	DC 180A, CONTACTOR, 1NO, COIL 24VDC	SW150	2	---
DB1	DIODE BRIDGE, 1000V, 35A	KBPC3510	1	---
-X1	TERMINAL 2.5sqmm	RPT2.5	19	RAAD
DSE	ENGINE CONTROLLER	DSE7320 MKII	1	DEEP SEA
1 SET				

TAG DESCRIPTION

ITEM	DESCRIPTION	ITEM	DESCRIPTION

Descriptions: DSE PANEL GENERAL ARRANGEMENT					
V00	Apr.2025	IFA	Kalaye Pump	M.Fakharian	S.Faramarzpour
REV	DATE	DESCRIPTION	DRAWN	CHECK	APPROVED

Owner: HIRGAN		
Project: BINAK OILFIELD DEVELOPMENT SURFACE FACILITIES GAS COMPERESSOR STATION		
Document Title : SCHEMATIC DIAGRAM FOR DIESEL PUMP CONTROL PANEL		
SCALE: NTS	SIZE: A3	Sheet: 16 OF 18
Drawing Name/No: BK-GCS-KP-120-EL-DW-0002		



**KALAYE
PUMP**

