

# LV SWITCHGEAR/MCC SINGLE LINE DIAGRAM

NOTES

LEGEND

REFERENCE DRAWING	DRG. No.
ELECTRICAL LOAD LIST	BK-GCS-PEDCO-120-EL-LI-0001
ELECTRICAL TYPICAL SCHEMATIC DIAGRAMS FOR LV PANEL	BK-GCS-PEDCO-120-EL-DG-0002


KEY PLAN

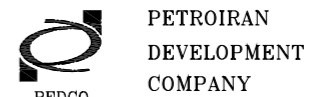
REV.	DATE	P.O.I.S	PREP.	CHK.	APP.	AUT.	DESCRIPTION	BY	DATE	CHECKED	BY	DATE	REVISION
D04	FEB.2023	IFA	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	** **							
D03	AUG.2022	IFA	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	** **							
D02	MAY.2022	IFA	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	** **	***	*****	** **	*** **	***	*** **	*** **
D01	APR.2022	IFA	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	** **							
D00	DEC.2021	IFC	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	** **							
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اصول و کلیه نسخ این نقشه و حق اقتباس متعلق به شرکت ملی مناطق نفت خیز جنوب میباشد.

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PROJECT NAME: BINAK OILFIELD DEVELOPMENT/SURFACE FACILITIES GAS COMPRESSOR STATION  
PROJECT NO.: 071020

EPC CONTRACTOR:  HIRGAN ENERGY - DESIGN & INSPECTION COMPANIES

EPD/EPC CONTRACTOR (GC):  PETROIRAN DEVELOPMENT COMPANY

BINAK OILFIELD DEVELOPMENT SURFACE FACILITIES GAS COMPRESSOR STATION

DRAWING TITLE: LV SWITCHGEAR/MCC SINGLE LINE DIAGRAM

SCALE	SIZE	DRAWING NO.	SHEET NO.	REV.	BUDGET REF.	LOCATION	SIZE CLASS	SERIAL NO.	SHEET NO.	REVISION
N.T.S	A2	BK-GCS-PEDCO-120-EL-SL-0002	01 OF 17	D04	053-073-9184	F	2	P	709035	01 OF 17 D04

**NOTES:**



- 1- ALL AMMETERS OF MOTORS HAVE TO BE 6xIn.
- 2- CATEGORY DESCRIPTION:
  - F1: SIMPLE 4-POLE MCCB FEEDER WITH THERMAL/MAGNETIC TRIPS, FOR I<63A FEEDERS.
  - F2: SIMPLE 4-POLE MCCB FEEDER WITH THERMAL/MAGNETIC TRIPS, FOR 63A=<I<100A FEEDERS.
  - F3: SIMPLE 4-POLE MCCB FEEDER WITH THERMAL/MAGNETIC TRIPS, FOR 100A=<I FEEDERS.
  - F4: SIMPLE 3-POLE MCCB FEEDER WITH THERMAL/MAGNETIC TRIPS, FOR I<63A FEEDERS.
  - F5: SIMPLE 3-POLE MCCB FEEDER WITH THERMAL/MAGNETIC TRIPS, FOR 63A=<I<100A FEEDERS.
  - F6: SIMPLE 3-POLE MCCB FEEDER WITH THERMAL/MAGNETIC TRIPS, FOR 100A=<I FEEDERS.
  - F7: SIMPLE 2-POLE MCCB FEEDER FOR FEEDING SINGLE PHASE LOADS (PH+N OR 2-PH)
  - M1: DIRECT ON LINE MOTOR STARTER FEEDERS FOR P < 4kW  
(SWITCH FUSE + CONTACTOR + BIMETAL + R/L SIGNALING)
  - M2: DIRECT ON LINE MOTOR STARTER FEEDERS FOR 4kW ≤ P < 18.5kW  
(SWITCH FUSE + CONTACTOR + BIMETAL + R/L SIGNALING + R/L AMMETER)
  - M3: DIRECT ON LINE MOTOR STARTER FEEDERS FOR 18.5kW ≤ P < 30kW  
SWITCH FUSE + CONTACTOR + BIMETAL + R/L SIGNALING + R/L AMMETER + (49, 50G + PHASE CONTROL)
  - M4: DIRECT ON LINE MOTOR STARTER FEEDERS FOR 30kW ≤ P  
(SWITCH FUSE + CONTACTOR + R/L SIGNALING+ R/L AMMETER + MOTOR PROTECTION RELAY(MPR),(49, 50G & PHASE CONTROL)
- 3- CORE BALANCE CT RATING OF EARTH LEAKAGE RELAYS SHALL BE ACCORDING TO RELAY MANUFACTURER STANDARD.
- 4- VOLTAGE AND CURRENT TRANSFORMERS SHALL HAVE APPROPRIATE VA.
- 5- THIS SWITCHGEAR SHALL BE DESIGNED, MANUFACTURED, INSPECTED AND TESTED IN ACCORDING WITH THE APPLICABLE SECTION OF IPS-E-EL-100(1) & IPS-E-EL-143(3)
- 6- ALL SWITCH FUSES SHALL BE EQUIPPED WITH STRIKER PIN
- 7- ALL EQUIPMENT SIZING SHALL BE FINALIZED BY MANUFACTURER BASED ON SITE CONDITION. IN ADDITION, TYPE 2 OF COORDINATION SHALL BE FOLLOWED BY VENDOR.
- 8- WHEN FUNCTION 27 IS ACTIVATED, ALL OUTGOING FEEDERS SHALL BE TRIPPED.
- 9- STATUS FROM BUS TIE & LV INCOMING TO DCS SHALL BE CONSIDERED BY VENDOR.
- 10- STOP & START PUSH BUTTON SHALL BE CONSIDERED ON INCOMINGS & BUS-TIEs.
- 11- CONTROL CIRCUIT VOLTAGE FOR OUTGOING IS 230 VAC WHICH WILL BE SUPPLIED FOR EACH LV CUBICLE. IN OTHER WORDS FOR EACH LV CUBICLE ONE ISOLATED DRY TYPE TRANSFORMER SHALL BE CONSIDERED BY VENDOR.
- 12- FOR FEEDER WITH TYPE M3,M4, CURRENT AND VOLTAGE FAULT SHALL BE CONSIDERED SEPARATELY BY VENDOR.
- 13- MICROPROCESSOR TYPE PROTECTIVE RELAYS SHALL BE EQUIPPED WITH RS 485 TO SEND SIGNALS BY SERIAL LINK
- 14- MCCB TYPE OUTGOING FEEDER SHALL BE EQUIPED WITH ROTARY SWITCH
- 15- CONNECTION BETWEEN MEASURING UNIT AND DCS SHALL BE RS 485 TO SEND SIGNALS BY SERIAL LINK.

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PROJECT NAME:							BINAK OILFIELD DEVELOPMENT/SURFACE FACILITIES GAS COMPRESSOR STATION						
PROJECT NO.:							971020						
EPC CONTRACTOR:				EPD/EPC CONTRACTOR (GC):				BINAK OILFIELD DEVELOPMENT SURFACE FACILITIES GAS COMPRESSOR STATION					
 HIRGAN ENERGY - DESIGN & INSPECTION COMPANIES				 PETROIRAN DEVELOPMENT COMPANY				DATE:    SCALE:    DRAWING BY:    CHECKED BY:    PROJECT ENG.					
DRAWING TITLE:							NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED						
APPROVED FOR CONSTRUCTION							BY:    DATE:						
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	WITHDRAWABLE AIR CIRCUIT BREAKER WITH MOTORIZED & MANUALLY CHARGED STORED ENERGY MECHANISM		MOULDED CASE CIRCUIT BREAKER, MANUALLY OPERATED WITH THERMAL MAGNETIC OVER CURRENT RELAY
	CONTACTOR (CONTACT OPEN IN THE UNOPERATED POSITION)(N.O.)		OPERATING DEVICE GENERAL SYMBOL
	PUSH BUTTON STATION START-STOP WITH AMMETER (W/P)		PUSH BUTTON STATION START-STOP WITH AMMETER (EX.)
	ZERO SEQUENCE CURRENT TRANSFORMER (CORE-BALANCE)		LOAD BREAK SWITCH
	25 SYNCHRONIZING CHECK RELAY		PUSH BUTTON STATION START-STOP (W/P)
	27 UNDER VOLTAGE RELAY		PUSH BUTTON STATION START-STOP (EX.)
	46 REVERSE PHASE OR PHASE BALANCE CURRENT RELAY		SWITCH FUSE
	47 PHASE SEQUENCE OR PHASE BALANCE VOLTAGE RELAY		VOLTMETER SELECTOR SWITCH
	49 THERMAL OVERLOAD RELAY		AMMETER SELECTOR SWITCH
	50 INSTANTANEOUS OVER CURRENT RELAY		SELECTOR SWITCH
	51 TIME DELAYED OVER CURRENT RELAY		LED TYPE SIGNAL LAMP
	50N INSTANTANEOUS EARTH FAULT RELAY		TRANSFORMER
	51N INVERSE TIME EARTH FAULT RELAY		CURRENT TRANSFORMER
	50G INSTANTANEOUS EARTH FAULT RELAY (BY ZERO SEQUENCE CT)		MOTOR
	51G INSTANTANEOUS EARTH FAULT RELAY (BY ZERO SEQUENCE CT)		ALARM WINDOW WITH RESET & ACKNOWLEDGE
	59 OVER VOLTAGE RELAY		CABLE GLAND
	63 LIQUID AND GAS PRESSURE RELAY		CABLE SEALING END
	64 GROUND DETECTOR RELAY		WITHDRAWABLE PART
	74 TRIP CIRCUIT SUPERVISION		MECHANICAL INTERLOCK
	86 LOCK OUT RELAY		POWER CABLE
	94 INTERTRIP RECEIVE RELAY		CONTROL CABLE
	MPR 47 45 500 MOTOR PROTECTION RELAY		START PUSH BUTTON
	EMERGENCY STOP, MUSHROOM TYPE		EMERGENCY STOP, MUSHROOM TYPE
	THERMAL OVERLOAD RELAY (49)		
	PHASE SEQUENCE OR PHASE BALANCE RELAY (47)		

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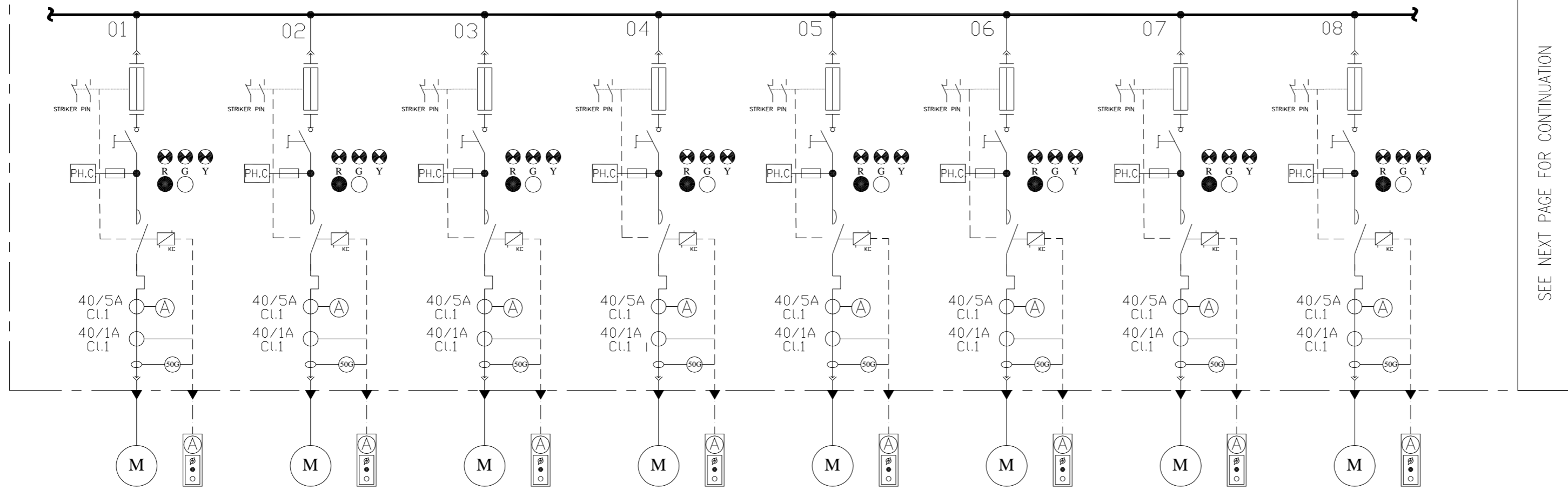
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<p>PROJECT NAME: BINAK OILFIELD DEVELOPMENT/SURFACE FACILITIES GAS COMPRESSOR STATION</p> <p>PROJECT NO.: 071020</p> <p>EPC CONTRACTOR: HIRGAN ENERGY - DESIGN &amp; INSPECTION COMPANIES</p> <p>EPD/EPC CONTRACTOR (GC): PETROIRAN DEVELOPMENT COMPANY</p> <p>DRAWING TITLE: LV SWITCHGEAR/MCC SINGLE LINE DIAGRAM</p> <p>NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED</p> <p>APPROVED FOR CONSTRUCTION BY: DATE:</p>												
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N.T.S	A2	BK-GCS-PEDCO-120-EL-SL-0002	03 OF 17	D04	063-073-9184	F	2	P	709035	03 OF 17	D04	

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GCS-400-NSWG-001A, 0.4kV, 2000A, 3Ph+N+PE, 50kA/1SEC.



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CATEGORY	M3	M3	M3	M3	M3	M3	M3	M3
CODE	AC-2121A	AC-2122A	AC-2121C	AC-2122C	AC-2131A	AC-2132A	AC-2131C	AC-2132C
POWER (kW)	18.5kW	18.5kW	18.5kW	18.5kW	18.5kW	18.5kW	18.5kW	18.5kW
C.B TYPE/RATING	-	-	-	-	-	-	-	-
FUSE TYPE/RATING	aM/40A	aM/40A	aM/40A	aM/40A	aM/40A	aM/40A	aM/40A	aM/40A
CONTACTOR RATING (A)	18.5kW (AC3)	18.5kW (AC3)	18.5kW (AC3)	18.5kW (AC3)	18.5kW (AC3)	18.5kW (AC3)	18.5kW (AC3)	18.5kW (AC3)
OVER LOAD SETTING RANGE	30 ... 40 A	30 ... 40 A	30 ... 40 A	30 ... 40 A	30 ... 40 A	30 ... 40 A	30 ... 40 A	30 ... 40 A
CABLE SIZE	-	-	-	-	-	-	-	-
DESCRIPTION OF FEEDER	FIRST STAGE AIR COOLER 21A	FIRST STAGE AIR COOLER 22A	FIRST STAGE AIR COOLER 21C	FIRST STAGE AIR COOLER 22C	FIRST STAGE AIR COOLER 31A	FIRST STAGE AIR COOLER 32A	FIRST STAGE AIR COOLER 31C	FIRST STAGE AIR COOLER 32C

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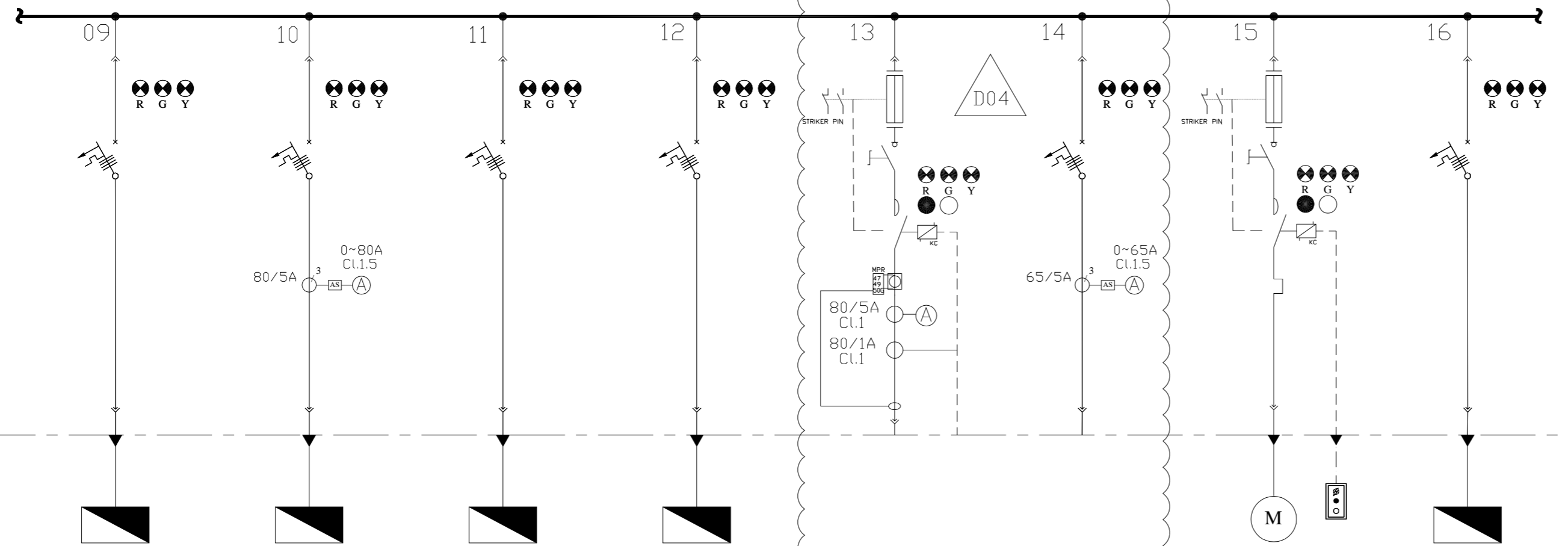
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GCS-400-NSWG-001A, 0.4kV, 2000A, 3Ph+N+PE, 50kA/1SEC.



SEE PREVIOUS PAGE FOR CONTINUATION

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CATEGORY	F1	F2	F1	F1	M4	F2	M1	F1
CODE	PK-Dr-2203A	PK-C-2204	PK-2204	PK-2201	SPARE	SPARE	P-2103A	GCS-400-CR-02
POWER (kW)	2KW	30KW	2KW	22.5KW	30KW	20KW	1.5KW	5KW
C.B TYPE/RATING	16A	80A	16A	50A	-	63A	-	32A
FUSE TYPE/RATING	N/A	N/A	N/A	N/A	aM/80A	N/A	aM/4A	N/A
CONTACTOR RATING (A)	N/A	N/A	N/A	N/A	30KW (AC3)	N/A	1.5KW (AC3)	N/A
OVER LOAD SETTING RANGE	N/A	N/A	N/A	N/A	48 ... 65 A	N/A	2.5 ... 4 A	N/A
CABLE SIZE	-	-	-	-	-	-	-	-
DESCRIPTION OF FEEDER	AIR DRYER PACKAGE A	AIR COMPRESSOR FOR N2 PACKAGE	NITROGEN PACKAGE	LP FLARE PACKAGE	SPARE	SPARE	GLYCOL TRANSFER PUMP A	FIRE WATER PUMPS CRANE

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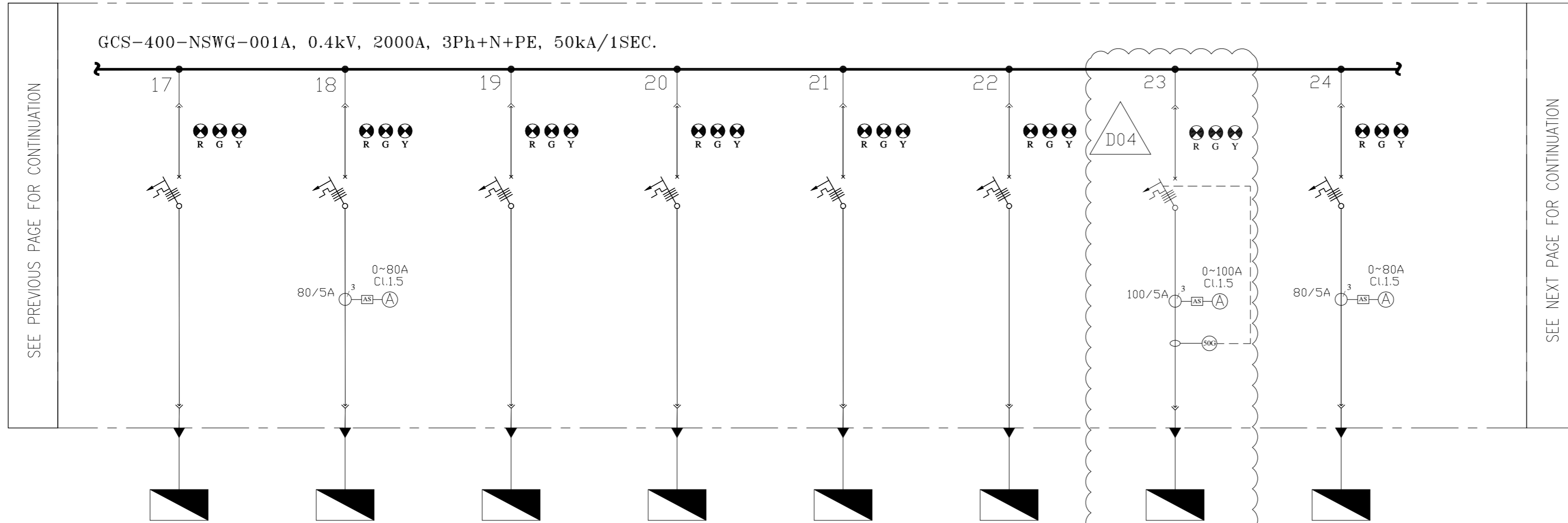
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CATEGORY	F1	F2	F1	F1	F1	F1	F3	F2
CODE	GCS-400-NDP-02	GCS-400-WS-02	GCS-400-CP01	GCS-110-CHG-001	GCS-24-CHG-001	MOV 1	MCC-2101A	GCS-400-NDP-SWHVAC
POWER (kW)	10KW	35KW	5KW	20KW	18.5KW	2KW	50KW	30KW
C.B TYPE/RATING	32A	80A	16A	50A	50A	16A	100A	80A
FUSE TYPE/RATING	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CONTACTOR RATING (A)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
OVER LOAD SETTING RANGE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CABLE SIZE	-	-	-	-	-	-	-	-
DESCRIPTION OF FEEDER	UTILITY AREA NORMAL DISTRIBUTION PANEL	WELDING RECEPTACLE (UTILITY AREA)	CATHODIC PROTECTION TRANSFORMER RECTIFIER	110VDC CHARGER 1	24VDC CHARGER 1	MOV 1	AUXILIARY PANEL FOR GAS COMPRESSOR C-2101A	SWITCHGEAR HVAC PANEL

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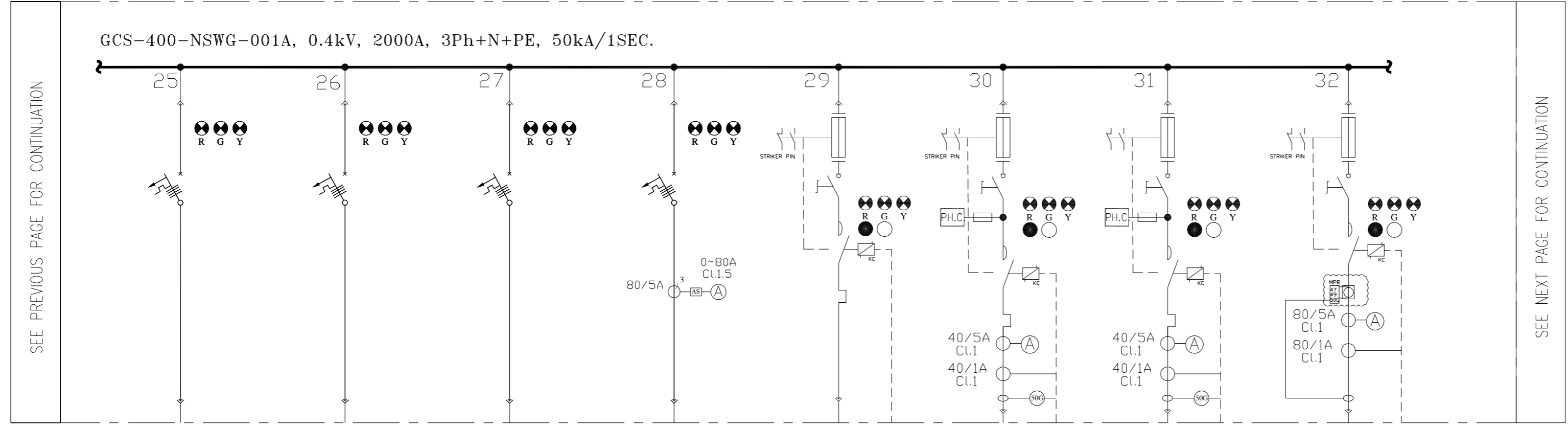
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CODE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE
POWER (kW)	-	-	-	-	1.5KW	18.5KW	18.5KW	30KW
C.B TYPE/RATING	16A	32A	50A	80A	-	-	-	-
FUSE TYPE/RATING	N/A	N/A	N/A	N/A	aM/4A	aM/40A	aM/40A	aM/80A
CONTACTOR RATING (A)	N/A	N/A	N/A	N/A	1.5KW (AC3)	18.5KW (AC3)	18.5KW (AC3)	30KW (AC3)
OVER LOAD SETTING RANGE	N/A	N/A	N/A	N/A	2.5 ... 4 A	30 ... 40 A	30 ... 40 A	48 ... 65 A
CABLE SIZE	-	-	-	-	-	-	-	-
DESCRIPTION OF FEEDER	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE

KEY PLAN

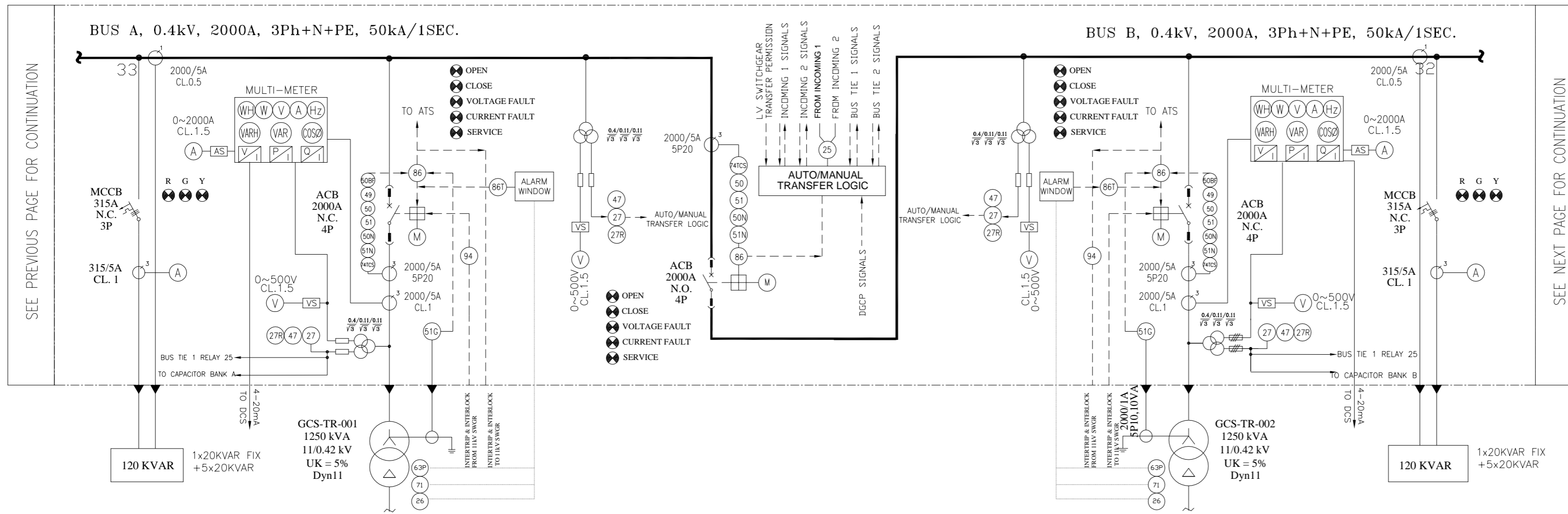
DO4	FEB.2023	IFA	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	***						
DO3	AUG.2022	IFA	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	***						
DO2	MAY.2022	IFA	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	***	***	*****	***	****	***	
DO1	APR.2022	IFA	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	***						
DO0	DEC.2021	IPC	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	***	REV.	DESCRIPTION	BY	DATE	BY	DATE
						***			CHECKED		REV.	APPR.
REV.	DATE	P.O.I.S	PREP.	CHK.	APP.	AUT.						
PROJECT NAME:							BINAK OILFIELD DEVELOPMENT/SURFACE FACILITIES GAS COMPRESSOR STATION					
PROJECT NO.:							971020					
EPC CONTRACTOR:			EPD/EPC CONTRACTOR (GC):									
DRAWING TITLE:							BINAK OILFIELD DEVELOPMENT SURFACE FACILITIES GAS COMPRESSOR STATION					
							NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED					
APPROVED FOR CONSTRUCTION							BY:					
DATE:							DATE:					
SCALE	SIZE	DRAWING NO.		SHEET NO.	REV.	BUDGET REF.	LOCATION	SIZE	CLASS	SERIAL NO.	SHEET	REVISION
N.T.S	A2	BK-GCS-PEDCO-120-EL-SL-0002		07 OF 17	D04	063-073-9184	F	2	P	709035	07 OF 17	D04

اسم و کلیه نسخ این نقشه و حق امتیاز متعلق به شرکت ملی مناطق نفت خیز جنوب می باشد.  
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NOTES

1-VOLTMETER SELECTOR SWITCH SHALL BE ABLE TO SHOW SINGLE PHASE VOLTAGE.

2-CONNECTION BETWEEN MEASURING UNIT AND DCS WILL BE RS 485 TO SEND SIGNALS BY SERIAL LINK.



CATEGORY	F3	IN.1	VOLTAGE TRANSFORMER	CO.1	VOLTAGE TRANSFORMER	IN.2	F3
CODE	CAP-01	GCS-TR-001	N/A	N/A	N/A	GCS-TR-001	CAP-02
POWER (kW)	120KVAR	1250KVA	250VA	N/A	250VA	1250KVA	120KVAR
C.B TYPE/RATING	MCCB-315 A	<ACB+M>/2000A	MCB 6A	<ACB+M>/2000A	MCB 6A	<ACB+M>/2000A	MCCB-315 A
FUSE TYPE/RATING	N/A	N/A	gG/4A	N/A	gG/4A	N/A	N/A
CONTACTOR RATING (A)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
OVER LOAD SETTING RANGE	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CABLE SIZE	-	-	N/A	N/A	N/A	-	-
DESCRIPTION OF FEEDER	LV CAPACITOR BANK 01	INCOMING FROM TRANSFORMER	BUS A CONTROL TRANSFORMER	COUPLING	BUS A CONTROL TRANSFORMER	INCOMING FROM TRANSFORMER	LV CAPACITOR BANK 02

LEGEND

REFERENCE DRAWING	DRG. No.
ELECTRICAL LOAD LIST	BK-GCS-PEDCO-120-EL-0001
ELECTRICAL TYPICAL SCHEMATIC DIAGRAMS FOR LV PANEL	BK-GCS-PEDCO-120-EL-DG-0002

KEY PLAN

REV.	DATE	P.O.I.S	PREP.	CHK.	APP.	AUT.
D04	FEB.2023	IFA	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	** **
D03	AUG.2022	IFA	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	** **
D02	MAY.2022	IFA	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	** **
D01	APR.2022	IFA	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	** **
D00	DEC.2021	IPC	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	** **

REV.	DESCRIPTION	BY	DATE	BY	DATE
		CHECKED		REV. APPR.	

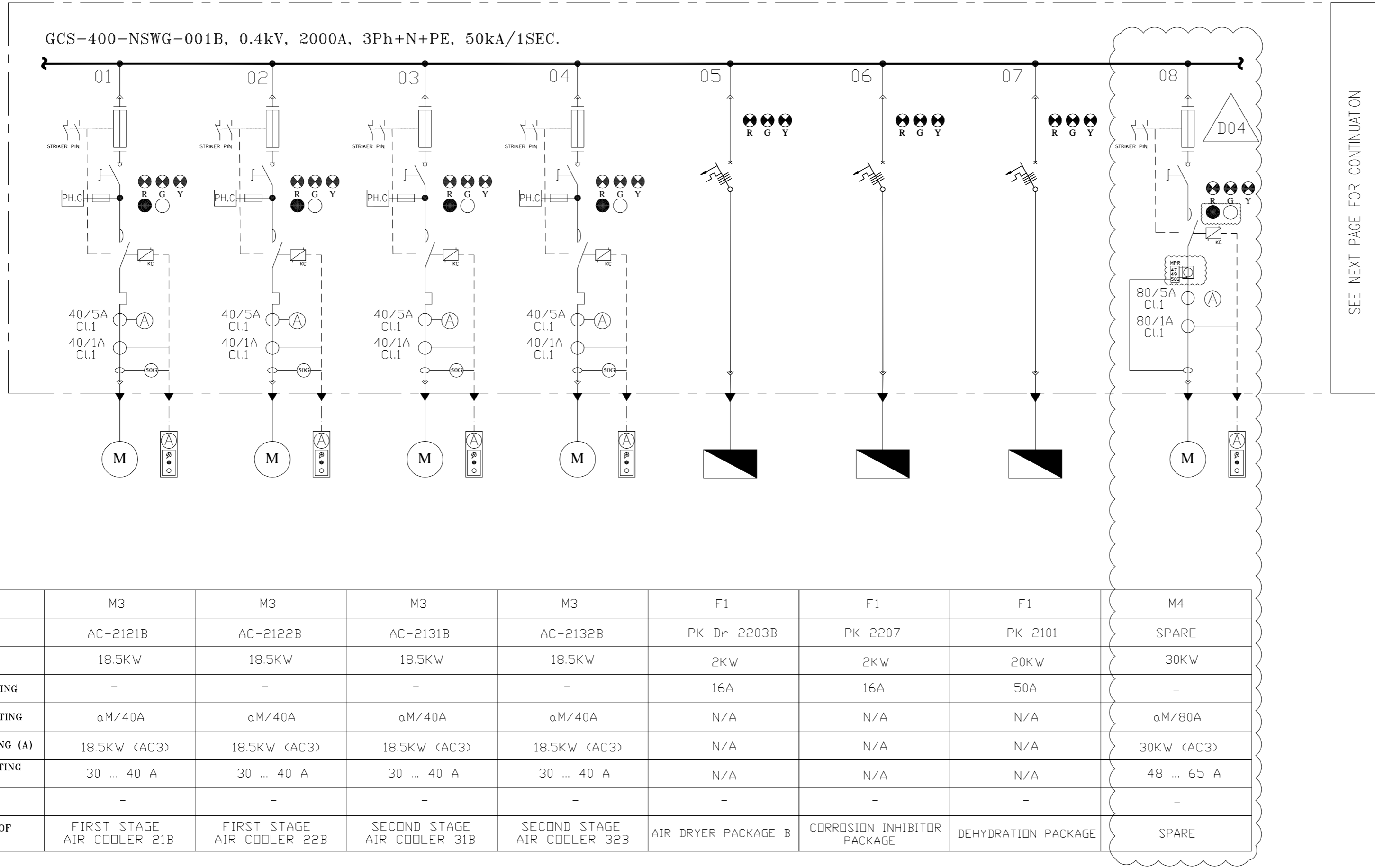
PROJECT NAME:		BINAK OILFIELD DEVELOPMENT/SURFACE FACILITIES GAS COMPRESSOR STATION			
PROJECT NO.:		971020			
EPC CONTRACTOR:		EPD/EPC CONTRACTOR (GC):			
 HIRGAN ENERGY - DESIGN & INSPECTION COMPANIES		 PETROIRAN DEVELOPMENT COMPANY			
DRAWING TITLE:		LV SWITCHGEAR/MCC SINGLE LINE DIAGRAM			
SCALE		DRAWING NO.		SHEET NO.	
N.T.S		BK-GCS-PEDCO-120-EL-SL-0002		08 OF 17	
BUDGET REF.		LOCATION		SIZE CLASS	
D04		F		2 P	
REV.		SERIAL NO.		SHEET REVISION	
D04		709035		08 OF 17 D04	

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APPROVED FOR CONSTRUCTION BY: DATE:





CATEGORY	M3	M3	M3	M3	F1	F1	F1	M4
CODE	AC-2121B	AC-2122B	AC-2131B	AC-2132B	PK-Dr-2203B	PK-2207	PK-2101	SPARE
POWER (kW)	18.5kW	18.5kW	18.5kW	18.5kW	2kW	2kW	20kW	30kW
C.B TYPE/RATING	-	-	-	-	16A	16A	50A	-
FUSE TYPE/RATING	aM/40A	aM/40A	aM/40A	aM/40A	N/A	N/A	N/A	aM/80A
CONTACTOR RATING (A)	18.5kW (AC3)	18.5kW (AC3)	18.5kW (AC3)	18.5kW (AC3)	N/A	N/A	N/A	30kW (AC3)
OVER LOAD SETTING RANGE	30 ... 40 A	30 ... 40 A	30 ... 40 A	30 ... 40 A	N/A	N/A	N/A	48 ... 65 A
CABLE SIZE	-	-	-	-	-	-	-	-
DESCRIPTION OF FEEDER	FIRST STAGE AIR COOLER 21B	FIRST STAGE AIR COOLER 22B	SECOND STAGE AIR COOLER 31B	SECOND STAGE AIR COOLER 32B	AIR DRYER PACKAGE B	CORROSION INHIBITOR PACKAGE	DEHYDRATION PACKAGE	SPARE

NOTES

LEGEND

REFERENCE DRAWING	DRG. No.
ELECTRICAL LOAD LIST	BK-GCS-PEDCO-120-EL-LI-0001
ELECTRICAL TYPICAL SCHEMATIC DIAGRAMS FOR LV PANEL	BK-GCS-PEDCO-120-EL-DG-0002

KEY PLAN

REV.	DATE	P.O.I.S	PREP.	CHK.	APP.	AUT.	DESCRIPTION	BY	DATE	BY	DATE
D04	FEB.2023	IFA	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	***					
D03	AUG.2022	IFA	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	***					
D02	MAY.2022	IFA	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	***	*****	***	***	***	***
D01	APR.2022	IFA	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	***					
D00	DEC.2021	IPC	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	***	CHECKED			REV. APPR.	
REV.	DATE	P.O.I.S	PREP.	CHK.	APP.	AUT.					

PROJECT NAME: BINAK OILFIELD DEVELOPMENT/SURFACE FACILITIES GAS COMPRESSOR STATION

PROJECT NO.: 971020

EPC CONTRACTOR: HIRGAN ENERGY - DESIGN & INSPECTION COMPANIES

EPD/EPC CONTRACTOR (GC): PETROIRAN DEVELOPMENT COMPANY

DRAWING TITLE: LV SWITCHGEAR/MCC SINGLE LINE DIAGRAM

NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED

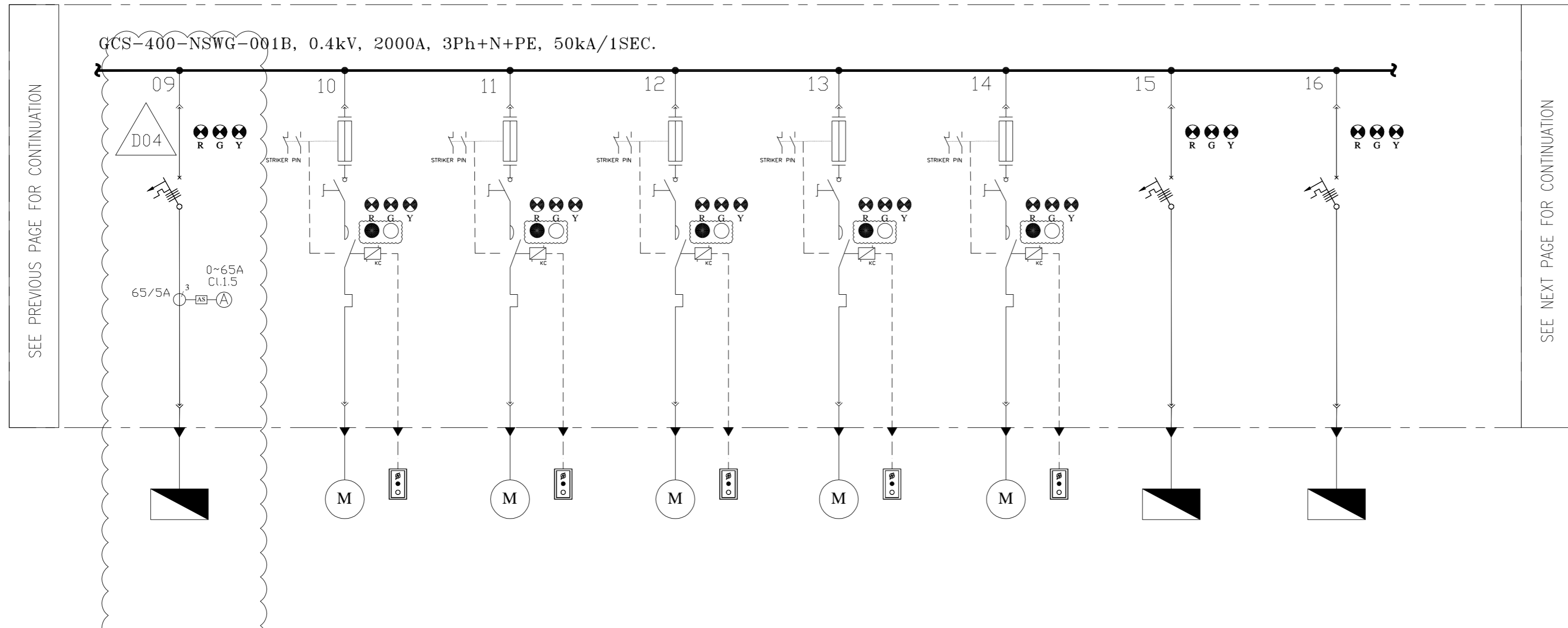
SCALE	SIZE	DRAWING NO.	SHEET NO.	REV.	BUDGET REF.	LOCATION	SIZE CLASS	SERIAL NO.	SHEET	REVISION
N.T.S	A2	BK-GCS-PEDCO-120-EL-SL-0002	09 OF 17	D04	063-073-9184	F	2	P	709035	09 OF 17 D04

NOTES

LEGEND

REFERENCE DRAWING	DRG. No.
ELECTRICAL LOAD LIST	BK-GCS-PEDCO-120-EL-U-0001
ELECTRICAL TYPICAL SCHEMATIC DIAGRAMS FOR LV PANEL	BK-GCS-PEDCO-120-EL-DG-0002

KEY PLAN



CATEGORY	F2	M1	M1	M1	M1	M1	F1	F1
CODE	SPARE	P-2209	P-2206	P-2103B	P-2102	P-2104	GCS-400-CR-01	GCS-400-NDP-01
POWER (kW)	20KW	2.2KW	2.2KW	1.5KW	1.1KW	1.1KW	10KW	20KW
C.B TYPE/RATING	63A	-	-	-	-	-	32A	50A
FUSE TYPE/RATING	N/A	aM/6A	aM/6A	aM/4A	aM/4A	aM/4A	N/A	N/A
CONTACTOR RATING (A)	N/A	2.2KW (AC3)	2.2KW (AC3)	1.5KW (AC3)	1.1KW (AC3)	1.1KW (AC3)	N/A	N/A
OVER LOAD SETTING RANGE	N/A	4 ... 6 A	4 ... 6 A	2.5 ... 4 A	2.5 ... 4 A	2.5 ... 4 A	N/A	N/A
CABLE SIZE	-	-	-	-	-	-	-	-
DESCRIPTION OF FEEDER	SPARE	POTABLE WATER PUMP	DIESEL OIL PUMP	GLYCOL TRANSFER PUMP B	GLYCOL MANUAL PUMP	GLYCOL DRAIN PUMP	MAIN COMPRESSOR CRANE	PROCESS AREA NORMAL DISTRIBUTION PANEL

D04	FEB.2023	IFA	H.SHAKIBA	M.PAKHARIAN	M.MEHRSHAD	***						
D03	AUG.2022	IFA	H.SHAKIBA	M.PAKHARIAN	M.MEHRSHAD	***						
D02	MAY.2022	IFA	H.SHAKIBA	M.PAKHARIAN	M.MEHRSHAD	***	***	*****	**	***	*****	
D01	APR.2022	IFA	H.SHAKIBA	M.PAKHARIAN	M.MEHRSHAD	***						
D00	DEC.2021	IFC	H.SHAKIBA	M.PAKHARIAN	M.MEHRSHAD	***	REV.	DESCRIPTION	BY	DATE	BY	DATE
REV.	DATE	P.O.I.S	PREP.	CHK.	APP.	AUT.		CHECKED			REV.	APPR.

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PROJECT NAME: BINAK OILFIELD DEVELOPMENT/SURFACE FACILITIES GAS COMPRESSOR STATION

PROJECT NO.: 971020

EPC CONTRACTOR: HIRGAN ENERGY - DESIGN & INSPECTION COMPANIES

EPD/EPC CONTRACTOR (GC): PETROIRAN DEVELOPMENT COMPANY

BINAK OILFIELD DEVELOPMENT SURFACE FACILITIES GAS COMPRESSOR STATION

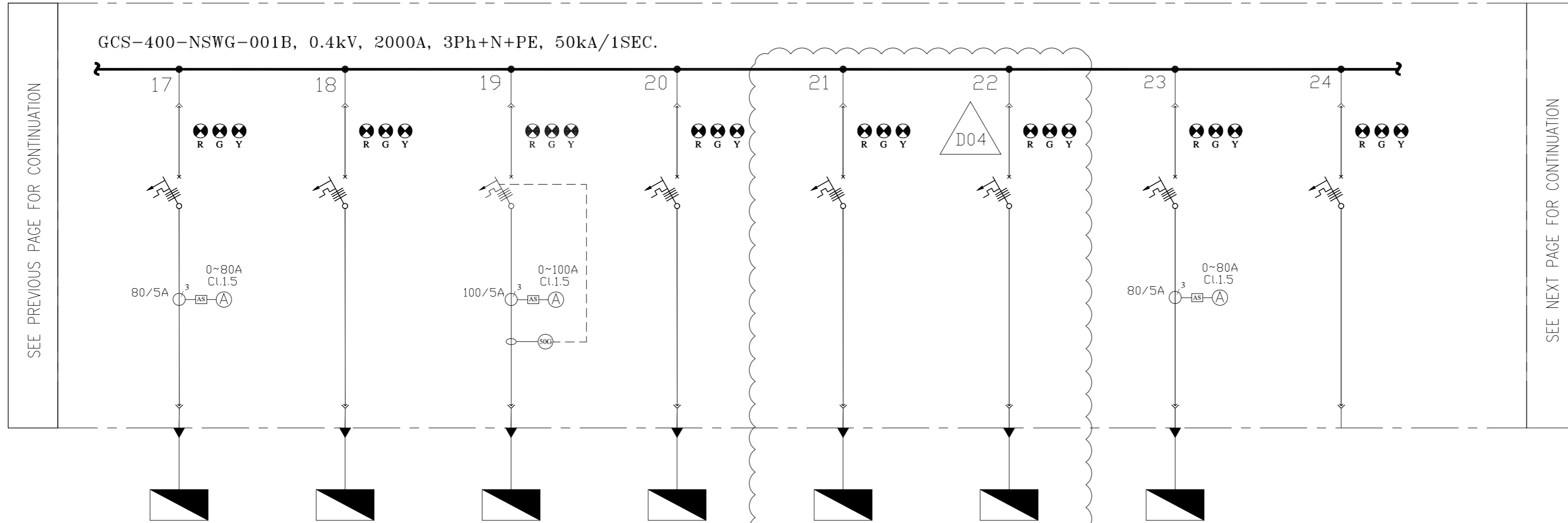
DATE	SCALE	DRAWING BY	CHECKED BY	PROJECT ENG.
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DRAWING TITLE: LV SWITCHGEAR/MCC SINGLE LINE DIAGRAM

NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED

APPROVED FOR CONSTRUCTION	BY:	DATE:
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SCALE	SIZE	DRAWING NO.	SHEET NO.	REV.	BUDGET REF.	LOCATION	SIZE CLASS	SERIAL NO.	SHEET	REVISION
N.T.S	A2	BK-GCS-PEDCO-120-EL-SL-0002	10 OF 17	D04	053-073-9184	F	2	P	709035	10 OF 17 D04



CATEGORY	F2	F1	F3	F1	F1	F1	F2	F1
CODE	GCS-400-WS-01	GCS-400-CP02	GCS-110-UPS-001	MOV 2	MCC-2101B	MCC-2101C	GCS-400-NDP-CRM	SPARE
POWER (kW)	35KW	10KW	36KW	2KW	50KW	50KW	30KW	-
C.B TYPE/RATING	80A	32A	100A	16A	100A	100A	80A	16A
FUSE TYPE/RATING	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CONTACTOR RATING (A)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
OVER LOAD SETTING RANGE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CABLE SIZE	-	-	-	-	-	-	-	-
DESCRIPTION OF FEEDER	WELDING RECEPTACLE (3PHASE)(PROCESS AREA)	CATHODIC PROTECTION TRANSFORMER RECTIFIER2	110VAC UPS 1	MOV 2	AUXILIARY PANEL FOR GAS COMPRESSOR C-2101B	AUXILIARY PANEL FOR GAS COMPRESSOR C-2101C	CONTROL ROOM NORMAL DISTRIBUTION PANEL	SPARE

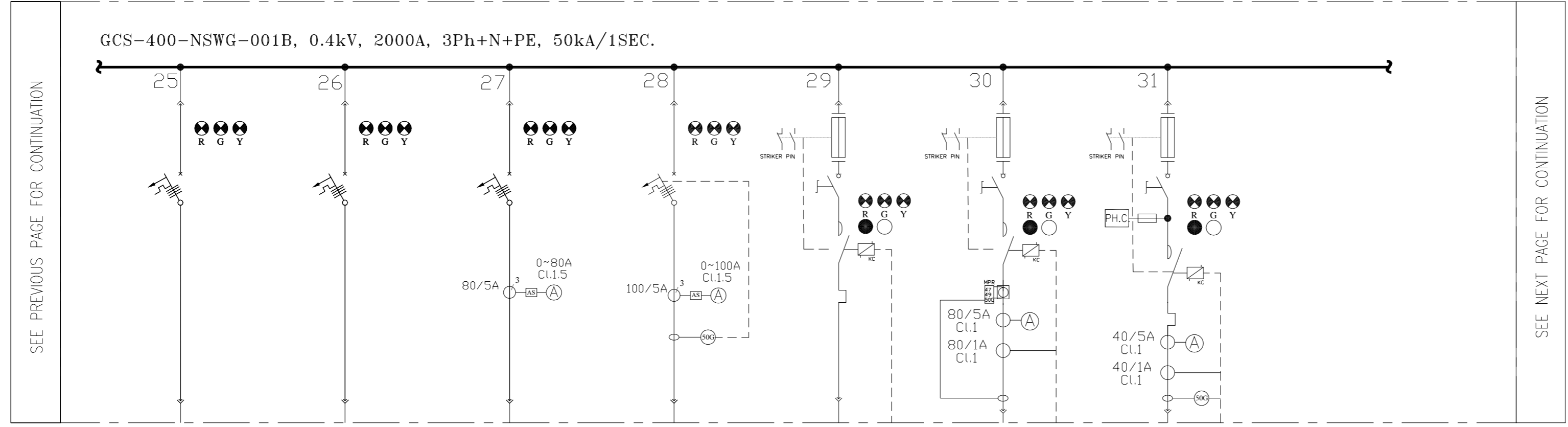
NOTES

LEGEND

REFERENCE DRAWING	DRG. No.
ELECTRICAL LOAD LIST	BK-GCS-PEDCO-120-EL-0001
ELECTRICAL TYPICAL SCHEMATIC DIAGRAMS FOR LV PANEL	BK-GCS-PEDCO-120-EL-DG-0002

KEY PLAN

REV.	DATE	P.O.I.S	PREP.	CHK.	APP.	AUT.	DESCRIPTION	BY	DATE	BY	DATE	
D04	FEB.2023	IFA	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	***						
D03	AUG.2022	IFA	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	***						
D02	MAY.2022	IFA	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	***	***	*****	***	****	***	
D01	APR.2022	IFA	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	***	REV.	DESCRIPTION	BY	DATE	BY	DATE
D00	DEC.2021	IPC	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	***		CHECKED			REV. APPR.	
REV.	DATE	P.O.I.S	PREP.	CHK.	APP.	AUT.						
PROJECT NAME:							BINAK OILFIELD DEVELOPMENT/SURFACE FACILITIES GAS COMPRESSOR STATION					
PROJECT NO.:							971020					
EPC CONTRACTOR:			EPD/EPC CONTRACTOR (GC):			BINAK OILFIELD DEVELOPMENT SURFACE FACILITIES GAS COMPRESSOR STATION						
 HIRGAN ENERGY - DESIGN & INSPECTION COMPANIES			 PETROIRAN DEVELOPMENT COMPANY			 N.I.S.O.C./ FIELDS						
DRAWING TITLE:							LV SWITCHGEAR/MCC SINGLE LINE DIAGRAM					
NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED							APPROVED FOR CONSTRUCTION BY: DATE:					
SCALE	SIZE	DRAWING NO.		SHEET NO.	REV.	BUDGET REF.	LOCATION	SIZE	CLASS	SERIAL NO.	SHEET	REVISION
N.T.S	A2	BK-GCS-PEDCO-120-EL-SL-0002		11 OF 17	D04	063-073-9184	F	2	P	709035	11 OF 17	D04



NOTES

LEGEND

REFERENCE DRAWING	DRG. No.
ELECTRICAL LOAD LIST	BK-GCS-PEDCO-120-EL-LI-0001
ELECTRICAL TYPICAL SCHEMATIC DIAGRAMS FOR LV PANEL	BK-GCS-PEDCO-120-EL-DG-0002

CATEGORY	F1	F1	F2	F3	M1	M4	M3
CODE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE
POWER (kW)	-	-	-	-	2.2KW	30KW	18.5KW
C.B TYPE/RATING	32A	50A	80A	100A	-	-	-
FUSE TYPE/RATING	N/A	N/A	N/A	N/A	aM/6A	aM/80A	aM/40A
CONTACTOR RATING (A)	N/A	N/A	N/A	N/A	2.2KW <AC3>	30KW <AC3>	18.5KW <AC3>
OVER LOAD SETTING RANGE	N/A	N/A	N/A	N/A	4 ... 6 A	48 ... 65 A	30 ... 40 A
CABLE SIZE	-	-	-	-	-	-	-
DESCRIPTION OF FEEDER	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE

KEY PLAN

DO4	FEB.2023	IFA	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	***						
DO3	AUG.2022	IFA	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	***						
DO2	MAY.2022	IFA	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	***	***	*****	***	***	***	
DO1	APR.2022	IFA	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	***						
DO0	DEC.2021	IPC	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	***	REV.	DESCRIPTION	BY	DATE	BY	DATE
REV.	DATE	P.O.I.S	PREP.	CHK.	APP.	AUT.		CHECKED			REV.	APPR.

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PROJECT NAME: BINAK OILFIELD DEVELOPMENT/SURFACE FACILITIES GAS COMPRESSOR STATION

PROJECT NO.: 971020

EPC CONTRACTOR: HIRGAN ENERGY - DESIGN & INSPECTION COMPANIES

EPD/EPC CONTRACTOR (GC): PETROIRAN DEVELOPMENT COMPANY

BINAK OILFIELD DEVELOPMENT SURFACE FACILITIES GAS COMPRESSOR STATION

DATE	SCALE	DRAWING BY	CHECKED BY	PROJECT ENG.

DRAWING TITLE: LV SWITCHGEAR/MCC SINGLE LINE DIAGRAM

NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED

SCALE	SIZE	DRAWING NO.	SHEET NO.	REV.	BUDGET REF.	LOCATION	SIZE CLASS	SERIAL NO.	SHEET NO.	SHEET REVISION
N.T.S	A2	BK-GCS-PEDCO-120-EL-SL-0002	12 OF 17	D04	063-073-9184	F	2	P	709035	12 OF 17 D04

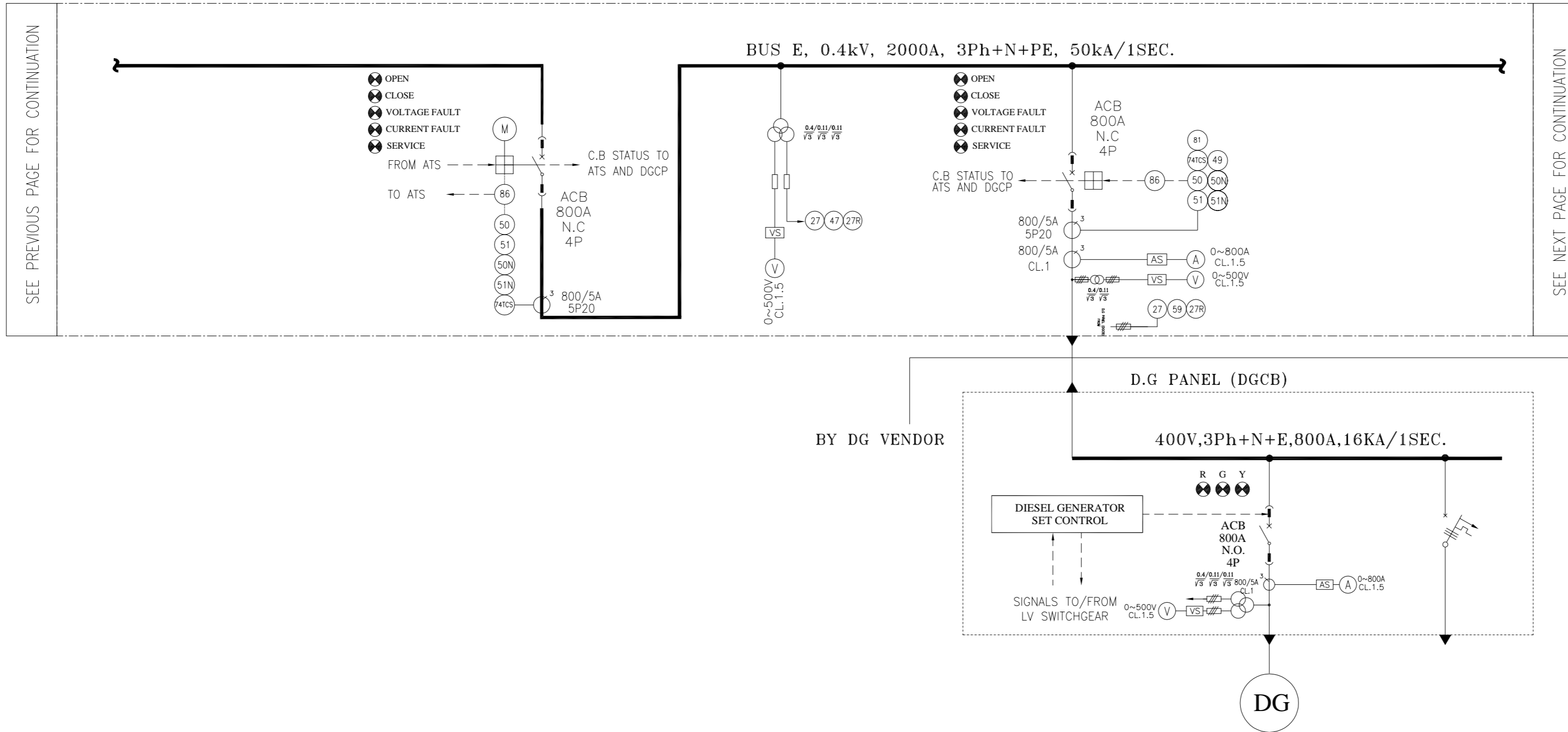
NOTES

- 1-VOLTMETER SELECTOR SWITCH SHALL BE ABLE TO SHOW SINGLE PHASE VOLTAGE.
- 2-CONNECTION BETWEEN MEASURING UNIT AND DCS WILL BE RS 485 TO SEND SIGNALS BY SERIAL LINK.

LEGEND

REFERENCE DRAWING	DRG. No.
ELECTRICAL LOAD LIST	BK-GCS-PEDCO-120-EL-0001
ELECTRICAL TYPICAL SCHEMATIC DIAGRAMS FOR LV PANEL	BK-GCS-PEDCO-120-EL-DG-0002

KEY PLAN



CATEGORY	CO.2	VOLTAGE TRANSFORMER	IN.3	DGCB	F2
CODE	N/A	N/A	N/A	GCS-DG-001	-
CONSUMPTION	N/A	250VA	N/A	GENERATOR: 500 KVA	4KW
C.B TYPE/RATING	(ACB+M)/800A	MCB 6A	ACB 800A	ACB 800A	20A
FUSE TYPE/RATING	N/A	gG/4A	N/A	N/A	N/A
CONTACTOR RATING (A)	N/A	N/A	N/A	N/A	N/A
OVER LOAD SETTING RANGE	N/A	N/A	N/A	N/A	N/A
CABLE SIZE	N/A	N/A	-	-	-
DESCRIPTION OF FEEDER	Coupling	Bus e Control Transformers	Incoming From Emergency d/g	Diesel Generator	Emergency Load Generation Set

DO4	FEB.2023	IFA	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	** **						
DO3	AUG.2022	IFA	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	** **						
DO2	MAY.2022	IFA	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	** **	***	*****	** **	*** **	*** **	
DO1	APR.2022	IFA	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	** **						
DO0	DEC.2021	IPC	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	** **	REV.	DESCRIPTION	BY	DATE	BY	DATE
REV.	DATE	P.O.I.S	PREP.	CHK.	APP.	AUT.		CHECKED			REV. APPR.	

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PROJECT NAME: BINAK OILFIELD DEVELOPMENT/SURFACE FACILITIES GAS COMPRESSOR STATION  
PROJECT NO.: 971020

EPC CONTRACTOR: HIRGAN ENERGY TE  
EPD/EPC CONTRACTOR (GC): PETROIRAN DEVELOPMENT COMPANY PEDCO

DRAWING TITLE: LV SWITCHGEAR/MCC SINGLE LINE DIAGRAM

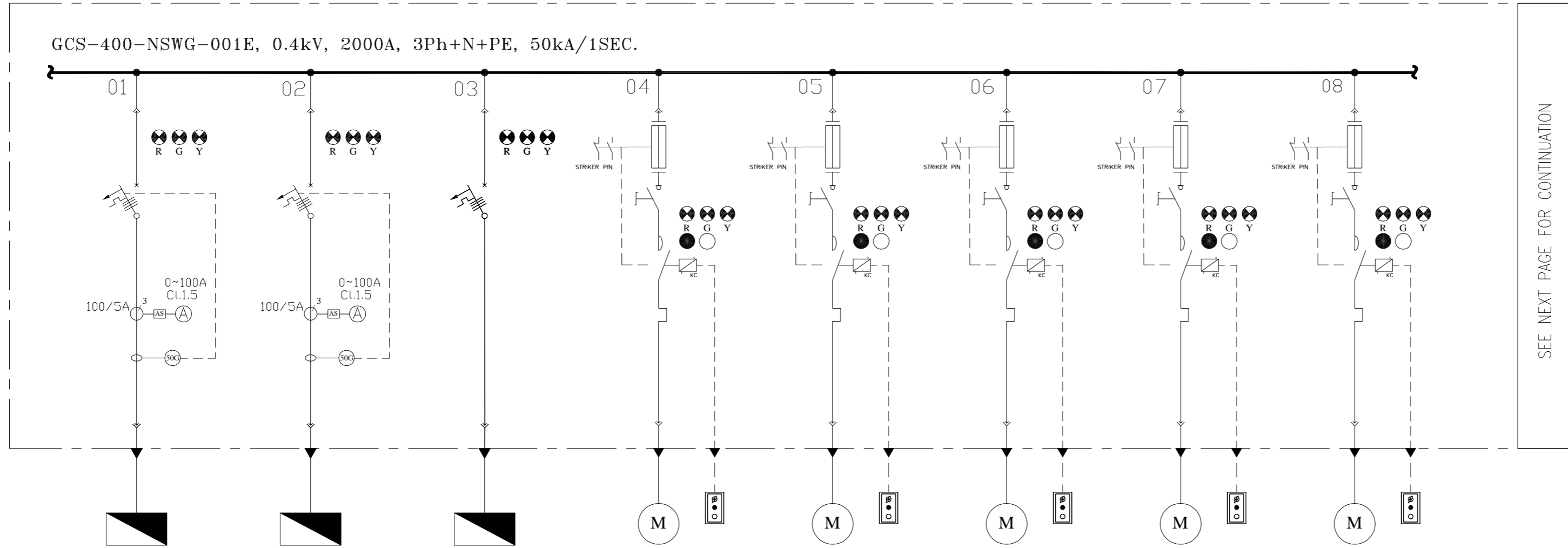
SCALE	SIZE	DRAWING NO.	SHEET NO.	REV.	BUDGET REF.	LOCATION	SIZE	CLASS	SERIAL NO.	SHEET	REVISION
N.T.S	A2	BK-GCS-PEDCO-120-EL-SL-0002	13 OF 17	D04	063-073-9184	F	2	P	709035	13 OF 17	D04

NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED

APPROVED FOR CONSTRUCTION BY: DATE:

SEE PREVIOUS PAGE FOR CONTINUATION

SEE NEXT PAGE FOR CONTINUATION



CATEGORY	F3	F3	F1	M1	M1	M1	M1	M1
CODE	PK-C-2203A	PK-C-2203B	IG-2201	P-2203A	P-2203B	P-2202A	P-2202B	P-2201A
POWER (kW)	50KW	50KW	2KW	2.2KW	2.2KW	1.1KW	1.1KW	1.1KW
C.B TYPE/RATING	100A	100A	16A	-	-	-	-	-
FUSE TYPE/RATING	N/A	N/A	N/A	aM/6A	aM/6A	aM/4A	aM/4A	aM/4A
CONTACTOR RATING (A)	N/A	N/A	N/A	2.2KW (AC3)	2.2KW (AC3)	1.1KW (AC3)	1.1KW (AC3)	1.1KW (AC3)
OVER LOAD SETTING RANGE	N/A	N/A	N/A	4 ... 6 A	4 ... 6 A	2.5 ... 4 A	2.5 ... 4 A	2.5 ... 4 A
CABLE SIZE	-	-	-	-	-	-	-	-
DESCRIPTION OF FEEDER	INSTRUMENT & PLANT AIR PACKAGE A	INSTRUMENT & PLANT AIR PACKAGE B	LP FLARE IGNITION PACKAGE	SUMP PUMP A	SUMP PUMP B	CLOSED DRAIN PUMP A	CLOSED DRAIN PUMP B	LP FLARE K.O. DRUM PUMP A

NOTES

LEGEND

REFERENCE DRAWING	DRG. No.
ELECTRICAL LOAD LIST	BK-GCS-PEDCO-120-EL-LI-0001
ELECTRICAL TYPICAL SCHEMATIC DIAGRAMS FOR LV PANEL	BK-GCS-PEDCO-120-EL-DG-0002

KEY PLAN

REV.	DATE	DESCRIPTION	BY	DATE	BY	DATE
D04	FEB.2023	IFA	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	***
D03	AUG.2022	IFA	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	***
D02	MAY.2022	IFA	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	***
D01	APR.2022	IFA	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	***
D00	DEC.2021	IPC	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	***
REV.	DATE	P.O.I.S	PREP.	CHK.	APP.	AUT.

PROJECT NAME: BINAK OILFIELD DEVELOPMENT/SURFACE FACILITIES GAS COMPRESSOR STATION

PROJECT NO.: 971020

EPC CONTRACTOR: HIRGAN ENERGY - DESIGN & INSPECTION COMPANIES

EPD/EPC CONTRACTOR (GC): PETROIRAN DEVELOPMENT COMPANY

DRAWING TITLE: LV SWITCHGEAR/MCC SINGLE LINE DIAGRAM

NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED

SCALE	SIZE	DRAWING NO.	SHEET NO.	REV.	BUDGET REF.	LOCATION	SIZE	CLASS	SERIAL NO.	SHEET	REVISION
N.T.S	A2	BK-GCS-PEDCO-120-EL-SL-0002	14 OF 17	D04	063-073-9184	F	2	P	709035	14 OF 17	D04

NOTES

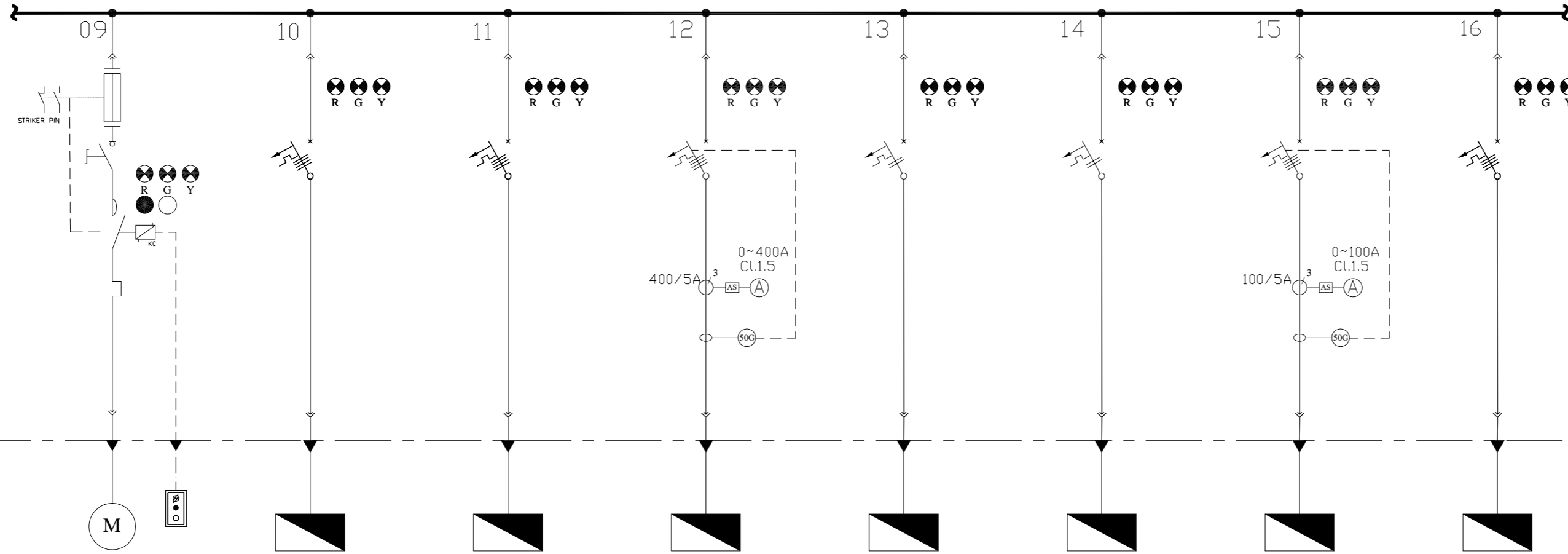
LEGEND

KEY PLAN

REFERENCE DRAWING	DRG. No.
ELECTRICAL LOAD LIST	BK-GCS-PEDCO-120-EL-0001
ELECTRICAL TYPICAL SCHEMATIC DIAGRAMS FOR LV PANEL	BK-GCS-PEDCO-120-EL-DG-0002

اسم و کلیه نسخ این نقشه و حق اقتباس متعلق به شرکت ملی مناطق نفت خیز جنوب میباشد.  
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GCS-400-NSWG-001E, 0.4kV, 2000A, 3Ph+N+PE, 50kA/1SEC.

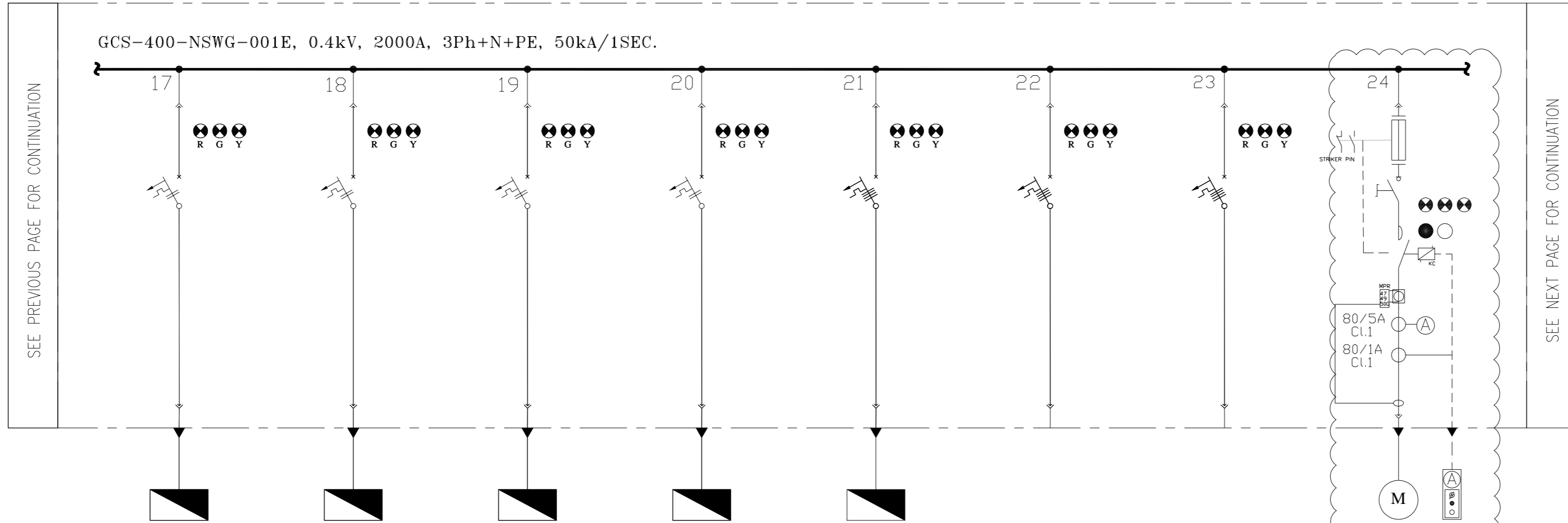


SEE PREVIOUS PAGE FOR CONTINUATION

SEE NEXT PAGE FOR CONTINUATION

CATEGORY	M1	F1	F1	F3	F1	F1	F3	F1
CODE	P-2201B	GCS-400-EDP-01	GCS-400-EDP-02	CTRL- HVAC	GCS-110-CHG-002	GCS-24-CHG-002	GCS-110-UPS-002	GCS-110-UPS-Bypass
POWER (kW)	1.1KW	10KW	5KW	140KW	20KW	18.5KW	36KW	20KW
C.B TYPE/RATING	-	32A	32A	400A	50A	50A	100A	50A
FUSE TYPE/RATING	αM/4A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CONTACTOR RATING (A)	1.1KW (AC3)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
OVER LOAD SETTING RANGE	2.5 ... 4 A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CABLE SIZE	-	-	-	-	-	-	-	-
DESCRIPTION OF FEEDER	LP FLARE K.O. DRUM PUMP B	PROCESS AREA EMERGENCY DISTRIBUTION PANEL	UTILITY AREA EMERGENCY DISTRIBUTION PANEL	HVAC PANEL FOR CONTROL ROOM	110VDC CHARGER 2	24VDC CHARGER 2	110VAC UPS 2	110VAC UPS BYPASS

DO4	FEB.2023	IFA	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	**												
DO3	AUG.2022	IFA	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	**												
DO2	MAY.2022	IFA	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	**	***	*****	**	***	***							
DO1	APR.2022	IFA	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	**												
DO0	DEC.2021	IPC	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	**	REV.	DESCRIPTION	BY	DATE	BY	DATE						
						**			CHECKED		REV.	APPR.						
REV.	DATE	P.O.I.S	PREP.	CHK.	APP.	AUT.												
PROJECT NAME:							BINAK OILFIELD DEVELOPMENT/SURFACE FACILITIES GAS COMPRESSOR STATION											
PROJECT NO.:							971020											
EPC CONTRACTOR:				EPD/EPC CONTRACTOR (GC):				BINAK OILFIELD DEVELOPMENT SURFACE FACILITIES GAS COMPRESSOR STATION										
 HIRGAN ENERGY - DESIGN & INSPECTION COMPANIES				 PETROIRAN DEVELOPMENT COMPANY				 PEDCO										
DRAWING TITLE:							LV SWITCHGEAR/MCC SINGLE LINE DIAGRAM											
NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED							APPROVED FOR CONSTRUCTION											
SCALE							BUDGET REF.		LOCATION		SIZE CLASS		SERIAL NO.		SHEET		REVISION	
N.T.S							A2		BK-GCS-PEDCO-120-EL-SL-0002		15 OF 17		D04		063-073-9184		F 2 P 709035 15 OF 17 D04	



CATEGORY	F7	F7	F7	F7	F1	F1	F1	M4
CODE	GCS-230-FDP 01	GCS-230-FDP 02	SPH-01	SPH-02	GCS-400-EDP-CRM	GCS-400-EDP-CRM	GCS-400-EDP-CCTV	P-2101A
POWER (kW)	1KW	1KW	2KW	2KW	23KW	10KW	-	30KW
C.B TYPE/RATING	16A	16A	16A	16A	50A	50A	50A	-
FUSE TYPE/RATING	N/A	N/A	N/A	N/A	N/A	N/A	N/A	aM/80A
CONTACTOR RATING (A)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	30KW (AC3)
OVER LOAD SETTING RANGE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	48 ... 65 A
CABLE SIZE	-	-	-	-	-	-	-	-
DESCRIPTION OF FEEDER	FIRE DIESEL PANEL 01 (ELECTRICAL MAIN MOTOR)	FIRE DIESEL PANEL 02 (DISEL ENGINE)	SPACE HEATER & LIGHTING FOR NEW LV SWITCHGEAR	SPACE HEATER & LIGHTING FOR NEW MV SWITCHGEAR	CONTROL ROOM EMERGENCY LIGHTING PANEL	CONTROL ROOM EMERGENCY LIGHTING PANEL	CCTV BUILDING EMERGENCY LIGHTING PANEL	SLUG PUMP A

NOTES

LEGEND

REFERENCE DRAWING	DRG. No.
ELECTRICAL LOAD LIST	BK-GCS-PEDCO-120-EL-0001
ELECTRICAL TYPICAL SCHEMATIC DIAGRAMS FOR LV PANEL	BK-GCS-PEDCO-120-EL-DG-0002

KEY PLAN

REV.	DATE	DESCRIPTION	BY	DATE	BY	DATE
D04	FEB.2023	IFA	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	** **
D03	AUG.2022	IFA	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	** **
D02	MAY.2022	IFA	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	** **
D01	APR.2022	IFA	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	** **
D00	DEC.2021	IPC	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	** **
REV.	DATE	P.O.I.S	PREP.	CHK.	APP.	AUT.

PROJECT NAME: BINAK OILFIELD DEVELOPMENT/SURFACE FACILITIES GAS COMPRESSOR STATION

PROJECT NO.: 971020

EPC CONTRACTOR: HIRGAN ENERGY - DESIGN & INSPECTION COMPANIES

EPD/EPC CONTRACTOR (GC): PETROIRAN DEVELOPMENT COMPANY

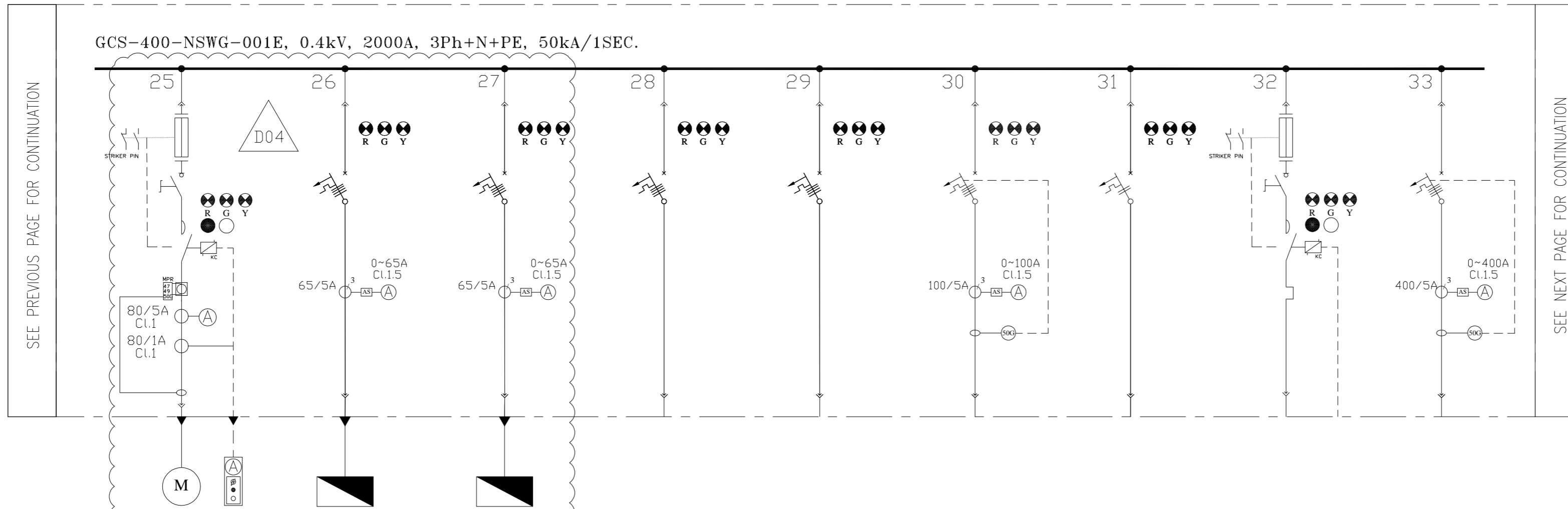
DRAWING TITLE: LV SWITCHGEAR/MCC SINGLE LINE DIAGRAM

NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED

SCALE	SIZE	DRAWING NO.	SHEET NO.	REV.	BUDGET REF.	LOCATION	SIZE	CLASS	SERIAL NO.	SHEET	REVISION
N.T.S	A2	BK-GCS-PEDCO-120-EL-SL-0002	16 OF 17	D04	053-073-9184	F	2	P	709035	16 OF 17	D04



GCS-400-NSWG-001E, 0.4kV, 2000A, 3Ph+N+PE, 50kA/1SEC.



CATEGORY	M4	F2	F2	F1	F1	F3	F7	M1	F3
CODE	P-2101B	P-2302A	P-2302B	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE
POWER (kW)	30kW	20kW	20kW	-	-	-	2kW	1.1kW	-
C.B TYPE/RATING	-	63A	63A	16A	50A	100A	16A	-	400A
FUSE TYPE/RATING	aM/80A	N/A	N/A	N/A	N/A	N/A	N/A	aM/6A	N/A
CONTACTOR RATING (A)	30kW (AC3)	N/A	N/A	N/A	N/A	N/A	N/A	2.2kW (AC3)	N/A
OVER LOAD SETTING RANGE	48 ... 65 A	N/A	N/A	N/A	N/A	N/A	N/A	2.5 ... 4 A	N/A
CABLE SIZE	-	-	-	-	-	-	-	-	-
DESCRIPTION OF FEEDER	SLUG PUMP B	FIRE WATER JOCKEY PUMP A	FIRE WATER JOCKEY PUMP B	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE

NOTES

LEGEND

REFERENCE DRAWING	DRG. No.
ELECTRICAL LOAD LIST	BK-GCS-PEDCO-120-EL-LI-0001
ELECTRICAL TYPICAL SCHEMATIC DIAGRAMS FOR LV PANEL	BK-GCS-PEDCO-120-EL-DG-0002

KEY PLAN

REV.	DATE	P.O.I.S	PREP.	CHK.	APP.	AUT.	DESCRIPTION	BY	DATE	BY	DATE
D04	FEB.2023	IFA	H.SHAKIBA	M.PAKHARIAN	M.MEHRSHAD	***					
D03	AUG.2022	IFA	H.SHAKIBA	M.PAKHARIAN	M.MEHRSHAD	***					
D02	MAY.2022	IFA	H.SHAKIBA	M.PAKHARIAN	M.MEHRSHAD	***	***	*****	***	***	***
D01	APR.2022	IFA	H.SHAKIBA	M.PAKHARIAN	M.MEHRSHAD	***					
D00	DEC.2021	IPC	H.SHAKIBA	M.PAKHARIAN	M.MEHRSHAD	***	REV.	DESCRIPTION	CHECKED	BY	DATE
											REV. APPR.

PROJECT NAME: BINAK OILFIELD DEVELOPMENT/SURFACE FACILITIES GAS COMPRESSOR STATION

PROJECT NO.: 971020

EPC CONTRACTOR: HIRGAN ENERGY - DESIGN & INSPECTION COMPANIES

EPD/EPC CONTRACTOR (GC): PETROIRAN DEVELOPMENT COMPANY

DRAWING TITLE: LV SWITCHGEAR/MCC SINGLE LINE DIAGRAM

NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED

APPROVED FOR CONSTRUCTION BY: DATE:

SCALE	SIZE	DRAWING NO.	SHEET NO.	REV.	BUDGET REF.	LOCATION	SIZE	CLASS	SERIAL NO.	SHEET	REVISION
N.T.S	A2	BK-GCS-PEDCO-120-EL-SL-0002	17 OF 17	D04	063-073-9184	F	2	P	709035	17 OF 17	D04