



# INDEX SHEET

SHEET No.	DESCRIPTION	D00	D01	D02	D03	D04
01	COVER SHEET	✓	✓	✓	✓	
02	INDEX SHEET	✓	✓	✓	✓	
03	SYMBOL	✓	✓		✓	
04	NOTES	✓		✓	✓	
05	24V DC BATTERY CHARGER CONFIGURATION	✓	✓	✓	✓	
06	24V DC CHARGER DISTRIBUTION BOARD	✓	✓	✓	✓	

NOTES	
LEGEND	
REFERENCE DRAWING	DRG. No.
SPECIFICATION FOR DC CHARGER	BK-0304-PEBCO-000-EL-07-0000
CALCULATION NOTE FOR DC CHARGER SYSTEM-EXTENSION OF BINAK B/C MANIFOLD	BK-00079-PEBCO-110-EL-CN-0001
DATA SHEET FOR DC CHARGER-EXTENSION OF BINAK B/C MANIFOLD	BK-00079-PEBCO-110-EL-07-0001
KEY PLAN	

REV.	DATE	P.O.I.F	PREP.	CHK.	APP.	AUT.	REV.	DESCRIPTION	BY	DATE	BY	DATE
PROJECT NAME: BINAK OILFIELD DEVELOPMENT/SUB-SURFACE WORK PACKAGES W0079 WHF & EXTENSION OF BINAK B/C												
PROJECT NO.: 071020												
EPC CONTRACTOR: HIRAN ENERGY - DESIGN & INSPECTION COMPANIES						EPD/EPC CONTRACTOR (GO): PETROIRAN DEVELOPMENT COMPANY						
BINAK OILFIELD DEVELOPMENT SUB-SURFACE WORK PACKAGES W0079 WHF & EXTENSION OF BINAK B/C												
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DATE:												
(VENDOR TITLE BLOCK)												
SCALE	SIZE	DRAWING NO.		SHEET NO.	REV.	BUDGET REF.	LOCATION	SIZE	CLASS	SERIAL NO.	SHEET	REVISION
N/A	A3	BK-00079-PEBCO-110-EL-0000		02 OF 06	D03	008-079-0104	P	2	P	700009	02 OF 06	D03

## LEGEND

Ⓐ	AMMETER		MINIATURE CIRCUIT BREAKER
Ⓥ	VOLTMETER		MOULDED CASE CIRCUIT BREAKER (MCCB)
ⓕ	FREQUENCY METER		DC GROUND FAULT RELAY
▽	CABLE GLAND		SHUNT CONNECTION FOR AMMETER
	TRANSFORMER, TWO WINDING		BATTERY
⊘	CURRENT TRANSFORMER		POWER LINE FILTER
[VS]	VOLT METER SELECTOR		EARTH LEAKAGE MONITORING SYSTEM
[AS]	AMPERE METER SELECTOR		INDUCATOR
[27]	UNDER VOLTAGE RELAY		CAPACITOR
[59]	OVER VOLTAGE RELAY		SURGE ARRESTER
	FUSE		TWO POLE MINIATURE CIRCUIT BLEAKER (MCB) WITH EARTH FAULT PROTECTION
	FF (FAST ACT FUSE)		MCB WITH BUILT-IN EARTH LEAKAGE RELAY (RCBO)
	RECTIFIER		

D03

NOTES

LEGEND

REFERENCE DRAWING	DRG. No.
SPROVISION FOR DC CHARGER	SK-008A-P2DC-000-EL-07-000
CALCULATION NOTE FOR DC CHARGER SYSTEM-EXTENSION OF BINAK B/C MANIFOLD	SK-00079-P2DC-110-EL-CN-001
DATA SHEET FOR DC CHARGER-EXTENSION OF BINAK B/C MANIFOLD	SK-00079-P2DC-110-EL-07-001

KEY PLAN

REV.	DATE	DESCRIPTION	BY	CHECKED	DATE	BY	DATE
DDO	MAY.2020	IPN	K.SHAHBA	M.FARHANI	M.SHEKHAN	M.SHEKHAN	M.SHEKHAN
DDO	MAR.2020	IPN	K.SHAHBA	M.FARHANI	M.SHEKHAN	M.SHEKHAN	M.SHEKHAN
DDI	SEP.2022	IPN	K.SHAHBA	M.FARHANI	M.SHEKHAN	M.SHEKHAN	M.SHEKHAN
DDO	MAR.2022	IPC	K.SHAHBA	M.FARHANI	M.SHEKHAN	M.SHEKHAN	M.SHEKHAN

REV.	DATE	P.O.I.F	PREP.	CHK.	APP.	AUT.

PROJECT NAME: BINAK OILFIELD DEVELOPMENT/SUB-SURFACE WORK PACKAGES 70075 WHF & EXTENSION OF BINAK B/C

PROJECT NO.: 971020

<p>EPC CONTRACTOR:</p>  <p>HIRAS ENERGY - DESIGN &amp; INSPECTION COMPANIES</p>	<p>EPD/EPC CONTRACTOR (GO):</p>  <p>PETROIRAN DEVELOPMENT COMPANY</p>
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BINAK OILFIELD DEVELOPMENT SUB-SURFACE WORK PACKAGES 70075 WHF & EXTENSION OF BINAK B/C

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DATE	SCALE	DRAWING BY	CHECKED BY	PROJECT ENG.

NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED

APPROVED FOR CONSTRUCTION		BY:		DATE:		
BUDGET REF.	LOCATION	SIZE	CLASS	SERIAL NO.	SHEET	REVISION
008-079-0104	P	2	P	700029	03 OF 06	D03

(VENDOR TITLE BLOCK)\*\*

# NOTES:

- 01- ALL METERING, PROTECTION AND ALARM SYSTEM SHALL BE CONSIDERED BASED ON IPS M-EL-174(2) & SPECIFICATION FOR BATTERY & BATTERY CHARGER SYSTEM & DETAILED INFORMATION SHALL BE INDICATED IN THE VENDOR DRAWINGS. (VENDOR SHALL SPECIFY THE SIZE OF DEVICES).
- 02- CABLE SIZES SHALL BE CONSIDERED AFTER FINALIZING "CALCULATION NOTE FOR CABLE SIZING OF WELL PADS" DOC. NO "BK-SSGRL-PEDCO-110-EL-CN-0005" IN ADDITION THE INCOMING CABLE FOR BOTH FEEDERS SHALL BE 4 CORES.
- 03- INTERLOCKS WILL BE PROVIDED TO INHIBIT BATTERY BOOST CHARGE IF BATTERY ROOM VENTILATION IS OUT OF SERVICE.
- 04- AUTOMATIC BATTERY ISOLATION FACILITY SHALL BE PROVIDED FOR INCOMING MCCB OF BATTERY BANK. INCOMING MCCB OF BATTERY BANK SHALL BE OPEN WHEN F&G SYSTEM SEND BATTERY INSULATION SIGNAL TO THE UPS.
- 05- AN EARTH FAULT MONITORING SHALL BE CONSIDERED FOR EVERY 10 FEEDERS FOR EASY OF FINDING FAULTY BRANCH.
- 06- METERING & PROTECTION SYSTEM SHALL BE COMPLETED BASED ON UPS SPECIFICATION & DETAILED INFORMATION SHALL BE INDICATED ON VENDOR DRAWING.
- 07- ALL INCOMING & OUTGOING CONNECTIONS TO DISTRIBUTION BOARD SHALL BE FROM BOTTOM OF PANEL.
- 08- VENDOR SHALL USE THIS DRAWING AS BASIS ONLY & SHALL DEVELOP SINGLE LINE DIAGRAMS TO ENSURE PROPER OPERATION AS PER SPECIFICATION.
- 09- NUMBER OF DROPPER DIODE SHALL BE SPECIFIED BY MANUFACTURER CONSIDERING FLOAT CHARGE MODE. MANUFACTURER SHALL REGULATE LOAD VOLTAGE SUCH WAY TO KEEP CHARGE NORMAL VOLTAGE IN THE RANGE OF +10%
- 10- THE BATTERY FUSE/CIRCUIT BREAKER BOXES IS INSTALLED IN BATTERY ROOM AND SHALL HAVE AN EXPLOSION PROTECTION EXD IIC T3 ACCORDING TO IEC 60079-14.
- 11- ALL CALCULATION IN DC UPS SCOPE OF WORK SHALL BE CHECKED & CONFIRMED BY VENDOR.
- 12- BATTERY ISOLATED SIGNAL SHALL BE PROVIDED IN DC CHARGER SYSTEM.
- 13- BATTERY AMMETER SHALL BE ZERO-CENTER TYPE.
- 14- DISTRIBUTION PANEL (DP-01) FOR 24VDC WHICH WILL BE INSTALLED IN CONTROL ROOM, SHALL BE MANUFACTURED & CONSIDERED BY VENDOR.
- 15- FOR OUTGOING FEEDER OF DP-01, SUITABLE CB WITH EARTH LEAKAGE SHALL BE CONSIDERED BY VENDOR.



NOTES

LEGEND

REFERENCE DRAWING	DRG. No.
SPECIFICATION FOR DC CHARGER	BK-CN8AL-PEDCO-000-EL-07-0000
CALCULATION NOTE FOR DC CHARGER SYSTEM-EXTENSION OF BINAK B/C MANIFOLD	BK-10079-PEDCO-110-EL-CN-0001
DATA SHEET FOR DC CHARGER-EXTENSION OF BINAK B/C MANIFOLD	BK-10079-PEDCO-110-EL-07-0001

KEY PLAN

REV.	DATE	DESCRIPTION	BY	CHECKED	DATE	BY	DATE
000	*****						
001	SEP.2002	IFN	K.SHAHBA	M.JANSHARIAN	M.JANSHARIAN		
002	MAR.2003	IFN	K.SHAHBA	M.JANSHARIAN	M.JANSHARIAN		
003	MAY.2003	IFN	K.SHAHBA	M.JANSHARIAN	M.JANSHARIAN		
004	MAR.2002	IPC	K.SHAHBA	M.JANSHARIAN	M.JANSHARIAN		
REV.	DATE	P.O.I.F	PREP.	CHK.	APP.	ALT.	

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**PROJECT NAME:** BINAK OILFIELD DEVELOPMENT/SUB-SURFACE WORK PACKAGES  
 W0079 WHF & EXTENSION OF BINAK B/C

**PROJECT NO.:** 071020

<b>EPC CONTRACTOR:</b>  HIRASAN ENERGY - DESIGN & INSPECTION COMPANIES	<b>EPD/EPC CONTRACTOR (CO):</b>  PETROIRAN DEVELOPMENT COMPANY
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**BINAK OILFIELD DEVELOPMENT SUB-SURFACE WORK PACKAGES W0079 WHF & EXTENSION OF BINAK B/C**

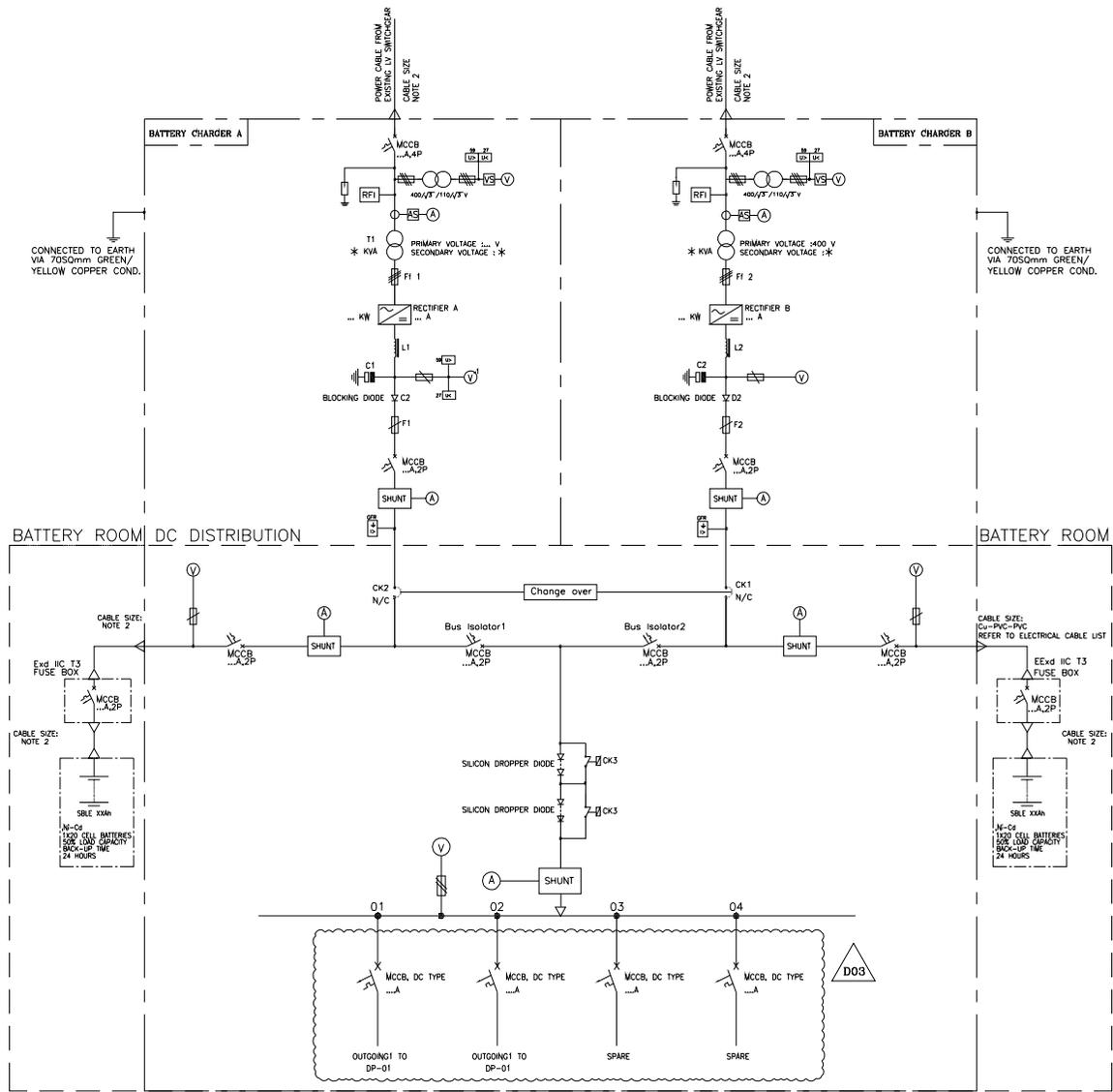
DATE	SCALE	DRAWING BY	CHECKED BY	PROJECT ENG.

**DRAWING TITLE:** DC CHARGER SINGLE LINE DIAGRAM - EXTENSION OF BINAK B/C MANIFOLD

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/A	A3	BK-10079-PEDCO-110-EL-0000	04 OF 06	D03	008-079-0104	P	2	P	700029	04 OF 06	D03

(VENDOR TITLE BLOCK)\*\*



(\*): RATING BY DC CHARGER MANUFACTURER

# 24VDC BATTERY CHARGER CONFIGURATION

NOTES

LEGEND

REFERENCE DRAWING	DRG. No.
SPROVISION FOR DC CHARGER	BR-0100A-P2DC0-000-01-07-0000
CALCULATION NOTE FOR DC CHARGER SYSTEM- EXTENSION OF BINAK B/C MANIFOLD	BR-0007S-P2DC0-110-01-01-0001
DATA SHEET FOR DC CHARGER- EXTENSION OF BINAK B/C MANIFOLD	BR-0007S-P2DC0-110-01-07-0001

KEY PLAN

REV.	DESCRIPTION	CHECKED	REV. APPR.
DDO	MAY.2003	IPK	K.SHAHBA
DDI	MAR.2003	IPK	K.SHAHBA
DDJ	SEP.2002	IPK	K.SHAHBA
DDK	MAR.2002	IPC	K.SHAHBA

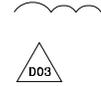
PROJECT NAME: BINAK OILFIELD DEVELOPMENT/SUB-SURFACE WORK PACKAGES 7007S WHF & EXTENSION OF BINAK B/C  
 PROJECT NO.: 971020  
 EPD/BPC CONTRACTOR (GO): PETROIRAN DEVELOPMENT COMPANY  
 EPC CONTRACTOR: HIRSAN ENERGY - DESIGN & INSPECTION COMPANIES

DATE	SCALE	DRAWING BY	CHECKED BY	PROJECT ENG.

DRAWING TITLE:					NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED					
DC CHARGER SINGLE LINE DIAGRAM - EXTENSION OF BINAK B/C MANIFOLD					APPROVED FOR CONSTRUCTION BY:					
SCALE	SHEET	DRAWING NO.	SHEET NO.	REV.	BUDGET REF.	LOCATION	SIZE	CLASS	SERIAL NO.	DATE
N/A	A3	BR-0007S-P2DC0-110-01-01-0000	06 OF 06	D03	008-079-0104	P	2	P	700029	06 OF 06

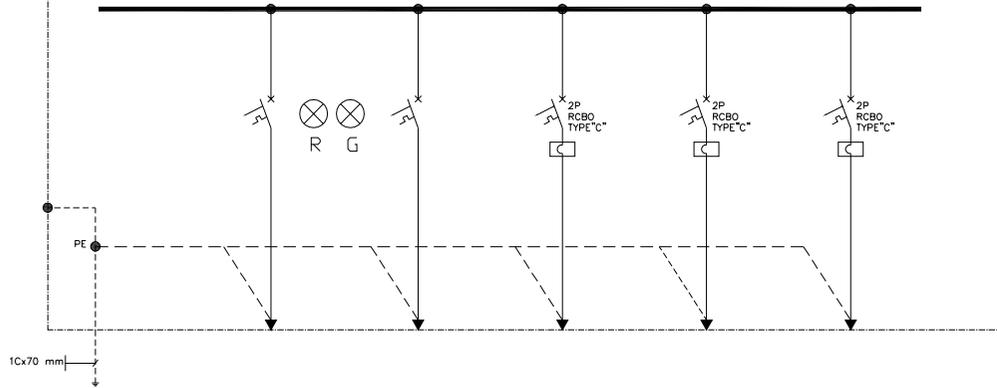
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DP-01

24V DC, 160A, 10KA, 1SEC, 2WIRE



FEEDER No.	F1	F2	F3	F4	F5
CB TYPE/RATING	MCCB,2P,160A	MCCB,2P,160A	NOTE 15	NOTE 15	NOTE 15
CABLE SIZE.	NOTE 2	NOTE 2	2Cx35	2Cx35	-
CABLE TYPE.	-	-	CU/PVC/PVC	CU/PVC/PVC	-
DESCRIPTION	INCOMING FROM 24VDC CHARGER	INCOMING FROM 24VDC CHARGER	FACP SYSTEM	FACP DETECTORS REDUNDANT	SPARE

## 24VDC CHARGER DISTRIBUTION BOARD

NOTES	
LEGEND	
REFERENCE DRAWING	DRG. No.
SPECIFICATION FOR DC CHARGER	BR-008A-P2DCO-000-01-07-0000
CALCULATION NOTE FOR DC CHARGER SYSTEM-EXTENSION OF BINAK B/C MANIFOLD	BR-0075-P2DCO-110-01-CN-0001
DATA SHEET FOR DC CHARGER-EXTENSION OF BINAK B/C MANIFOLD	BR-0079-P2DCO-110-01-07-0001

KEY PLAN	

REV.	DESCRIPTION	BY	DATE	CHKD.	DATE	APP.	DATE

PROJECT NAME: BINAK OILFIELD DEVELOPMENT/SUB-SURFACE WORK PACKAGES W0075 WHF & EXTENSION OF BINAK B/C  
 PROJECT NO.: 971020  
 EPD/BPC CONTRACTOR (GO): PETROIRAN DEVELOPMENT COMPANY  
 HIRGAN ENERGY - DESIGN & INSPECTION COMPANIES  
 HIRGAN ENERGY - DESIGN & INSPECTION COMPANIES

DRAWING TITLE: DC CHARGER SINGLE LINE DIAGRAM - EXTENSION OF BINAK B/C MANIFOLD  
 APPROVED FOR CONSTRUCTION BY: DATE:

SCALE	SIZE	DRAWING NO.	SHEET NO.	REV.	BUDGET REF.	LOCATION	CONTR.	CLASS	SERIAL NO.	DATE	SHEET	REVISION
N/A	A3	BR-0075-P2DCO-110-01-01-0000	06 OF 06	D03	008-079-0104	P	2	P	700029	06 OF 06	D03	