

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک فعالیت های رو زمینی در بسته های کاری تحت الارض عمومی و مشترک							
شماره پیمان: 053 - 073 - 9184	DATA SHEETS FOR LV CAPACITOR BANK OF WELL PADS							شماره صفحه : 1 از 6
	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	
	BK	SSGRL	PEDCO	110	EL	DT	0006	D02

طرح نگهداشت و افزایش تولید 27 مخزن

DATA SHEETS FOR LV CAPACITOR BANK OF WELL PADS

نگهداشت و افزایش تولید میدان نفتی بینک

D02	Jul. 2022	IFA	H.Shakiba	M.Fakharian	M.Mehrshad	
D01	Feb. 2021	IFA	H.Shakiba	M.Fakharian	M.Mehrshad	
D00	Sep. 2021	IFC	M.Asgharnejad	M.Fakharian	Sh.Ghalikar	
Rev.	Date	Purpose of Issue/Status	Prepared by:	Checked by:	Approved by:	CLIENT Approval

Class:2

CLIENT Doc. Number: F0Z-707392

Status:

IDC: Inter-Discipline Check
 IFC: Issued For Comment
 IFA: Issued For Approval
 AFD: Approved For Design
 AFC: Approved For Construction
 AFP: Approved For Purchase
 AFQ: Approved For Quotation
 IFI: Issued For Information
 AB-R: As-Built for CLIENT Review
 AB-A: As-Built -Approved

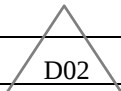
 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک فعالیت های رو زمینی در بسته های کاری تحت الارض عمومی و مشترک							
شماره پیمان: 053 - 073 - 9184	DATA SHEETS FOR LV CAPACITOR BANK OF WELL PADS							شماره صفحه : 2 از 6
	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	
	BK	SSGRL	PEDCO	110	EL	DT	0006	D02

REVISION RECORD SHEET

PAGE	D00	D01	D02	D03	D04
1	X	X	X		
2	X	X	X		
3	X	X	X		
4	X	X	X		
5		X	X		
6		X	X		
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
41					
42					
43					
44					
45					
46					
47					
48					
49					
50					

PAGE	D00	D01	D02	D03	D04
51					
52					
53					
54					
55					
56					
57					
58					
59					
60					
61					
62					
63					
64					
65					
66					
67					
68					
69					
70					
71					
72					
73					
74					
75					
76					
77					
78					
79					
80					
81					
82					
83					
84					
85					
86					
87					
88					
89					
90					
91					
92					
93					
94					
95					
96					
97					
98					
99					
100					

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک فعالیت های روزمینی در بسته های کاری تحت الارض عمومی و مشترک								
شماره پیمان: 053 - 073 - 9184	DATA SHEETS FOR LV CAPACITOR BANK OF WELL PADS							شماره صفحه: 3 از 6	
	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال		نسخه
	BK	SSGRL	PEDCO	110	EL	DT	0006		D02

DATA SHEETS FOR LV CAPACITOR BANK OF WELL PADS			
Item	Description	Purchaser Requirement	Manufacturer Data
1- General Information			
1.1	Quantity	1 Set for Each Well Pad (Note 1)	
1.2	Tag Numbers	CB01	
1.3	Applicable Standards	IEC 60831 IPS-M-EL-181(2) IPS-M-EL-143(3)	
1.4	Manufacturer's Name	By Vendor	
2- Environmental Conditions			
2.1	Location	Binak Oilfield in Busheher Province	
2.2	Hazardous Area Classification	Safe	
2.3	Max. Outdoor Ambient Temperature	52°C	
2.4	Minimum Indoor Ambient Temp.	-5°C	
2.5	Maximum Indoor Relative Humidity	100%	
2.6	Altitude (Above Sea Level)	12.5 m	
2.7	Seismic Factor	Zone 3	
2.8	Installation	Indoor	
3- Electrical Data			
3.1	System Voltage	400V AC ±10%	
3.2	System Frequency	50 Hz ±5%	
3.3	No. of Phases	3	
3.4	Control Voltage	230 VAC	
3.5	Space Heater Voltage	230 VAC	
3.6	Bus-Bar Rated Current	125A	
3.7	Short Time Withstand Current	31.5kA, 1 Sec.	
3.8	Bus-Bars Material	Heat Shrink Copper	
3.9	Bus-Bars Joints	Silver Plated	
4- Enclosure Data			
4.1	Enclosure Type	Free Standing / Fixed Type / Front Access	
4.2	Degree of Protection	IP 42	
4.3	Cable Entry	Bottom (by Cable Gland)	
4.4	Type & Size of Power Cable	According to “BK-SSGRL-PEDCO-110-EL-CN-0005” (4C×50 mm² CU/XLPE/SWA/PVC)	
4.5	Control Cable	2×(5C×2.5 mm²) for Current & Voltage Sample	

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک فعالیت های روزمینی در بسته های کاری تحت الارض عمومی و مشترک								
شماره پیمان: 053 - 073 - 9184	DATA SHEETS FOR LV CAPACITOR BANK OF WELL PADS							شماره صفحه: 4 از 6	
	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال		نسخه
	BK	SSGRL	PEDCO	110	EL	DT	0006		D02

DATA SHEETS FOR LV CAPACITOR BANK OF WELL PADS			
Item	Description	Purchaser Requirement	Manufacturer Data
4.6	Material	Painted Sheet Steel	
4.7	Color	RAL 7032	
4.8	Dimensions (HxWxD)	By Vendor	
4.9	Sheet Steel Thickness (Body/Frame)	2mm/2.5mm	
4.10	Weight	By Vendor	
5- Capacitors			
5.1	Capacitor Manufacturer/Model No.	By Vendor	
5.2	Rating of each Capacitor Bank	40kVAR = 1x10kVAR Fix + 2x15kVAR	
5.3	Capacitor Bank Rated Current	By Vendor	
5.4	Capacitor Bank Rated Voltage	400V	
5.5	Capacitor Bank Connection Type	Delta	
5.6	Capacitor Bank Rated Capacitance (μF)	By Vendor	
5.7	Capacitance Variation (μF/°C)	By Vendor	
5.8	Capacitor Unit Rated Voltage	By Vendor	
5.9	Capacitor Unit Temp. Category	-5/D	
5.10	Capacitor Unit Insulating medium	By Vendor	
5.11	Capacitor Unit Electrode Material	By Vendor	
5.12	Capacitor Unit Dielectric Material	By Vendor	
5.13	Capacitor Unit Case Material	Aluminum	
5.14	Capacitor Unit Discharge Resistor (Ω)	By Vendor	
5.15	Capacitor Unit Discharge time (to 75V)	<3 Minutes	
6- Control Unit (Regulator)			
6.1	Manufacturer / Type	By Vendor	
6.2	Mode of Operation	Automatic & Manual	
6.3	Number of Steps	2 Steps	
6.4	Selector Switch	Auto/Off/Manual Selector Switch For Each Step	
7- Fuses			
7.1	Manufacturer / type	By Vendor	
7.2	Rated Voltage	500V	
7.3	Service Voltage	400V±10%	
7.4	Rated Frequency	50Hz±5%	
8- Contactors			

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک فعالیت های روزمینی در بسته های کاری تحت الارض عمومی و مشترک								
شماره پیمان: 053 - 073 - 9184	DATA SHEETS FOR LV CAPACITOR BANK OF WELL PADS							شماره صفحه: 5 از 6	
	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال		نسخه
	BK	SSGRL	PEDCO	110	EL	DT	0006		D02

DATA SHEETS FOR LV CAPACITOR BANK OF WELL PADS			
Item	Description	Purchaser Requirement	Manufacturer Data
8.1	Manufacturer / Type	By Vendor	D02
8.2	Rated Voltage	690V AC	
8.3	Service Voltage	400V AC	
8.4	Coil Voltage	230 VAC (note 2)	
8.5	Duty	AC6-b	
9- Incoming Circuit Breaker			
9.1	Manufacturer / Type	By Vendor	
9.2	Type	MCCB, 4Pole, Fixed-Able type	
9.3	Rated Current	125A	
9.4	Rated Short Circuit Breaking Current	31.5kA	
9.5	Rated Insulation Voltage	690 VAC	
9.6	Service Voltage	400V	
9.7	Internal Protections	49, 50, 51	
9.8	Voltage Protection	230 VAC	
9.9	Trip and Status aux. switches	Yes	
10- Voltmeter with Selector Switch			
10.1	Manufacturer / Type	By Vendor	
10.2	Operating Range	0 -500V	
10.3	Accuracy Class	1.5	
11- Accessories			
11.1	Panel Lighting & Space Heater with Thermostat	Yes	
11.2	Door Key	Yes	
11.3	Gland Plate	Yes	
11.4	Terminal Lugs	Yes	
11.5	Commissioning spare parts	Yes	
11.6	Two year operation spare parts	Yes	
11.7	Routine test	Witnessed and Report	
11.8	Type test certificate	Certificate	

Note 1: There are 6 well pads named as below:

BK-12, BK-15, BK-05, W-007SBD, W-046SB, BK-14

This LV data sheet is valid for all 6 wellheads.

Note 2: According to "Electrical Typical Schematic Diagrams for LV Panels of Well Pads (BK-SSGRL-



 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک فعالیت های رو زمینی در بسته های کاری تحت الارض عمومی و مشترک							
شماره پیمان: 053 – 073 – 9184	DATA SHEETS FOR LV CAPACITOR BANK OF WELL PADS							شماره صفحه : 6 از 6
	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	
	BK	SSGRL	PEDCO	110	EL	DT	0006	D02

PEDCO-110-EL-DG-0001 –D03)”: “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”. Therefore vendor shall consider one isolated dry type transformer for capacitor panel.

Note 3: Since there is VFD on LV switchgear, vendor shall consider any technical requirement for capacitors selection.