

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



شماره پیمان:

· 27 - · 77 - 9114

	DATA SHEETS FOR POWER & CONTROL CABLES							
پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سريال	نسخه	
BK	GCS	PEDCO	120	EL	DT	0010	D03	

شماره صفحه: ۱ از ۱۱

طرح نگهداشت و افزایش تولید ۲۷ مخزن

DATA SHEETS FOR POWER & CONTROL CABLES

نگهداشت و افزایش تولید میدان نفتی بینک

Rev.	Date	Purpose of Issue/Status	Prepared by:	Checked by:	Approved by:	Client Approval
D00	Feb. 2022	IFC	H.Shakiba	M.Fakharian	M.Mehrshad	
D01	May. 2022	IFA	H.Shakiba	M.Fakharian	M.Mehrshad	
D02	Jul. 2022	IFA	H.Shakiba	M.Fakharian	M.Mehrshad	
D03	Apr. 2023	AFC	H.Shakiba	M.Fakharian	A.M.Mohseni	

Class: 1 Client Doc. Number: F0Z-709027

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



احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



· ۵۳ - · ۷۳ - 9 ۱ ۸ ۴

 DATA SHEETS FOR POWER & CONTROL CABLES

 نسخه
 سریال
 نوع مدر ک
 رشته
 تسهیلات
 صادر کننده
 بسته کاری
 پروژه

 BK
 GCS
 PEDCO
 120
 EL
 DT
 0010
 D03

شماره صفحه: ۲ از ۱۱

REVISION RECORD SHEET

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



احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



شماره پیمان:

· 24 - · 74 - 9114

	DATA SHEETS FOR POWER & CONTROL CABLES							
پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سريال	نسخه	
BK	GCS	PEDCO	120	EL	DT	0010	D03	

شماره صفحه: ۳ از ۱۱

Technical Data Sheet for MV Power Cables						
ITEM	DESCRIPTION	SUPPLIER'S DATA				
1	SITE CONDITION					
1.1	Location	Binak Oilfield in Bushehr Province				
1.2	Max. Outdoor Ambient Temperature	52°C				
1.3	Min. Outdoor Ambient Temperature	5°C				
1.4	Direct Sunlight Temperature	85°C				
1.5	Maximum Relative Outdoor Humidity	100%				
1.6	Altitude	12.5 m Above Sea Level				
1.7	Installation Method	Direct Buried Cable				
2	GENERAL		·			
2.1	Cable Type	MV Power Cable				
2.2	Brief Description (Number of Core)	By Vendor				
2.3	Abbreviated Description (Note 1)	CU/SC/XLPE/BD/LSH/BD/SWA/PVC				
2.4	Manufacturer	By Vendor				
2.5	Manufacturer Type	By Vendor				
2.6	Country	By Vendor				
2.7	Standard	IEC 60502, IPS-M-EL-272 (2)				
2.8	Supply Rated Voltage U0/U [KV]	1.8/3 - 6/10 KV				
2.9	Cable Rated Voltage U0/U(Um) [KV]	1.8/3 (3.6) - 6/10 (12) KV				
2.10	System Frequency	50 Hz				
2.11	Quantity	According to Document "BK-GCS-PEDCO-120-EL-LI-0002"				
2.12	Length[m]	According to Document "BK-GCS-PEDCO-120-EL-LI-0002"				
2.13	Number of Drums	According to Document "BK-GCS-PEDCO-120-EL-LI-0002"				
3	CONSTRUCTION					
3.1	Conductor Material	Plain Annealed Stranded Copper				
3.2	Conductor Cross Section [mm2]	According to Document "BK-GCS-PEDCO-120-EL-LI-0002"				
		Solid				
3.3	Conductor Construction	Circular Stranded S<=25mm				
5.5	Conductor Construction	Shaped Stranded S>=35mm				
		Compressed Circular Stranded				



احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



شماره پیمان:

۰۵۳ - ۲۷۳ - ۹۱۸۴

DATA SHEETS FOR POWER & CONTROL CABLES							
پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سريال	نسخه
BK	GCS	PEDCO	120	EL	DT	0010	D03

شماره صفحه: ۴ از ۱۱

Technical Data Sheet for MV Power Cables							
ITEM	DESCRIPTION	REQUIREMENT	SUPPLIER'S DATA				
2.4	M. in Carl at Tanana	90°C (for XLPE Insulation)					
3.4	Maximum Conductor Temperature	70°C (for PVC Insulation)					
2.5	Maximum Conductor Temperature - Short	250°C (for XLPE Insulation)					
3.5	Circuit	160°C (for PVC Insulation)					
3.6	Conductor Class	Class 2					
3.7	Number of Cores	According to Document "BK-GCS-PEDCO-120-EL-LI-0002"					
3.8	Core Insulation Material	XLPE					
3.9	Core Insulation Thickness [mm]	By Vendor					
3.10	Core Insulation Colors/Marking	Red, Yellow & Blue					
3.11	Screen Material	Copper					
3.12	Screen Cross Section	16 or 25					
3.13	Filler Type	PVC					
3.14	Bedding (Inner Sheath) Material	Extruded PVC					
3.15	Bedding Thickness	By Vendor					
3.16	Lead Sheath Thickness	By Vendor (Considered for Process Area)					
3.17	Under armor diameter of cable	VTA					
3.18	Armor Type & Material	Galvanized Steel Wire for Multicore, Aluminum Wire for Single Cores					
3.19	Armor Wire Diameter [mm]	By Vendor					
3.20	Armor Coverage	Min.90%					
3.21	Jacket (Outer Sheath) Material	Extruded PVC					
3.22	Jacket Thickness[mm]	By Vendor					
3.23	Jacket Color	Red					
3.24	Diameter Under Armor [mm]	By Vendor					
3.25	Overall Diameter [mm]	By Vendor					
3.26	Minimum Bending Radius	By Vendor					
3.27	Diameter Over Lead Sheath [mm]	By Vendor					
3.28	Cable Marking	By Vendor					
3.29	Repeating Length [m]	1m					
3.30	Marking Items	By Vendor					



احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



شماره پیمان:

· 24 - · 74 - 9114

DATA SHEETS FOR POWER & CONTROL CABLES

بسته کاری صادر کننده تسهيلات نسخه پروژه رشته نوع مدرك سريال BK GCS PEDCO 120 EL DT 0010 D03

شماره صفحه: ۵ از ۱۱

	Technical Data	Sheet for MV Power Cables	
ITEM	DESCRIPTION	REQUIREMENT	SUPPLIER'S DATA
		No. of Cores	
		Rated Voltage	
		Size of Conductor	
		Type of Insulation	
		Applicable Standard	
		Year of Manufacture	
4	ELECTRICAL CHARACTERISTICS		
4.1	DC Resistance of Conductor at 20°C [Ω/Km]	By Vendor	
4.2	AC Resistance of Conductor at 20°C [Ω/Km]	By Vendor	
4.3	AC Resistance of Conductor at 70°C [Ω/Km]	By Vendor	
4.4	DC Resistance of Conductor at 30°C [Ω/Km]	By Vendor	
4.5	AC Resistance of Conductor at 30°C [Ω/Km]	By Vendor	
4.6	Phase Reactance [Ω/Km]	By Vendor	
4.7	Ampacity at 20°C /2.5 Km /W Soil[A]	By Vendor	
4.8	Ampacity at 30°C Free Air [A]	By Vendor	
5	MECHANICAL CHARACTERISTICS		
5.1	Maximum Insulation Temperature:	By Vendor	
5.2	At Continuous Rating [°C]	By Vendor	
5.3	At Short Circuit [°C]	By Vendor	
5.4	Cable Weight [Kg/Km]	By Vendor	
6	DRUM CHARACTERISTICS		
6.1	Dimension[mm]	By Vendor	
6.2	Drum Type No.	By Vendor	
6.3	Cable Length Per Drum[m]	By Vendor	
6.4	Drum Weight [Kg]	By Vendor	
6.5	Material	By Vendor	
7	TEST ITEMS		
7.1	Routine Tests: (as minimum) - Conductor Resistance Measurement - High Voltage Power Frequency Test - Insulation Resistance Measurement	Yes	
	- Partial Discharge Test	By Vendor	



احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



شماره پیمان:

· 24 - · 74 - 9114

	DATA SHEETS FOR POWER & CONTROL CABLES							
پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سريال	نسخه	
BK	GCS	PEDCO	120	EL	DT	0010	D03	

شماره صفحه: ۶ از ۱۱

	Technical Data Sheet for <u>LV Power</u> Cables					
ITEM	DESCRIPTION	REQUIREMENT	SUPPLIER'S DATA			
1	SITE CONDITION					
1.1	Location	Binak Oilfield in Bushehr Province				
1.2	Max. Outdoor Ambient Temperature	52°C				
1.3	Min. Outdoor Ambient Temperature	5°C				
1.4	Direct Sunlight Temperature	85°C				
1.5	Maximum Relative Outdoor Humidity	100%				
1.6	Altitude	12.5 m Above Sea Level				
1.7	Installation Method	Direct Buried Cable				
2	GENERAL					
2.1	Cable Type	LV Power Cable				
2.2	Brief Description (Number of Core)	By Vendor				
2.3	Abbreviated Description (Note 2)	CU/XLPE (or PVC) /BD/LSH/BD/SWA/PVC				
2.4	Manufacturer	By Vendor				
2.5	Manufacturer Type	By Vendor				
2.6	Country	By Vendor				
2.7	Standard	IEC 60502, IPS-M-EL-271(2)				
2.8	Supply Rated Voltage U0/U [V]	0.6/1 KV				
2.9	Cable Rated Voltage U0/U(Um) [KV]	0.6/1 (1.2) KV				
2.10	System Frequency	50 Hz				
2.11	Quantity	According to Document "BK-GCS-PEDCO-120-EL-LI-0002"				
2.12	Length[m]	According to Document "BK-GCS-PEDCO-120-EL-LI-0002"				
2.13	Number of Drums	According to Document "BK-GCS-PEDCO-120-EL-LI-0002"				
3	CONSTRUCTION					
3.1	Conductor Material	Plain Annealed Stranded Copper				
3.2	Conductor Cross Section [mm2]	According to Document "BK-GCS-PEDCO-120-EL-LI-0002"				
		Solid				
3.3	Conductor Construction	Circular Stranded S<=25mm				
3.3	Conductor Construction	Shaped Stranded S>=35mm				
		Compressed Circular Stranded				



احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



شماره پیمان:

· ۵۳ - · ۷۳ - 9 1 1 4

DATA SHEETS FOR POWER & CONTROL CABLES							
پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سريال	نسخه
BK	GCS	PEDCO	120	EL	DT	0010	D03

شماره صفحه: ۷ از ۱۱

	Technical Data Sheet for <u>LV Power</u> Cables							
ITEM	DESCRIPTION	REQUIREMENT	SUPPLIER'S DATA					
3.4	Maximum Conductor Temperature	90°C (for XLPE Insulation)						
3.4	Waximum Conductor Temperature	70°C (for PVC Insulation)						
3.5	Maximum Conductor Temperature - Short	250°C (for XLPE Insulation)						
3.3	Circuit	160°C (for PVC Insulation)						
3.6	Conductor Class	Class 2						
3.7	Number of Cores	According to Document "BK-GCS-PEDCO-120-EL-LI-0002"						
3.8	Core Insulation Material	XLPE (or PVC if Specified in Cable List)						
3.9	Core Insulation Thickness [mm]	By Vendor						
3.10	Core Insulation Colors/Marking	By Vendor						
3.11	Phase Conductors	Red, Yellow and Blue						
3.12	For AC Neutral or Other Connections	Black						
3.13	For Two Core Cable (DC)	Positive: Red , Negative: Black						
3.14	Lead Sheath Thickness	By Vendor (Considered for Process Area)						
3.15	Diameter Over Lead Sheath [mm]	By Vendor						
3.16	Armor Type & Material	Galvanized Steel Wire for Multicore, Aluminum Wire for Single Cores						
3.17	Armor Wire Diameter [mm]	By Vendor						
3.18	Bedding Type	Extruded PVC						
3.19	Filler Type	PVC						
3.20	Jacket (Outer Sheath) Material	Extruded PVC						
3.21	Jacket Thickness[mm]	By Vendor						
3.22	Jacket Color	Black						
3.23	Diameter Under Armor [mm]	By Vendor						
3.24	Overall Diameter [mm]	By Vendor						
3.25	Minimum Bending Radius	By Vendor						
3.26	Cable Marking	By Vendor						
3.27	Repeating Length [m]	1m						



احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



شماره پیمان:

• ۵۳ - • ۷۳ - 9114

DATA SHEETS FOR POWER & CONTROL CABLES							
پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سريال	نسخه
BK	GCS	PEDCO	120	EL	DT	0010	D03

شماره صفحه: ۸ از ۱۱

Technical Data Sheet for <u>LV Power</u> Cables							
ITEM	DESCRIPTION	REQUIREMENT	SUPPLIER'S DATA				
		By Vendor					
		No. of Cores					
		Rated Voltage					
3.28	Marking Items	Size of Conductor					
		Type of Insulation					
		Applicable Standard					
		Year of Manufacture					
4	ELECTRICAL CHARACTERISTICS						
4.1	DC Resistance of Conductor at 20°C [Ω/Km]	By Vendor					
4.2	AC Resistance of Conductor at 20°C [Ω/Km]	By Vendor					
4.3	AC Resistance of Conductor at 70°C [Ω/Km]	By Vendor					
4.4	DC Resistance of Conductor at 30°C [Ω/Km]	By Vendor					
4.5	AC Resistance of Conductor at 30°C [Ω/Km]	By Vendor					
4.6	Phase Reactance [Ω/Km]	By Vendor					
4.7	Ampacity at 20°C /2.5 Km /W Soil[A]	By Vendor					
4.8	Ampacity at 30°C Free Air [A]	By Vendor					
5	MECHANICAL CHARACTERISTICS						
5.1	Maximum Insulation Temperature:	By Vendor					
5.2	At Continuous Rating [°C]	By Vendor					
5.3	At Short Circuit [°C]	By Vendor					
5.4	Cable Weight [Kg/Km]	By Vendor					
6	DRUM CHARACTERISTICS						
6.1	Dimension[mm]	By Vendor					
6.2	Drum Type No.	By Vendor					
6.3	Cable Length Per Drum[m]	By Vendor					
6.4	Drum Weight [Kg]	By Vendor					
6.5	Material	By Vendor					
7	TEST ITEMS						
7.1	Routine Tests: (as minimum) - Conductor Resistance Measurement - High Voltage Power Frequency Test - Insulation Resistance Measurement Specification of each cable will be indicated in '	By Vendor					



احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



شماره پیمان:

• DT - • VT - 9 1 AF

DATA SHEETS FOR POWER & CONTROL CABLES							
پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سريال	نسخه
BK	GCS	PEDCO	120	EL	DT	0010	D03

شماره صفحه: ۹ از ۱۱

Technical Data Sheet for <u>LV Control</u> Cables							
ITEM	DESCRIPTION	SUPPLIER'S DATA					
1	SITE CONDITION						
1.1	Location	Binak Oilfield in Bushehr Province					
1.2	Max. Outdoor Ambient Temperature	52°C					
1.3	Min. Outdoor Ambient Temperature	5°C					
1.4	Direct Sunlight Temperature	85°C					
1.5	Maximum Relative Outdoor Humidity	100%					
1.6	Altitude	12.5 m Above Sea Level					
1.7	Installation Method	Direct Buried Cable					
2	GENERAL						
2.1	Cable Type	LV Control Cable					
2.2	Brief Description (Number of Core)	By Vendor					
2.3	Abbreviated Description (Note 3)	CU/XLPE (or PVC) /BD/SWA/PVC					
2.4	Manufacturer	By Vendor					
2.5	Manufacturer Type	By Vendor					
2.6	Country	By Vendor					
2.7	Standard	IEC 60502, IPS-M-EL-271(2)					
2.8	Supply Rated Voltage U0/U [V]	0.6/1 KV					
2.9	Cable Rated Voltage U0/U(Um) [KV]	0.6/1 (1.2) KV					
2.10	System Frequency	50 Hz					
2.11	Quantity	According to Document "BK-GCS-PEDCO-120-EL-LI-0002"					
2.12	Length[m]	According to Document "BK-GCS-PEDCO-120-EL-LI-0002"					
2.13	Number of Drums	According to Document "BK-GCS-PEDCO-120-EL-LI-0002"					
3	CONSTRUCTION						
3.1	Conductor Material	Plain Annealed Solid or Stranded Copper					
3.2	Conductor Cross Section [mm2]	According to Document "BK-GCS-PEDCO-120-EL-LI-0002"					
		Solid					
3.3	Conductor Construction	Circular Stranded S<=25mm					
3.3	Conductor Construction	Shaped Stranded S>=35mm					
		Compressed Circular Stranded					



احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



شماره پیمان:

· 24 - · 74 - 9114

DATA SHEETS FOR POWER & CONTROL CABLES							
پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سريال	نسخه
BK	GCS	PEDCO	120	EL	DT	0010	D03

شماره صفحه: ۱۰ از ۱۱

	Technical Data	Sheet for <u>LV Control</u> Cables	
ITEM			SUPPLIER'S DATA
3.4	Maximum Conductor Temporature	90°C (for XLPE Insulation)	
3.4	Maximum Conductor Temperature	70°C (for PVC Insulation)	
3.5	Maximum Conductor Temperature - Short	250°C (for XLPE Insulation)	
3.3	Circuit	160°C (for PVC Insulation)	
3.6	Conductor Class	Class 2	
3.7	Number of Cores	According to Document "BK-GCS-PEDCO-120-EL-LI-0002"	
3.8	Core Insulation Material	XLPE (or PVC if Specified in Cable List)	
3.9	Core Insulation Thickness [mm]	By Vendor	
3.10	Core Insulation Colors/Marking	By Vendor	
3.11	Phase Conductors	Numbering the Cores From No. One for the Wire in Center	
3.12	Lead Sheath Thickness	By Vendor (Considered for Process Area)	
3.13	Diameter Over Lead Sheath [mm]	By Vendor	
3.14	Armor Type & Material	Galvanized Steel Wire for Multicore, Aluminum Wire for Single Cores	
3.15	Armor Wire Diameter [mm]	By Vendor	
3.16	Bedding Type	Extruded PVC	
3.17	Filler Type	PVC	
3.18	Jacket (Outer Sheath) Material	Extruded PVC	
3.19	Jacket Thickness[mm]	By Vendor	
3.20	Jacket Color	Black	
3.21	Diameter Under Armor [mm]	By Vendor	
3.22	Overall Diameter [mm]	By Vendor	
3.23	Minimum Bending Radius	By Vendor	
3.24	Cable Marking	By Vendor	
3.25	Repeating Length [m]	1m	
		By Vendor	
		No. of Cores	
3.26	Marking Items	Rated Voltage	
3.20		Size of Conductor	
		Type of Insulation	
		Applicable Standard	



احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



شماره پیمان:

· 24 - · 74 - 9114

	DATA SHEETS FOR POWER & CONTROL CABLES						
پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سريال	نسخه
BK	GCS	PEDCO	120	EL	DT	0010	D03

شماره صفحه: ۱۱ از ۱۱

	Technical Data Sheet for <u>LV Control</u> Cables						
ITEM	DESCRIPTION	REQUIREMENT	SUPPLIER'S DATA				
		Year of Manufacture					
4	ELECTRICAL CHARACTERISTICS						
4.1	DC Resistance of Conductor at 20°C [Ω/Km]	By Vendor					
4.2	AC Resistance of Conductor at 20°C [Ω/Km]	By Vendor					
4.3	AC Resistance of Conductor at 70°C [Ω/Km]	By Vendor					
4.4	DC Resistance of Conductor at 30°C [Ω/Km]	By Vendor					
4.5	AC Resistance of Conductor at 30°C [Ω/Km]	By Vendor					
4.6	Phase Reactance [Ω/Km]	By Vendor					
4.7	Ampacity at 20°C /2.5 Km /W Soil[A]	By Vendor					
4.8	Ampacity at 30°C Free Air [A]	By Vendor					
5	MECHANICAL CHARACTERISTICS						
5.1	Maximum Insulation Temperature:	By Vendor					
5.2	At Continuous Rating [°C]	By Vendor					
5.3	At Short Circuit [°C]	By Vendor					
5.4	Cable Weight [Kg/Km]	By Vendor					
6	DRUM CHARACTERISTICS						
6.1	Dimension[mm]	By Vendor					
6.2	Drum Type No.	By Vendor					
6.3	Cable Length Per Drum[m]	By Vendor					
6.4	Drum Weight [Kg]	By Vendor					
6.5	Material	By Vendor					
7	TEST ITEMS						
7.1	Routine Tests: (as minimum) - Conductor Resistance Measurement - High Voltage Power Frequency Test - Insulation Resistance Measurement	By Vendor					

Note 3: Specification of each cable will be indicated in "BK-GCS-PEDCO-120-EL-LI-0002".