



احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

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شماره پیمان:

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نگهداشت و افزایش تولید میدان نفتی بینک

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NISOC

نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

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شماره پیمان:

۰۵۳ - ۰۷۳ - ۹۱۸۴

پروژه

BK

بسته کاری

GCS

صادرکننده

PEDCO

تسهیلات

120

رشته

EL

نوع مدرک

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سریال

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نسخه




D03

شماره صفحه: ۱۰ از ۱۲



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2	X	X	X	X	
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 NISOC	تکهداشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک							 	
	D R M R								
شماره پیمان:	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	شماره صفحه: ۱۰ از ۳
	BK	GCS	PEDCO	120	EL	DT	0004	D03	




Technical Data For Expansion of 11 KV MV Switchgear						
Rev	Item	Description	Required		Vendor Data	
Environmental Data						
D00	1.1	Name of Project / Plant	Binak Oilfield in Bushehr Province		Confirmed	
D02	1.2	Ambient Temperature (Min/Max)	Min ~ Max: +5 ~ +52°C		Confirmed	
D00	1.3	Max.Design Temperature:	50 °c		Confirmed	
D00	1.4	Max. Sun Temperature:	+ 85 °c		Confirmed	
D00	1.5	Max.Relative Humidity:	100%		Confirmed	
D00	1.6	Mean Sea Level:	12.5 m Above Sea Level		Confirmed	
D00	1.7	Seismic Factor:	0.3g		Confirmed	
D00	1.8	Max. Wind Velocity(Max)	120 km/hr		Confirmed	
2-Switchgear						
D00	2.1	Manufacturer	By Vendor		Partableau/DNF4	
D00	2.2	Standard(s)	IPS-M-EL-144(4), IPS-E-EL-100(1), BK-GNRL-PEDCO-000-EL-SP-0005		Confirmed	
D00	2.3	Quantity	8 Feeders of Ongoing, Type C2 & C3		Confirmed	
D00	2.4	Service	Expansion of Exsiting MV Switchgear from Both Side		Confirmed	
D00	2.5	Tag Number	GCS-11-SWG-001A/B		Confirmed	
D00	2.6	Applicable SLD	BK-GCS-PEDCO-120-EL-SL-0001 BK-GCS-PEDCO-120-EL-SL-0003 BK-GCS-PEDCO-120-EL-DG-0001		Confirmed	
D00	2.7	Location	Indoor		Confirmed	
D00	2.8	Type and Construction	Metal Clad, Withdrawable		Confirmed	
D01	2.9	Rated Voltage & Variation	11 kV ± 10 %		Confirmed	
D00	2.10	Rated Frequency & Variation	50 Hz ± 5 %		Confirmed	
D00	2.11	No. of Phases	3 PH		Confirmed	
D02	2.12	Rated Insulation Levels between earth and phase • One Minute Power Frequency Withstand Voltage (RMS) • One Minute Power Frequency Withstand Voltage of Aux. Circuit (RMS) • Impulse Withstand Voltage (Peak)	28 KV 75 KV 2 KV		Confirmed	
D00	2.13	Rated Normal Current of Busbars	1600 A		Confirmed	
D01	2.14	Rated Short Time Current of Busbar	25 kA; 1 sec (Note 9.2)		Confirmed	
D00	2.15	Rated Peak Withstand Current	63 kA		Confirmed	
D01	2.16	Busbars: • Material • Main Horizontal Bus Cross Section Area • Main Vertical Bus Cross Sectional Area • Earth Bus Cross Sectional Area • Busbars Color & Joints	Copper (Flame Retardant Non-Hygroscopic) Vendor to Advise Vendor to Advise Vendor to Advise Silver Plated		Confirmed	
D00	2.17	Maximum Tolerable Temperature Rise	Acc. to IEC62271 IPS-M-EL-144(4)		Confirmed	
D00	2.18	Rated Voltage for Control And Protection Circuits	110 V DC		Confirmed	
D00	2.19	Rated Voltage for Space Heaters and Panel Lighting	400 / 230 VAC		Confirmed	
D00	2.20	Enclosure	Withdrawable Metal Clad, Compartmented		Confirmed	
D01	2.21	Degree of Protection by Enclosure	External: IP 42, Internal: IP 20, Internal partitions between functional units and shutters for bus bar & cable side: IP 4X		Confirmed	
D00	2.22	Installation	Floor Self-Standing, Side by Side		Confirmed	
D00	2.23	Rear / Front Access	Rear and Front Access		Confirmed	
D00	2.24	Top / Bottom Cable Entry	Cables: Bottom Entry		Confirmed	
D00	2.25	Sheet Steel Thickness, Fram & Walls	Minimum 2.5 mm		Minimum 2mm	
D00	2.26	Paint	Electrostatic Powder		Confirmed	
D00	2.27	Color finish	RAL 7032		Confirmed	
D00	2.28	Routine Tests	Required (Withstand tests and reports as per IEC 62271-200 or IEC 298, IEC 60694, IPS-M-EL-144 (4) and Specification)		Confirmed	
D00	2.29	Type Tests	Test certificates of the SWGR type as per IEC62271-200 or IEC 298, IEC60694, and IPS-M-EL-144 (4)		Confirmed	
D00	2.30	Overall Dimensions (HxWxD) [mm]	Vendor to Advise		Acc To Tech Offer	
D00	2.31	Total Weight [kg]	Vendor to Advise		Acc To Tech Offer	
D00	2.32	Overall Dimensions of 1 Cubicle (HxWxD)	Vendor to Advise		Acc To Tech Offer	
D00	2.33	Dynamic Load of One Cubicle [kg]	Vendor to Advise		Acc To Tech Offer	
3.MV Circuit Breaker						
D00	3.1	Manufacturer	Vendor to Advise		Hyundai/South Korea	
D00	3.2	Standard	IEC62271-100		Confirmed	
D00	3.3	Type	Vacuum		Confirmed	
D00	3.4	Fixed/ Withdrawable	Withdrawable		Confirmed	
D02	3.5	Rated Voltage	12 kV ± 10 %		Confirmed	
D00	3.6	Rated Frequency	50 Hz ± 5 %		Confirmed	

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	D R M R								
شماره پیمان:	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	شماره صفحه: ۴ از ۱۰
	BK	GCS	PEDCO	120	EL	DT	0004	D03	

Technical Data For Expansion of 11 KV MV Switchgear				
Rev	Item	Description	Required	Vendor Data
D00	3.7	No. Of Phases and Poles	3-Phase	Confirmed
D00	3.8	Rated Insulation Levels between earth and phase	28 KV	Confirmed
		• One Minute Power Frequency Withstand Voltage (RMS)	2 KV	
		• One Minute Power Frequency Withstand Voltage of Aux. Circuit (RMS)	75 KV	
		• Impulse Withstand Voltage (Peak)		
D00	3.9	Rated Normal Current	630 A	Confirmed
D00	3.10	Rated Short Time Current	25 kA	Confirmed
D00	3.11	Rated Peak Withstand Current	62.5 kA	Confirmed
D00	3.12	Rated Short Circuit Breaking Current	Vendor to Advise	Acc To Catalog
D00	3.13	Rated Short Circuit Making Current	Vendor to Advise	Acc To Catalog
D00	3.14	Maximum Tolerable Temperature Rise	Acc. to IEC62271-100	Confirmed
D00	3.15	Design Temperature Rise	Acc. to IEC62271-100	Confirmed
D00	3.16	Operating Mechanism	Motor & Hand operated Spring Charged Stored Energy Mechanism	Confirmed
D00	3.17	Release type	Shunt Trip	Confirmed
D00	3.18	Rated Operating Sequence	0-0.3S-CO-3MIN-CO	Confirmed
D00	3.19	Rated Voltage of Auxiliary Equipment	110V DC	Confirmed
D00	3.20	Rated Operating Voltage of Releases	110V DC	Confirmed
D00	3.21	Rated Operating Voltage of Charging Motors	110V DC	Confirmed
D00	3.22	Voltage Tolerances for Auxiliary Apparatus:	70%-110%	Confirmed
		• Trip Circuit	85%-110%	
		• Close Circuit	85%-110%	
		• Motor Running	70%-110%	
D00	3.23	Power consumption of Auxiliary Apparatus:[W]	110V DC	Confirmed
		• Trip Circuit	Vendor to Advise	
		• Closed Circuit		
		• Charging motor		
D00	3.24	• Under voltage release		Confirmed
		• Multifunction relay		
		• Transducers		
		1 C.B. Open/Close Auxiliary Contacts:	6	
		• No. Of Make Contacts	6	
		• No. Of Break Contacts	110V DC	
D00	3.25	• Rated Voltage	VTA	Confirmed
		• Rated Current at 110V DC	VTA	
		• Breaking Current at 110V DC	VTA	
		Truck Position Auxiliary Contacts:	1NO + 1NC	
		• No of Make Contacts	1NO + 1NC	
		• No of Break Contacts	110V DC	
D00	3.26	• Rated Voltage	VTA	Confirmed
		• Rated Current at 110V DC	VTA	
		• Breaking Current at 110V DC		
D00	3.27	Type Tests	IEC62271-100	Confirmed
4.MV Voltage Transformers				
D00	4.1	Manufacturers Name	Vendor to Advise	Pars Shar/Iran
D00	4.2	Standard	IEC60044-2	Confirmed
D00	4.3	Type	Epoxy Cast Resin	Confirmed
D00	4.4	Fixed Withdrawable	Withdrawable	Tilting
D00	4.5	Highest System Voltage	12 kV	Confirmed
D00	4.6	Rated Frequency	50 Hz	Confirmed
D00	4.7	No. of Phase	Single Phase	Confirmed
D00	4.8	Rated Primary Voltage [kV]	11/√3 kV	Confirmed
D00	4.9	Rated Secondary Voltage [V]	110/√3 V	Confirmed
D00	4.10	Rated Insulation Levels between earth and phase	28 kV / √3	Confirmed
		• One Minute Power Frequency Withstand Voltage (RMS)	2 kV / √3	
		• One Minute Power Frequency Withstand Voltage of Aux. Circuit (RMS)	75 kV / √3	
		• Impulse Withstand Voltage (Peak)		
D00	4.11	System Earthing	TNS	Confirmed
D00	4.12	Rated Voltage Factor	Vendor to Advise	Acc To Catalog
D00	4.13	Rated Burden	Vendor to Advise	Acc To Catalog
D00	4.14	Accuracy Class:	CL. 3P	Confirmed
		• for Protection (with separate Winding)	1.0	
D00	4.15	Insulation Class & Temperature Rise	Class E, Temp. Rise Class Y	Confirmed




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شماره پیمان:	پروژه	بسته کاری	صادر کننده	تهیهات	رشته	نوع مدرک	سریال	نسخه	شماره صفحه: ۱۰ از ۵
	BK	GCS	PEDCO	120	EL	DT	0004	D03	

Technical Data For Expansion of 11 KV MV Switchgear						
Rev	Item	Description	Required		Vendor Data	
5.MV Current Transformers						
D00	5.1	Manufacturer's Name	Vendor to Advise		Pars Shar/Iran	
D00	5.2	Standard	IEC60044-1		Confirmed	
D00	5.3	Type	Dry Type		Confirmed	
D00	5.4	Highest System Voltage	11 kV		Confirmed	
D00	5.5	Rated Frequency	50 Hz		Confirmed	
D00	5.6	Rated Secondary Current:	1 A / 5 A According to SLD		Confirmed	
D00	5.7	Rated Continuous Thermal Current:	1.2 x Rated primary current		Confirmed	
D00	5.8	Rated Short Time, Current:	25 kA, 1 Sec		Confirmed	
D00	5.9	Rated Dynamic Current:	63 kA		Confirmed	
D00	5.10	Rated Burden	Vendor to Advise		Acc To Catalog	
D00	5.11	Rated Transformation Ratio and No. of Cores	According to Single Line Diagram		Confirmed	
D00	5.12	Accuracy Class: • Measuring • Protection	Class 1: Class 1FS5 Class X: where required Class 5P20 protections		Confirmed	
D00	5.13	Routine Tests	IEC60044-1		Confirmed	
D00	5.14	Type Tests	IEC60044-1		Confirmed	
D01	5.15	Rated Insulation Levels between earth and phase	28 kV / $\sqrt{3}$		Confirmed	
		• One Minute Power Frequency Withstand Voltage (RMS)	2 kV / $\sqrt{3}$			
		• One Minute Power Frequency Withstand Voltage of Aux. Circuit (RMS)	75 kV / $\sqrt{3}$			
		• Impulse Withstand Voltage (Peak)				
6.Earth Switch						
D00	6.1	Manufacturer's Name	Vendor to Advise		Parstableau/Iran	
D00	6.2	Manufacturer's Type Designation	Vendor to Advise		Manual	
D00	6.3	Standard	IEC62271-102		Confirmed	
D00	6.4	Type	Make Proof		Confirmed	
D00	6.5	Number Of Phase	3		Confirmed	
D00	6.6	Frequency	50 Hz		Confirmed	
D00	6.7	Rated Voltage	11 kV		Confirmed	
D00	6.8	Rated Lighting Impulse Withstand Voltage	75 kV		Confirmed	
D00	6.9	Rated 1 Minute Power Frequency Voltage	28 kV		Confirmed	
D00	6.10	Rated Short Time (1s) Current	25 kA		Confirmed	
D00	6.11	Rated Peak Withstand Current	62.5 kA		Confirmed	
D00	6.12	Rated Short Circuit Making Current	62.5 kA		Confirmed	
D00	6.13	Actuation Mechanism	Pre-tension Spring		Confirmed	
D00	6.14	No. of Auxiliary Contacts (Min.)	2NO + 2NC		Confirmed	
D00	6.15	Aux. Contacts Rated Voltage	110V DC		Confirmed	
D00	6.16	Aux. Contacts Rated Current	1A		Confirmed	
D00	6.17	Interlocks	According (but not limited) to Appendix B of IPS-M-EL-144 (4) specifically: To prevent closure of Earth Switch when CB is not in Test or withdraw position To prevent Insertion of CB when Earth Switch is connected. To prevent connection of Earth Switch when upstream Switch is not open i.e. electromagnetic coil (only for incoming)		Confirmed	
D00	6.18	Routine Tests	IEC62271-102		Confirmed	
D00	6.19	Type Tests (Certificates)	IEC62271-102		Confirmed	
7.Motor Feeder Protection Relay						
D00	7.1	Manufacturer's Name	Vendor to Advise		Schneider/France	
D00	7.2	Manufacturer's Type Designation	Vendor to Advise		P3M32 & P3U20	
D00	7.3	Type	Digital Multi-Function Relay + Display with adjustment Menu		Confirmed	
D00	7.4	Installation	Flush Mounted		Confirmed	
D02	7.5	Included Protection (ANSI Codes)	50, 51, 46, 51LR, 49, 66, 50G, 51G, 26, 87M, 86 (Separate Relay)		Confirmed	
D00	7.6	Rated Current [A]	5		Confirmed	
D00	7.7	Rated Frequency [Hz]	50 Hz		Confirmed	
D00	7.8	Burden [VA]	Vendor to Advise		Acc To Catalog	
D00	7.9	Overload Capability Of Current Path	100xIn < 1 Sec.		Confirmed	
D00	7.10	Rated Voltage Auxiliary Voltage [V]	110V DC		Confirmed	
D00	7.11	Auxiliary Voltage Permissible Range [V]	Min. ± 15% of Un		Confirmed	
D00	7.12	Power Consumption [W]	Vendor to Advise		Confirmed	
D00	7.13	Trip Relay Contacts	2NO + 2NC at least		Confirmed	
D00	7.14	Alarm Relay Contacts	2NO + 2NC at least		Confirmed	
D00	7.15	Auxiliary Contacts Ratings • Contacts Voltage Rating [V] • Contacts Rated Continuous Current	110V DC Vendor to Advise		Confirmed	
D00	7.16	Ingress Protection	IP42		Confirmed	
D00	7.17	Routine Tests	IEC 255		Confirmed	
D00	7.18	Type Tests (Certificates)	IEC 255		Confirmed	




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	D R M R								
شماره پیمان:	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	شماره صفحه: ۱۰ از ۱۶
	BK	GCS	PEDCO	120	EL	DT	0004	D03	

Technical Data For Expansion of 11 KV MV Switchgear				
Rev	Item	Description	Required	Vendor Data
8. Transformer Feeder Protection Relay				
D01	8.1	Manufacturer's Name	Vendor to Advise	Schneider/France
D01	8.2	Manufacturer's Type Designation	Vendor to Advise	P3U20
D01	8.3	Type	Digital Multi-Function Relay + Display with adjustment Menu	Confirmed
D01	8.4	Installation	Flush Mounted	Confirmed
D01	8.5	Included Protection (ANSI Codes)	50, 51, 51N,50G (Separate Relay)	Confirmed
D01	8.6	Rated Current [A]	5	Confirmed
D01	8.7	Rated Frequency [Hz]	50 Hz	Confirmed
D01	8.8	Burden [VA]	Vendor to Advise	Acc To Catalog
D01	8.9	Overload Capability Of Current Path	100xIn < 1 Sec.	Confirmed
D01	8.10	Rated Voltage Auxiliary Voltage [V]	110V DC	Confirmed
D01	8.11	Auxiliary Voltage Permissible Range [V]	Min. ± 15% of Un	Confirmed
D01	8.12	Power Consumption [W]	Vendor to Advise	Confirmed
D01	8.13	Trip Relay Contacts	2NO + 2NC at least	Confirmed
D01	8.14	Alarm Relay Contacts	2NO + 2NC at least	Confirmed
D01	8.15	Auxiliary Contacts Ratings • Contacts Voltage Rating [V] • Contacts Rated Continuous Current	110V DC Vendor to Advise	Confirmed
D01	8.16	Ingress Protection	IP42	Confirmed
D01	8.17	Routine Tests	IEC 255	Confirmed
D01	8.18	Type Tests (Certificates)	IEC 255	Confirmed
9. Notes				
D00	9.1	According to "BK-GCS-PEDCO-120-EL-SL-0003", in the extension of existing MV switchgear, there are only 8 outgoing feeder for 11 KV switchgear & no extension is required for incoming & outgoing.		
D01	9.2	The rated short time current of busbar & rated peak withstand current will be rechecked after power system study.		
D01	9.3	Minimum conductor sizes shall be 2.5 mm2 for protection (CT/PT) and bonding conductors and 1.5 mm2 for control and signal wiring.		
D01	9.4	Accessories required for proper and safe operation of the switchgear shall be supplied by vendor		






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	D R M R							
شماره پیمان:	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
	BK	GCS	PEDCO	120	EL	DT	0004	D03
شماره صفحه: ۱۰ از ۷								




Technical Data for Starter Panel of Fire Water Pump				
Rev	Item	Description	Required	Vendor Data
Environmental Data				
D00	1.1	Name of Project / Plant	Binak Oilfield in Bushehr Province	Confirmed
D02	1.2	Ambient Temperature (Min/Max)	Min ~ Max: +5 ~ +52°C	Confirmed
D00	1.3	Max.Design Temperature:	50 °c	Confirmed
D00	1.4	Max. Sun Temperature:	+ 85 °c	Confirmed
D00	1.5	Max.Relative Humidity:	100%	Confirmed
D00	1.6	Mean Sea Level:	12.5 m Above Sea Level	Confirmed
D00	1.7	Seismic Factor:	0.3g	Confirmed
D00	1.8	Max. Wind Velocity(Max)	120 km/hr	Confirmed
2-Switchgear				
D00	2.1	Manufacturer	By Vendor	Parstableau/DNF4
D00	2.2	Standard(s)	IPS-M-EL-144(4), IPS-E-EL-100(1), BK-GNRAL-PEDCO-000-EL-SP-0005	Confirmed
D00	2.3	Quantity	1 Feeder of Outgoing, Type C3	Confirmed
D00	2.4	Service	Expansion of Exsiting MV Switchgear from Both Side	Confirmed
D00	2.5	Tag Number	GCS-3.3-SWG-001	Confirmed
D00	2.6	Applicable SLD	BK-GCS-PEDCO-120-EL-SL-0001 BK-GCS-PEDCO-120-EL-SL-0003 BK-GCS-PEDCO-120-EL-DG-0001	Confirmed
D00	2.7	Location	Indoor	Confirmed
D00	2.8	Type and Construction	Metal Clad, Withdrawable	Confirmed
D01	2.9	Rated Voltage & Variation	3.6 kV ± 10 %	Confirmed
D00	2.10	Rated Frequency & Variation	50 Hz ± 5 %	Confirmed
D00	2.11	No. of Phases	3 PH	Confirmed
D02	2.12	Rated Insulation Levels between earth and phase	10 KV	Confirmed
		• One Minute Power Frequency Withstand Voltage (RMS)	40 KV	
		• One Minute Power Frequency Withstand Voltage of Aux. Circuit (RMS)	2 KV	
		• Impulse Withstand Voltage (Peak)		
D00	2.13	Rated Normal Current of Busbars	630 A	Confirmed
D01	2.14	Rated Short Time Current of Busbar	25 kA; 1 sec (Note 8.2)	Confirmed
D00	2.15	Rated Peak Withstand Current	63 kA	Confirmed
D01	2.16	Busbars:	Copper (Flame Retardant Non-Hygroscopic) Vendor to Advise Vendor to Advise Vendor to Advise Silver Plated	Confirmed
		• Material		
		• Main Horizontal Bus Cross Section Area		
		• Main Vertical Bus Cross Sectional Area		
		• Earth Bus Cross Sectional Area		
• Busbars Color & Joints				
D00	2.17	Maximum Tolerable Temperature Rise	Acc. to IEC62271 IPS-M-EL-144(4)	Confirmed
D00	2.18	Rated Voltage for Control And Protection Circuits	110 V DC	Confirmed
D00	2.19	Rated Voltage for Space Heaters and Panel Lighting	400 / 230 VAC	Confirmed
D00	2.20	Enclosure	Withdrawable Metal Clad, Compartmented	Confirmed
D01	2.21	Degree of Protection by Enclosure	External: IP 42, Internal: IP 20, Internal partitions between functional units and shutters for bus bar & cable side: IP 4X	Confirmed
D00	2.22	Installation	Floor Self-Standing, Side by Side	Confirmed
D00	2.23	Rear / Front Access	Rear and Front Access	Confirmed
D00	2.24	Top / Bottom Cable Entry	Cables: Bottom Entry	Confirmed
D00	2.25	Sheet Steel Thickness, Fram & Walls	Minimum 2.5 mm	Minimum 2mm
D00	2.26	Paint	Electrostatic Powder	Confirmed
D00	2.27	Color finish	RAL 7032	Confirmed
D00	2.28	Routine Tests	Required (Withstand tests and reports as per IEC 62271-200 or IEC 298, IEC 60694, IPS-M-EL-144 (4) and Specification)	Confirmed
D00	2.29	Type Tests	Test certificates of the SWGR type as per IEC62271-200 or IEC 298, IEC60694, and IPS-M-EL-144 (4)	Confirmed
D00	2.30	Overall Dimensions (HxWxD) [mm]	Vendor to Advise	Acc To Tech Offer
D00	2.31	Total Weight [kg]	Vendor to Advise	Acc To Tech Offer
D00	2.32	Overall Dimensions of 1 Cubicle (HxWxD)	Vendor to Advise	Acc To Tech Offer
D00	2.33	Dynamic Load of One Cubicle [kg]	Vendor to Advise	Acc To Tech Offer
3.MV Circuit Breaker				
D00	3.1	Manufacturer	Vendor to Advise	Hyundai/South Korea
D00	3.2	Standard	IEC62271-100	Confirmed
D00	3.3	Type	Vacuum	Confirmed
D00	3.4	Fixed/ Withdrawable	Withdrawable	Confirmed
D00	3.5	Rated Voltage	3.3 kV ± 10 %	Confirmed
D00	3.6	Rated Frequency	50 Hz ± 5 %	Confirmed

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	D□□□□□□□□□□R□□□□□□□□□□M□□□□□□□□□□R								
شماره پیمان:	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	شماره صفحه: ۱۰ از ۸
	BK	GCS	PEDCO	120	EL	DT	0004	D03	

Technical Data for Starter Panel of Fire Water Pump				
Rev	Item	Description	Required	Vendor Data
D00	3.7	No. Of Phases and Poles	3-Phase	Confirmed
D00	3.8	Rated Insulation Levels between earth and phase	10 KV	Confirmed
		• One Minute Power Frequency Withstand Voltage (RMS)	2 KV	
		• One Minute Power Frequency Withstand Voltage of Aux. Circuit (RMS)	40 KV	
		• Impulse Withstand Voltage (Peak)		
D00	3.9	Rated Normal Current	630 A	Confirmed
D00	3.10	Rated Short Time Current	10 kA	Confirmed
D00	3.11	Rated Peak Withstand Current	62.5 kA	Confirmed
D00	3.12	Rated Short Circuit Breaking Current	Vendor to Advise	Acc To Catalog
D00	3.13	Rated Short Circuit Making Current	Vendor to Advise	Acc To Catalog
D00	3.14	Maximum Tolerable Temperature Rise	Acc. to IEC62271-100	Confirmed
D00	3.15	Design Temperature Rise	Acc. to IEC62271-100	Confirmed
D00	3.16	Operating Mechanism	Motor & Hand operated Spring Charged Stored Energy Mechanism	Confirmed
D00	3.17	Release type	Shunt Trip	Confirmed
D00	3.18	Rated Operating Sequence	0-0.3S-CO-3MIN-CO	Confirmed
D00	3.19	Rated Voltage of Auxiliary Equipment	110V DC	Confirmed
D00	3.20	Rated Operating Voltage of Releases	110V DC	Confirmed
D00	3.21	Rated Operating Voltage of Charging Motors	110V DC	Confirmed
D00	3.22	Voltage Tolerances for Auxiliary Apparatus:	70%-110%	Confirmed
		• Trip Circuit	85%-110%	
		• Close Circuit	85%-110%	
		• Motor Running	70%-110%	
D00	3.23	Power consumption of Auxiliary Apparatus:[W]	110V DC	Confirmed
		• Trip Circuit	Vendor to Advise	
		• Closed Circuit		
		• Charging motor		
D00	3.24	• Under voltage release		
		• Multifunction relay		
		• Transducers		
D00	3.24	1 C.B. Open/Close Auxiliary Contacts:	6	Confirmed
		• No. Of Make Contacts	6	
		• No. Of Break Contacts	110V DC	
		• Rated Voltage	VTA	
D00	3.25	• Rated Current at 110V DC	VTA	Confirmed
		• Breaking Current at 110V DC		
D00	3.26	Routine Tests	IEC62271-100	Confirmed
D00	3.27	Type Tests	IEC62271-100	Confirmed
4.MV Voltage Transformers				
D00	4.1	Manufacturers Name	Vendor to Advise	Pars Shar/Iran
D00	4.2	Standard	IEC60044-2	Confirmed
D00	4.3	Type	Epoxy Cast Resin	Confirmed
D00	4.4	Fixed Withdrawable	Withdrawable	Tilting
D00	4.5	Highest System Voltage	3.6 kV	Confirmed
D00	4.6	Rated Frequency	50 Hz	Confirmed
D00	4.7	No. of Phase	Single Phase	Confirmed
D00	4.8	Rated Primary Voltage [kV]	3.3/√3 kV	Confirmed
D00	4.9	Rated Secondary Voltage [V]	110/√3 V	Confirmed
D00	4.10	Rated Insulation Levels between earth and phase	10 kV / √3	Confirmed
		• One Minute Power Frequency Withstand Voltage (RMS)	2 kV / √3	
		• One Minute Power Frequency Withstand Voltage of Aux. Circuit (RMS)	40 kV / √3	
		• Impulse Withstand Voltage (Peak)		
D01	4.11	System Earthing	TNS by Resistor	Confirmed
D00	4.12	Rated Voltage Factor	Vendor to Advise	Acc To Catalog
D00	4.13	Rated Burden	Vendor to Advise	Acc To Catalog
D00	4.14	Accuracy Class:	CL 3P	Confirmed
		• for Protection (with separate Winding)	1.0	
D00	4.15	Insulation Class & Temperature Rise	Class E, Temp. Rise Class Y	Confirmed

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		<p>D R M R</p>								
شماره پیمان:	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	شماره صفحه: ۱۰ از ۹	
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Rev	Item	Description				Required				Vendor Data					
5.MV Current Transformers															
D00	5.1	Manufacturer's Name				Vendor to Advise				Pars Shar/Iran					
D00	5.2	Standard				IEC60044-1				Confirmed					
D00	5.3	Type				Dry Type				Confirmed					
D00	5.4	Highest System Voltage				3.6 kV				Confirmed					
D00	5.5	Rated Frequency				50 Hz				Confirmed					
D00	5.6	Rated Secondary Current:				1 A / 5 A According to SLD				Confirmed					
D00	5.7	Rated Continuous Thermal Current:				1.2 x Rated primary current				Confirmed					
D00	5.8	Rated Short Time, Current:				10 kA, 1 Sec				Confirmed					
D00	5.9	Rated Dynamic Current:				63 kA				Confirmed					
D00	5.10	Rated Burden				Vendor to Advise				Acc To Catalog					
D00	5.11	Rated Transformation Ratio and No. of Cores				According to Single Line Diagram				Confirmed					
D00	5.12	Accuracy Class: • Measuring • Protection				Class 1: Class 1FS5 Class X: where required Class 5P20 protections				Confirmed					
D00	5.13	Routine Tests				IEC60044-1				Confirmed					
D00	5.14	Type Tests				IEC60044-1				Confirmed					
D01	5.15	Rated Insulation Levels between earth and phase				10 kV / $\sqrt{3}$				Confirmed					
		• One Minute Power Frequency Withstand Voltage (RMS)				2 kV / $\sqrt{3}$									
		• One Minute Power Frequency Withstand Voltage of Aux. Circuit (RMS)				40 kV / $\sqrt{3}$									
		• Impulse Withstand Voltage (Peak)													
6.Earth Switch															
D00	6.1	Manufacturer's Name				Vendor to Advise				Parstableau/Iran					
D00	6.2	Manufacturer's Type Designation				Vendor to Advise				Manual					
D00	6.3	Standard				IEC62271-102				Confirmed					
D00	6.4	Type				Make Proof				Confirmed					
D00	6.5	Number Of Phase				3				Confirmed					
D00	6.6	Frequency				50 Hz				Confirmed					
D00	6.7	Rated Voltage				3.3 kV				Confirmed					
D00	6.8	Rated Lighting Impulse Withstand Voltage				40 kV				Confirmed					
D00	6.9	Rated 1 Minute Power Frequency Voltage				10 kV				Confirmed					
D00	6.10	Rated Short Time (1s) Current				10 kA				Confirmed					
D00	6.11	Rated Peak Withstand Current				62.5 kA				Confirmed					
D00	6.12	Rated Short Circuit Making Current				62.5 kA				Confirmed					
D00	6.13	Actuation Mechanism				Pre-tension Spring				Confirmed					
D00	6.14	No. of Auxiliary Contacts (Min.)				2NO + 2NC				Confirmed					
D00	6.15	Aux. Contacts Rated Voltage				110V DC				Confirmed					
D00	6.16	Aux. Contacts Rated Current				1A				Confirmed					
D00	6.17	Interlocks				According (but not limited) to Appendix B of IPS-M-EL-144 (4) specifically: To prevent closure of Earth Switch when CB is not in Test or withdraw position To prevent Insertion of CB when Earth Switch is connected. To prevent connection of Earth Switch when upstream Switch is not open i.e. electromagnetic coil (only for incoming)				Confirmed					
D00	6.18	Routine Tests				IEC62271-102				Confirmed					
D00	6.19	Type Tests (Certificates)				IEC62271-102				Confirmed					
7.Motor Feeder Protection Relay															
D00	7.1	Manufacturer's Name				Vendor to Advise				Schneider/France					
D00	7.2	Manufacturer's Type Designation				Vendor to Advise				P3U20					
D00	7.3	Type				Digital Multi-Function Relay + Display with adjustment Menu				Confirmed					
D00	7.4	Installation				Flush Mounted				Confirmed					
D00	7.5	Included Protection (ANSI Codes)				50, 51,, 50G, 51G,, 86 (Separate Relay)				Confirmed					
D00	7.6	Rated Current [A]				5				Confirmed					
D00	7.7	Rated Frequency [Hz]				50 Hz				Confirmed					
D00	7.8	Burden [VA]				Vendor to Advise				Acc To Catalog					
D00	7.9	Overload Capability Of Current Path				100xIn < 1 Sec.				Confirmed					
D00	7.10	Rated Voltage Auxiliary Voltage [V]				110V DC				Confirmed					
D00	7.11	Auxiliary Voltage Permissible Range [V]				Min. \pm 15% of Un				Confirmed					
D00	7.12	Power Consumption [W]				Vendor to Advise				Confirmed					
D00	7.13	Trip Relay Contacts				2NO + 2NC at least				Confirmed					
D00	7.14	Alarm Relay Contacts				2NO + 2NC at least				Confirmed					
D00	7.15	Auxiliary Contacts Ratings • Contacts Voltage Rating [V] • Contacts Rated Continuous Current				110V DC Vendor to Advise				Confirmed					
D00	7.16	Ingress Protection				IP42				Confirmed					
D00	7.17	Routine Tests				IEC 255				Confirmed					
D00	7.18	Type Tests (Certificates)				IEC 255				Confirmed					

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	D R M R							
شماره پیمان:	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
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Technical Data for Starter Panel of Fire Water Pump				
Rev	Item	Description	Required	Vendor Data
8. Notes				
D00	8.1	According to "BK-GCS-PEDCO-120-EL-SL-0003", in the extension of existing MV switchgear, there is only 1 outgoing feeder for 3.3 KV switchgear & no extension is required for incoming & outgoing.		
D01	8.2	The rated short time current of busbar & rated peak withstand current will be rechecked after power system study.		
D01	8.3	Minimum conductor sizes shall be 2.5 mm2 for protection (CT/PT) and bonding conductors and 1.5 mm2 for control and signal wiring.		
D01	8.4	Accessories required for proper and safe operation of the switchgear shall be supplied by vendor		

