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| **طرح نگهداشت و افزایش تولید 27 مخزن** |
| **DATA SHEETS FOR DISTRIBUTION & LIGHTING PANELS****نگهداشت و افزایش تولید میدان نفتی بینک** |
|  |  |  |  |  |  |  |
| D03 | May. 2024 | AFC | H.Shakiba | M.Fakharian | S.Faramarzpour |  |
| D02 | Apr. 2023 | AFC | H.Shakiba | M.Fakharian | A.M.Mohseni |  |
| D01 | Jul. 2022 | IFA | H.Shakiba | M.Fakharian | M.Mehrshad |  |
| D00 | May. 2022 | IFC | H.Shakiba | M.Fakharian | M.Mehrshad |  |
| **Rev.** | **Date** | **Purpose of Issue/Status** | **Prepared by:** | **Checked by:** | **Approved by:** | **Client Approval** |
| **Class:1** | **Client Doc. Number: F0Z-709032** |
| **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** |

**REVISION RECORD SHEET**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
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| **PAGE** | **D00** | **D01** | **D02** | **D03** | **D04** |  | **PAGE** | **D00** | **D01** | **D02** | **D03** | **D04** |
| **1** | X | X | X | X |  | **51** |  |  |  |  |  |
| **2** | X | X | X | X |  | **52** |  |  |  |  |  |
| **3** | X | X | X | X |  | **53** |  |  |  |  |  |
| **4** | X | X | X |  |  | **54** |  |  |  |  |  |
| **5** | X | X |  |  |  | **55** |  |  |  |  |  |
| **6** | X |  |  |  |  | **56** |  |  |  |  |  |
| **7** |  |  |  | X |  | **57** |  |  |  |  |  |
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| **Technical Data Sheet for Distribution & Lighting Panels** |
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| **ITEM** | **DESCRIPTION** | **REQUIREMENT** | **SUPPLIER DATA** |
| **1** | **SITE CONDITION** |
|  | Location | Binak Oilfield in Bushehr Province |  |
|  | Max. Outdoor Ambient Temperature | 52°C |  |
|  | Min. Outdoor Ambient Temperature | 5°C |  |
|  | Direct Sunlight Temperature  | 85°C |  |
|  | Maximum Relative Outdoor Humidity | 100% | D03 |
|  | Altitude | 12.5 m Above Sea Level |  |
|  | Installation Method | Indoor/Outdoor, Surface/ Flush/Stand Mounted |  |
| **2** | **GENERAL INFORMATION** |
|  | Tag Numbers | GCS-400-NDP-01Process Area Normal Distribution Panel(Outdoor-Safe-Stand Mounted) |  |
| GCS-400-EDP-01Process Area Emergency Distribution Panel(Outdoor-Safe-Stand Mounted) |  |
| GCS-400-NDP-02 Utility Area Normal Distribution Panel(Outdoor-Safe-Stand Mounted) |  |
| GCS-400-EDP-02Utility Area Emergency Distribution Panel(Outdoor-Safe-Stand Mounted) |  |
| GCS-400-EDP-CRMControl Room Emergency Distribution Panel & HVAC(Indoor-Safe-Flush Mounted) |  |
| GCS-400-EDP-SWHVACSwitchgear Distribution Panel & HVAC(Indoor-Safe-Surface Mounted) |  |
| GCS-400-NON-UPSEmergency Distribution Panel for Non UPS(Indoor-Safe-Surface Mounted) |  |
| GCS-400-EDP-CCTVGCS CCTV Emergency Distribution Panel & HVAC(Indoor-Safe-Flush Mounted) |  |
| DU-400-EDP-CCTVEmergency Lighting Panel for CCTV Control Room- BINAK DU(Indoor-Safe-Flush Mounted) |  |
| PU-400-EDP-CCTVEmergency Lighting Panel for CCTV Rack Room- BINAK PU(Indoor-Safe-Flush Mounted) |  |
| GCS-400-EDP-WAREEmergency Lighting Panel for GCS Warehouse(Indoor-Safe-Surface Mounted) |  |
|  | Quantity | 1 Set of Each In Item 2.1 |  |
|  | Application Standard | IPS-E-EL-100, IPS-M-EL-143(3)IPS-M-EL-161(2) |  |
|  | Manufacturer | By Vendor |  |
|  | Related Document | Distribution & Lighting Panels Single Line Diagram (BK-GCS-PEDCO-120-EL-SL-0004) |  |
| **3** | **ELECTRICAL DATA** |
|  | System Voltage/ Frequency | 400V AC / 50Hz |  |
|  | Voltage Variation/ Frequency Variation | ±10 / ± 5% |  |
|  | Insulation Voltage | 0.6/1KV |  |
|  | Rated Power Frequency Withstand Voltage | 2.5 KV |  |
|  | Rated Impulse Withstand Voltage | 8 KV |  |
|  | No. of Phases / Wires | 3Ph+N+PE |  |
|  | Control Voltage | 230VAC (With Isolating Transformer if Any) |  |
|  | Space Heater Voltage | 230VAC |  |
|  | Internal/ External Voltage Supply | Internal |  |
|  | Main Bus-Bar Rating | According to SLD (Item 2.5) |  |
|  | Bus-Bars Material | Indoor: Heat Shrink CopperOutdoor: Silver Plated Copper |  |
|  | Bus Bar Insulation | Dielectric Insulation |  |
|  | Bus Bars Joints | Silver Plated |  |
|  | Earth Bus-Bar Size | By Vendor |  |
|  | Rated Short Circuit Current | According to SLD (Item 2.5) |  |
|  | Type Of System Grounding | TNS / Solid Earthed |  |
| **4** |  **ENCLOSURE DATA** |
|  | Enclosure Type | Wall Mounted , Fixed Type, Front Access |  |
|  | Degree of Protection | Indoor: IP 42, Outdoor: IP 54 |  |
|  | Cable Entry | Bottom via Gland |  |
|  | Outgoing Feeder | Cable, Bottom |  |
|  | Material | Painted Sheet Steel |  |
|  | Finish Color | RAL 7032 |  |
|  | Dimensions (HxWxD) | By Vendor |  |
|  | Sheet Steel Thickness (Body/Frame) | 2mm/2mm |  |
|  | Painting | For Corrosive & Hot Atmosphere  |  |
|  | Thickness | Min. 60μ |  |
|  | Type | Epoxy Powder Elector Static |  |
|  | Weight | By Vendor |  |
| **5** | **CIRCUIT BREAKERS** |
|  | Manufacturer / Type | By Vendor |  |
|  | Rated Operating Voltage | 690V AC |  |
|  | Service Voltage | 400V AC |  |
|  | Incoming Circuit Breaker Type | According to“BK-GCS-PEDCO-120-EL-SL-0004” |  |
|  | Internal Protections for MCCB | According to“BK-GCS-PEDCO-120-EL-SL-0004”, Thermal Over Load (49) & Instantaneous O/C 50) are Required |  |
|  | Incoming C.B Aux. Switches | Yes |  |
|  | Incoming C.B Trip Switches | Yes |  |
|  | Rated Current | According to“BK-GCS-PEDCO-120-EL-SL-0004” |  |
|  | Outgoing Circuit Breakers Type | According to“BK-GCS-PEDCO-120-EL-SL-0004” |  |
| **6** | **LV FUSES** |
|  | Manufacturer | By Vendor |  |
|  | Type Designation | gG |  |
|  | Rated Voltage | 690V |  |
|  | Service Voltage | 400V |  |
|  | Rated Current | According to“BK-GCS-PEDCO-120-EL-SL-0004” |  |
| **7** | **CURRENT TRANSFORMERS** |
|  | Manufacturer / Type | By Vendor |  |
|  | Rated Secondary Current | 5A, 1A, According to“BK-GCS-PEDCO-120-EL-SL-0004” |  |
|  | Accuracy Class | Metering: 1.0, Protection: 5P10 |  |
| **8** | **AMMETERS** |
|  | Manufacturer / Type | By Vendor |  |
|  | Operating Range | According to“BK-GCS-PEDCO-120-EL-SL-0004” |  |
|  | Accuracy Class | 1.5 |  |
| **9** | **VOLTMETERS** |
|  | Manufacturer / Type | By Vendor |  |
|  | Operating Range | According to“BK-GCS-PEDCO-120-EL-SL-0004” |  |
|  | Accuracy Class | 1.5 |  |
| **10** | **CONTACTORS** |
|  | Manufacturer / Type | By Vendor |  |
|  | Rated Voltage | 400V AC |  |
|  | Coil Voltage | 230V AC |  |
|  | Duty | AC3 |  |
|  | Aux. Switches | Yes |  |
|  | Rated Current | According to“BK-GCS-PEDCO-120-EL-SL-0004” |  |
| **11** | **PHOTOCELL** |
|  | Constructed | 5A,230 V,50Hz |  |
|  | Degree of Protection | IP55 ,Heavy Duty Type |  |
|  | Operation Type | Fail Safe & Adjustable |  |
| **12** | **LABLE** |
|  | Language | English |  |
|  | Material | Stainless Steel-Screwed/Reverted |  |
|  | Main Label (Front / Back) | Engraved / Black Font-White Background |  |
| **13** | **PANEL WIRING** |
|  | Manufacturer | By Vendor |  |
|  | Type  | CU/PVC |  |
|  | Power Wire Color | R: Red, S: Yellow, T: Blue, Neutral: BlackPH: Red, Neutral: Black |  |
|  | Signal Wire Color(Voltage Presence Indicator) | Red (L1), Green (L2), Yellow (L3) |  |
| **14** | **PANEL TERMINAL**  |
|  | Manufacturer | By Vendor |  |
|  | Model NO. | By Vendor |  |
|  | Type | Solderless Clamp Type-Flame Retardant |  |
|  | Rated Voltage | According to IEC |  |
|  | Size | Min. 4sqmm & AS Per SLD |  |
|  | Color | Neutral (Blue) / PE (Green/ Yellow) |  |
| **15** | **ACCESSORIES** |
|  | Panel Lighting | Yes |  |
|  | Space Heater with Thermostat | Yes |  |
|  | Door Key | Yes |  |
|  | Gland Plate (Undrilled) | Yes |  |
|  | Gland Plate Type (Normal/Non-Magnetic) | Normal |  |
|  | Terminal Lugs | Yes |  |
|  | Commissioning Spare Parts | Yes |  |
|  | Two Year Operation Spare Parts | Yes |  |
|  | Routine Test | Witnessed & Report |  |
|  | Type Test Certificate (if Required) | Certificate |  |

D03

Note 1: All required accessories shall be considered by vendor.

Note 2: Outdoor Panels shall have canopy (sun shade).