


 <p>PG PARS CO Corrosion control &amp; Cathodic protection شرکت پی جی پارس سپاسی خدمات</p>	<h2>DATA SHEET</h2>	 <p>TJPAPC شرکت پژوهشی پارس تحت حمایت</p>
<b>Document Title:</b>	Data Sheet for cathodic protection	<b>Rev:01</b>
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## Data Sheet for cathodic protection

00	21-May-2024	Issued for Approval	Z.Asadi	Z.Asadi	M.Tehrani
REV.	DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED

 <p>PG PARS CO Corrosion control &amp; Cathodic protection شرکت پی جی پارس انجمن مهندسان تخصصی حفاظت کاتدی و کنترل خوردگی</p>	<h2>DATA SHEET</h2>	 <p>TJPAPC شرکت پژوهشی تخصصی حفاظت کاتدی</p>
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### REVISION RECORD SHEET

Sheet	Revision						Remark	Sheet	Revision						Remark	
	00	01	02	03	04	05			00	01	02	03	04	05		
1	X							41								
2	X							42								
3	X							43								
4	X							44								
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## 1. PURPOSE

Purpose of this document is defining main technical specification of equipment for Cathodic protection system of project as data sheet.

## 2. STANDARDS AND CODES

The below listed, but not limited to, examples of Standards applicable to Cathodic Protection, with its references to other regulative bodies Standards and Recommended Practices are provided to the users for their consideration and decision to implement.

### IRANIAN PETROLEUM STANDARDS (IPS)

- IPS-E-TP-820: Engineering standard for Cathodic protection system
- IPS-I-TP-820: Inspection standard for monitoring Cathodic protection system
- IP-M-EL-155 Material and equipment standard for transformer rectifiers for Cathodic protection
- IPS-M-TP-750 Material and equipment standard for Cathodic Protection transformer

### BRITISH STANDARD INSTITUTE (BSI)



- BS 7361: Pt.1 Cathodic protection – Code of practice for land and marine applications

### INTERNATIONAL STANDARD ORGANIZATION (ISO)

- ISO 15589-1 Cathodic protection of pipeline transportation systems, Part 1: On-Land pipelines.

### AMERICAN SOCIETY FOR TESTING MATERIAL (ASTM)

- ASTM A518M Standard Specification for Corrosion-Resistant High-Silicon Iron Castings
- ASTM B265 Standard Specification for Titanium and Titanium Alloy Strip, Sheet, and Plate

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### 3. DATA SHEET OF MATERIALS

#### 3.1. MMO String Anode

Reference	ASTM B338 , IPS-M-TP-750
Diameter	25 mm.
Length	1000 mm.
Current Density	100 A/m <sup>2</sup> .
Current Output of Anode	8 A.
Catalyst	IrO <sub>2</sub> +Ta <sub>2</sub> O <sub>5</sub>
Anode Brand	PG Pars
Anode Origin	IRAN
Cable Type	CU/ HMWPE/PVDF
Cable length	60 m
Cable Size	1×16 mm <sup>2</sup>

#### 3.2. MMO String Anode

Reference	ASTM B338 , IPS-M-TP-750
Diameter	25 mm.
Length	1000 mm.
Current Density	100 A/m <sup>2</sup> .
Current Output of Anode	8 A.
Catalyst	IrO <sub>2</sub> +Ta <sub>2</sub> O <sub>5</sub>
Anode Brand	PG Pars
Anode Origin	IRAN
Cable Type	CU/ HMWPE/PVDF
Cable length	50 m
Cable Size	1×16 mm <sup>2</sup>



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### 3.3. Positive Bond Box (4 Terminal)

Reference	IPS-D-TP-714
Support	Carbon steel pipe 4"
Execution	Safe Area
IP	55
Terminal Qty. & Size	12 Nos
Enclosure Material	Composite
Link Material	Copper
Support Length	1300 mm
Body thickness	2 mm
Color	According IPS-D-TP-714
Color-Thickness	Thickness $\geq 270 \mu$

### 3.4. Three Way Splicing Kit

GEL	Silicone electrical insulating gel
APPLICATION TEMPERATURE:	32°F to 120°F (0°C to 49°C)
OPERATING TEMPERATURE:	221°F to -40°F (105°C to -40°C)
VOLTAGE RATING:	600 /1000 Volts
WEIGHT OF ONE KIT:	Appr. 0.5 lbs (226 gr)
CONNECTION	16 to 50mm <sup>2</sup>



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### 3.5. Positive Bond Box (6 Terminal)

Reference	IPS-D-TP-702
Support	Carbon steel pipe 4"
Execution	Safe Area
IP	55
Terminal Qty. & Size	6 Nos
Enclosure Material	Composite
Link Material	Copper
Support Length	1300 mm
Body thickness	2 mm
Color	According IPS-D-TP-702
Color-Thickness	Thickness $\geq 270 \mu$

### 3.6. Well Head Facility

Reference	IPS-D-TP-707
Cable Drum Carbon Steel Rod Length	1350 mm
Cable Drum Carbon Steel Rod Weight	5.7 Kg
Rope Drum Carbon Steel Rod Length	1250 mm
Rope Drum Carbon Steel Rod Weight	5.35 Kg
Tin Coat Thickness (IPS-M-TP-750) 5.2.1	Min 5 $\mu$ m
Cable Drum Size	100 mm Dia *-285 mm Length
Rope Drum Size	200 mm Dia *-280 mm Length
Brand	PG Pars Co.

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### 3.7. Polypropylene Rope

Reference	IPS-M-TP-750/08 (2021)
Nominal diameter	8 mm
Linear density	30 Ktex
Rope lay	28 mm
Breaking force	1040 daN
Test method	ISO 2307