



**BANGLADESH PETROLEUM EXPLORATION &
PRODUCTION CO. LTD.**



**CONSORTIUM OF
SINOPEC PETROLEUM ENGINEERING CORPORATION.
AND
ZICOM EQUIPMENT PTE. LTD.**



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ELECTRICAL CALCULATION SHEET

Doc. No: 240-0214-EMEL-CS00-0001

Job No. : **240**

Client : **BANGLADESH PETROLEUM EXPLORATION & PRODUCTION CO. LTD.**

Location : **SRIKAIL GAS FIELD, BANGLADESH**




Item No. : **-**

Description : **GENERATOR SIZING**

Project Title. : **60 MMSCFD GLYCOL DEHYDRATION TYPE GAS PROCESS PLANT**

Year Built : **2015**

A	12-May-15	2	ISSUED FOR APPROVAL	AS	MH	VG
Rev.	Date	Page	Description of Revision	Prepared	Checked	Approved

		BANGLADESH PETROLEUM EXPLORATION & PRODUCTION CO. LTD.		GENERATOR SIZING		CONSORTIUM OF SINOPEC PETROLEUM ENGINEERING CORPORATION AND ZICOM EQUIPMENT PTE. LTD.		
USER LOCATION PROJECT JOB NO.		BANGLADESH PETROLEUM EXPLORATION & PRODUCTION CO. LTD. SRIKAIL GAS FIELD, BANGLADESH 60 MMSCFD GLYCOL DEHYDRATION TYPE GAS PROCESS PLANT 240			DOC NO. SERVICE TAG NO. QUANTITY	240-0214-EMEL-CS00-0001 N/A N/A	REV : A	
No.	EQUIP. TAG NO.	EQUIPMENT	VOLTAGE RATING	DESCRIPTION	QTY	CONNECTED LOAD	OPERATING LOAD	REMARKS
BUS BAR GROUP A								
1	P-100A	CONDENSATE TRANSFER PUMP	400 VAC		1	5500 W	5500 W	
2	P-100B		400 VAC		1			
3	P-200A	COOLING TOWER PUMP	400 VAC		1	5500 W	5500 W	
4	P-200B		400 VAC		1			
5	E-100(1)	DRY AIR COOLER(1)	400 VAC		1	22000 W	15000 W	
6	E-100(2)	DRY AIR COOLER(2)	400 VAC		1	22000 W	15000 W	
7	E-100(3)	DRY AIR COOLER(3)	400 VAC		1	15000 W	15000 W	
8	E-100(4)	DRY AIR COOLER(4)	400 VAC		1	15000 W	15000 W	
9	E-300A(1)	REGENERATION GAS COOLER(A)	400 VAC		1	22000 W	15000 W	
10	E-300A(2)		400 VAC		1	15000 W	15000 W	
11	E-300B(1)	REGENERATION GAS COOLER(B)	400 VAC		1	22000 W		
12	E-300B(2)		400 VAC		1	15000 W		
13	E-400A(1)	COOLING GAS COOLER(A)	400 VAC		1	22000 W	15000 W	
14	E-400A(2)		400 VAC		1	15000 W	15000 W	
15	E-400B(1)	COOLING GAS COOLER(B)	400 VAC		1	22000 W		
16	E-400B(2)		400 VAC		1	15000 W		
17	P-800	KNOCK OUT DRUM PUMP	400 VAC		1	3000 W	3000 W	
18	CT-100	WET COOLER	400 VAC		1	11000 W	11000 W	
19	V-502A/B	AIR DRYER	230 VAC		1	1000 W	1000 W	
20	V-503A/B	AIR DRYER	230 VAC		1			
21	LCP-0801	FLARE STACK LOCAL CONTROL PANEL	230 VAC		1	3000 W	3000 W	
22	H-100	WATER BATH HEATER	400 VAC		1	6000 W	6000 W	
23	R-200	REGENERATION GAS HEATER	400 VAC		1	6000 W	6000 W	
24	P-403	DEEP WELL PUMP	400 VAC		1	11000 W	11000 W	
25	P-404	POTABLE WATER PUMP	400 VAC		1	750 W	750 W	
26	P-401A/B	JOCKEY PUMP CONTROL PANEL	400 VAC		1	12000 W	12000 W	
27	P-402A	DIESEL FIRE WATER PUMP CONTROL PANEL	400 VAC		1	3000 W	500 W	
28	P-402B	DIESEL FIRE WATER PUMP CONTROL PANEL	400 VAC		1			
29	P-300A	RECYCLE PUMP	400 VAC		1	750 W	750 W	
30	P-300B	RECYCLE PUMP	400 VAC		1			
31	P-301A	TREATED WATER TRANSFER PUMP	400 VAC		1	750 W	750 W	
32	P-301B	TREATED WATER TRANSFER PUMP	400 VAC		1			
33	LDP-1401	LIGHTING DISTRIBUTION PANEL	400 VAC		1	18000 W	10000 W	
34	C-501	UTILITY AIR COMPRESSOR	400 VAC		1	15000 W	15000 W	
35	C-502		400 VAC		1			
36	C-503		400 VAC		1			
37	UPS-1	UPS SYSTEM 1	230 VAC		1	4800 W	4800 W	
38	UPS-2	UPS SYSTEM 1	230 VAC		1			
39	UPS-3	UPS FIRE & GAS	230 VAC		1	800 W	100 W	
BUS BAR GROUP B								
40		DOMESTIC & OFFICE USES	400 VAC			50000 W	50000 W	
41		GENERATOR & MCC ROOM	400 VAC			10000 W	10000 W	
						Total:	276650 W	
							277 kW	
Total Plant Load in Kw= 277 kW Base load =80% of Plant Load= 221 kW Calculated Generator= 250 kW Next available selected Generator Size= 276 kW								
A	12/05/2015	ISSUED FOR APPROVAL			AS	MH	VG	
REV	DATE	DESCRIPTION			PREPARED	CHECKED	APPROVED	