



NASHPA COMPRESSION PROJECT (PHASE-II)

RE-ISSUED FOR TENDER

2	July 13, 2018	Re-Issued for Tender	JAB	ZHW	AIB	MHQ	MAS		
1	Apr 02, 2018	Re-Issued for Tender	JAB	ZHW	AIB	MHQ	MAS		
0	Mar 09, 2018	Issued for Tender	JAB	ZHW	AIB	MHQ	MAS		
A	Dec 29, 2017	Issued for Review & Approval	JAB	ZHW	AIB	MHQ	AHB		
REV	DATE	DESCRIPTION	ORIG	CHKD	LE	QA	PM	LOCAL REPR.	PROJ. MAN.

REVISIONS

APPROVAL

CLIENT APPROVAL



ENAR PETROTECH SERVICES (PVT.) LTD.

7-B, KORANGI INDUSTRIAL AREA,
KORANGI-KARACHI

TITLE :

ELECTRICAL LOAD LIST

DOCUMENT NO:

0193 - ELA - 6501 2

CONTRACT NO.
14-0193

PROJECT. CODE

DOCUMENT TYPE

SEQ. NO.

REVISION

SHEET 1 OF 2

S.NO.	LOAD DESCRIPTION	TAG NO.	REF. DWG/DOC NO.	LOAD TYPE	STARTING METHOD	PHASE SYSTEM	LOAD DUTY C/I/S	SERVICES	MOTOR OR EQUIPMENT RATING				ABSORBED LOAD	LOAD FACTOR	POWER FACTOR (P.F)	EFFICIENCY (%η)	CONTINUOUS			INTERMITTENT			STANDBY		
									VOLTAGE RATING (V)	POWER RATING (kW)	HORSE POWER (HP)	AMPACITY (A)					kW	kVA	kVAr	kW	kVA	kVAr	kW	kVA	kVAr
1	FRONT END COMPRESSOR MCC/DISTRIBUTION BOARD	K-2001	-	Feeder	-	3-Ø	C	Main-Bus	400	125	-	225.53	125.0	1.0	0.80	1.0	125.0000	156.250	93.750						
2	FRONT END COMPRESSOR MCC/DISTRIBUTION BOARD	K-2002	-	Feeder	-	3-Ø	C	Main-Bus	400	125	-	225.53	125.0	1.0	0.80	1.0	125.0000	156.250	93.750						
3	FRONT END COMPRESSOR MCC/DISTRIBUTION BOARD	K-2003	-	Feeder	-	3-Ø	C	Main-Bus	400	125	-	225.53	125.0	1.0	0.80	1.0	125.0000	156.250	93.750						
4	FRONT END COMPRESSOR MCC/DISTRIBUTION BOARD	K-2004	-	Feeder	-	3-Ø	S	Main-Bus	400	125	-	225.53	125.0	1.0	0.80	1.0							125.00	156.25	93.75
5	INSTRUMENT AIR COMPRESSOR MOTOR	K-3401C	-	Feeder	-	3-Ø	S	Main-Bus	400	75	-	135.32	75.0	1.0	0.80	1.0							75.00	93.750	56.250
6	FRONT END COMPRESSOR CONTROL PANEL	K-2001	-	Sub-Feeder	-	1-Ø	C	UPS-DB	230	2	-	10.87	2.0	1.0	0.80	1.0	2.0000	2.500	1.500						
7	FRONT END COMPRESSOR CONTROL PANEL	K-2002	-	Sub-Feeder	-	1-Ø	C	UPS-DB	230	2	-	10.87	2.0	1.0	0.80	1.0	2.0000	2.500	1.500						
8	FRONT END COMPRESSOR CONTROL PANEL	K-2003	-	Sub-Feeder	-	1-Ø	C	UPS-DB	230	2	-	10.87	2.0	1.0	0.80	1.0	2.0000	2.500	1.500						
9	FRONT END COMPRESSOR CONTROL PANEL	K-2004	-	Sub-Feeder	-	1-Ø	C	UPS-DB	230	2	-	10.87	2.0	1.0	0.80	1.0	2.0000	2.500	1.500						
10	ENGINEERING / OPERATING WORKSTATION	-	-	Sub-Feeder	-	1-Ø	C	UPS-DB	230	0.6	-	3.26	0.6	1.0	0.80	1.0	0.60	0.750	0.450						
11	ENGINEERING / OPERATING WORKSTATION	-	-	Sub-Feeder	-	1-Ø	C	UPS-DB	230	0.6	-	3.26	0.6	1.0	0.80	1.0	0.60	0.750	0.450						
12	INSTRUMENT AIR COMPRESSOR CONTROL PANEL	K-3401C	-	Sub-Feeder	-	1-Ø	C	UPS-DB	230	1.5	-	8.15	1.5	1.0	0.80	1.0	1.50	1.875	1.125						
13	AIR DRYER CONTROL PANEL	PU-3410	-	Sub-Feeder	-	1-Ø	C	UPS-DB	230	0.4	-	2.17	0.4	1.0	0.80	1.0	0.40	0.500	0.300						
EXPLANATION OF CALCULATIONS												TOTAL LOW VOLTAGE LOAD			386.100	482.63	289.58	0.00	0.00	0.00	200.00	250.00	150.00		
Load Factor: The Load Factor is calculated as: $LF = \text{Absorbed Load} / \text{CAP(kW)}$ kW, kVA & kVA: $kW = (B)/(EF)$ $kVAr = kW * \tan$ $kVA = \sqrt{(kW^2 + kVAr^2)}$ Where: B = Absorbed/Required Power (kW), CAP = Rated Output (kW), uF = Load Factor, EF = Efficiency, PF = Power Factor, EF100 = Efficiency at 100% Load												LOAD SUMMARY - LOW VOLTAGE													
															kW	kVA	kVAr								
												CONTINUOUS LOAD			386.10	482.63	289.58								
												MAXIMUM DEMAND (100% of Continuous + 50% of Intermittant)			386.10	482.63	289.58								
												PEAK DEMAND (100% of Continuous + 50% of Intermittant + 10% of Standby)			406.10	507.63	304.58								
NOTES:																									
1. Typical values of efficiency and power factor have been used ; actual values shall be incorporated after the availability of Vendor data. 2. Developed Load list based on FEED stage/preliminary which will be further evaluated & updated by EPCC Contractor. C-Continuous I-Intermittent S-Standby																									



ELECTRICAL LOAD LIST

ENAR Petrotech Services (Pvt.) Limited
Plot No. 7-B, Sector-7A Korangi Industrial Area
(P. O. Box No. 8912) Karachi-74900

PROJECT NAME : NASHPA COMPRESSION PROJECT (PHASE-II)

CLIENT : OIL & GAS DEVELOPMENT COMPANY LIMITD (OGDCL)

DOCUMENT NO. : 0193-ELA-6501

PROJECT NO.	14-0193	PRP BY	JAB
REV. NO.	2	CHKD BY	ZHW
DATE	July 13, 2018	LE	AIB
SHEET	2 OF 2		

