



Vendor	ABT 360 KT/Y PP PLANT Project		Owner
	Modbus List		
	Vendor's Doc. No.: 23249-23	Rev.: 00	SERAJ GOSTARAN REJAL (سهامی خاص)
	PPEC Doc. No.: L03-RE037-EL-LST-003		



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00	18-04-2025	Issue for Engineering	S.K.	S.K.	J.J.	
REV.	DATE	Description	Prepared by	Checked by	Approved by	Authorized by

Vendor 	ABT 360 KT/Y PP PLANT		Contractor (DEC)	Owner  سراج گستران رجال SERAJ GOSTARAN REJAL (سهامی خاص)
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PAGE NO.	CHANGE INDEX DURING FORMAL ISSUE							REASON OF LATEST CHANGE
	FIRST ISSUE	SECOND ISSUE	THIRTH ISSUE	FOURTH ISSUE	FIFTH ISSUE	SIXTH ISSUE		
	REV.00	REV.01	REV.02	REV.03	REV.04	REV.05		
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23249-23 MODBUS List

L03-RE037-EL-LST-003

ABT 360 KT/Y PP PLANT Project



1 GENERAL

The UCP will be acting as the Server node and the DCS as the Client node.
Future HAZOP recommendations may require signals to be added.

2 Modbus communication settings (configuration parameters)

2.1. MCP to/from DCS

Protocol:	Modbus TCP/IP
Baud Rate	Not Applicable
Parity:	Not Applicable
Data bits:	Not Applicable
Stop bit:	Not Applicable
Master/slave:	Not Applicable
Slave adress:	Not Applicable
DCS IP Adress:	*
MCP IP adress:	192.168.10.10
MCP ID:	10
DCS ID:	*

* To be informed if these parameters of the net are available or need to be changed.

3 Legend

Function Code :

3 - Read holding registers

6 - Write holding registers

4 Referenced Documents

P&ID

Control philosophy

Wiring Diagram

23249-COM - Modbus Mapping List

ABT 360 KT/Y PP PLANT Project



NO.	AIRPACK TAG NUMBER	SERVICE	MODBUS ADDRESS	BIT NO.	SIGNAL TYPE	FUNCTION CODE	UNIT	SCALE		ALARM VALUE(S)	TRIP VALUE(S)	RAW LOW COUNT	RAW HIGH COUNT	ALARM /TRIP TYPE	TEXT 0	TEXT 1	REMARKS
								0%	100%								
1	PK-6801-XS-001	Watchdog bit from DCS	4001	0	Bool	6 [Write]	-	-	-	-	-	-	-	-	-	-	
2	PK-6801-XS-002	Watchdog bit to DCS	4001	1	Bool	3 [Read]	-	-	-	-	-	-	-	-	-	-	
3	PK-6801-TS-001	Time Synchronization - Year	4002	-	Int	6 [Write]	-	-	-	-	-	-	-	-	-	-	
4	PK-6801-TS-002	Time Synchronization - Month	4003	-	Int	6 [Write]	-	-	-	-	-	-	-	-	-	-	
5	PK-6801-TS-003	Time Synchronization - Day	4004	-	Int	6 [Write]	-	-	-	-	-	-	-	-	-	-	
6	PK-6801-TS-004	Time Synchronization - Hour	4005	-	Int	6 [Write]	-	-	-	-	-	-	-	-	-	-	
7	PK-6801-TS-005	Time Synchronization - Minute	4006	-	Int	6 [Write]	-	-	-	-	-	-	-	-	-	-	
8	PK-6801-TS-006	Time Synchronization - Second	4007	-	Int	6 [Write]	-	-	-	-	-	-	-	-	-	-	
9	PK-6801-XS-010	Time Synchronization - Command	4008	-	Bool	6 [Write]	-	-	-	-	-	-	-	-	-	-	
9	PK-6801-PDT-603001	Differential pressure transmitter Inlet	40010/40011		32bit-floating	3 [Read]	bar	0	1	H=0.2	-	0	27648	-	-	-	
10	PK-6801-TT-603001	Temperature transmitter pulsation damper 1st stage discharge	40012/40013		32bit-floating	3 [Read]	°C	0	200	H=110	-	0	27648	-	-	-	
11	PK-6801-TT-603002	Temperature transmitter pulsation damper 1st stage discharge	40014/40015		32bit-floating	3 [Read]	°C	0	200	-	HH=120	0	27648	-	-	-	
12	PK-6801-TT-603003	Temperature transmitter pulsation damper 2nd stage discharge	40016/40017		32bit-floating	3 [Read]	°C	0	200	H=110	-	0	27648	-	-	-	
13	PK-6801-TT-603004	Temperature transmitter pulsation damper 2nd stage discharge	40018/40019		32bit-floating	3 [Read]	°C	0	200	-	HH=120	0	27648	-	-	-	
14	PK-6801-TT-603005	Temperature transmitter Cooling water supply	40020/40021		32bit-floating	3 [Read]	°C	0	85	-	HH=50	0	27648	-	-	-	
15	PK-6801-TT-603006	Temperature transmitter cooling water return	40022/40023		32bit-floating	3 [Read]	°C	0	85	-	HH=55	0	27648	-	-	-	
16	PK-6801-PT-603001	Pressure transmitter Oil system	40024/40025		32bit-floating	3 [Read]	bar(g)	0	5	-	LL=1	0	27648	-	-	-	
17	PK-6801-PT-603002	Pressure transmitter Package outlet	40026/40027		32bit-floating	3 [Read]	bar(g)	0	60	L=20 (LOAD); H=21 (UNLOAD)	-	0	27648	-	-	-	
18	PK-6801-XY-603001	Regulating solenoid valve Load Unload	40040	0	Bool	3 [Read]	-	-	-	-	-	-	-	-	Unload	Load	
19	PK-6801-XA-603201	Main Motor running signal (from MCC)	40040	1	Bool	3 [Read]	-	-	-	-	-	-	-	-	Not Running	Running	
20	PK-6801-XA-603202	Main Motor fault signal (from MCC)	40040	2	Bool	3 [Read]	-	-	-	-	-	-	-	-	Fault	Healthy	
21	PK-6801-XA-603203	Main Motor start (to MCC)	40040	3	Bool	3 [Read]	-	-	-	-	-	-	-	-	-	Start	
22	PK-6801-XA-603204	Main Motor stop (to MCC)	40040	4	Bool	3 [Read]	-	-	-	-	-	-	-	-	-	Stop	
23	PK-6801-XA-603101	Compressor operational (signal)	40040	5	Bool	3 [Read]	-	-	-	-	-	-	-	-	Not Operational	Operational	
24	PK-6801-XA-603103	Compressor common alarm (signal)	40041	0	Bool	3 [Read]	-	-	-	-	-	-	-	-	Alarm	Healthy	
25	PK-6801-XA-603104	Compressor common trip (signal)	40041	1	Bool	3 [Read]	-	-	-	-	-	-	-	-	Trip	Healthy	
26	PK-6801-HS-603101	Compressor Start (pushbutton)	40041	2	Bool	3 [Read]	-	-	-	-	-	-	-	-	-	Start	
27	PK-6801-HS-603102	Compressor Stop (pushbutton)	40041	3	Bool	3 [Read]	-	-	-	-	-	-	-	-	Stop	-	
28	PK-6801-SW-603101	Compressor Local (switch)	40041	4	Bool	3 [Read]	-	-	-	-	-	-	-	-	-	Local	
29	PK-6801-SW-603102	Compressor Remote (switch)	40041	5	Bool	3 [Read]	-	-	-	-	-	-	-	-	-	Remote	
30	PK-6801-HS-603103	Compressor lampstest (pushbutton)	40041	6	Bool	3 [Read]	-	-	-	-	-	-	-	-	-	Lampstest	
31	PK-6801-XS-003	Power Supply 1 Active	40041	7	Bool	3 [Read]	-	-	-	-	-	-	-	-	-	PSU Active	Internal to the UCP panel.
32	PK-6801-XS-004	Power Supply 2 Active	40042	0	Bool	3 [Read]	-	-	-	-	-	-	-	-	-	PSU Active	Internal to the UCP panel.
33	PK-6801-XS-005	ESD Relay Activated	40042	1	Bool	3 [Read]	-	-	-	-	-	-	-	-	-	ESD	Internal to the UCP panel. The ESD relay signal to PLC. See wiring diagram.
34	PK-6801-XS-006	ESD Relay Reset	40042	2	Bool	3 [Read]	-	-	-	-	-	-	-	-	-	Reset	Internal to the UCP panel. The ESD relay reset from PLC. See wiring diagram.
35	PK-6801-PDAH-603001	Differential pressure transmitter Inlet High Alarm	40042	3	Bool	3 [Read]	-	-	-	-	-	-	-	HIGH	Alarm	Healthy	
36	PK-6801-TAH-603001	Temperature transmitter pulsation damper 1st stage discharge High Alarm	40042	4	Bool	3 [Read]	-	-	-	-	-	-	-	HIGH	Alarm	Healthy	
37	PK-6801-TAHH-603002	Temperature transmitter pulsation damper 1st stage discharge High High Trip	40042	5	Bool	3 [Read]	-	-	-	-	-	-	-	HIGH	Trip	Healthy	
38	PK-6801-TAH-603003	Temperature transmitter pulsation damper 2nd stage discharge High Alarm	40042	6	Bool	3 [Read]	-	-	-	-	-	-	-	HIGH	Alarm	Healthy	
39	PK-6801-TAHH-603004	Temperature transmitter pulsation damper 2nd stage discharge High High Trip	40042	7	Bool	3 [Read]	-	-	-	-	-	-	-	HIGH	Trip	Healthy	
40	PK-6801-TAHH-603005	Temperature transmitter Cooling water supply High High Trip	40043	0	Bool	3 [Read]	-	-	-	-	-	-	-	HIGH	Trip	Healthy	
41	PK-6801-TAHH-603006	Temperature transmitter cooling water return High High Trip	40043	1	Bool	3 [Read]	-	-	-	-	-	-	-	HIGH	Trip	Healthy	
42	PK-6801-PALL-603001	Pressure transmitter Oil system Low Low Trip	40043	2	Bool	3 [Read]	-	-	-	-	-	-	-	LOW	Trip	Healthy	
43	PK-6801-PAL-603002	Pressure transmitter Package outlet Load SP	40043	3	Bool	3 [Read]	-	-	-	-	-	-	-	-	-	Load	-
44	PK-6801-PAH-603002	Pressure transmitter Package outlet Unload SP	40043	4	Bool	3 [Read]	-	-	-	-	-	-	-	-	-	Unload	-