





DRUG SUBSTANCE
AUTOMATION ELECTRICAL LOAD LIST

3	ISSUED FOR CONSTRUCTION CONSIDERING COMMENTS										<div><div></div><div>DOC NR: 569-DB7B-AIC-300-001</div></div>	<div><div></div><div>CLIENT NR: PRD-AIC-LIS-018</div></div>		
2	ISSUED FOR CONSTRUCTION CONSIDERING COMMENTS													
1	ISSUED FOR CONSTRUCTION CONSIDERING COMMENTS													
0	ISSUED FOR CONSTRUCTION													
B	90% DD ISSUE													
A	30% DD ISSUE										CLIENT: TAKEDA / BAXALTA			
REV	DESCRIPTION												PROJECT: BURITI EPCVM PROJECT	
REVIEW	REV. A	REV. B	REV. 0	REV. 1	REV. 2	REV. 3	REV. 4	REV. 5	REV. 6	REV. 7				REV.: 3
DATE	18FEB2021	15OCT2021	02DEC2021	03DEC2021	14DEC2021	17DEC2021								
EXEC	AAS	AAS	MAB	MAB	MAV	MAV								
CHECK	MAF	MAF	MAF	MAF	MAF	MAF								
APPROV	MAJ	RSP	RSP	RSP	RSP	RSP								

REVISION 0 NOTES:
1- ADDED PCS PANEL
REVISION 1 NOTES:
1- REVIEW ON POWER VALUES SVP PANELS ADDED 2- SVP PANELS ADDED
REVISION 2 NOTES:
1- FIXED AUTOMATION RACK TO PCS/EMS/BMS NAME 2- ADDED ELECTRICAL LOAD FOR AUTOMATION RACK SWITCHES 3- ADDED ELECTRICAL LOAD FOR 7B-HMI-12 (IHM PCS - CIP)
REVISION 3 NOTES:
1- ADDED NOTES 4 AND 5 2- ADDED TAG NUMBER FOR THE RU-B1012-A, RU-B3010-A AND RU-B3010-B SWITCHES.

NOTES:

1) POWER SUPPLY FROM UNINTERRUPTER POWER SYSTEM (UPS)

2) POWER SUPPLY FROM GENERATORS SYSTEM

3) REFERENCE DRAWING:

7B-I-0-7-01 VOIP&DATA RAISER DIAGRAM

7B-I-0-7-02 FIRE ALARM RAISER DIAGRAM

7B-I-0-7-05 CCTV RAISER DIAGRAM

7B-I-0-7-06 ACS RAISER DIAGRAM





7B-I-0-7-04 BMS NETWORK ARCHITECTURE





7B-I-0-1-01 PCS NETWORK ARCHITECTURE





7B-I-0-7-03 EMS NETWORK ARCHITECTURE





4) WHERE IT SYSTEM IS INDICATED IT MEANS DATA&VOICE SYSTEM.





5) THE ELECTRICAL LOADS REPORTED ARE FROM THE MAIN EQUIPMENT IN EACH PANEL.

 		 	TITLE: DRUG SUBSTANCE AUTOMATION ELECTRICAL LOAD LIST		DOC NR.: 569-DB7B-AIC-300-001		SHEET.: 4 / 11
					CLIENT NR.: PRD-AIC-LIS-018		REV.: 3
BUILDING	TAG OF THE PANEL	SERVICE	CHARGE (VA)	SYSTEM	DRAWING N°	LOCALIZATION	NOTES
					OR EQUIPMENT		
7B	CP-B3001	MAIN CLP BMS SYSTEM	1000	BMS	-	2° FLOOR ROOM B3001	1
7B	IHM-BMS-7B-1	IHM HVAC	800	BMS	-	2° FLOOR ROOM B3001	1
7B	-	POWER SUPPLY MAIN CLP BMS SYSTEM	400	BMS	-	-	1
7B	-	SWITCH MAIN CLP BMS SYSTEM	400	BMS	-	-	1
		TOTAL MAIN CLP BMS SYSTEM	2600				
7B	RM-AHU-7B-1	POWER SUPPLY REMOTE I/O HVAC	400	BMS	-	2° FLOOR SECOND FLOOR	1
7B	-	SWITCH REMOTE I/O HVAC	200	BMS	-	-	1
		TOTAL REMOTE I/O HVAC	600				
7B	RM-AHU-7B-2	POWER SUPPLY REMOTE I/O HVAC	500	BMS	-	2° FLOOR SECOND FLOOR	1
7B	-	SWITCH REMOTE I/O HVAC	200	BMS	-	-	1
		TOTAL REMOTE I/O HVAC	700				
7B	RM-AHU-7B-3	POWER SUPPLY REMOTE I/O HVAC	500	BMS	-	2° FLOOR SECOND FLOOR	1
7B	-	SWITCH REMOTE I/O HVAC	200	BMS	-	-	1
		TOTAL REMOTE I/O HVAC	700				
7B	RM-AHU-7B-4	POWER SUPPLY REMOTE I/O HVAC	500	BMS	-	2° FLOOR SECOND FLOOR	1
7B	-	SWITCH REMOTE I/O HVAC	200	BMS	-	-	1
		TOTAL REMOTE I/O HVAC	700				





 		 		TITLE: DRUG SUBSTANCE AUTOMATION ELECTRICAL LOAD LIST		DOC NR.: 569-DB7B-AIC-300-001	SHEET.: 5 / 11
						CLIENT NR.: PRD-AIC-LIS-018	REV.: 3
BUILDING	TAG OF THE PANEL	SERVICE	CHARGE (VA)	SYSTEM	DRAWING N°	LOCALIZATION	NOTES
					OR EQUIPMENT		
7B	RM-AHU-7B-5	POWER SUPPLY REMOTE I/O HVAC	500	BMS	-	2° FLOOR SECOND FLOOR	1
7B	-	SWITCH REMOTE I/O HVAC	200	BMS	-	-	1
		TOTAL REMOTE I/O HVAC	700				
7B	RM-AHU-7B-6	POWER SUPPLY REMOTE I/O HVAC	500	BMS	-	2° FLOOR SECOND FLOOR	1
7B	-	SWITCH REMOTE I/O HVAC	200	BMS	-	-	1
		TOTAL REMOTE I/O HVAC	700				
7B	RM-AHU-7B-7	POWER SUPPLY REMOTE I/O HVAC	500	BMS	-	2° FLOOR SECOND FLOOR	1
7B	-	SWITCH REMOTE I/O HVAC	200	BMS	-	-	1
		TOTAL REMOTE I/O HVAC	700				
7B	RM-AHU-7B-8	POWER SUPPLY REMOTE I/O HVAC	500	BMS	-	2° FLOOR SECOND FLOOR	1
7B	-	SWITCH REMOTE I/O HVAC	200	BMS	-	-	1
7B		TOTAL REMOTE I/O HVAC	700				
7B	RM-AHU-7B-9	POWER SUPPLY REMOTE I/O HVAC	500	BMS	-	2° FLOOR SECOND FLOOR	1
7B	-	SWITCH REMOTE I/O HVAC	200	BMS	-	-	1
7B		TOTAL REMOTE I/O HVAC	700				
7B	RM-DOAS-7B-1	POWER SUPPLY REMOTE I/O HVAC	500	BMS	-	2° FLOOR SECOND FLOOR	1
7B	-	SWITCH REMOTE I/O HVAC	200	BMS	-	-	1





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					CLIENT NR.: PRD-AIC-LIS-018		REV.: 3	
BUILDING	TAG OF THE PANEL	SERVICE	CHARGE (VA)	SYSTEM	DRAWING N°	LOCALIZATION	NOTES	
					OR EQUIPMENT			
7B		TOTAL REMOTE I/O HVAC	700					
7B	RM-FCU-7B	POWER SUPPLY REMOTE I/O HVAC	500	BMS	-	GROUND FLOOR WALKABLE CEILING	1	
7B	-	SWITCH REMOTE I/O HVAC	200	BMS	-	-	1	
7B		TOTAL REMOTE I/O HVAC	700					
7B	RM-B3009-1	POWER SUPPLY REMOTE I/O BLACK UTILITIES	500	BMS	-	2° FLOOR ROOM B3009	1	
7B	-	SWITCH REMOTE I/O BLACK UTILITIES	200	BMS	-	-	1	
7B		TOTAL REMOTE I/O BLACK UTILITIES	700					
7B	RM-B1031-1	POWER SUPPLY REMOTE I/O BLACK UTILITIES	500	BMS	-	GROUND FLOOR ROOM B1031	1	
7B	-	SWITCH REMOTE I/O BLACK UTILITIES	200	BMS	-	-	1	
7B		TOTAL REMOTE I/O BLACK UTILITIES	700					
7B	RM-B3003-1	POWER SUPPLY REMOTE I/O ELECTRICAL SYSTEM	500	BMS	-	GROUND FLOOR ROOM B3003	1	
7B	-	SWITCH REMOTE I/O ELECTRICAL SYSTEM	200	BMS	-	-	1	
7B		TOTAL REMOTE I/O ELECTRICAL SYSTEM	700					
7B	RU-B1012-A	RACK IT / CCTV / ACS SYSTEM	1000	IT / CCTV / ACS SYSTEM	-	GROUND FLOOR ROOM B1012	1	
7B	SSD-B1012-A-01	SWITCH ACS/CCTV SYSTEM	600	ACS/CCTV SYSTEM	-	-	1	
7B	SDW-B1012-A-01	SWITCH IT SYSTEM	600	IT SYSTEM	-	-	1	
7B	SDW-B1012-A-02	SWITCH IT SYSTEM	600	IT SYSTEM	-	-	1	

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					CLIENT NR.: PRD-AIC-LIS-018		REV.: 3
BUILDING	TAG OF THE PANEL	SERVICE	CHARGE (VA)	SYSTEM	DRAWING N°	LOCALIZATION	NOTES
					OR EQUIPMENT		
7B	SDW-B1012-A-03	SWITCH IT SYSTEM	600	IT SYSTEM	-	-	1
7B		TOTAL RACK IT / CCTV / ACS SYSTEM	3400				
7B	RU-B3010-A	RACK IT / CCTV / ACS SYSTEM	1000	IT / CCTV / ACS SYSTEM	-	2° FLOOR ROOM B3002	1
7B	SSD-B3010-A-01	SWITCH ACS/CCTV SYSTEM	600	ACS/CCTV SYSTEM	-	-	1
7B	SDW-B3010-A-01	SWITCH IT SYSTEM	600	IT SYSTEM	-	-	1
7B	SDA-B3010-A-01	SWITCH DISTRIBUTION ADM	600	ADM	-	-	1
7B	SDA-B3010-A-02	SWITCH DISTRIBUTION ADM	600	ADM	-	-	1
7B		TOTAL RACK IT / CCTV / ACS SYSTEM	3400				
7B	QF-B3002-1	LOW VOLTAGE SWITCH BOARD ACS SYSTEM	1000	ACS SYSTEM	-	2° FLOOR ROOM B3002	1
7B	QF-B1031-1	LOW VOLTAGE SWITCH BOARD ACS SYSTEM	1000	ACS SYSTEM	-	GROUND FLOOR ROOM A1031	1
7B		TOTAL LOW VOLTAGE SWITCH BOARD	2000				
7B	RU-B3010-B	RACK PCS/EMS/BMS SYSTEM	1000	PCS/EMS/BMS SYSTEM	-	MECHANICAL AREA	1
7B	BDS-INDUS-SW1	SWITCH 1 PCS/EMS/BMS SYSTEM	600	PCS/EMS/BMS SYSTEM	-	-	1
7B	BDS-INDUS-SW2	SWITCH 2 PCS/EMS/BMS SYSTEM	600	PCS/EMS/BMS SYSTEM	-	-	1
7B	BDS-INDUS-SW3	SWITCH 3 PCS/EMS/BMS SYSTEM	600	PCS/EMS/BMS SYSTEM	-	-	1
7B	B07-ESXI-1	SERVER 1 PCS/EMS/BMS SYSTEM	700	PCS/EMS/BMS SYSTEM	-	-	1
7B	B07-ESXI-2	SERVER 2 PCS/EMS/BMS SYSTEM	700	PCS/EMS/BMS SYSTEM	-	-	1
7B		TOTAL RACK PCS/EMS/BMS SYSTEM	4200				

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					CLIENT NR.: PRD-AIC-LIS-018		REV.: 3
BUILDING	TAG OF THE PANEL	SERVICE	CHARGE (VA)	SYSTEM	DRAWING N°	LOCALIZATION	NOTES
					OR EQUIPMENT		
7B	7B-BMS-HMI-01	CLIENT BMS	600	BMS SYSTEM	-	GROUND FLOOR ROOM B1034	1
7B	7B-BMS-HMI-02	CLIENT HYSTORIAN BMS	600	BMS SYSTEM	-	GROUND FLOOR ROOM B1034	1
7B	7B-BMS-HMI-03	CLIENT ACS SYSTEM	600	ACS SYSTEM	-	GROUND FLOOR ROOM B1034	1
7B	7B-HMI-02	CLIENT PCS SYSTEM	600	PCS SYSTEM	-	1° FLOOR ROOM B2054	1
7B	7B-HMI-05	CLIENT PCS SYSTEM	600	PCS SYSTEM	-	1° FLOOR ROOM B2038	1
7B	7B-HMI-08	CLIENT PCS SYSTEM	600	PCS SYSTEM	-	1° FLOOR ROOM B2047	1
7B	7B-HMI-09	CLIENT PCS SYSTEM	600	PCS SYSTEM	-	1° FLOOR ROOM B2004	1
7B	7B-HMI-10	CLIENT PCS SYSTEM	600	PCS SYSTEM	-	1° FLOOR ROOM B2008	1
7B		TOTAL WORKSTATIONS	4800				
7B	CP-B2600-4	PLC EMS SYSTEM	600	EMS	-	WALKABLE CEILING	1
7B	-	POWER SUPPLY PLC EMS SYSTEM	600	EMS	-	-	1
7B	-	SWITCH PLC EMS SYSTEM	200	EMS	-	-	1
7B		TOTAL PLC EMS SYSTEM	1400				
7B	RM-B1031-2	POWER SUPPLY REMOTE I/O EMS SYSTEM	400	EMS	-	GROUND FLOOR ROOM B1031	1
7B	-	TOWER LIGHTS	400	EMS	-	-	1
7B	-	SWITCH REMOTE I/O EMS SYSTEM	200	EMS	-	-	1
7B		TOTAL REMOTE I/O EMS SYSTEM	1000				
7B	CP-B1031-1	PLC PCS SYSTEM	1000	PCS	-	GROUND FLOOR ROOM B1031	1
7B	7B-HMI-1	IHM PCS	600	PCS	-	GROUND FLOOR ROOM B1031	1

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					CLIENT NR.: PRD-AIC-LIS-018		REV.: 3
BUILDING	TAG OF THE PANEL	SERVICE	CHARGE (VA)	SYSTEM	DRAWING N°	LOCALIZATION	NOTES
					OR EQUIPMENT		
7B	-	POWER SUPPLY PLC PCS SYSTEM	500	PCS	-	-	1
7B	-	SWITCH PLC PCS SYSTEM	200	PCS	-	-	1
7B		TOTAL PLC PCS SYSTEM	2300				
7B	CP-B2600-1	PLC PCS SYSTEM	600	PCS	-	WALKABLE CEILING	1
7B	-	POWER SUPPLY PLC PCS SYSTEM	600	PCS	-	-	1
7B	-	SWITCH PLC PCS SYSTEM	200	PCS	-	-	1
7B		TOTAL PLC PCS SYSTEM	1400				
7B	CP-B2600-2	PLC PCS SYSTEM	600	PCS	-	WALKABLE CEILING	1
7B	-	POWER SUPPLY PLC PCS SYSTEM	600	PCS	-	-	1
7B	-	SWITCH PLC PCS SYSTEM	200	PCS	-	-	1
7B		TOTAL PLC PCS SYSTEM	1400				
7B	CP-B2600-3	PLC PCS SYSTEM	400	PCS	-	1° FLOOR ROOM B2600	1
7B	7B-HMI-3	IHM PCS	600	PCS	-	1° FLOOR ROOM B2048	1
7B	7B-HMI-4	IHM PCS	600	PCS	-	1° FLOOR ROOM B2048	1
7B	7B-HMI-6	IHM PCS	600	PCS	-	1° FLOOR ROOM B2039	1
7B	7B-HMI-7	IHM PCS	600	PCS	-	1° FLOOR ROOM B2039	1
7B	7B-HMI-11	IHM PCS	600	PCS	-	1° FLOOR ROOM B2037	1
7B	7B-HMI-12	IHM PCS - CIP	600	PCS	-	1° FLOOR ROOM B2001	1
7B	-	POWER SUPPLY PLC PCS SYSTEM	200	PCS	-	-	1

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					CLIENT NR.: PRD-AIC-LIS-018		REV.: 3	
BUILDING	TAG OF THE PANEL	SERVICE	CHARGE (VA)	SYSTEM	DRAWING N°	LOCALIZATION	NOTES	
					OR EQUIPMENT			
7B	-	SWITCH PLC PCS SYSTEM	200	PCS	-	-	1	
7B		TOTAL PLC PCS SYSTEM	4400					
7B	IP-BRE-5401	40L BIOREACTOR, BRE-5401 VESSEL	600	PCS	-	1° FLOOR ROOM B2037	1	
7B	IP-CIP-7702	CIP SYSTEM 2, CIP-7702 - MEDIA & FERM AREA	600	PCS	-	1° FLOOR ROOM B2037	1	
7B	IP-CIP-7703	CIP SYSTEM CIP-7703 BUFFER AREA	600	PCS	-	GROUND FLOOR	1	
7B	IP-CRM-3501	CATION EXCHANGE CHROM CRM-3501	600	PCS	-	1° FLOOR ROOM B2037	1	
7B	IP-CRM-3601	ANION EXCHANGE CHROM CRM-3601	600	PCS	-	1° FLOOR ROOM B2037	1	
7B	IP-SK-3701A	HOT WFI STORAGE TANK, TQ-6401	600	PCS	-	1° FLOOR ROOM B2037	1	
7B	IP-SK-3702 / 03A	3000L BUFFER PREP TANK TQ-3702	600	PCS	-	1° FLOOR ROOM B2037	1	
7B	IP-SK-5101	250L MEDIA PREP TANK - TQ-5101 & MED DIST	600	PCS	-	WALKABLE CEILING	1	
7B	IP-SK-5102A	4500L MEDIA PREP TANK - TQ-5102	600	PCS	-	WALKABLE CEILING	1	
7B	IP-SK-5201A	3800L MEDIA HOLD TANK - TQ-5201	600	PCS	-	WALKABLE CEILING	1	
7B	IP-SK-5202A	3800L MEDIA HOLD TANK - TQ-5202	600	PCS	-	WALKABLE CEILING	1	
7B	IP-SK-5501A	320L BIOREACTOR, BRE-5501 VESSEL	600	PCS	-	1° FLOOR ROOM B2037	1	
7B	IP-SK-5601A	2500L BIOREACTOR, BRE-5601 VESSEL	600	PCS	-	1° FLOOR ROOM B2037	1	
7B	IP-SK-5601B	2500L BIOREACTOR, BRE-5602 VESSEL	600	PCS	-	1° FLOOR ROOM B2037	1	
7B	IP-SK-5602A	2500L BIOREACTOR, BRE-5602 VESSEL	600	PCS	-	1° FLOOR ROOM B2037	1	
7B	IP-SK-5800	HARVEST FILTR SKIDS HFIL-5801 & HFIL-5802	600	PCS	-	1° FLOOR ROOM B2037	1	
7B	IP-SK-6401	HOT WFI STORAGE TANK, TQ-6401	600	PCS	-	1° FLOOR ROOM B2037	1	
7B	SVP-B1031-01	SOLENOID VALVE PANEL	450	PCS	-	GROUND FLOOR	1	
7B	SVP-B1031-02	SOLENOID VALVE PANEL	450	PCS	-	GROUND FLOOR	1	

<div><div>TESSLER Engenharia</div><div>ips</div></div>		<div><div>Takeda</div><div>Hemobrás <small>Corporação Brasileira de Produtos e Serviços em Saúde</small></div></div>	TITLE: DRUG SUBSTANCE AUTOMATION ELECTRICAL LOAD LIST		DOC NR.: 569-DB7B-AIC-300-001 CLIENT NR.: PRD-AIC-LIS-018		SHEET.: 11 / 11 REV.: 3
BUILDING	TAG OF THE PANEL	SERVICE	CHARGE (VA)	SYSTEM	DRAWING N° OR EQUIPMENT	LOCALIZATION	NOTES
7B	SVP-B1031-03	SOLENOID VALVE PANEL	450	PCS	-	GROUND FLOOR	1
7B	SVP-B1031-04	SOLENOID VALVE PANEL	450	PCS	-	GROUND FLOOR	1
7B	SVP-B1031-05	SOLENOID VALVE PANEL	450	PCS	-	1° FLOOR ROOM B2037	1
7B	SVP-B1031-06	SOLENOID VALVE PANEL	450	PCS	-	1° FLOOR ROOM B2037	1
7B	SVP-B1031-07	SOLENOID VALVE PANEL	450	PCS	-	1° FLOOR ROOM B2037	1
						1° FLOOR ROOM B2037	1
7B		TOTAL LOAD BUILDING 7B	47950				
		LOAD BUILDING 7B - RESERVE	2050				