



Customer : Site Preparation Management Co., Ltd.
Project : Building Automation System for the Excise Department
RFQ Ref : หมวด 25 60 00 ระบบควบคุมอาคารอัตโนมัติ (Building Automation System, BAS)
ABB Proposal Ref : IA4489_170405 R04

Rev: 06

Bill of materials

Item	Description	Article No./Model	Vendor	Qty	Unit	Responsibility		Rev
						ABB	SITEM	
1	System Software							
1.1	800xA SV6.0							
	800xA Base System	3BSE087723R1	ABB	1	Lic.	√		
	100 tags, non-redundant	3BSE078782R1	ABB	1	Lic.	√		
	PM851 Software License 800xA	3BSE066485R3	ABB	5	Lic.	√		
	CI867 Modbus TCP Software License 800xA	3BSE043660R3	ABB	2	Lic.	√		R01
1.2	SW media and accessories							
	System 800xA 6.0, Media Box (SSD)	3BSE079233R600	ABB	1	Pc.	√		
	License dongle for USB Port	3BSE064644R1	ABB	1	Pc.	√		
2	Controller and I/O							
2.1	Controller for DDC.-1/1							
	PM851AK01 Processor Unit	3BSE066485R1	ABB	1	Pc.	√		
	SB822 Rechargeable Battery Unit	3BSE018172R1	ABB	1	Pc.	√		
	CI867K01 Modbus TCP Interface	3BSE043660R1	ABB	1	Pc.	√		
	SD832 Power Supply, 5A	3BSC610065R1	ABB	1	Pc.	√		
	MB801V512 Compact Flash card	3BSE042257R1	ABB	1	Pc.	√		
2.2	I/O for DDC.-1/1							
	AI810 Analog Input 8 ch 0(4)..20mA, 0..10V, 12Bit, single ended.	3BSE008516R1	ABB	1	Pc.	√		
	DI810 Digital Input 24V 16 ch Isolated in two groups of 8 channels.	3BSE008508R1	ABB	3	Pcs.	√		
	TU810V1 Compact MTU, 50V Compact Module Termination Unit 2x8 signal terminals.	3BSE013230R1	ABB	4	Pcs.	√		
2.3	Controller for DDC.-1/2							
	PM851AK01 Processor Unit	3BSE066485R1	ABB	1	Pc.	√		
	SB822 Rechargeable Battery Unit	3BSE018172R1	ABB	1	Pc.	√		
	CI867K01 Modbus TCP Interface	3BSE043660R1	ABB	0	Pc.	√		R01
	SD832 Power Supply, 5A	3BSC610065R1	ABB	1	Pc.	√		
	MB801V512 Compact Flash card	3BSE042257R1	ABB	1	Pc.	√		
2.4	I/O for DDC.-1/2							
	AI810 Analog Input 8 ch 0(4)..20mA, 0..10V, 12Bit, single ended.	3BSE008516R1	ABB	1	Pc.	√		
	DI810 Digital Input 24V 16 ch Isolated in two groups of 8 channels.	3BSE008508R1	ABB	1	Pc.	√		
	TU810V1 Compact MTU, 50V Compact Module Termination Unit 2x8 signal terminals.	3BSE013230R1	ABB	2	Pcs.	√		
2.5	Controller for DDC.-2							
	PM851AK01 Processor Unit	3BSE066485R1	ABB	1	Pc.	√		
	SB822 Rechargeable Battery Unit	3BSE018172R1	ABB	1	Pc.	√		
	CI867K01 Modbus TCP Interface	3BSE043660R1	ABB	1	Pc.	√		
	SD832 Power Supply, 5A	3BSC610065R1	ABB	1	Pc.	√		
	MB801V512 Compact Flash card	3BSE042257R1	ABB	1	Pc.	√		
2.6	I/O for DDC.-2							
	DI810 Digital Input 24V 16 ch Isolated in two groups of 8 channels.	3BSE008508R1	ABB	1	Pc.	√		
	TU810V1 Compact MTU, 50V Compact Module Termination Unit 2x8 signal terminals.	3BSE013230R1	ABB	1	Pc.	√		
2.7	Controller for DDC.-3							
	PM851AK01 Processor Unit	3BSE066485R1	ABB	1	Pc.	√		
	SB822 Rechargeable Battery Unit	3BSE018172R1	ABB	1	Pc.	√		
	CI867K01 Modbus TCP Interface	3BSE043660R1	ABB	0	Pc.	√		R01
	SD832 Power Supply, 5A	3BSC610065R1	ABB	1	Pc.	√		
	MB801V512 Compact Flash card	3BSE042257R1	ABB	1	Pc.	√		
2.8	Controller for DDC.-4							
	PM851AK01 Processor Unit	3BSE066485R1	ABB	1	Pc.	√		
	SB822 Rechargeable Battery Unit	3BSE018172R1	ABB	1	Pc.	√		
	CI867K01 Modbus TCP Interface	3BSE043660R1	ABB	0	Pc.	√		R01

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	SD832 Power Supply, 5A	3BSC610065R1	ABB	1	Pc.	√		
	MB801V512 Compact Flash card	3BSE042257R1	ABB	1	Pc.	√		
2.9	I/O for DDC--4							
	DI810 Digital Input 24V 16 ch Isolated in two groups of 8 channels.	3BSE008508R1	ABB	1	Pc.	√		
	TU810V1 Compact MTU, 50V Compact Module Termination Unit 2x8 signal terminals.	3BSE013230R1	ABB	1	Pc.	√		
3	Network and Accessories							
3.1	Converter							
	1 Port RS-232/422/485 Modbus TCP to Serial Communication Gateway	MB3180	MGate or equipvalent	5	Pcs.	√		R04
	Mini DB9F-to-TB : DB9 Female to Terminal Block	Mini DB9F-to-TB	MGate or equipvalent	9	Pcs.	√		R04
	RS-232/422/485 Converter	TCC-100	Moxa	2	Pcs.	√		R04
	Modbus RTU or Modbus TCP/IP to BACnet MS/TP or BACnet/IP, 250 Point	PS-QS-1010-0757	Prosoft or equipvalent	3	Pcs.	√		
3.2	Client/Server network							
	Industrial Unmanaged Ethernet Switch SPIDER 5TX with 5 10/100BaseT(X) ports, 0 to 60°C operating temperature	943824002	Hirchmann or equipvalent	1	Pcs.	√		R03
	Industrial Unmanaged Ethernet Switch SPIDER II 8TX with 8 10/100BaseT(X) ports, 0 to 60°C operating temperature	943957001	Hirchmann or equipvalent	2	Pcs.	√		R06
	Industrial Unmanaged Ethernet Switch RS20- 1600T1T1SDAU with 16 10/100BaseT(X) ports, 0 to 60°C operating temperature	943434047	Hirchmann or equipvalent	1	Pcs.	√		R03
	Industrial Unmanaged Ethernet Switch RS20- 2400T1T1SDAU with 24 10/100BaseT(X) ports, 0 to 60C operating temperature	RS20-2400T1T1SDAU	Hirchmann or equipvalent	1	Pc.	√		R03
4	Server, Workstation and Accessories							
4.1	Server							
	PowerEdge R640 Server - 1xPowerEdge R640 Motherboard - 1xIntel Xeon Gold 5115 2.4G, 10C/20T, 10.4GT/s 2UPI, 14M Cache, Turbo, HT (85W) DDR4-2400 - 2x8GB RDIMM, 2666MT/s, Single Rank - 2x600GB 10K RPM SAS 12Gbps 512n 2.5in Hot- plug Hard Drive - 1xDVD+/-RW, SATA, Internal - 1xDual, Hot-plug, Redundant Power Supply (1+1), 750W - 2xLong Jumper Cord, C13-C14,4m,12a (APCC except ANZ) - 1xRAID -Windows Server 2016 Standard	R640	DELL	1	Pc.	√		R06
4.2	Workstation							


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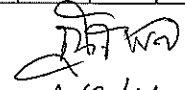


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	Workstation - 1xIntel Xeon Processor E5-1620 v3 (Four Core HT, 10MB Cache, 2.8GHz) - 1x8G 2400MHz DDR4 (2x4GB) RDIMM ECC - 1x1TB 3.5inch Serial ATA (7,200 Rpm) Hard Drive Fixed Precision Workstation - 1x8x Slimline DVD+/-RW Drive - 1xNvidia Quadro K420 2GB (DP, DL-DVI-I) (1 DP to SL-DVI adapter) -Windows 10 -MS Office Home and Business 2016 32/64	T5810	DELL	1	Pc.	√		R06
4.3	Accessories							
	P2417H 23.8" Monitor	P2417H	DELL	1	Pc.	√		R03
	Dot Matrix Printer			1	Pc.		√	
	Ink-jet Color Printer			1	Pc.		√	
	SD832 Power Supply, 5A Input a.c. 100-120/200-240 V. Output d.c. 24 V 5A,	3BSC610065R1	ABB	1	Pc.	√		R06
4.4	OS SW and support SW							
	Acronis Workstation License	Acronis Workstation Lic	Acronis	1	Lic.	√		R03
	Acronis Server License	Acronis Server Lic	Acronis	1	Lic.	√		R03
	McAfee/Anti-Virus SW	McAfee	McAfee	2	Lic.	√		R03
	McAfee Active Virus Scan Media Kit	McAfee	McAfee	1	Pc.	√		R03
5	Controller and I/O Cabinets							
5.1	Controller & RIO cabinet							
	Controller and S800 IO Cabinet: Enclosure size 700x1100x250 mm. (WHD) - Ground - IO Plate : 1 mounting plate -Terminal for DI-DO: Feed through -Terminal Block for 24Vdc Power Distribution: : Feed through with fuse - Mini circuit breaker: ABB Stotz series - Other equipment: to be defined by Cabinet manufacturer - Wiring, Dinrail and Accessories			5	Cubs	√		R05
5.2	Server cabinet							
	Server Computer Rack: - Server Rack (WxDxH) 800x1000x2000mm Cubicle 42U for Server & Workstation - Wiring, Dinrail and Accessories			1	Cub	√		R05
6	Engineering Service							
6.1	HW&SW Detail Engineering		ABB	1	Set	√		
	-ABB provide Basic and typical drawing for HW and SW detail engineering. ABB will execute engineering services up to the extent of their scope of supply of the electrical and process control equipment as specified in this offer. It is limited to: Appendix 01							
	-The Application and Process Station configuration are engineering by typical function block/Typical circuits based on ABB standard library.							

APPROVE 
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	-Display building is included as follows: 32 customized process displays with a recommend maximum of 100 dynamic values per display Note: >Standard symbols and colors for Process display object are used for display design based on ABB Standard Library >The draft display design will be based on data received from Customer							
6.2	Factory Acceptance Test (FAT)							
	FAT HW		ABB	5	Md	√		
	FAT SW		ABB	5	Md	√		
	Note: Md=Man-day							
6.3	Commissioning							
	Commissioning Service		ABB	1	Mm	√		
	An ABB engineer will perform a system check, power up the system, load the application programs and confirm the functioning of all components of the system.							
	- Service man-days base on normal working day (Monday – Friday 8.00 - 17.00) - Travelling hours is include in total man-days. - The service shall be within 3 months after first date commissioning. - Minimum service 2 days per trip. Board, lodging, meals and daily travelling expenses of ABB engineer are ABB's scope. Any standing time, non-availability of other services, or any other interruptions or extensions will be charged separately at ABB Standard man-hour rates.							
	Note: Mm=Man-month							
6.4	Training							
	The training course for General training and Maintenance Engineering. The training courses are for trainee 4-8 persons. Engineering : 1 Course of T314 – System 800xA with AC800M Basic Application Modification 5days (Local travel and lodging are on customers' own expenses)	T314	ABB	1	Course	√		
	Operator Training 1 Days for trainee 8 personson site course.		ABB	1	Course	√		

Approve 
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