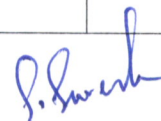


Annexure – I

List of Items

Make: B & R

Sl. No.	Description of item/equipment including detailed specifications and summary	Quantity Required
1.	PLC;PPC2200;5Q2A000003B6V0-001	1 No.
2.	Dongle;TechnologyGuard;OTG1000.02;	1 No.
3.	Licence;CNC;1channel;4 axis;1TG8CNC0000.00-01;	1 No.
4.	License;AREmbeddedTG;1TG4601.06-5	1 No.
5.	CommunicationModule;Powerlink;X20BC0083;	1 No.
6.	CommunciationModule;PowerSupply;X20PS9400;	1 No.
7.	BaseModule;X20BB80;	1 No.
8.	IOModule;X20DIF371;16Input;24V;	3 Nos.
9.	IOModule;X20DOF322;16Output;24V;	3 Nos.
10.	BaseModule;X20BM11;24V	9 Nos.
11.	TerminalBlock;X20TB1F;24V;	6 Nos.
12.	IOModule;X20AO4622;24V;	1 No.
13.	IOModule;X20AI4622;24V;	1 No.
14.	CommunicationModule;DSPModule;24V;X20DS1319;	1 No.
15.	Terminal Block;X20TB12;24V	4 Nos.
16.	SafetyController;20Input;4PulseOutput;X20SLX910;	1 No.
17.	BaseModule;X20BM33;	2 Nos.
18.	TerminalBlock;X20TB52	3 Nos.
19.	IOModule;SafeDigital;4Outputs;X20SO4110;	1 No.
20.	CommunicationModule;SiteManager;0RMSM1345;	1 No.
21.	ServoMotor;8LSA55.DA030S100-3;Without Brake;	1 No.
22.	ServoMotor;8LSA35.DB030S100-3;Without Brake;	1 No.
23.	ServoMotor;8LSA25.D9060S100-3;Wihtout Brake;	2 Nos.
24.	ServoDrive;DualAxis;8EI8X8HWS10.0300-1;	1 No.
25.	ServoDrive;DualAxis;8EI2X2HWT10.0300-1;	1 No.
26.	Cable;Hybrid;5m;8ECH0005.1111A-0;	4 Nos.
27.	LineFilter;Passive;8B0F0300H000.000-1;30A;	1 No.
28.	StandardCables;X20CA0E61.00500;PowerLink;RJ45	1 No.
29.	StandardCables;X20CA0E61.00200;PowerLink;RJ45	1 No.
30.	StandardCables;X20CA0E61.00030;PowerLink;RJ45	1 No.
31.	License;Hypervisor;1TG4700.00;	1 No.



Annexure II

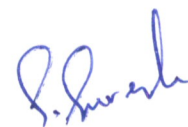
Detailed Technical specification

Make: B & R

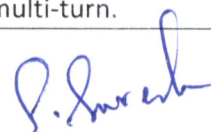
Sl. No	Technical Specifications
1	PLC;PPC2200;5Q2A000003B6V0-001
2	Dongle;TechnologyGuard;0TG1000.02; <ul style="list-style-type: none"> ● Technology Guard (HID)
3	Licence;CNC;1channel;4 axis;1TG8CNC0000.00-01; <ul style="list-style-type: none"> ● Path control for one CNC or robotic channel with up to four axes. ● Configurable syntax interpreter for CNC programs in accordance with DIN/ISO 66025 as well as robotics programs based on ST, macros, subroutines, step-by-step processing, etc. ● Various interpolation types (point-to-point, rapid, linear, circular, spline, etc.), tool data correction, workspace monitoring, automatic tangential axes handling, dynamic look-ahead for movement profiles with optimal contour precision, restart functions. ● Permit-free export version
4	License;AREmbeddedTG;1TG4601.06-5 <ul style="list-style-type: none"> ● Automation Runtime Embedded, TG license
5	CommunicationModule;Powerlink;X20BC0083; <ul style="list-style-type: none"> ● POWERLINK ● I/O configuration and firmware update via the fieldbus ● Integrated hub for economical wiring ● The bus controller makes it possible to connect X2X Link I/O nodes to POWERLINK. It is also possible to operate the X2X Link cycle synchronously 1:1 or synchronous to POWERLINK using a prescaler.
6	CommunciationModule;PowerSupply;X20PS9400; <ul style="list-style-type: none"> ● Supply for the bus controller, X2X Link and internal I/O supply ● Feed and bus controller / X2X Link supply electrically isolated ● Redundancy of bus controller / X2X Link supply possible by operating multiple supply modules simultaneously ● Service interface (RS232)
7	BaseModule;X20BB80; <ul style="list-style-type: none"> ● Bus base <p>The following modules are used on the bus module:</p> <ul style="list-style-type: none"> ● Base module (BC, HB, etc.) ● Supply module
8	IOModule;X20DIF371;16Input;24V; <ul style="list-style-type: none"> ● 16 digital inputs ● Sink connection ● 1-wire connections ● Software input filter can be configured for entire module ● The module is equipped with 16 inputs for 1-wire connections. The module is designed for sink input wiring.

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9	<p>IOModule;X20DOF322;16Output;24V;</p> <ul style="list-style-type: none"> ● 16 digital outputs ● Source connection ● 1-wire connections ● Integrated output protection ● The module is equipped with 16 outputs for 1-wire connections. The module is designed for source output wiring.
10	<p>BaseModule;X20BM11;24V</p> <ul style="list-style-type: none"> ● Bus module for 24 VDC I/O modules ● The internal I/O power supply is connected through. ● The bus module is the base for all 24 VDC I/O modules. The internal I/O power supply is connected through.
11	<p>TerminalBlock;X20TB1F;24V;</p> <ul style="list-style-type: none"> ● Tool-free wiring with push-in technology ● Simple wire release using a screwdriver ● Ability to label each terminal ● Plain text labeling also possible ● Test access for standard probes ● Can be customer-coded ● X20 24 VDC modules with 16 connections are wired using the X20TB1F terminal block.
12	<p>IOModule;X20AO4622;24V;</p> <ul style="list-style-type: none"> ● 4 analog outputs ● Either current or voltage signal possible ● 13-bit digital converter resolution ● X20 analog output module, 4 outputs, 10 V or 0 to 20 mA / 4 to 20 mA, 13-bit converter resolution
13	<p>IOModule;X20AI4622;24V;</p> <ul style="list-style-type: none"> ● X20 analog input module, 4 inputs, ± 10 V or 0 to 20 mA / 4 to 20 mA, 13-bit converter resolution, configurable input filter
14	<p>CommunicationModule;DSPModule;24V;X20DS1319;</p> <ul style="list-style-type: none"> ● 4 digital input channels ● 4 digital channels, configurable as inputs or outputs ● 1 universal counter pair (2 event counters, AB counters or up/down counters) ● Linear movement generator (A/B, direction/frequency) with up to 2 reference pulses ● SSI absolute encoder ● NetTime timestamp: Input data, target position, position change, edge change, counter change
15	<p>Terminal Block;X20TB12;24V</p> <ul style="list-style-type: none"> ● Tool-free wiring with push-in technology ● Simple wire release using lever ● Ability to label each terminal ● Plain text labeling also possible ● Test access for standard probes ● Can be customer-coded ● The X20 24 VDC modules are wired using the X20TB06 and X20TB12 terminal blocks.



16	<p>SafetyController;20Input;4PulseOutput;X20SLX910;</p> <ul style="list-style-type: none"> ● Open SAFETY manager for up to 10 SafeNODEs ● Flexibly programmable using Automation Studio / SafeDESIGNER ● Innovative management of safe machine options (SafeOPTION) ● Parameter and configuration management ● 20 safe digital inputs ● 4 pulse outputs ● Sink circuit ● Software input filter configurable for each channel
17	<p>BaseModule;X20BM33;</p> <ul style="list-style-type: none"> ● Bus module for SafeIO modules ● The internal I/O power supply is continuous. ● The bus module is the base for all SafeIO modules. The internal I/O power supply is continuous.
18	<p>TerminalBlock;X20TB52;</p> <ul style="list-style-type: none"> ● Tool-free wiring using push-in technology ● Simple wire release using a lever ● Labeling option for each terminal connection ● Plain text labeling possible ● Access for standard test probes ● Customized coding possible ● This terminal block is used to wire the X20 SafeIO modules with 12 connections.
19	<p>IOModule;SafeDigital;4Outputs;X20SO4110;</p> <ul style="list-style-type: none"> ● 4 safe digital outputs with 0.5 A ● Source circuit ● Output type A ● Current monitoring ● Open circuit detection ● Integrated output protection
20	<p>CommunicationModule;SiteManager;0RMSM1345;</p> <ul style="list-style-type: none"> ● Secure Remote Maintenance -SiteManager, 1x Ethernet 100BASE-T uplink connection, 1x Wi-Fi uplink connection, 3x device connections, 10 device agents, integrated firewall, 2x digital inputs, 2x digital outputs, 24 VDC
21	<p>ServoMotor;8LSA55.DA030S100-3;Without Brake;</p> <ul style="list-style-type: none"> ● Synchronous motor, number of pole pairs: 4 pairs, nominal speed: 3000 rpm stall torque: 12.500 Nm, without brake, shaft key single-cable solution angled (swivel), centering diameter 130 mm, j6 fit self-cooling, type A construction, IP64 protection, without oil seal, 560 VDC, holding torque of brake: 0.00 Nm DA 2.2 ind. 32-line single-turn.
22	<p>ServoMotor;8LSA35.DB030S100-3;Without Brake;</p> <ul style="list-style-type: none"> ● Synchronous motor, number of pole pairs: 4 pairs, nominal speed: 3000 rpm stall torque: 2.300 Nm, without brake, shaft key, single-cable solution angled (swivel), centering diameter 80 mm, j6 fit self-cooling, type A construction, IP64 protection, without oil seal, 560 VDC, holding torque of brake: 0.00 Nm, DB 2.2 ind. 32-line multi-turn.
23	<p>ServoMotor;8LSA25.D9060S100-3;Without Brake;</p> <ul style="list-style-type: none"> ● Synchronous motor, number of pole pairs: 4 pairs, nominal speed: 6000 rpm stall torque: 0.600 Nm, without brake, shaft key, single-cable solution angled (swivel), centering diameter 40 mm, j6 fit self-cooling, type A construction, IP64 protection, without oil seal, 560 VDC, holding torque of brake: 0.00 Nm, D9 2.2 ind. multi-turn.



24	ServoDrive;DualAxis;8EI8X8HWS10.0300-1; <ul style="list-style-type: none"> ACOPOS P3 servo drive, 1 digital multi-standard encoder interface per axis, 3x 200-480 VAC, 2.2 A, 1 axis, wall mounting, 2-row connector set, cover
25	ServoDrive;DualAxis;8EI2X2HWT10.0300-1; <ul style="list-style-type: none"> ACOPOS P3 servo drive, 1 digital multi-standard encoder interface per axis, 3x 200-480 VAC, 2.2 A, 3 axes, wall mounting, 2-row connector set, cover
26	Cable;Hybrid;5m;8ECH0005.1111A-0; <ul style="list-style-type: none"> Can be used in cable drag chains Motor and encoder lines in one cable Assembled specifically for use with ACOPOS P3 servo drives and B&R servo motors with option "Single-cable solution (hybrid)" speedtec - Innovative connector system for secure connections
27	LineFilter;Passive;8B0F0300H000.000-1;30A; <ul style="list-style-type: none"> Wide mains input voltage range Optimally suited for ACOPOSmulti 8B0P power supply modules Compliance with limit values per CISPR11, group 2, class A Line filter, passive, 30 A, 3x 520 VAC, 50/60 Hz, IP20
28	StandardCables;X20CA0E61.00500;PowerLink;RJ45 <ul style="list-style-type: none"> POWERLINK/Ethernet connection cable, RJ45 to RJ45, 5 m
29	StandardCables;X20CA0E61.00200;PowerLink;RJ45 <ul style="list-style-type: none"> POWERLINK/Ethernet connection cable, RJ45 to RJ45, 2 m
30	StandardCables;X20CA0E61.00030;PowerLink;RJ45 <ul style="list-style-type: none"> POWERLINK/Ethernet connection cable, RJ45 to RJ45, 0.3 m
31	License;Hypervisor;1TG4700.00; <ul style="list-style-type: none"> B&R Hypervisor

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