

R&B; MAX 5-Extruder System

Electrical Controls Bill of Materials (BOM)

Document Purpose

Detailed component-level bill of materials for the electrical controls package associated with the R&B; MAX 5-Extruder System. This document supplements the main system technical specification.

Documentation Availability

Manuals and supporting technical documents are available for the system and for applicable components/parts. Availability may vary by component; buyers may request the available documentation for technical review.

Key Control Components

FUNCTION	COMPONENT / DETAIL
PLC	Allen-Bradley CompactLogix 1769-L33ER
Operator Interface	Allen-Bradley PanelView Plus 7 Performance, 15" touch screen
Main Extruder Drive	1 x Allen-Bradley PowerFlex 753, 25 HP, 43 A, 400 VAC
Auxiliary Extruder Drives	4 x Allen-Bradley PowerFlex 753, 5 HP, 11.5 A, 400 VAC
Additional Drives	2 x Allen-Bradley PowerFlex 525, 1 HP, 480 VAC, Ethernet/IP
Remote Access	eWON Flexy VPN router/gateway with Ethernet WAN extension
Main Transformer	25 kVA, 380 V Delta primary / 220 V Wye secondary, 3-phase, 50 Hz
Cabinet Cooling	Pfannenberg DTS3245, 12,000 BTU enclosure air conditioner

Complete Electrical Controls BOM

QTY	PART #	DESCRIPTION	MANUFACTURER
1	1769-L33ER	COMPACTLOGIX PROCESSOR, 2MB MEMORY, DUAL ETHERNET	ALLEN-BRADLEY
1	1769-PB2	POWER SUPPLY, 24VDC INPUT, 2A @5VDC, 0.8A @24VDC	ALLEN-BRADLEY
1	1769-ECR	COMPACTLOGIX TERMINATING END CAP (RIGHT END)	ALLEN-BRADLEY
3	1734-AENT	POINT I/O ETHERNET ADAPTER MODULE	ALLEN-BRADLEY
1	1734-AENTR	POINT I/O ETHERNET ADAPTER MODULE, DUAL PORT	ALLEN-BRADLEY
9	1734-EP24DC	POINT I/O EXPANSION POWER SUPPLY, 24VDC	ALLEN-BRADLEY
2	1734-FPD	POINT I/O FIELD POTENTIAL DISTRIBUTOR MODULE	ALLEN-BRADLEY
23	1734-TB	POINT I/O TERMINAL BLOCK SCREW TERMINAL STYLE	ALLEN-BRADLEY
40	1734-TBCJC	POINT I/O COLD JUNCTION TERMINAL BLOCK SCREW STYLE	ALLEN-BRADLEY
40	1734-IT2I	POINT I/O 2 POINT TC INPUT MODULE	ALLEN-BRADLEY
3	1734-IE2C	POINT I/O 2 POINT ANALOG CURRENT INPUT MODULE	ALLEN-BRADLEY
7	1734-IB8	POINT I/O 8 POINT 24VDC DIGITAL INPUT MODULE	ALLEN-BRADLEY

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13	1734-OB8E	POINT I/O 8 POINT 24VDC OUTPUT MODULE	ALLEN-BRADLEY
1	2711P-T15C22D9P	PANELVIEW PLUS 7.0 PERFORMANCE OPERATOR INTERFACE, 15" TOUCH SCREEN & ETHERNET COMMUNICATION	ALLEN-BRADLEY
2	1783-US8T	8 PORT DIN RAIL MOUNT UNMANAGED ETHERNET SWITCH	ALLEN-BRADLEY
1	FLEXY20100	FLEXY VPN ROUTER/GATEWAY BASE, 4X ENET LAN PORTS	eWON
1	FLX3101	FLEXY ETHERNET WAN EXTENSION CARD	eWON
1	20F11NC043JA0NNNNN	POWERFLEX 753 25HP, 43A, 400VAC VFD DRIVE, FRAME 3	ALLEN-BRADLEY
4	20F11NC011JA0NNNNN	POWERFLEX 753 5HP, 11.5A, 400VAC VFD DRIVE, FRAME 2	ALLEN-BRADLEY
2	25B-D2P3N104	POWERFLEX 525 VFD DRIVE, 1HP, 2.3A, 480VAC, 3 PHASE, FRAME A, INTEGRATED ETHERNET/IP	ALLEN-BRADLEY
5	20-HIM-A6	PF750 ENHANCED HIM, NEMA 1	ALLEN-BRADLEY
5	20-750-ENETR	PF750 DUAL PORT ETHERNET/IP MODULE	ALLEN-BRADLEY
5	20-750-S	PF750 SAFE TORQUE OFF MODULE	ALLEN-BRADLEY
1	KDRD2L	480V 40 AMP LINE REACTOR, OPEN, MOTOR HP 30	TCI
4	KDRA4L	480V 11 AMP LINE REACTOR, OPEN, MOTOR HP 7.5	TCI
2	KDRA7L	480V 1.6 AMP LINE REACTOR, OPEN, MOTOR HP 0.75	TCI
1	CM-4544	25KVA 380V DELTA PRI /220V WYE SEC, 3 PHASE TRANSFORMER 50HZ, 115C RISE, N CLASS INSULATION	CONTROLLED MAGNETICS
1	6EP3436-8SB00-0AY0	20 AMP 24VDC POWER SUPPLY 480VAC 3 PHASE INPUT	SIEMENS
1	36283-386-01-ENCL1	CUSTOM 1 DOOR ENCLOSURE	THERMAL DESIGNS & MANUF
1	36283-386-01-BACK1	CUSTOM BACKPLATE FOR 1 DOOR ENCLOSURE	THERMAL DESIGNS & MANUF
1	36283-386-01-ENCL2	CUSTOM 2 DOOR ENCLOSURE	THERMAL DESIGNS & MANUF
1	36283-386-01-BACK2	CUSTOM BACKPLATE FOR 2 DOOR ENCLOSURE	THERMAL DESIGNS & MANUF
1	36283-386-01-ENCL3	CUSTOM 1 DOOR ENCLOSURE	THERMAL DESIGNS & MANUF
1	36283-386-01-BACK3	CUSTOM BACKPLATE FOR 1 DOOR ENCLOSURE	THERMAL DESIGNS & MANUF
1	36283-386-01-ENCL4	CUSTOM HMI ENCLOSURE	THERMAL DESIGNS & MANUF
1	36283-386-01-BACK4	CUSTOM BACKPLATE FOR HMI ENCLOSURE	THERMAL DESIGNS & MANUF
1	36283-386-01-ENCL5	CUSTOM THERMOCOUPLE ENCLOSURE	THERMAL DESIGNS & MANUF
1	133 8383 6255	DTS3245 12,000BTU 480VAC 3PHASE SIDE MOUNT AIR CONDITIONER (LT. GRAY)	PFANNENBERG
1	116 3280 4055	PF32000 FILTER FAN, 24DC, LT. GRAY	PFANNENBERG
1	117 3000 4055	PF30000 EXHAUST FILTER, LT. GRAY	PFANNENBERG
1	171 2100 0010	TEMPERATURE SWITCH W/ 1 N.O. CONTACT	PFANNENBERG
3	A-TEMNC	TEMPERATURE SWITCH W/ 1 N.C. CONTACT	HOFFMAN
2	1435A43	ALUMINUM HANDLE, 8"L X 3"D X 1"DIAMETER	McMASTER-CARR
1	A-EK230NDH	ENCLOSURE SOLENOID INTERLOCK, 230VAC	HOFFMAN
1	A-EKDF	ELECTRICAL INTERLOCK DEFEATER, KEY LOCK	HOFFMAN
1	A-1412CH	14H X 12W X 6D NEMA 12 ENCLOSURE	HOFFMAN
3	A-1210CH	12H X 10W X 5D NEMA 12 ENCLOSURE	HOFFMAN

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1	A-14P12G	12.75 X 10.88 GALVANIZED PLATE	HOFFMAN
3	A-12P10G	10.75 X 8.88 GALVANIZED PLATE	HOFFMAN
1	A-6AXFN2	COOLING FAN, 6", 240CFM, 230VAC, 50/60 HZ	HOFFMAN
1	A-GARD6	FINGER GUARD FOR 6" COOLING FAN	HOFFMAN
2	E-6PBY25	6 HOLE PUSHBUTTON BOX FOR 30mm BUTTON, 11H X 7.5W X 6D	HOFFMAN
3	E-1PBX	1 HOLE PUSHBUTTON BOX FOR 30mm BUTTON	HOFFMAN
3	ASPB	30.5MM PUSHBUTTON HOLE SEAL, ANSI 61 GRAY	HOFFMAN
1	ADR35	ALUMINUM LUG, #6AWG - #350MCM WIRE	THOMAS & BETTS
1	140G-K3F3-D30	300A MCCB ADJUSTABLE THERMAL/MAGNETIC 35kA INTERRUPTING	ALLEN-BRADLEY
1	140G-K-FMX06	K-FRAME, FLEX CABLE KIT, METALLIC, 6 FT. CABLE	ALLEN-BRADLEY
1	140G-K-TLA13	K-FRAME, ALUMINUM LUG KIT, PKG OF 3 WITH TERMINAL SHIELD (1) 250 - 500 MCM	ALLEN-BRADLEY
1	140G-K-MTL63	K-FRAME, ALUMINUM LUG KIT, PKG OF 3 (6) #6 - #1/0	ALLEN-BRADLEY
6	PDBFS330	1 POLE (1) 500-#6 TO (6) #2-#14 POWER 380 AMP RATED DISTRIBUTION BLOCK	BUSSMANN
3	PDBFS377	1 POLE (2) 300-#4 TO (12) #4-#14 POWER 570 AMP RATED DISTRIBUTION BLOCK	BUSSMANN
1	JM60200-3MW16	CLASS J 600V 110-200A 3 POLE POWER DISTRIBUTION FUSE BLOCK LINE (2)#6-#2, LOAD (12)#10-#14	BUSSMANN
2	JM60100-3MW14	CLASS J 600V 70-100A 3 POLE POWER DISTRIBUTION FUSE BLOCK LINE (1)1/0-#14, LOAD (8)#10-#14	BUSSMANN
3	CVR-J-60200-M	FUSE BLOCK COVER FOR 200A TYPE J, DIST TYPE, 1 POLE	BUSSMANN
6	CVR-J-60100-M	FUSE BLOCK COVER FOR 100A TYPE J, DIST TYPE, 1 POLE	BUSSMANN
3	JM60100-3CR	CLASS J 600V 61-100A 3 POLE FUSE BLOCK	BUSSMANN
44	CHCC2D	30 AMP 600V 2 POLE CLASS CC MODULAR FUSE HOLDER	BUSSMANN
11	WSI-25/3-CC	30 AMP 600V 3 POLE CLASS CC MODULAR FUSE HOLDER	WEIDMUELLER
9	CVR-J-60100	FUSE BLOCK COVER FOR 100A TYPE J, COVERS 1 POLE	BUSSMANN
3	LPJ-125-SP	125 AMP 600V LOW PEAK FUSE	BUSSMAN
3	LPJ-100-SP	100 AMP 600V LOW PEAK FUSE	BUSSMAN
3	LPJ-90-SP	90 AMP 600V LOW PEAK FUSE	BUSSMAN
6	LPJ-80-SP	80 AMP 600V LOW PEAK FUSE	BUSSMAN
3	LPJ-70-SP	70 AMP 600V LOW PEAK FUSE	BUSSMAN
3	LP-CC-30	30 AMP 600V CLASS CC FUSE, FOR MOTOR CIRCUITS	BUSSMAN
15	LP-CC-25	25 AMP 600V CLASS CC FUSE, FOR MOTOR CIRCUITS	BUSSMAN
6	LP-CC-10	10 AMP 600V CLASS CC FUSE, FOR MOTOR CIRCUITS	BUSSMAN
6	LP-CC-6	6 AMP 600V CLASS CC FUSE, FOR MOTOR CIRCUITS	BUSSMAN
3	FNQ-R-4	4 AMP 600V CLASS CC FUSE, HIGH INRUSH 1st 1/2 CYCLE	BUSSMAN
4	KTK-R-30	30 AMP 600V CLASS CC FUSE, FAST ACTING	BUSSMAN
8	KTK-R-20	20 AMP 600V CLASS CC FUSE, FAST ACTING	BUSSMAN
2	KTK-R-15	15 AMP 600V CLASS CC FUSE, FAST ACTING	BUSSMAN

QTY	PART #	DESCRIPTION	MANUFACTURER
58	KTK-R-10	10 AMP 600V CLASS CC FUSE, FAST ACTING	BUSSMAN
18	KTK-R-5	5 AMP 600V CLASS CC FUSE, FAST ACTING	BUSSMAN
2	KTK-R-3	3 AMP 600V CLASS CC FUSE, FAST ACTING	BUSSMAN
1	9000-41068-0600000	ELECTRONIC CIRCUIT BREAKER, (8) 6A CIRCUITS	MURR
2	1489-M2C250	25 AMP 2 POLE C CURVE UL489 LISTED CIRCUIT BREAKER	ALLEN BRADLEY
1	1489-M2C160	16 AMP 2 POLE C CURVE UL489 LISTED CIRCUIT BREAKER	ALLEN BRADLEY
2	1489-M2C060	6 AMP 2 POLE C CURVE UL489 LISTED CIRCUIT BREAKER	ALLEN BRADLEY
2	100-C60F10	60 AMP 3 POLE IEC CONTACTOR W/ 220VAC 50HZ COIL	ALLEN-BRADLEY
1	100-C23EJ10	23 AMP 3 POLE IEC CONTACTOR W/ 24VDC COIL	ALLEN-BRADLEY
1	100-C09EJ10	9 AMP 3 POLE IEC CONTACTOR W/ 24VDC COIL	ALLEN-BRADLEY
1	193-EEEB	5.4-27 AMP SELECTABLE TRIP CLASS OVERLOAD RELAY	ALLEN-BRADLEY
1	193-EECB	1.0-5.0 AMP SELECTABLE TRIP CLASS OVERLOAD RELAY	ALLEN-BRADLEY
1	RGC1A60D30KGU	30 AMP 600V SINGLE POLE SOLID STATE CONTACTOR	CARLO-GAVAZZI
52	RGC1A60D15KGU	20 AMP 600V SINGLE POLE SOLID STATE CONTACTOR	CARLO-GAVAZZI
1	440R-N23135	3 N.O. SAFETY RELAY, MANUAL START	ALLEN-BRADLEY
8	700-HLT1Z24	SPDT TERMINAL STYLE RELAY W/ 24VDC COIL	ALLEN-BRADLEY
1	4000-68523-0000001	SILVER PLASTIC CONVENIENCE PANEL COVER	MURR
1	4000-68000-4210000	CONVENIENCE PANEL, NEMA 5-15 RECEPTACLE, RJ45, 3A FUSE	MURR
5	SJP1-12-J	12 PORT, 1 ROW, J STYLE THERMOCOUPLE JACKPANEL	OMEGA
1	194E-25-C3	TERMINAL COVER FOR 25-32 AMP LOAD SWITCH	ALLEN-BRADLEY
1	194E-E25-1753-6G	25 AMP 3 POLE LOAD SWITCH (ON/OFF) W/ BLACK/GRAY ACTUATOR	ALLEN-BRADLEY
2	HBL2731SW	3P/4W 480V 30 AMP TWIST-LOCK SAFETY SHROUD PLUG	HUBBELL
2	HBL2733SW	3P/4W 480V 30 AMP TWIST-LOCK SAFETY SHROUD RECEPTACLE	HUBBELL
15	HBL2326	2 POLE 3 WIRE 250V 20 AMP TWIST-LOCK FLANGE RECEPTACLE	HUBBELL
14	HBL2321	2 POLE 3 WIRE 250V 20 AMP TWIST-LOCK PLUG	HUBBELL
5	HBL4579C	2 POLE 3 WIRE 250V 15 AMP TWIST-LOCK FLANGE RECEPTACLE	HUBBELL
5	HBL4570C	2 POLE 3 WIRE 250V 15 AMP TWIST-LOCK PLUG	HUBBELL
1	HBL4729C	2 POLE 3 WIRE 1250V 15 AMP TWIST-LOCK RECEPTACLE	HUBBELL
1	HBL4720C	2 POLE 3 WIRE 1250V 15 AMP TWIST-LOCK PLUG	HUBBELL
7	800T-FX6A5	2 N.C.L.B. RED MUSHROOM HEAD E-STOP BUTTON	ALLEN-BRADLEY
2	800T-B6D2	1 N.C. RED EXTENDED HEAD PUSH BUTTON	ALLEN-BRADLEY
2	800T-A1D1	1 N.O. GREEN FLUSH HEAD PUSH BUTTON	ALLEN-BRADLEY
2	800T-J20A	3 POSITION SPRING RETURN FROM L&R SELECTOR SWITCH	ALLEN-BRADLEY
1	800T-XD1	1 N.O. CONTACT BLOCK	ALLEN-BRADLEY
7	800T-XD4	1 N.C.L.B. CONTACT BLOCK	ALLEN-BRADLEY

QTY	PART #	DESCRIPTION	MANUFACTURER
1	800T-QBH2G	24V LED ILLUMINATED PUSHBUTTON W/ GREEN LENS	ALLEN-BRADLEY
70	2002-1201	GRAY #12-#22, 2 COND, 20A, 600V TERMINAL	WAGO
120	2002-1204	BLUE #12-#22, 2 COND, 20A, 600V TERMINAL	WAGO
90	2002-1404	BLUE #12-#22, 4 COND, 20A, 600V TERMINAL	WAGO
10	2002-1207	#12-#22, 2 COND GROUND TERMINAL	WAGO
20	2002-1407	#12-#22, 4 COND GROUND TERMINAL	WAGO
2	2006-1207	#8-#20, 2 COND GROUND TERMINAL	WAGO
1	450-024-31	24 VDC HORN	FEDERAL SIGNAL
4	025400-00	LED ENCLOSURE LIGHT, 100-240VAC, 50/60Hz, MAGNET MOUNT	AUTOMATION DIRECT
1	025411-00	LED ENCLOSURE LIGHT, 24-48VDC, MOTION SENSE, MAGNET MOUNT	AUTOMATION DIRECT
1	244357	LED LIGHT INPUT CONNECTION CABLE FOR AC VERSION, 2M	AUTOMATION DIRECT
1	244361	LED LIGHT INPUT CONNECTION CABLE FOR DC VERSION, 2M	AUTOMATION DIRECT
2	244359	LED LIGHT DAISY-CHAIN CABLE FOR AC VERSION, 1M	AUTOMATION DIRECT
1	264057	LED LIGHT INPUT CONNECTOR FOR AC VERSION	AUTOMATION DIRECT
1	264058	LED LIGHT OUTPUT CONNECTOR FOR AC VERSION	AUTOMATION DIRECT
1	MS216B	B SERIES, 16 POS MALE INSERT, 16A, #14AWG MAX, SCREW	T&B
1	FS116B	B SERIES, 16 POS FEMALE INSERT, 16A, #14AWG MAX, SCREW	T&B
8	MS210B	B SERIES, 10 POS MALE INSERT, 16A, #14AWG MAX, SCREW	T&B
8	FS110B	B SERIES, 10 POS FEMALE INSERT, 16A, #14AWG MAX, SCREW	T&B
6	MS206B	B SERIES, 6 POS MALE INSERT, 16A, #14AWG MAX, SCREW	T&B
6	FS106B	B SERIES, 6 POS FEMALE INSERT, 16A, #14AWG MAX, SCREW	T&B
1	PB316	B16 PANEL MOUNT BASE, 1 LEVER	T&B
1	SH616MV	B16 STANDARD HOOD, SIDE ENTRY, 3/4" NPT, 1 LEVER	T&B
4	TH210H075MV	B10 STANDARD HOOD, TOP ENTRY, 3/4" NPT, 2 LEVER	T&B
4	CH610EH075MV	B10 COUPLER HOOD, TOP ENTRY, 3/4" NPT, 2 LEVER	T&B
4	TH810H075MV	B10 STANDARD HOOD, TOP ENTRY, 3/4" NPT, 1 LEVER	T&B
4	CH810H075MV	B10 COUPLER HOOD, TOP ENTRY, 3/4" NPT, 1 LEVER	T&B
6	TH806H075MV	B6 STANDARD HOOD, TOP ENTRY, 3/4" NPT, 1 LEVER	T&B
6	CH806H075MV	B6 COUPLER HOOD, TOP ENTRY, 3/4" NPT, 1 LEVER	T&B
91	A3171404	SHIELDED POWER CABLE, (4C/#14 AWG + 2C/#18 AWG)	LUTZE
45	SOOW10/4BLK	SOOW POWER CABLE, (4C/#10 AWG), BLACK	CORD
45	SOOW12/4BLK	SOOW POWER CABLE, (4C/#12 AWG), BLACK	CORD
90	SOOW16/3BLK	SOOW POWER CABLE, (3C/#16 AWG), BLACK	CORD
73	83161064	EW-PA MURRFLEX CONDUIT, M25/P21, BLACK	MURRPLASTIK
2	1585A-DD4JD	BULKHEAD FEMALE M12 TO RJ45 ETHERNET CONNECTOR	ALLEN-BRADLEY

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1	1585J-M8PBJM-10	PVC ETHERNET CABLE, RJ45 MALE TO RJ45 MALE CAT5e 4 PAIR, 10 METER	ALLEN-BRADLEY
3	1585J-M8PBJM-8	PVC ETHERNET CABLE, RJ45 MALE TO RJ45 MALE CAT5e 4 PAIR, 8 METER	ALLEN-BRADLEY
3	1585J-M8PBJM-5	PVC ETHERNET CABLE, RJ45 MALE TO RJ45 MALE CAT5e 4 PAIR, 5 METER	ALLEN-BRADLEY
1	1585J-M8PBJM-2	PVC ETHERNET CABLE, RJ45 MALE TO RJ45 MALE CAT5e 4 PAIR, 2 METER	ALLEN-BRADLEY
1	1585J-M8PBJM-1	PVC ETHERNET CABLE, RJ45 MALE TO RJ45 MALE CAT5e 4 PAIR, 1 METER	ALLEN-BRADLEY
8	1585J-M8PBJM-0M5	PVC ETHERNET CABLE, RJ45 MALE TO RJ45 MALE CAT5e 4 PAIR, 0.5 METER	ALLEN-BRADLEY
1	1585D-M4UBDM-10	PVC ETHERNET CABLE, M12 MALE TO M12 MALE CAT5e 4 CONDUCTOR, HIGH FLEX, 10 METER	ALLEN-BRADLEY
1	29F025	1uF 50V CERAMIC CAPACITOR	NEWARK

Notes

This BOM has been formatted from the supplied electrical BOM. Component descriptions, part numbers, quantities and manufacturers are retained from the source. Buyers should verify final installed configuration and compatibility during inspection. Manuals and supporting documents are available for applicable parts and system components.