SPINDLE SOLENOIDS

SPEED UP — +24-829 GRN — 24C-829 BLK — TB2/2B (ALLIN1DC H6/OUT 4) — TB2/18 (24VDC COM)

SPEED DOWN — +24-830 WHT — TB2/4B (ALLIN1DC H6/OUT 8)

BRAKE — +24-831 RED — TB2/6B (ALLIN1DC H6/OUT 9)

16 AWG

SPINDLE MOTOR L1 L2 L3 FG — 220-211 BLK — 220-212 RED — 220-213 WHT — GND-10 GRN — OCR3/T1 — OCR3/T2 — OCR3/T3 — GROUND LUG — SEE MOTOR MANUAL FOR WIRE SIZE

HIGH-LOW RANGE SWITCH — 24C-938 RED — 24C-939 BLK — ALLIN1DC H10/12 IN — TB1/15B (24VDC COM) — 22 AWG

FLOOD PUMP MOTOR L1 L2 L3 FG — 220-217 BLK — 220-218 RED — 220-219 WHT — GND-6 GRN — OCR2/T1 — OCR2/T2 — OCR2/T3 — TB1/9A — 14 AWG

SPINDLE COOLING FAN — 110H-123 OR 220-29B BLK — 110N-124 WHT OR 220-299 WHT — CNT1/T3 — NOTE 1 — 18 AWG

NOTE 1

110VAC SPINDLE COOLING FAN
110N-122 BLK connects from CNT1/L3 to TB1/3A.
Wire 110H-123 BLK connects to CNT1/T3.
Wire 110N-124 WHT connects to TB1/7A.
Wires are 18 AWG

220VAC SPINDLE COOLING FAN
220-297 BLK connects from F3/LOAD to CNT1/L3. Wire 220-298 BLK connects to CNT1/T3. Wire 220-299 WHT connects to F4/LOAD.
Wires are 14 AWG

WORK LIGHT — 110H-117 BLK — 110N-118 WHT — ALLIN1DC H8 OUT 6 — TB1/5B (110VACN) — 18 AWG

LUBE PUMP — ACH — ACO — FAULT NO — FAULT COM — FAULT NC — 110H-127 OR 220-227 BLK — 110N-128 OR 220-228 WHT — ALLIN1DC H6/OUT 2 — TB1/5B (110VACN) OR F4/LOAD (220VAC/L2) — GND-4 GRN — TB1/9B (GROUND) — 24C-910 BRN — 24C-909 RED — TB1/3A (24VDC COM) — ALLIN1DC H10/9 IN — 18 AWG

NOTE 2

110VAC LUBE PUMP
Wire 110H-126 BLK connects from TB1/2B to ALLIN1DC H6/OUT 2 COM.
Wire 110H-127 BLK connects to ALLIN1DC H6/OUT 2.
Wire 110N-128 WHT connects to TB1/5B.
Wire GND-3 GRN connects to TB1/8B.
Wires are 18 AWG

220VAC LUBE PUMP
220-226 BLK connects from F3/LOAD to ALLIN1DC H6/OUT 2 COM
Wire 220-227 BLK connects to ALLIN1DC H6/OUT 2.
Wire 220-228 WHT connects to F4/LOAD.
Wire GND-3 GRN connects to TB1/8B.
Wires are 14 AWG

LIMIT SWITCHES

SEE LIMIT SWITCH OPTIONS FOR ONE CABLE PER SWITCH — MIN 22 AWG

X-	24C-911 WHT	ALLIN1DC H11/1 IN
	24C-912 BLK	TB1/12B (24VDC COM)
X+	24C-913 RED	ALLIN1DC H11/2 IN
	24C-914 GRN	TB1/12B (24VDC COM)
	SHLD	TB1/9B (GROUND)
Y-	24C-915 WHT	ALLIN1DC H11/3 IN
	24C-916 BLK	TB1/13B (24VDC COM)
Y+	24C-917 RED	ALLIN1DC H11/4 IN
	24C-918 GRN	TB1/13B (24VDC COM)
	SHLD	TB1/9B (GROUND)
Z-	24C-919 WHT	ALLIN1DC H11/5 IN
	24C-920 BLK	TB1/14B (24VDC COM)
Z+	24C-921 RED	ALLIN1DC H11/6 IN
	24C-922 GRN	TB1/14B (24VDC COM)
	SHLD	TB1/9B (GROUND)

NOTE 3

ALL CONTACTOR COILS REQUIRE A SNUBBER, EITHER CONTACTOR MANUFACTURERS RECOMMENDED SNAP ON SNUBBER OR CENTROID PN:1819 EXTERNAL QUENCHARC SNUBBER.

MAXIMUM 40A 3 PHASE — MAXIMUM 16A — GND LUG — ROTARY DISCONNECT — PROTECTIVE EARTH (PE) — GRN — BLK — RED — WHT — L1 L2 L3 — T1 T2 T3 — F1 F2 F3 — PCB1 (SA1-S1) — PCB2 (SA1-S2) — PCB3 (SA1-S3) — SPINDLE MOTOR/FG — GND-10 GRN — 220-211 BLK — 220-212 RED — 220-213 WHT — GND-10 GRN — GROUND LUG — 220-209 BLK — 220-210 BLK — 220-208 BLK — F2/LOAD (220VAC/L1) — F3/LOAD (220VAC/L2) — F4/LOAD (220VAC/L3) — CNT3/L1 — CNT3/L2 — CNT3/L3 — 14 AWG — 18 AWG TBD — 12 AWG — 14 AWG — WIRE GAUGE DEPENDS ON SPINDLE HP — NOTE 1 — NOTE 2 — NOTE 3 — 110H-114 BLK — 110H-115 WHT — 110H-116 BLK — 110H-117 WHT — 110H-118 BLK — 110H-119 WHT — 110H-120 BLK — 110H-121 WHT — 110H-122 BLK — 110H-123 BLK — 110H-124 WHT — 110H-125 BLK — 110H-126 BLK — 110H-127 BLK — 110H-128 WHT — 110H-129 BLK — 110H-130 WHT — 110H-131 BLK — 110H-132 BLK — 110H-133 BLK — 110H-134 BLK — 110H-135 BLK — 110H-136 BLK — 110H-137 BLK — 110H-138 WHT — 110H-139 RED — 110H-140 WHT

PROBE CONNECTOR — WHT — RED — BLK — BLU — GRN — SHLD — OPTIONAL PROBE CABLE PN:11211 — BLK — WHT — GRN — RED — BLU — SHLD — ALLIN1DC PROBE CONNECTOR

PS2 24VDC, 2.4A PN:822 — + OUT — +S — -S — - OUT — 5 1 3 2 4 — +24-823 YEL — ALLIN1DC H6/OUT 4 COM — 24C-824 BLK — TB2/1A — GND-9 GRN — TB1/8A — 110N-140 WHT — TB1/6B (110VACN) — LOAD — LINE — RED — 110H-139 RED — TB1/2B (110VACH) — F6 1.5A — 18 AWG

CNT1 (SEE NOTE 3) — COIL — A1 A2 — 21NO 21NC 22NC — 13NO 14NO — L1 L2 L3 — T1 T2 T3 L4 T4 L5 T5 L6 T6 — 22 AWG E-STOP CON./PIN 3 — 24H-536 GRN — 24N-502 BRN — T1 SECONDARY/10 (24VACN) — 24N-510 BRN — CNT1/L2 — 18 AWG — 16 AWG — 12 AWG CAPBRD LOW/DC OUT + — 605 BLU — NOTE 1 — 110H-122 OR 220-298 BLK — ALLIN1DC H2/+VM — 12 AWG — 18 AWG CNT1/A2 (24VACN) — 24N-510 BRN — ALLIN1DC H6/OUT 7 — 24H-542 RED — 24N-511 BRN — ALLIN1DC H6/OUT 8 COM — SPINDLE COOLING FAN/ACH — 18 AWG

CNT2 (SEE NOTE 3) — COIL — A1 A2 — 21NO 21NC 22NC — 13NO 14NO — L1 L2 L3 — T1 T2 T3 L4 T4 L5 T5 L6 T6 — FLOOD PUMP CABLE 14 AWG — 220-217 BLK — 220-218 RED — 220-219 WHT — GND-6 GRN — CNT1/T2 — 24N-516 BRN — 18 AWG — 220-214 BLK — 220-215 BLK — 220-216 BLK — F2/LOAD (220VAC/L1) — F3/LOAD (220VAC/L2) — F4/LOAD (220VAC/L3) — 24H-515 RED — ALLIN1DC H6/OUT 3 — 18 AWG — 12 AWG

CNT3 (SEE NOTE 3) — COIL — A1 A2 — 21NO 21NC 22NC — 13NO 14NO — L1 L2 L3 — T1 T2 T3 L4 T4 L5 T5 L6 T6 — WIRES MUST BE SIZED FOR SPINDLE MOTOR HP — SPINDLE MOTOR/L1 — 220-211 BLK — SPINDLE MOTOR/L2 — 220-212 RED — SPINDLE MOTOR/L3 — 220-213 WHT — TB/11A (24VDC COM) — 24C-946 BLK — ALLIN1DC H10/10 IN — 24C-947 RED — CNT1/T2 — 24N-511 BRN — CNT4/A2 — 24N-512 BRN — 220-208 BLK — F2/LOAD (220VAC/L1) — 220-209 BLK — F3/LOAD (220VAC/L2) — 220-210 BLK — F4/LOAD (220VAC/L3) — WIRES MUST BE SIZED FOR SPINDLE MOTOR HP — 18 AWG — 16 AWG — ALLIN1DC H6/OUT 8 NO — 24H-545 RED — ALLIN1DC H6/OUT 8 NC — 24H-544 RED — 18 AWG — 16 AWG — CNT4 (SEE NOTE 3) — COIL — A1 A2 — 21NC 22NC — 13NC 14NC — L1 L2 L3 — T1 T2 T3 L4 T4 L5 T5 L6 T6

OCR3 (SEE NOTE 3) — COIL — A1 A2 — 21NO 21NC 22NC — 13NO 14NO — L1 L2 L3 — T1 T2 T3 L4 T4 L5 T5 L6 T6 — 97NO 96NC — 95NO 94NC — 18 AWG — 16 AWG ALLIN1DC H6/OUT 8 NC — 24H-544 RED — 16 AWG OCR3/96 NC — 24N-512 BRN

LOCATED UNDER ALLIN1DC — T1 SECONDARY/83VAC GRN — 601 GRN — T1 SECONDARY/83VAC GRN — 602 GRN — 14 AWG — 18 AWG — BRIDGE RECTIFIED DC MOTOR VOLTAGE (INPUT/VAC) X 1.414 = (OUTPUT)VDC — 83VAC = 117DC — 88VAC = 124VDC — 93VAC = 132VDC — 98VAC = 139VDC — RECTIFIED DC MOTOR VOLTAGE MUST NOT EXCEED SERVO MOTOR VOLTAGE RATING — AC IN — DC OUT — 12000uF 250v — CAPBRD LOW PN:10674 — 605 BLU — CNT1/L4 +VM (117VDC) — 607 WHT/BLU — ALLIN1DC H2/-VM — 12 AWG

PS1 — +5V — COM (ALL) — (+12V) +V2 — (24V) V3 — (-12V) -V4 — ACG — ACN — ACL — MEANWELL RQ-65D 65W, 4 OUTPUT, 5.5A — RED — DC1/H4 +5VDC — ALLIN1DC H1/PIN 4 — BLK — DC1/H4 DC COM — GRN — DC1/H4 DC COM — 24C-850 BLK — TB1/12A — BLK — ALLIN1DC H1/PIN 2 — BLK — ALLIN1DC H1/PIN 5 — GRN — PS1/ACG — WHT — DC1/H4 +12VDC — YEL — ALLIN1DC H1/PIN 1 — +24-801 YEL — TB1/11A — BLU — ALLIN1DC H1/PIN 3 — GRN — PS1/COM — GRN — ALLIN1DC H1/PIN 6 — GND-2 GRN — TB1/8B (GROUND) — 110N-107 WHT — TB1/4B (110VACN) — 110H-106 BLK — TB1/1B (110VACH) — PN:12860 DC1 POWER CABLE — PN:13106 POWER CABLE — 18 AWG

CONTROL PANEL E-STOP CONNECTOR — E-STOP SWITCH — BLK — BLK — BLK — BLK — ELECTRICAL CABINET E-STOP CONNECTOR PN:12522 — 24C-902 BLK — TB1/15A (24VDC COM) — 24C-901 WHT — ALLIN1DC H10/11 IN — 24H-536 GRN — CNT1/A1 — 24H-509 RED — ALLIN1DC H6/OUT 1 — 22 AWG

T1 PN:1171 — PRIMARY ORG — RED — BRN — BLK — ORG/WHT — RED/WHT — BRN/WHT — BLK/WHT — SECONDARY BLU — 24VAC — GRN — 601 GRN — 83VAC — GRN — 602 GRN — TB1/2A (110VACH) — 110N-112 ORG — 24H-501 BLU — F5/LIVE (24VACH) — TB1/5A (110VACN) — 110H-110 BLK — GND-11 GRN — TB1/10A (24VACG) — CNT1/A2 (24VACN) — 110N-302 BLU — CAPBRD LOW/AC IN — TB1/2A (110VACH) — 110N-112A ORG/WHT — TB1/5A (110VACN) — 110H-110A BLK/WHT — 14 AWG — 16 AWG

ALLIN1DC H6/OUT 9 NO (BRAKE RELEASE) — +24-827 YEL — ALLIN1DC H6/OUT 5 (SPEED DOWN) — +24-826 YEL — ALLIN1DC H6/OUT 4 (SPEED UP) — +24-825 YEL — PS2/-OUT (24VDC COM) — 24C-824 BLK — TB2 — SPINDLE SOLENOIDS/- (24VDC COM) — 24C-828 BLK — SPINDLE SPEED UP SOLENOID/+ — +24-829 GRN — SPINDLE SPEED DOWN SOLENOID/+ — +24-830 WHT — SPINDLE BRAKE SOLENOID/+ — +24-831 RED — 18 AWG

MOLDED POWER CORD — TB1/3A (110VACH) — 110H-108 BLK — TB1/6A (110VACN) — 110N-109 BLK — DOOR FAN

E-STOP CONNECTIONS ARE SHOWN IN RED
OPTIONAL CONNECTIONS ARE SHOWN IN BLUE
GROUND CONNECTIONS ARE SHOWN IN GREEN
110VAC CONNECTIONS ARE SHOWN IN VIOLET
3 PHASE CONNECTIONS ARE SHOWN IN ORANGE
24VAC CONNECTIONS ARE SHOWN IN BROWN

PART	LOCATION
ALLIN1DC (PN:11144)	E2-F4
CAPBRD LOW (PN:10766)	D3,D4
CNT1 (PN:14374)	B2
CNT2 (PN:14377)	B3
CNT3,4 (PN:14375)	B3,B4
CONSOLE OPTIONS	B5-D6
DC1 (PN:11112)	G1-H2
DISCONNECT (OT40F3)	B1
DISCONNECT, AUX (OA1G10)	B1
DOOR FAN	F5
E-STOP CON.	D5
E-STOP CON. CONSOLE	D6
E-STOP CON. PENDANT	E6
E-STOP SWITCH	D5
E-STOP SWITCH CONSOLE	D6
E-STOP SWITCH PENDANT	E6
F1,F2,F3,F4	B1
F5	D3
F6	B2
FLOOD PUMP MOTOR	A2
FUSE TABLE	G6
GROUND LUG	B1
HIGH-LOW RANGE SWITCH	A1
LIMIT SWITCHES	A3
LIMIT SWITCH OPTIONS	F6,G6
LUBE PUMP	A3
MPG CABLE	E5,E6
NOTE 1	A2
NOTE 2	A3
NOTE 3	A4
NUC (PN:8520)	C6
OCR2 (LR2K0310)	B3
OCR3 (LR2D1)	B3
OPERATOR PENDANT(PN:11077)	E6
PC (PN:11084)	B6
PROBE CABLE (PN:11211)	C1
PS1 (RQ-65D)	D4
PS2 (PN:822)	B2
SPINDLE BRAKE RELEASE	A1
SPINDLE COOLING FAN	A2
SPINDLE MOTOR	A1
SPINDLE SOLENOIDS	A1
T1 (PN:1171)	B5
TB1	D2,D3
TB2	E5
WORK LIGHT	A2

For 4th axis move wire 24H-509 RED to DC1 H7/RLY1 and add wire 24H-509A RED between ALLIN1DC H6/OUT 1 and DC1 H7/RLY2

18 AWG — PS1/+V2 (+12VDC) — WHT — PS1/COM (VDC COM) — GRN — PS1/COM (VDC COM) — BLK — PS1/+5V (+5VDC) — RED — DC POWER CABLE — CURRENT SETTINGS — 6A — 12A — 15A — J1 — J2 — H4 +12VDC — DC COM — DC COM — +5VDC — H5 DRIVE COMM OUT — H6 DRIVE COMM IN — + LIMIT DEFEAT — - LIMIT DEFEAT — H7 LIM+ COM LIM- COM N/C RLY1 RLY2 — DC1 REV 090402 PN:11112 — H1 VM- VM+ — 609 WHT/BLU — ALLIN1DC H2/+VM — 608 BLU — ALLIN1DC H2/-VM — 14 AWG — H2 EGND — MTR+ — MTR- — EGND — RED — BLK — SHIELD — 22 AWG — CABLE FROM ALLIN1DC PN:11146 — 24H-509 RED — 24H-509A RED — E-STOP CON./PIN 1 TO DC1 H7/RLY1 — ALLIN1DC H6/OUT 1 TO DC1 H7/RLY2 — 142A COND.

For 4th axis move wire 24H-509 RED to DC1 H7/RLY1 and add wire 24H-509A RED between ALLIN1DC H6/OUT 1 and DC1 H7/RLY2

ENCODER CONNECTIONS — PIN G = A (WHT) — PIN H = A\ (BLK/WHT) — PIN J = Z (GRN) — PIN P = Z\ (BLK/GRN) — PIN U = GND (SHLD) — RED — SHIELD — BLK — 24C-927 WHT — ALLIN1DC H11/7 IN (HOME) — 22 AWG — 18 AWG — ALLIN1DC H6/OUT 6 (CLAMP) — 110H-137 BLK — TB1/6B (CLAMP) — 110N-138 WHT — ROTARY TABLE CONNECTOR PN:10346 — +24-828 RED — TB1/11B (+24VDC) — TB1/15A (24VDC COM) — 24C-929 BLK — 24C-928 GRN — ALLIN1DC H11/8 IN (CLAMP ACK)

PN:13106 POWER CABLE — PS1/+V2 (+12VDC) — PS1/COM (VDC COM) — PS1/COM (VDC COM) — PS1/+5V (+5VDC) — PS1-V2 — PS1-COM — PS1-COM — PS1-+5V — 18 AWG

RELAYS RATED FOR 5A (NO) /3A (NC) AT 30 VDC/277VAC

DRIVE CURRENT SETTING

	AXIS 1 SW 1	AXIS 1 SW 2	AXIS 2 SW 3	AXIS 2 SW 4	AXIS 3 SW 5	AXIS 3 SW 6
6A	OFF	OFF	OFF	OFF	OFF	OFF
9A	OFF	ON	OFF	ON	OFF	ON
12A	ON	OFF	ON	OFF	ON	OFF
15A	ON	ON	ON	ON	ON	ON

18 AWG — TB1/11B (+24VDC) — +24-803 YEL — ROTARY CON./PIN T (CLAMP ACK.) — 24C-928 GRN — ALL INPUTS 22 AWG MIN. — HIGH/LOW RANGE SWITCH/NC — 24C-938 RED — E-STOP CON./PIN 4 — 24C-901 WHT — OCR3/96 NO (SPINDLE FAULT) — 24C-947 RED — LUBE PUMP/ALARM NC — 24C-909 RED — ROTARY CON./PIN N (HOME) — 24C-927 WHT — Z+ LIMIT SWITCH/NC — 24C-921 RED — Z- LIMIT SWITCH/NC — 24C-919 WHT — SEE LIMIT SWITCH OPTIONS FOR ONE CABLE PER SWITCH — Y+ LIMIT SWITCH/NC — 24C-917 RED — Y- LIMIT SWITCH/NC — 24C-915 WHT — X+ LIMIT SWITCH/NC — 24C-913 RED — X- LIMIT SWITCH/NC — 24C-911 WHT — SHIELDED ETHERNET CABLE FROM PC/CONSOLE — PROBE CABLE PN:11211 — PROBE — F13 — ETHERNET — SHIELDED ETHERNET CABLES — 6' PN:6144 — 15' PN:7269 — 25' PN:6143 — 50' PN:6989

ALLIN1DC REV 140527 PN:11144 — H9 DAC COM DAC OUT — ADC COM ADC IN — OUT 1 COM — OUT 1 — OUT 2 COM — OUT 2 — OUT 3 COM — OUT 3 — OUT 4 COM — OUT 4 — OUT 5 COM — OUT 5 — OUT 6 COM — OUT 6 — OUT 7 COM — OUT 7 — OUT 8 COM — OUT 8 NO — OUT 8 COM — OUT 9 NO — OUT 9 NC — H10 — 13 - 16 COM — 16 IN — 15 IN — 14 IN — 13 IN — 9 - 12 COM — 12 IN — 11 IN — 10 IN — 9 IN — 5 - 8 COM — 8 IN — 7 IN — 6 IN — 5 IN — 1 - 4 COM — 4 IN — 3 IN — 2 IN — 1 IN — SIP 1 — SIP 2 — SIP 3 — SIP 4 — H11 — LIMIT DEFEATERS (ON TO DEFEAT) — H1 — H2 — -VM — +VM — 607 WHT/BLU — 617 WHT/BLU — 606 BLU — 616 BLU — CAPBRD LOW/DC OUT + — DC1 H1/-VM — CNT1/T4 — DC1 H1/+VM — 2 AWG

AXIS 3 FUSE — H3 EGND — AXIS 3 + — AXIS 3 - — EGND — RED — Z+ — BLK — Z- — Z SHIELD — Z-AXIS MOTOR CABLE 14 AWG PN:10694 (INCLUDES ENCODER CABLE)

AXIS 2 FUSE — H4 EGND — AXIS 2 + — AXIS 2 - — EGND — RED — Y+ — BLK — Y- — Y SHIELD — Y-AXIS MOTOR CABLE 14 AWG PN:10694 (INCLUDES ENCODER CABLE)

AXIS 1 FUSE — H5 EGND — AXIS 1 + — AXIS 1 - — EGND — RED — X+ — BLK — X- — X SHIELD — X-AXIS MOTOR CABLE 14 AWG PN:10694 (INCLUDES ENCODER CABLE)

ENCODER CABLE MALE END

PIN 1 = N/C
PIN 2 = COM (BLK/RED)
PIN 3 = Z\ (BLK/GRN)
PIN 4 = A\ (BLK/WHT)
PIN 5 = B\ (BLK/BLU)
PIN 6 = Z (GRN)
PIN 7 = A (WHT)
PIN 8 = B (BLU)
PIN 9 = +5VDC (RED)

CABLE SIDE

ENCODERS	
2,000 LINE, 8,000 COUNT	
6mm SHAFT	PN:3403
1/4" SHAFT	PN:4217
3/8" SHAFT	PN:2848
1/2" SHAFT	PN:4655
10,000 LINE, 40,000 COUNT	
6mm SHAFT	PN:6285
8mm SHAFT	PN:7480
1/4" SHAFT	PN:7032

OPERATOR CONTROL PANEL CABLE PN:11014 — OPERATOR CONTROL PANEL — MPG CABLE PN:11086 — MPG — ENC 6 — ENC 5 — ENC 4 — ENC 3 — ENC 2 — ENC 1 — DRIVE COM OUT — SPINDLE ENCODER CABLE PN:14355 — 4TH — Z — Y — X — AXIS ENCODER CABLES PN:10830 — CABLE TO DC1 PN:11146

CNC CONSOLE — Centroid PN:13139 — LOCATED ON BACK — MPG — USB 3.0 — BLK/RED — BLK/GRN — GRN — BLK/BLU — BLU — SHLD — BLK/BLU — BLU — BLK/GRN — GRN — RED — BLK/RED — ALLIN1DC OPERATOR CONTROL PANEL CONNECTOR — For 4th axis move wire 24H-509 RED to DC1 H7/RLY1 and add wire 24H-509A RED between ALLIN1DC H6/OUT 1 and DC1 H7/RLY2 — USB TYPE B INPUT — USB 3.0 — PN:8263 — KEYBOARD MOUSE — TOUCHSCREEN — E-STOP SWITCH — ALLIN1DC MPG CONN. — E-STOP CONNECTOR — BLK — BLK — YEL/GRN — BLK — BLK — BLK — RED — 24C-902 BLK — TB1/15A (24VDC COM) — 24C-901 WHT — ALLIN1DC H10/11 IN — 24H-536 GRN — CNT1/A1 — 24H-509 RED — ALLIN1DC H6/OUT 1 — 22 AWG — CNC PC CABINET MOUNT PN:11084 — LCD POWER TO IN CABINET PC POWER SUPPLY PN:10539 — 500WATT ATX POWER SUPPLY PN:6868 — MODEL:TRQ-500NLPW — AC INPUT: 110V/220V 8/5A 47/63 HZ — RED +5VDC — BLK 5VDC COM — BLK 5VDC COM — YEL +12VDC — DC OUT — RED — BLACK — BLACK — YELLOW — ORANGE — BLUE — VIOLET — GRAY — TB1/9B (GROUND) — TB1/6B (GROUND) — IN CABINET PC PN:11084 — PS/2 — KB/MS — VGA — DVI-D — SERIAL — USB 3.0 — USB 2.0 — AUDIO — LAN — USB EXTENSION CABLE PN:8471 — ETHERNET CABLE TO ALLIN1DC

CNC CONSOLE W/ BUILT IN CNCPC — Centroid PN:13181 — LOCATED ON BACK — MPG — USB 3.0 — BLK/RED — BLK/GRN — GRN — BLK/BLU — BLU — SHLD — BLK/BLU — BLU — BLK/GRN — GRN — RED — BLK/RED — ALLIN1DC OPERATOR CONTROL PANEL CONNECTOR — For 4th axis move wire 24H-509 RED to DC1 H7/RLY1 and add wire 24H-509A RED between ALLIN1DC H6/OUT 1 and DC1 H7/RLY2 — NUC COMMUNICATION — MOUSE — E-STOP SWITCH — ALLIN1DC MPG CONN. — E-STOP CONNECTOR — BLK — BLK — YEL/GRN — BLK — BLK — BLK — GRN — RED — 24C-902 BLK — TB1/15A (24VDC COM) — 24C-901 WHT — ALLIN1DC H10/11 IN — 24H-536 GRN — CNT1/A1 — 24H-509 RED — ALLIN1DC H6/OUT 1 — 22 AWG — VGA CONTROLER BOARD — NUC PN:8520 — USB — USB — ETHERNET — MINI DISPLAY 19V POWER — HDMI — KEYBOARD — TOUCH SCREEN — ALLIN1DC ETHERNET — VGA PN:8524 — RS-75-12 — +V (12VDC) — V1 (12VDC COM) — GRN — WHT — BLU — SHIELD — ACG — ACN — ACL — MEANWELL RQ-65D (RS-75-12) — PN:13180 — GND-8 GRN/YEL — GROUND LUG 12 AWG — 18 AWG — TB1/1B (110VACH) — 110H-114 BLK — TB1/4B (110VACN) — GND-3 GRN — TB1/8B (GROUND) — TB1/4B (110VACN) — 110N-115 WHT — TB1/4B (110VACN) — BLK — WHT

OPTIONAL OPERATOR CONTROL PANEL PN:11077 — GRN/WHT — WHT/GRN — BLU/WHT — WHT/BLU — ORG/WHT — WHT/ORG — GRY/WHT — WHT/GRY — RED/BLU — BLU/RED — OPERATOR CONTROL PANEL CONNECTOR — E-STOP SWITCH — E-STOP FEEDGATE — ALLIN1DC OPERATOR CONTROL PANEL CONNECTOR — SHLD — GRN/WHT — WHT/GRN — BLU/WHT — WHT/BLU — ORG/WHT — WHT/ORG — GRY/WHT — WHT/GRY — RED/BLU — BLU/RED — For 4th axis move wire 24H-509 RED to DC1 H7/RLY1 and add wire 24H-509A RED between ALLIN1DC H6/OUT 1 and DC1 H7/RLY2 — 24C-902 BLK — TB1/15A (24VDC COM) — 24C-901 WHT — ALLIN1DC H10/11 IN — 24H-536 GRN — CNT1/A1 — 24H-509 RED — ALLIN1DC H6/OUT 1 — 22 AWG — E-STOP CONNECTOR

MPG CONNECTOR — PIN 1 +5VDC RED — PIN 5 AXIS 1 BLK — PIN 6 AXIS 2 ORG — PIN 7 AXIS 3 RED/BLK — PIN 8 AXIS 4 WHT/BLK — PIN 9 AXIS 5 BLU/BLK — PIN 10 MPG X 1 GRN/BLK — PIN 11 MPG X 10 ORG/BLK — PIN 12 MPG X 100 RED/WHT — PIN 14 MPG LED GRN/WHT — PIN 15 WHEEL +A BLU — PIN 16 WHEEL -A BLU/RED — PIN 17 WHEEL +B GRN — PIN 18 WHEEL -B RED/GRN — PIN 19 AXIS 6 WHT/RED — PIN 20 AXIS 7 ORG/RED — PIN 21 AXIS 8 BLK/WHT — PIN 22 5VDC COM WHT — PIN 28 GROUND SHIELD — MPG CABLE (12') PN:12988

MPG CABLE LENGTHS	
6'	PN:12560
10'	PN:12987
12'	PN:12988
14'	PN:12989
16'	PN:12990

SUGGESTED WIRE CURRENT CAPACITY STRANDED MTW OR EQUIVALENT

18 AWG - UP TO	6A
16 AWG - UP TO	8A
14 AWG - UP TO	15A
12 AWG - UP TO	20A
10 AWG - UP TO	30A
8 AWG - UP TO	40A
6 AWG - UP TO	60A

"NOTE" FUSE RATING DEPENDS ON SPINDLE HP

FUSE	RATING	LOCATION	CIRCUIT
F1	15ATD	B1	INCOMING 110VAC
F2	NOTE	B1	INCOMING 3 PHASE
F3	NOTE	B1	INCOMING 3 PHASE
F4	NOTE	B1	INCOMING 3 PHASE
F5	5ATD	D3	24VAC
F6	1.5ATD	B2	PS2

LIMIT SWITCH OPTIONS — ALL LIMIT SWITCH CABLES minimum 22AWG shielded. All shields grounded

ONE CABLE PER SWITCH		ONE CABLE PER AXIS		ONE CABLE X,Y AXIS ONE CABLE Z AXIS	
X- LIMIT	RED	X- LIMIT	WHITE	X- LIMIT	WHITE
X- COMMON	BLACK	X- COMMON	BLACK	X- COMMON	BLACK
X+ LIMIT	RED	X+ LIMIT	RED	X+ LIMIT	RED
X+ COMMON	BLACK	X+ COMMON	GREEN	X+ COMMON	GREEN
Y- LIMIT	RED	Y- LIMIT	WHITE	Y- LIMIT	ORANGE
Y- COMMON	BLACK	Y- COMMON	BLACK	Y- COMMON	BROWN
Y+ LIMIT	RED	Y+ LIMIT	RED	Y+ LIMIT	YELLOW
Y+ COMMON	BLACK	Y+ COMMON	GREEN	Y+ COMMON	BLUE
Z- LIMIT	RED	Z- LIMIT	WHITE	Z- LIMIT	WHITE
Z- COMMON	BLACK	Z- COMMON	BLACK	Z- COMMON	BLACK
Z+ LIMIT	RED	Z+ LIMIT	RED	Z+ LIMIT	RED
Z+ COMMON	BLACK	Z+ COMMON	GREEN	Z+ COMMON	GREEN

CENTROID DC SERVO MOTORS

10 IN-LB	PN:12872
16 IN-LB	PN:10667
29 IN-LB	PN:10816
40 IN-LB	PN:10935

DC SERVO MOTOR — G — RED — YEL/GRN — BLK — RED — GRN — SHLD — ALLIN1DC H3,H4 OR H5/AXIS + — ALLIN1DC H3,H4 OR H5/AXIS EGND — ALLIN1DC H3,H4 OR H5/AXIS - — ENCODER — +A — -A — +B — -B — +Z — -Z — +5VDC — COM — SHLD — WHT — BLK/WHT — BLU — BLK/BLU — GRN — BLK/GRN — RED — BLK/RED — SHLD — 1 2 3 4 5 6 7 8 — DB9/PIN 7 — DB9/PIN 4 — DB9/PIN 8 — DB9/PIN 5 — DB9/PIN 6 — DB9/PIN 9 — DB9/PIN 2 — DB9/BODY — WIRE COLOR DEPENDS ON ENCODER BRAND — ENCODER CABLE PN:10830 — DC SERVO MOTOR WITH ENCODER — COMPLETE CABLE PN:10694

IF USING CIRCUIT BREAKERS INSTEAD OF FUSES, SEPARATE DEVICE SUPPLY CIRCUITS AND USE D CURVE CIRCUIT BREAKERS.
WE RECOMMEND THE FOLLOWING BREAKERS.

AMPERAGE	POLES	PART NUMBER (EATON)
5	1	FAZ-D5-1-NA-SP
15	1	FAZ-D15/1-NA-SP
2	2	FAZ-D2-2-NA
6	2	FAZ-D6-2-NA
10	2	FAZ-D10-2-NA
16	2	FAZ-D16-2-NA
30	2	FAZ-D30-2-NA
16	3	FAZ-D16-3-NA
32	3	FAZ-D30-3-NA
63	3	FAZ-D63-3-NA

REVISION	DATE	DESCRIPTION	BY
1	4-15-2016	INITIAL RELEASE	SPM
2	6-20-2016	CORRECTIONS, CHANGES TO STANDARD AND PART NUMBERS	SPM

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Title: Mill, 220/110VAC, ALLIN1DC, 83VAC Stepdown Transformer, Spindle Reversing Contactors, BP BOSS Option

Size D | Number | Rev 2
Date 160415 | Drawn by SPM
Filename S14754.DWG | Sheet 1 of 1