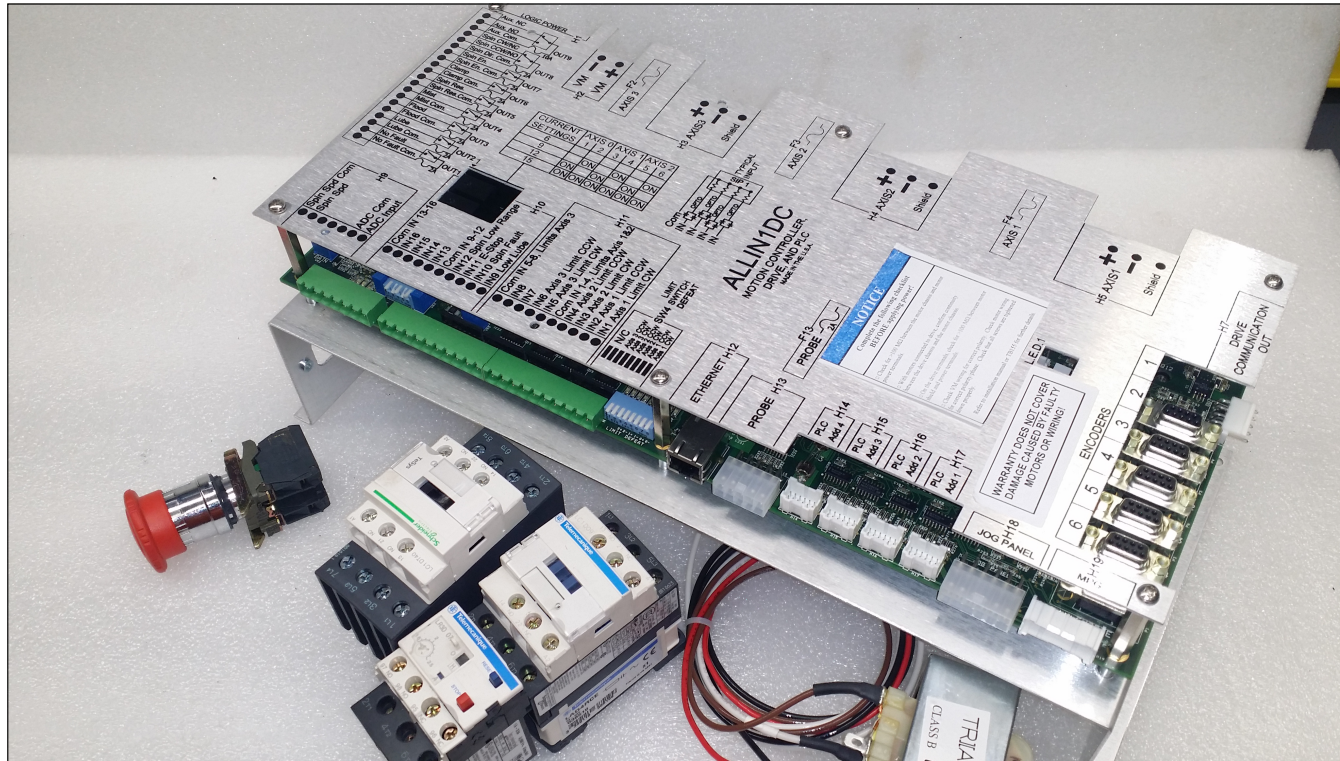




CENTROID™


ALLIN1DC Individual Circuit Schematic Set



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| REV | DATE | DESCRIPTION | BY |
|-----|----------|---------------------------|-----|
| 1 | 5-4-2016 | INITIAL RELEASE | SPM |
| 2 | 6-8-2016 | CHANGED TITLE/LOGO LAYOUT | SPM |

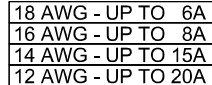
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|---|-----------------|--|
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|---|-----------------|--|

| | | | |
|-------|--|--|--|
| Title | | ALLIN1DC INDIVIDUAL CIRCUIT SCHEMATIC SET | |
|-------|--|--|--|

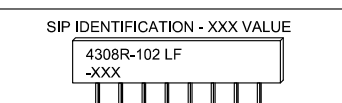
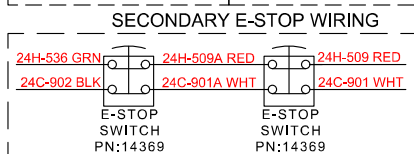
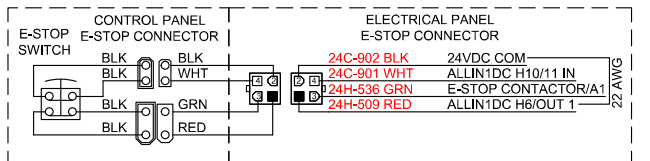
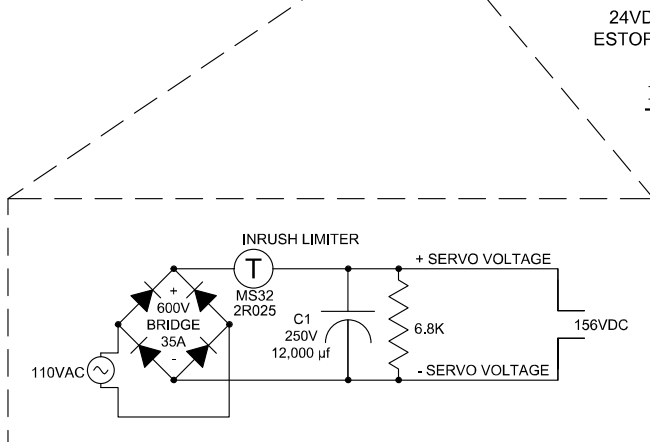
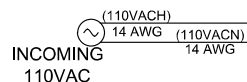
| | | | | |
|------|---|---------------|-----|---|
| Size | A | Serial Number | Rev | 2 |
|------|---|---------------|-----|---|

| | | | |
|------|--------|----------|-----|
| Date | 160715 | Drawn by | SPM |
|------|--------|----------|-----|

| | | | | | |
|----------|------------------|-------|---|----|----|
| Filename | ALLIN1DC SET.dwg | Sheet | 1 | of | 20 |
|----------|------------------|-------|---|----|----|

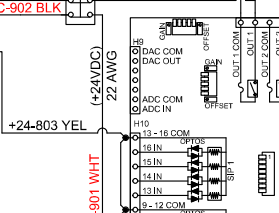
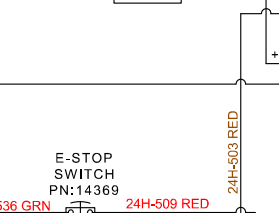
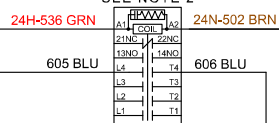


| |
|-----------------|
| 110VAC = 156VDC |
| 117VAC = 165VDC |
| 120VAC = 170VDC |
| 125VAC = 177VDC |

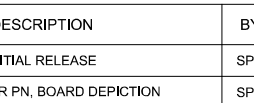
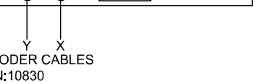
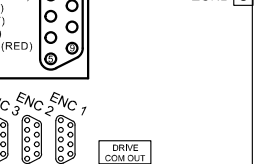
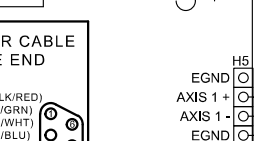
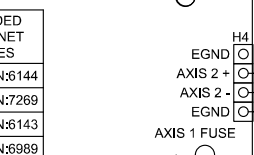
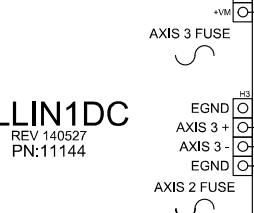
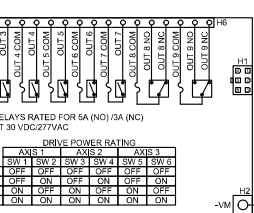
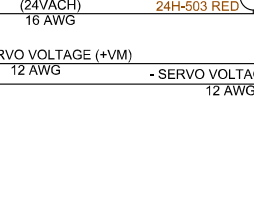
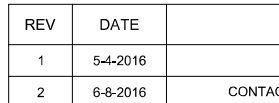
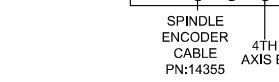
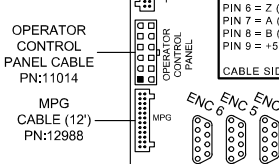
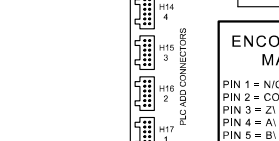
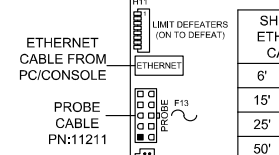
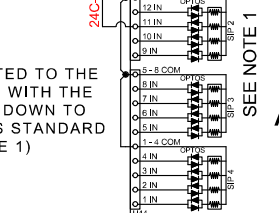


| INPUT VOLTAGE | SIP MARKING "XXX" | VALUE (OHMS) |
|------------------|----------------------|-----------------|
| 5 | 471 | 470 |
| 12 | 102 | 1.0K |
| 24 | 222 | 2.2K |

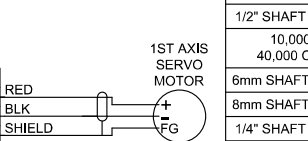
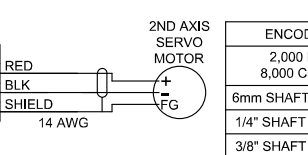
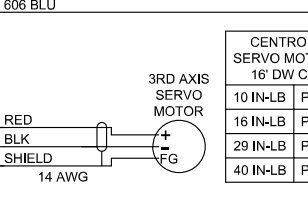
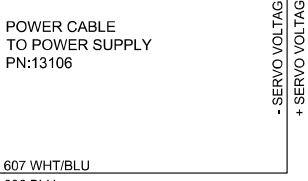
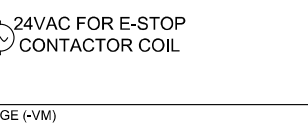
INPUTS REQUIRE 5, 12, OR 24VDC EXTERNAL POWER SUPPLY. POWER SUPPLY FOR ALL IN1DC DRIVE CAN BE USED. SIP RESISTOR VALUE MUST BE APPROPRIATE FOR INPUT VOLTAGE USED FOR EACH BANK OF 4 INPUTS. (SEE CHART)



**+24VDC CONNECTED TO THE
INPUT COMMONS WITH THE
INPUTS PULLED DOWN TO
24VDC COMMON IS STANDARD
(SEE NOTE 1)**



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



| CENTROID DC SERVO MOTORS w/ 16' DW CABLE | |
|--|----------|
| 10 IN-LB | PN:12872 |
| 16 IN-LB | PN:10667 |
| 29 IN-LB | PN:10816 |
| 40 IN-LB | PN:10935 |

| 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 |



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| | |
|--|------------------------------|
| Title | ALLIN1DC Minimum Connections |
| Direct rectification of 110VAC to produce 156VDC Servo motor power | |

| | | |
|---------------------------|---------------|--------------|
| Size A | Serial Number | Rev 2 |
| Date 160715 | Drawn by SPM | |
| Filename ALLIN1DC SET.dwg | Sheet 2 of 20 | |

A

B

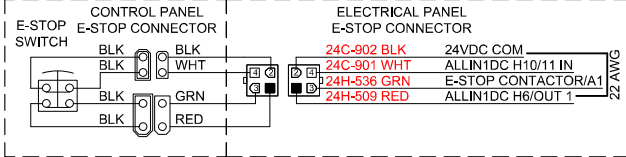
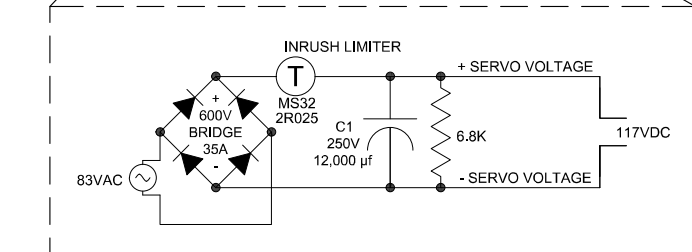
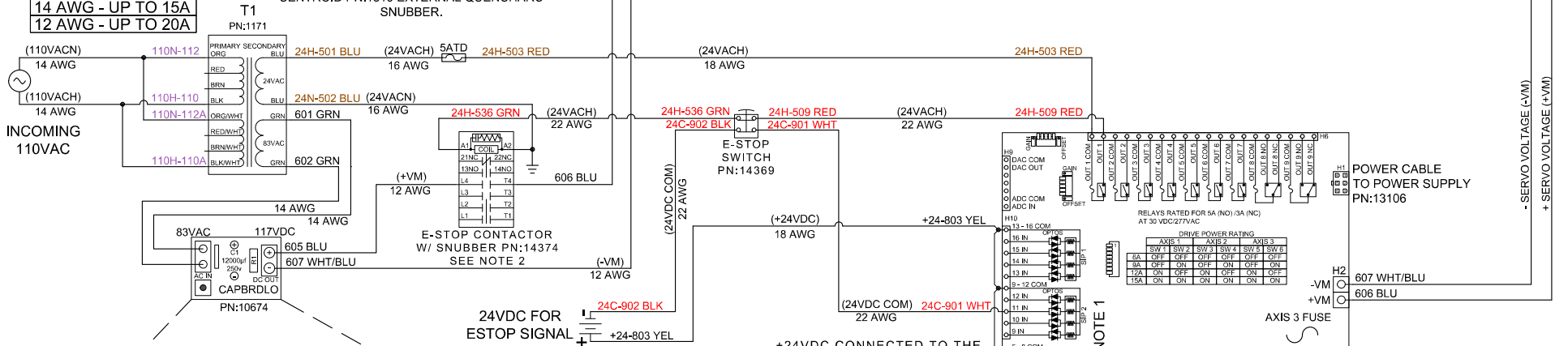
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D

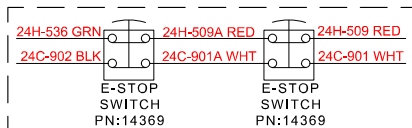
SUGGESTED
WIRE CURRENT CAPACITY
STRANDED MTW OR EQUIVALENT

18 AWG - UP TO 6A
16 AWG - UP TO 8A
14 AWG - UP TO 15A
12 AWG - UP TO 20A

NOTE 2
ALL CONTACTOR COILS REQUIRE A SNUBBER,
EITHER CONTACTOR MANUFACTURERS
RECOMMENDED SNAP ON SNUBBER OR
CENTROID PN:1819 EXTERNAL QUENCHARC
SNUBBER.

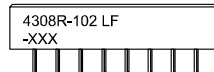


SECONDARY E-STOP WIRING



NOTE 1
INPUTS REQUIRE 5, 12, OR 24VDC EXTERNAL
POWER SUPPLY. POWER SUPPLY FOR
ALLIN1DC DRIVE CAN BE USED. SIP RESISTOR
VALUE MUST BE APPROPRIATE FOR INPUT
VOLTAGE USED FOR EACH BANK OF 4 INPUTS.
(SEE CHART)

SIP IDENTIFICATION - XXX VALUE



RESISTOR PACK (SIP) CHART

| INPUT VOLTAGE | SIP MARKING "XXX" | VALUE (OHMS) |
|---------------|-------------------|--------------|
| 5 | 471 | 470 |
| 12 | 102 | 1.0K |
| 24 | 222 | 2.2K |



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ALLIN1DC Minimum Connections with 83VAC Step Down Transformer

| Title | Size | Serial Number | Rev |
|--|----------|---------------|-----|
| ALLIN1DC Minimum Connections with 83VAC Step Down Transformer | A | 160715 | 2 |
| Date | Drawn by | Sheet | of |
| 160715 | SPM | 3 | 20 |
| Filename | Sheet | of | |
| ALLIN1DC SET.dwg | 3 | 20 | |

| REV | DATE | DESCRIPTION | BY |
|-----|----------|-------------------------------|-----|
| 1 | 5-9-2016 | INITIAL RELEASE | SPM |
| 2 | 6-8-2016 | CONTACTOR PN, BOARD DEPICTION | SPM |

A

B

C

D

| CENTROID DC SERVO MOTORS w/ 16' DW CABLE | |
|--|----------|
| 10 IN-LB | PN:12872 |
| 16 IN-LB | PN:10667 |
| 29 IN-LB | PN:10816 |
| 40 IN-LB | PN:10935 |

| 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 |

A

B

C

D

1

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2

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3

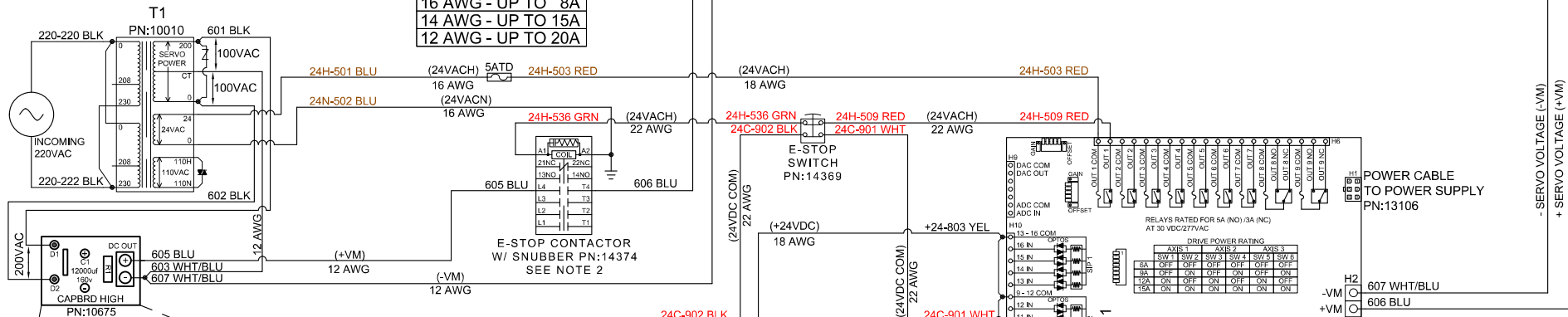
3

4

4

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 |



24VDC FOR
ESTOP SIGNAL

+24VDC CONNECTED TO THE
INPUT COMMONS WITH THE
INPUTS PULLED DOWN TO
24VDC COMMON IS STANDARD
(SEE NOTE 1)

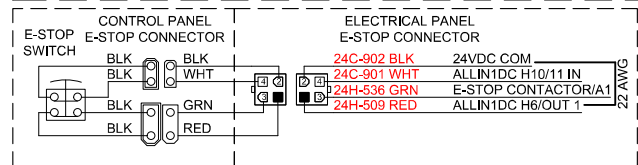
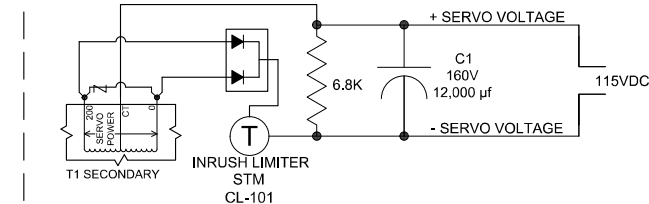
NOTE 2
ALL CONTACTOR COILS REQUIRE A SNUBBER,
EITHER CONTACTOR MANUFACTURERS
RECOMMENDED SNAP ON SNUBBER OR
CENTROID PN:1819 EXTERNAL QUENCHARC
SNUBBER.

ALLIN1DC
REV 140527
PN:11144

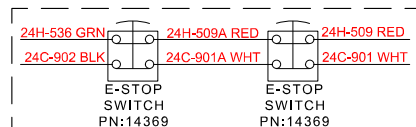
| SHIELDED ETHERNET CABLES | |
|--------------------------------|---------|
| 6' | PN:6144 |
| 15' | PN:7269 |
| 25' | PN:6143 |
| 50' | PN:6989 |

| 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) | |

| 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) | |

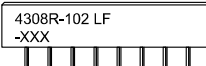


SECONDARY E-STOP WIRING



NOTE 1
INPUTS REQUIRE 5, 12, OR 24VDC EXTERNAL
POWER SUPPLY. POWER SUPPLY FOR
ALLIN1DC DRIVE CAN BE USED. SIP
RESISTOR VALUE MUST BE APPROPRIATE
FOR INPUT VOLTAGE USED FOR EACH BANK
OF 4 INPUTS. (SEE CHART)

SIP IDENTIFICATION - XXX VALUE



RESISTOR PACK (SIP) CHART

| INPUT VOLTAGE | SIP MARKING "XXX" | VALUE (OHMS) |
|------------------|----------------------|-----------------|
| 5 | 471 | 470 |
| 12 | 102 | 1.0K |
| 24 | 222 | 2.2K |

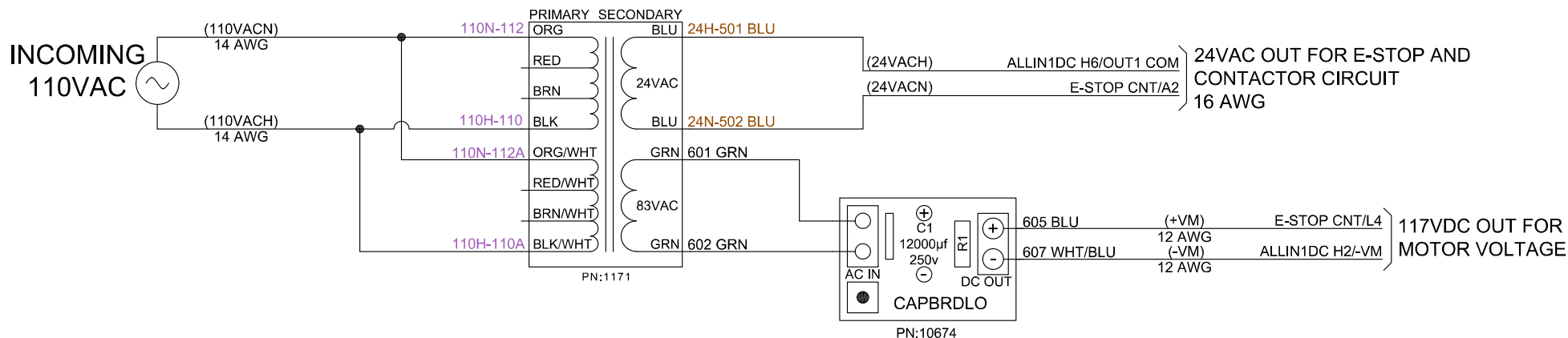
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|---|---------------|
| CENTROID (814) 353-9256 www.centroidcnc.com Copyright © 2016 Centroid | |
| Title ALLIN1DC MINIMUM CONNECTIONS WITH 220VAC STEP DOWN TRANSFORMER | |
| Size A | Serial Number |
| Date 160715 | Drawn by SPM |
| Filename ALLIN1DC SET.dwg | Sheet 4 of 20 |

| REV | DATE | DESCRIPTION | BY |
|-----|-----------|---------------------------------|-----|
| 1 | 5-9-2016 | INITIAL RELEASE | SPM |
| 2 | 5-24-2016 | ADDED VOLTAGE ACROSS CENTER TAP | SPM |
| 3 | 6-8-2016 | CONTACTOR PN, BOARD DEPICTION | SPM |

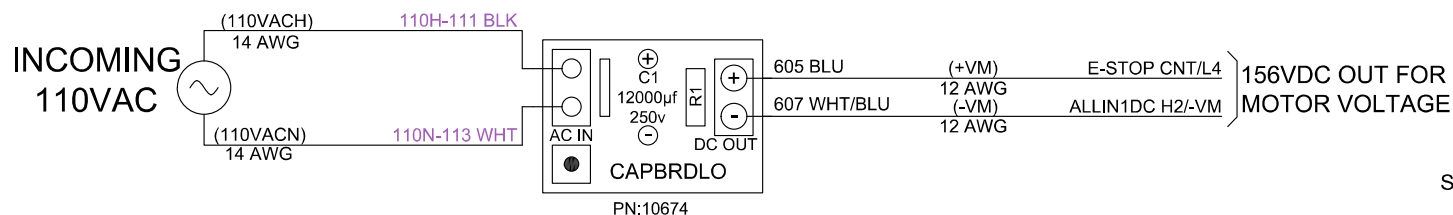
| CENTROID DC SERVO MOTORS w/ 16' DW CABLE | |
|--|----------|
| 10 IN-LB | PN:12872 |
| 16 IN-LB | PN:10667 |
| 29 IN-LB | PN:10816 |
| 40 IN-LB | PN:10935 |

| 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 |

DC SERVO POWER RECTIFIER WITH 110V STEP DOWN TRANSFORMER



DC SERVO POWER RECTIFIER WITHOUT STEP DOWN TRANSFORMER, DIRECT RECTIFICATION OF 110 VAC



BRIDGE RECTIFIED DC MOTOR VOLTAGE
(INPUT)VAC X 1.414 = (OUTPUT)VDC

| |
|-----------------|
| 110VAC = 156VDC |
| 117VAC = 165VDC |
| 120VAC = 170VDC |
| 125VAC = 177VDC |

RECTIFIED DC MOTOR VOLTAGE MUST
NOT EXCEED SERVO MOTOR VOLTAGE RATING

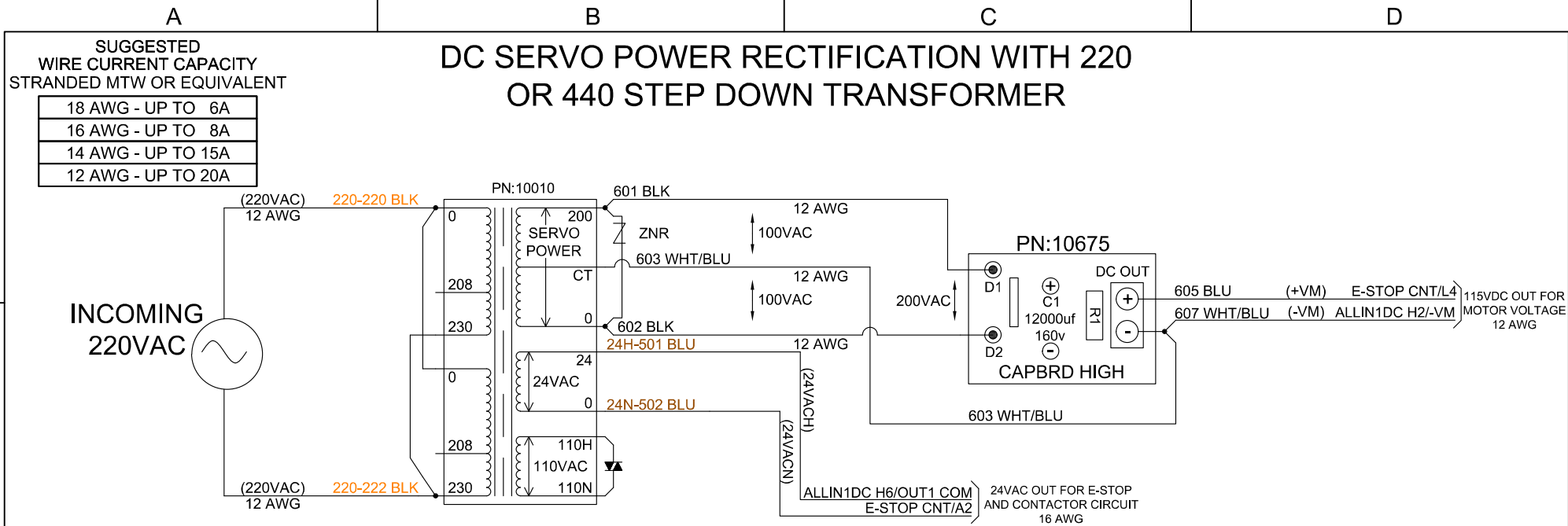
SUGGESTED
WIRE CURRENT CAPACITY
STRANDED MTW OR EQUIVALENT

| |
|--------------------|
| 18 AWG - UP TO 6A |
| 16 AWG - UP TO 8A |
| 14 AWG - UP TO 15A |
| 12 AWG - UP TO 20A |

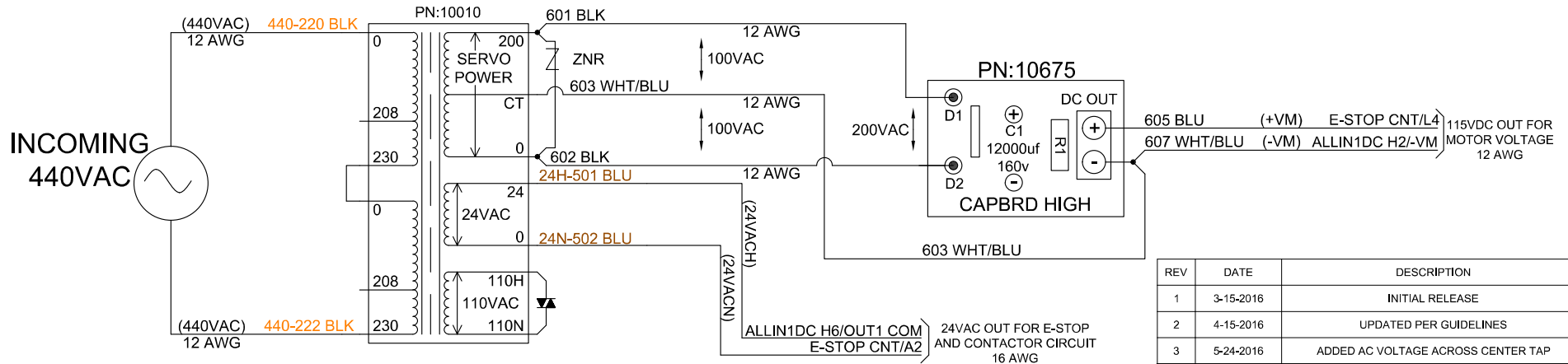
| REV | DATE | DESCRIPTION | BY |
|-----|-----------|------------------------|-----|
| 1 | 3-15-2016 | INITIAL RELEASE | DRS |
| 2 | 4-15-2016 | UPDATED PER GUIDELINES | SPM |

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| | | | |
|----------|--|---------------|---------|
| Title | DC SERVO POWER RECTIFICATION FROM INCOMING 110VAC | | |
| Size | A | Serial Number | Rev 2 |
| Date | 160715 | Drawn by | SPM |
| Filename | ALLIN1DC SET.dwg | Sheet | 5 of 20 |



220VAC RECTIFICATION 440VAC RECTIFICATION



| REV | DATE | DESCRIPTION | BY |
|-----|-----------|------------------------------------|-----|
| 1 | 3-15-2016 | INITIAL RELEASE | DRS |
| 2 | 4-15-2016 | UPDATED PER GUIDELINES | SPM |
| 3 | 5-24-2016 | ADDED AC VOLTAGE ACROSS CENTER TAP | SPM |

| | | | | | |
|---|--|---|----------------------|---|--------------|
|  | | CENTROID | | (814) 353-9256 www.centroidcnc.com Copyright © 2016 Centroid | |
| Title | | DC SERVO POWER RECTIFICATION 220/440VAC STEPDOWN TRANSFORMER | | | |
| Size A | | Serial Number | | | Rev 3 |
| Date 160715 | | | Drawn by SPM | | |
| Filename ALLIN1DC SET.dwg | | | Sheet 6 of 20 | | |

A

B

C

D

1

1

2

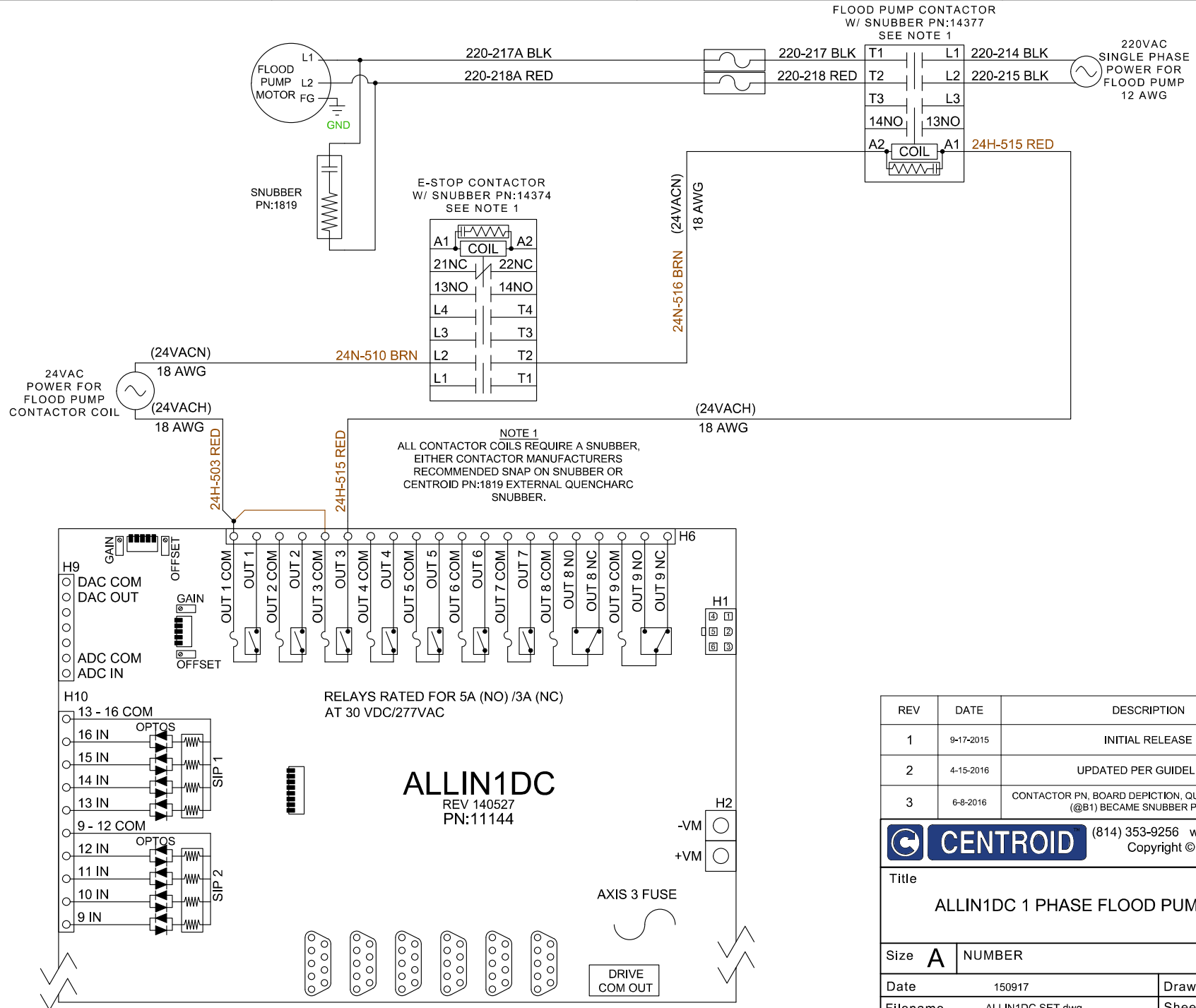
2

3

3

4

4



| REV | DATE | DESCRIPTION | BY |
|-----|-----------|---|-----|
| 1 | 9-17-2015 | INITIAL RELEASE | DRS |
| 2 | 4-15-2016 | UPDATED PER GUIDELINES | SPM |
| 3 | 6-8-2016 | CONTACTOR PN, BOARD DEPICTION, QUENCHARC PN:1819 (@B1) BECAME SNUBBER PN:1819 | SPM |



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Title
ALLIN1DC 1 PHASE FLOOD PUMP CIRCUIT

| | | |
|---------------|------------------|------------------|
| Size A | NUMBER | Rev 3 |
| Date | 150917 | Drawn by 391 DRS |
| Filename | ALLIN1DC SET.dwg | Sheet 8 of 20 |

A

B

C

D

1

1

2

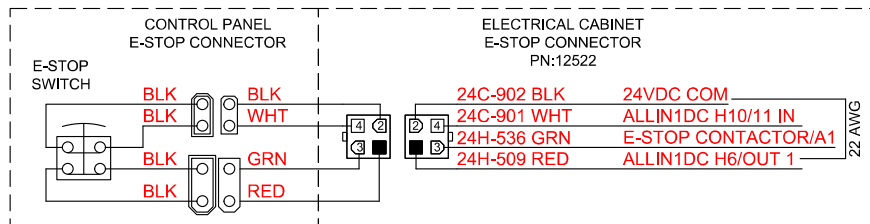
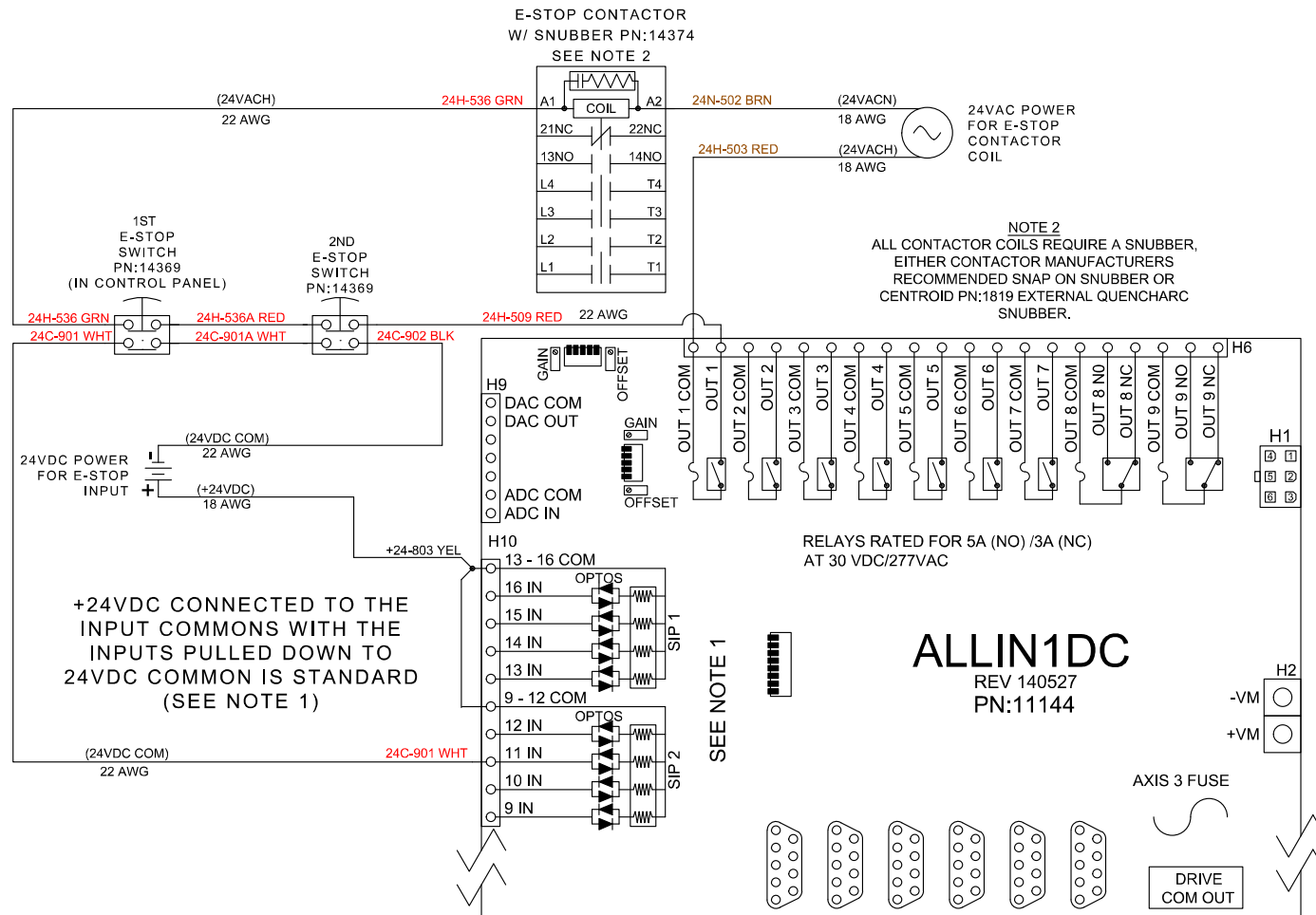
2

3

3

4

4



NOTE 1
INPUTS REQUIRE 5, 12, OR 24VDC EXTERNAL POWER SUPPLY. POWER SUPPLY FOR ALLIN1DC DRIVE CAN BE USED. SIP RESISTOR VALUE MUST BE APPROPRIATE FOR INPUT VOLTAGE USED FOR EACH BANK OF 4 INPUTS. (SEE CHART)

SIP IDENTIFICATION - XXX VALUE

4308R-102 LF
-XXX

RESISTOR PACK (SIP) CHART

| INPUT VOLTAGE | SIP MARKING "XXX" | VALUE (OHMS) |
|---------------|-------------------|--------------|
| 5 | 471 | 470 |
| 12 | 102 | 1.0K |
| 24 | 222 | 2.2K |

| REV | DATE | DESCRIPTION | BY |
|-----|-----------|-------------------------------|-----|
| 1 | 9-17-2015 | INITIAL RELEASE | DRS |
| 2 | 4-15-2016 | UPDATED PER GUIDELINES | SPM |
| 3 | 6-8-2016 | CONTACTOR PN, BOARD DEPICTION | SPM |

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Title
**ALLIN1DC 2ND E-STOP CONNECTION
CIRCUIT**

| | | |
|---------------|------------------|----------------|
| Size A | NUMBER | Rev 3 |
| Date | 150917 | Drawn by DRS |
| Filename | ALLIN1DC SET.dwg | Sheet 11 of 20 |

A

B

C

D

A

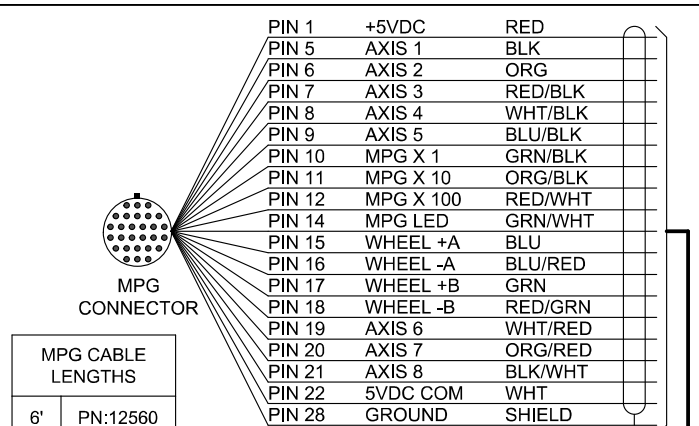
B

C

D

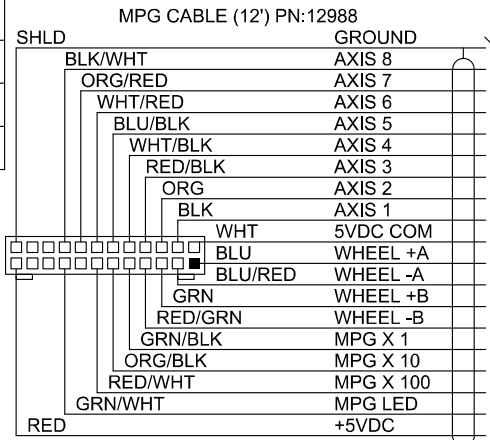
1

1



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

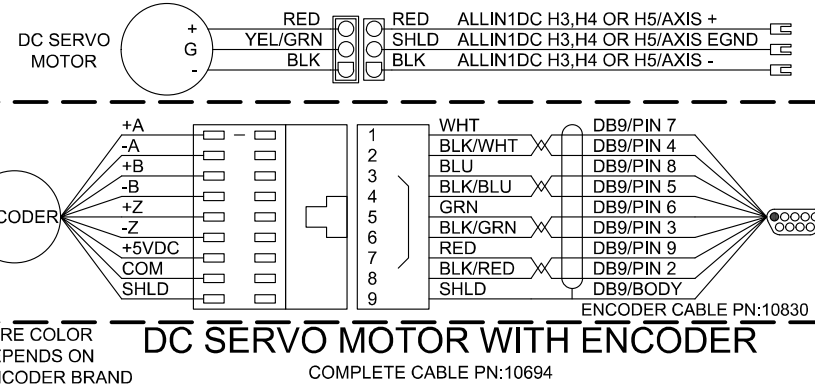
ALLIN1DC
MPG
CONNECTOR



ENCODER CABLE DB9 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

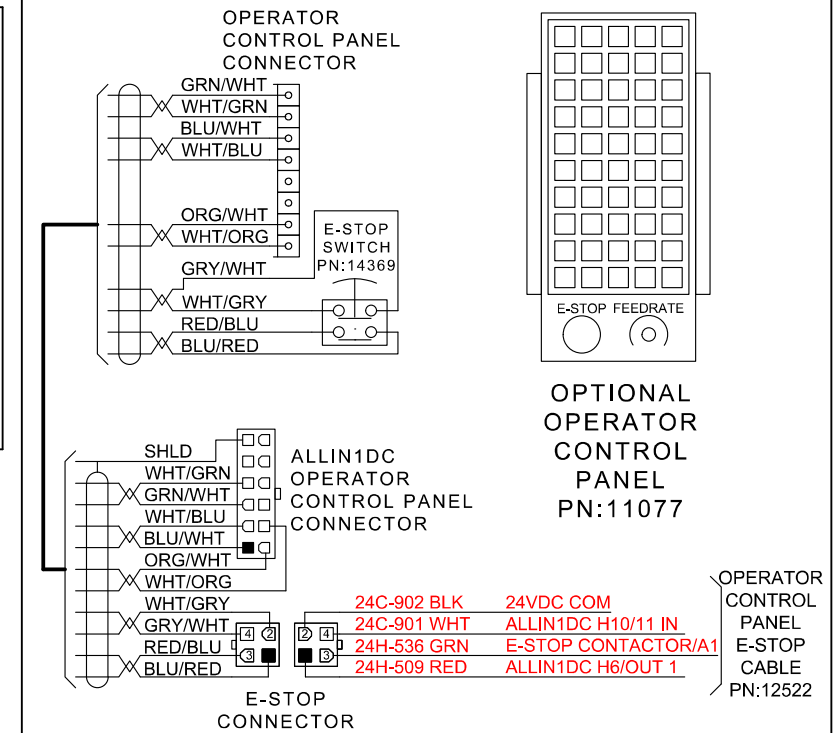
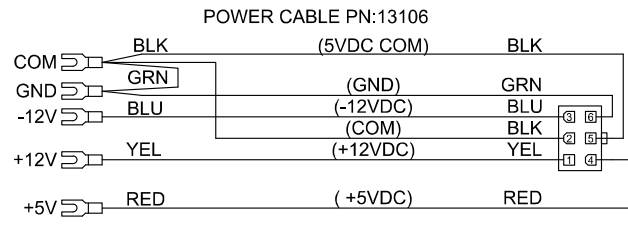
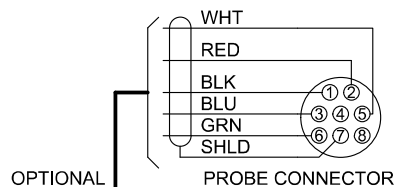


2

2

3

3



4

4

| REV | DATE | DESCRIPTION | BY |
|-----|-----------|------------------------|-----|
| 1 | 9-17-2015 | INITIAL RELEASE | DRS |
| 2 | 4-26-2016 | UPDATED PER GUIDELINES | SPM |
| 3 | 6-5-2016 | CHANGES TO STANDARD | SPM |



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| Title | | | |
|-----------------|------------------|----------|----------|
| ALLIN1DC CABLES | | | |
| Size | A | NUMBER | Rev 3 |
| Date | 150917 | Drawn by | 391 DRS |
| Filename | ALLIN1DC SET.dwg | Sheet | 12 of 20 |

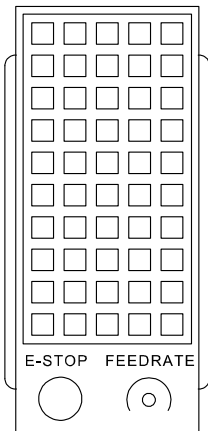
A

B

C

D

OPERATORS CONTROL PANEL PN:11077

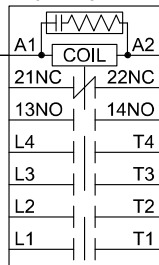


24VAC POWER
FOR E-STOP
CONTACTOR
COIL

(24VACH)
18 AWG

(24VACN)
18 AWG

E-STOP CONTACTOR
W/ SNUBBER PN:14374
SEE NOTE 2

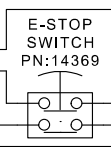


24H-536 GRN

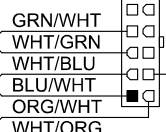
24N-537 GRN

OPERATOR
CONTROL PANEL
CABLE CONNECTOR

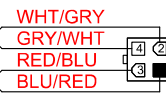
24VDC POWER
FOR E-STOP
INPUT



SHLD



ALLIN1DC
OPERATOR CONTROL
PANEL
CONNECTOR



ELECTRICAL CABINET
E-STOP CONNECTOR

24C-901 WHT
24H-536 GRN
24H-509 RED

NOTE 1

INPUTS REQUIRE 5, 12, OR 24VDC EXTERNAL POWER
SUPPLY. POWER SUPPLY FOR ALLIN1DC DRIVE CAN BE
USED. SIP RESISTOR VALUE MUST BE APPROPRIATE FOR
INPUT VOLTAGE USED FOR EACH BANK OF 4 INPUTS.
(SEE CHART)

(+24VDC)
18 AWG

24C-901 WHT

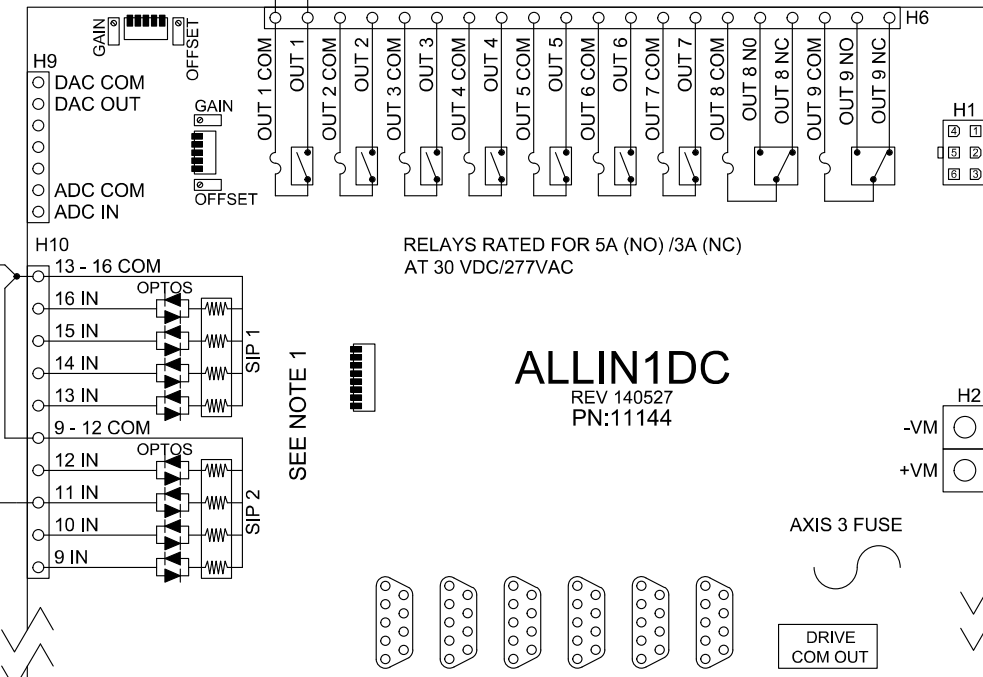
(24VDC COM)
22 AWG

(24VDC COM)
22 AWG

(24VACH)
22 AWG

24H-503 RED

24H-509 RED



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

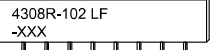
ALLIN1DC
REV 140527
PN:11144

AXIS 3 FUSE

DRIVE
COM OUT

+24VDC CONNECTED TO THE
INPUT COMMONS WITH THE
INPUTS PULLED DOWN TO
24VDC COMMON IS STANDARD
(SEE NOTE 1)

SIP IDENTIFICATION - XXX VALUE



RESISTOR PACK (SIP) CHART

| INPUT VOLTAGE | SIP MARKING "XXX" | VALUE (OHMS) |
|------------------|----------------------|-----------------|
| 5 | 471 | 470 |
| 12 | 102 | 1.0K |
| 24 | 222 | 2.2K |

| REV | DATE | DESCRIPTION | BY |
|-----|-----------|-------------------------------|-----|
| 1 | 9-16-2015 | INITIAL RELEASE | DRS |
| 2 | 4-26-2016 | UPDATED PER GUIDELINES | SPM |
| 3 | 6-8-2016 | CONTACTOR PN, BOARD DEPICTION | SPM |

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Title
ALLIN1DC OPERATOR CONTROL PANEL CIRCUIT

| | | |
|---------------|------------------|----------------|
| Size A | NUMBER | Rev 3 |
| Date | 150916 | Drawn by DRS |
| Filename | ALLIN1DC SET.dwg | Sheet 13 of 20 |

A

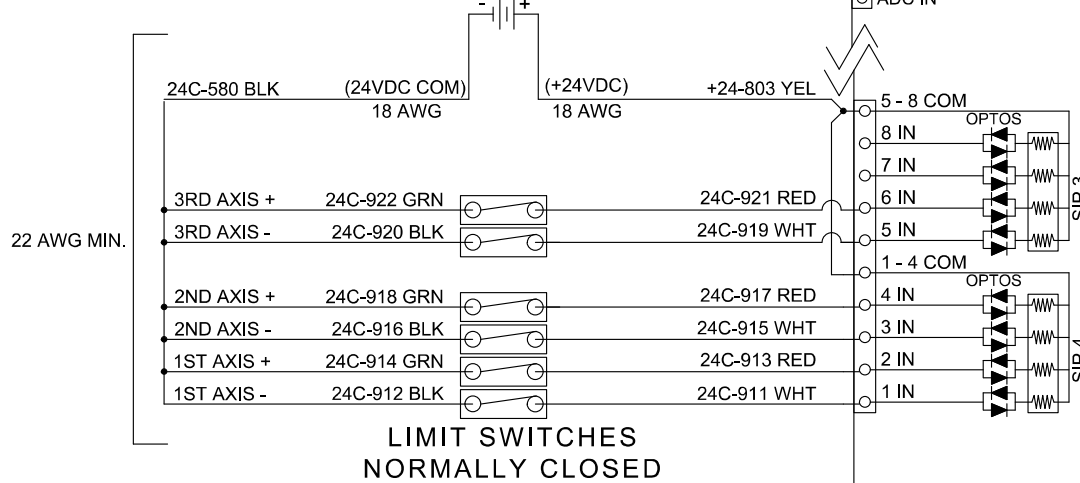
B

C

D

+24VDC CONNECTED TO THE
INPUT COMMONS WITH THE
INPUTS PULLED DOWN TO
24VDC COMMON IS STANDARD
(SEE NOTE 1)

24VDC POWER FOR LIMIT SWITCH INPUTS



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

ALLIN1DC
REV 140527
PN:11144

AXIS 2 FUSE

DRIVE
COM OUT

SEE NOTE 1

SIP IDENTIFICATION - XXX VALUE

4308R-102 LF
-XXX

RESISTOR PACK (SIP) CHART

| INPUT VOLTAGE | SIP MARKING "XXX" | VALUE (OHMS) |
|------------------|----------------------|-----------------|
| 5 | 471 | 470 |
| 12 | 102 | 1.0K |
| 24 | 222 | 2.2K |

NOTE 1

INPUTS REQUIRE 5, 12, OR 24VDC
EXTERNAL POWER SUPPLY. POWER
SUPPLY FOR ALLIN1DC DRIVE CAN BE
USED. SIP RESISTOR VALUE MUST BE
APPROPRIATE FOR INPUT VOLTAGE
USED FOR EACH BANK OF 4 INPUTS.
(SEE CHART)

A

B

C

D

| REV | DATE | DESCRIPTION | BY |
|-----|-----------|---|-----|
| 1 | 9-16-2015 | INITIAL RELEASE | DRS |
| 2 | 4-26-2016 | UPDATED PER GUIDELINES | SPM |
| 3 | 6-8-2016 | CHANGES TO BOARD DEPICTION, SWITCH ALIGNMENT | SPM |



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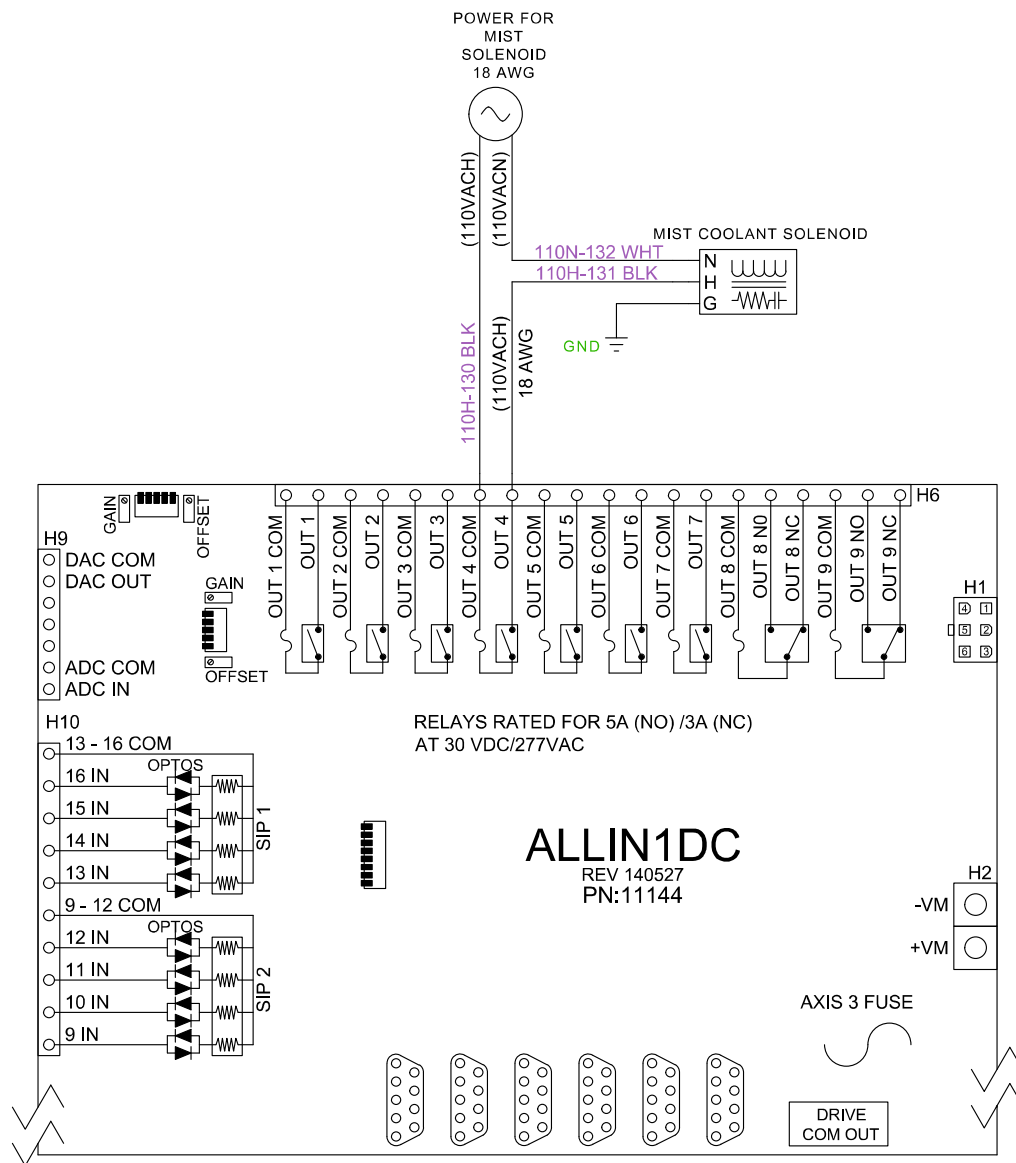
| | | | |
|---|------------------|----------|--------------|
| Title ALLIN1DC LIMIT SWITCH CIRCUIT | | | |
| Size A | NUMBER | | Rev 3 |
| Date | 160916 | Drawn by | DRS |
| Filename | ALLIN1DC SET.dwg | Sheet | 14 of 20 |

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D



| REV | DATE | DESCRIPTION | BY |
|-----|-----------|----------------------------|-----|
| 1 | 9-16-2015 | INITIAL RELEASE | DRS |
| 2 | 4-26-2016 | UPDATED PER GUIDELINES | SPM |
| 3 | 6-8-2016 | CHANGES TO BOARD DEPICTION | SPM |

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Title

ALLIN1DC 110VAC MIST COOLANT CIRCUIT

Size **A**

NUMBER

Rev **3**

Date 150916

Drawn by DRS

Filename ALLIN1DC SET.dwg

Sheet 16 of 20

A

B

C

D

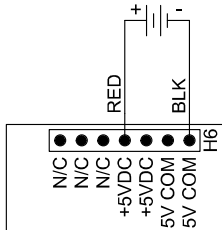
A

B

C

D

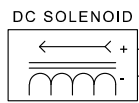
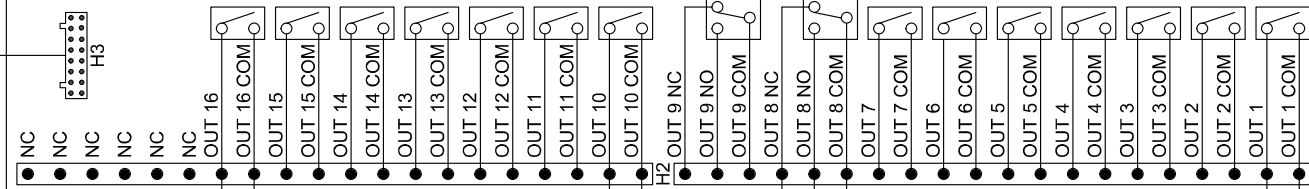
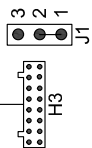
USE ONE RT-50B (PN:7820) TO
POWER UP TO 3 PLCADD1616'S



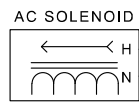
PLCADD1616
REV 090306
PN:11025

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

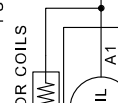
COMMUNICATION
CABLE PN:11071



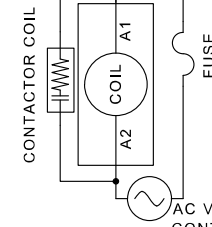
DC VOLTAGE
30VDC 5A MAX



AC VOLTAGE
277VAC 5A MAX

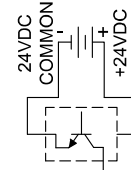


AC VOLTAGE FOR
CONTACTOR COILS

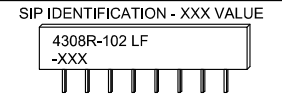
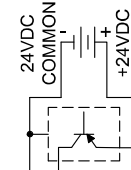


AC VOLTAGE FOR
CONTACTOR COIL

SINKING (NPN)
SENSOR



SOURCING (PNP)
SENSOR



RESISTOR PACK (SIP) CHART

| INPUT VOLTAGE | SIP MARKING "XXX" | VALUE (OHMS) |
|------------------|----------------------|-----------------|
| 5 | 471 | 470 |
| 12 | 102 | 1.0K |
| 24 | 222 | 2.2K |

NOTE 1

INPUTS REQUIRE 5, 12, OR
24VDC EXTERNAL POWER
SUPPLY.
POWER SUPPLY FOR ALLIN1DC
DRIVE CAN BE USED.
SIP RESISTOR VALUE MUST BE
APPROPRIATE FOR INPUT
VOLTAGE USED FOR EACH BANK
OF 4 INPUTS. (SEE CHART)

+24VDC CONNECTED TO THE
INPUT COMMONS WITH THE
INPUTS PULLED DOWN TO
24VDC COMMON IS STANDARD
(SEE NOTE 1)



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Title

PLCADD1616 CIRCUIT EXAMPLES

Size A

NUMBER

Rev 3

Date 150916

Drawn by DRS

Filename ALLIN1DC SET.dwg

Sheet 17 of 20

| REV | DATE | DESCRIPTION | BY |
|-----|-----------|----------------------------|-----|
| 1 | 9-16-2015 | INITIAL RELEASE | DRS |
| 2 | 4-29-2016 | UPDATED PER GUIDELINES | SPM |
| 3 | 6-8-2016 | CHANGES TO BOARD DEPICTION | SPM |

A

B

C

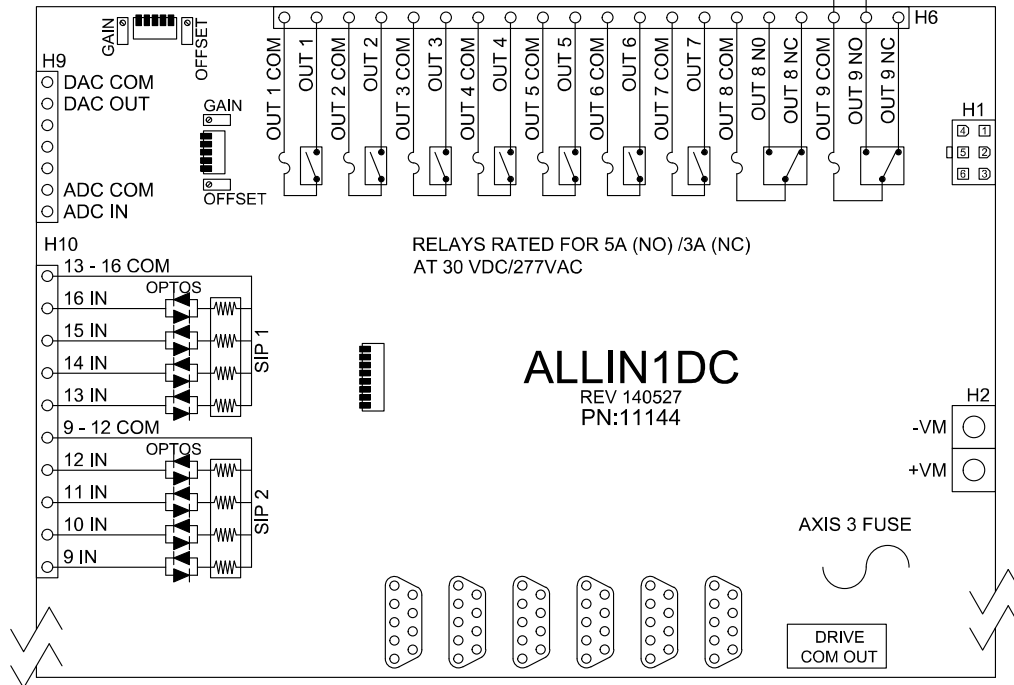
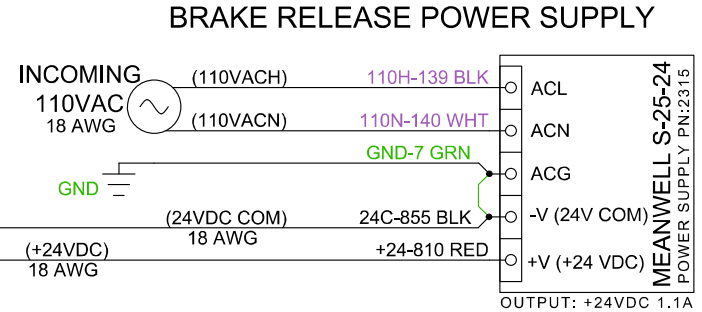
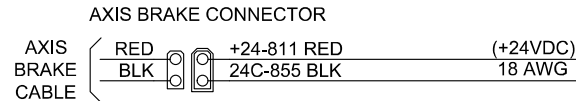
D

A

B

C

D



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Title
ALLIN1DC BRAKING MOTOR CIRCUIT

Size **A** NUMBER Rev **3**

Date 150916 Drawn by DRS

Filename ALLIN1DC SET.dwg Sheet 19 of 20

| REV | DATE | DESCRIPTION | BY |
|-----|-----------|---------------------------------|-----|
| 1 | 9-16-2015 | INITIAL RELEASE | DRS |
| 2 | 4-30-2016 | UPDATED PER GUIDELINES | SPM |
| 3 | 6-8-2016 | CHANGES TO CONNECTION DEPICTION | SPM |

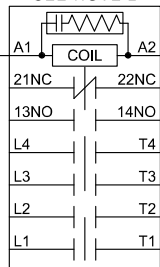
A

B

C

D

E-STOP CONTACTOR
W/ SNUBBER PN:14374
SEE NOTE 2



24N-502 BRN (24VACN) 18 AWG
24H-503 RED (24VACH) 18 AWG
24VAC POWER FOR E-STOP CONTACTOR COIL
NOTE 2
ALL CONTACTOR COILS REQUIRE A SNUBBER, EITHER CONTACTOR MANUFACTURERS RECOMMENDED SNAP ON SNUBBER OR CENTROID PN:1819 EXTERNAL QUENCHARC SNUBBER.

E-STOP SWITCH
PN14369

24H-536 GRN (24VACH) 22 AWG
24C-901 WHT
24H-509 RED
24C-902 BLK

24VDC POWER FOR E-STOP INPUT
(24VDC COM) 22 AWG
(+24VDC) 18 AWG

+24VDC CONNECTED TO THE INPUT COMMONS WITH THE INPUTS PULLED DOWN TO 24VDC COMMON IS STANDARD (SEE NOTE 1)

(24VDC COM) 22 AWG
24C-901 WHT

SIP IDENTIFICATION - XXX VALUE

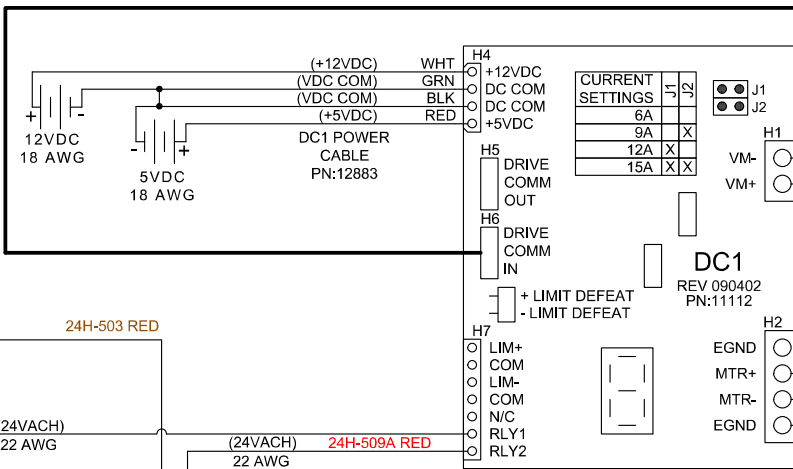
4308R-102 LF
-XXX

RESISTOR PACK (SIP) CHART

| INPUT VOLTAGE | SIP MARKING "XXX" | VALUE (OHMS) |
|---------------|-------------------|--------------|
| 5 | 471 | 470 |
| 12 | 102 | 1.0K |
| 24 | 222 | 2.2K |

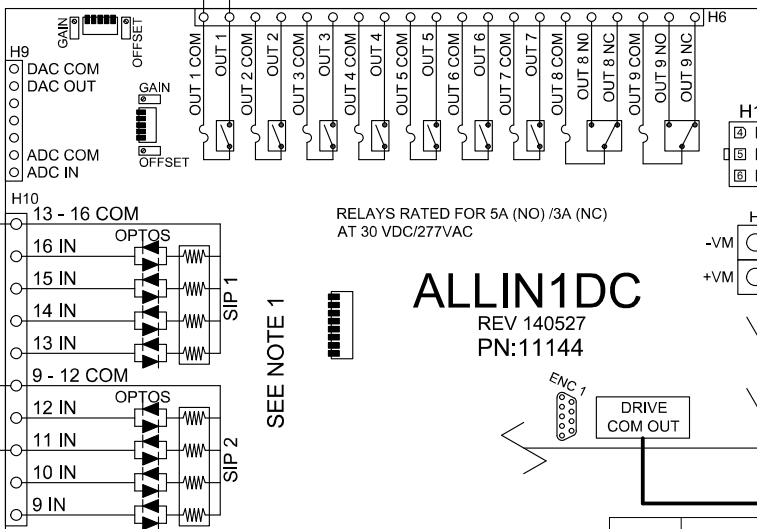
NOTE 1

INPUTS REQUIRE 5, 12, OR 24VDC EXTERNAL POWER SUPPLY. POWER SUPPLY FOR ALLIN1DC DRIVE CAN BE USED. SIP RESISTOR VALUE MUST BE APPROPRIATE FOR INPUT VOLTAGE USED FOR EACH BANK OF 4 INPUTS. (SEE CHART)



4TH AXIS
SERVO
MOTOR

(+VM) 14 AWG
(-VM) 14 AWG



ALLIN1DC
REV 140527
PN:11144

| REV | DATE | DESCRIPTION | BY |
|-----|----------|-------------------------------|-----|
| 1 | 5-4-2016 | INITIAL RELEASE | SPM |
| 2 | 6-8-2016 | CONTACTOR PN, BOARD DEPICTION | SPM |



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Title

ALLIN1DC 4TH AXIS DC1 CONNECTIONS

| | | | | |
|----------|------------------|----------|-----|-------|
| Size | A | NUMBER | Rev | 2 |
| Date | 160504 | Drawn by | SPM | |
| Filename | ALLIN1DC SET.dwg | Sheet | 20 | of 20 |

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