# POWERAIRE

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PROJECT TITLE

# WIND RANGER PLUS
# WATER CONSERVATION FOUNTAIN CONTROLLER
# AND A COLLECTION OF SOME
# COMMON FIELD WIRING CONNECTIONS



PA JOB NUMBER

004347

PA PROJECT SERIAL NUMBER

PA-WRPLUS-CUS-ELE

REV

3

# Table Of Contents



Filename: PA-WRPLUS-CUS-TOC-ELE Rev1 2023-06-16.xlsx

THIS SECTION CONTAINS NO INFORMATION AND HAS BEEN INTENTIONALLY LEFT BLANK



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| DR. S. McLain | I.D. NO.: – | CUSTOMER: | GENERAL CUSTOMER DOCS |
| DSGN. S McLain | PROJECT NO. 004347 | TITLE: | WIND RANGER PLUS<br>WATER CONSERVATION FOUNTAIN CONTROLLER<br>COMMON FIELD WIRING CONNECTIONS<br>TABLE OF CONTENTS |
| CK. | DWG. SCALE – | | |
| AP. | PLOT SCALE NONE | | |
| DATE 2025-03-21 | | DWG. No. | PA-WRPLUS-CUS-ELE-1.001 |
| PA Ser. PA-WRPLUS-CUS-ELE | SHEET 1 OF 20 | REV. No. | 3 |

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| REV. No | REVISION DESCRIPTION | REV. BY | CHK. BY | APP. .BY | DATE |
|---|---|---|---|---|---|
| 3 | Updated for Schneider Unit. | K Silverio | | | 2025-03-21 |
| 2 | Removed job number from drawings. | S McLain | | | 2023-06-16 |
| 1 | Clean up drawings for clarity. | S McLain | | | 2023-06-04 |
| 0 | Production Prints | S McLain | | | 2023-05-24 |

REVISIONS

| NO. | REVISION DESCRIPTION | REV BY | CHK BY | APP. BY | DATE |
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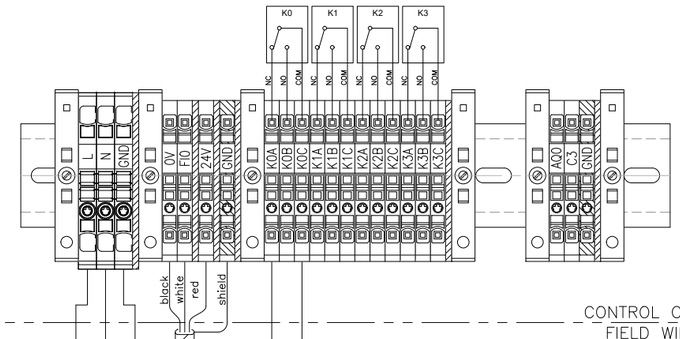
| DSGN. S McLain | PROJECT NO. 004347 | TITLE: | WIND RANGER PLUS<br>WATER CONSERVATION FOUNTAIN CONTROLLER<br>COMMON FIELD WIRING CONNECTIONS<br>REVISIONS AND NOTES |
| CK. | DWG. SCALE – | | |
| AP. | PLOT SCALE NONE | | |
| DATE 2025-03-21 | | DWG. No. | PA-WRPLUS-CUS-ELE-1.002 |
| PA Ser. PA-WRPLUS-CUS-ELE | SHEET 2 OF 20 | REV. No. | 3 |

# TYPICAL CUSTOMER INTERFACE:
# SINGLE STAGE UNIT
# CONTROL CIRCUIT 1A.

THE OUTPUT RELAYS OF THE WIND RANGER ARE INTENDED TO BE USED AS A CONTROL SIGNAL.
AS SHOWN IN THE SCHEMATIC THE USE OF A MOTOR CONTACTOR, OR WHAT IS COMMONLY
KNOWN AS A "STARTER", IS NECESSARY.
RELAY CONTACT LOAD: 8A250VAC/5A28VDC
MAXIMUM TRANSFER VOLTAGE: 250VAC/30VDC
MAXIMUM TRANSFER POWER: 2500VAC/300W




CONTROL CABINET
FIELD WIRING

DIGITAL WIND SENSOR

6(+) red
8(out) white
7(−) black

RECOMMENDED
WIND SENSOR INTERFACE CABLE:
3 CONDUCTOR SHIELDED
BELDEN 8770/8772 OR EQUIVELENT

L N GND
WIND RANGER POWER
INPUT 120VAC 50/60 Hz
2 AMP MAX.

EFFECTS PUMP
MOTOR CONTACTOR
A1 ( MCR ) A2

OVERLOAD BREAKER
OLB
95 96

$V_H$ $V_L$
CONTROL CIRCUIT POWER
VOLTAGE DETERMINED
BY MOTOR CONTACTOR
CIRCUIT REQUIREMENTS
12V/AC−240/AC
12−30V/DC



CIRCUIT DESCRIPTION
1. WIND RANGER QUIESCENT, NO STAGES ACTIVE − MCR ON.

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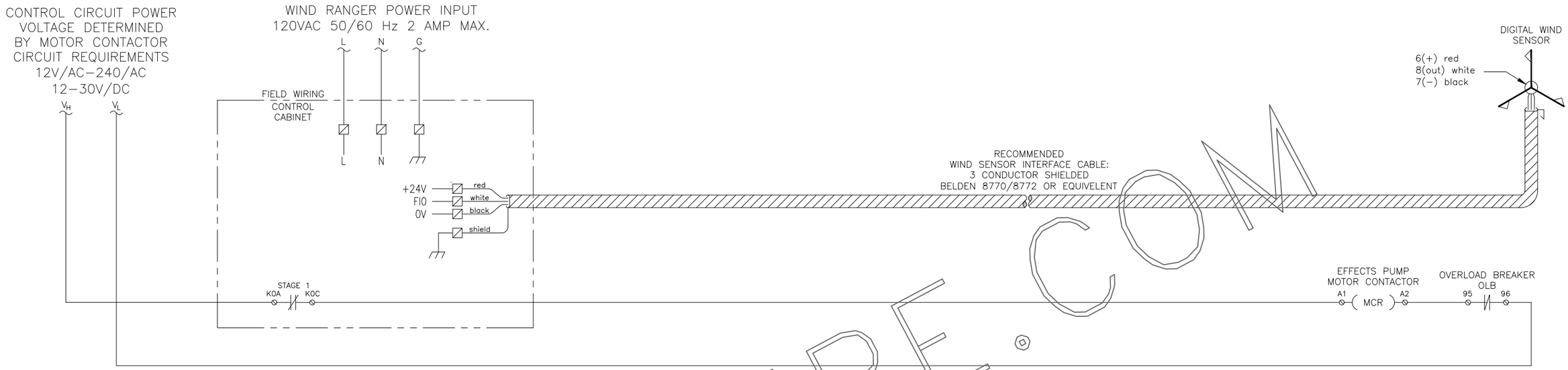
| CK. | DWG. SCALE − | | |
| AP. | PLOT SCALE NONE | | |
| DATE 2025−03−21 | | DWG. No. | PA−WRPLUS−CUS−ELE−1.101 |
| PA Ser. PA−WRPLUS−CUS−ELE | SHEET 3 OF 20 | REV. No. | 3 |

# TYPICAL CUSTOMER INTERFACE:
# SINGLE STAGE UNIT
# CONTROL CIRCUIT 1A.






CIRCUIT DESCRIPTION
1. WIND RANGER QUIESCENT, NO STAGES ACTIVE – MCR ON.

| NO. | REVISION DESCRIPTION | REV BY | CHK BY | APP. BY | DATE |
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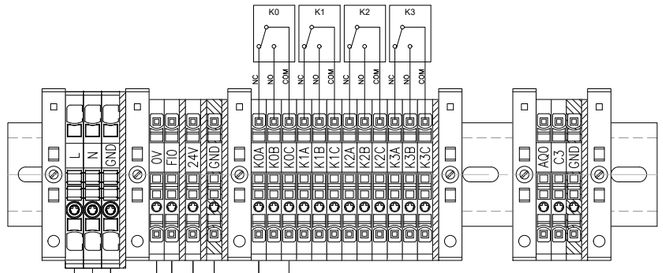
| CK. | DWG. SCALE – | | |
| AP. | PLOT SCALE NONE | | |
| DATE 2025–03–21 | | DWG. No. | PA–WRPLUS–CUS–ELE–1.102 |
| PA Ser. PA–WRPLUS–CUS–ELE | SHEET 4 OF 20 | | REV. No. 3 |

## TYPICAL CUSTOMER INTERFACE: SINGLE STAGE UNIT CONTROL CIRCUIT 1B.

THE OUTPUT RELAYS OF THE WIND RANGER ARE INTENDED TO BE USED AS A CONTROL SIGNAL. AS SHOWN IN THE SCHEMATIC THE USE OF A MOTOR CONTACTOR, OR WHAT IS COMMONLY KNOWN AS A "STARTER", IS NECESSARY.
RELAY CONTACT LOAD: 8A250VAC/5A28VDC
MAXIMUM TRANSFER VOLTAGE: 250VAC/30VDC
MAXIMUM TRANSFER POWER: 2500VAC/300W




CONTROL CABINET FIELD WIRING

DIGITAL WIND SENSOR

6(+) red
8(out) white
7(−) black

RECOMMENDED WIND SENSOR INTERFACE CABLE: 3 CONDUCTOR SHIELDED BELDEN 8770/8772 OR EQUIVALENT

L N GND

WIND RANGER POWER INPUT 120VAC 50/60 Hz 2 AMP MAX.

SS1 EFFECTS PUMP OFF HAND AUTO HOA

REAL TIME CLOCK

EFFECTS PUMP MOTOR CONTACTOR A1 MCR A2

OVERLOAD BREAKER OLB 95 96

$V_H$ $V_L$

CONTROL CIRCUIT POWER VOLTAGE DETERMINED BY MOTOR CONTACTOR CIRCUIT REQUIREMENTS 12V/AC−240/AC 12−30V/DC

LOGIC TABLE

| WIND RANGER OUTPUTS | | | ANCILLIARY DEVICES | | | | OUTPUT | | |
|---|---|---|---|---|---|---|---|---|---|
| – | – | 1ST STAGE | HAND | OFF | AUTO | TIME CLOCK | MCR | – | – |
| – | – | X | 1 | 0 | 0 | X | 1 | – | – |
| – | – | X | 0 | 1 | 0 | X | 0 | – | – |
| – | – | X | 0 | 0 | 1 | 0 | 0 | – | – |
| – | – | 0 | 0 | 0 | 1 | 1 | 1 | – | – |
| – | – | 1 | 0 | 0 | 1 | 1 | 0 | – | – |

QUIESCENT
1ST STAGE ACTIVE

0=OFF
1=ON
X=DON'T CARE
–=NOT APPLICABLE

CIRCUIT DESCRIPTION WITH HOA IN AUTO AND REAL TIME CLOCK ACTIVE:

1. WIND RANGER QUIESCENT, NO STAGES ACTIVE – MCR ON.
2. WIND RANGER 1ST STAGE ACTIVE – MCR OFF.



| NO. | REVISION DESCRIPTION | REV BY | CHK BY | APP. BY | DATE |
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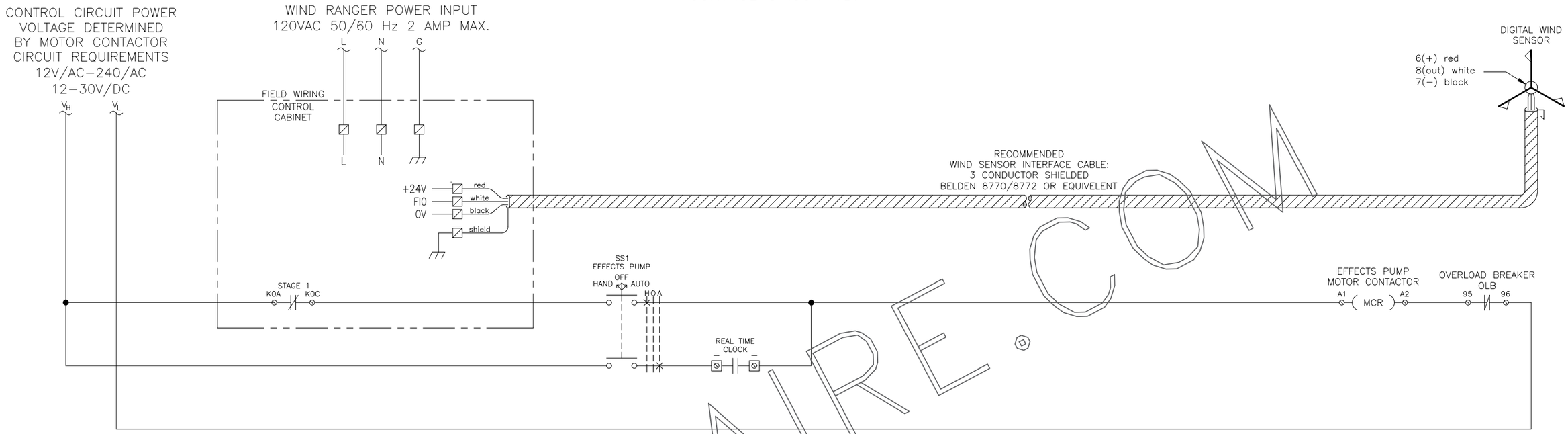
| DSGN. S McLain | PROJECT NO. 004347 | TITLE: | WIND RANGER PLUS<br>WATER CONSERVATION FOUNTAIN CONTROLLER<br>COMMON FIELD WIRING CONNECTIONS<br>SINGLE STAGE POINT TO POINT EXAMPLE 1B CONTACTOR |
| CK. | DWG. SCALE – | | |
| AP. | PLOT SCALE NONE | | |
| DATE 2025−03−21 | | DWG. No. | PA−WRPLUS−CUS−ELE−1.103 |
| PA Ser. PA−WRPLUS−CUS−ELE | SHEET 5 OF 20 | | REV. No. 3 |

# TYPICAL CUSTOMER INTERFACE: SINGLE STAGE UNIT CONTROL CIRCUIT 1B.






LOGIC TABLE

| WIND RANGER OUTPUTS | | | ANCILLIARY DEVICES | | | | OUTPUT | | |
|---|---|---|---|---|---|---|---|---|---|
| – | – | 1ST STAGE | HAND | OFF | AUTO | TIME CLOCK | MCR | – | – |
| – | – | X | 1 | 0 | 0 | X | 1 | – | – |
| – | – | X | 0 | 1 | 0 | X | 0 | – | – |
| – | – | X | 0 | 0 | 1 | 0 | 0 | – | – |
| – | – | 0 | 0 | 0 | 1 | 1 | 1 | – | – |
| – | – | 1 | 0 | 0 | 1 | 1 | 0 | – | – |

QUIESCENT
1ST STAGE ACTIVE

0=OFF
1=ON
X=DON'T CARE
–=NOT APPLICABLE

CIRCUIT DESCRIPTION WITH HOA IN AUTO AND REAL TIME CLOCK ACTIVE:

1. WIND RANGER QUIESCENT, NO STAGES ACTIVE – MCR ON.
2. WIND RANGER 1ST STAGE ACTIVE – MCR OFF.

| NO. | REVISION DESCRIPTION | REV BY | CHK BY | APP. BY | DATE |
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| CK. | DWG. SCALE – | | |
| AP. | PLOT SCALE NONE | | |
| DATE 2025–03–21 | | | |
| PA Ser. PA–WRPLUS–CUS–ELE | SHEET 6 OF 20 | | |

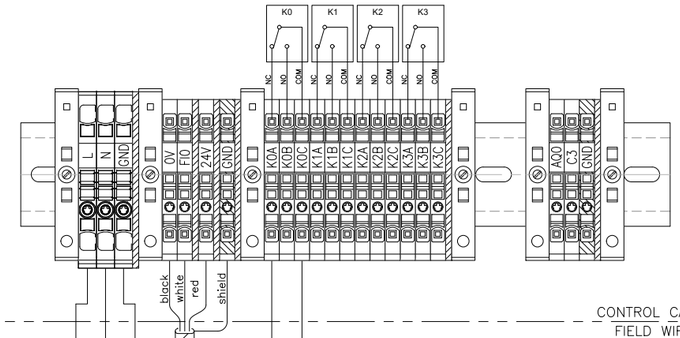
CUSTOMER: GENERAL CUSTOMER DOCS

TITLE: WIND RANGER PLUS
WATER CONSERVATION FOUNTAIN CONTROLLER
COMMON FIELD WIRING CONNECTIONS
SINGLE STAGE SCHEMATIC EXAMPLE 1B CONTACTOR

DWG. No. PA–WRPLUS–CUS–ELE–1.104 REV. No. 3

# TYPICAL CUSTOMER INTERFACE: SINGLE STAGE UNIT CONTROL CIRCUIT 1C.

THE OUTPUT RELAYS OF THE WIND RANGER ARE INTENDED TO BE USED AS A CONTROL SIGNAL. AS SHOWN IN THE SCHEMATIC THE USE OF A MOTOR CONTACTOR, OR WHAT IS COMMONLY KNOWN AS A "STARTER", IS NECESSARY.
RELAY CONTACT LOAD: 8A250VAC/5A28VDC
MAXIMUM TRANSFER VOLTAGE: 250VAC/30VDC
MAXIMUM TRANSFER POWER: 2500VAC/300W




CONTROL CABINET FIELD WIRING

L N GND
WIND RANGER POWER INPUT 120VAC 50/60 Hz 2 AMP MAX.

DIGITAL WIND SENSOR
6(+) red
8(out) white
7(–) black

RECOMMENDED WIND SENSOR INTERFACE CABLE: 3 CONDUCTOR SHIELDED BELDEN 8770/8772 OR EQUIVALENT

PENTAIR TYPE CONTROLLER
COM
SPEED 1



LOGIC TABLE

| | WIND RANGER OUTPUTS | | | MOTOR CONTROLLER INPUTS | | |
|---|---|---|---|---|---|---|
| | – | – | 1ST STAGE | SPEED 1 | – | – |
| QUIESCENT | – | – | 0 | 1 | – | – |
| 1ST STAGE ACTIVE | – | – | 1 | 0 | – | – |

0=OFF
1=ON
–=NOT APPLICABLE

CIRCUIT DESCRIPTION:

1. WIND RANGER 1ST STAGE QUIESCENT – PUMP CONTROLLER SPEED 1 INPUT HIGH.
2. WIND RANGER 1ST STAGE ACTIVE – PUMP CONTROLLER SPEED 1 INPUT LOW.

| NO. | REVISION DESCRIPTION | REV BY | CHK BY | APP. BY | DATE |
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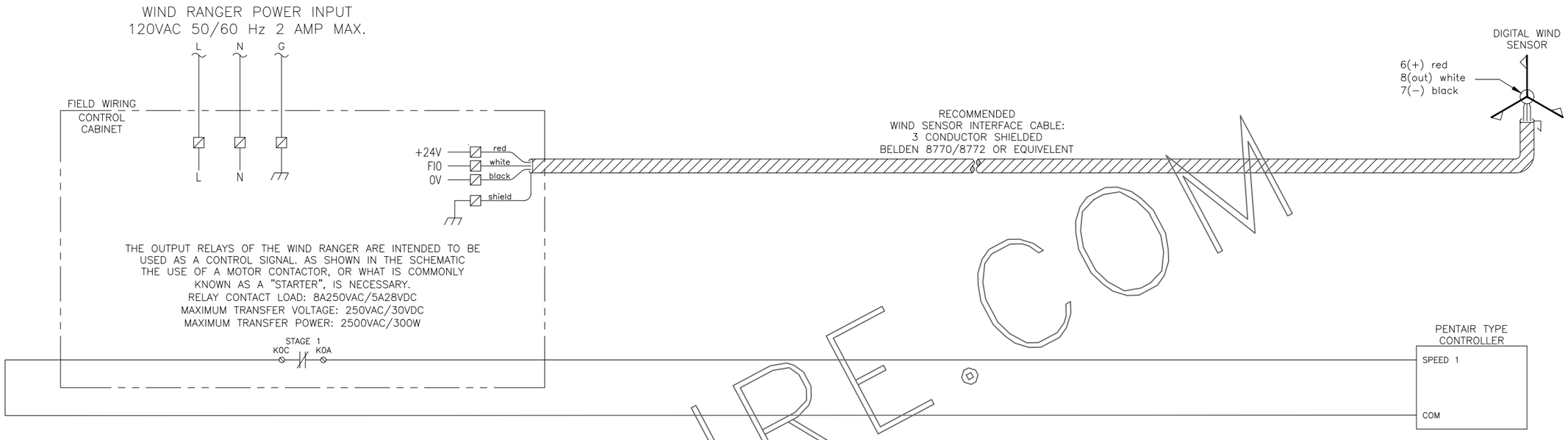
| CK. | DWG. SCALE – | | |
| AP. | PLOT SCALE NONE | | |
| DATE 2025-03-21 | | | |
| PA Ser. PA-WRPLUS-CUS-ELE | SHEET 7 OF 20 | | |

CUSTOMER: GENERAL CUSTOMER DOCS

TITLE: WIND RANGER PLUS
WATER CONSERVATION FOUNTAIN CONTROLLER
COMMON FIELD WIRING CONNECTIONS
SINGLE STAGE POINT TO POINT EXAMPLE 1C PENT

DWG. No. PA-WRPLUS-CUS-ELE-1.105 REV. No. 3

# TYPICAL CUSTOMER INTERFACE:
# SINGLE STAGE UNIT
# CONTROL CIRCUIT 1C.






LOGIC TABLE

| WIND RANGER OUTPUTS | | | MOTOR CONTROLLER INPUTS | | | |
|---|---|---|---|---|---|---|
| – | – | 1ST STAGE | SPEED 1 | – | – | 0=OFF |
| – | – | 0 | 1 | – | – | 1=ON |
| – | – | 1 | 0 | – | – | –=NOT APPLICABLE |

QUIESCENT
1ST STAGE ACTIVE

CIRCUIT DESCRIPTION:

1. WIND RANGER 1ST STAGE QUIESCENT – PUMP CONTROLLER SPEED 1 INPUT HIGH.
2. WIND RANGER 1ST STAGE ACTIVE – PUMP CONTROLLER SPEED 1 INPUT LOW.

| NO. | REVISION DESCRIPTION | REV BY | CHK BY | APP. BY | DATE |
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| CK. | DWG. SCALE – | | |
| AP. | PLOT SCALE NONE | | |
| DATE 2025-03-21 | | | |
| PA Ser. PA-WRPLUS-CUS-ELE | SHEET 8 OF 20 | | |

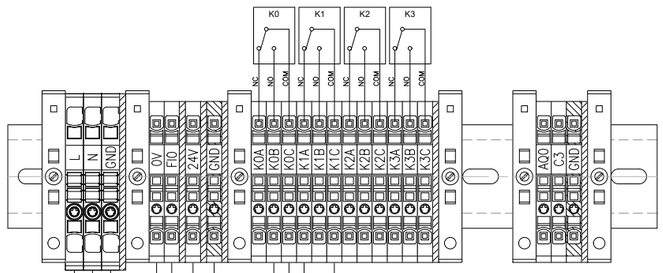
CUSTOMER: GENERAL CUSTOMER DOCS

TITLE: WIND RANGER PLUS
WATER CONSERVATION FOUNTAIN CONTROLLER
COMMON FIELD WIRING CONNECTIONS
SINGLE STAGE SCHEMATIC EXAMPLE 1C PENT

DWG. No. PA-WRPLUS-CUS-ELE-1.106 REV. No. 3

# TYPICAL CUSTOMER INTERFACE:
# TWO STAGE UNIT
# CONTROL CIRCUIT 2A.

THE OUTPUT RELAYS OF THE WIND RANGER ARE INTENDED TO BE USED AS A CONTROL SIGNAL.
AS SHOWN IN THE SCHEMATIC THE USE OF A MOTOR CONTACTOR, OR WHAT IS COMMONLY
KNOWN AS A "STARTER", IS NECESSARY.
RELAY CONTACT LOAD: 8A250VAC/5A28VDC
MAXIMUM TRANSFER VOLTAGE: 250VAC/30VDC
MAXIMUM TRANSFER POWER: 2500VAC/300W




CONTROL CABINET
FIELD WIRING

DIGITAL WIND
SENSOR

6(+) red
8(out) white
7(−) black

RECOMMENDED
WIND SENSOR INTERFACE CABLE:
3 CONDUCTOR SHIELDED
BELDEN 8770/8772 OR EQUIVALENT

L N GND
WIND RANGER POWER
INPUT 120VAC 50/60 Hz
2 AMP MAX.

SS1
EFFECTS PUMP
OFF
HAND AUTO
HOA

REAL TIME
CLOCK

VFD
VARIABLE FREQUENCY
DRIVE

INPUT 1
(SPEED 1)

RUN
(DEFAULT SPEED)

COM

LOGIC TABLE

| WIND RANGER OUTPUTS | | | ANCILLIARY DEVICES | | | | VFD CONTROLLER INPUTS | | |
|---|---|---|---|---|---|---|---|---|---|
| – | 2ND STAGE | 1ST STAGE | HAND | OFF | AUTO | TIME CLOCK | RUN | INPUT 1 | – |
| – | X | X | 1 | 0 | 0 | X | 1 | 0 | – |
| – | X | X | 0 | 1 | 0 | X | 0 | 0 | – |
| – | X | X | 0 | 0 | 1 | 0 | 0 | X | – |
| QUIESCENT – | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | – |
| 1ST STAGE ACTIVE – | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | – |
| – | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | – |

0=OFF
1=ON
X=DON'T CARE
–=NOT APPLICABLE

CIRCUIT DESCRIPTION WITH HOA IN AUTO AND REAL TIME CLOCK ACTIVE:

1. WIND RANGER QUIESCENT, NO STAGES ACTIVE – VFD RUN SIGNAL.
2. WIND RANGER 1ST STAGE ACTIVE – VFD RUN AND INPUT 1 SIGNAL.
3. WIND RANGER 2ND STAGE ACTIVE – NO OUTPUT SIGNALS TO VFD.



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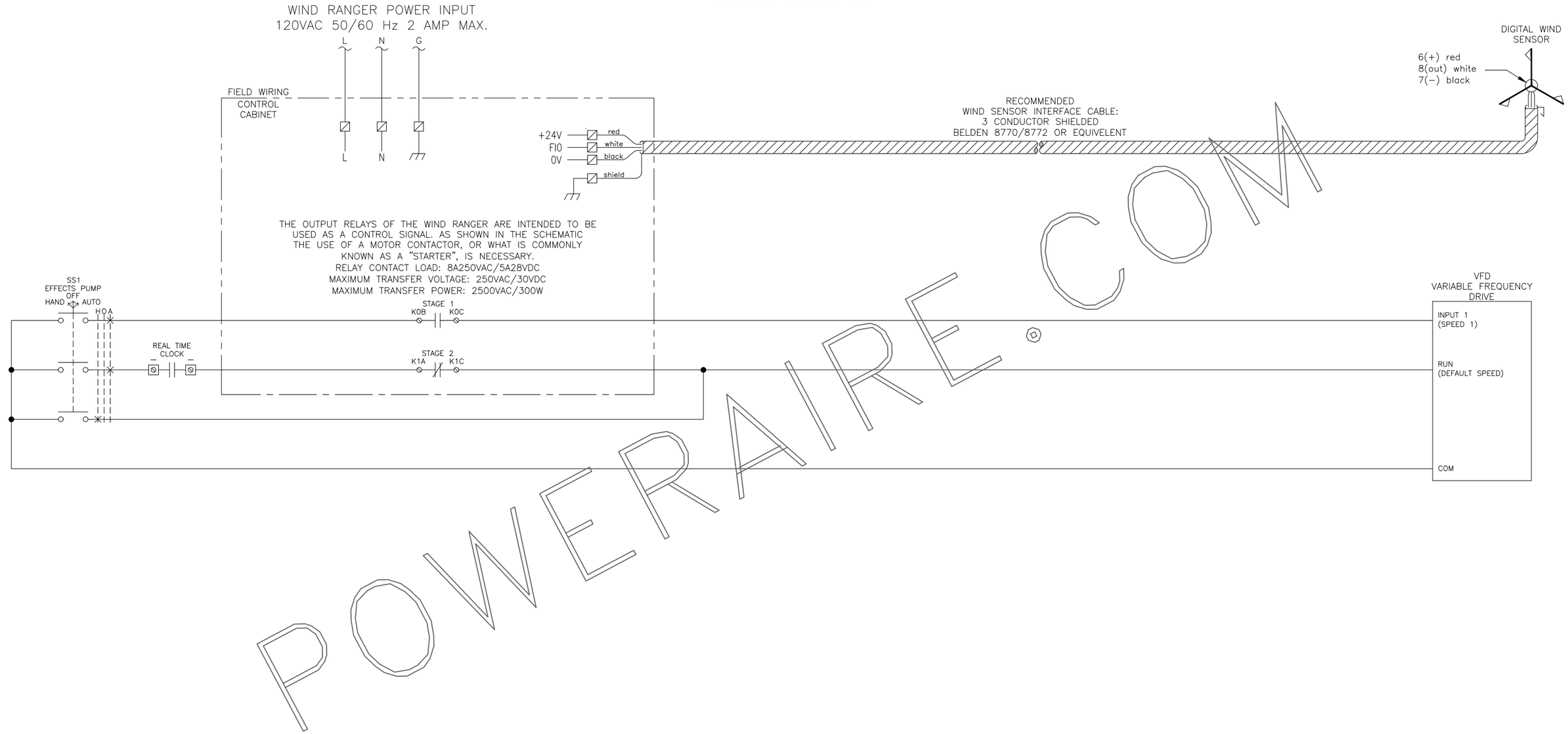
| CK. | DWG. SCALE – | | |
| AP. | PLOT SCALE NONE | | |
| DATE 2025–03–21 | | DWG. No. | PA–WRPLUS–CUS–ELE–1.201 |
| PA Ser. PA–WRPLUS–CUS–ELE | SHEET 9 OF 20 | REV. No. | 3 |

# TYPICAL CUSTOMER INTERFACE:
# TWO STAGE UNIT
# CONTROL CIRCUIT 2A






LOGIC TABLE

| WIND RANGER OUTPUTS | | | ANCILLIARY DEVICES | | | | VFD CONTROLLER INPUTS | | |
|---|---|---|---|---|---|---|---|---|---|
| – | 2ND STAGE | 1ST STAGE | HAND | OFF | AUTO | TIME CLOCK | RUN | INPUT 1 | – |
| – | X | X | 1 | 0 | 0 | X | 1 | 0 | – |
| – | X | X | 0 | 1 | 0 | X | 0 | 0 | – |
| – | X | X | 0 | 0 | 1 | 0 | 0 | X | – |
| – | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | – |
| – | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | – |
| – | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | – |

QUIESCENT
1ST STAGE ACTIVE

0=OFF
1=ON
X=DON'T CARE
–=NOT APPLICABLE

CIRCUIT DESCRIPTION WITH HOA IN AUTO AND REAL TIME CLOCK ACTIVE:

1. WIND RANGER QUIESCENT, NO STAGES ACTIVE – VFD RUN SIGNAL.
2. WIND RANGER 1ST STAGE ACTIVE – VFD RUN AND INPUT 1 SIGNAL.
3. WIND RANGER 2ND STAGE ACTIVE – NO OUTPUT SIGNALS TO VFD.

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| PA Ser. PA–WRPLUS–CUS–ELE | SHEET 10 OF 20 | | |

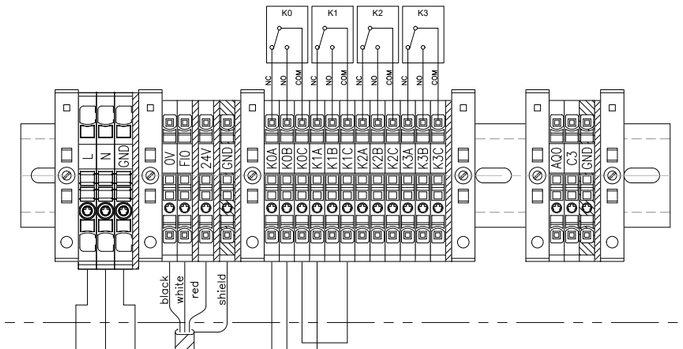
CUSTOMER: GENERAL CUSTOMER DOCS

TITLE: WIND RANGER PLUS
WATER CONSERVATION FOUNTAIN CONTROLLER
COMMON FIELD WIRING CONNECTIONS
TWO STAGE SCHEMATIC EXAMPLE 2A VFD

DWG. No. PA–WRPLUS–CUS–ELE–1.202 REV. No. 3

## TYPICAL CUSTOMER INTERFACE: TWO STAGE UNIT CONTROL CIRCUIT 2B.

THE OUTPUT RELAYS OF THE WIND RANGER ARE INTENDED TO BE USED AS A CONTROL SIGNAL. AS SHOWN IN THE SCHEMATIC THE USE OF A MOTOR CONTACTOR, OR WHAT IS COMMONLY KNOWN AS A "STARTER", IS NECESSARY.
RELAY CONTACT LOAD: 8A250VAC/5A28VDC
MAXIMUM TRANSFER VOLTAGE: 250VAC/30VDC
MAXIMUM TRANSFER POWER: 2500VAC/300W




L N GND
WIND RANGER POWER
INPUT 120VAC 50/60 Hz
2 AMP MAX.

DIGITAL WIND SENSOR
6(+) red
8(out) white
7(–) black

RECOMMENDED
WIND SENSOR INTERFACE CABLE:
3 CONDUCTOR SHIELDED
BELDEN 8770/8772 OR EQUIVELENT

PENTAIR TYPE CONTROLLER
COM
SPEED 1
SPEED 2

WIND RANGER POWER
INPUT 120VAC 50/60 Hz
2 AMP MAX.

LOGIC TABLE

| | WIND RANGER OUTPUTS | | | MOTOR CONTROLLER INPUTS | | | |
|---|---|---|---|---|---|---|---|
| | – | 2ND STAGE | 1ST STAGE | SPEED 1 | SPEED 2 | – | |
| QUIESCENT | – | 0 | 0 | 1 | 0 | – | 0=OFF |
| 1ST STAGE ACTIVE | – | 0 | 1 | 0 | 1 | – | 1=ON |
| 2ND STAGE ACTIVE | – | 1 | 1 | 0 | 0 | – | –=NOT APPLICABLE |

CIRCUIT DESCRIPTION WITH HOA IN AUTO AND REAL TIME CLOCK ACTIVE:

1. WIND RANGER QUIESCENT, NO STAGES ACTIVE – CONTROLLER SPEED 1 SIGNAL.
2. WIND RANGER 1ST STAGE ACTIVE – CONTROLLER SPEED 2 SIGNAL.
3. WIND RANGER 2ND STAGE ACTIVE – NO OUTPUT SIGNALS TO CONTROLLER.



| NO. | REVISION DESCRIPTION | REV BY | CHK BY | APP. BY | DATE |
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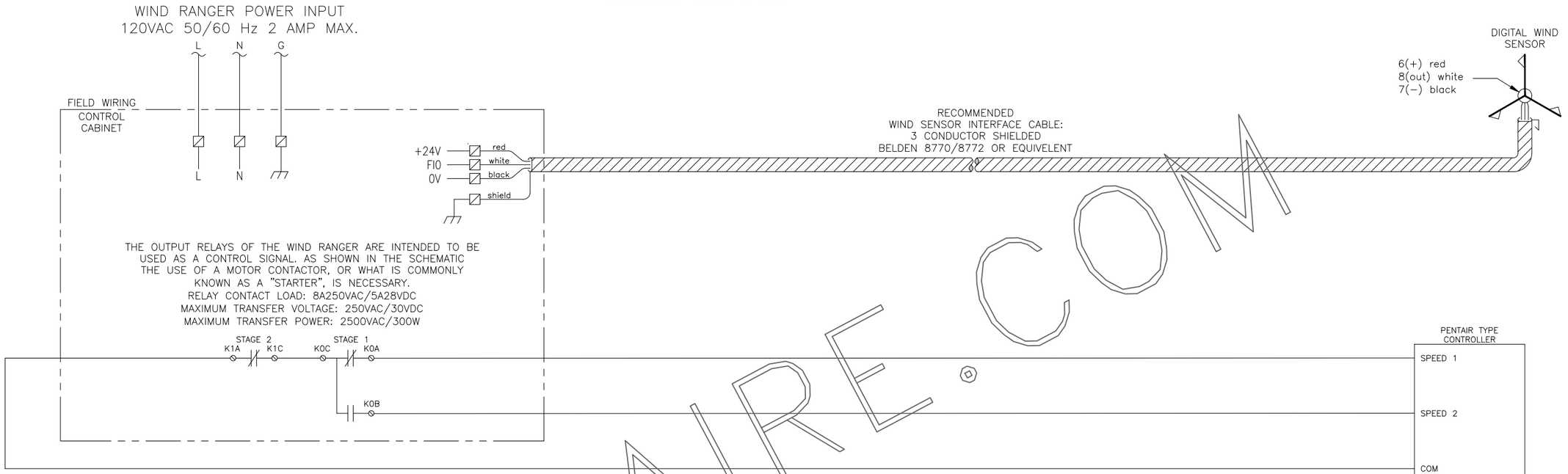
| DR. S. McLain | I.D. NO.: – | | |
| DSGN. S McLain | PROJECT NO. 004347 | | |
| CK. | DWG. SCALE – | | |
| AP. | PLOT SCALE NONE | | |
| DATE 2025-03-21 | | | |
| PA Ser. PA–WRPLUS–CUS–ELE | SHEET 11 OF 20 | | |

CUSTOMER: GENERAL CUSTOMER DOCS

TITLE: WIND RANGER PLUS
WATER CONSERVATION FOUNTAIN CONTROLLER
COMMON FIELD WIRING CONNECTIONS
TWO STAGE POINT TO POINT EXAMPLE 2B PENT

DWG. No. PA–WRPLUS–CUS–ELE–1.203 REV. No. 3

# TYPICAL CUSTOMER INTERFACE:
# TWO STAGE UNIT
# CONTROL CIRCUIT 2B.






LOGIC TABLE

| | WIND RANGER OUTPUTS | | | MOTOR CONTROLLER INPUTS | | | |
|---|---|---|---|---|---|---|---|
| | – | 2ND STAGE | 1ST STAGE | SPEED 1 | SPEED 2 | – | |
| QUIESCENT | – | 0 | 0 | 1 | 0 | – | 0=OFF |
| 1ST STAGE ACTIVE | – | 0 | 1 | 0 | 1 | – | 1=ON |
| 2ND STAGE ACTIVE | – | 1 | 1 | 0 | 0 | – | –=NOT APPLICABLE |

CIRCUIT DESCRIPTION WITH HOA IN AUTO AND REAL TIME CLOCK ACTIVE:

1. WIND RANGER QUIESCENT, NO STAGES ACTIVE – CONTROLLER SPEED 1 SIGNAL.
2. WIND RANGER 1ST STAGE ACTIVE – CONTROLLER SPEED 2 SIGNAL.
3. WIND RANGER 2ND STAGE ACTIVE – NO OUTPUT SIGNALS TO CONTROLLER.

| NO. | REVISION DESCRIPTION | REV BY | CHK BY | APP. BY | DATE |
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| CK. | DWG. SCALE – | | |
| AP. | PLOT SCALE NONE | | |
| DATE 2025-03-21 | | | |
| PA Ser. PA-WRPLUS-CUS-ELE | SHEET 12 OF 20 | | |

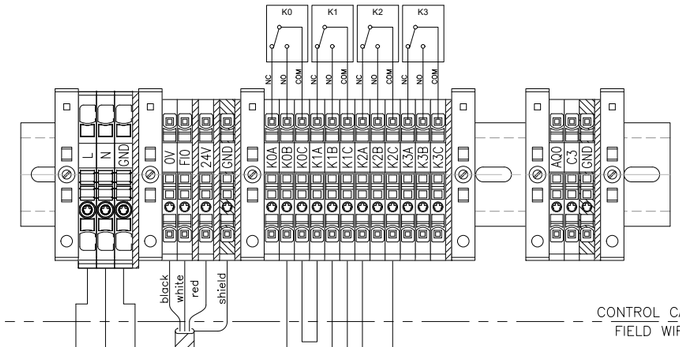
CUSTOMER: GENERAL CUSTOMER DOCS

TITLE: WIND RANGER PLUS
WATER CONSERVATION FOUNTAIN CONTROLLER
COMMON FIELD WIRING CONNECTIONS
TWO STAGE SCHEMATIC EXAMPLE 2B PENT

DWG. No. PA-WRPLUS-CUS-ELE-1.204 REV. No. 3

# TYPICAL CUSTOMER INTERFACE:
# THREE STAGE UNIT
# CONTROL CIRCUIT 3A.

THE OUTPUT RELAYS OF THE WIND RANGER ARE INTENDED TO BE USED AS A CONTROL SIGNAL.
AS SHOWN IN THE SCHEMATIC THE USE OF A MOTOR CONTACTOR, OR WHAT IS COMMONLY
KNOWN AS A "STARTER", IS NECESSARY.
RELAY CONTACT LOAD: 8A250VAC/5A28VDC
MAXIMUM TRANSFER VOLTAGE: 250VAC/30VDC
MAXIMUM TRANSFER POWER: 2500VAC/300W




CONTROL CABINET
FIELD WIRING

DIGITAL WIND SENSOR

6(+) red
8(out) white
7(–) black

RECOMMENDED
WIND SENSOR INTERFACE CABLE:
3 CONDUCTOR SHIELDED
BELDEN 8770/8772 OR EQUIVELENT

L N GND
WIND RANGER POWER
INPUT 120VAC 50/60 Hz
2 AMP MAX.

SS1
EFFECTS PUMP
OFF
HAND AUTO
HOA

REAL TIME
CLOCK

VFD
VARIABLE FREQUENCY
DRIVE

INPUT 1
(SPEED 1)

INPUT 2
(SPEED 2)

RUN
(DEFAULT SPEED)

COM

LOGIC TABLE

| WIND RANGER OUTPUTS | | | ANCILLIARY DEVICES | | | | VFD CONTROLLER INPUTS | | |
|---|---|---|---|---|---|---|---|---|---|
| 3RD STAGE | 2ND STAGE | 1ST STAGE | HAND | OFF | AUTO | TIME CLOCK | RUN | INPUT 1 | INPUT 2 |
| X | X | X | 1 | 0 | 0 | X | 1 | 0 | 0 |
| X | X | X | 0 | 1 | 0 | X | 0 | 0 | 0 |
| X | X | X | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| QUIESCENT | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 |
| 1ST STAGE ACTIVE | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 |
| 2ND STAGE ACTIVE | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 |
| 3RD STAGE ACTIVE | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 |

0=OFF
1=ON
X=DON'T CARE
–=NOT APPLICABLE

CIRCUIT DESCRIPTION WITH HOA IN AUTO AND REAL TIME CLOCK ACTIVE:

1. WIND RANGER QUIESCENT, NO STAGES ACTIVE – VFD RUN SIGNAL.
2. WIND RANGER 1ST STAGE ACTIVE – VFD RUN AND INPUT 1 SIGNAL.
3. WIND RANGER 2ND STAGE ACTIVE – VFD RUN AND INPUT 2 SIGNAL.
4. WIND RANGER 3RD STAGE ACTIVE – NO OUTPUT SIGNALS TO VFD.



| NO. | REVISION DESCRIPTION | REV BY | CHK BY | APP. BY | DATE |
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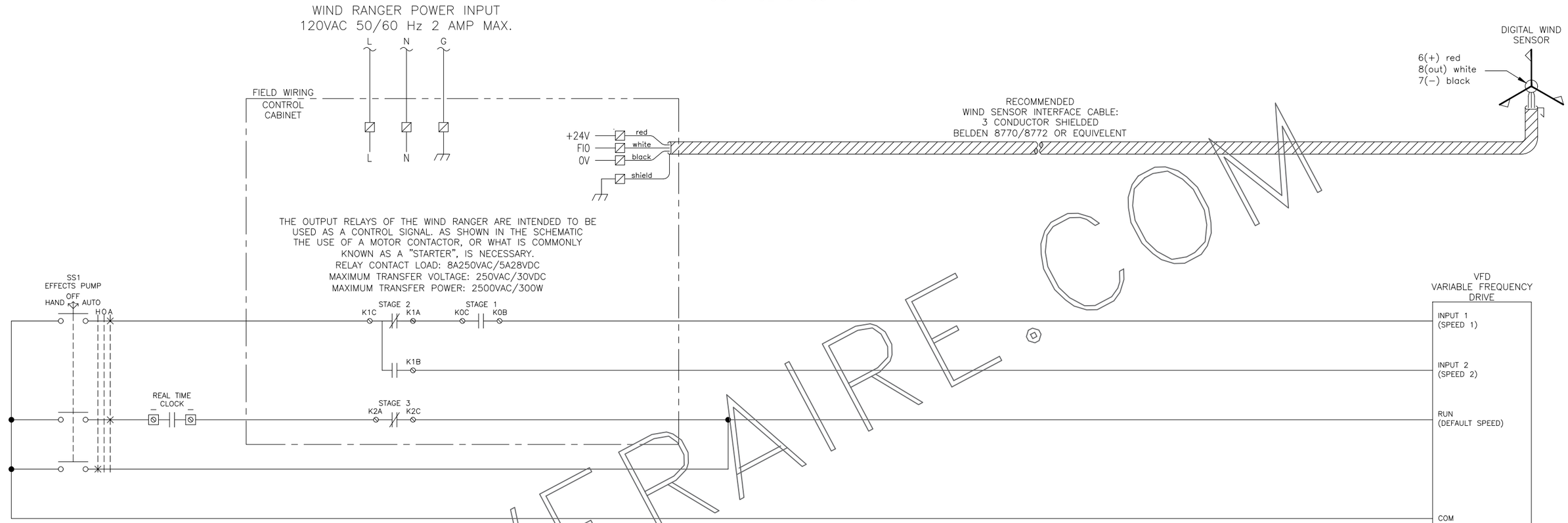
| DR. S. McLain | I.D. NO.: – | CUSTOMER: | GENERAL CUSTOMER DOCS |
| DSGN. S McLain | PROJECT NO. 004347 | TITLE: | WIND RANGER PLUS<br>WATER CONSERVATION FOUNTAIN CONTROLLER<br>COMMON FIELD WIRING CONNECTIONS<br>THREE STAGE POINT TO POINT EXAMPLE 3A VFD |
| CK. | DWG. SCALE – | | |
| AP. | PLOT SCALE NONE | | |
| DATE 2025–03–21 | | | |
| PA Ser. PA–WRPLUS–CUS–ELE | SHEET 13 OF 20 | DWG. No. | PA–WRPLUS–CUS–ELE–1.301 |
| | | REV. No. | 3 |

# TYPICAL CUSTOMER INTERFACE:
# THREE STAGE UNIT
# CONTROL CIRCUIT 3A.






LOGIC TABLE

| WIND RANGER OUTPUTS | | | ANCILLIARY DEVICES | | | | VFD CONTROLLER INPUTS | | |
|---|---|---|---|---|---|---|---|---|---|
| 3RD STAGE | 2ND STAGE | 1ST STAGE | HAND | OFF | AUTO | TIME CLOCK | RUN | INPUT 1 | INPUT 2 |
| X | X | X | 1 | 0 | 0 | X | 1 | 0 | 0 |
| X | X | X | 0 | 1 | 0 | X | 0 | 0 | 0 |
| X | X | X | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 |
| 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 |
| 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 |

QUIESCENT
1ST STAGE ACTIVE
2ND STAGE ACTIVE
3RD STAGE ACTIVE

0=OFF
1=ON
X=DON'T CARE
−=NOT APPLICABLE

CIRCUIT DESCRIPTION WITH HOA IN AUTO AND REAL TIME CLOCK ACTIVE:

1. WIND RANGER QUIESCENT, NO STAGES ACTIVE – VFD RUN SIGNAL.
2. WIND RANGER 1ST STAGE ACTIVE – VFD RUN AND INPUT 1 SIGNAL.
3. WIND RANGER 2ND STAGE ACTIVE – VFD RUN AND INPUT 2 SIGNAL.
4. WIND RANGER 3RD STAGE ACTIVE – NO OUTPUT SIGNALS TO VFD.

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| DSGN. S McLain | PROJECT NO. 004347 | | |
| CK. | DWG. SCALE – | | |
| AP. | PLOT SCALE NONE | | |
| DATE 2025-03-21 | | | |
| PA Ser. PA−WRPLUS−CUS−ELE | SHEET 14 OF 20 | | |

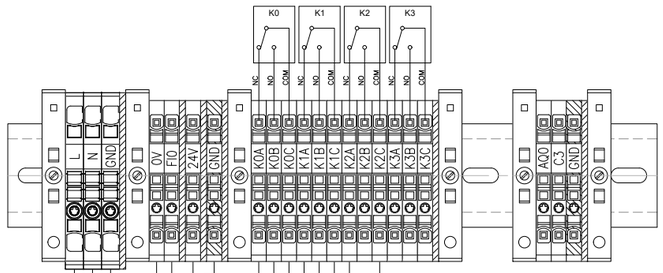
CUSTOMER: GENERAL CUSTOMER DOCS

TITLE: WIND RANGER PLUS
WATER CONSERVATION FOUNTAIN CONTROLLER
COMMON FIELD WIRING CONNECTIONS
THREE STAGE SCHEMATIC EXAMPLE 3A VFD

DWG. No. PA−WRPLUS−CUS−ELE−1.302 REV. No. 3

# TYPICAL CUSTOMER INTERFACE:
# SINGLE STAGE UNIT
# CONTROL CIRCUIT 3B.

THE OUTPUT RELAYS OF THE WIND RANGER ARE INTENDED TO BE USED AS A CONTROL SIGNAL.
AS SHOWN IN THE SCHEMATIC THE USE OF A MOTOR CONTACTOR, OR WHAT IS COMMONLY
KNOWN AS A "STARTER", IS NECESSARY.
RELAY CONTACT LOAD: 8A250VAC/5A28VDC
MAXIMUM TRANSFER VOLTAGE: 250VAC/30VDC
MAXIMUM TRANSFER POWER: 2500VAC/300W




CONTROL CABINET
WIRING
FIELD WIRING

DIGITAL WIND
SENSOR

6(+) red
8(out) white
7(−) black

RECOMMENDED
WIND SENSOR INTERFACE CABLE:
3 CONDUCTOR SHIELDED
BELDEN 8770/8772 OR EQUIVELENT

L N GND
WIND RANGER POWER
INPUT 120VAC 50/60 Hz
2 AMP MAX.

PENTAIR TYPE
CONTROLLER

COM
SPEED 1
SPEED 2
SPEED 3



LOGIC TABLE

| | WIND RANGER OUTPUTS | | | MOTOR CONTROLLER INPUTS | | |
|---|---|---|---|---|---|---|
| | 3RD STAGE | 2ND STAGE | 1ST STAGE | SPEED 1 | SPEED 2 | SPEED 3 |
| QUIESCENT | 0 | 0 | 0 | 1 | 0 | 0 |
| 1ST STAGE ACTIVE | 0 | 0 | 1 | 0 | 1 | 0 |
| 2ND STAGE ACTIVE | 0 | 1 | 1 | 0 | 0 | 1 |
| 3RD STAGE ACTIVE | 1 | 1 | 1 | 0 | 0 | 0 |

0=OFF
1=ON

CIRCUIT DESCRIPTION WITH HOA IN AUTO AND REAL TIME CLOCK ACTIVE:

1. WIND RANGER QUIESCENT, NO STAGES ACTIVE – CONTROLLER SPEED 1 SIGNAL.
2. WIND RANGER 1ST STAGE ACTIVE – CONTROLLER SPEED 2 SIGNAL.
3. WIND RANGER 2ND STAGE ACTIVE – CONTROLLER SPEED 3 SIGNAL.
4. WIND RANGER 3RD STAGE ACTIVE – NO OUTPUT SIGNALS TO CONTROLLER.

| NO. | REVISION DESCRIPTION | REV BY | CHK BY | APP. BY | DATE |
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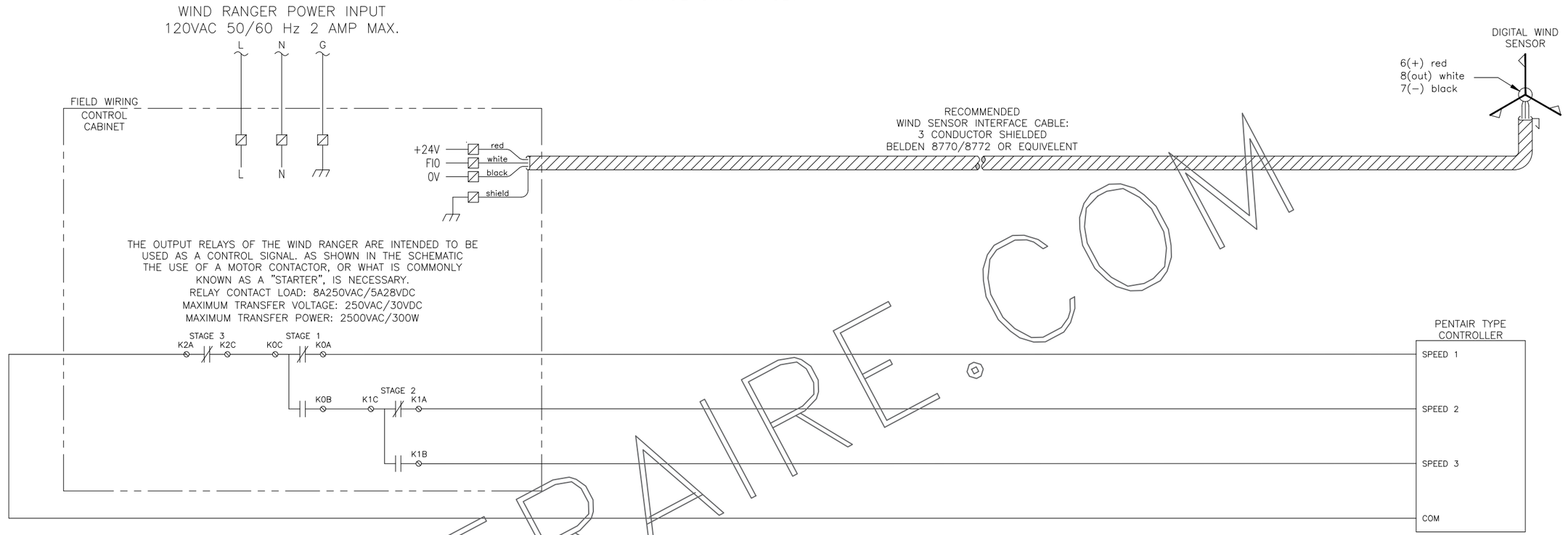
| DSGN. S McLain | PROJECT NO. 004347 | | |
| CK. | DWG. SCALE – | | |
| AP. | PLOT SCALE NONE | | |
| DATE 2025-03-21 | | | |
| PA Ser. PA-WRPLUS-CUS-ELE | SHEET 15 OF 20 | | |

CUSTOMER: GENERAL CUSTOMER DOCS

TITLE: WIND RANGER PLUS
WATER CONSERVATION FOUNTAIN CONTROLLER
COMMON FIELD WIRING CONNECTIONS
THREE STAGE POINT TO POINT EXAMPLE 3B PENT

DWG. No. PA-WRPLUS-CUS-ELE-1.303 REV. No. 3

# TYPICAL CUSTOMER INTERFACE:
# THREE STAGE UNIT
# CONTROL CIRCUIT 3B.






LOGIC TABLE

| | WIND RANGER OUTPUTS | | | MOTOR CONTROLLER INPUTS | | |
|---|---|---|---|---|---|---|
| | 3RD STAGE | 2ND STAGE | 1ST STAGE | SPEED 1 | SPEED 2 | SPEED 3 |
| QUIESCENT | 0 | 0 | 0 | 1 | 0 | 0 |
| 1ST STAGE ACTIVE | 0 | 0 | 1 | 0 | 1 | 0 |
| 2ND STAGE ACTIVE | 0 | 1 | 1 | 0 | 0 | 1 |
| 3RD STAGE ACTIVE | 1 | 1 | 1 | 0 | 0 | 0 |

0=OFF
1=ON

CIRCUIT DESCRIPTION WITH HOA IN AUTO AND REAL TIME CLOCK ACTIVE:

1. WIND RANGER QUIESCENT, NO STAGES ACTIVE – CONTROLLER SPEED 1 SIGNAL.
2. WIND RANGER 1ST STAGE ACTIVE – CONTROLLER SPEED 2 SIGNAL.
3. WIND RANGER 2ND STAGE ACTIVE – CONTROLLER SPEED 3 SIGNAL.
4. WIND RANGER 3RD STAGE ACTIVE – NO OUTPUT SIGNALS TO CONTROLLER.

| NO. | REVISION DESCRIPTION | REV BY | CHK BY | APP. BY | DATE |
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| CK. | DWG. SCALE – | | |
| AP. | PLOT SCALE NONE | | |
| DATE 2025-03-21 | | | |
| PA Ser. PA-WRPLUS-CUS-ELE | SHEET 16 OF 20 | | |

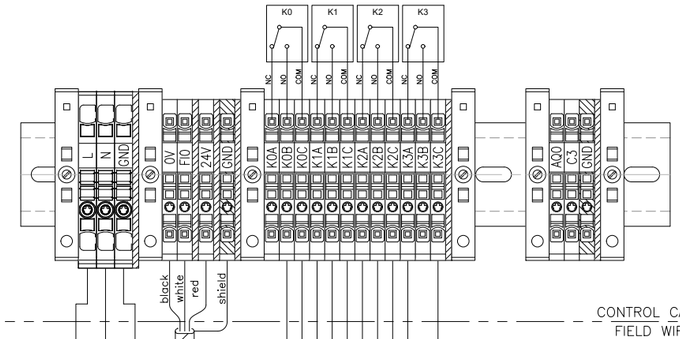
CUSTOMER: GENERAL CUSTOMER DOCS

TITLE: WIND RANGER PLUS
WATER CONSERVATION FOUNTAIN CONTROLLER
COMMON FIELD WIRING CONNECTIONS
THREE STAGE SCHEMATIC EXAMPLE 3B PENT

DWG. No. PA-WRPLUS-CUS-ELE-1.304 REV. No. 3

# TYPICAL CUSTOMER INTERFACE:
# FOUR STAGE UNIT
# CONTROL CIRCUIT 4A.

THE OUTPUT RELAYS OF THE WIND RANGER ARE INTENDED TO BE USED AS A CONTROL SIGNAL.
AS SHOWN IN THE SCHEMATIC THE USE OF A MOTOR CONTACTOR, OR WHAT IS COMMONLY
KNOWN AS A "STARTER", IS NECESSARY.
RELAY CONTACT LOAD: 8A250VAC/5A28VDC
MAXIMUM TRANSFER VOLTAGE: 250VAC/30VDC
MAXIMUM TRANSFER POWER: 2500VAC/300W




CONTROL CABINET
FIELD WIRING

DIGITAL WIND SENSOR

6(+) red
8(out) white
7(−) black

RECOMMENDED
WIND SENSOR INTERFACE CABLE:
3 CONDUCTOR SHIELDED
BELDEN 8770/8772 OR EQUIVELENT

L N GND
WIND RANGER POWER
INPUT 120VAC 50/60 Hz
2 AMP MAX.

SS1
EFFECTS PUMP
OFF
HAND AUTO
H O A

REAL TIME
CLOCK

VFD
VARIABLE FREQUENCY
DRIVE

INPUT 1
(SPEED 1)

INPUT 2
(SPEED 2)

INPUT 3
(SPEED 3)

RUN
(DEFAULT SPEED)

COM

LOGIC TABLE

| | WIND RANGER OUTPUTS | | | ANCILLIARY DEVICES | | | | VFD CONTROLLER INPUTS | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 3RD STAGE | 2ND STAGE | 1ST STAGE | HAND | OFF | AUTO | TIME CLOCK | RUN | INPUT 1 | INPUT 2 |
| | X | X | X | 1 | 0 | 0 | X | 1 | 0 | 0 |
| | X | X | X | 0 | 1 | 0 | X | 0 | 0 | 0 |
| | X | X | X | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| QUIESCENT | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 |
| 1ST STAGE ACTIVE | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 |
| 2ND STAGE ACTIVE | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 |
| 3RD STAGE ACTIVE | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 |

0=OFF
1=ON
X=DON'T CARE
—=NOT APPLICABLE

CIRCUIT DESCRIPTION WITH HOA IN AUTO AND REAL TIME CLOCK ACTIVE:

1. WIND RANGER QUIESCENT, NO STAGES ACTIVE – VFD RUN SIGNAL.
2. WIND RANGER 1ST STAGE ACTIVE – VFD RUN AND INPUT 1 SIGNAL.
3. WIND RANGER 2ND STAGE ACTIVE – VFD RUN AND INPUT 2 SIGNAL.
4. WIND RANGER 3RD STAGE ACTIVE – NO OUTPUT SIGNALS TO VFD.



| NO. | REVISION DESCRIPTION | REV BY | CHK BY | APP. BY | DATE |
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| DSGN. S McLain | PROJECT NO. 004347 | | |
| CK. | DWG. SCALE – | | |
| AP. | PLOT SCALE NONE | | |
| DATE 2025-03-21 | | | |
| PA Ser. PA-WRPLUS-CUS-ELE | SHEET 17 OF 20 | | |

CUSTOMER: GENERAL CUSTOMER DOCS

TITLE: WIND RANGER PLUS
WATER CONSERVATION FOUNTAIN CONTROLLER
COMMON FIELD WIRING CONNECTIONS
FOUR STAGE POINT TO POINT EXAMPLE 4A VFD

DWG. No. PA-WRPLUS-CUS-ELE-1.401 REV. No. 3

# TYPICAL CUSTOMER INTERFACE:
# FOUR STAGE UNIT
# CONTROL CIRCUIT 4A.

WIND RANGER POWER INPUT
120VAC 50/60 Hz 2 AMP MAX.

L N G

FIELD WIRING
CONTROL
CABINET

L N

+24V red
FIO white
0V black
shield

RECOMMENDED
WIND SENSOR INTERFACE CABLE:
3 CONDUCTOR SHIELDED
BELDEN 8770/8772 OR EQUIVELENT

DIGITAL WIND
SENSOR

6(+) red
8(out) white
7(–) black

THE OUTPUT RELAYS OF THE WIND RANGER ARE INTENDED TO BE
USED AS A CONTROL SIGNAL. AS SHOWN IN THE SCHEMATIC
THE USE OF A MOTOR CONTACTOR, OR WHAT IS COMMONLY
KNOWN AS A "STARTER", IS NECESSARY.
RELAY CONTACT LOAD: 8A250VAC/5A28VDC
MAXIMUM TRANSFER VOLTAGE: 250VAC/30VDC
MAXIMUM TRANSFER POWER: 2500VAC/300W

SS1
EFFECTS PUMP
OFF
HAND AUTO
H O A

STAGE 3
K2C K2B

K2A STAGE 2 K1C K1B

K1A STAGE 1 K0C K0B

REAL TIME
CLOCK

STAGE 4
K3A K3C

VFD
VARIABLE FREQUENCY
DRIVE

INPUT 3
(SPEED 3)

INPUT 2
(SPEED 2)

INPUT 1
(SPEED 1)

RUN
(DEFAULT SPEED)

COM



LOGIC TABLE

| WIND RANGER OUTPUTS | | | ANCILLIARY DEVICES | | | | VFD CONTROLLER INPUTS | | |
|---|---|---|---|---|---|---|---|---|---|
| 3RD STAGE | 2ND STAGE | 1ST STAGE | HAND | OFF | AUTO | TIME CLOCK | RUN | INPUT 1 | INPUT 2 |
| X | X | X | 1 | 0 | 0 | X | 1 | 0 | 0 |
| X | X | X | 0 | 1 | 0 | X | 0 | 0 | 0 |
| X | X | X | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 |
| 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 |
| 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 |

QUIESCENT
1ST STAGE ACTIVE
2ND STAGE ACTIVE
3RD STAGE ACTIVE

0=OFF
1=ON
X=DON'T CARE
–=NOT APPLICABLE

CIRCUIT DESCRIPTION WITH HOA IN AUTO AND REAL TIME CLOCK ACTIVE:

1. WIND RANGER QUIESCENT, NO STAGES ACTIVE – VFD RUN SIGNAL.
2. WIND RANGER 1ST STAGE ACTIVE – VFD RUN AND INPUT 1 SIGNAL.
3. WIND RANGER 2ND STAGE ACTIVE – VFD RUN AND INPUT 2 SIGNAL.
4. WIND RANGER 3RD STAGE ACTIVE – NO OUTPUT SIGNALS TO VFD.

| NO. | REVISION DESCRIPTION | REV BY | CHK BY | APP. BY | DATE |
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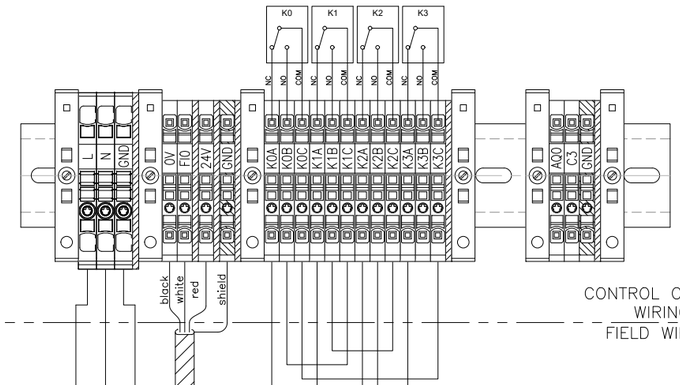
| DR. S. McLain | I.D. NO.: – | CUSTOMER: | GENERAL CUSTOMER DOCS |
| DSGN. S McLain | PROJECT NO. 004347 | TITLE: | WIND RANGER PLUS<br>WATER CONSERVATION FOUNTAIN CONTROLLER<br>COMMON FIELD WIRING CONNECTIONS<br>FOUR STAGE SCHEMATIC EXAMPLE 4A VFD |
| CK. | DWG. SCALE – | | |
| AP. | PLOT SCALE NONE | | |
| DATE 2025–03–21 | | DWG. No. | PA–WRPLUS–CUS–ELE–1.402 |
| PA Ser. PA–WRPLUS–CUS–ELE | SHEET 18 OF 20 | | REV. No. 3 |

## TYPICAL CUSTOMER INTERFACE: FOUR STAGE UNIT CONTROL CIRCUIT 4B.

THE OUTPUT RELAYS OF THE WIND RANGER ARE INTENDED TO BE USED AS A CONTROL SIGNAL. AS SHOWN IN THE SCHEMATIC THE USE OF A MOTOR CONTACTOR, OR WHAT IS COMMONLY KNOWN AS A "STARTER", IS NECESSARY.
RELAY CONTACT LOAD: 8A250VAC/5A28VDC
MAXIMUM TRANSFER VOLTAGE: 250VAC/30VDC
MAXIMUM TRANSFER POWER: 2500VAC/300W




CONTROL CABINET WIRING FIELD WIRING

DIGITAL WIND SENSOR

6(+) red
8(out) white
7(−) black

RECOMMENDED
WIND SENSOR INTERFACE CABLE:
3 CONDUCTOR SHIELDED
BELDEN 8770/8772 OR EQUIVELENT

L N GND
WIND RANGER POWER
INPUT 120VAC 50/60 Hz
2 AMP MAX.

PENTAIR TYPE CONTROLLER

- COMMON
- SPEED 1
- SPEED 2
- SPEED 3
- SPEED 4



CIRCUIT DESCRIPTION WITH HOA IN AUTO AND REAL TIME CLOCK ACTIVE:

1. WIND RANGER QUIESCENT, NO STAGES ACTIVE – CONTROLLER SPEED 1 SIGNAL.
2. WIND RANGER 1ST STAGE ACTIVE – CONTROLLER SPEED 2 SIGNAL.
3. WIND RANGER 2ND STAGE ACTIVE – CONTROLLER SPEED 3 SIGNAL.
4. WIND RANGER 3RD STAGE ACTIVE – CONTROLLER SPEED 4 SIGNAL.
5. WIND RANGER 4TH STAGE ACTIVE – NO OUTPUT SIGNALS TO CONTROLLER.

LOGIC TABLE

| | WIND RANGER OUTPUTS | | | | MOTOR CONTROLLER INPUTS | | | |
|---|---|---|---|---|---|---|---|---|
| | 4TH STAGE | 3RD STAGE | 2ND STAGE | 1ST STAGE | SPEED 1 | SPEED 2 | SPEED 3 | SPEED 4 |
| QUIESCENT | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 1ST STAGE ACTIVE | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 |
| 2ND STAGE ACTIVE | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 |
| 3RD STAGE ACTIVE | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 |
| 4TH STAGE ACTIVE | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |

0=OFF
1=ON

| NO. | REVISION DESCRIPTION | REV BY | CHK BY | APP. BY | DATE |
|---|---|---|---|---|---|
| | | | | | |

**POWERAIRE**

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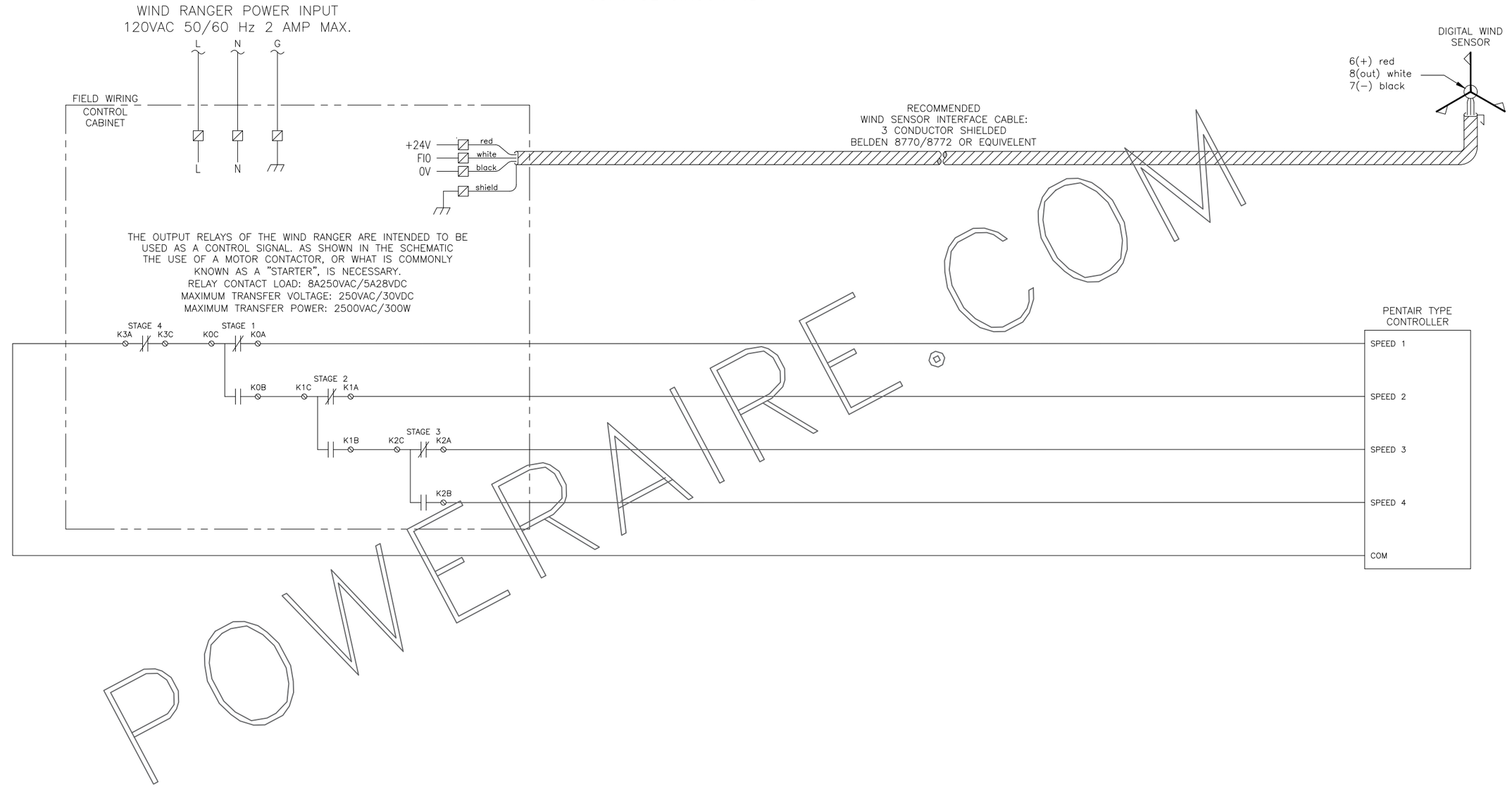
| | | | |
|---|---|---|---|
| DR. S. McLain | I.D. NO.: – | | |
| DSGN. S McLain | PROJECT NO. 004347 | | |
| CK. | DWG. SCALE – | | |
| AP. | PLOT SCALE NONE | | |
| DATE 2025-03-21 | | | |
| PA Ser. PA-WRPLUS-CUS-ELE | SHEET 19 OF 20 | | |

CUSTOMER: GENERAL CUSTOMER DOCS

TITLE: WIND RANGER PLUS
WATER CONSERVATION FOUNTAIN CONTROLLER
COMMON FIELD WIRING CONNECTIONS
FOUR STAGE POINT TO POINT EXAMPLE 4B PENT

DWG. No. PA-WRPLUS-CUS-ELE-1.403 REV. No. 3

# TYPICAL CUSTOMER INTERFACE:
# FOUR STAGE UNIT
# CONTROL CIRCUIT 4B.






LOGIC TABLE

| | WIND RANGER OUTPUTS | | | | MOTOR CONTROLLER INPUTS | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 4TH STAGE | 3RD STAGE | 2ND STAGE | 1ST STAGE | SPEED 1 | SPEED 2 | SPEED 3 | SPEED 4 | |
| QUIESCENT | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | |
| 1ST STAGE ACTIVE | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | |
| 2ND STAGE ACTIVE | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | |
| 3RD STAGE ACTIVE | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0=OFF |
| 4TH STAGE ACTIVE | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1=ON |

CIRCUIT DESCRIPTION WITH HOA IN AUTO AND REAL TIME CLOCK ACTIVE:

1. WIND RANGER QUIESCENT, NO STAGES ACTIVE – CONTROLLER SPEED 1 SIGNAL.
2. WIND RANGER 1ST STAGE ACTIVE – CONTROLLER SPEED 2 SIGNAL.
3. WIND RANGER 2ND STAGE ACTIVE – CONTROLLER SPEED 3 SIGNAL.
4. WIND RANGER 3RD STAGE ACTIVE – CONTROLLER SPEED 4 SIGNAL.
5. WIND RANGER 4TH STAGE ACTIVE – NO OUTPUT SIGNALS TO CONTROLLER.

| NO. | REVISION DESCRIPTION | REV BY | CHK BY | APP. BY | DATE |
|---|---|---|---|---|---|
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| AP. | PLOT SCALE NONE | | |
| DATE 2025-03-21 | | | |
| PA Ser. PA-WRPLUS-CUS-ELE | SHEET 20 OF 20 | | |

CUSTOMER: GENERAL CUSTOMER DOCS

TITLE: WIND RANGER PLUS
WATER CONSERVATION FOUNTAIN CONTROLLER
COMMON FIELD WIRING CONNECTIONS
FOUR STAGE SCHEMATIC EXAMPLE 4B PENT

DWG. No. PA-WRPLUS-CUS-ELE-1.404 REV. No. 3