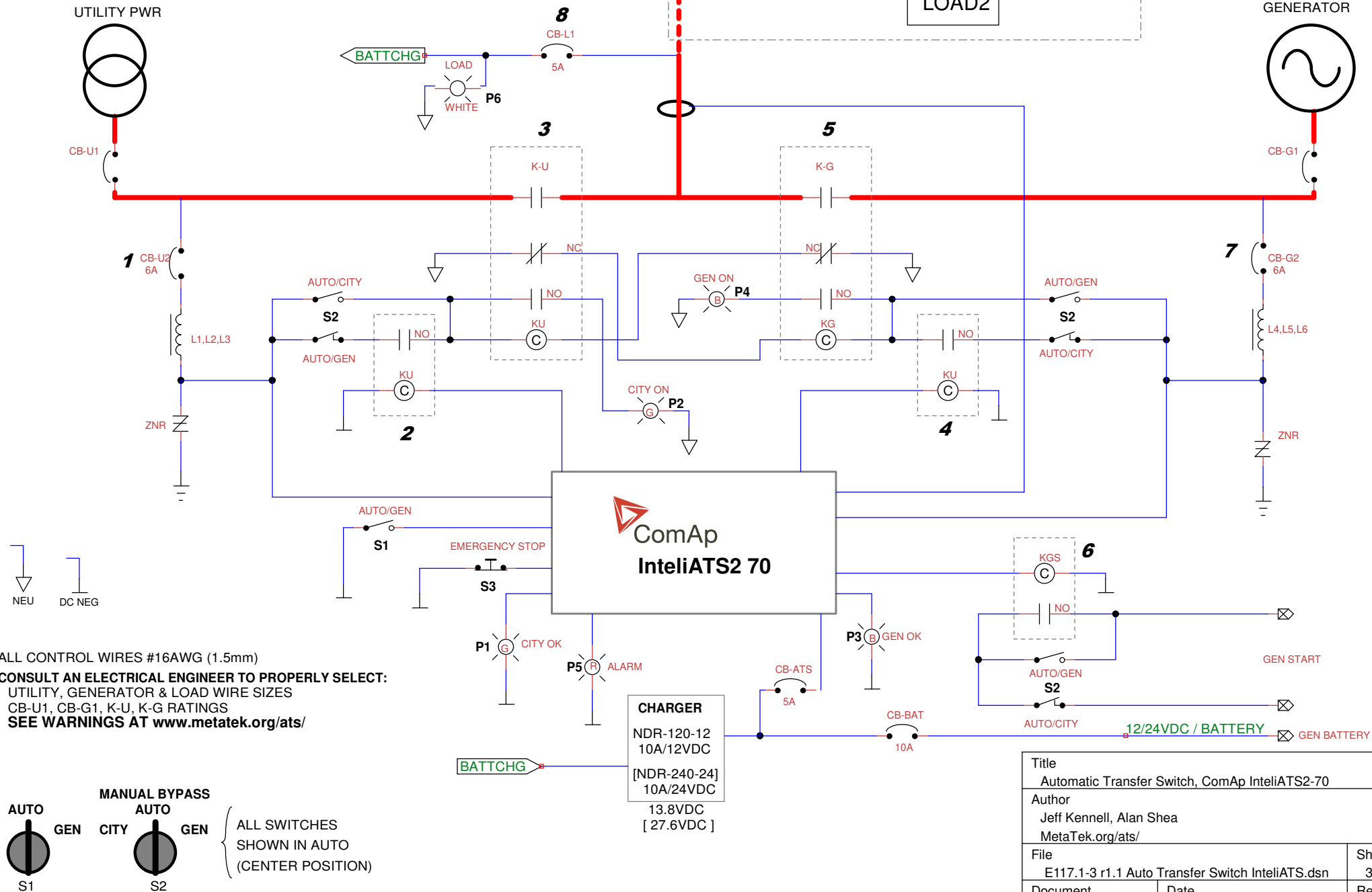
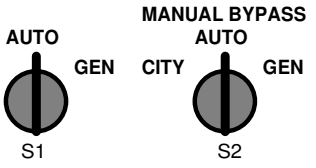


AUTOMATIC TRANSFER SWITCH

ONE-LINE DIAGRAM



ALL CONTROL WIRES #16AWG (1.5mm)
CONSULT AN ELECTRICAL ENGINEER TO PROPERLY SELECT:
 UTILITY, GENERATOR & LOAD WIRE SIZES
 CB-U1, CB-G1, K-U, K-G RATINGS
SEE WARNINGS AT www.metatek.org/ats/



CHARGER
 NDR-120-12
 10A/12VDC
 [NDR-240-24]
 10A/24VDC
 13.8VDC
 [27.6VDC]

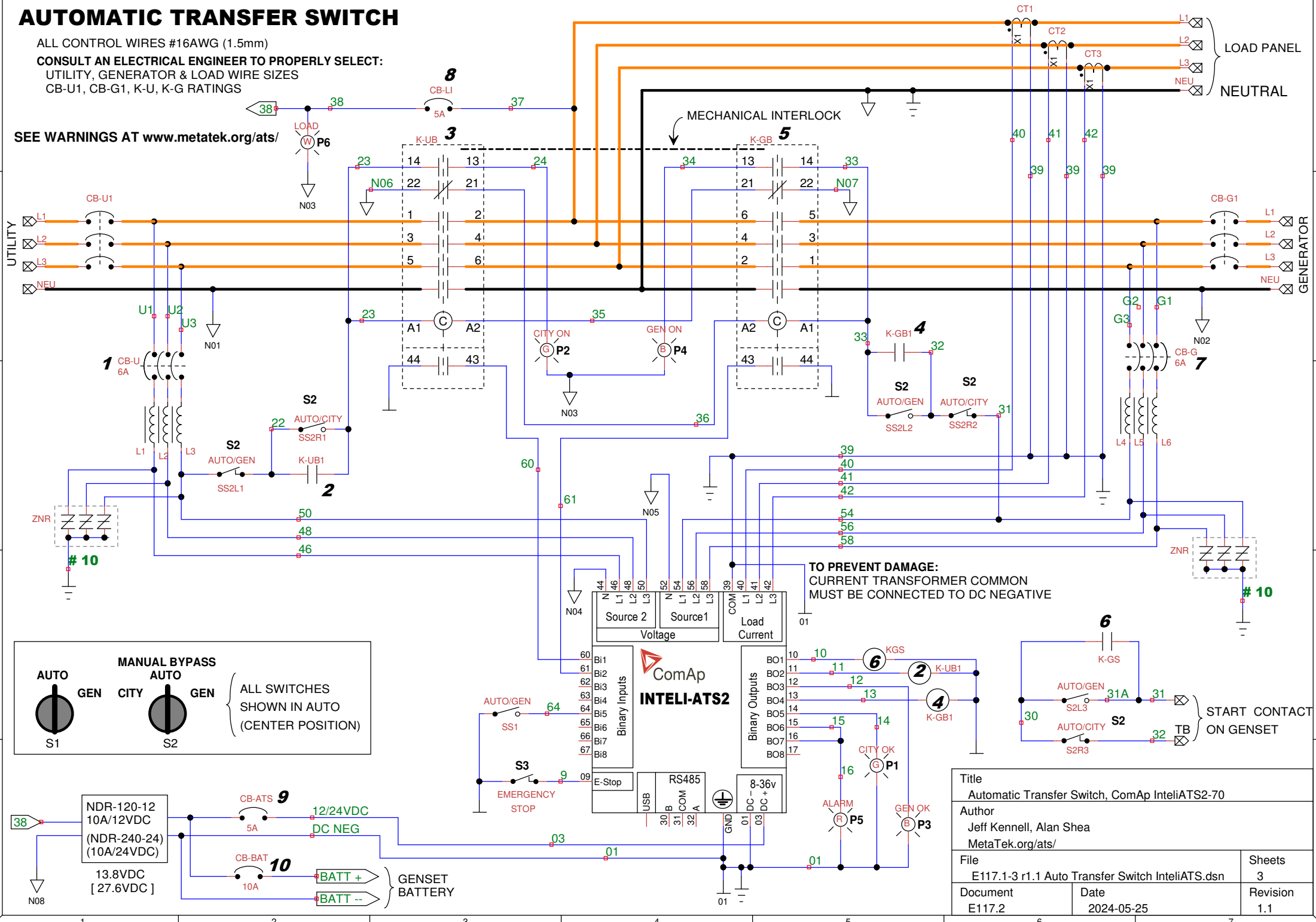
Title Automatic Transfer Switch, ComAp IntelliATS2-70		
Author Jeff Kennell, Alan Shea MetaTek.org/ats/		
File E117.1-3 r1.1 Auto Transfer Switch IntelliATS.dsn	Sheets 3	
Document E117.1	Date 2024-05-25	Revision 1.1

AUTOMATIC TRANSFER SWITCH

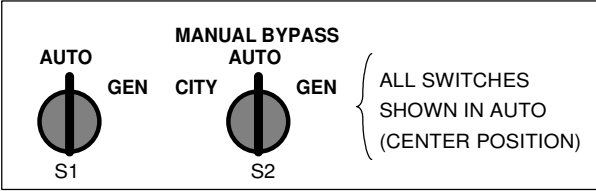
ALL CONTROL WIRES #16AWG (1.5mm)

CONSULT AN ELECTRICAL ENGINEER TO PROPERLY SELECT:
UTILITY, GENERATOR & LOAD WIRE SIZES
CB-U1, CB-G1, K-U, K-G RATINGS

SEE WARNINGS AT www.metatek.org/ats/



TO PREVENT DAMAGE:
CURRENT TRANSFORMER COMMON
MUST BE CONNECTED TO DC NEGATIVE



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	Revision 1.1

CONTACTOR TRANSFER SWITCH PARTS LIST

www.factorymation.com

K-U, K-G

- 2 (+1)* MC-400A-22-AC/DC100-200 POWER CONTACTOR, 400A, COIL: 100-240VAC, 50/60Hz (571VA INRUSH, 14VA HOLDING)
- 1 AR180 MECHANICAL INTERLOCK
- 1 RBP-300/400 REVERSING BASE PLATE
- 4 AJ-400 LUG TERMINALS (3pcs)
- 2 AP-400 TERMINAL COVER (2pcs)
- 2 AI-180 INSULATION BARRIER (4pcs)
- 2 MPDB67111 NEUTRAL & GROUND DISTRIBUTION BLOCK
- 2 (+1)* MCB4-L40-3P-C6 3P 6A CIRCUIT BREAKER FOR CONTROLS
- 1 MCB4-L40-1P-D5 1P 5A CIRCUIT BREAKER FOR INDICATOR
- 1 MCB1-4D-1P-B10 1P 10A DC CIRCUIT BREAKER FOR BATTERY CHARGER
- 1 MCB1-4D-1P-B5 1P 10A DC CIRCUIT BREAKER FOR CONTROLS
- 1 PD22-CE4T-R-1B EMERGENCY STOP BUTTON + N/C CONTACT BLOCK
- 1 PDA-SHD2 EMERGENCY STOP SHROUD, FULL
- 1 093.20 RELAY JUMPER LINK
- 2 (+2)* STXR480D05A SURGE-TRAP, 480V, 3PHASE, 50ka
- 2 STXRMBK SURGE-TRAP MOUNTING BRACKET
- 1 PD22-LS411-B ILLUMINATED SELECTOR SWITCH, 2 POS, BLU
- 1 PDA-10 N/O CONTACT BLOCK
- 1 PDA-LS LAMP BLOCK
- 1 ER2.5BEIGE TERMINAL BLOCK/PKG

SUBSTITUTION OF ALTERNATE CONTACTORS:

SELECT APPROPRIATE EQUIVALENT ACCESSORIES
(MC-185, MC-225, MC-265, MC-330, MC-400, MC-500, MC-630, MC-800)

MANUAL BYPASS SWITCH (Optional, Recommended)

- 1 APEG EMERGENCY STOP SHROUD, PARTIAL (SELECTOR SWITCH)
- 1 CSW-CK3F45F 3POS SELECTOR SWITCH, 22mm
- 3 BC10F-CSW N/O CONTACT BLOCK, STACKABLE
- 3 BC01F-CSW N/C CONTACT BLOCK, STACKABLE

12VDC SYSTEM

- 3 (+2)* 38.51.7.012.0050 INTERFACE RELAY, 250VAC/6A, 12VDC COIL w/LED
- 1 PDA-B12V-B LED LAMP, 12VAC/DC, BLU

24VDC SYSTEM

- 3 (+2)* 38.51.7.024.0050 INTERFACE RELAY, 250VAC/6A, 24VDC COIL w/LED
- 1 PDA-B24V-B LED LAMP, 24VAC/DC, BLU

L1 -- L6:

20 TURNS OF #12-14 WIRE AROUND SEVEN 4" NAILS, HEADS ALTERNATE ENDS
(WRAP NAILS WITH TAPE OR HEAT SHRINK PRIOR TO & AFTER WINDING WIRE)

www.comap.cz

- 1 ComAp IntelliATS2 70 AUTOMATIC TRANSFER SWITCH CONTROLLER

www.digikey.com

- 1 (+1) 1866-3517-ND MEAN-WELL NDR-120-12, 12VDC/10A POWER SUPPLY/CHARGER, 100-240VAC
- 1 (+1) 1866-3520-ND MEAN-WELL NDR-240-24, 24VDC/10A POWER SUPPLY/CHARGER, 100-240VAC
(Current-limiting overload protection)

OTHER THINGS YOU MAY NEED:

FactoryMation: ENCLOSURE, DIN RAIL, COPPER COMPRESSION LUGS
WaytekWire.com: 14-16G WIRE IN VARIOUS COLORS, WIRE LABELS

INDICATORS (optional)

- 2 PD22-PF-G GREEN INDICATOR, 22mm
- 2 PD22-PF-B BLUE INDICATOR, 22mm
- 1 PD22-PF-W WHITE INDICATOR, 22mm
- 1 PD22-PF-R RED INDICATOR, 22mm
- 6 PDA-LS LAMP SOCKET
- 1 PDA-B220VAC-G LED BULB, 220VAC, GREEN
- 1 PDA-B220VAC-B LED BULB, 220VAC, BLUE
- 1 PDA-B220VAC-W LED BULB, 220VAC, WHITE

12VDC SYSTEM

- 1 PDA-B12V-B LED BULB, 12VAC/DC, BLU
- 1 PDA-B12V-G LED BULB, 12VAC/DC, GRN
- 1 PDA-B12V-R LED BULB, 12VAC/DC, RED

24VDC SYSTEM

- 1 PDA-B24V-B LED BULB, 24VAC/DC, BLU
- 1 PDA-B24V-G LED BULB, 24VAC/DC, GRN
- 1 PDA-B24V-R LED BULB, 24VAC/DC, RED

* (+1) SPARE UNIT

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Document E117.3	Date 2024-05-09	Revision 1.1