





LIGHTING  
CONSTRUCTION MANUAL

## PE CELL CONVERSION

[Back to MAIN INDEX](#)

[Go to SECTION INDEX](#)

| TYPE | DESCRIPTION   | PAGE     | TYPE | DESCRIPTION  | PAGE     |
|------|---|----------|------|--|----------|
|      | Construction type guide - PE Cell conversion - Ergon Energy                         | 1-12-2-1 |      | <u>ENERGEX ONLY SPECIAL CONSTRUCTION</u>                 |          |
|      | Minor road overhead mains supply  | 1-12-3-1 |      | Minor road overhead mains supply                         | 1-12-8-1 |
|      | Minor road overhead mains supply - wiring schematic                                 | 1-12-3-2 |      | One phase only PE Cell control lighting main             |          |
|      | Major / minor road overhead mains supply  | 1-12-5-1 |      | Minor road overhead mains supply                         | 1-12-9-1 |
|      | Luminaire has no facility for PE Cell & Bracket has no facility for fuse - material |          |      | One, two or three phase contactor control lighting mains |          |
|      | - Construction  | 1-12-5-2 |      |  |          |
|      | - Wiring schematic  | 1-12-5-3 |      |  |          |
|      | Major / minor road overhead mains supply  | 1-12-6-1 |      |  |          |
|      | Luminaire has facility for PE Cell & Bracket has facility for fuse - material       |          |      |  |          |
|      | - Construction  | 1-12-6-2 |      |  |          |
|      | Major / minor road overhead mains supply  | 1-12-7-1 |      |  |          |
|      | Luminaire has facility for PE Cell & Bracket has no facility for fuse - material    |          |      |  |          |
|      | - Construction  | 1-12-7-2 |      |  |          |

|                                |                |   |  |  |   |  |                      |             |              |             |             |
|--------------------------------|----------------|---|--|--|---|--|----------------------|-------------|--------------|-------------|-------------|
| A                              | ORIGINAL ISSUE | REFERENCE DRAWING ENERGEX   | <br>© COPYRIGHT 2002 ENERGEX<br>ENERGEX Corporation Limited<br>ABN 40 078 849 055 | <br>© COPYRIGHT 2002 ERGON ENERGY<br>Ergon Energy Corporation Limited<br>ABN 50 087 646 062 | Approved Ergon<br>C. Noel 01/04/16        | LIGHTING<br><br>PE CELL CONVERSION INDEX |                      |             |              |             |             |
| B                              | 10.12.12       |   |  |  | Approved Energex<br>F. Zaini 01/04/16     |  |                      |             |              |             |             |
| C                              | 01.10.14       |   |  |  | Checked<br>P. Relf / A. Bletchly 01/04/16 |  |                      |             |              |             |             |
|                                |                | This document must not be reproduced in part or whole without written permission from ENERGEX or Ergon Energy | HARD COPY UNCONTROLLED   |  |   | Drawn<br>L. Burton / T. Borg 01/11/10    | EE DRWG NO: 1-12-1-1 | VOLUME<br>1 | FOLDER<br>12 | PAGE<br>1-1 | ISSUE<br>0C |
| EGX DRWG NO: 10500-A4-1-12-1-1 |                |   |  |  |   |  |                      |             |              |             |             |

## PE CELL CONVERSION CONSTRUCTION TYPE

Type shown within dashed box appears on relevant construction detail drawings in this manual.

**PEC/MAJ/PF/PPC**

### PE CELL CONVERSION

PEC = PE Cell Conversion

### LUMINAIRE TYPE

MAJ = Major road luminaire

MIN = Minor road luminaire

### FUSE MOUNTING LOCATION

PF = Pole mounted fuse



BF = Bracket mounted fuse

### PE CELL MOUNT LOCATION

PPC = Pole mounted PE Cell

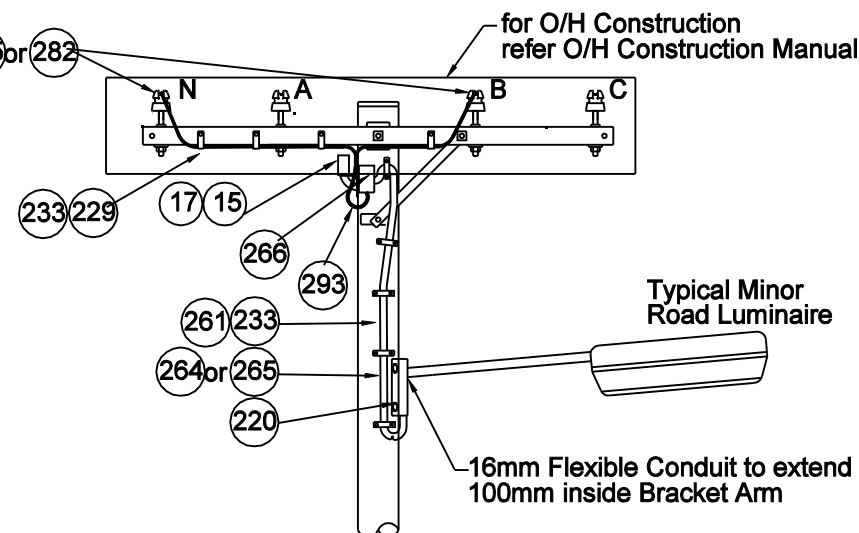
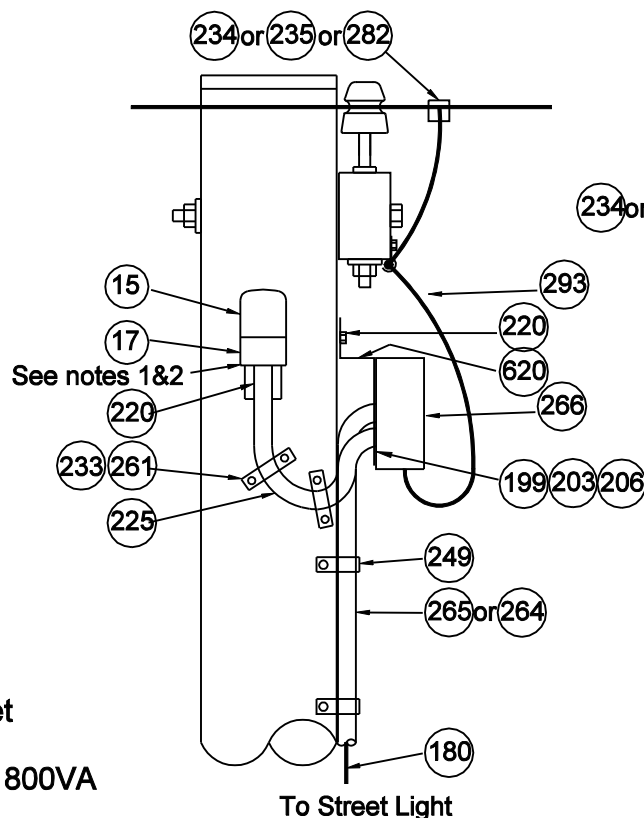
Omit if PE Cell is luminaire mounted

**EXAMPLE:-** PEC/MAJ/BF = PE Cell conversion, Major road luminaire, Bracket mounted.

|   |                |   |  |  |  |  |                      |             |              |             |             |  |
|---|----------------|---|--|--|--|--|----------------------|-------------|--------------|-------------|-------------|--|
| A | ORIGINAL ISSUE | REFERENCE DRAWING ENERGEX   | <br><b>energex</b><br>© COPYRIGHT 2002 ENERGEX<br>ENERGEX Corporation Limited<br>ABN 40 078 849 055 | <br>© COPYRIGHT 2002 ERGON ENERGY<br>Ergon Energy Corporation Limited<br>ABN 50 087 646 062 | Approved Ergon<br>C. Noel<br>01/04/16        | <b>LIGHTING</b><br>PE CELL CONVERSION - ERGON ENERGY ONLY<br>CONSTRUCTION TYPE GUIDE<br>PE CELL CONVERSION |                      |             |              |             |             |  |
|   |                | REFERENCE DRAWING ERGON   |  |  | Approved Energex<br>F. Zaini<br>01/04/16     |  |                      |             |              |             |             |  |
|   |                | NIL   |  |  | Checked<br>P. Relf / A. Bletchly<br>01/04/16 |  |                      |             |              |             |             |  |
|   |                | This document must not be reproduced in part or whole without written permission from ENERGEX or Ergon Energy |  |  | Drawn<br>L. Burton / T. Borg<br>23/03/16     |  | EE DRWG NO: 1-12-2-1 | VOLUME<br>1 | FOLDER<br>12 | PAGE<br>2-1 | ISSUE<br>0A |  |
|   |                | HARD COPY UNCONTROLLED  |  |  | EGX DRWG NO: 10500-A4-1-12-2-1               |  |                      |             |              |             |             |  |



| PART | DESCRIPTION                          | S.C.  | QTY |
|------|--------------------------------------|-------|-----|
| 15   | PE Cell, NEMA, High Rating           | 05502 | 1   |
| 199  | Screws, Plated Brass M5 x 25mm       | 08536 | 3   |
| 17   | Base NEMA, Pole Mounting             | 05302 | 1   |
| 203  | Nut, Plated Brass M5                 | 00983 | 3   |
| 206  | Washer, S/S, 1/4                     | 01047 | 3   |
| 180  | Cable, 2.5mm <sup>2</sup> 2c PVC/PVC | 07112 | AR  |
| 249  | Conduit Saddle, 32mm                 | 04930 | AR  |
| 264  | Conduit, Rigid HD 25mm               | 04844 | AR  |
| 220  | Coachscrew, Galv, M12 x 90           | 00684 | AR  |
| 229  | Bracket, Bridge Support              | 12466 | AR  |

| PART | DESCRIPTION                                       | S.C.  | QTY |
|------|---|-------|-----|
| 282  | Clamp, LVABC, 50-95 / 6-35mm <sup>2</sup>         | 10603 | AR  |
| 233  | Nail, Galv, 30mm x 3.15mm                         | 11430 | AR  |
| 234  | Clamp, Al/Cu, LIBRA to PLUTO/16-35mm <sup>2</sup> | 16567 | AR  |
| 235  | Clamp, Cu/Cu, 3-135/16-35mm <sup>2</sup>          | 16568 | AR  |
| 225  | Flexible Conduit, 16mm (GREY)                     | 04838 | AR  |
| 265  | Flexible Conduit, 25mm(CORRUGATED)                | 16023 | AR  |
| 261  | Conduit Saddle, 25mm                              | 04929 | AR  |
| 620  | Bracket for Electrical Enclosure                  | 16830 | 1   |
| 293  | Cable 6mm <sup>2</sup> 2c XLPE Cu                 | 17119 | AR  |
| 266  | Circuit Breaker in Box,(16 Amperes)               | 16433 | 1   |



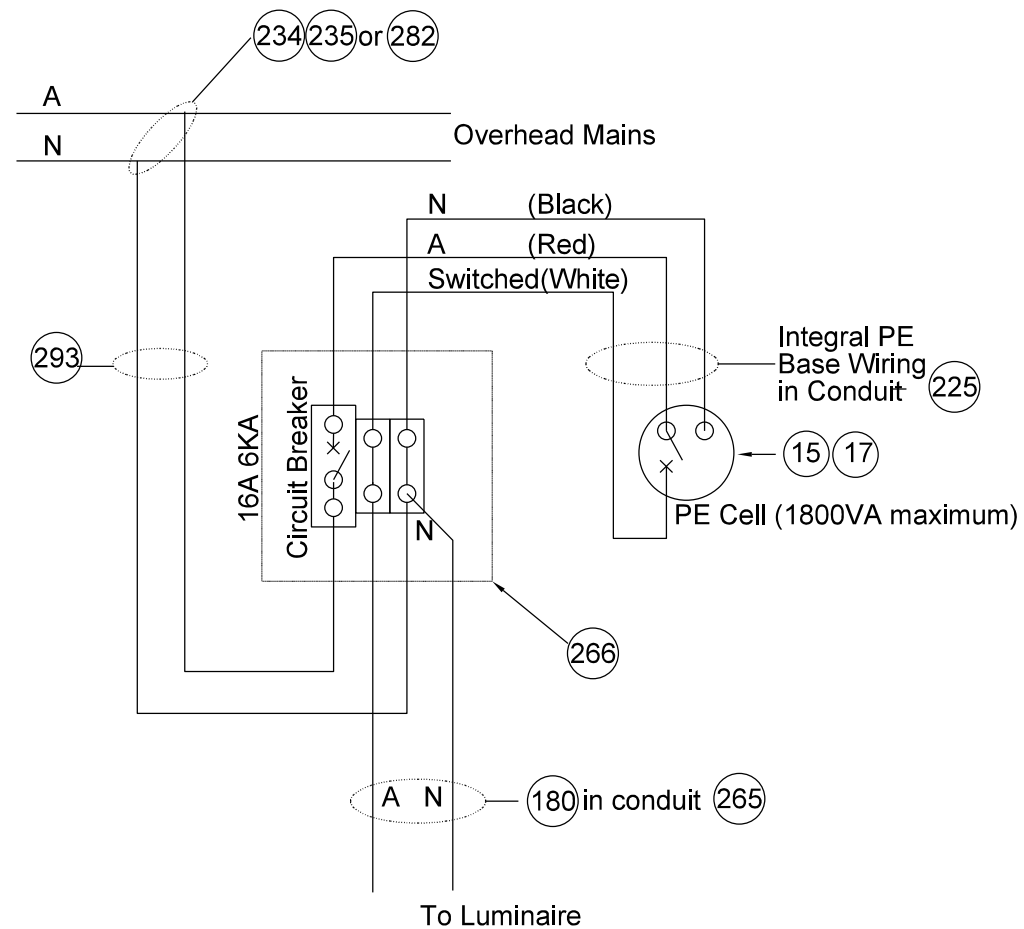
#### NOTES:



1. PE Cell to be located at rear of pole & out of direct view of luminaire, attach base bracket to pole via coachscrews.
2. Maximum load of PE Cell is 1800VA

|   |                |   |   |  |   |   |        |      |       |  |
|---|----------------|---|---|--|---|---|--------|------|-------|--|
| A | ORIGINAL ISSUE | REFERENCE DRAWING ENERGEX<br>4927-A4-3.3  | <br>energex<br>© COPYRIGHT 2002 ENERGEX<br>ENERGEX Corporation Limited<br>ABN 40 078 849 055 | <br>© COPYRIGHT 2002 ERGON ENERGY<br>Ergon Energy Corporation Limited<br>ABN 50 087 646 062 | Approved Ergon<br>J. Brooks<br>14/10/10       | <b>LIGHTING</b><br>PE CELL CONVERSION - ENERGEX ONLY<br>MINOR ROAD OVERHEAD MAINS SUPPLY<br>1800 VA MAXIMUM |        |      |       |  |
|   |                | REFERENCE DRAWING ERGON<br>NIL  |   |  | Approved Energex<br>R. English<br>14/10/10    |   |        |      |       |  |
|   |                | This document must not be reproduced in part or whole without written permission from ENERGEX or Ergon Energy |   |  | Checked<br>D. Taylor / B. Oyegoke<br>14/10/10 |   |        |      |       |  |
|   |                |   |   |  | Drawn<br>L. Burton / T. Borg<br>14/10/10      |   |        |      |       |  |
|   |                | HARD COPY UNCONTROLLED  |   |  | EE DRWG NO: 1-12-3-1                          | VOLUME  | FOLDER | PAGE | ISSUE |  |
|   |                |   |   |  | EGX DRWG NO: 10500-A4-1-12-3-1                | 1   | 12     | 3-1  | 0A    |  |

HARD COPY UNCONTROLLED

| PART | DESCRIPTION                                       | S.C.  | QTY |
|------|---|-------|-----|
| 15   | PE Cell, NEMA, High Rating                        | 05502 | 1   |
| 17   | Base NEMA, Pole Mounting                          | 05302 | 1   |
| 180  | Cable, 2.5mm <sup>2</sup> 2c PVC/PVC              | 07112 | AR  |
| 293  | Cable 6mm <sup>2</sup> 2c XLPE Cu                 | 17119 | AR  |
| 266  | Circuit Breaker PE Cell Conversion                | 16433 | 1   |
| 234  | Clamp, Al/Cu, LIBRA to PLUTO/16-35mm <sup>2</sup> | 16567 | AR  |
| 235  | Clamp, Cu/Cu, 3-135/16-35mm <sup>2</sup>          | 16568 | AR  |
| 282  | Clamp, LVABC, 50-95 / 6-35mm <sup>2</sup>         | 10603 | AR  |
| 225  | Flexible Conduit, 16mm (GREY)                     | 04838 | AR  |
| 265  | Flexible Conduit, 25mm(CORRUGATED)                | 16023 | AR  |





|                                |   |  |   |  |                                       |  |                      |             |              |             |             |
|--------------------------------|---|--|---|--|---------------------------------------|--|----------------------|-------------|--------------|-------------|-------------|
| A                              | ORIGINAL ISSUE  | REFERENCE DRAWING ENERGEX<br>4927-A4-3.4     | <br>energex<br>© COPYRIGHT 2002 ENERGEX<br>ENERGEX Corporation Limited<br>ABN 40 078 849 055 | <br>© COPYRIGHT 2002 ERGON ENERGY<br>Ergon Energy Corporation Limited<br>ABN 50 087 646 062 | Approved Ergon<br>C. Noel<br>01/04/16 | <b>LIGHTING</b><br>PE CELL CONVERSION - ENERGEX ONLY<br>MINOR ROAD OVERHEAD MAINS SUPPLY<br>1800 VA MAXIMUM - WIRING SCHEMATIC | EE DRWG NO: 1-12-3-2 | VOLUME<br>1 | FOLDER<br>12 | PAGE<br>3-2 | ISSUE<br>0A |
|                                | REFERENCE DRAWING ERGON<br>NIL  | Approved Energex<br>F. Zaini<br>01/04/16     |   |  |                                       |  |                      |             |              |             |             |
|                                | This document must not be reproduced in part or whole without written permission from ENERGEX or Ergon Energy | Checked<br>P. Relf / A. Bletchly<br>01/04/16 |   |  |                                       |  |                      |             |              |             |             |
|                                |   | Drawn<br>L. Burton / T. Borg<br>23/03/16     |   |  |                                       |  |                      |             |              |             |             |
| EGX DRWG NO: 10500-A4-1-12-3-2 |   |  |   |  |                                       |  |                      |             |              |             |             |

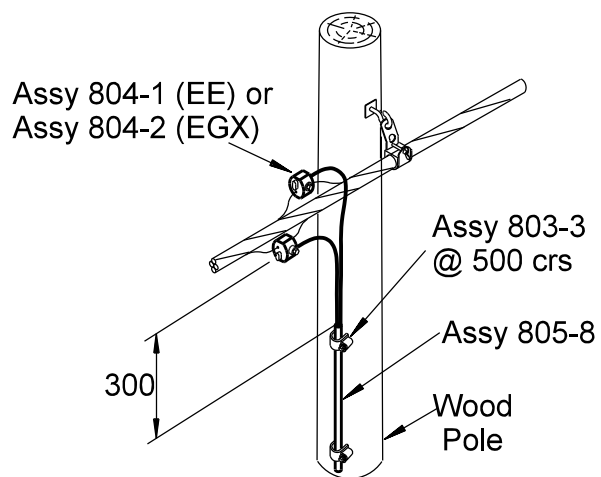
# MATERIAL - SUPPLY & PE CELL

| ASSY   | DESCRIPTION   | PEC/MIN | PEC/MAJ |
|--------|---|---------|---------|
| 803-3  | Saddle (25mm) to wood pole  | AR      | AR      |
| 803-6  | Bracket cable support to x-arm  | AR      | AR      |
| 804-1  | Connector I.P.C. 25/95mm <sup>2</sup> main to 6/35mm <sup>2</sup> tap | 2       | 2       |
| 804-2  | 6-35mm Aluminium / 4-35mm Copper Thru Connector                       |         |         |
| 804-6  | Connector Tap-off bare aluminium mains                                |         |         |
| 804-7  | Connector Tap-off bare copper mains                                   |         |         |
| 805-8  | Conduit PVC flexible - 20mm.  | AR      | AR      |
| 805-12 | Terminator conduit PVC flexible 20mm.                                 | 2       | 2       |
| 901-2  | PE Cell NEMA (Major Road)   | 1       | 1       |
| 904-1  | Fuseholder, with 10A HRC - Type 10G                                   | 1       | 1       |
| 904-5  | Bracket, holder for PE Cell   | 1       | 1       |

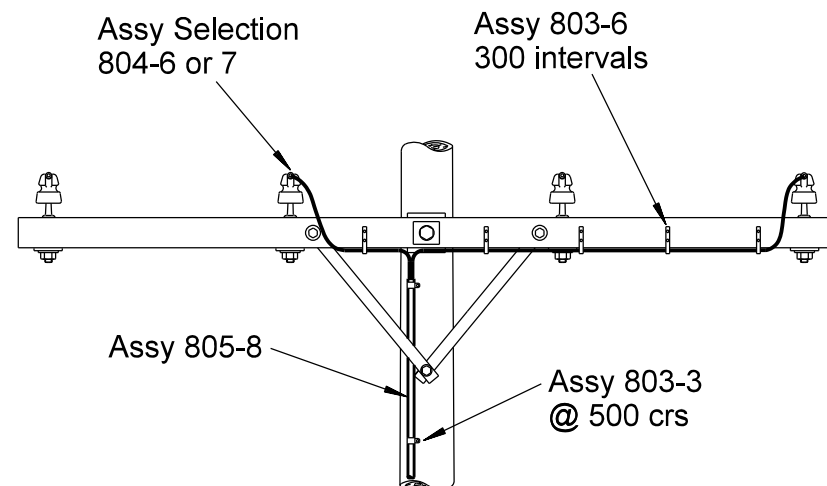
## NOTES:

1. Open wire conductor configuration depends on regional location - configuration shown is illustrative only.
2. If cabling to luminaire is smaller than 6mm<sup>2</sup>, the cable will need to be replaced. Replacement cable stock code: 17119 / 1420068.
3. PE Cell to be located out of direct view of luminaire and positioned below fuseholder.
4. Three neutral wires to be connected using BP connector inside the fuseholder.
5. Remove 2A fuse supplied with fuseholder and replace with the 16A fuse.
6. Hole at back of fuseholder to be sealed using silicone

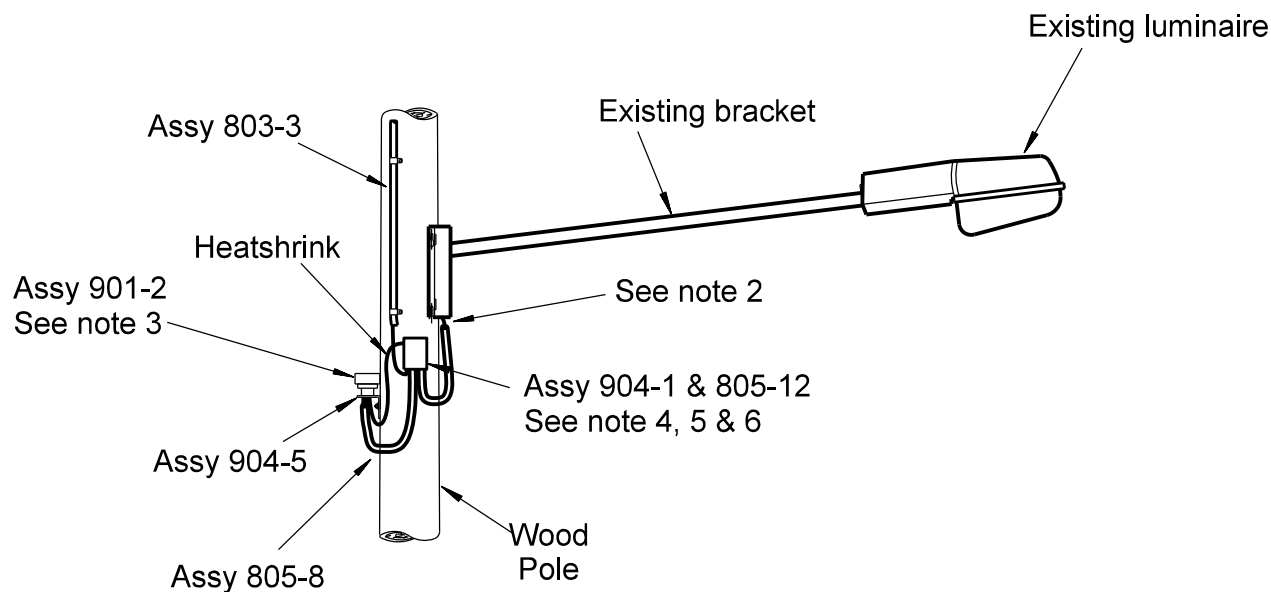
|   |                |   |  |   |                |                     |   |                                |                      |   |        |        |      |
|---|----------------|---|--|---|----------------|---------------------|---|--------------------------------|----------------------|---|--------|--------|------|
| A | ORIGINAL ISSUE | REFERENCE DRAWING ENERGEX   | <br>© COPYRIGHT 2019 ENERGEX<br>ENERGEX Corporation Limited<br>ABN 40 078 849 055 | <br>©COPYRIGHT 2019 ERGON ENERGY<br>Ergon Energy Corporation Limited<br>ABN 50 087 646 062 | Approved Ergon | Date                | <b>LIGHTING</b><br>PE CELL CONVERSION<br>MAJOR & MINOR ROAD OH SUPPLY - LUMINAIRE HAS NO FACILITY FOR PE CELL, BRACKET HAS NO FACILITY FOR FUSE |                                |                      |   |        |        |      |
| B | 23.03.16       | 4927-A4-3.6   |  |   | A. Bletchly    | 01/03/19            |   |                                |                      |   |        |        |      |
| C | 01.02.19       | REFERENCE DRAWING ERGON   |  |   | A. Bletchly    | 01/03/19            |   |                                |                      |   |        |        |      |
|   |                | NIL   |  |   | Checked        |                     |   | Date                           | EE DRWG NO: 1-12-5-1 |   | VOLUME | FOLDER | PAGE |
|   |                | This document must not be reproduced in part or whole without written permission from ENERGEX or Ergon Energy | HARD COPY UNCONTROLLED   |   |                | K. Slater           | 01/03/19  | EGX DRWG NO: 10500-A4-1-12-5-1 |                      | 1 | 12     | 5-1    | 0C   |
|   |                |   |  |   |                | Drawn               | Date  |                                |                      |   |        |        |      |
|   |                |   |  |   |                | L. Burton / T. Borg | 14/10/10  |                                |                      |   |        |        |      |



CONNECTION TO LV ABC MAINS

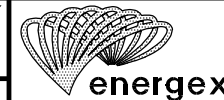



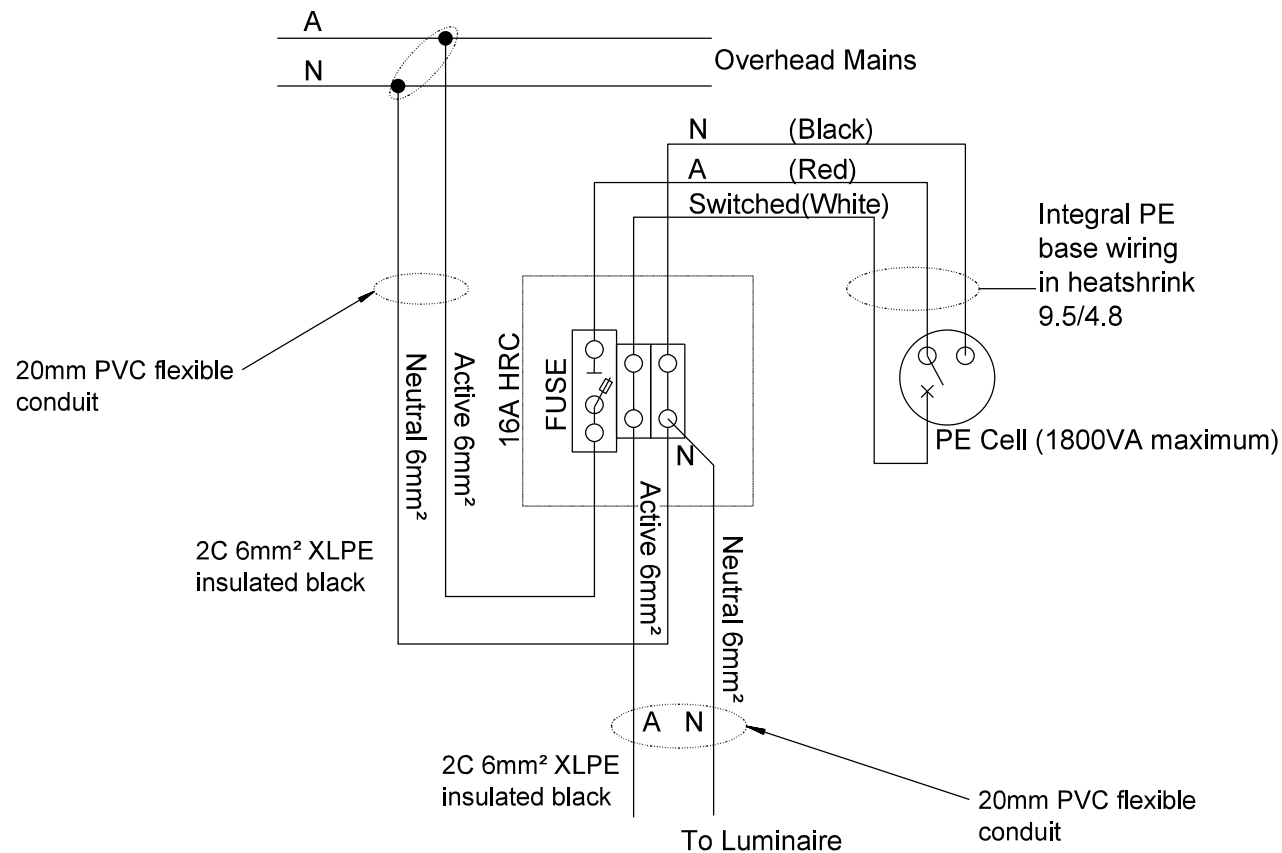
CONNECTION TO OPEN WIRE MAINS





CONSTRUCTION TYPE

**PEC/MAJ/PF**  
**PEC/MIN/PF**

|                        |                |   |  |  |  |  |        |        |      |       |
|------------------------|----------------|---|--|--|--|--|--------|--------|------|-------|
| A                      | ORIGINAL ISSUE | REFERENCE DRAWING ENERGEX   | <br>© COPYRIGHT 2002 ENERGEX<br>ENERGEX Corporation Limited<br>ABN 40 078 849 055 | <br>© COPYRIGHT 2002 ERGON ENERGY<br>Ergon Energy Corporation Limited<br>ABN 50 087 646 062 | Approved Ergon<br>C. Noel<br>19/04/17        | <b>LIGHTING</b><br>PE CELL CONVERSION<br>MAJOR & MINOR ROAD OH SUPPLY - LUMINAIRE HAS NO<br>FACILITY FOR PE CELL, BRACKET HAS NO FACILITY FOR FUSE |        |        |      |       |
| B                      | 16.08.16       | REFERENCE DRAWING ERGON   |  |  | Approved Energex<br>F. Zaini<br>19/04/17     |  |        |        |      |       |
|                        |                | Nil   |  |  | Checked<br>P. Relf / A. Bletchly<br>01/04/17 |  |        |        |      |       |
|                        |                | This document must not be reproduced in part or whole without written permission from ENERGEX or Ergon Energy |  |  | Drawn<br>L. Burton / T. Borg<br>23.03.16     |  |        |        |      |       |
| HARD COPY UNCONTROLLED |                |   |  |  |  | EE DRWG NO: 1-12-5-2   | VOLUME | FOLDER | PAGE | ISSUE |
|                        |                |   |  |  |  | EGX DRWG NO: 10500-A4-1-12-5-2   | 1      | 12     | 5-2  | 0B    |



|   |                |  |  |  |  |   |                      |        |        |
|---|----------------|--|--|--|--|---|----------------------|--------|--------|
| A | ORIGINAL ISSUE | REFERENCE DRAWING ENERGEX<br>4927-A4-3.6   | <br><b>energex</b><br>© COPYRIGHT 2002 ENERGEX<br>ENERGEX Corporation Limited<br>ABN 40 078 849 055 | <br>© COPYRIGHT 2002 ERGON ENERGY<br>Ergon Energy Corporation Limited<br>ABN 50 087 646 062 | Approved Ergon<br>C. Noel<br>01/04/16        | <b>LIGHTING</b><br>PE CELL CONVERSION<br>MAJOR & MINOR ROAD OH SUPPLY - LUMINAIRE HAS NO<br>FACILITY FOR PE CELL - WIRING SCHEMATIC |                      |        |        |
|   |                | REFERENCE DRAWING ERGON<br>NIL   |  |  | Approved Energex<br>F. Zaini<br>01/04/16     |   |                      |        |        |
|   |                | This document must not be<br>reproduced in part or whole<br>without written permission from<br>ENERGEX or Ergon Energy |  |  | Checked<br>P. Relf / A. Bletchly<br>01/04/16 |   | EE DRWG NO: 1-12-5-3 | VOLUME | FOLDER |
|   |                |  | Drawn<br>L. Burton / T. Borg<br>23.03.16   | EGX DRWG NO: 10500-A4-1-12-5-3   | 1  |   | 12                   | 5-3    | 0A     |
|   |                |  |  |  |  |   |                      |        |        |

HARD COPY UNCONTROLLED





MATERIAL - SUPPLY & PE CELL

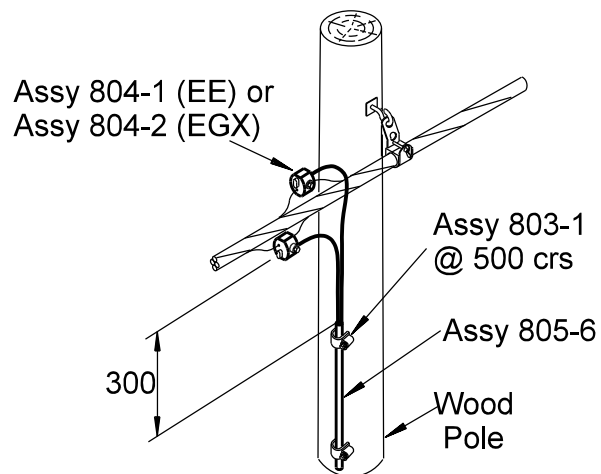
| ASSY  | DESCRIPTION   | PEC/MIN | PEC/MAJ |
|-------|---|---------|---------|
| 801-6 | Fuse holder 100A (service) to bracket                                 | 1       | 1       |
| 801-1 | Cartridge fuse link 32A HRC   | 1       | 1       |
| 803-1 | Saddle (20mm) to wood pole  | AR      | AR      |
| 803-6 | Bracket cable support to x-arm  | AR      | AR      |
| 804-1 | Connector I.P.C. 25/95mm <sup>2</sup> main to 6/35mm <sup>2</sup> tap | 2       | 2       |
| 804-2 | 6-35mm Aluminium / 4-35mm Copper Thru Connector                       |         |         |
| 804-6 | Connector Tap-off bare aluminium mains                                |         |         |
| 804-7 | Connector Tap-off bare copper mains                                   |         |         |
| 805-1 | End cap - push on 25mm <sup>2</sup> ABC                               | AR      | AR      |
| 805-6 | Conduit PVC flexible - 16mm.  | AR      | AR      |
| 901-1 | PE Cell D-2 (Minor Road)  | 1       | -       |
| 901-2 | PE Cell NEMA (Major Road)   | -       | 1       |

NOTES:

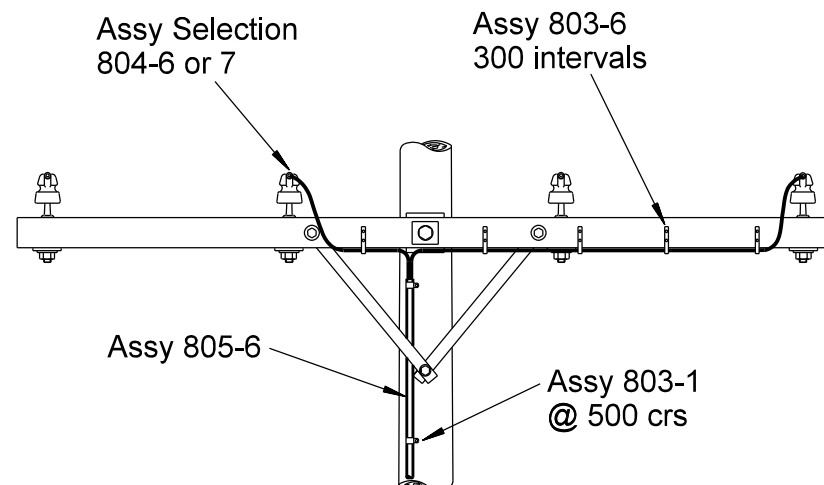
1. Open wire conductor configuration depends on regional location - configuration shown is illustrative only.
2. If cabling to luminaire is smaller than 6mm<sup>2</sup>, the cable will need to be replaced. Replacement cable stock code: 17119 / 1420068.

|   |                |   |  |  |                       |          |
|---|----------------|---|--|--|-----------------------|----------|
| A | ORIGINAL ISSUE | REFERENCE DRAWING ENERGEX   | <br>© COPYRIGHT 2002 ENERGEX<br>ENERGEX Corporation Limited<br>ABN 40 078 849 055 | <br>© COPYRIGHT 2002 ERGON ENERGY<br>Ergon Energy Corporation Limited<br>ABN 50 087 646 062 | Approved Ergon        | Date     |
| B | 23.03.16       | REFERENCE DRAWING ERGON   |  |  | Approved Energex      | Date     |
|   |                | NIL   |  |  | Checked               | Date     |
|   |                | This document must not be reproduced in part or whole without written permission from ENERGEX or Ergon Energy | HARD COPY UNCONTROLLED   |  | Drawn                 | Date     |
|   |                |   |  |  | C. Noel               | 01/04/16 |
|   |                |   |  |  | F. Zaini              | 01/04/16 |
|   |                |   |  |  | P. Relf / A. Bletchly | 01/04/16 |
|   |                |   |  |  | L. Burton / T. Borg   | 14/10/10 |

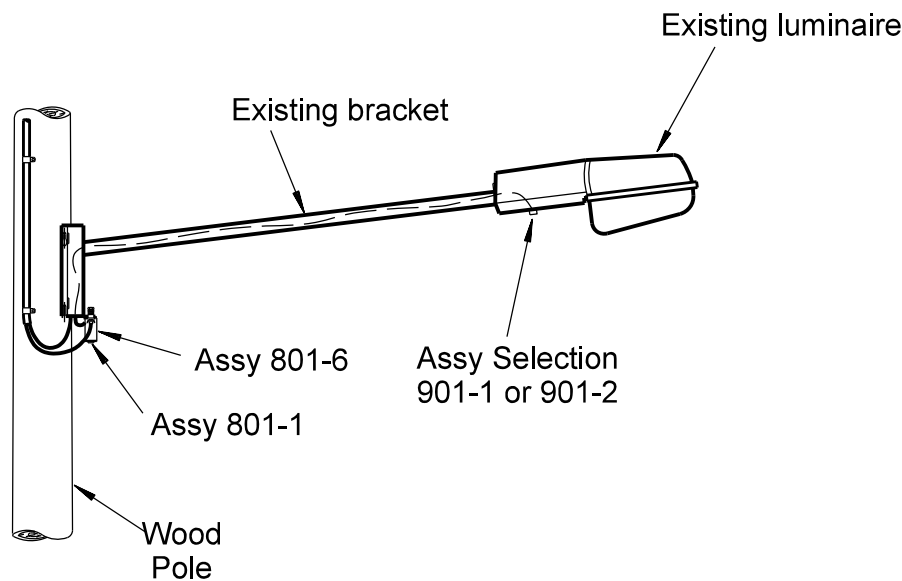
|  |        |        |      |       |
|--|--------|--------|------|-------|
| LIGHTING<br>PE CELL CONVERSION<br>MAJOR & MINOR ROAD OH SUPPLY - LUMINAIRE WITH<br>FACILITY FOR PE CELL, BRACKET HAS FACILITY FOR FUSE |        |        |      |       |
| EE DRWG NO: 1-12-6-1   | VOLUME | FOLDER | PAGE | ISSUE |
| EGX DRWG NO: 10500-A4-1-12-6-1   | 1      | 12     | 6-1  | 0B    |



CONNECTION TO LV ABC MAINS





CONNECTION TO OPEN WIRE MAINS



CONSTRUCTION TYPE

**PEC/MAJ/BF**  
**PEC/MIN/BF**



|   |   |                           |  |  |                  |                       |  |                                |     |       |  |  |  |
|---|---|---------------------------|--|--|------------------|-----------------------|--|--------------------------------|-----|-------|--|--|--|
| A | ORIGINAL ISSUE  | REFERENCE DRAWING ENERGEX | <br><b>energex</b><br>© COPYRIGHT 2002 ENERGEX<br>ENERGEX Corporation Limited<br>ABN 40 078 849 055 | <br>© COPYRIGHT 2002 ERGON ENERGY<br>Ergon Energy Corporation Limited<br>ABN 50 087 646 062 | Approved Ergon   | Date                  | <b>LIGHTING</b><br>PE CELL CONVERSION<br>MAJOR & MINOR ROAD OH SUPPLY - LUMINAIRE WITH<br>FACILITY FOR PE CELL, BRACKET WITH FACILITY FOR FUSE |                                |     |       |  |  |  |
|   | Nil   | C. Noel                   |  |  | 01/04/16         |                       |  |                                |     |       |  |  |  |
|   | REFERENCE DRAWING ERGON   | Nil                       |  |  | Approved Energex | Date                  |  |                                |     |       |  |  |  |
|   |   |                           |  |  | F. Zaini         | 01/04/16              |  |                                |     |       |  |  |  |
|   | This document must not be reproduced in part or whole without written permission from ENERGEX or Ergon Energy |                           | HARD COPY UNCONTROLLED   |  |                  | Checked               | Date   | EE DRWG NO: 1-12-6-2           |     |       |  |  |  |
|   |   |                           |  |  |                  | P. Relf / A. Bletchly | 01/04/16   | VOLUME                         |     |       |  |  |  |
|   |   |                           |  |  |                  | Drawn                 | Date   | 1                              |     |       |  |  |  |
|   |   |                           |  |  |                  | L. Burton / T. Borg   | 09/10/14   | EGX DRWG NO: 10500-A4-1-12-6-2 |     |       |  |  |  |
|   |   |                           |  |  |                  |                       |  |                                | 12  | PAGE  |  |  |  |
|   |   |                           |  |  |                  |                       |  |                                | 6-2 | ISSUE |  |  |  |
|   |   |                           |  |  |                  |                       |  |                                | 0A  |       |  |  |  |

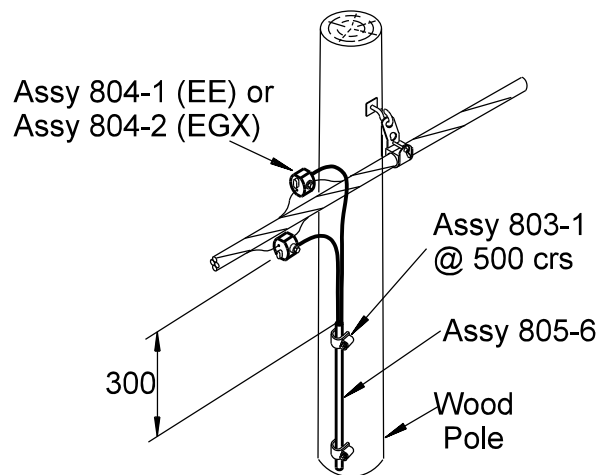
MATERIAL - SUPPLY & PE CELL

| ASSY  | DESCRIPTION   | PEC/MIN | PEC/MAJ |
|-------|---|---------|---------|
| 801-6 | Fuse holder 100A (service) to bracket                                 | 1       | 1       |
| 801-1 | Cartridge fuse link 32A HRC   | 1       | 1       |
| 802-6 | Bracket (service fuse) to wood pole                                   | 1       | 1       |
| 803-1 | Saddle (20mm) to wood pole  | AR      | AR      |
| 803-6 | Bracket cable support to x-arm  | AR      | AR      |
| 804-1 | Connector I.P.C. 25/95mm <sup>2</sup> main to 6/35mm <sup>2</sup> tap | 2       | 2       |
| 804-2 | 6-35mm Aluminium / 4-35mm Copper Thru Connector                       |         |         |
| 804-6 | Connector Tap-off bare aluminium mains                                |         |         |
| 804-7 | Connector Tap-off bare copper mains                                   |         |         |
| 805-1 | End cap - push on 25mm <sup>2</sup> ABC                               | AR      | AR      |
| 805-6 | Conduit PVC flexible - 16mm.  | AR      | AR      |
| 901-1 | PE Cell D-2 (Minor Road)  | 1       | -       |
| 901-2 | PE Cell NEMA (Major Road)   | -       | 1       |

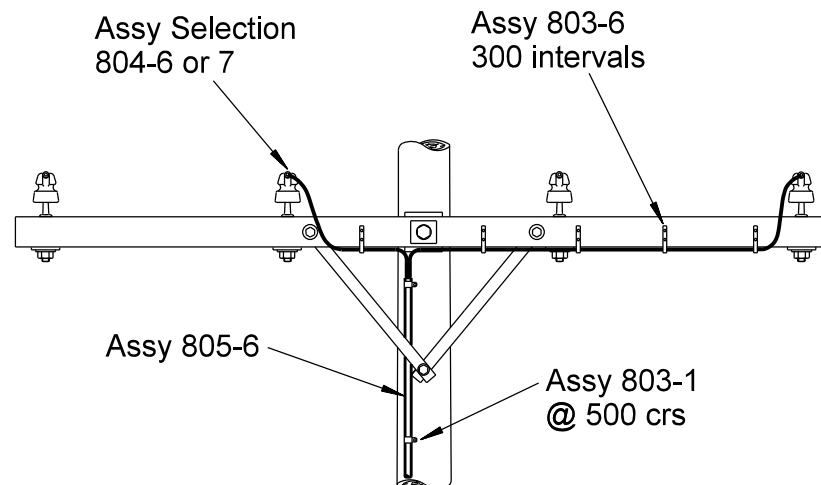
NOTES:

1. Open wire conductor configuration depends on regional location - configuration shown is illustrative only.
2. If cabling to luminaire is smaller than 6mm<sup>2</sup>, the cable will need to be replaced. Replacement cable stock code: 17119 / 1420068.
3. Fuse bracket is to be mounted adjacent luminaire bracket.

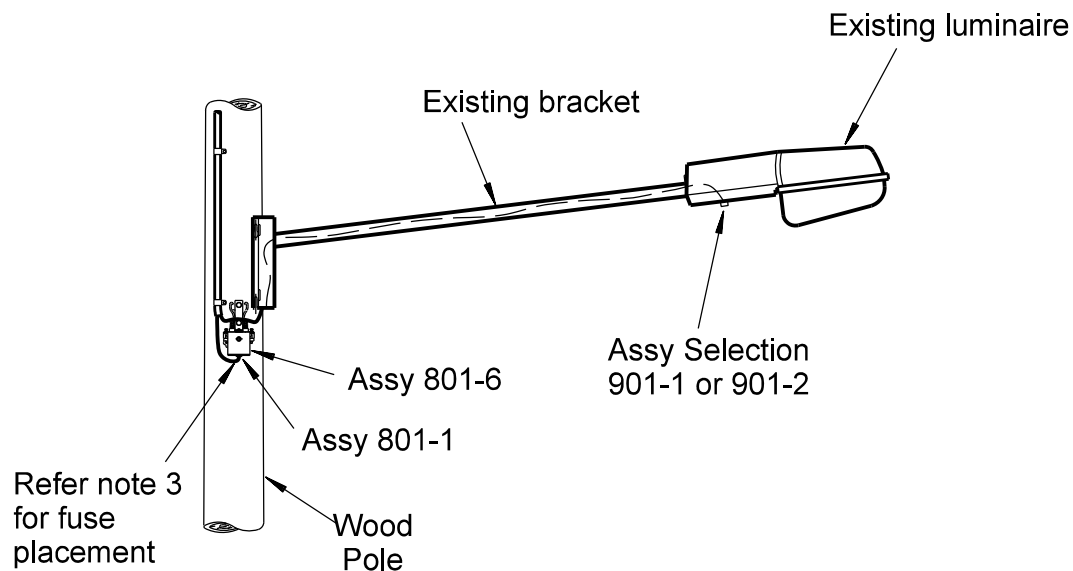
|                        |                |   |  |  |  |   |             |              |             |             |
|------------------------|----------------|---|--|--|--|---|-------------|--------------|-------------|-------------|
| A                      | ORIGINAL ISSUE | REFERENCE DRAWING ENERGEX<br>NIL  | <br>© COPYRIGHT 2002 ENERGEX<br>ENERGEX Corporation Limited<br>ABN 40 078 849 055 | <br>© COPYRIGHT 2002 ERGON ENERGY<br>Ergon Energy Corporation Limited<br>ABN 50 087 646 062 | Approved Ergon<br>C. Noel<br>01/04/16        | <b>LIGHTING</b><br>PE CELL CONVERSION<br>MAJOR & MINOR ROAD OH SUPPLY - LUMINAIRE HAS FACILITY<br>FOR PE CELL, BRACKET HAS NO FACILITY FOR FUSE |             |              |             |             |
| B                      | 23.03.16       | REFERENCE DRAWING ERGON<br>NIL  |  |  | Approved Energex<br>F. Zaini<br>01/04/16     |   |             |              |             |             |
|                        |                | This document must not be reproduced in part or whole without written permission from ENERGEX or Ergon Energy |  |  | Checked<br>P. Relf / A. Bletchly<br>01/04/16 |   |             |              |             |             |
| HARD COPY UNCONTROLLED |                |   |  |  | Drawn<br>L. Burton / T. Borg<br>14/10/10     | EE DRWG NO: 1-12-7-1  | VOLUME<br>1 | FOLDER<br>12 | PAGE<br>7-1 | ISSUE<br>0B |
|                        |                |   |  |  |  | EGX DRWG NO: 10500-A4-1-12-7-1  |             |              |             |             |



CONNECTION TO LV ABC MAINS



CONNECTION TO OPEN WIRE MAINS



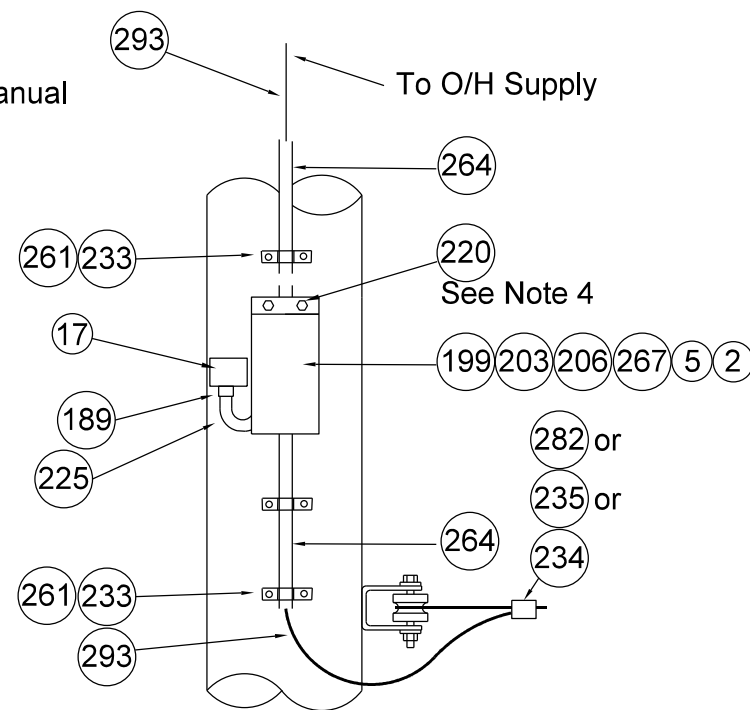
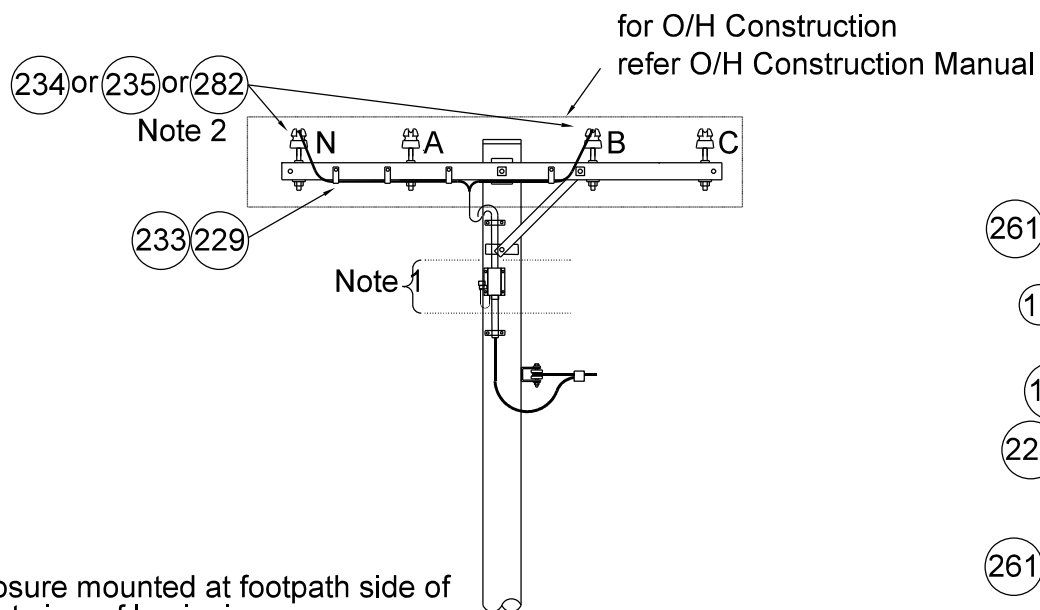
CONSTRUCTION TYPE

**PEC/MAJ/PF**  
**PEC/MIN/PF**

|   |   |   |   |   |  |
|---|---|---|---|---|--|
| A | ORIGINAL ISSUE  | REFERENCE DRAWING ENERGEX<br>Nil  | REFERENCE DRAWING ERGON<br>Nil  | Approved Ergon<br>C. Noel 01/04/16        | <b>LIGHTING</b><br><b>PE CELL CONVERSION</b><br><b>MAJOR &amp; MINOR ROAD OH SUPPLY - LUMINAIRE HAS FACILITY FOR PE CELL, BRACKET HAS NO FACILITY FOR FUSE</b> |
|   |   | © COPYRIGHT 2002 ENERGEX<br>ENERGEX Corporation Limited<br>ABN 40 078 849 055 | © COPYRIGHT 2002 ERGON ENERGY<br>Ergon Energy Corporation Limited<br>ABN 50 087 646 062 | Approved Energex<br>F. Zaini 01/04/16     |  |
|   | This document must not be reproduced in part or whole without written permission from ENERGEX or Ergon Energy |   |   | Checked<br>P. Relf / A. Bletchly 01/04/16 |  |
|   |   |   |   | Drawn<br>L. Burton / T. Borg 23/03/16     |  |
|   |   |   |   |   | EE DRWG NO: 1-12-7-2<br>EGX DRWG NO: 10500-A4-1-12-7-2<br>VOLUME 1<br>FOLDER 12<br>PAGE 7-2<br>ISSUE 0A  |



| PART | DESCRIPTION                                       | S.C.  | QTY |
|------|---|-------|-----|
| 2    | Fuse Link, Cartridge 20A (Existing)               | 04429 | AR  |
| 5    | Fuse Holder (Existing)                            | 19910 | AR  |
| 17   | PE Cell Base Holder, Pole Mounting                | 05302 | AR  |
| 264  | Conduit, Rigid HD 25mm                            | 04844 | 1   |
| 199  | Screw, Plated Brass, M5 x 25mm                    | 08536 | 3   |
| 203  | Nut, Plated Brass, M5                             | 00983 | 3   |
| 229  | Bracket, Bridge Support                           | 12466 | AR  |
| 233  | Nail, Galv, 30mm x 3.15mm                         | 11430 | AR  |
| 234  | Clamp, Al/Cu, LIBRA to PLUTO/16-35mm <sup>2</sup> | 16567 | AR  |
| 235  | Clamp, Cu/Cu, 3-135/16-35mm <sup>2</sup>          | 16568 | AR  |
| 225  | Conduit, Flexible 16mm                            | 04836 | AR  |
| 261  | Conduit Saddles, 25mm                             | 04929 | AR  |

| PART | DESCRIPTION                                   | S.C.  | QTY |
|------|---|-------|-----|
| 293  | Cable 6mm <sup>2</sup> 2c XLPE Cu             | 17119 | AR  |
| 189  | Cable PVC 2.5mm <sup>2</sup> Red              | 07124 | AR  |
| 220  | Coachscrew, Galv. M12 x 90mm                  | 00684 | AR  |
| 206  | Washer, S/S, 1/4                              | 01047 | 3   |
| 267  | Circuit Breaker in Box, 16A (MAJOR)           | 16917 | AR  |
| 282  | Clamp, LVABC, Al/Cu 50-95/6-35mm <sup>2</sup> | 10603 | AR  |



#### NOTES:

1. PE Cell & Box enclosure mounted at footpath side of pole and out of direct view of luminaire.
2. Energex to notify preferred phase to connect.
3. For 2 or 3 phase control, extra fuse holders or MCB's are required.
4. Maximum load of PE Cell is 1800VA.

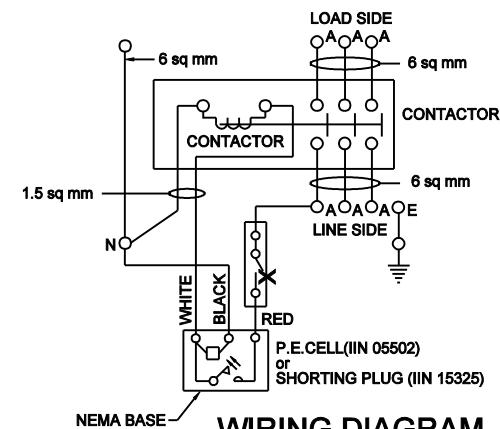
|   |                |   |  |  |                       |          |
|---|----------------|---|--|--|-----------------------|----------|
| A | ORIGINAL ISSUE | REFERENCE DRAWING ENERGEX   | <br>© COPYRIGHT 2002 ENERGEX<br>ENERGEX Corporation Limited<br>ABN 40 078 849 055 | <br>© COPYRIGHT 2002 ERGON ENERGY<br>Ergon Energy Corporation Limited<br>ABN 50 087 646 062 | Approved Ergon        | Date     |
| B | 16.08.16       | REFERENCE DRAWING ERGON   |  |  | C. Noel               | 19/04/17 |
|   |                | NIL   |  |  | Approved Energex      | Date     |
|   |                | This document must not be reproduced in part or whole without written permission from ENERGEX or Ergon Energy |  |  | Checked               | Date     |
|   |                |   |  |  | P. Relf / A. Bletchly | 01/04/17 |
|   |                |   |  |  | Drawn                 | Date     |
|   |                |   |  |  | L. Burton / T. Borg   | 14/10/10 |

#### LIGHTING

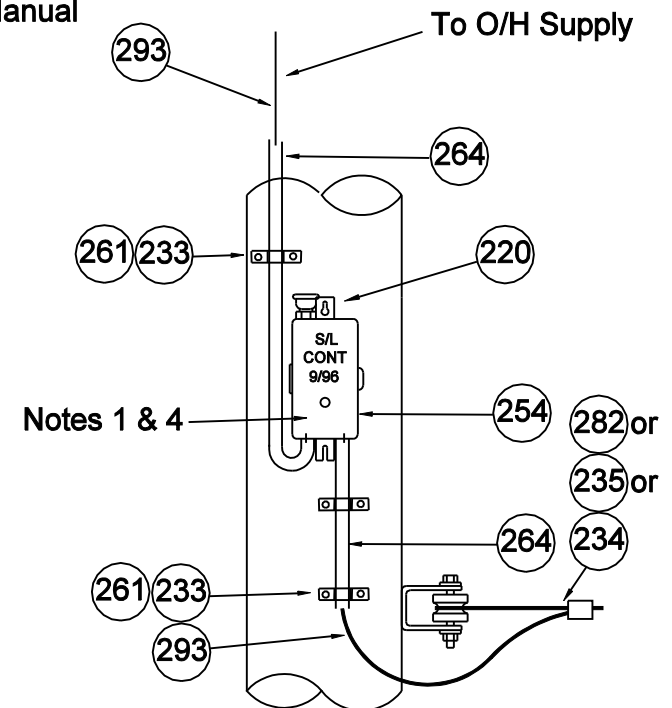
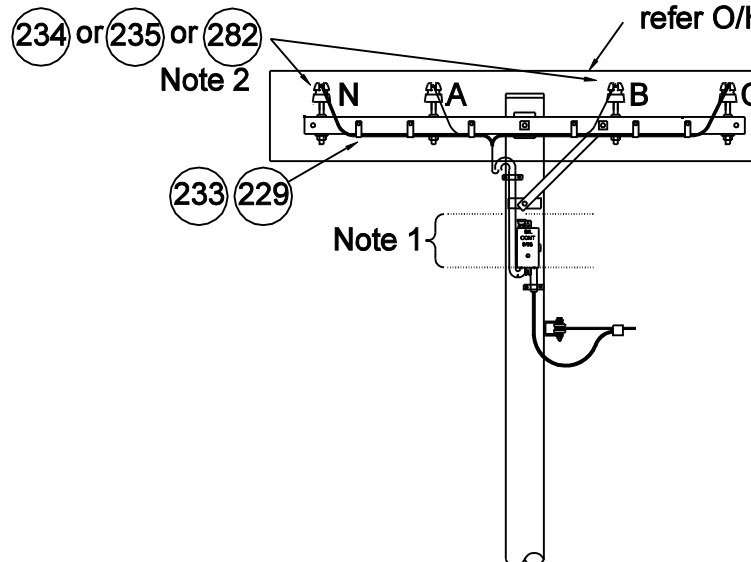
PE CELL CONVERSION - ENERGEX ONLY  
MINOR ROAD OVERHEAD MAINS SUPPLY - ONE PHASE ONLY  
1800VA MAX - PE CELL CONTROL LIGHTING MAIN

|                                |        |        |      |       |
|--------------------------------|--------|--------|------|-------|
| EE DRWG NO: 1-12-8-1           | VOLUME | FOLDER | PAGE | ISSUE |
| EGX DRWG NO: 10500-A4-1-12-8-1 | 1      | 12     | 8-1  | 0B    |

| PART | DESCRIPTION                                     | S.C.  | QTY |
|------|---|-------|-----|
| 293  | Cable 6mm <sup>2</sup> 2c XLPE Cu               | 17119 | AR  |
| 229  | Bracket, Bridge Support                         | 12466 | AR  |
| 233  | Nail, Galv, 30mm x 3.15mm                       | 11430 | AR  |
| 264  | Conduit, Rigid HD 25mm                          | 04844 | 1   |
| 261  | Conduit Saddles, 25mm                           | 04929 | AR  |
| 254  | Contactor in Box (S/L Control)                  | 14776 | AR  |
| 220  | Coachscrew, Galv. M12 x 90mm                    | 00684 | AR  |
| 234  | Clamp,Al/Cu,LIBRA to PLUTO/16-35mm <sup>2</sup> | 16567 | AR  |
| 235  | Clamp,Cu/Cu, 3-135/16-35mm <sup>2</sup>         | 16568 | AR  |
| 282  | Clamp,LVABC,Al/Cu 50-95/6-35mm <sup>2</sup>     | 10603 | AR  |





for O/H Construction  
refer O/H Construction Manual



#### NOTES:

1. PE Cell & Box enclosure mounted at footpath side of pole and out of direct view of luminaire.
2. Energex to notify preferred phase to connect.
3. For 2 or 3 phase control, extra fuse holders or MCB's are required.
4. Each contactor circuit load must not exceed 50A during starting, & 32A during running.

|   |                |   |  |   |   |   |        |        |      |       |
|---|----------------|---|--|---|---|---|--------|--------|------|-------|
| A | ORIGINAL ISSUE | REFERENCE DRAWING ENERGEX<br>4927-A4-3.9  | <br>© COPYRIGHT 2002 ENERGEX<br>ENERGEX Corporation Limited<br>ABN 40 078 849 055 | <br>© COPYRIGHT 2002 ERGON ENERGY<br>Ergon Energy Corporation Limited<br>ABN 50 087 646 062 | Approved Ergon<br>J. Brooks<br>14/10/10       | <b>LIGHTING</b><br>PE CELL CONVERSION - ENERGEX ONLY<br>MINOR ROAD OVERHEAD MAINS SUPPLY<br>1,2 or 3 PHASE ONLY CONTACTOR CONTROL LIGHTING MAIN |        |        |      |       |
|   |                | REFERENCE DRAWING ERGON<br>NIL  |  |   | Approved Energex<br>R. English<br>14/10/10    |   |        |        |      |       |
|   |                | This document must not be reproduced in part or whole without written permission from ENERGEX or Ergon Energy |  |   | Checked<br>D. Taylor / B. Oyegoke<br>14/10/10 |   |        |        |      |       |
|   |                |   |  |   | Drawn<br>L. Burton / T. Borg<br>14/10/10      |   |        |        |      |       |
|   |                | HARD COPY UNCONTROLLED  |  |   | EE DRWG NO: 1-12-9-1                          |   | VOLUME | FOLDER | PAGE | ISSUE |
|   |                |   |  |   | EGX DRWG NO: 10500-A4-1-12-9-1                | 1   | 12     | 9-1    | 0A   |       |

HARD COPY UNCONTROLLED