# PV System Coordination Study

Performed for the Proposed Commercial PV Solar Project at

[redacted]

Located in [redacted]

Prepared for

[redacted]

[redacted]

[redacted]

Project: [redacted]

**Attn:** [redacted]
[redacted]

**Subject:** PV System Coordination Study v2

**Project Address:** [redacted]

The following report will take into consideration the effect of adding a new PV system to the service at the address above, pursuant to the following scope:

- Coordination Study for PV equipment, any customer equipment that was modified, and coordination between PV system and the existing electrical system

Please reference the attached reports as provided:

Appendix A: Coordination Study

We hope this provides the information you require. If you have any questions regarding the contents of our report, or if we can be of further assistance, please contact us.

Respectfully submitted,

Richard Dobbins, PE

# Appendix A

**Coordination Study**

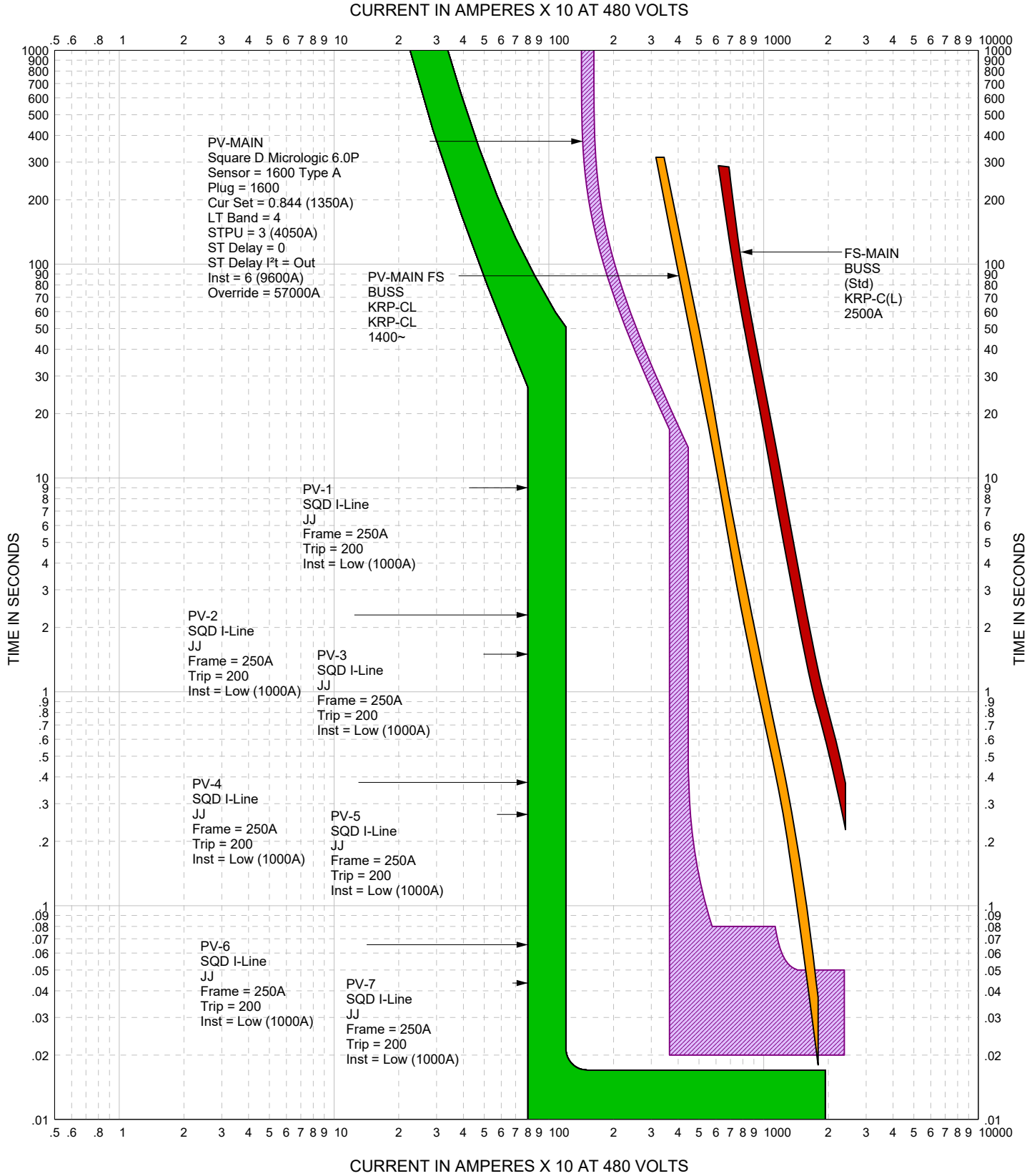
The new overcurrent devices that are being installed as a part of the new PV system have been coordinated to improve their efficacy and response to a short-circuit in the system. Below are the coordination settings as determined from our study:

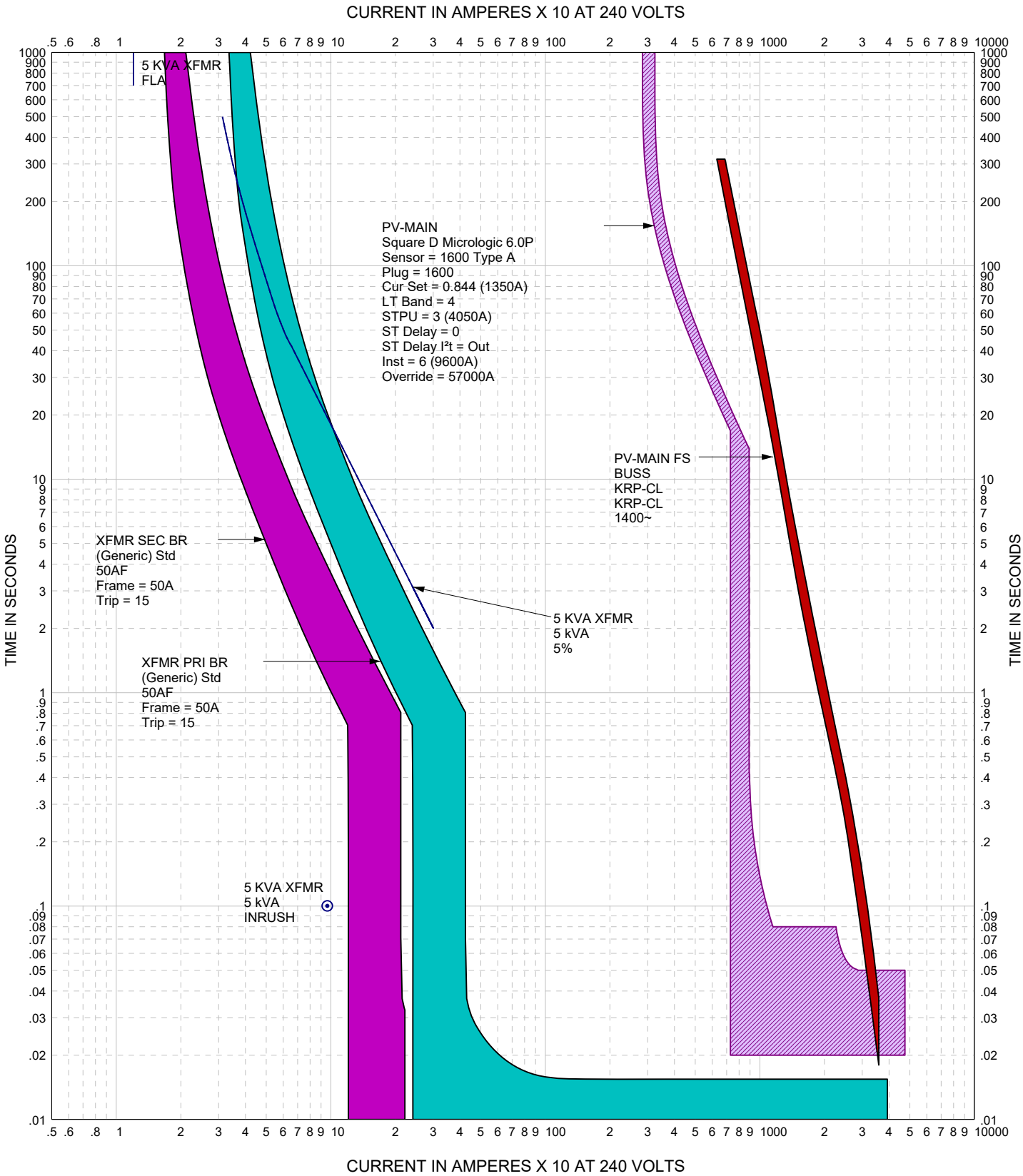
| | Solid State Trip Breaker Specifications | | | | | LTPU | | LT Delay | |
|---|---|---|---|---|---|---|---|---|---|
| ID | Manufacturer | Type | Style | Frame/Sensor | tap/plug | Name | Trip (A) | Name | Band |
| PV MAIN | Square D | Micrologic 6.0P | MCCB | 1600 Type A | 1600 | LT Pickup | 1350 (0.844) | LT Delay | 4 |

| | STPU | | | | | Instantaneous | | | Ground Trip | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ID | Name | Setting | Trip (A) | Band | I2t | Setting | Override | Trip (A) | Pickup | Trip (A) | Delay | I2t |
| PV MAIN | ST Pickup | 3 | 4320 | 0 | Out | 6 | Pickup | 9600 | A | 500 | 0.1 | Out |

| Thermal Magnetic Breaker | | | | | | Instantaneous | |
|---|---|---|---|---|---|---|---|
| ID | Manufacturer | Type | Style | Frame | Trip | Setting | Trip (A) |
| PV-1 | SQD | I-Line | JJ | 250A | 200 | 5 | 1000 |
| PV-2 | SQD | I-Line | JJ | 250A | 200 | 5 | 1000 |
| PV-3 | SQD | I-Line | JJ | 250A | 200 | 5 | 1000 |
| PV-4 | SQD | I-Line | JJ | 250A | 200 | 5 | 1000 |
| PV-5 | SQD | I-Line | JJ | 250A | 200 | 5 | 1000 |
| PV-6 | SQD | I-Line | JJ | 250A | 200 | 5 | 1000 |
| PV-7 | SQD | I-Line | JJ | 250A | 200 | 5 | 1000 |
| XFMR PRI BR | (Generic) | Std | 50AF | 50A | 15 | Fixed | |
| XFMR SEC BR | (Generic) | Std | 50AF | 50A | 15 | Fixed | |

The time-current curves with all relevant overcurrent devices and their settings can be found on the following pages:


CURRENT IN AMPERES X 10 AT 480 VOLTS
TIME IN SECONDS
PV-MAIN
Square D Micrologic 6.0P
Sensor = 1600 Type A
Plug = 1600
Cur Set = 0.844 (1350A)
LT Band = 4
STPU = 3 (4050A)
ST Delay = 0
ST Delay I²t = Out
Inst = 6 (9600A)
Override = 57000A
PV-MAIN FS
BUSS
KRP-CL
KRP-CL
1400~
FS-MAIN
BUSS
(Std)
KRP-C(L)
2500A
PV-1
SQD I-Line
JJ
Frame = 250A
Trip = 200
Inst = Low (1000A)
PV-2
SQD I-Line
JJ
Frame = 250A
Trip = 200
Inst = Low (1000A)
PV-3
SQD I-Line
JJ
Frame = 250A
Trip = 200
Inst = Low (1000A)
PV-4
SQD I-Line
JJ
Frame = 250A
Trip = 200
Inst = Low (1000A)
PV-5
SQD I-Line
JJ
Frame = 250A
Trip = 200
Inst = Low (1000A)
PV-6
SQD I-Line
JJ
Frame = 250A
Trip = 200
Inst = Low (1000A)
PV-7
SQD I-Line
JJ
Frame = 250A
Trip = 200
Inst = Low (1000A)


CURRENT IN AMPERES X 10 AT 240 VOLTS
TIME IN SECONDS
5 KVA XFMR
FLA
PV-MAIN
Square D Micrologic 6.0P
Sensor = 1600 Type A
Plug = 1600
Cur Set = 0.844 (1350A)
LT Band = 4
STPU = 3 (4050A)
ST Delay = 0
ST Delay I²t = Out
Inst = 6 (9600A)
Override = 57000A
PV-MAIN FS
BUSS
KRP-CL
KRP-CL
1400~
XFMR SEC BR
(Generic) Std
50AF
Frame = 50A
Trip = 15
5 KVA XFMR
5 kVA
5%
XFMR PRI BR
(Generic) Std
50AF
Frame = 50A
Trip = 15
5 KVA XFMR
5 kVA
INRUSH