

PHOTOVOLTAIC SYSTEM NEC COMPLIANCE CHECK LIST

Ground-mounted Interactive Grid-connected System Without Battery Support

Address	Permit Number
Owner/Installer	Peak System Power 8.12 KW

PHOTOVOLTAIC PANELS

Manufacturer Kyocera Corporation
Model Number KC-120-1
Quantity in system 72 expandable to 80

Nameplate Ratings (25 C):

Maximum power (Pmax) 120 Watts
Operating voltage (Vpmax) 120 Volts
Current at Vpmax (Ipmax) 7.10 Amperes
Open circuit voltage (Voc) 21.5 Volts
Short circuit current (Isc) 7.45 Amperes
Wire temperature rating 90 Deg. C

GRID-CONNECT INVERTERS

Manufacturer Xantrex (Trace)
Model Number ST2500
Quantity in system 4

Nameplate Ratings (25 C):

Continuous AC output power 2,500 VA
Nominal AC output voltage 240 VAC
Max PV open circuit voltage 125 VDC

SYSTEM CONFIGURATION

PV panel string configuration 4-panel series-wired
String current NEC Amps (156%) 11.62 (Isc)
Installed string wire size & type AWG 6 RHW-2 ultra flexible class 1 stranded*1
Maximum system voltage (DC) 97.2 (14 F) Voc corrected per NEC 690-7.
Inverter Max PV open ckt. voltage 125 In compliance with max system voltage? Yes
Inverter output NEC Amps (125%) 13.0
Installed inverter wire size & type AWG 8 THWN*2
NEC Amps output, all inverters 52.0 (4 inverters)
Installed wire size to utility panel AWG 4 THWN
Utility panel bus bar rating 200 Amps
Utility panel main feed breaker 200 Amps
PV system feed breaker 40 Amps In compliance with 120% feed limitation? Yes

*1 De-rated per NEC 690-31 to 63.2 Amps (58% of 109-Amp base ampacity) for 90 C rated conductor at 70 C operating temperature, and further de-rated per NEC 310-15 to 31.6 Amps (50% of 63.2 Amps) for 10 conductors in a single conduit.

*2 De-rated per NEC 690-31 to 73.0 Amps (88% of 83-Amp base ampacity) for 75 C rated conductor at 104 F operating temperature, and further de-rated per NEC 310-15 to 51.1 Amps (70% of 73-Amps) for 8 conductors in a single conduit.

I certify that all terminations have been torqued in accordance with manufacturer's instructions and that the work shown on this document represents the full extent of the work performed under this permit.

Signature _____ Date _____