

**MODULES:**  
 234 PV SOLAR MODULES, 2 PV MODULES PER MICROINVERTER  
 - 425W PV MODULES ON UL 2703 LISTED RACKING  
 - BARE 12 AWG EGC BONDED TO RACKING WITH UL LISTED LUGS  
 - EACH MODULE EFFECTIVELY BONDED TO RACKING.

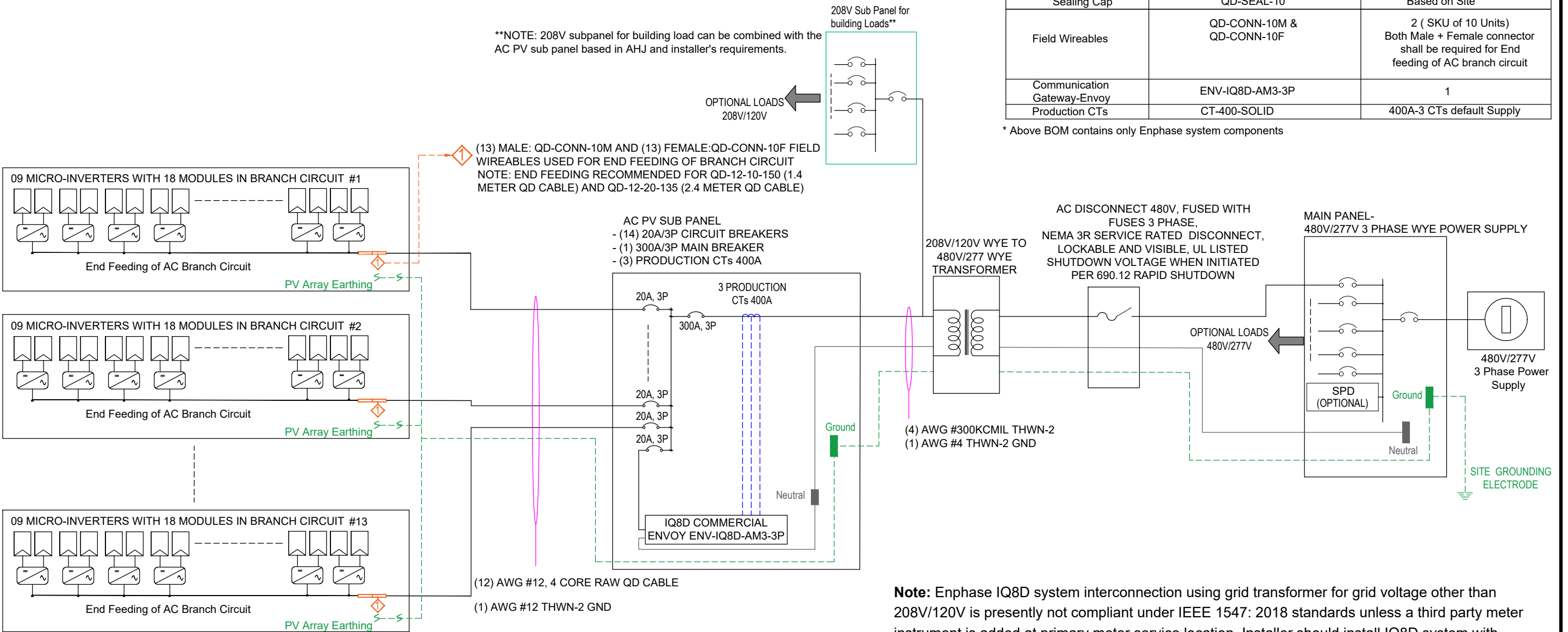
**MICROINVERTER:**  
 117 MODULE LEVEL MICROINVERTER, MAXIMUM 9 PER BRANCH CIRCUIT  
 - ENPHASE, IQ8D-72-E-US MICROINVERTERS  
 - UL 1741, NEMA 4, 208VAC, 3.04A L-L, FUNCTIONALLY GROUNDING

**BRANCH CIRCUIT CURRENT :**  
 $3 \text{ (MICROS PER PHASE)} \times 3.04\text{A (IQ8D MICROINVERTER CURRENT)} \times 1.732 \times 1.25 = 19.8\text{A}$

**COMBINED CIRCUIT CURRENT PV SIDE OF TRANSFORMER :**  
 $39 \text{ (MICROS PER PHASE)} \times 3.04\text{A (IQ8D MICROINVERTER CURRENT)} \times 1.732 \times 1.25 = 256.7\text{A}$

**COMBINED CIRCUIT CURRENT GRID SIDE OF TRANSFORMER :**  
 $39 \text{ (MICROS PER PHASE)} \times 3.04\text{A (IQ8D MICROINVERTER CURRENT)} \times 1.732 \times (208/480) \times 1.25 = 111.4\text{A}$

**\*\*NOTE:** 208V subpanel for building load can be combined with the AC PV sub panel based in AHJ and installer's requirements.



**System Details**

SYSTEM SIZE (DC)	SYSTEM SIZE (AC)	DC/AC RATIO
99.5kW	74.1kW	1.34

**Enphase BOM**

SYSTEM COMPONENT	SKU DETAILS	QUANTITY
IQ8D MICROINVERTER	IQ8D-72-E-US	117
EN4 TO MC4 bulkhead adapter cable	ECA-EN4-S22 (Default Supply with IQ8D)	117 Pairs
QD cable	QD-12-10-150 (1.4 m pitch) OR QD-12-20-135 (2.4 m pitch)	117 Drops (Assumption: No drops skipped)
Cable Termination	QD-TERM-10	2 (SKU of 10 Units)
Cable Clip	ET-CLIP-100	Based on Site
Disconnect Tool	QD-DISC-10	1 (SKU of 10 Units)
Sealing Cap	QD-SEAL-10	Based on Site
Field Wireables	QD-CONN-10M & QD-CONN-10F	2 (SKU of 10 Units) Both Male + Female connector shall be required for End feeding of AC branch circuit
Communication Gateway-Envoy	ENV-IQ8D-AM3-3P	1
Production CTs	CT-400-SOLID	400A-3 CTs default Supply

\* Above BOM contains only Enphase system components

**Note:** Enphase IQ8D system interconnection using grid transformer for grid voltage other than 208V/120V is presently not compliant under IEEE 1547: 2018 standards unless a third party meter instrument is added at primary meter service location. Installer should install IQ8D system with transformer only when the system meets all the correct compliance standards applicable for your AHJ.

**Note:** Sizing for AC Disconnect and Main Service Panel breaker connecting to transformer should be done based on 208V/120V Optional load + PV Microinverter peak output

**NOTE:**  
 THIS DOCUMENT IS PROVIDED FOR RECOMMENDATION AND SUGGESTIVE PURPOSE TO DEMONSTRATE ENPHASE IQ8D SOLUTIONS AND PRODUCTS IN END USE ENERGY PROJECT APPLICATIONS. FINAL DESIGN AND ACTUAL PERFORMANCE OF ANY SOLAR ENERGY PROJECT AS WELL AS COMPLIANCE WITH ALL SPECIFICATIONS, INSTALLATION REQUIREMENTS AND LOCAL CODES IS THE RESPONSIBILITY OF THE PARTY THIS INFORMATION IS PROVIDED TO. THIS SINGLE LINE DIAGRAM IS NOT INTENDED TO REPLACE SITE SPECIFIC DIAGRAM FOR INSPECTION OF PROJECT. ENPHASE IS NOT RESPONSIBLE FOR USE OF THE DATA PROVIDED HEREIN.



**DWG TITLE:**  
 IQ8D 100KW 480V SYSTEM SLD  
 END FEEDING

**SIZE:**  
 A3

**DATE:** 20 Jan 2022

**SHEET:** 1 OF 1

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**NOTE: CENTER FEEDING RECOMMENDED FOR INSTALLATIONS WITH QD-12-42-63 (4.6 METER QD CABLE) WITH > 6 MICROINVERTERS IN BRANCH CIRCUIT ; END FEEDING RECOMMENDED FOR <= 6 MICROS IN BRANCH CIRCUIT**

**NOTE: CENTER FEEDING ADAPTER CABLE TO BE USED ONLY FOR INSTALLATIONS WITH QD-12-42-63 (4.6 METER QD CABLE SKU)**

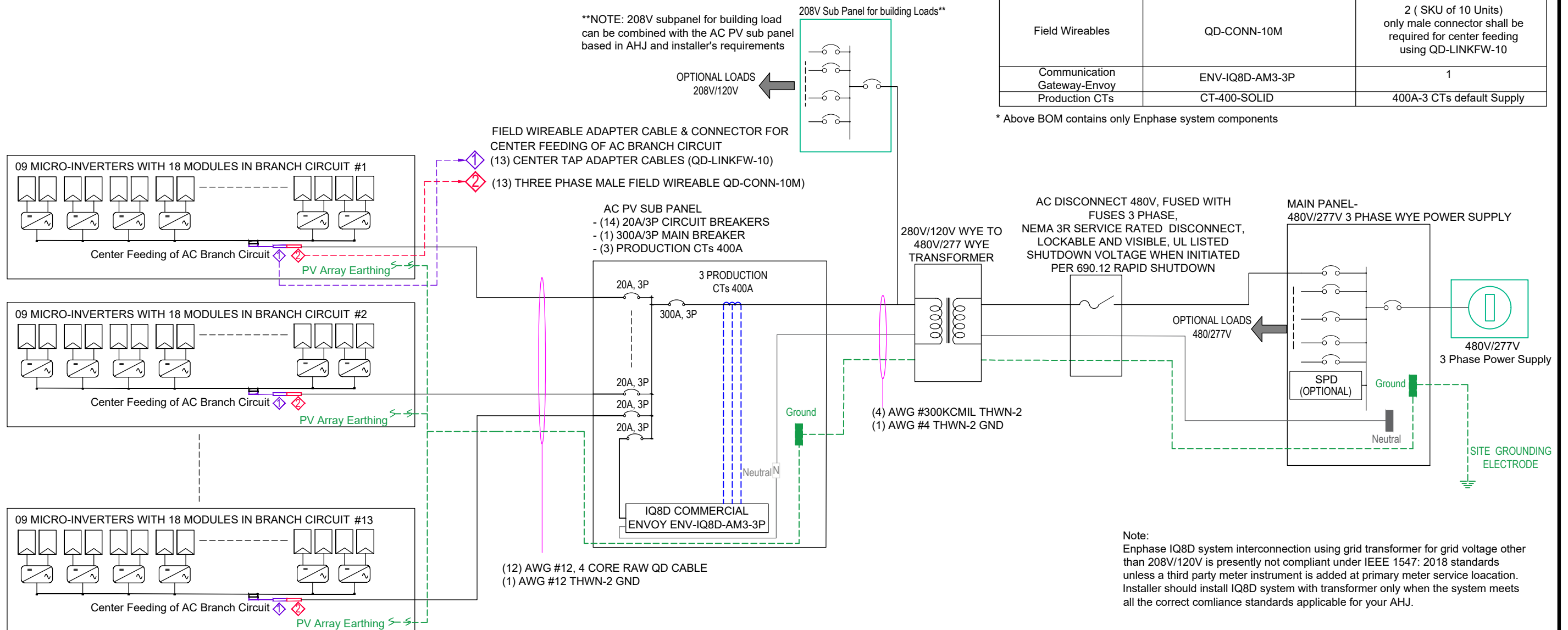
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IQ8D microinverter	IQ8D-72-E-US	117
EN4 TO MC4 bulkhead adapter cable	ECA-EN4-S22 (Default Supply with IQ8D)	117 Pairs
QD cable	QD-12-22-63 (4.6 m pitch)	117 Drops (Assumption: No drops skipped)
Cable Termination	QD-TERM-10	3 (SKU of 10 Units)
Cable Clip	ET-CLIP-100	Based on Site
Disconnect Tool	QD-DISC-10	1 (SKU of 10 Units)
Sealing Cap	QD-SEAL-10	Based on Site
Center Tap Adapter cable	QD-LINKFW-10	2 (SKU of 10 Units) for center feeding using CTAP connector only in QD-12-42-63 (4.6 mt cable)
Field Wireables	QD-CONN-10M	2 (SKU of 10 Units) only male connector shall be required for center feeding using QD-LINKFW-10
Communication Gateway-Envoy	ENV-IQ8D-AM3-3P	1
Production CTs	CT-400-SOLID	400A-3 CTs default Supply

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 CENTER FEEDING

**SIZE:**  
 A3

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**SHEET:** 1 OF 1