

MODULES:
 468 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:
 234 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 :
 $54 \text{ (MICROS PER PHASE)} \times 3.04\text{A (IQ8D MICROINVERTER CURRENT)} \times 1.732 \times 1.25 = 355.8\text{A}$
 $24 \text{ (MICROS PER PHASE)} \times 3.04\text{A (IQ8D MICROINVERTER CURRENT)} \times 1.732 \times 1.25 = 158.1\text{A}$

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)

FIELD WIREABLE ADAPTER CABLE & CONNECTOR FOR CENTER FEEDING OF AC BRANCH CIRCUIT

(26) FIELD WIREABLE ADAPTER CABLES (QD-LINKFW-10)
 (26) THREE PHASE MALE FIELD WIREABLE QD-CONN-10M)

(18) AWG #12, 4 CORE RAW QD CABLE
 (1) AWG #12 THWN-2 GND

AC PV SUB PANEL
 - (19) 20A/3P CIRCUIT BREAKERS
 - (1) 400A/3P MAIN BREAKER
 - (3) PRODUCTION CTs 400A

(4) AWG #500KCMIL THWN-2
 (1) AWG #3 THWN-2 GND

LINE FILTER 400A
 3 PHASE
 (Recommended)

AC DISCONNECT 208V, 400A
 FUSED WITH 400A FUSES 3 PHASE,
 NEMA 3R SERVICE RATED
 DISCONNECT, LOCKABLE AND
 VISIBLE, UL LISTED SHUTDOWN
 VOLTAGE WHEN INITIATED PER
 690.12 RAPID SHUTDOWN

(8) AWG #12, 4 CORE RAW QD CABLE
 (1) AWG #12 THWN-2 GND

AC PV SUB PANEL
 - (9) 20A/3P CIRCUIT BREAKERS
 - (1) 175A/3P MAIN BREAKER
 - (3) PRODUCTION CTs 400A

(4) AWG #2/0 THWN-2
 (1) AWG #6 THWN-2 GND

LINE FILTER 250A
 3 PHASE
 (Recommended)

AC DISCONNECT 208V, 200A
 FUSED WITH 175A FUSES 3 PHASE,
 NEMA 3R SERVICE RATED
 DISCONNECT, LOCKABLE AND
 VISIBLE, UL LISTED SHUTDOWN
 VOLTAGE WHEN INITIATED PER
 690.12 RAPID SHUTDOWN

NOTE:

THIS DOCUMENT IS PROVIDED FOR RECOMMENDATION AND SUGGESTIVE PURPOSE TO DEMONSTRATE ENPHASE IQ 8D 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.

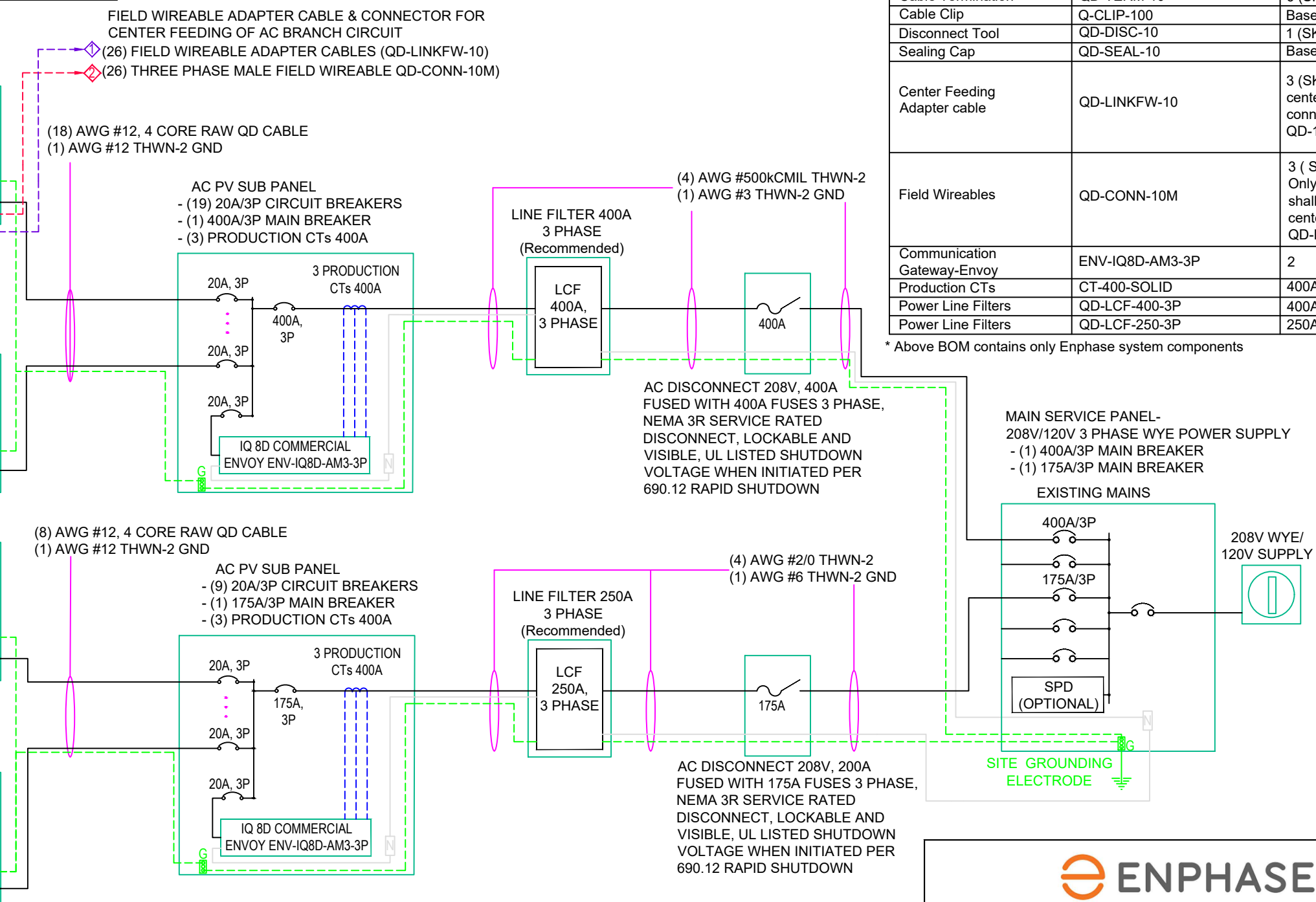
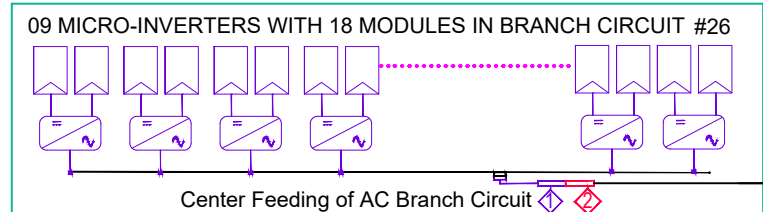
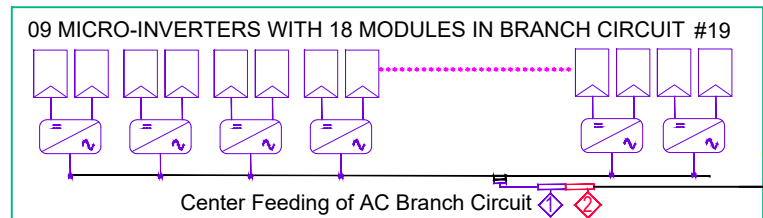
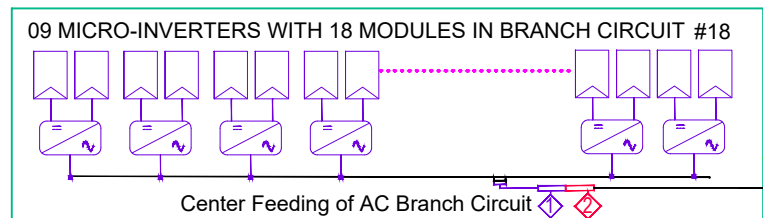
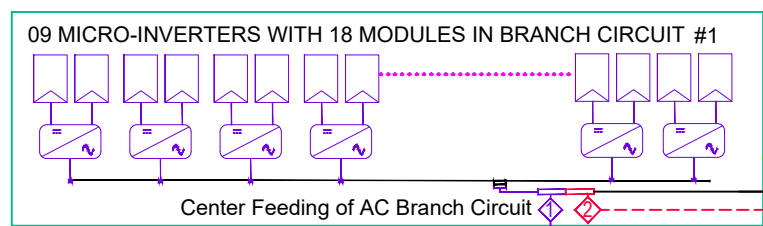
System Details

SYSTEM SIZE (DC)	SYSTEM SIZE (AC)	DC/AC RATIO
198.9kW	148.1kW	1.34

Enphase BOM

SYSTEM COMPONENT	SKU DETAILS	QUANTITY
IQ 8D MICROINVERTER	IQ8D-72-E-US	234
EN4 TO MC4 BULKHEAD ADAPTER CABLE	ECA-EN4-S22 (Default Supply with IQ 8D)	234 Pairs
QD CABLE	QD-12-42-63 (4.6 m pitch)	234 Drops (Assumption: No drops skipped)
Cable Termination	QD-TERM-10	6 (SKU of 10 Units)
Cable Clip	Q-CLIP-100	Based on Site
Disconnect Tool	QD-DISC-10	1 (SKU of 10 Units)
Sealing Cap	QD-SEAL-10	Based on Site
Center Feeding Adapter cable	QD-LINKFW-10	3 (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	3 (SKU of 10 Units) Only male connector shall be required for center feeding using QD-LINKFW-10
Communication Gateway-Envoy	ENV-IQ8D-AM3-3P	2
Production CTs	CT-400-SOLID	400A-6 CTs default Supply
Power Line Filters	QD-LCF-400-3P	400A - 1 (Recommended)
Power Line Filters	QD-LCF-250-3P	250A - 1 (Recommended)

* Above BOM contains only Enphase system components



DWG TITLE:	TYPICAL IQ8D 200kW SYSTEM SLD CENTER FEEDING	SIZE:	A3
DATE:	08 OCT 2021	SHEET: 1 OF 1	