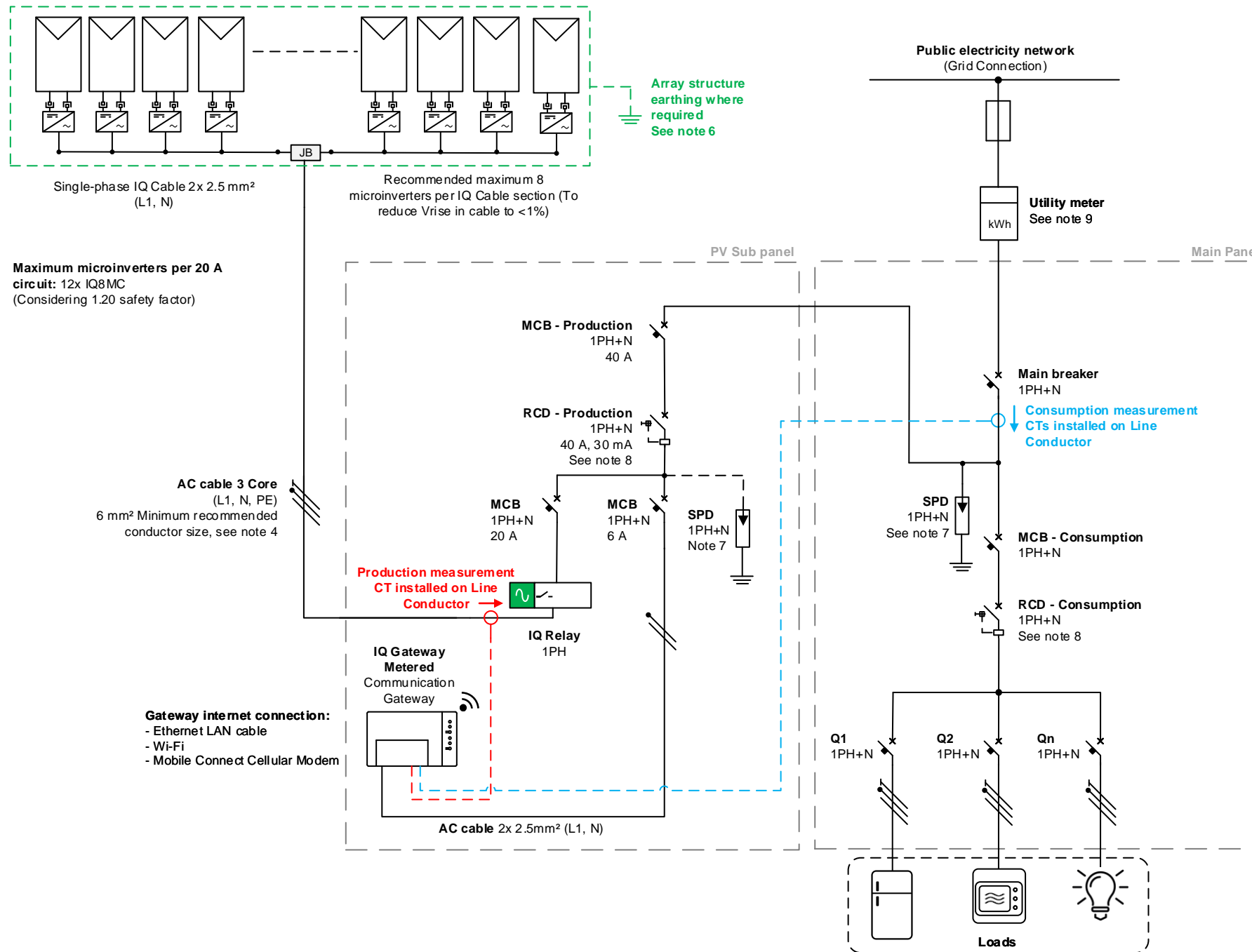


NOTES:

1. These schematics are examples only. These schematics provide recommendations to assist the system designer and installer.
2. The design and installation of the photovoltaic power plant must be carried out in accordance with local electrical standards in the country of installation and must be carried out by competent personnel.
3. Before installing any PV equipment, check the phase-to-neutral voltage at the point of connection. The operating voltage must be within a range acceptable for the 230 V microinverters.
4. When planning the system, you must select the appropriate AC conductor size to minimize voltage rise. Select the correct conductor size based on the distance from the junction with the microinverter AC branch circuit to the circuit breaker in the electrical panel. Enphase recommends a voltage rise total of less than 2% from the start of IQ Cable to the point of supply.
5. The 2.5 mm² IQ Cable is usually protected by a 20 A B curve circuit breaker.
6. The equipotential bonding between PV module frames, array mounting structure and the metal microinverter mounting brackets must be installed in accordance with local electrical standards..
7. Optional : PV systems without Lightning Protection LPS are recommended to have Surge Protection devices SPD Type/ Class II installed, if LPS is installed Type/Class I is recommended. SPD's are recommended on all PV circuits greater than 10m in cable length.
8. Enphase microinverters have an integrated High Frequency transformer which provides galvanic separation between DC and AC parts. Where local electrical standards require RCD protection, a Type A device can be used. Refer Techbrief [here](#).
9. Utility meter may be located inside the main panel or as a standalone device.



DRAWING No:
EN-IQ8-1PHN

DRAWING Name:
Electrical diagram example: Single-phase IQ8 Series Microinverters grid tied PV system

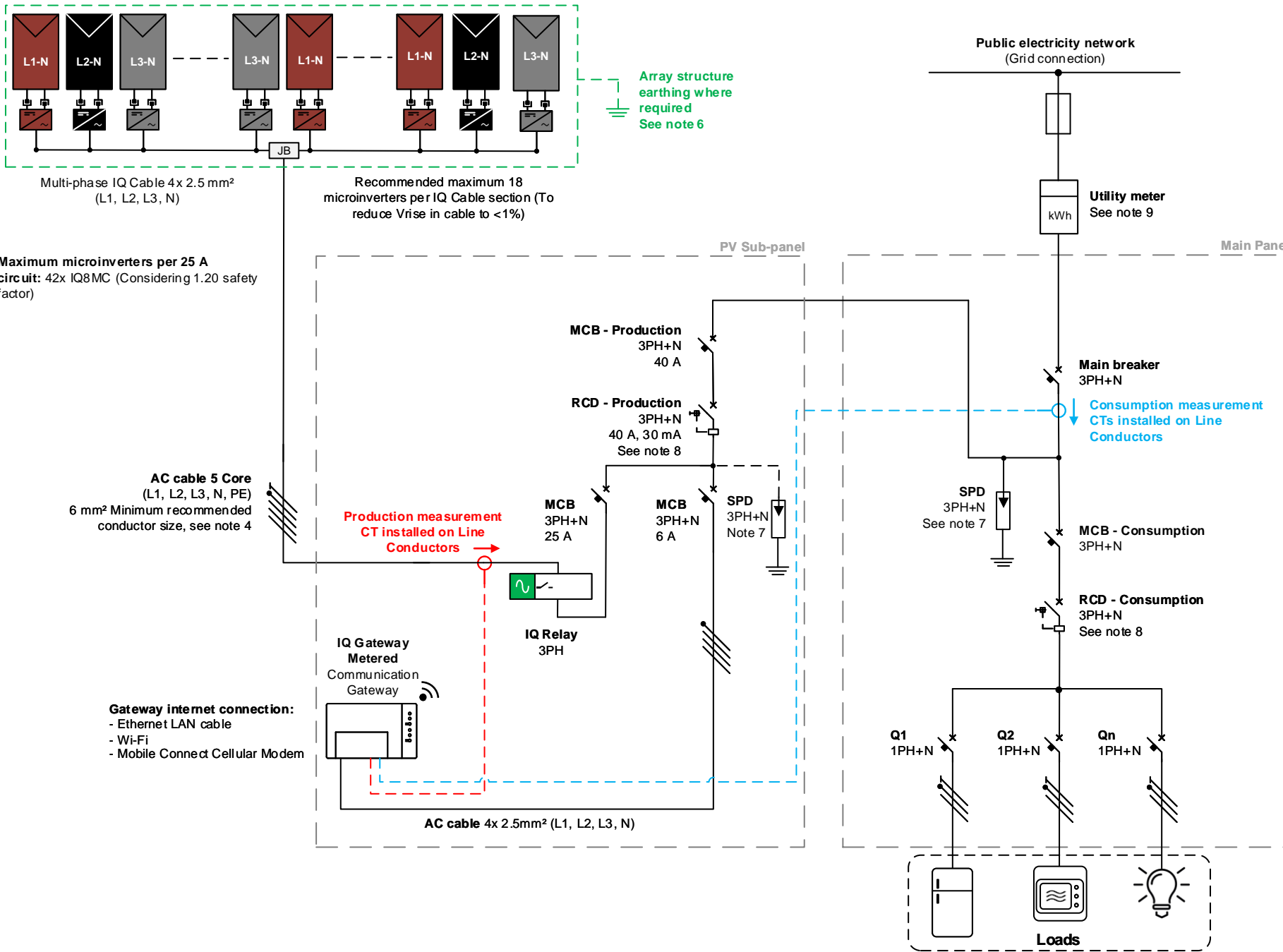
DATE :
01/06/2023

SHEET:
1 of 1

SCALE:
NTS@A4

NOTES:

- These schematics are examples only. These schematics provide recommendations to assist the system designer and installer.
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- The 2.5 mm² IQ Cable is usually protected by a 25 A B curve circuit breaker.
- The equipotential bonding between PV module frames, array mounting structure and the metal microinverter mounting brackets must be installed in accordance with local electrical standards.
- Optional : PV systems without Lightning Protection LPS are recommended to have Surge Protection devices SPD Type/ Class II installed, if LPS is installed, f LPS is installed, Type/Class I is recommended. SPD's are recommended on all PV circuits greater than 10m in cable length.
- Enphase microinverters have an integrated High Frequency transformer which provides galvanic separation between DC and AC parts. Where local electrical standards require RCD protection, a Type A device can be used. Refer Techbrief [here](#).
- Utility meter may be located inside the main panel or as a standalone device.



Array structure earthing where required
See note 6

Maximum microinverters per 25 A circuit: 42x IQ8MC (Considering 1.20 safety factor)

AC cable 5 Core (L1, L2, L3, N, PE)
6 mm² Minimum recommended conductor size, see note 4

Gateway internet connection:
- Ethernet LAN cable
- Wi-Fi
- Mobile Connect Cellular Modem