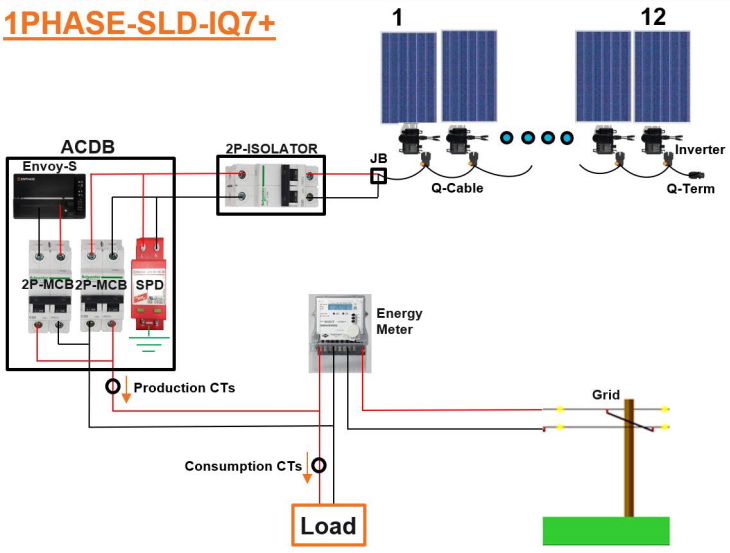
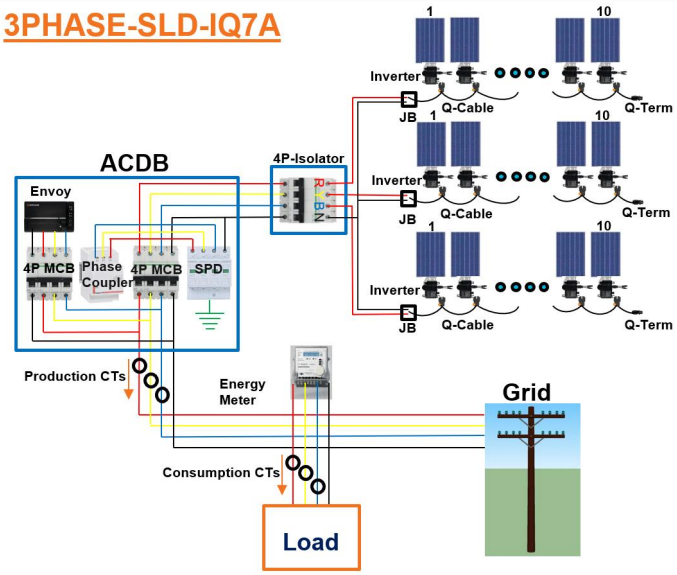
ENPHASE. QUICK INSTALL GUIDE

1PHASE-SLD-IQ7+



3PHASE-SLD-IQ7A



1PHASE-BOM-IQ7+ (PV=400Wp)					
	Model Number				
PV Capacity	IQ7PLUS-72-2-INT	Q-12-10-240	Q-TERM-10	Q-DISC-10	ENV-S-WM-230
Unit	No.s	Drop	No.s	No.s	No.s
1kW	3	3	1	1	1
2kW	5	5	1	1	1
3kW	8	8	1	1	1
4kW	10	10	1	1	1
5kW	13	13	2	1	1

1PHASE-BOM-IQ7A (PV=500Wp)					
	Model Number				
PV Capacity	IQ7A-72-2-INT	Q-12-10-240	Q-TERM-10	Q-DISC-10	ENV-S-WM-230
Unit	No.s	Drop	No.s	No.s	No.s
1kW	2	2	1	1	1
2kW	4	4	1	1	1
3kW	6	6	1	1	1
4kW	8	8	1	1	1
5kW	10	10	2	1	1

3PHASE-BOM-IQ7+(PV=400Wp)						
	Model Number					
PV Capacity	IQ7PLUS-72-2-INT	Q-12-10-240	Q-TERM-10	Q-DISC-10	ENV-S-WM-230	LPC-01
Unit	No.s	Drop	No.s	No.s	No.s	No.s
3kW	8	8	3	1	1	1
5kW	13	13	3	1	1	1
7kW	18	18	3	1	1	1
10kW	25	25	3	1	1	1

3PHASE-BOM-IQ7A(PV=500Wp)						
	Model Number					
PV Capacity	IQ7A-72-2-INT	Q-12-10-240	Q-TERM-10	Q-DISC-10	ENV-S-WM-230	LPC-01
Unit	No.s	Drop	No.s	No.s	No.s	No.s
3kW	6	6	3	1	1	1
5kW	10	10	3	1	1	1
7kW	14	14	3	1	1	1
10kW	20	20	3	1	1	1

Notes:

1. The provided SLD & BOM for illustrative. Actual system design and BOM depend on actual site-specific conditions.
2. IQ7+ is compatible up to 400Wp panel ; IQ7A compatible up to 500Wp panel. Max no of microinverter per branch circuit : IQ7A:- 10 No's & IQ7+:- 12 N0's .
3. Either Portrait or Landscape , Enphase Q cable to be chosen based on solar panel orientation
4. Microinverters comes along with mounting frames. M6/M8 Bolts and Nuts to be used to fix Microinverters on Module Mounting Structure . Torque range M6 Bolts- 5Nm; M8 Bolts - 9Nm
5. Mount the microinverter bracket away from rain and sun. Allow a minimum of 1.9 cm between the roof and the microinverter. Also allow 1.3 cm between the back of the PV module and the top of the microinverter.
6. Q Cable standard size – 3.31 Sq.mm and Designed to limit Max 20A
7. Microinverters and Q Cables to be disconnected only by using Q Disconnector tool
8. Q cable end and extension cable to be terminated with proper Terminal block with MCB's along with IP65 rated enclosure
9. MCB Size Selection = No of microinverter x Max output current of one micro x 1.25 Degradation factor
10. Farthest microinverter to Envoy distance should be less than 50m
11. ACDB and Terminal block panels should be planned with suitable cable glands
12. Phase Coupler is mandate only for 3 Phase Systems
13. Envoy and Phase couplers should be installed with separate MCB protection ; Max MCB rating is 20A
14. Micro to Envoy communication occurs through AC Cables over Powerline Communication. Separate Communication cables not required
15. Uc =275V, AC Type-II SPD's are mandate to install at ACDB panel. Dedicated Earthing to be done for SPD
16. Dedicated Inverter Earthing is not required. Module mounting structure earthing is sufficient
17. Production CT's and Consumption CT's are mandate to Enable Zero export Limit features. CT's are optional for regular systems
18. Envoy comes with 2 Default CT's. Single phase systems 2 CT's are fine ; Three phase system required total 6 CT's for monitoring both production and consumption
19. 2% Voltage drop to maintained from Microinverter to ACDB panel
20. If any site communication issues happens due to inductive and capacitive loads , Line filters to be install in later stage (Case to Case)
21. Either LAN / Wifi internet connection to be provided for Envoy communication with Enlighten cloud

Abbreviation:

1. ACDB:- AC Distribution Box
2. 2P/4P MCB:- 2Pole/4Pole Miniature Circuit Breaker
3. SPD:- Surge protection device
4. JB- Junction Box
5. ENV-S-WM-230:- Envoy-S
6. LPC-01:- Legrand Phase coupler
7. CT:- Current transformer