

Power Limit Solutions and CT selection

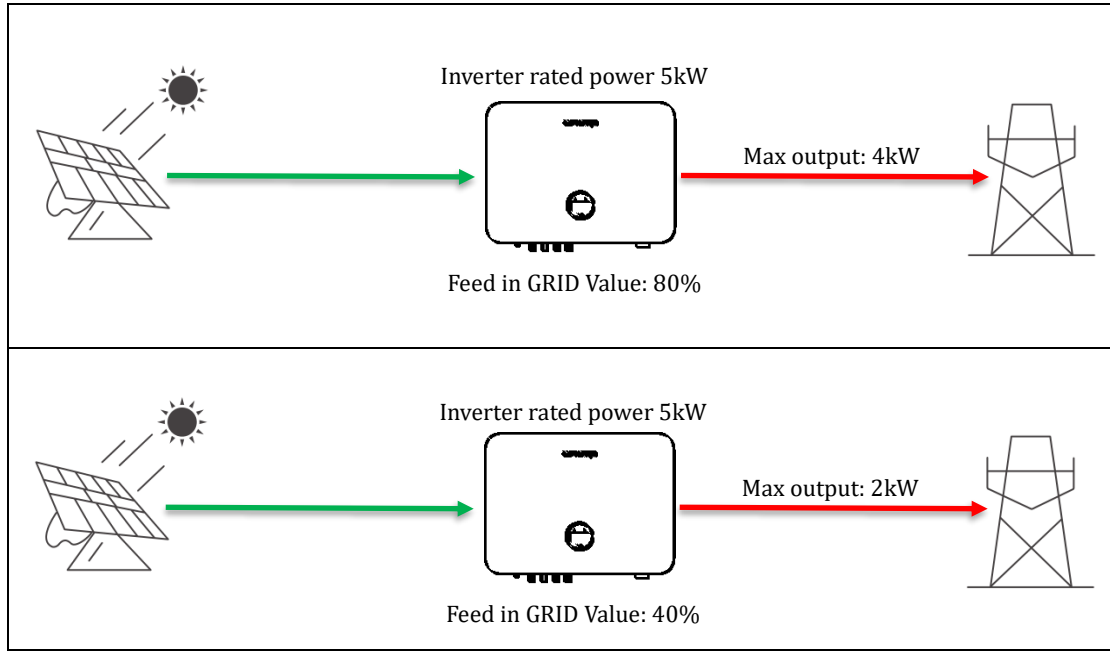
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1 Power limit description

1.1 Inverter output limit

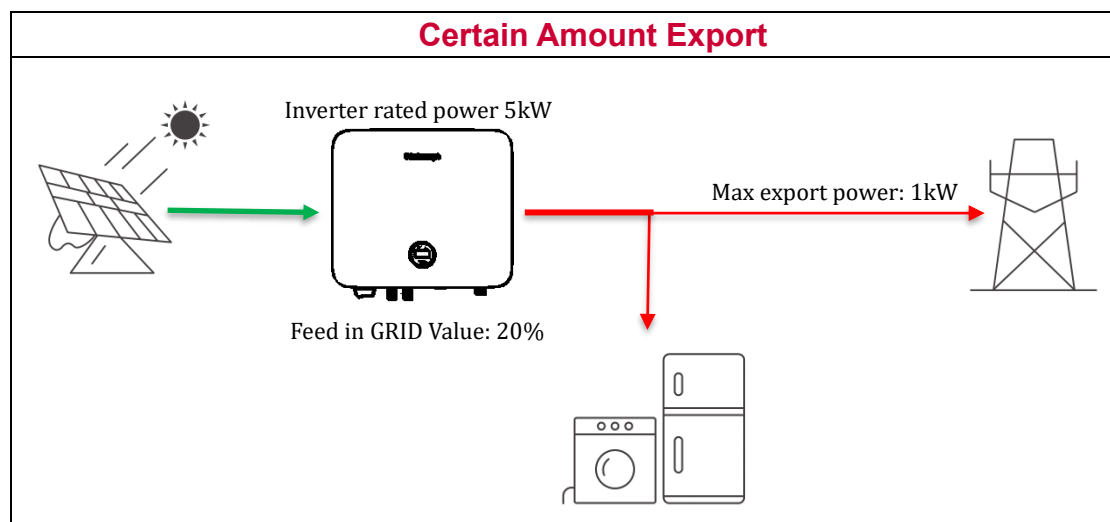
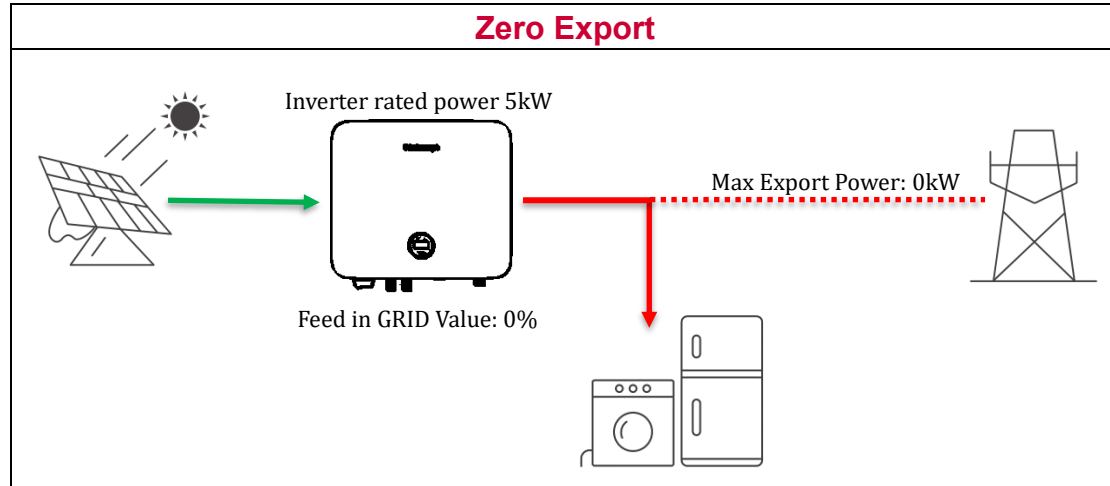
- Limit the inverter output power
- No need for additional devices



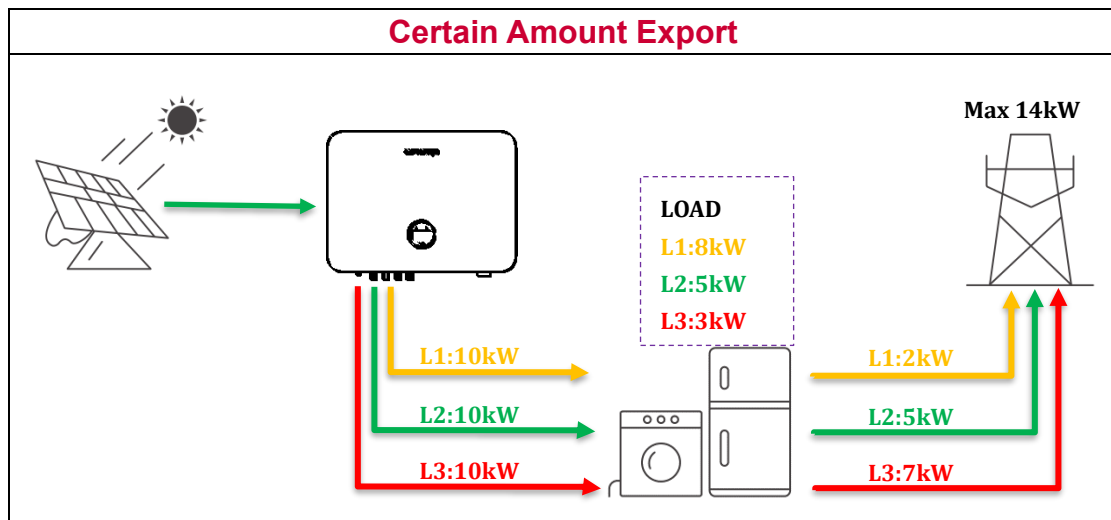
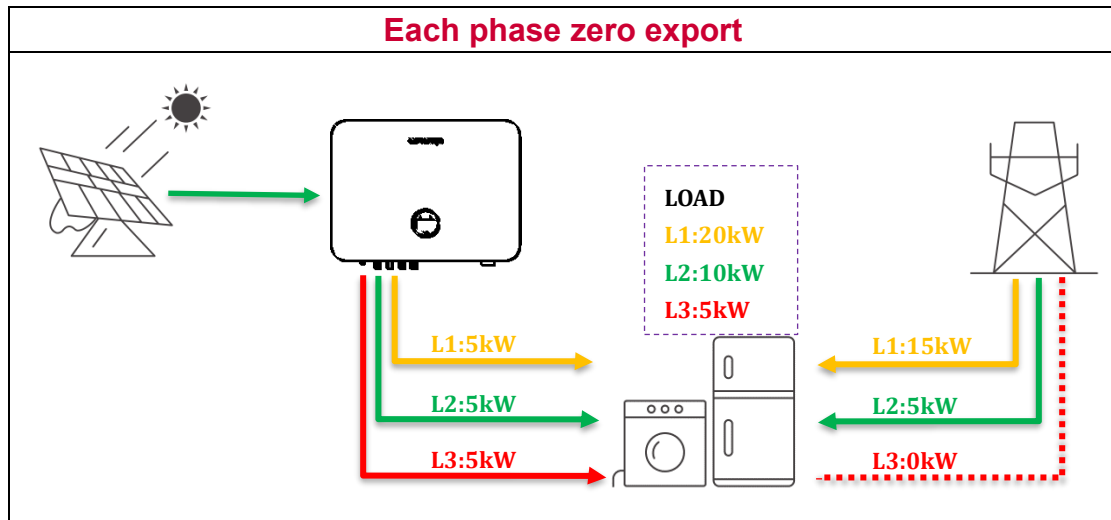
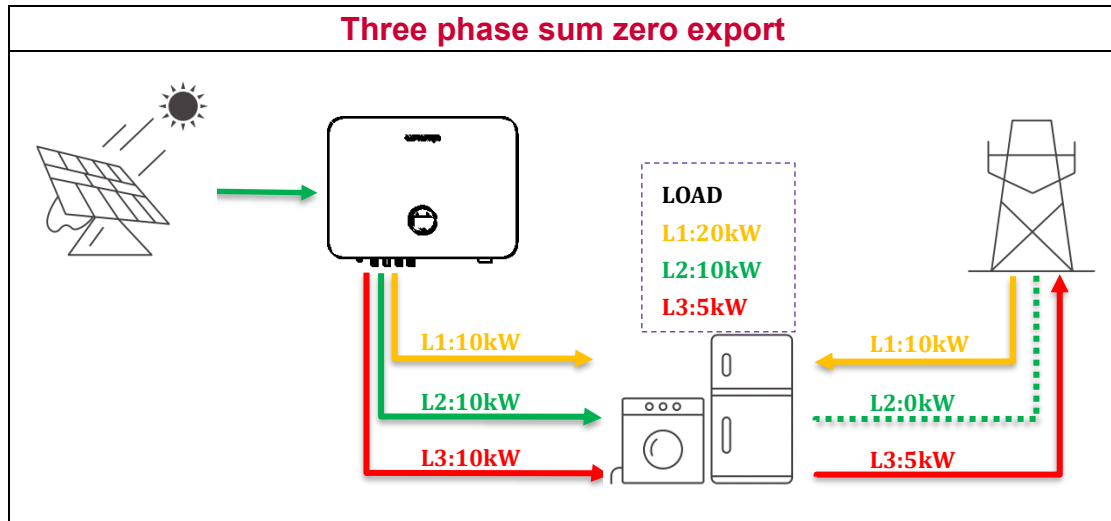
1.2 Export Power Limit

- Limited the power export to the grid
- An additional device is needed to execute this function

1.2.1 Single phase system

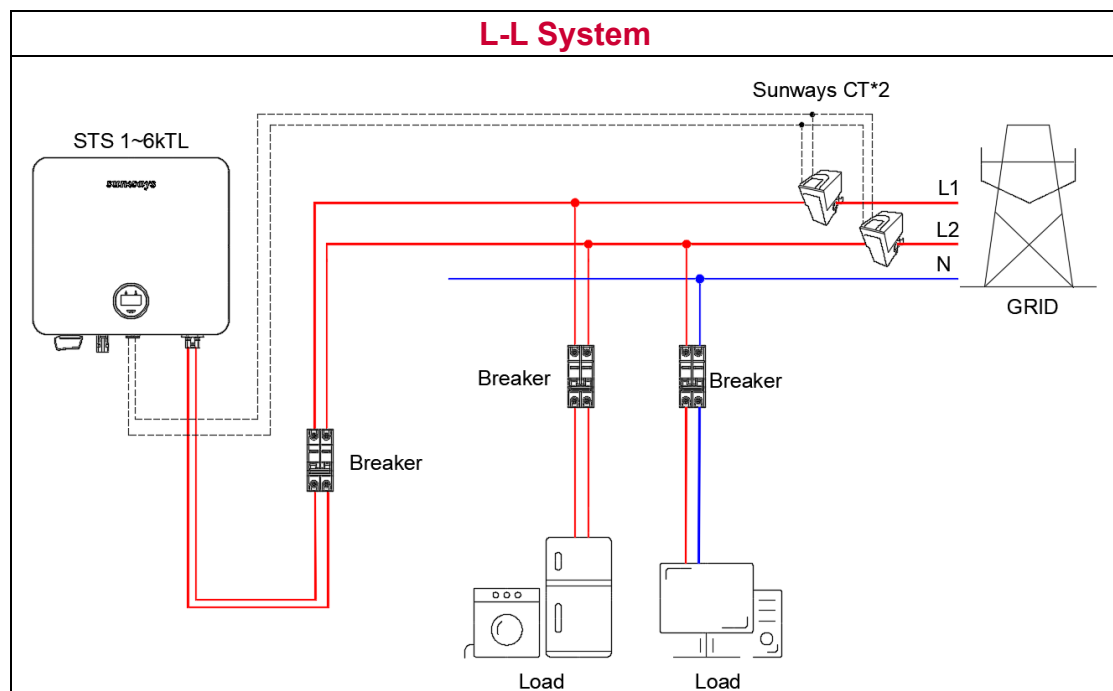
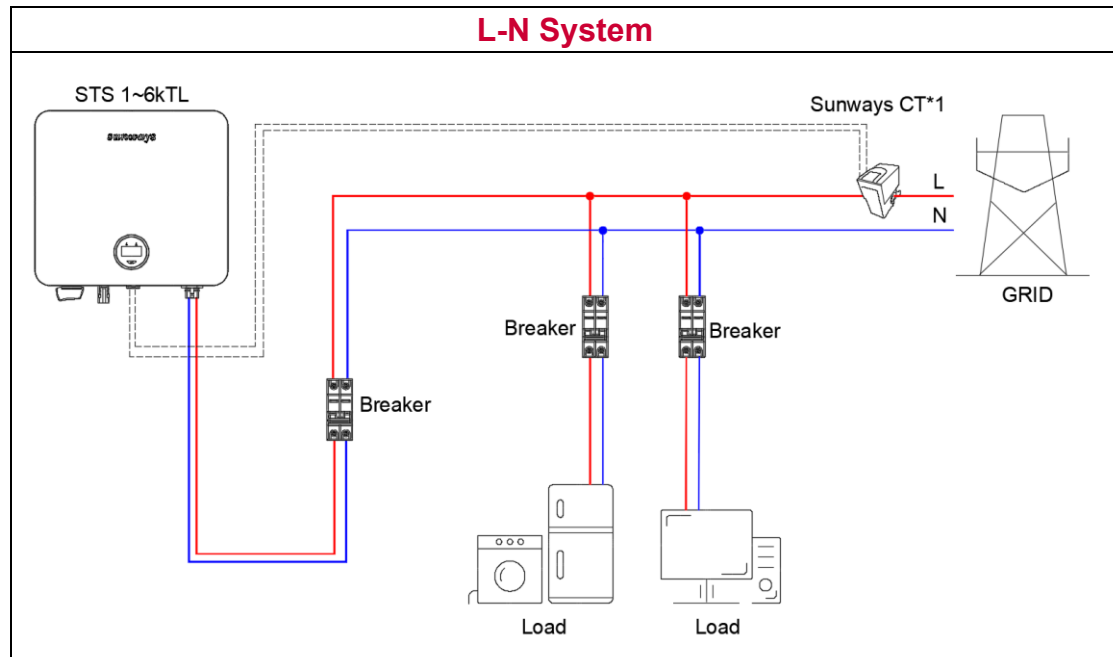


1.2.2 Three phase system



2 Solutions

2.1 Single STS inverter solution



This solution is only applicable to 110V power grids in some countries or regions in America and Southeast Asia. Please determine whether the power grid type is applicable.

● **Setting**

The export limit percentage and CT ratio are set on inverter display.

● **Order**

Please advise when ordering:

- 1) Need Power Limit function for single STS inverter;
- 2) L-N or L-L system type;
- 3) CT model, if you choose a non-standard configuration.

● **CT**

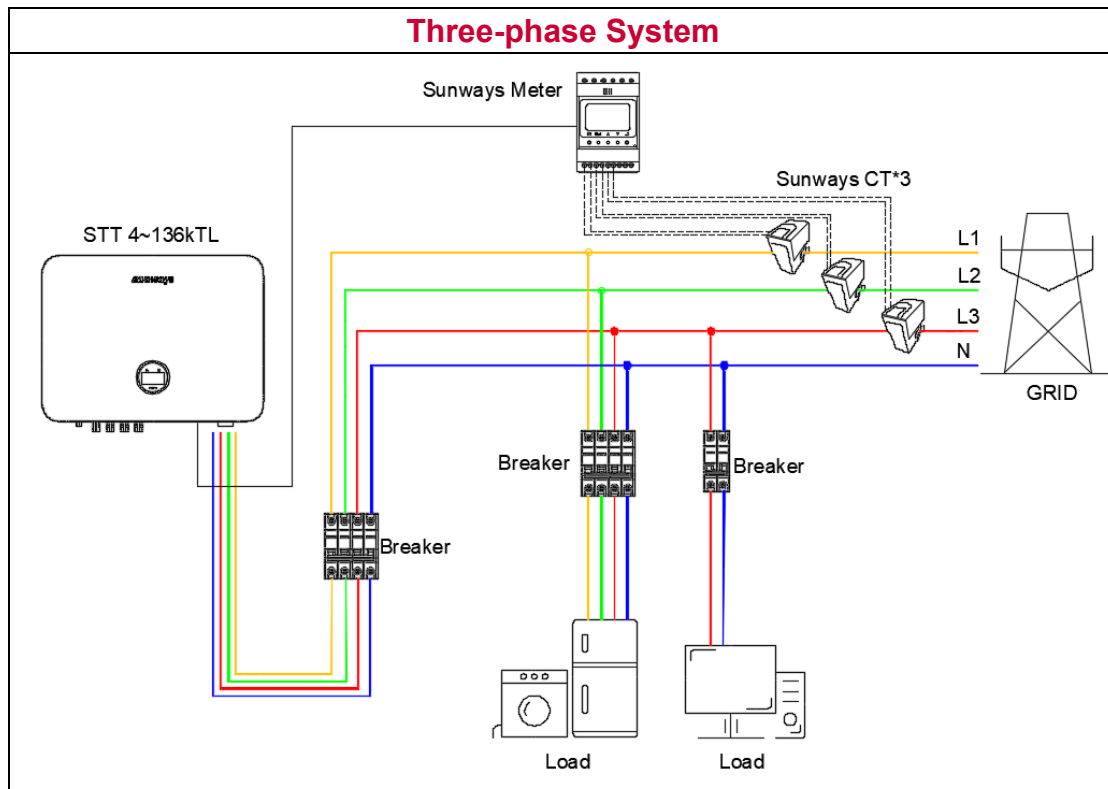
Sunways configured with the following standard models of CT:

System type	Additional devices	Standard configuration model
L-N System	CT*1	Rated Current=90A, Inner Dia.=10mm, T10D90
L-L System	CT*2	Rated Current=90A, Inner Dia.=10mm, T10D90

If the standard CT cannot meet the requirements of on-site installation, the following specifications can be also selected:

CT model	Rated Current	Inner Dia.	Application Range
T16D120	120A	16mm	/
T24D200	200A	24mm	/

2.2 Single STT inverter solution



● **Setting**

The export limit percentage is set on inverter display.

The CT ratio has been set on the meter in factory. Please don't mix, use in sets.

● **Order**

Please advise when ordering:

- 1) Need Power Limit function for single STT inverter;
- 2) CT and Meter model, if you choose a non-standard configuration.

● **CT and Meter**

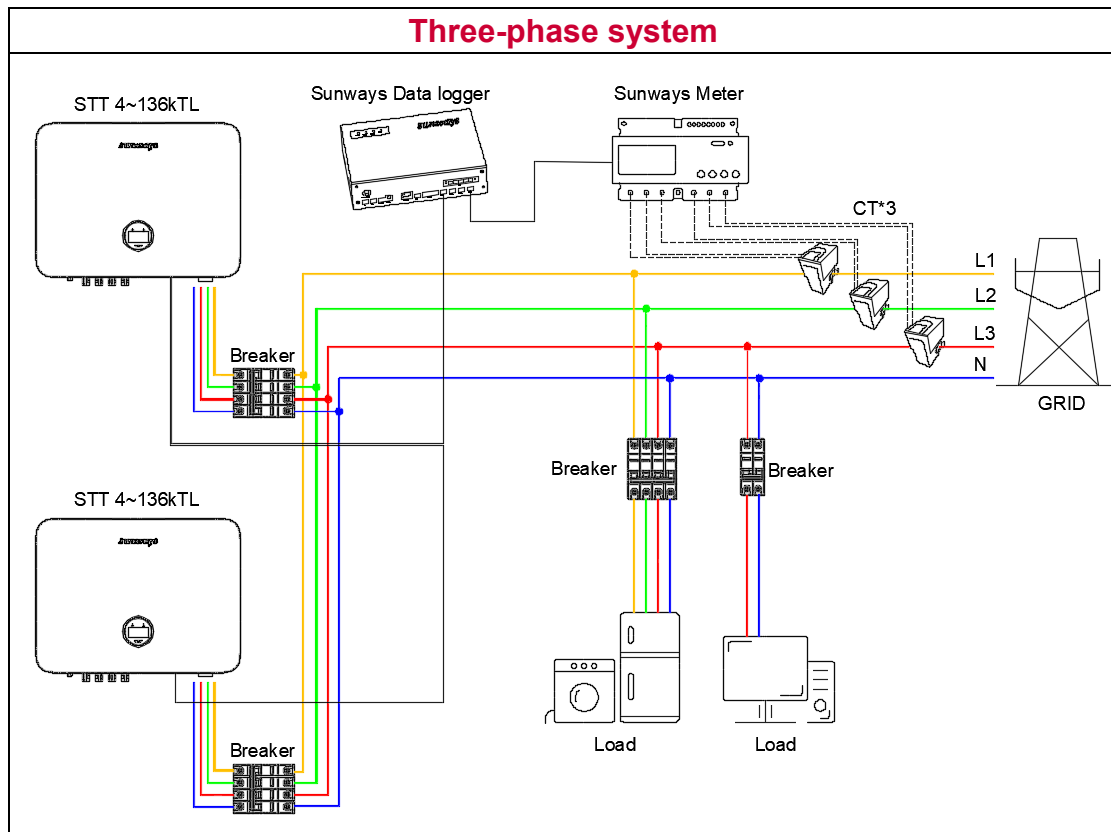
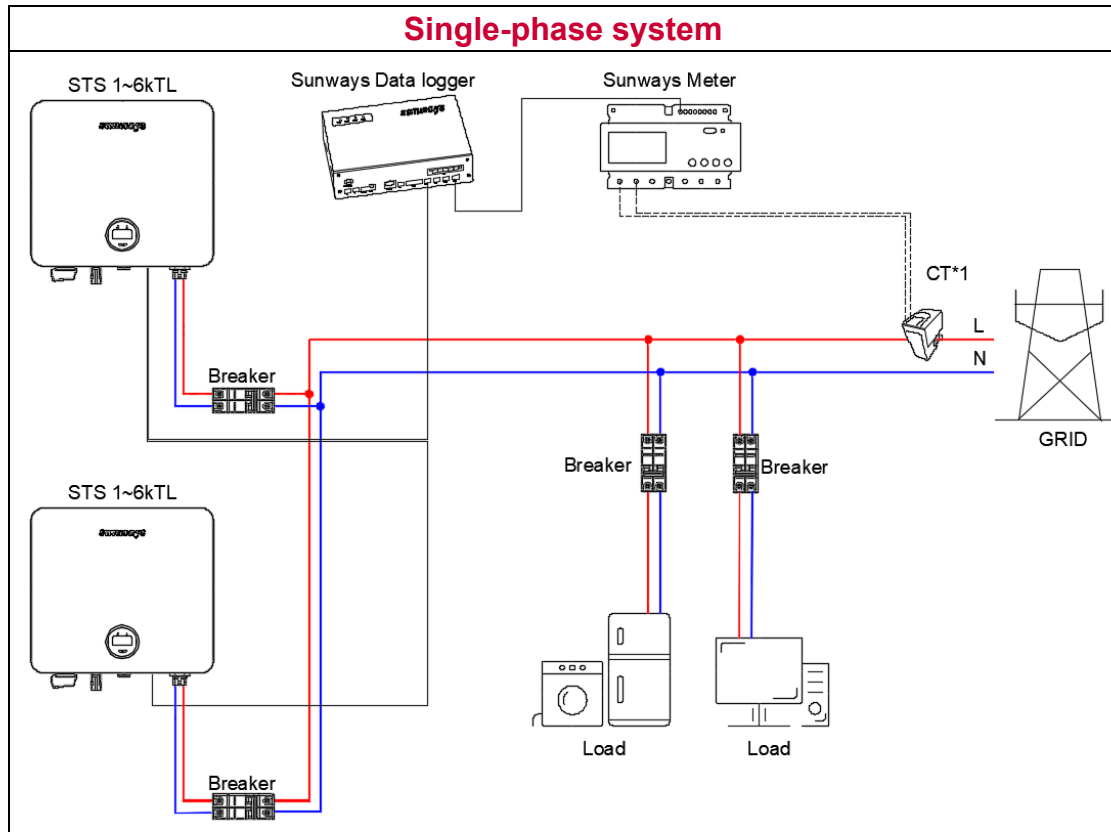
Sunways configured with the following standard models of CT and Meter:

Inverter type	Additional devices	Standard configuration model
STT4-25KTL	Meter*1 & CT*3	Rated Current=80A, Inner Dia.=16mm, T16D80
STT50-75KTL	Meter*1 & CT*3	Rated Current=200A, Inner Dia.=24mm, T24D200
STT80-136KTL	Meter*1 & CT*3	Rated Current=300A, Inner Dia.=36mm, T36D300

If the standard CT and Meter cannot meet the requirements of on-site installation, the following specifications can be also selected:

CT & meter model	Rated Current	Inner Dia.	Application Range
T16D80	80A	16mm	STT 4~25KTL
T24D200	200A	24mm	STT 4~25KTL STT / 50~75KTL
T36D300	300A	36mm	STT 4~25KTL / STT 50~75KTL / STT 100~125KTL
R110D1K	1000A	110mm	STT 100~125KTL

2.3 Multiple inverters solution



- **Setting**

The export limit percentage and CT ratio are set on data logger.

- **Order**

Please advise when ordering:

- 1) Need Power Limit function for multiple inverters;
- 2) CT model, if you buy CT from sunways. (See Annex for details.)

- **CT and Meter**

Sunways configured with the following standard models of CT and Meter:

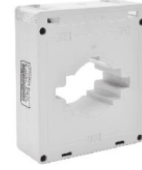
Additional devices	Standard configuration model
Data logger*1 Meter*1 & CT*1(3)	Data logger and Meter are needed and only available from Sunways. The CT ratio XXX / 5 should be based on actual conditions. The CT can be purchased from Sunways or other third parties. If you want buy CT from sunways, please see Annex for details.

3 Annex

The following CT is suitable for all systems with Sunways meters and Sunways Data Logger.

3.1 Model 1

Closed-mouth CT, square hole and round hole combination, can pass through the cable, also can pass through the copper.



Model	Rated current ratio(A)	Accurate grade and rated load (VA)		Wear heart number (Turns)	Busbar type (mm)/Pcs	Inside diameter (mm)
		Class 0.2	Class 0.5			
30I	100/5A		1.5	1	30X10/1	φ22
	150/5A		2.5	1		
	200/5A		2.5	1		
	250/5A		3.75	1		
	300/5A		5	1		
	400/5A		5	1		
	450/5A		5	1		
	500/5A		10	1		
40I	600/5		10	1	40X10/1	φ30
	200/5A		2.5	1		
	250/5A		3.75	1		
	300/5A		5	1		
	400/5A		5	1		
	450/5A		5	1		
	500/5A		10	1		
	600/5A		10	1		
	750/5A		10	1		
800/5A		10	1			
60I	1000/5A	10		1	60X10/1 60X6/1~2	φ44
	200/5A		2.5	1		
	250/5A		2.5	1		
	300/5A		5	1		
	350/5A		5	1		
	400/5A		5	1		
	450/5A		5	1		
	500/5A		10	1		
	600/5A		10	1		
	700/5A		10	1		
	750/5A		10	1		
	800/5A		10	1		
	1000/5A	10		1		
	1200/5A	10		1		
	1250/5A	10		1		
80I	1500/5A	20		1	80X10/1	φ50
	1600/5A	20		1		
	2000/5A	20		1		
	2500/5A	30		1		
	200/5A		2.5	1		
	250/5A		2.5	1		
	300/5A		5	1		
	400/5A		5	1		
	500/5A		10	1		
	600/5A		10	1		
	700/5A		10	1		
	750/5A		10	1		
800/5A		10	1			
1000/5A	10		1			
1200/5A	10		1			
1250/5A	10		1			

3.2 Model 2

Open-mouth CT is suitable for renovation projects without dismantling existing cables or busbars.



Model	Rated current ratio(A)	Accurate grade	Rated load (VA)	Inside diameter (mm)
K-30X20	250-300/5A	0.5	1.5	30X20
	350-400/5A	0.5	2.5	
K-60X40	350-450/5A	0.5	1.5	60X40
	500-800/5A	0.5	2.5	
	1000-1250/5A	0.5	5	
	1500-2000/5A	0.5	10	
K-80X40	350-450/5A	0.5	2.5	80X40
	500-800/5A	0.5	5	
	1000-2000/5A	0.5	10	
	2500-3000/5A	0.2	10	
K-80X50	400-450/5A	0.5	1.5	80X50
	500-800/5A	0.5	2.5	
	1000/5A	0.5	5	
K-80X80	400-450/5A	0.5	1.5	80X80
	500-800/5A	0.5	2.5	
	1000/5A	0.5	5	
K-100X40	1000-2000/5A	0.5	10	100X40
	400-450/5A	0.5	2.5	
K-120X60	500-800/5A	0.5	5	120X60
	1000-2000/5A	0.5	10	
	2500-5000/5A	0.2	10	
	500-800/5A	0.5	2.5	
K-120X80	1000-1200/5A	0.5	5	120X80
	1250-1500/5A	0.5	7.5	
K-130X40	1000-2000/5A	0.5	10	130X40
	2500-5000/5A	0.2	10	
K-130X60	1000-2000/5A	0.5	10	130X60
	2500-6000/5A	0.2	15	
K-140X60	1000-2000/5A	0.5	10	140X60
	2500-3000/5A	0.2	10	
	4000-5000/5A	0.2	15	
K-160X80	1000-2000/5A	0.5	10	160X80
	2500-3000/5A	0.2	10	
	4000-5000/5A	0.2	15	
K-200X80	1000-2000/5A	0.5	10	200X80
	2500-3000/5A	0.2	10	
	4000-5000/5A	0.2	15	

3.3 Model 3

Closed-mouth CT, square hole, copper bar installation, suitable for distribution cabinet bus bar installation.



Model	Rated current ratio(A)	Accurate grade and rated load (VA)		Wear heart number (Turns)	Busbar type (mm)/Pcs
		Class 0.2	Class 0.5		
30 II	200/5A		1.5	1	30X10/1~2
	250/5A		3.75	1	
	300/5A		5	1	
	350/5A		5	1	
	400/5A		5	1	
	450/5A		5	1	
	500/5A		10	1	
40 II	600/5A		10	1	40X10/1~2
	200/5A		2.5	1	
	250/5A		3.75	1	
	300/5A		5	1	
	350/5A		5	1	
	400/5A		5	1	
	450/5A		5	1	
	500/5A		10	1	
	600/5A		10	1	
50 II	750/5A		10	1	50X10/1~2
	800/5A		10	1	
	1000/5A	10		1	
	150/5A			1	
	200/5A		2.5	1	
	250/5A		2.5	1	
	300/5A		5	1	
	350/5A		5	1	
	400/5A		5	1	
	450/5A		5	1	
	500/5A		10	1	
	600/5A		10	1	
	700/5A		10	1	
	750/5A		10	1	
800/5A		10	1		
60 II	1000/5A	10		1	60X10/1~2
	1200/5A	10		1	
	1250/5A	10		1	
	1500/5A	20		1	
	200-250/5A		2.5	1	
	300/5A		5	1	
	400/5A		5	1	
	500/5A		10	1	
	600/5A		10	1	
	750/5A		10	1	
	800/5A		10	1	
1000/5A	10		1		
1200/5A	10		1		
1250/5A	10		1		
1500/5A	20		1		
1600/5A	20		1		

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Model	Rated current ratio(A)	Accurate grade and rated load (VA)		Wear heart number (Turns)	Busbar type (mm)/Pcs
		Class 0.2	Class 0.5		
	2000/5A	20		1	
	2500/5A	30		1	
60 X 50 II	200-250/5A		1.5	1	60X10/1~3
	300-450/5A		5	1	
	500/5A		10	1	
	600/5A		10	1	
	750/5A		10	1	
	800/5A		10	1	
	1000/5A	10		1	
	1200/5A	10		1	
	1250/5A	10		1	
	1500/5A	20		1	
	2000/5A	20		1	
2500/5A	30		1		
80 II	200-250/5A		2.5	1	80X10/1-2
	300/5A		5	1	
	400/5A		5	1	
	500/5A		10	1	
	600/5A		10	1	
	750/5A		10	1	
	800/5A		10	1	
	1000/5A	10		1	
	1200/5A	10		1	
	1250/5A	10		1	
	1500/5A	20		1	
	1600/5A	20		1	
	2000/5A	20		1	
	2500/5A	30		1	
3000/5A	30		1		
80X50 II	200-250/5A		1.5	1	80X10/1-3
	300-450/5A		5	1	
	500-800/5A		10	1	
	1000/5A	10		1	
	1200/5A	10		1	
	1250/5A	10		1	
	1500/5A	20		1	
	1600/5A	20		1	
	2000/5A	20		1	
	2500/5A	30		1	
3000/5A	30		1		
100 II	300-450/5A		5	1	100X10/1~2
	500-800/5A		10	1	
	1000/5A	10		1	
	1200/5A	10		1	
	1250/5A	10		1	
	1500/5A	20		1	
	1600/5A	20		1	
	1800/5A	20		1	
	2000/5A	20		1	
	2500/5A	30		1	
	3000/5A	30		1	
4000/5A	30		1		
100X50 II	300-450/5A		5	1	100X10/1~3
	500-800/5A		10	1	
	1000-1250/5A	10		1	
	1500/5A	20		1	
	2000/5A	20		1	
	2500/5A	30		1	
	3000/5A	30		1	
4000/5A	30		1		
100X80 II	600-800/5A		10	1	100X10/1~4
	1000-1250/5A	10		1	
	1500/5A	20		1	

Model	Rated current ratio(A)	Accurate grade and rated load (VA)		Wear heart number (Turns)	Busbar type (mm)/Pcs
		Class 0.2	Class 0.5		
	2000/5A	20		1	
	2500/5A	30		1	
	3000/5A	30		1	
	4000/5A	30		1	
120X50 II	500-800/5A		10	1	120X10/1~3
	1000-1250/5A	10		1	
	1500/5A	20		1	
	1600/5A	20		1	
	2000/5A	20		1	
	2500/5A	30		1	
	3000/5A	30		1	
	3500/5A	30		1	
	4000/5A	30		1	
	5000/5A	30		1	
130X50 II	600-800/5A		10	1	125X10/1~3 130X10/1~3 60X10/2~6
	1000-1250/5A	10		1	
	1500/5A	20		1	
	2000/5A	20		1	
	2500/5A	30		1	
	3000/5A	30		1	
	3500/5A	30		1	
	4000/5A	30		1	
120X80 II	1000-1250/5A	10		1	120X10/1~4
	1500/5A	20		1	
	2000/5A	20		1	
	2500/5A	30		1	
	3000/5A	30		1	
	4000/5A	30		1	
150X50 II	1000-1250/5A	10		1	150x10/1~3
	1500/5A	20		1	
	2000/5A	20		1	
	2500/5A	30		1	
	3000/5A	30		1	
	4000/5A	30		1	
170X100 II	1500-2000/5A	15		1	170X10/1~5
	2500/5A	30		1	
	3000/5A	30		1	
	4000/5A	30		1	
	5000/5A	30		1	
180X50 II	1200-1250/5A	10		1	180X10/1~3
	1500-2000/5A	10		1	
	2500/5A	30		1	
	3000/5A	30		1	
	4000/5A	30		1	
200X50 II 220X50 II	5000/5A	30		1	200X10/1~3 100X10/4~6
	6000/5A	30		1	
	1500-2000/5A	20		1	
	2500-3000/5A	30		1	
	4000/5A	30		1	
260X50 II 260X100 II	1200-1250/5A	10		1	250X10/1~3 125X10/4~6
	1500-2000/5A	20		1	
	2500-3000/5A	30		1	
	4000/5A	30		1	
	5000/5A	30		1	
	6300/5A	30		1	