



## INVERTER CATEGORIES

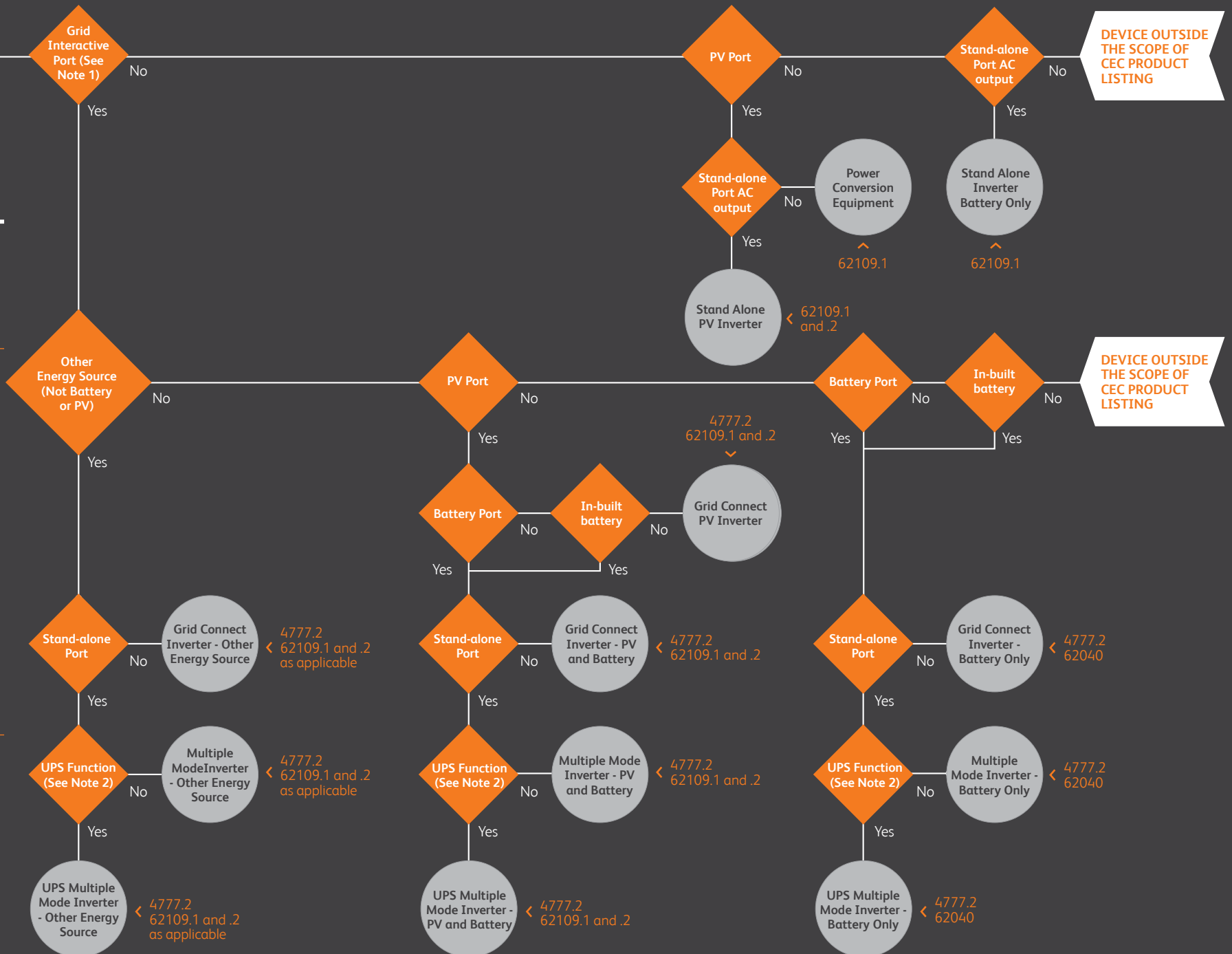
### Note 1

An inverter is considered to have a grid interactive port when it has a port with any of the following functions:

- exporting energy to the grid
- supplying to the load in parallel to the grid
- synchronising to the grid
- supplying continuous power to the load in the event of loss of grid supply, with no break-before-make

### Note 2

For listing classification purposes, device is considered to have a UPS function where it can switch from grid-connected to standalone operation in <25 ms



## INVERTER CATEGORIES - REQUIRED STANDARDS

### Grid Connected Inverter

– An inverter with a grid-interactive connection port (see Note 1). For listing classification purposes, this includes inverters which have battery storage, but do not provide multiple-mode functions (see the “Multiple Mode Inverter” category). Micro inverters are also included in this category.

### Multiple Mode Inverter

– An inverter that operates in more than one mode; for example, having grid-interactive functionality when mains voltage is present, and stand-alone functionality when mains supply is de-energised or disconnected.

### UPS Multiple Mode Inverter

– For listing classification purposes, a multiple-mode inverter is considered to have a UPS function where it can switch from grid-connected to stand-alone operation in 25 ms or less.

### Stand Alone Inverter

– An inverter intended to supply AC power to a load that is not connected to the mains. A standalone inverter can provide energy via batteries and/or a renewable source such as PV. Stand-alone inverters may not have a grid-interactive connection to the mains supply.

See also Note 2.

### Power Conversion Equipment (PCE)

– This listing category is for devices which are not inverters, but are connected between a PV array source and an application circuit. Examples include DC-to-DC converters, and charge controllers.

See also Note 3.

STANDARDS REQUIRED

SUB-CATEGORY >	Grid Connected Inverter				Multiple Mode Inverter			UPS Multiple Mode Inverter			Stand Alone Inverter		Power Conversion Equipment (PCE)
	PV ONLY	PV AND BATTERY	BATTERY ONLY	OTHER ENERGY SOURCE	PV AND BATTERY	BATTERY ONLY	OTHER ENERGY SOURCE	PV AND BATTERY	BATTERY ONLY	OTHER ENERGY SOURCE	BATTERY ONLY	PV ONLY	
IEC 62109-1	✓	✓		✓	✓		✓	✓		✓	✓		✓
IEC 62109-2	✓	✓		✓	✓		✓			✓		✓	
AS/NZS 4777.2:2015	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
AS 62040.1.1			✓			✓			✓	✓			

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#### Note 2

Stand-alone inverters with connection ports for ELV batteries must have isolation between the ELV DC input and the AC output – refer to AS/NZS 4509.1:2009, Clause 9.3.3.

#### Note 3

DC Conditioning units are not considered to be PCE (refer to AS/NZS 5033:2014, Clause 2.1.5). Hence DC conditioning units are outside the scope of the CEC approved product list (i.e. are not required to be listed).