

CTP Grid Box

NX Series (165/250)



The CTP grid box is a turnkey grid protection and integrated energy trading solution. It is manufactured and pre-programmed to meet the specific requirements of each of Australia's DNSPs.

The Grid Box is installed between the PV inverters and site's main switchboard. This provides a "plug and play" solution to secondary protection and grid integration for solar installers, retailers and PPA providers. We provide products that assist our clients to obtain grid connections quickly, safely and reliably.

The Grid Box – NX series offers secondary protection where hard export limit under AS4777.1 is required and is suitable for installation on commercial PV systems.

Grid Box Features

- Approved secondary protection
- Indicator lamps
- Back-up generator inter-trip
- Remote monitoring interface
- Indoor / outdoor rated
- Commissioning test points
- Pattern-approved Meter for LGC/ PPA
- Optional surge protection

Grid Box Benefits

Turn-key: Pre-installed and pre-programmed solution, Turn-key protection and metering package, Single point of contact;

High quality: Designed by experts, customised according to the specific needs of your projects, Expert technical support, professional customer support;

Reliability: Overall compliant with NER, CER & AS/NZ standard requirements;

Financial transparency: No hidden costs. No ongoing cost. Full coverage during warranty period.



Grid Box – NX Series - 165 / 250 kW

NX165 NX250 NX-PP + SL165 NX-PP + SL250				
Product*	NX165-8	NX165-4H	NX250-12	NX250-6H
	SL165-8 + NX-PP	SL165-4H + NX-PP	SL250-12+ NX-PP	SL250-6H + NX-PP
Electrical Specifications				
PV System Sizes (KVA)	100-165 KVA	100-165 KVA	165–250 KVA	165–250 KVA
Number of 3-Ph Inverters	Up to 8	Up to 4 (High current)	Up to 12	Up to 6 (High current)
Max Inverter Current	3-Ph 63A	3-Ph 100A	3-Ph 63A	3-Ph 100A
Switchgear Rating	250A	250A	400A	400A
Form Rating	1			
Fault Rating	25 kA			
Switchgear Compliance Standards	AS3000, AS3008, AS60947, AS60898, AS3439.1			
Protection Relay	ComAp IntelliPro			
Protection Functions (ANSI)	27, 59, 81H, 81L, 78, 81R, 47, 32			
Protection Relay Compliance Standards	IEC 60255, AS4777.1, CEI 0-21, G83, G59/2, UL, VDE-V-0126-1-1, VDE-AR-N 4105, IEn NR 005/2012			
DNSP Compatibility**	All DNSPs across Australia (except Horizon Power)			
Inverter Control				
System Controller	Proprietary for: SMA, Fronius and Solar Edge / PLC based for others			
Inverter Capability	SMA, Fronius, Solar Edge, ABB, ZeverSolar, SolarLog; others on request			
Communication	Proprietary (Ethernet/RS485) / 4 binary outputs			
Mechanical Specifications				
Maximum size conductor	120mm ²	240mm ² (enquire within for larger sizes)		
Dimensions (H x W x D)	1600 mmx 900mm x 305mm			
IP Ratings	IP 56 (standard), IP42 (if top gland plate used)			
Cable Entry	IP42 - Top and Bottom; IP56 - Bottom only			
Mounting	Wall - out of direct sun exposure			
Construction Material	1.6 mm Mild Steel			
Colour	Electric Orange (standard), White, Grey, Vintage Green			
Temperature	-20°C to 65°C within enclosure (approx. -20°C to 45°C ambient)			
Additional Features				
Standard	<ul style="list-style-type: none"> - Inverter proprietary or PLC based Export Control to constant power limit - Back-up Generator Inter-trip - Commissioning Test-points - Connections for additional slave switchboard - Indicator Lights - Remote Monitoring Interfaces 			
Optional	<ul style="list-style-type: none"> - Integration of smart meters for ramping (Fronius, SMA, Solaredge) - Surge Diverter - Remote monitoring (webserver) for Meter - General power outlet 			

*Custom Grid Boxes can be made to accommodate your project needs. Please contact CTP for details

** Each DNSP requires different protection set points pre-programmed as part of Grid Box

CTP also offers a complete range of services to assist your project from Concept to Commissioning. We can design custom grid integration solutions for PV projects at any scale.

Contact us for more details - enquiries@clean-tech.com.au