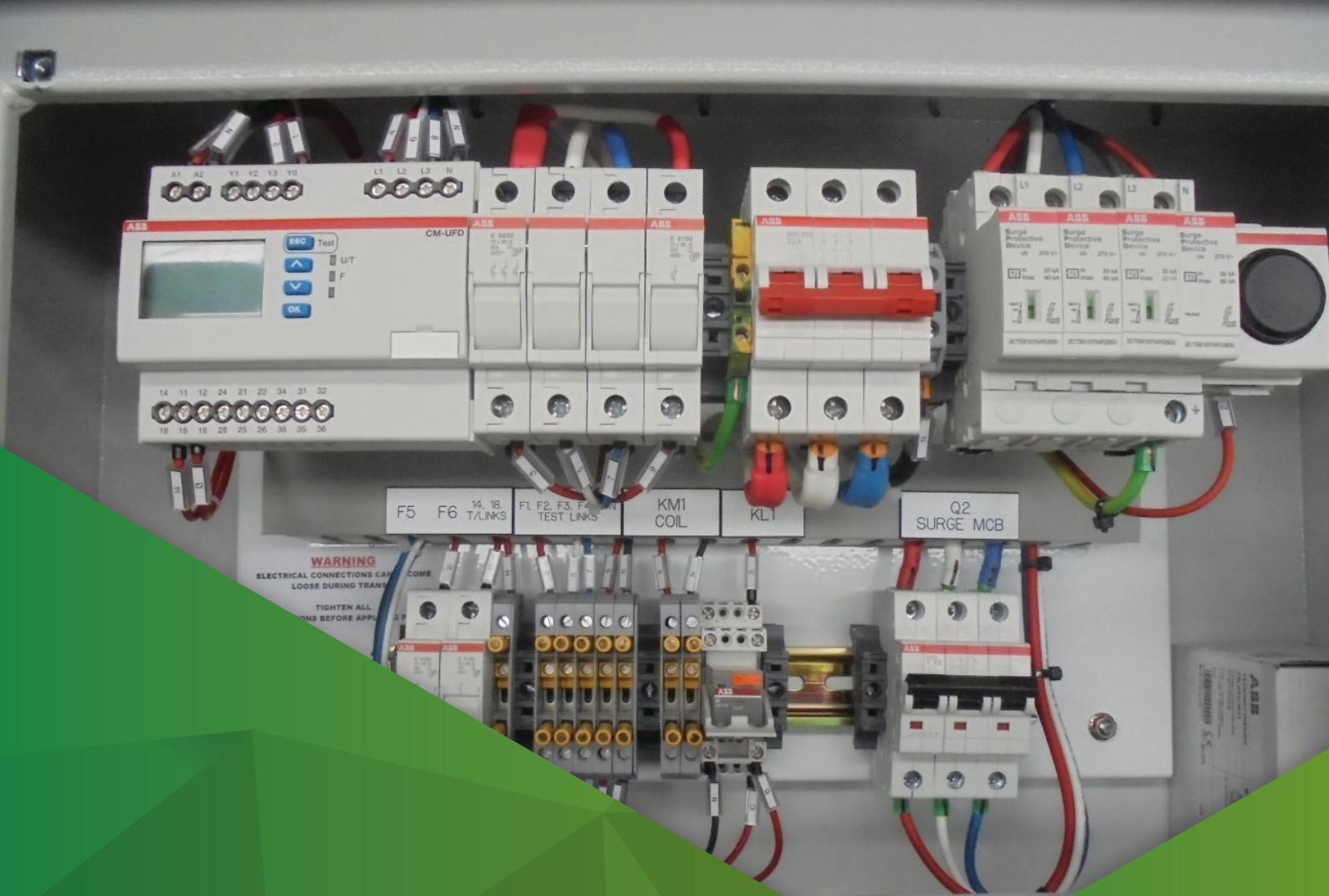


GRID PROTECTION SYSTEMS

CHARGING FORWARD

Network Protection &
EV Charging Solutions

ABB

Phone: 1300 765 722 | Email: info@ chargingforward.com.au | Web: www.chargingforward.com.au

Why is Network Protection Required?

With the large take up of PV solar systems since the solar boom of the early 2000's the national energy grid has become prone to instability, it regularly has large fluctuations in Voltage, frequency and phase in balance just to mention a few.

There are multiple reasons this can occur including large load shifts throughout commercial and industrial estates.

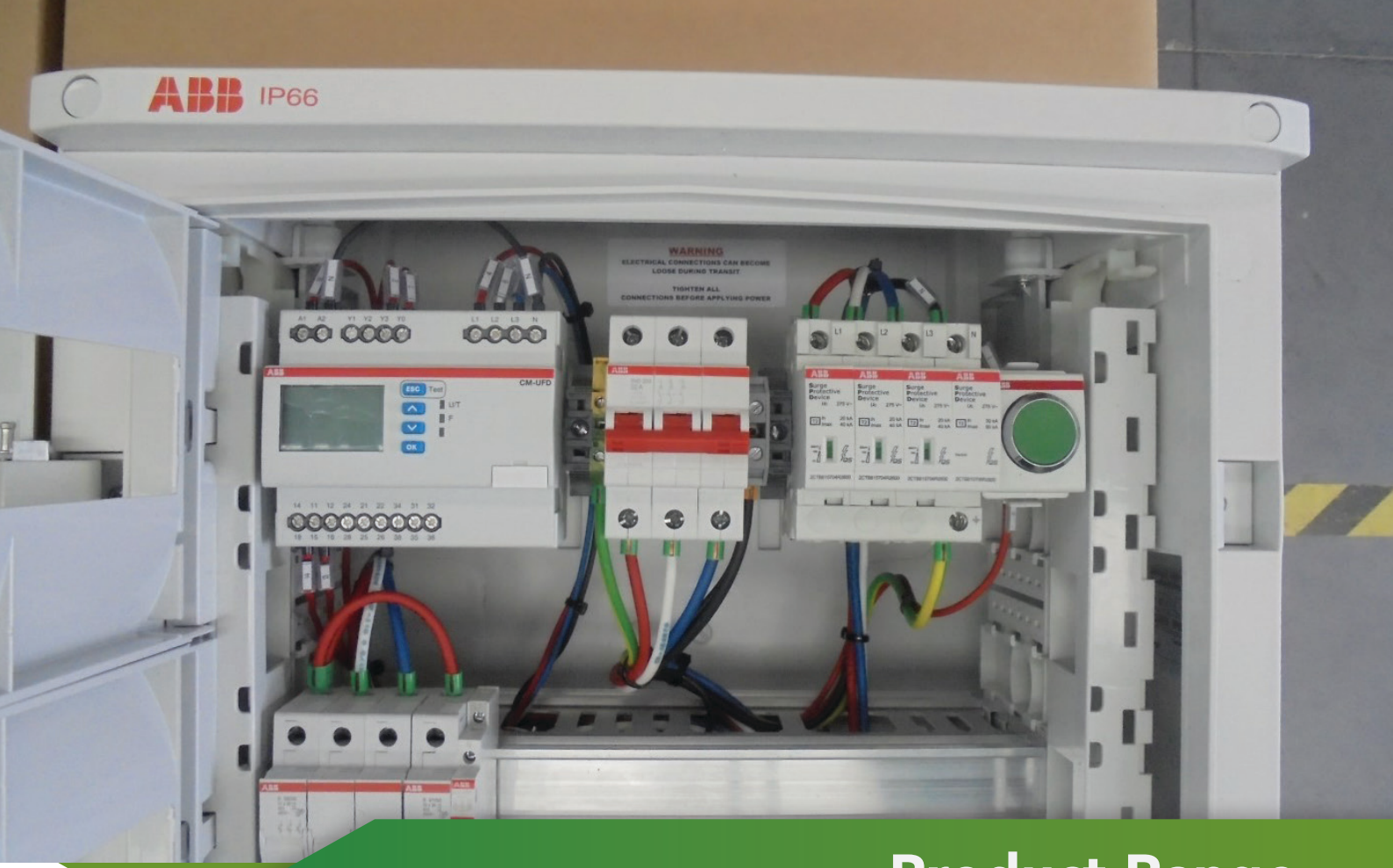
In order to maintain a stable grid the Distribution Network Service Providers (DNSP) require secondary protection to be installed apart from the primary AS4777 compliant inverters.
The secondary protection also must comply with AS4777 and be certified to IEC-60255-127.

For majority of Australia's DNSP secondary protection is required for all systems above 30kw.

Speak to one of our team today about your customised network protection solution.

Benefits Of Installing Network Protection Systems

- Maintains grid performance to operate inside required DNSP parameters.
- Avoids compounding that gives voltage and frequency problems.
- Avoids possible damage to Inverters and associated devices caused by grid events.
- Disconnects PV system from the grid within pre-set time once grid failure or disruption is detected.
- Ensure safe Anti Islanding disconnection from the grid in the event of loss of grid supply.
- Protect sensitive electronic components of inverter and associated PV devices.
- Provides balanced network voltages



Product Range

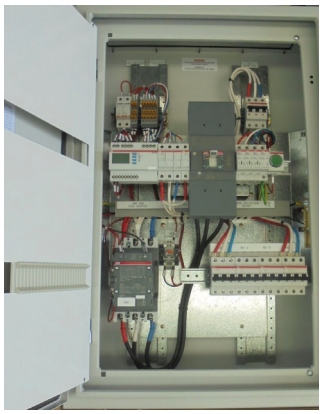
ABB GRID MONITORING RELAY

The ABB CM-UFD.M33 is a multifunctioning grid feeding monitoring relay. It trips the section switch that is connected between the distributed generation and the public grid allowing the distributed generation to disconnect in case of problems (e.g. unstable grid), faults, or grid maintenance.

The device provides different monitoring services to detect 10-minutes average overvoltage, real time over- and undervoltage as well as over- and underfrequency. Additionally, monitoring of vector shift and ROCOF (rate of change of frequency) can be configured to trip the generation in a case of loss of mains.

Standard NPU Systems

To suit inverters ranging up to 27kw



Part No.	Kva	Current Rating	Fault Current rating	Dimensions (H x W x D)
Grid Box	Unlimited		40kA	600 x 400 x 272
CF110/4*	110	160A AC1	40kA	900 x 600 x 272
CF173/12Mcb	173	250A AC1	40KA	1300 x 600 x 272
CF277/12Mcb	277	400A AC1	40kA	1500 x 600 x 272
CF436/12Mcb	436	630A AC1	40Ka	1800 x 600 x 272
* CF110/4 is supplied standard with 4 x 50a 6kA MCB's				

To suit inverters over 30kw

Part No.	Kva	Current Rating	Fault Current rating	Dimensions (H x W x D)
Grid Box	Unlimited		40kA	600 x 400 x 272
CF110/2	110	160A AC1	40kA	900 x 600 x 272
CF173/4MCCB	173	250A AC1	40KA	1300 x 600 x 272
CF277/4MCCB	277	400A AC1	40kA	1800 x 600 x 272
CF436/4MCCB	436	630A AC1	40Ka	1800 x 600 x 272

NOTE:

- The Grid Box is designed for extensive network protection systems new or existing that can easily adapt to control remote relays, contactors or other applications. 433Mhz wireless systems can be provided in conjunction with the standard grid box range.
- Wifi 433mhz systems available upon project configuration.
- Systems required greater than 436kVA available upon consultation for individual projects.

GPU Standard Inclusions

- Designed and Constructed in Australia
- IP55 rated for outdoor use
- Moulded Case Circuit breaker as Main Isolator for added protection
- Compromising of high quality ABB switch gear
- Standard 40kA surge protection devices
- All constructed in one sealed enclosure
- Nuetral and Earth Bars included
- ABB CM-UFD.M33 multifunction grid monitoring relay
- Gland plate top and bottom entry
- Lockable door with weather strips
- Test link terminals for testing purposes
- Complete with AC combiner cabling and/or Chassis

A Little About Us

Charging Forward is a Solar energy engineering Design, construct and consultancy firm.

We are experts in designing and constructing network protection units for a wide range of PV solar systems from 30kw to custom design larger scale systems.

We have worked on various projects across Australia and are continuing to provide high quality solutions throughout the Solar industry.

We have designed various Wi-Fi remote and Single mode fibre link systems to provide a solution for projects with many remote out buildings, schools, hospitals and retirement villages just to name a few.

CONTACT US TO DESIGN A CUSTOMISED NETWORK PROTECTION SYSTEM FOR YOUR SCALE PROJECT

Contact Us

Phone: 1300 765 722 | 03 9877 0905
Email: info@chargingforward.com.au
Web: www.chargingforward.com.au