

3-Phase Delta IntelliStrip

32A and 63A

The 3Phase Delta IntelliStrip provides a convenient way of supplying 3 phase monitored power to a cabinet. Each DeltaStrip is provided with 3 sets of 5 socket outlets as standard (3 x IEC C19 and 2 x IEC C13). (Alternative socket configurations are also possible).



3Phase IntelliStrip. Delta configured.

Features

Maximum Voltage: 250V phase to phase.
Maximum input current: 32A per phase.
Maximum output current: 18.4A per bank of sockets †
Maximum current per outlet:
VDE: 10A/C13, 16A/C19
UL: 15A/C13, 20A/C19
Power measurements: Total Watts per phase;
current per phase; Voltage between phases
Optional power measurements: Current per socket outlet
Optional environmental monitoring:
Temperature & Humidity; Cabinet door opening
Dimensions (mm): 65 x 65 x 1900 (with fuses)
or 65 x 65 x 1600 (without)
† 18.4A = 32A / $\sqrt{3}$

Star (Wye) and Delta configurations

The Delta IntelliStrip is fitted with a 4 pin 32A inlet connector (IEC 60309 Commando or equivalent). Each group of 5 IEC outlets is wired between two phases and there is no neutral connection. A Star-configured strip is also available (See the Star IntelliStrip datasheet for details).

Monitoring

Power measurement of a delta configured IntelliStrip uses the 2 Wattmeter method of measuring overall strip power. The software presents this as power per phase, allowing the user to see power per phase across the whole datacentre, regardless of whether devices are star or delta configured. In addition the current per phase and the voltage between phases (ie across the sockets) is also presented. Optionally, each socket's current may be individually measured.

Circuit Protection

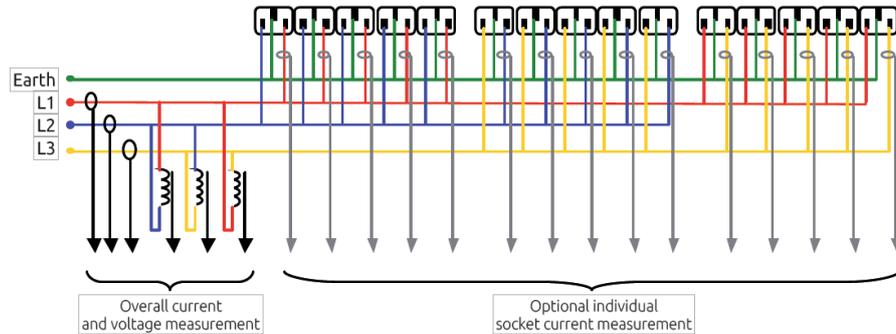
Regulations vary from country to country and it is our experience that interpretation of the same regulation also varies. In some regions the requirement for circuit protection is that it must be provided within 3m of the conductor rating change. This means that the circuit protection for individual socket outlets does not have to be provided on the strip, it can be provided by fuses within the plug top (eg British 13A plug tops), or it may be provided on the equipment at the end of an IEC lead. IntelliStrips may be fitted with individual fuses per outlet, or for customers who do not want multiple points of failure, the IntelliStrips may be supplied without fuses. At present, only one fuse per outlet is possible on an IntelliStrip. Care must be taken to provide adequate circuit protection for both phases wired to sockets on a Delta 3Phase IntelliStrip.

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Circuit Schematic

(Optional fuses not shown for sake of clarity).



Note on Delta mode power measurement

In Delta mode operation there is no reference "neutral" with which to obtain an absolute phase voltage and hence a figure for absolute power per phase.

MPL uses the 2 Wattmeter method* to accurately measure the total power in the IntelliStrip's load and then apportion the total power to each phase in the ratio of each phase's current. The current in each phase and the voltage between phases is accurately measured. These results when processed with NGEN software enable users:

- To obtain accurate total power consumption figures for each strip
- To obtain power per phase figures for overall phase balancing purposes
- To obtain accurate current per phase figures to ensure breakers don't trip
- To obtain accurate voltages across each socket and (optionally) the current per socket
- To be alerted of a power failure if any phase fails

*2 Wattmeter method: There are numerous articles published on the internet that explain this method.