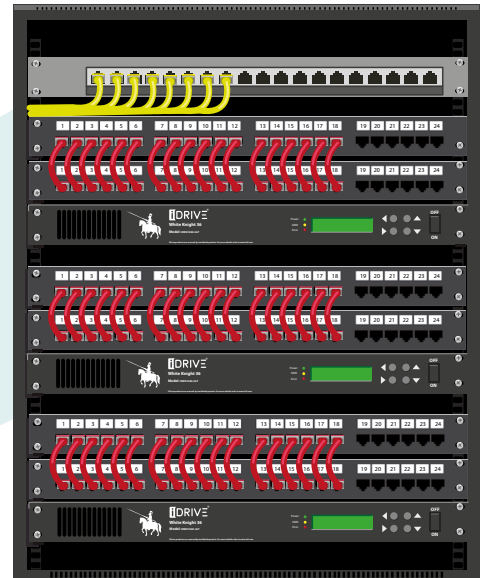




CENTRALISE • OPTIMISE • ECONOMISE

Centralised Driver Benefits

A Guide to the Advantages of Intelligent Centralised Driver Solutions



IST's centralised driver solutions offer an innovative approach to driving multiple LED fixtures from a central point. Existing control solutions rely on a complex infrastructure in addition to the power system to deliver control features such as dimming, motion detection, daylight integration and scheduling.

A centralised driver solution simplifies installation by allowing simple low voltage wiring to the luminaires with the majority of the control features and infrastructure at a central point. This vastly simplifies commissioning, design and offers robustness of the overall lighting system.

The IST centralised topology has been deployed for over 6 years in leading commercial, office, high-end residential and architectural lighting projects, saving commercial buildings up to 75% of the energy consumption, through building intelligence and control.

Benefits of Centralised iDrive® Driver Solutions

Installation Cost Reduction

- ▶ Quick set-up and programming times.
- ▶ Reduced number of drivers to commission.
- ▶ Simple low voltage wiring required.

- ▶ Observe menus for reporting wiring faults on outputs.
- ▶ Up to 36 times less high voltage circuits due to drastically reduced MCB's & inrush currents compared to individual LED drivers.
- ▶ Reduce delays in projects as secondary works can be run at the same time as low voltage lighting is being installed.
- ▶ Utilise standard Cat6a cabling for luminaires to future-proof building infrastructure.

Higher Quality LED Driver Solutions

- ▶ Significantly improved functionality compared to single driver solutions.
- ▶ Healthier lighting solutions- very low ripple current & no pulsing of light output.
- ▶ High accuracy power delivery means the current stated on the output is being delivered to the LED solution, ensuring LEDs are not overdriven, thereby resulting in longer luminaire lifetimes.
- ▶ Comprehensive over voltage, over current, over power and over temperature protection features.
- ▶ High performance smooth dimming with 8 and 16 bit resolution options available.

Benefits of Centralised Driver Solutions continued

- ▶ Totally flexible power outputs to support most commercial LED and OLED luminaires.
- ▶ Constant current and constant voltage systems.
- ▶ Constant current solution automatically caters for cable voltage drops.
- ▶ Ability to wire common anode fixtures.
- ▶ Supports multiple dimming protocols- DMX, RDM, DALI, Ethernet (Art Net 3, sACN & Art-Osc).
- ▶ Significantly higher efficiency: each output stage is >98% efficient and maintains high efficiency when being dimmed.
- ▶ Higher driver efficiency improves system lumens per watt, but also reduces internal temperatures, increasing overall system lifetime and reliability.
- ▶ Ability to include VLC messaging on standard constant current luminaires.

Maintenance & Lifetime

- ▶ Centralised LED drivers are usually located in ambient temperatures of 20-25°C, which significantly improves lifetime compared to single driver solutions with electronics that operate between 80 and 110°C.
- ▶ No electrolytic capacitors are used on the output stages; only solid-state polymer or ceramic capacitors which have lifetimes of 100Ks hours, compared to traditional driver solutions that use electrolytic capacitors with 5000 hour lifetimes.
- ▶ Higher quality components are used in the AC/DC conversion process, ensuring longer life solutions.
- ▶ Spare output channels within a driver can be easily used to support additional requirements or back up in the event of a channel failure.
- ▶ Centralised drivers are easy to access in the event of changes to the system, unlike traditional drivers located by the fixture in the ceiling.
- ▶ Centralised drivers can be located up to 300

metres away from luminaires, enabling drivers to be placed indoors even if luminaires are outdoors, thus mitigating the need to source IP rated drivers.

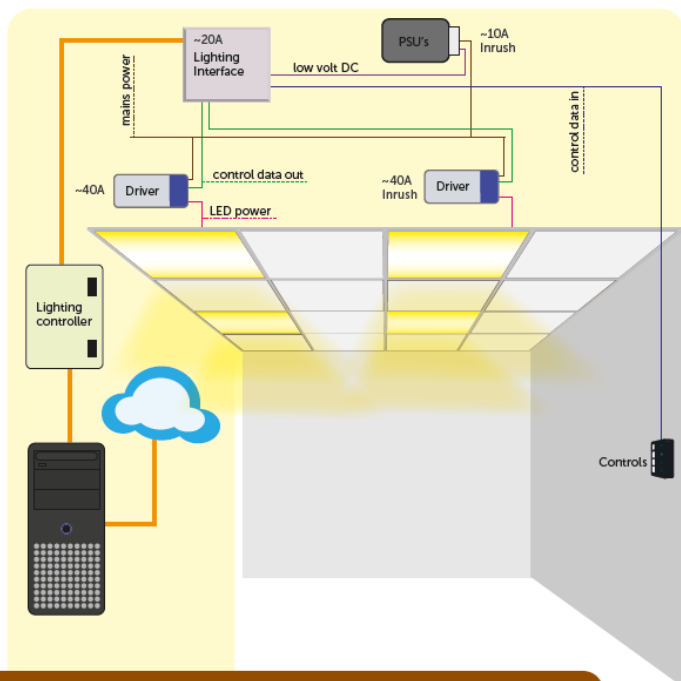
- ▶ Improved disaster recovery. In the event of catastrophic failure due to high voltage faults or lightning strikes, the centralised installation can be recovered in a drastically reduced time compared to traditional installation systems.

Best-in-Class Energy Savings

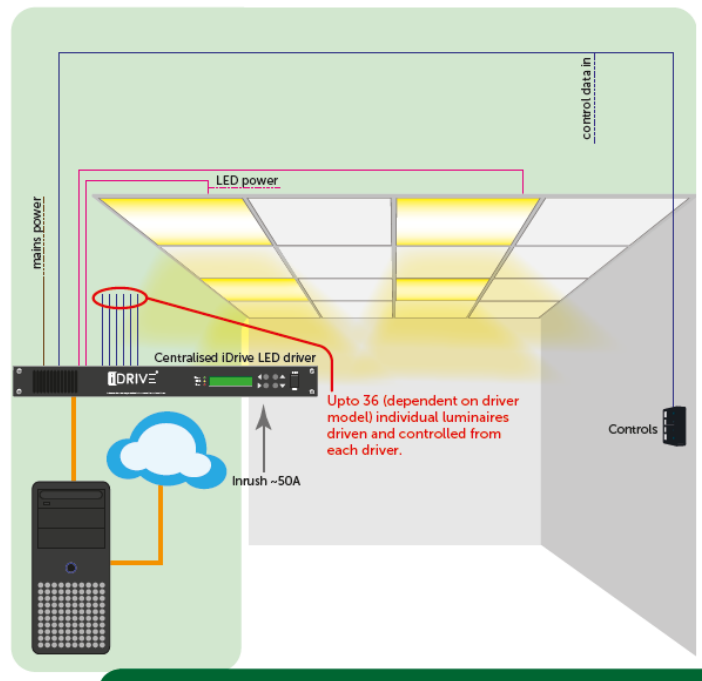
- ▶ Improved driver efficiency due to high quality components and novel output stages.
- ▶ Highest power density possible. The majority of IST's centralised drivers are 1U, but are capable of offering up to 36 channels and over 2000W of power.
- ▶ Real-time energy management and reporting.
- ▶ Ability to monitor and enhance workplace productivity.
- ▶ Flexible, scalable, open platform.

Improved Functionality

- ▶ Multiple control protocols in one product removes the need and expense of stocking or sourcing several intelligent driver products.
- ▶ Ability to include Ethernet and WI-FI interfaces to allow Internet-based communication.
- ▶ Easily integrate with energy management apps on mobile devices.
- ▶ Easy-to-use web access.
- ▶ Complete monitoring, maintenance and management of project installations.
- ▶ Offers full potential to reduce the need for complex additional control systems & their costs.
- ▶ The ability to connect occupancy and daylight sensors directly to drivers and enable them to be local control modules (future options).



Example remote driver installation



iDrive® centralised driver installation



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