

How to Choose A Suitable LED Power Supply?

- Decide a suitable wattage level, including safety margin.
- Verify your design of LED driving circuit: direct drive by PSU [choose a constant current (C.C.) mode LED power supply] or add additional driving IC to get a more precise constant current level [choose LDD or LDH].
- Verify whether the application need PFC function.
- Verify location of assembly and the required level against dust and humidity for the LED power supply (enclosure style, IP level, dry/damp/wet location).
- Verify the required safety certificates.
- Need to adjust the output voltage and/or output current or need the dimming function ?

► Suggested System Design

Setting	Circuit Diagram	Description	Advantage & Disadvantage
Use constant current (C.C.) mode power supply only		<p>Using MEAN WELL's C.C. mode LED power supply as constant current source and feed the LED arrays directly.</p> <p>MEAN WELL product: APC / LPC / ELN / PLN / PLC / LPF / HLN / PLD / PLM / CLG / CEN / HLG / HLG-C / HSG / HVG / HVGC / HBG / PLP / HLP / LCM families</p>	<p>Advantage</p> <ul style="list-style-type: none"> • Simplest design, no need LED driver IC • Lower price • Higher efficiency with the best lumen per watt(lm/w) <p>Disadvantage</p> <ul style="list-style-type: none"> • Unbalanced driving current and shorter LED life time • LED chips should be sorted for similar VF
Use constant voltage (C.V.) mode power supply with DC-DC LED driver		<p>Using AC/DC C.V. mode LED power supply and separate DC/DC LED drivers.</p> <p>MEAN WELL product: Any AC/DC LED power supply+ LDD or LDH series (DC/DC LED driver)</p>	<p>Advantage</p> <ul style="list-style-type: none"> • Independent output channels, the most balanced current for paralleled LED strips • No need to sort the VF of LED • Longer LED lifetime • Failures in any string do not affect the other strings <p>Disadvantage</p> <ul style="list-style-type: none"> • Higher price • Complicated circuit design • Lower system efficiency • Larger in power supply volume