

KLN Series Extended Range

Programmable DC Power Supply **CE**

5 - 150kW



Features

Input & Output

- Extended range output, programmable voltage, current and power.
- 3U height, output voltage from 0~80V up to 0~1500V, output current from 0~30A up to 0~540A.
Output power 5kW · 10kW · 15kW, in total 18 models available for selection.
- Simple construction allows 10 units to become a 150kW power system.
- Maximum output current up to 5400A.
- Three phase UNIVERSAL input, 3 ϕ 180~460VAC (47~63Hz).
- Active power factor correction PF > 0.95.
- Efficiency > 95%

Convenience

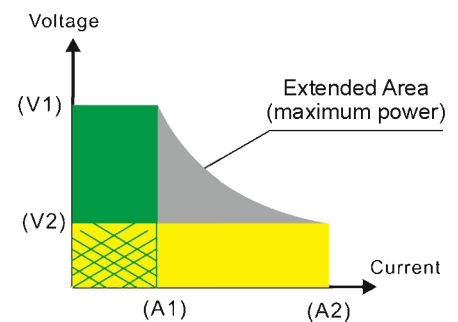
- User-definable output priority, Constant Voltage or Constant Current.
- Internal resistance, Solar cell and Fuel cell simulation.
- Programmable output ramp up and ramp down, protecting the device under test.
- Programmable OVP, OCP and OTP.
- Output ripple and noise are extremely low.
- User-definable power ON mode (LAST/OFF).
- 16Bit DAC for setting and 24Bit ADC for measurement.

Function

- Non-gap stacking, no ventilation holes on the cover and bottom plate of the power supply.
- Uses speed controlled fan (12cm), dissipates the heat efficiently.
- Firmware can be upgraded without opening the case; unit continues to be functional even if upgrade fails.
- Safe operation with Inter-lock function.
- Large-size touchscreen, various operating modes, independent V & A encoder for quick adjustment.
- Three sets of memory locations can be stored and recalled from the front panel.
- Up to 8000 sets of programmed memory locations; combinations of V/A/W/Time can be stored (min. time 0.1 mS).

Interface

- USB host port to load or save the programmed sequence.
- LAN (LXI) interface built-in.
- LAN interface response time 10mS.
- RS-422/485 baud rate 115200 bps.
- IVI-COM driver provided, SCPI commands supported.
- Multi-purposed slot for optional interfaces, USB device/GPIB/Serial Port/Isolated Analog.



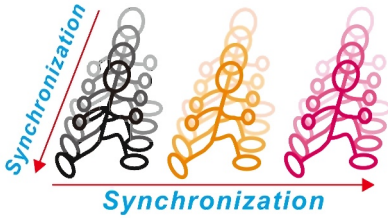
Conventional output range:

PS1 (green): $V1 \times A1 = \text{rated power}$
 PS2 (yellow): $V2 \times A2 = \text{rated power}$

Extended output range:

The gray area shows all the V/A combinations possible with a single KLN EXT model, including both PS1 (green) and PS2 (yellow) plus any V/A combination within the same maximum power.

Synchronization Technique



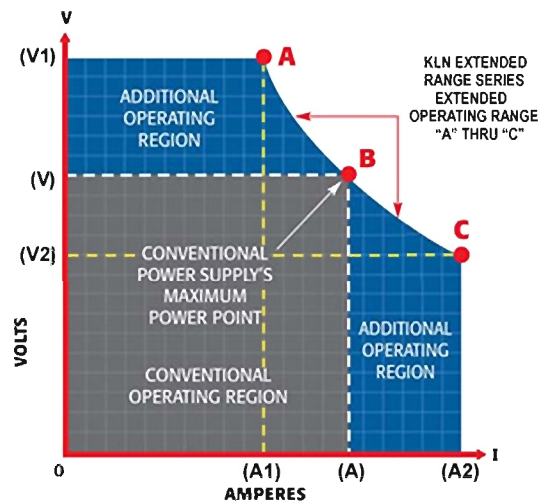
By using the patented technique “Switching Frequency Synchronization” (SFS), Modularized System Power (MSP) easily allows configurations as high as 150kW in a standard 35U rack.

For budgetary control, the great flexibility of MSP allows the user to build the system’s programmable DC power supply as needed, starting from a lower capacity, then extending to a higher capacity when budget is available.

Thanks to the SFS technique, the user can shut off unneeded units to save energy.

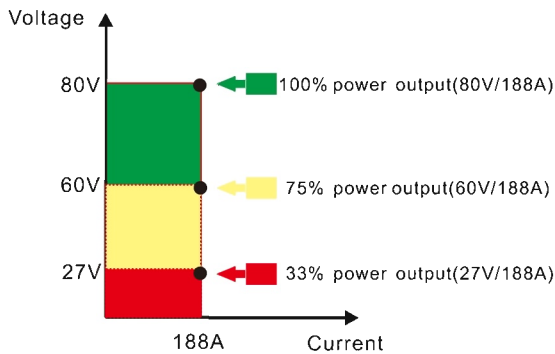
Maximum Voltage V.S. Maximum Current Table

Model	MAX POWER (W)	(V1) RATED VOLTAGE (V)	(A1) MAX CURRENT(A) FOR RATED VOLTAGE	(A2) RATED CURRENT (A)	(V2) MAX VOLTAGE (V) FOR RATED CURRENT
KLN 80-180E	5000	80	60	180	27.8
KLN 250-60E	5000	250	20	60	83.3
KLN 350-42E	5000	350	14	42	119
KLN 500-30E	5000	500	10	30	166.7
KLN 650-23E	5000	650	7.7	23	217.4
KLN 80-360E	10000	80	120	360	27.8
KLN 250-120E	10000	250	40	120	83.3
KLN 350-84E	10000	350	28	84	119
KLN 500-60E	10000	500	20	60	166.7
KLN 650-46E	10000	650	15.4	46	217.4
KLN 1000-30E	10000	1000	10	30	333.3
KLN 80-540E	15000	80	180	540	27.8
KLN 250-180E	15000	250	60	180	83.3
KLN 350-126E	15000	350	42	126	119
KLN 500-90E	15000	500	30	90	166.7
KLN 650-69E	15000	650	23	69	217.4
KLN 1050-42E	15000	1050	14.3	42	357
KLN 1500-30E	15000	1500	10	30	500

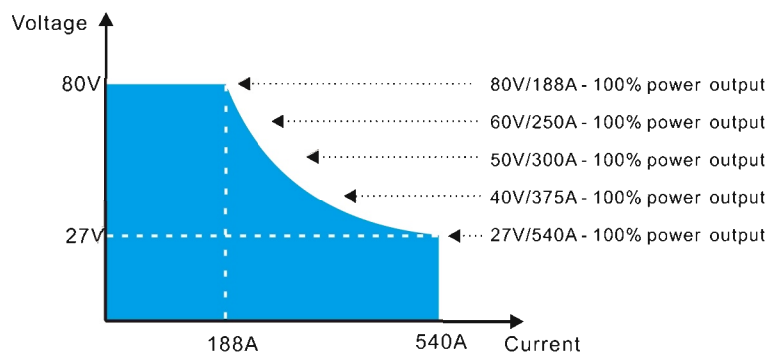


Output Characteristic

Compared with conventional designs, the KLN Extended Range Series has more flexibility, with numerous V/A combinations able to satisfy various requirements. One Extended Range model can take the place of 3 - 5 different models of conventional design.



Conventional 80V/15kW power output range



KLN Extended Range 80V/15kW power output range