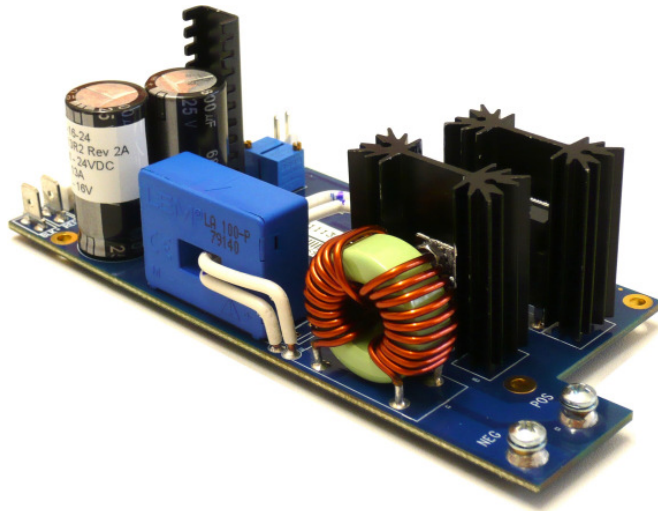


DDPC-Series PCB-version cw-laser diode driver



DDPC-xx-yy-zz specifications:

xx = max. current output

yy = max. voltage output,

zz = input voltage, 12, 15, 24, 28, 48 VDC

Current: max. 70 A

Ripple: typ. 0.25%

Rise/fall time: <200 μ s

(Lower rise times can be achieved depending on configuration and cabling)

Input: 12 - 28 VDC ¹⁾, max. 20 A

➤ For exemplarily input power details refer to following table:

Output @ max. current	Output power	U-in	I-in	Efficiency
24 VDC input				
2 V @ 50 A	100 W	24 V	7 A	60%
4 V @ 40 A	160 W	24 V	9 A	74%
6 V @ 40 A	240 W	24 V	12.6 A	79%
4 V @ 70 A	280 W	24 V	19 A	60%
10 V @ 30 A	300 W	24 V	14.7 A	85%
16 V @ 19 A	304 W	24 V	14.1 A	90%
20 V ¹⁾ @ 13 A	260 W	27 V	11 A	90%
12 VDC & 15 VDC input				
2.38 V @ 50 A	119 W	14.33 V	11.6 A	72%
2.38 V @ 50 A	119 W	11.18 V	14.9 A	72%

¹⁾ for higher output voltage than 16 VDC please contact Schulz-Electronic

Protection: Ultrafast output crowbar, reverse input voltage, input over voltage, over temp.

Size: up to 100 W ca. 152 x 71 x 53 mm (for power >100 W height ca. 70 mm)

Cooling: Operating Temp: 0 – 40 °C

Forced air cooling (user must provide appropriate fan cooling)

10 CFM (17 m³/h) minimum into the 2 heatsinks at up to 100 W output power

37 CFM (63 m³/h) minimum into the 2 heatsinks at up to 300 W output power

Recommended fan for up to 100 W:

40 x 40 x 20 mm, from Delta, 12 V or 24 V depending on DC input voltage.

Mode3I #EFB0412VHD for 12 VDC or #EFB0424VHD for 24 VDC, 17 m³/h

For up to 300 W output power:

60 x 60 x 25 mm, 24 VDC, Sanyo Denki, #109R0624J402, 63 m³/h

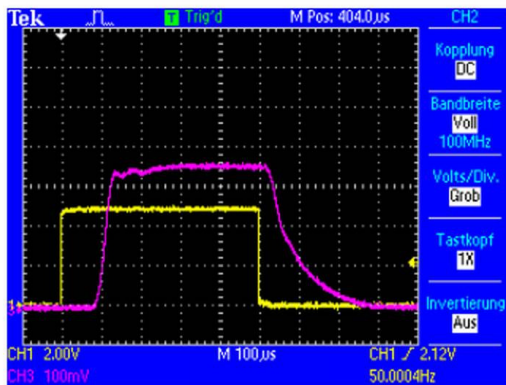


Interface Connector: 6 pin 0.10" center right angle

Pin/Function			Impedance
1	Enable	5 to 15 V = Enable output, Default = OFF	10k
2	U_{mon}	1 to 1 for $U_{out} < 10\text{ V}$ 0 - 10 V = 0 - Full scale for $U_{out} > 10\text{ V}$	1k
3	Pulse	TTL High = ON, Default = High	10k
4	$I_{program}$	0 - 10 V = 0 - Full Scale	10k
5	GND		N/A
6	I_{mon}	0 - 10 V = 0 - Full Scale.	1k

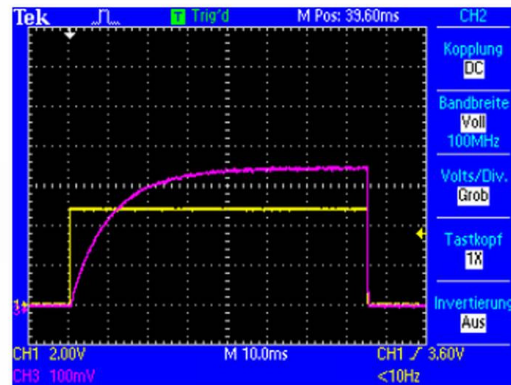
Output signal waveforms

Pulse Rise/Fall time @ $I_{out} = 70\text{ A}$, $U_{in} = 24\text{ V}$



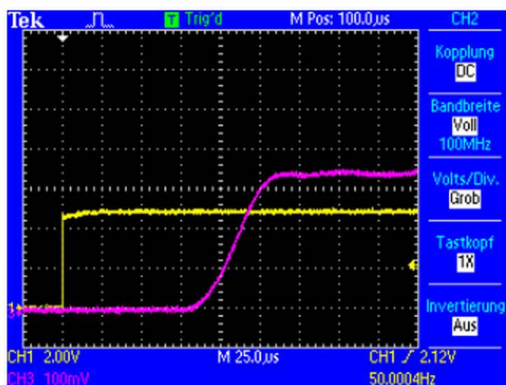
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Enable/Softstart Rise Time @ $I_{out} = 70\text{ A}$



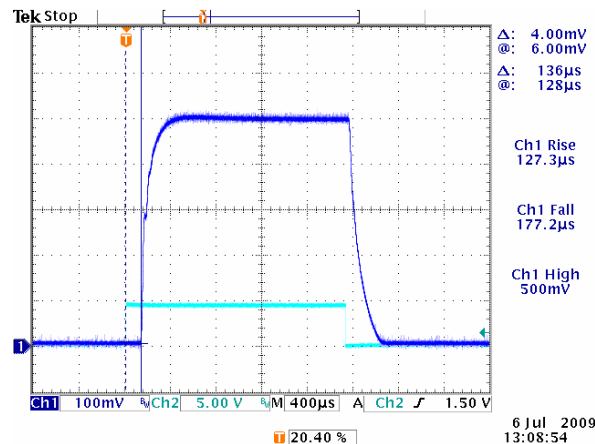
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Pulse Rise time @ $I_{out} = 70\text{ A}$, $U_{in} = 24\text{ V}$



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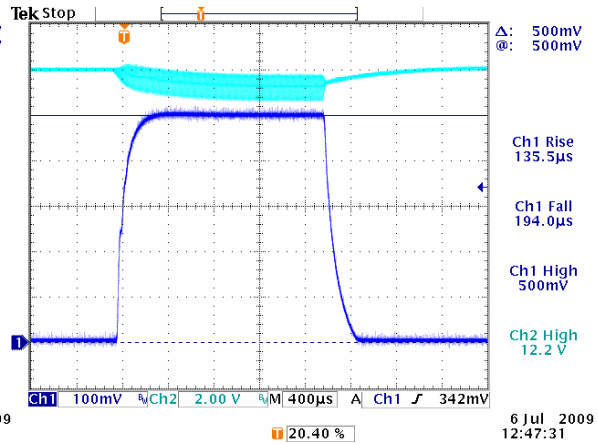
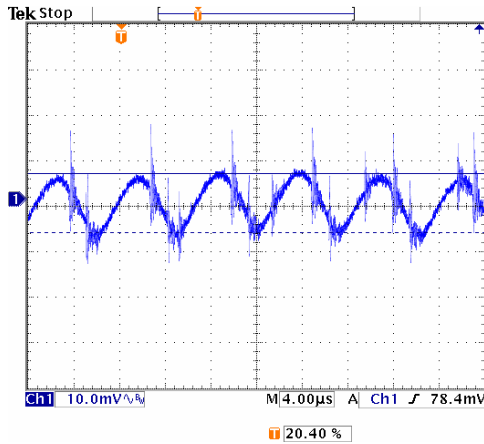
Pulse Rise/Fall Time @ $I_{out} = 50\text{ A}$, $U_{in} = 15\text{ V}$



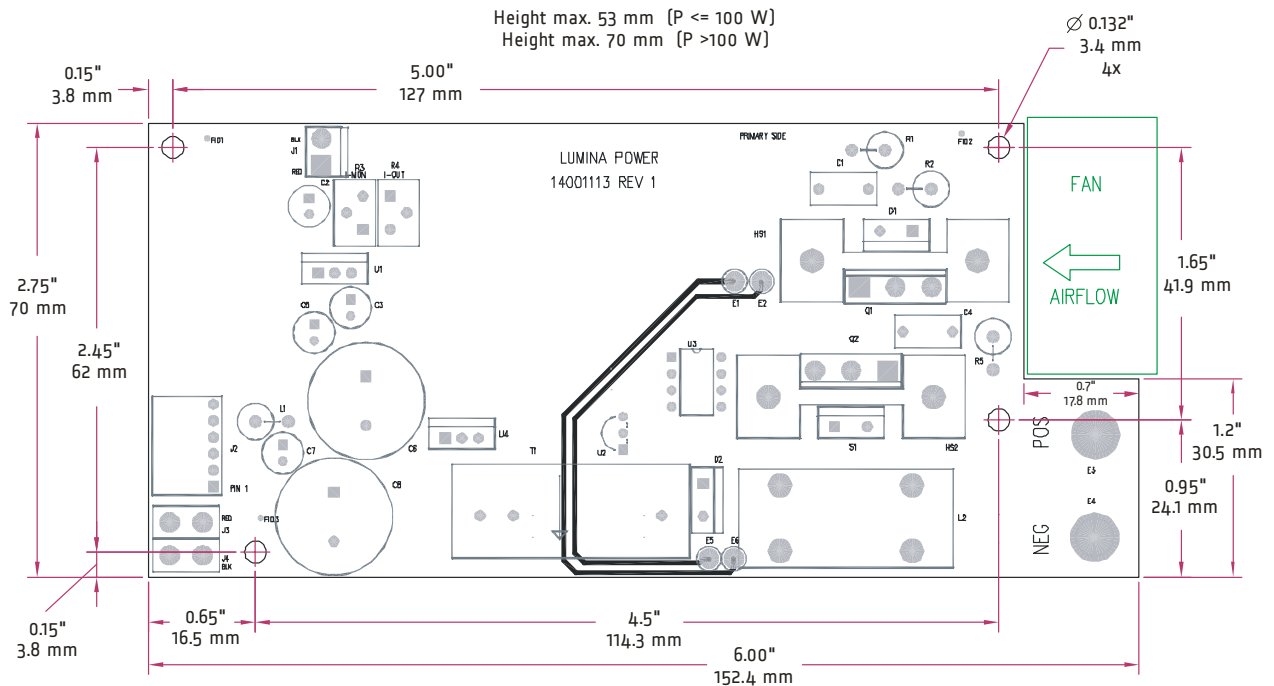
6 Jul 2009
13:08:54

Ripple PK-PK @ $I_{out} = 50\text{ A}$: 130 mV

$V_{IN} = 12\text{ V}$, $I_{OUT} = 50\text{ A}$, $U_{OUT} = 2.4\text{ V}$



DDPC-xx-yy-zz, technical drawing:



All information is subject to change without further notice