

# KWK RESISTORS INDIA



## Programmable DC Electronic Load KELB15 Series 150W-200W-300W

KELB15 is a precision programmable DC electronic load controlled by a high performance microprocessor. It uses 3.5-inch TFT true color LCD display offers 4 basic working modes (CC/CV/CR/CW) and 10 functional modes.

With comprehensive protection, over-heat protection, over-current protection, over-power protection, over-voltage protection, loop oscillation protection. KELB15 series E-load supports RS232, LAN, USB and analog interfaces to fit your versatile solution and testing needs.



### Test Function

4 basic working modes CC/CV/CR/CW and 11 functional modes multiple extended function modes:

- ◆ Short test function
- ◆ DYNA dynamic test function
- ◆ OCP over current protection mode
- ◆ BATT battery mode
- ◆ EFFT load effect mode
- ◆ SWEEP dynamic frequency conversion scanning function.
- ◆ TIMEING \_me measurement function
- ◆ OVP over voltage protection mode
- ◆ AUTO mode
- ◆ LIST function
- ◆ LED (HP8151 has no LED mode)

### Features

- ◆ 500 kHz high speed voltage, current sampling rate
- ◆ High precision voltage and current measurement
- ◆ Fast loop response speed and current slew rate
- ◆ Programmable single step up to 10µS
- ◆ Equipped with remote four –wire compensation
- ◆ Unique real-time display of current ripple and voltage ripple
- ◆ Real-time display of load power and resistance

### Specification

Model	KELB151		KELB151A		KELB151B		KELB201							
Input Voltage	15V	150V	15V	150V	50V	500V	15V	150V						
Input Current	3A	30A	3A	30A	1.5A	15A	3A	30A						
Input Power	150W							200W						
Min.operation voltage	1.5V@30A				7.5V@15A		1.5V@30A							
Min rise time@ FS current	10µs													
<b>CV Mode</b>														
Range	15V	150V	15V	150V	50V	500V	15V	150V						
Resolution	0.2mV	2mV	0.2mV	2mV	0.7mV	7mV	0.2mV	2mV						
Accuracy	±(0.05%+0.025%FS)													
<b>CC Mode</b>														
Range	3A	30A	3A	30A	1.5A	15A	3A	30A						
Resolution	0.04mA	0.4mA	0.04mA	0.4mA	0.02mA	0.2mA	0.04mA	0.4mA						
Accuracy	±(0.03%+0.05%FS)													
<b>CR Mode</b>														
Range	0.1Ω-7.5kΩ		0.1Ω-7.5kΩ		0.1Ω-7.5kΩ		0.1Ω-7.5kΩ							
Resolution	16 Bits													
Accuracy	±0.1%													

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CW Mode										
Range	150W						200W			
Resolution	16 Bits									
Accuracy	$\pm(0.1\%+0.1\%FS)$									
LED mode										
Bandwidth	-----		100kHz							
Rd coefficient	-----		0.001-1							
Dynamic mode										
Ta & Tb	10μs - 50s									
Min.resolution	10μs									
Min.rise time	1.5A/μs	1.5A/μs		0.8A/μs	1.5A/μs					
Read-back voltage										
Range	15V	150V	15V	150V	50V	500V	15V	150V		
Resolution	0.1mV	1mV	0.1mV	1mV	0.3mV	3mV	0.1mV	1mV		
Accuracy	$\pm(0.025\%+0.025\%FS)$									
Read-back current										
Range	3A	30A	3A	30A	1.5A	15A	3A	30A		
Resolution	0.02mA	0.2mA	0.02mA	0.2mA	0.01mA	0.1mA	0.02mA	0.2mA		
Accuracy	$\pm(0.05\%+0.05\%FS)$									
Read-back Ripple										
Range (R/I)	-----		150V/30A		500V/15A		150V/30A			
Bandwidth	-----		10Hz-250kHz							
Accuracy	$\pm 1\%$									
Protection Range										
Over-power protection	158W						210W			
Over-current protection	32A			16A		32A				
Over-voltage protection	158V			525V		158V				
Over-temperature protection	=85°C									
Specification										
Dimension (D*W*H)	358mm*214mm*88mm									
Gross Weight	3.8 Kg									

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Model	KELB201B		KELB301		KELB301B		KELB301C											
Input Voltage	50V	500V	30V	150V	50V	500V	15V	150V										
Input Current	1.5A	15A	3A	30A	1.5A	15A	6A	60A										
Input Power	200W		300W															
Min.operation voltage	6.5V@15A		1V@30A		4V@15A		1.5V@60A											
Min rise time@ FS current	10μs				30μs		20μs											
<b>CV Mode</b>																		
Range	50V	500V	30V	150V	50V	500V	15V	150V										
Resolution	0.7mV	7mV	0.2mV	2mV	0.7mV	7mV	0.2mV	2mV										
Accuracy	±(0.05%+0.05%FS)																	
<b>CC Mode</b>																		
Range	1.5A	15A	3A	30A	1.5A	15A	6A	60A										
Resolution	0.02mA	0.2mA	0.04mA	0.4mA	0.02mA	0.2mA	0.09mA	0.9mA										
Accuracy	±(0.05%+0.05%FS)																	
<b>CR Mode</b>																		
Range	0.1Ω-7.5kΩ		0.1Ω-7.5kΩ		0.1Ω-7.5kΩ		0.1Ω-7.5kΩ											
Resolution	16 Bits																	
Accuracy	±0.1%																	
<b>CW Mode</b>																		
Range	200W		300W															
Resolution	16 Bits																	
Accuracy	±(0.1%+0.1%FS)																	
<b>LED mode</b>																		
Bandwidth	100kHz																	
Rd coefficient	0.001-1																	
<b>Dynamic mode</b>																		
Ta & Tb	10μs - 50s																	
Min.resolution	10μs																	
Min.rise time	0.8A/μs		1.5A/μs		0.8A/μs		3A/μs											
<b>Read-back voltage</b>																		
Range	50V	500V	15V	150V	50V	500V	15V	150V										
Resolution	0.3mV	3mV	0.1mV	1mV	0.3mV	3mV	1mV	0.1mV										
Accuracy	±(0.025%+0.025%FS)																	

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Read-back current								
Range	1.5A	15A	3A	30A	1.5A	15A	6A	60A
Resolution	0.01mA	0.1mA	0.02mA	0.2mA	0.01mA	0.1mA	0.04mA	0.4mA
Accuracy	±(0.05%+0.05%FS)				±(0.05%+0.1%FS)			
Read-back Ripple								
Range (R/I)	500V/15A		150V/30A		500V/15A		150V/60A	
Bandwidth			10Hz-250kHz					
Accuracy			±1%					
Protection Range								
Over-power protection	210W				315W			
Over-current protection	16A		32A		16A		63A	
Over-voltage protection	525V		158V		525V		158V	
Over-temperature protection			=85°C					
Specification								
Dimension (D*W*H)			358mm*214mm*88mm					
Gross Weight			3.8 Kg					

## Applications



## KWK Resistors India Pvt. Ltd.

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