

## Models\* VSP6020, VSP2050, VSP4030, VSP12010

**High Power Switching DC Power Supplies** 

## **Data Sheet**

Remote Mode	20 mV 10 mA og Programming 0 To Sv & 0 0.5 0.5 +/- +/- 250 hrough front panel potentiome	10 mV 20 mA  To 10)  % of E. S. ± 1 Digit (spec. fc % of E. S. ± 1 Digit (spec. fc 0.2% of E.S. +/- 3 Digit. (sp 0.2% of E.S. +/- 3 Digit. (sp 0.1% of E.S (spec. for all VS 0.0% 80% Minimum	ec. for all VSP models) P models) P models) P models) P models) P models)	VSP12010*   1.2KW
Output Voltage Output Current Ripple rms. (10Hz to 1MHz) Noise (10Hz to 20MHz) Programming Resolution(Digital Inte Voltage Current Output Programming Accuracy(Anal Voltage Current Meter Accuracy Voltage Current Regulation CV Line Regulation CV Line Regulation CC Line Regulation CC Load Regulation CC Load Regulation COL Load	0-60V 0-20A ≤ 10mV ≤ 45mVpp  rface), LSB (not LED displays) 20 mV 10 mA og Programming 0 To 5v & 0 0.5 0.5 +/- +/-  250  hrough front panel potentiome	0-20V 0-50A ≤ 15mV ≤ 45mVpp  10 mV 20 mA  To 10) % of F. S. ± 1 Digit (spec. fc % of F. S. ± 1 Digit (spec. fc 0.2% of F.S. +/- 3 Digit. (sp 0.2% of F.S. +/- 3 Digit. (sp 0.1 % of F.S (spec. for all VS 0.0 % Minimum microseconds for load change	0–40V 0–30A ≤ 10mV ≤ 45mVpp  10 mV 10 mA  or all VSP models) or all VSP models) ec. for all VSP models) P models) P models P models P models P models P models	0-120V 0-10A ≤ 20mV ≤ 45mVpp
Output Current Ripple rms. (10Hz to 1MHz) Noise (10Hz to 20MHz) Programming Resolution(Digital Inte Voltage Current Output Programming Accuracy(Anal Voltage Current Meter Accuracy Voltage Current Regulation CV Line Regulation CV Line Regulation CC Line Regulation CC Load Regulation CC Load Regulation CD Load Regulation CO Load Regulation Output Specification Stability Efficiency Transient Response Mode Of Operation Local Mode Voltage O Resistance Digital Interface Protections Over voltage protection Over temperature protection Over temperature protection Input specifications Mains Input Range Input Frequency Input Power Factor	0-20A ≤ 10mV ≤ 45mVpp  rface), LSB (not LED displays) 20 mV 10 mA og Programming 0 To 5v & 0 0.5 +/- +/-  250  hrough front panel potentiome	0–50A ≤ 15mV ≤ 45mVpp  10 mV 20 mA To 10) % of E.S. ± 1 Digit (spec. fc % of E.S. ± 1 Digit (spec. fc 0.2% of E.S. +/- 3 Digit. (sp 0.2% of E.S. +/- 3 Digit. (sp 0.1 % of E.S (spec. for all VS 0.0.5% 80% Minimum	0–30A ≤ 10mV ≤ 45mVpp  10 mV 10 mA  or all VSP models) or all VSP models) ec. for all VSP models) ep models P models P models P models P models P models	0-10A ≤ 20mV ≤ 45mVpp
Ripple rms. (10Hz to 1MHz)  Noise (10Hz to 20MHz)  Programming Resolution(Digital Inter Voltage Current  CE Line Regulation CV Line Regulation CV Load Regulation CV Load Regulation CO Load Regulat	≤ 10mV ≤ 45mVpp  rface), LSB (not LED displays) 20 mV 10 mA og Programming 0 To 5v & 0 0.5 0.5  +/- +/-  250  hrough front panel potentiome Inter	≤ 15mV ≤ 45mVpp  10 mV 20 mA  To 10) % of E.S. ± 1 Digit (spec. fc % of E.S. ± 1 Digit (spec. fc 0.2% of E.S. +/- 3 Digit. (spec. fc 0.2% of E.S. +/- 3 Digit. (sp 0.2% of E.S. +/- 3 Digit. (sp 0.1 % of E.S (spec. for all VS 0.0.05% 80% Minimum microseconds for load change	≤ 10mV ≤ 45mVpp  10 mV 10 mA  or all VSP models)  ec. for all VSP models)  ec. for all VSP models)  P models)  P models)  P models)  P models)  P models)  P models)	≤ 20mV ≤ 45mVpp
Noise (10Hz to 20MHz) Programming Resolution(Digital Inter Voltage Current Output Programming Accuracy(Anal Voltage Current Meter Accuracy Voltage CV Load Regulation CC Load Regulation CV Load Regulation Muput Specification Stability Efficiency Transient Response Mode Of Operation Local Mode Traemote Mode Voltage O Resistance Digital Interface Protections Over voltage protection Over temperature protection  Mains Input Range Input Frequency Input Power Factor	≤ 45mVpp rface), LSB (not LED displays) 20 mV 10 mA og Programming 0 To 5v & 0 0.5 0.5 4/- +/- hrough front panel potentiome Inter	≤ 45mVpp  10 mV 20 mA  To 10) % of E.S. ± 1 Digit (spec. fc % of E.S. ± 1 Digit (spec. fc 0.2% of E.S. +/- 3 Digit. (sp 0.2% of E.S. +/- 3 Digit. (sp 0.2% of E.S. +/- 3 Digit. (sp 0.1 % of E.S (spec. for all VS 0.0 % Som Minimum microseconds for load change	≤ 45mVpp  10 mV 10 mA  or all VSP models)  or all VSP models)  ec. for all VSP models)  ec. for all VSP models)  P models)  P models)  P models)  P models)  P models)	≤ 45mVpp
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Output Specification Stability Efficiency Transient Response Mode Of Operation Local Mode Voltage Voltage Ogistal Interface Protections Over voltage protection Over temperature protection Input specifications Mains Input Range Input Frequency Input Power Factor	250 hrough front panel potentiome Inter	0.05% 80% Minimum microseconds for load chang		
Stability Efficiency Transient Response Mode Of Operation Local Mode Transient Mode Voltage Orderstance Digital Interface Protections Over voltage protection Over temperature protection Input specifications Mains Input Range Input Frequency Input Power Factor	hrough front panel potentiome Inter	80% Minimum microseconds for load chang	ge from 40% to 90%	
Efficiency Transient Response  Idode Of Operation Local Mode T Remote Mode Voltage O Resistance Digital Interface Protections Over voltage protection Over temperature protection Input specifications Mains Input Range Input Frequency Input Power Factor	hrough front panel potentiome Inter	80% Minimum microseconds for load chang	ge from 40% to 90%	
Transient Response Mode Of Operation Local Mode T Remote Mode Voltage O Resistance Digital Interface rotections Over voltage protection Over temperature protection  mput specifications Mains Input Range Input Frequency Input Power Factor	hrough front panel potentiome Inter	microseconds for load chang	ge from 40% to 90%	
Inde Of Operation  Local Mode  Voltage  Voltage  Digital Interface rotections  Over voltage protection  Over temperature protection  Mains Input Range  Input Frequency  Input Power Factor	hrough front panel potentiome Inter		ge from 40% to 90%	
Local Mode Remote Mode Voltage O Resistance Digital Interface rotections Over voltage protection Over temperature protection  mput specifications Mains Input Range Input Frequency Input Power Factor	Inter	eter for voltage, current and o		
Remote Mode  Voltage 0  Resistance  Digital Interface rotections  Over voltage protection  Over temperature protection  nput specifications  Mains Input Range  Input Frequency  Input Power Factor	Inter	eter for voltage, current and o		
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Resistance Digital Interface Protections Over voltage protection Over temperature protection Input specifications Mains Input Range Input Frequency Input Power Factor		rface Analog programming of	voltage and current.	
Digital Interface Protections Over voltage protection Over temperature protection Input specifications Mains Input Range Input Frequency Input Power Factor	- 5 volts or $0 - 10$ volts for $\sigma$	output voltage and current, so	election through DIP-switch.	
Protections Over voltage protection Over temperature protection  Input specifications  Mains Input Range Input Frequency Input Power Factor	0	- 4.85k ohms from 0 to full	-scale level.	
Over voltage protection Over temperature protection  nput specifications Mains Input Range Input Frequency Input Power Factor		RS-232 / GPIB		
Over temperature protection  nput specifications  Mains Input Range Input Frequency Input Power Factor				
Over temperature protection  nput specifications  Mains Input Range Input Frequency Input Power Factor	Programmable throu	igh POT in local mode and th	rough digital interface in re	mote mode.
nput specifications  Mains Input Range Input Frequency Input Power Factor		Through 90 °C. Thermal sv		
Mains Input Range Input Frequency Input Power Factor				
Mains Input Range Input Frequency Input Power Factor				
Input Frequency Input Power Factor	95Vac to 264Vac.			
Input Power Factor		47 To 63 H		
	0.99 On Full Load At Nominal Input.			
	Limited By NTC			
		Lillilled By N	i C	
Operating Environment		0 50%		
Temperature	0 - 50°C			
Relative Humidity	< 80% rh – non condensing			
Storage Temperature	- 20°C. to + 70°C.			
Warm-up Time		15 minutes		
afety Standards				
EMI Filtering	EN55022 Class-A			
Safety Class		EN60950		
Aechanical Specifications				
Weight (approx.)				
Dimensions (WxHxD)		13.7lbs. (6.2	KG.)	
Dimensions with rubber feet		13.7lbs. (6.2 19 x 1.75 x 18" (483 x 4		
			14.5 x 457mm)	





SUPPLIED: Instruction Manual

OPTIONAL (for all models): TL-5, TL-30

\* = Specification also apply to corresponding GPIB model (Add GPIB to the model number for a GPIB interface instead of a RS232 interface. Example: VSP6020GPIB)

ES = Full Scale. Full scale will be different for each model. Example: If you have a VSP2050 and you are measuring the voltage meter accuracy, the meter can not off more than 0.3V (20V + 0.2% +3 digit). Note: 3 digits refers to the power supply displays least significant digit.

## **B&K Precision Corporation**