

Advanced Test Equipment Corp. www.atecorp.com 800-404-ATEC (2832)



Programmable DC Power Supplies 750W/1500W in 1U Built in RS-232 & RS-485 Interface Advanced Parallel Operation Optional Interface: LXI Compliant LAN IEEE488.2 SCPI (GPIB) Multi-drop Isolated Analog Programming



Genesys™ Family GenH 750W Half Rack Gen1U 750/1500W Full Rack Gen2U 3.3/5kW



The GenesysTM family of programmable power supplies sets a new standard for flexible, reliable, AC/DC power systems in OEM, Industrial and Laboratory applications.

Features include:

- High Power Density: 1500W in 1U
- Wide Range Input (85 265Vac Continuous, single phase, 47/63Hz)
- Active Power Factor Correction (0.99 typical)
- Output Voltage up to 600V, Current up to 200A
- Built-in RS-232/RS-485 Interface Standard
- Last-Setting Memory
- Global Commands for Serial RS-232/RS-485 Interface
- Front Panel Lock selectable from Front Panel or Software
- High Resolution 16 bit ADCs & DACs
- Reliable Encoders for Voltage and Current Adjustment
- Constant Voltage/Constant Current auto-crossover
- Advanced Parallel reports total current up to four identical units
- Independent Remote ON/OFF and Remote Enable/Disable
- External Analog Programming and Monitoring (user selectable 0-5V & 0-10V)
- Reliable Modular and SMT Design
- 19" Rack Mounted ATE and OEM applications
- Optional Interfaces

Isolated Analog Programming and Monitoring Interface (0-5V/0-10V & 4-20mA) IEEE 488.2 SCPI (GPIB) Multi-Drop

Compliant LAN Interface

- Lab View[®] and Lab Windows[®] drivers
- Five Year Warranty

Worldwide Safety Agency Approvals; CE Mark for LVD and EMC Regulation



Applications

Genesys[™] power supplies have been designed to meet the demands of a wide variety of applications.

Common controls are shared all Genesys[™] Series.

Test and Measurement

Last-Setting memory simplifies test design and requires no battery backup. Built-in RS-232/RS-485 gives maximum system flexibility along with 0-5V and 0-10V, selectable analog programming. Wide range of available inputs allows testing of many different devices.

Semiconductor Burn-in

Safe-Start may be ENABLED to re-start at Output OFF to protect load. Wide range input (85-265Vac) with Active Power Factor correction rides through input transients easily.

Component Test

High power density, zero stacking and single wire parallel operation give maximum system flexibility.

Laser Diode

OVP is directly set on Voltage Display, assuring accurate protection settings. Current Limit Fold Back assures load is protected from current surges.

Heater Supplies

Smooth, reliable encoders enhance front panel control. Remote analog programming is user selectable 0-5V or 0-10V.

RF Amplifiers and Magnets

Robust design assures stable operation under a wide variety of loads. High linearity in voltage and current mode.

Front Panel Description



- 1. AC ON/OFF Switch
- 2. Air Intake allows zero stacking for maximum system flexibility and power density.
- 3. Reliable encoder controls Output Voltage and sets Address.
- 4. Volt Display shows Output Voltage and directly displays OVP, UVL and Address settings.
- 5. Reliable encoder controls Output Current, sets baudrate and Advanced Parallel mode.
- 6. Current Display shows Output Current and displays baudrate.
- 7. Function/Status LEDs:
- Alarm
- Foldback ModeRemote Mode
- Fine Control
 Preview Settings
 Remote Mo
 Output On
- 8. Pushbuttons allow flexible user configuration
 - Coarse and Fine adjustment of Output Voltage/Current and Advanced Parallel Master or Slave
 - Preview settings and set Voltage/Current with Output OFF, Front Panel Lockout
 - Set OVP and UVL Limits
 - Set Current Foldback
 - Local/Remote Mode and select Address and Baudrate
 - Output ON/OFF and Auto-Start/Safe-Start Mode

Rear Panel Description



- 1. Remote/Local Output Voltage Sense Connections.
- 2. DIP Switches select 0-5V or 0-10V Programming and other functions.
- 3. DB25 (Female) connector allows (Non-isolated) Analog Program and Monitor and other functions.
- 4. RS-485 OUT to other Genesys[™] Power Supplies.
- 5. RS-232/RS-485 IN Remote Serial Programming.
- 6. Output Connections: Rugged busbars for up to 60V Output; wire clamp connector for Outputs >60V.
- 7. Exit air assures reliable operation when zero stacked.
- 8. Wide-Range Input 85-265VAC continuous, 47/63Hz with Active Power Factor Correction (0.99 typical). AC Input Connector: 750W (IEC320), 1500W (screw terminal-shown).
- 9. Optional Interface Position for IEEE 488.2 SCPI (shown) or Isolated Analog Interface or LAN Interface.

Genesys ™ 750W/1500W Specifications

													e are im			
1.0 MODEL 1. Rated output voltage (*1)	GEN	6-200	<u>8-180</u> 8	12.5-120	20-76 20	<u>30-50</u> 30	<u>40-38</u> 40	<u>50-30</u> 50	<u>60-25</u> 60	<u>80-19</u> 80	100-15	150-10 150	<u>300-5</u> 300	<u>600-2.6</u> 600		X
2. Rated Output Current (*2)	Å	200	180	12.5	76	50	38	30	25	19	100	10	5	2.6		X
3. Rated Output Power	W	1200	1440	1500	1520	1500	1520	1500	1500	1520	1500	1500	1500	1560		X
4. Efficiency at 100/200Vac (*3)	%	77/79		82/85	83/86		84/88	84/88	84/88			84/88	84/88			X
1. Rated output voltage (*1)	GEN V	<u>6-100</u> 6	<u>8-90</u> 8	12.5-60 12.5	20-38 20	<u>30-25</u> 30	<u>40-19</u> 40		60-12.5 60	80-9.5 80	100-7.5 100	150-5 150	300-2.5 300	600-1.3 600	X	
2. Rated Output Current (*2)	Å	100	90	60	38	25	19		12.5	9.5	7.5	5	2.5	1.3	X	
3. Rated Output Power	W	600	720	750	760	750	760		750	760	750	750	750	780	Х	
4. Efficiency at 100/200Vac (*3)	%	76/78	77/80	81/84	82/85	82/85	83/87		83/87	83/87	83/87	83/87	83/87	83/87	Х	
1.1 CONSTANT VOLTAGE MODE	mV	26	20	22	4	F	6	7	8	10	12	17	22	62	Х	X
1. Max.line regulation (0.01% of Vo+ 2mV)(*4) 2. Max load regulation (0.01% of Vo+2mV)(*5)	mV	2.6	2.8 2.8	3.3	4	5 5	6 6	7	8	10	12	17	32 32	62 62	X	X
3. Ripple and noise p-p 20MHz (*9)	mV	60	50	60	60	50	60	40	60	75	75	75	130	300	Х	X
4. Ripple r.m.s 5Hz~1MHz (*9)	mV V	8	<u>6</u> 1	7	7.5	6 1.5	7 2	5 2	7	7	8	<u>8</u> 5	20 5	60 5	X	X
5. Remote sense compensation/line 6. Temp. coefficient		50PPM/									5	5	5	5	X	X
7. Temp. stability	%	0.01% (of rated	louto	rer 8hrs i					irm-up.	Constan				Х	Х
8. Up-prog. response time, 0~Vo Rated 9. Down-prog response time full-load	mS mS	80mS, N	<u>l.L/F.L, r</u>	<u>esistive</u> 50	load		c	0		150mS,	<u>N.L/F.L,</u>	<u>resistive</u> 50	eload	250 250	X	X
10. Down-prog response time No-load	mS	500	600	700	800	900		1100	1100	1200		2000	2500	4000	X	X
11. Transient response time (*8)	mS										ls above				Х	Х
12. Temp. drift	%	0.01% o	f rated \	/out ove	<u>r 8hrs in</u>	terval fo	llowing	<u>30 min</u> ı	utes war	<u>m up. C</u>	onstant	line, loa	d & temp	D.	Х	X
1.2 CONSTANT CURRENT MODE		12	11	0.0	5.0	4.5	2.0		2.25	2.05	2.75	2.5	2.25	2.12	V	
1. Max.line regulation (0.01% of Io+ 2mA)(*4) 2. Max.load regulation (0.02% of Io+5mA)(*6)	mA mA	12 25	11 23	8.0	5.8 12.6	4.5 10	3.9 8.8		3.25 7.5	2.95 6.9	2.75	2.5 6.0	2.25	2.13 5.26	X	+
3. Ripple r.m.s 5Hz~1MHz . (*7)	mA	190	160	110	50	45	30		15	10	10	8	6	4	X	
4. Max.line regulation (0.01% of Io+ 2mA)(*4) 5. Max.load regulation (0.02% of Io+5mA)(*6)	mA mA	22 45	20 41	14 29	9.6 20.2	7.0 15	5.8 12.6	5	4.5	3.9 8.8	3.5 8.0	3.0 7.0	2.5 6.0	2.26		X
6. Ripple r.m.s 5Hz~1MHz .(*7)	mA	350	300	29	120.2	60	65	60	60	40	20	15	15	<u> </u>		X
7. Temp. coefficient	PPM/°C	70PPM/	°C from	rated or	utput vo	ltage, fo	llowing	30 minu	ites war	m up					Х	Х
8. Temp. drift 9. Warm up drift	%										onstant output v				X	X
1.3 PROTECTIVE FUNCTIONS	1 70	Tress rug	ui U.1%) [ated OU	ipui cuff	encove		TOHOWIF	ig powe		σαιραι ν	Jilaye/	current	mange		
1. OCP		0~105%	Consta	nt Curre	nt										Х	X
2. OCP Foldback		Output	shut do	wn whe	n power										X	Х
3. OVP type		Inverter	shut-de	own, ma	nual res	et by AC	input re	ecycle o	r by OUT	button	or by co	mmuni	cation po	ort	X	X
4. OVP trip point 5. Over Temp Protection					or non		<u>2~44</u> V	5~5/V	2~001	5~88V	5~110V	2~1021	5~3300	10000	X	X
1.4 ANALOG PROGRAMMING AND MONITORING	G	Josef Sei	cetable	, latence	ornon	aterica										
1. Vout Voltage Programming	0	0~100%	ő, 0∼5V (or 0~10\	, user se	lect. Acc	curacy a	nd linea	rity: +/-().5% of	rated Vo	ut.			Х	Х
2. lout Voltage Programming					, user se							11/			X	X
3. Vout Resistor Programming		0~100%	n. U~5/10													
14. IOUL RESISTOR PROGRAMMING		0~100%	b. 0~5/10	0Kohm f	ull scale.	user sel	ect. Acc	uracy ar	nd linear	ity: +/-1	.5% of ra	ted lout			X	
4. lout Resistor Programming 5. On/Off control (rear panel)		0~100% By elect	<u>6,0~5/10</u> trical.Vo	<u>0Kohm f</u> oltage: 0	<u>ull scale,</u> ~0.6V/2~	user sel -15V, or	<u>ect. Acc</u> dry cont	<u>uracy ar</u>	<u>nd linear</u>	<u>ity: +/-1</u>	<u>.5% of ra</u>	ted lout			X X	X X
5. On/Off control (rear panel) 6. Output Current monitor		0~100% By elect 0~5V or	<u>6, 0~5/10</u> trical. Vo 0~10V,	0Kohm f oltage: 0 accurac	<u>ull scale</u> , ~0.6V/2^ y: 1%, us	user sel 15V, or er selec	<u>ect. Acc</u> dry cont table	<u>uracy ar</u>	<u>nd linear</u>	<u>ity: +/-1</u>	<u>.5% of ra</u>	ited lout			X X X	X X X
5. On/Off control (rear panel) 6. Output Current monitor 7. Output Voltage monitor 8. Power Supply OK signal		0~100% By elect 0~5V or 0~5V or TTL hig	<u>b, 0~5/10</u> trical. Vc <u>0~10V,</u> <u>0~10V,</u> h (4~5V)	0Kohm f oltage: 0 accurac accurac) - 0K, 0V	<u>ull scale,</u> ~0.6V/2~ <u>y: 1%, us</u> y: 1%, us -Fail 500	user sel -15V, or er selec er selec Ohm se	ect. Acc dry cont table table ries resi	uracy ar act, use	id linear r selecta	ity: +/-1 able log	.5% of ra ic	ted lout			X X X X X	X X X X X
5. On/Off control (rear panel) 6. Output Current monitor 7. Output Voltage monitor 8. Power Supply OK signal 9. CV/CC indicator		0~100% By elect 0~5V or 0~5V or TTL hig Open co	5, 0~5/10 trical. Vo 0~10V, 0~10V, h (4~5V) pllector,	0Kohm f oltage: 0 accurac accurac) -OK, 0V CC mod	<u>ull scale</u> , ~0.6V/2~ <u>y: 1%, us</u> y: 1%, us -Fail 500 e: On, C	user sel -15V, or er selec er selec Oohm se V mode	ect. Acc dry cont table table ries resi Off, Ma	uracy ar act, use stance ximum	nd linear r selecta voltage:	ity: +/-1 able log 30V, ma	<u>.5% of ra</u>	ted lout		nA	X X X X	X X X X X X X
5. On/Off control (rear panel) 6. Output Current monitor 7. Output Voltage monitor 8. Power Supply OK signal 9. CV/CC indicator 10. Enable/Disable		0~100% By elect 0~5V or 0~5V or TTL hig Open co Dry con	6, 0~5/10 trical. Vo 0~10V, 0~10V, 0~10V, h (4~5V) ollector, tact. Op	0Kohm f oltage: 0 accurac accurac) -OK, 0V CC mod oen: off, 5	ull scale, ~0.6V/2~ y: 1%, us y: 1%, us -Fail 500 e: On, C Short: or	user sel -15V, or er selec er selec ohm se V mode n. Max. v	ect. Acc dry cont table table ries resi Off, Ma oltage a	stance ximum vat Enable	voltage: e/Disabl	itý: +/-1 able log 30V, ma e in: 6V	.5% of ra ic	ited lout		۱A	X X X X X	X X X X X
5. On/Off control (rear panel) 6. Output Current monitor 7. Output Voltage monitor 8. Power Supply OK signal 9. CV/CC indicator		0~100% By elect 0~5V or 0~5V or TTL hig Open co Dry con By elect	6, 0~5/10 trical. Vo 0~10V, 0~10V, 0~10V, h (4~5V) ollector, tact. Op trical sig	0Kohm f oltage: 0 accurac accurac) -OK, 0V CC mod oen: off, ' nal or O	ull scale, ~0.6V/2^ y: 1%, us '-Fail 50C e: On, C Short: or pen/Shc	user sel ~15V, or er selec er selec ohm se V mode: n. Max. v ort: 0~0.	ect. Acc dry cont table table ries resi Off, Ma oltage a 6V or sh	stance ximum t Enable ort: Rem	nd linear r selecta voltage: e/Disabl	ity: +/-1 able log 30V, ma e in: 6V 5V or o	.5% of ra ic	sink curr	ent: 10m	۱A	X X X X X	X X X X X X X X
5. On/Off control (rear panel) 6. Output Current monitor 7. Output Voltage monitor 8. Power Supply OK signal 9. CV/CC indicator 10. Enable/Disable 11. Local/Remote analog control		0~100% By elect 0~5V or 0~5V or TTL hig Open co Dry con By elect Open co	b, 0~5/10 trical. Vc 0~10V, 0~10V, h (4~5V) ollector, tact. Op trical sig ollector,	OKohm f oltage: 0 accurac accurac) -OK, 0V CC mod oen: off, ' nal or O Local: C	ull scale, ~0.6V/2~ y: 1%, us -Fail 500 -Fail	user sel -15V, or er selec er selec Dohm se V mode: n. Max. v ort: 0~0. mote: O	ect. Acc dry cont table table ries resi Off, Ma Off, Ma oltage a 5V or sh n. Maxir	uracy ar act, use stance ximum v at Enable ort: Rem num vol	nd linear r selecta voltage: e/Disabl note, 2~1 tage: 30	ity: +/-1 able log <u>30V, ma</u> e in: 6V 5V or oj V, maxii	.5% of ra ic aximum s pen: Loc mum sin	sink curr al. k curren	ent: 10m	۱A	X X X X X X X X X	X X X X X X X X X X X
5. On/Off control (rear panel) 6. Output Current monitor 7. Output Voltage monitor 8. Power Supply OK signal 9. CV/CC indicator 10. Enable/Disable 11. Local/Remote analog control 12. Local/Remote analog control indicator		0~100% By elect 0~5V or 0~5V or TTL hig Open co Dry con By elect Open co	b, 0~5/10 trical. Vc 0~10V, 0~10V, h (4~5V) ollector, trical sig ollector, ut manu	OKohm f oltage: 0 accurac accurac) -OK, 0V CC mod oen: off, ' unal or O Local: C	ull scale, ~0.6V/2~ y: 1%, us -Fail 500 -Fail 500 e: On, C Short: or pen/Sho pen, Rei t by sep	user sel -15V, or er selec ohm se V mode: h. Max. v ort: 0~0. mote: 0 arate en	ect. Acc dry cont table ries resi Off, Ma oltage a 6V or sh n. Maxir coders (stance stance ximum vit Enable ort: Rem num vol	nd linear r selecta voltage: e/Disabl note, 2~1 tage: 30	ity: +/-1 able log <u>30V, ma</u> e in: 6V 5V or oj V, maxii	.5% of ra ic aximum s	sink curr al. k curren	ent: 10m	nA	X X X X X X X X	X X X X X X X X X X X
5. On/Off control (rear panel) 6. Output Current monitor 7. Output Voltage monitor 8. Power Supply OK signal 9. CV/CC indicator 10. Enable/Disable 11. Local/Remote analog control 12. Local/Remote analog control indicator		0~100% By elect 0~5V or 0~5V or TTL hig Open co Dry con By elect Open co Vout/lo OVP/UV AC on/c	6, 0~5/10 trical. Vc 0~10V, 0~10V, 10~10V,	0Kohm f oltage: 0 accurac accurac accurac) -OK, 0W CC mod pen: off, 2 nal or O Local: C ual adjust but on/of	ull scale, ~0.6V/2- y: 1%, us -Fail 500 e: On, C Short: or pen/Sho pen, Ren t by sep; by Volt. f, Re-sta	user sel -15V, or er selec er selec Johm se V mode: h. Max. v wrt: 0~0. mote: O arate en Adjust rt mode	ect. Acc dry cont table table ries resi Off, Ma oltage a 6V or sh n. Maxir coders l encoders (auto,	uracy ar act, use stance ximum v tt Enable ort: Rem num vol coarse a safe), Fc	voltage: voltage: e/Disabl iote, 2~1 tage: 30 and fine	itý: +/-1 able log 30V, ma e in: 6V 5V or oj V, maxin adjustm control	.5% of ra ic aximum s pen: Loc mum sin nent sele (CV to CC	ited lout sink curr al. k curren ctable)	rent: 10m t: 5mA.		X X X X X X X X X	X X X X X X X X X X X X X
5. On/Off control (rear panel) 6. Output Current monitor 7. Output Voltage monitor 8. Power Supply OK signal 9. CV/CC indicator 10. Enable/Disable 11. Local/Remote analog control 12. Local/Remote analog control indicator 1.5 FRONT PANEL		0~100% By elect 0~5V or 0~5V or TTL hig Open cc Dry con By elect Open cc Vout/lo OVP/UV AC on/c Address	6, 0~5/16 rical. Vo 0~10V, 0~10V, h (4~5V) ollector, tact. Op rical sig ollector, ut manu 'L manu off, Outp s selecti	0Kohm f ltage: 0 accurac accurac) -OK, 0V CC mod pen: off, 1 nal or O Local: C ual adjust al adjust but on/oi on by Vc	ull scale, ~0.6V/2~ Y: 1%, us Fail 500 e: On, C Short: or pen/Sho pen, Rei t by sep. t by Volt. f, Re-sta ltage (o	user sel -15V, or er selec oohm se V mode: h. Max. v mote: O arate en Adjust. rt mode r curren	ect. Acc dry cont table table Off, Ma off, Ma off, Ma off, Ma off, Ma soltage a SV or sh n. Maxir coders I encoder s (auto, t) adjust	uracy ar act, use stance ximum vit Enable ort: Rem num vol coarse a safe), Fc encode	nd linear r selecta voltage: 2/Disabl ote, 2~1 tage: 30 and fine oldback or r. Numb	itý: +/-1 able log 30V, ma e in: 6V 5V or oj V, maxin adjustm control er of ad	.5% of ra ic aximum : pen: Loc mum sin nent sele (CV to CC dresses:	ited lout sink curr al. k curren ctable)	rent: 10m t: 5mA.		X X X X X X X X X X X X X X X X	X X X X X X X X X X X X X X X
5. On/Off control (rear panel) 6. Output Current monitor 7. Output Voltage monitor 8. Power Supply OK signal 9. CV/CC indicator 10. Enable/Disable 11. Local/Remote analog control 12. Local/Remote analog control indicator 1.5 FRONT PANEL		0~100% By elect 0~5V or 0~5V or 1TL hig Open cc Dry con By elect Open cc Vout/lo OVP/UV AC on/cc Address R5232/4	6, 0~5/16 trical. Vo 0~10V, 0~10V, h (4~5V) ollector, ttact. Op trical sig ollector, ut manu ut manu off, Outp s selecti 185 and	0Kohm f oltage: 0- accurac accurac on conservation on conservation al adjust out on/of on by Vc IEEE488	ull scale, ~0.6V/2- y: 1%, us -Fail 500 e: On, C Short: or pen/Sho pen, Ren t by sep; by Volt. f, Re-sta	user sel -15V, or er selec er selec bohm se V mode: h. Max. v mote: O arate en Adjust rt mode rt moder rt moder	ect. Acc dry cont table table Off, Ma oltage a 6V or sh n. Maxir coders (encoder (s (auto, t) adjust	uracy ar act, use stance ximum vit Enable ort: Rem num vol coarse a safe), Fc encode ole switc	nd linear r selecta voltage: 2/Disabl ote, 2~1 tage: 30 and fine oldback or r. Numb	itý: +/-1 able log 30V, ma e in: 6V 5V or oj V, maxin adjustm control er of ad	.5% of ra ic aximum : pen: Loc mum sin nent sele (CV to CC dresses:	ited lout sink curr al. k curren ctable)	rent: 10m t: 5mA.		X X X X X X X X X X X	X X X X X X X X X X X X X
S. On/Off control (rear panel) G. Output Current monitor 7. Output Voltage monitor 8. Power Supply OK signal 9. CV/CC indicator 10. Enable/Disable 11. Local/Remote analog control 12. Local/Remote analog control indicator 1. S FRONT PANEL 1. Control functions		0~100% By elect 0~5V or 0~5V or 0~5V or 0~5V or Dry con By elect 0pen co Vout/lo 0VP/UV AC on/co Address RS232/4 Baudrat Voltage	6, 0~5/10 rrical. Vc · 0~10V, · 0~10V, h (4~5V) h (0Kohm f oltage: 0: accurac accurac accurac) -OK, 0V CC mod pen: off, : nal or O Local: C ial adjust but on/of on by Vc IEEE4888 icion: 120 , accurac	ull scale, ~0.6V/2- y: 1%, us '-Fail 50C e: On, C' Short: or pen/Sho 'pen, Rei t by sep by Volt. f, Re-sta ltage (o 2 select 0, 2400, cy: 0.05%	user sel -15V, or er selec er selec v mode: V mode: Max. v vrt: 0~0. mote: 0 arate en Adjust rt mode r curren ion by If 4800, 96 6+/-1 co	ect. Acc dry cont table table Off, Ma oltage a 6V or sh n. Maxir coders (encoders (auto, t) adjust EE enab 300 and unt	uracy ar act, use stance ximum vit Enable ort: Rem num vol coarse a safe), Fc encode ole switc	nd linear r selecta voltage: 2/Disabl ote, 2~1 tage: 30 and fine oldback or r. Numb	itý: +/-1 able log 30V, ma e in: 6V 5V or oj V, maxin adjustm control er of ad	.5% of ra ic aximum : pen: Loc mum sin nent sele (CV to CC dresses:	ited lout sink curr al. k curren ctable)	rent: 10m t: 5mA.		X X X X X X X X X X X X X X X X X	X X X X X X X X X X X X X X X X X X X
S. On/Off control (rear panel) G. Output Current monitor 7. Output Voltage monitor 8. Power Supply OK signal 9. CV/CC indicator 10. Enable/Disable 11. Local/Remote analog control 12. Local/Remote analog control indicator 1.5 FRONT PANEL		0~100% By elect 0~5V or 0~5V or 0~5V or TTL hig Open cc Dry con By elect IOpen cc Vout/Io OVP/UV AC on/cc Address RS232/4 Baudrat Voltage Current	6, 0~5/16 rrical. Vc 0~10V, 0~10V, 0/10V, h (4~5V) ollector, itact. Op rrical sig ollector, ut manu ut manu ut manu ff, Outp s selecti 185 and te select 4 digits	0Kohm f oltage: 0: accurac accurac accurac) -OK, 0V CC mod pen: off, 2: nal or O Local: C ual adjust al adjust but on/of on by Vc IEEE4888 cion: 120 s; accurac	ull scale, ~0.6V/2- y: 1%, us -Fail 500 e: On, C' Short: or pen/Sho pen, Ren t by sep. t by volt, f, Re-sta ltage (o 2.2 select 0, 2400, cy: 0.05% cy: 0.2%	user sel 15V, or er selec er selec bohm se V mode: Max. v mote: O arate en Adjust. rt mode: r curren ion by II 4800, 96 6+/-1 co	ect. Acc dry cont table ries resi Off, Ma oltage a 6V or sh n. Maxir coders (encoders) (auto, t) adjust EE enak 500 and unt nt	uracy ar act, use stance ximum vit Enable ort: Rem num vol coarse a safe), Fc encode safe), Fc encode switc 19,200	nd linear r selecta voltage: 2/Disabl oote, 2~1 tage: 30 and fine oldback of r. Numb h and D	itý: +/-1 able log 30V, ma e in: 6V 5V or o V, maxin adjustm control er of ad IP switc	<u>.5% of ra</u> ic aximum s pen: Loc mum sin nent sele (CV to CC dresses: h	ited lout sink curr al. k curren ctable) C), Go to 31	rent: 10m t: 5mA.		X X X X X X X X X X X X X X X X	X X X X X X X X X X X X X X X X X X X
S. On/Off control (réar panel) G. Output Current monitor C. Output Voltage monitor R. Power Supply OK signal O. CV/CC indicator 10. Enable/Disable 11. Local/Remote analog control indicator 1. S FRONT PANEL I. Control functions 2. Display 3. Indications	LAN Int	0~100% By elect 0~5V or 0~5V or TTL hig Open cc Dry com By elect IOpen cc OVP/UV AC on/c Address R5232/4 Baudrat Voltage	6, 0~5/16 rrical. Vc 0~10V, 0~10V, 0/10V, h (4~5V) ollector, itact. Op rrical sig ollector, ut manu ut manu ut manu ff, Outp s selecti 185 and te select 4 digits	0Kohm f oltage: 0: accurac accurac accurac) -OK, 0V CC mod pen: off, 2: nal or O Local: C ual adjust al adjust but on/of on by Vc IEEE4888 cion: 120 s; accurac	ull scale, ~0.6V/2- y: 1%, us -Fail 500 e: On, C' Short: or pen/Sho pen, Ren t by sep. t by volt, f, Re-sta ltage (o 2.2 select 0, 2400, cy: 0.05% cy: 0.2%	user sel 15V, or er selec er selec bohm se V mode: Max. v mote: O arate en Adjust. rt mode: r curren ion by II 4800, 96 6+/-1 co	ect. Acc dry cont table ries resi Off, Ma oltage a 6V or sh n. Maxir coders (encoders) (auto, t) adjust EE enak 500 and unt nt	uracy ar act, use stance ximum vit Enable ort: Rem num vol coarse a safe), Fc encode safe), Fc encode switc 19,200	nd linear r selecta voltage: 2/Disabl oote, 2~1 tage: 30 and fine oldback of r. Numb h and D	itý: +/-1 able log 30V, ma e in: 6V 5V or o V, maxin adjustm control er of ad IP switc	.5% of ra ic aximum : pen: Loc mum sin nent sele (CV to CC dresses:	ited lout sink curr al. k curren ctable) C), Go to 31	rent: 10m t: 5mA.		X X X X X X X X X X X X X X X X X X X	X X X X X X X X X X X X X X X X X X X
S. On/Off control (rear panel) G. Output Current monitor C. Output Voltage monitor B. Power Supply OK signal O. CV/CC indicator 10. Enable/Disable 11. Local/Remote analog control 12. Local/Remote analog control indicator 1. S FRONT PANEL 1. Control functions 2. Display	/LAN Int	0~100% By elect 0~5V or 0~5V or TTL hig Open cc Dry com By elect IOpen cc OVP/UV AC on/c Address R5232/4 Baudrat Voltage	6, 0~5/16 rrical. Vc · 0~10V, · 0~10V, h (4~5V) ollector, itact. Op rrical sig ollector, ut manu /L manu off, Outp s selecti 185 and te select · 4 digits	0Kohm f oltage: 0: accurac accurac accurac) -OK, 0V CC mod pen: off, 2: nal or O Local: C ual adjust al adjust but on/of on by Vc IEEE4888 cion: 120 s; accurac	ull scale, ~0.6V/2- y: 1%, us -Fail 500 e: On, C' Short: or pen/Sho pen, Ren t by sep. t by volt, f, Re-sta ltage (o 2.2 select 0, 2400, cy: 0.05% cy: 0.2%	user sel 15V, or er selec er selec bohm se V mode: Max. v mote: O arate en Adjust. rt mode: r curren ion by II 4800, 96 6+/-1 co	ect. Acc dry cont table ries resi Off, Ma oltage a 6V or sh n. Maxir coders (encoders) (auto, t) adjust EE enak 500 and unt nt	uracy ar act, use stance ximum vit Enable ort: Rem num vol coarse a safe), Fc encode safe), Fc encode switc 19,200	nd linear r selecta voltage: 2/Disabl oote, 2~1 tage: 30 and fine oldback of r. Numb h and D	itý: +/-1 able log 30V, ma e in: 6V 5V or o V, maxin adjustm control er of ad IP switc	<u>.5% of ra</u> ic aximum s pen: Loc mum sin nent sele (CV to CC dresses: h	ited lout sink curr al. k curren ctable) C), Go to 31	rent: 10m t: 5mA.		X X X X X X X X X X X X X X X X X X X	X X X X X X X X X X X X X X X X X X X
S. On/Off control (rèar panel) G. Output Current monitor C. Output Voltage monitor B. Power Supply OK signal O. CV/CC indicator O. Enable/Disable I1. Local/Remote analog control I2. Local/Remote analog control indicator I. S FRONT PANEL C. Ontrol functions C. Display S. Indications I. 6 Interface RS-232&RS-485 or Optional GPIB / Model I. Remote Voltage Programming (16 bit)	V	0-100% By elect 0-5V or 0-5V or 0-5V or 0-5V or 0-5V or 0-5V or Dry con By elect 0-5V or 0-5V or 0-100 - 0-5V or 0-5V	6, 0~5/11 rrical. Vc 0~10V, 0~10V, 0~10V, 0 100,	0Kohm f oltage: 0 accurac accurac) - OK, 0V CC mod CC mod pen: off, 1 nal or O Local: C ual adjus al adjus al adjus on by Vc IEEE488 ion: 120 , accura t, Alarm 12.5	ull scale, -0.6V/2- y: 1%, us -Fail 500 e: On, C' 5hort: or pen/Sho pen/Sho pen/Rei t by sep. t by sep. t by volt. f, Re-sta ltage (o 2 select 0, 2400, y: 0.05% y: 0.05% y: 0.05% y: 0.2% Fine, Pr	user sel -15V, or er selec lohm se V mode: . Max. v mt: 0~0. mote: 0 arate en Adjust rt mode r curren ion by II 4800, 96 6+/-1 cou eview, F 30	ect. Acc dry cont table table off, Ma oltage a 6V or sh n. Maxir coders (encoder (auto, coders (encoder (auto, coders) (coders) (cod	uracy ar act, use stance stance it Enable ort: Rem num vol coarse a safe), Fc encode ole switc 19,200 c, Local, 50	Id linear r selecta voltage: 2/Disabl tote, 2~1 tage: 30 and fine bldback of r. Numb h and D Output 0 60	30V, ma a e in: 6V 5V or o V, maxin adjustm control 1 er of ad IP switc On, Fror 80	.5% of ra ic aximum s pen: Loc mum sin hent sele (CV to CC dresses: h h ht Panel 1 100	sink curr al. k curren ctable) C), Go to 31	rent: 10m t: 5mA. local con	ntrol	X X X X X X X X X X X X X X X X X X X	X X X X X X X X X X X X X X X X X X X
S. On/Off control (rear panel) G. Output Current monitor C. Output Voltage monitor P. Ower Supply OK signal C. Current indicator C. Current indicator C. Current analog control C. Current analog control C. Current analog control C. Control functions C. Display C. Display C. Display C. Current and C. Curre	V mV	0-100% By elect 0-5V or 0-5V or TTL hig Open cc Dry con By elect IOpen cc IOpen cc OvP/UV AC on/c Address RS232/4 Baudrat Voltage current Voltage erface	5, 0~5/1(trical. Vc 0~10V, 0~10V, 0~10V, 10 - 10V, 10 - 10V	0Kohm f 0Itage: 0 accurac accurac - OK, 0V CC mod cc mod pen: off, 1 nal or O Local: C ual adjus al adjus al adjus al adjus to n by Vc IEEE488 ion: 120 , accurat , accurat	ull scale, ~0.6V/2- ~0.6V/2- ~0.6V/2- ~1%, us -Fail 500 e: On, C' by re: On, C' pen, Rer t by sep. by Volt, f, Re-sta ltage (o) .2 select 0, 2400, c; 0.05% cy: 0.2% Fine, Pr 20 0.4	user sel -15V, or er selec bohm se V mode: h. Max. v mote: O arate en Adjust rt moder rc urren ion by II 4800, 96 6+/-1 cou eview, F 30 0.6	ect. Acc dry cont table table off, Ma oltage a 5V or sh n. Maxin coders I encoders so (auto, t) adjust EE enal 500 and unt nt oldback	uracy ar act, use stance ximum vol tenable ort: Rem num vol coarse a safe), Fc encode switc 19,200 c, Local, 1 50	nd linear r selecta voltage: e/Disabl iote. 2~1 tage: 30 and fine h and D Output (60	itý: +/-1 ible log 30V, ma e in: 6V 5V or oj V, maxin adjustm adjustm control 1 er of ad IP switc On, Fror 80	.5% of ra ic aximum : pen: Loc mum sin hent sele (CV to CC dresses: h h t Panel 1 100	ited lout sink curr al. ctable) C), Go to 31 Lock 150 3.0	rent: 10m t: 5mA. local con 300	ntrol 600 12.0	X X X X X X X X X X X X X X X X X X X	X X X X X X X X X X X X X X X X X X X
S. On/Off control (rear panel) G. Output Current monitor C. Output Voltage monitor P. Ovver Supply OK signal O. CV/CC indicator C. Disable/Disable C. CV/CC indicator C. Control framework analog control C. Control functions C. Display C. Disp	V	0-100% By elect 0-5V or 0-5V or 0-5V or 0-5V or 0-5V or 0-5V or Dry con By elect 0-5V or 0-5V or 0-100 - 0-5V or 0-5V	6, 0~5/11 rrical. Vc 0~10V, 0~10V, 0~10V, 0 100,	0Kohm f oltage: 0 accurac accurac) - OK, 0V CC mod CC mod pen: off, 1 nal or O Local: C ual adjus al adjus al adjus on by Vc IEEE488 ion: 120 , accura t, Alarm 12.5	ull scale, -0.6V/2- y: 1%, us -Fail 500 e: On, C' 5hort: or pen/Sho pen/Sho pen/Rei t by sep. t by sep. t by volt. f, Re-sta ltage (o 2 select 0, 2400, y: 0.05% y: 0.05% y: 0.05% y: 0.2% Fine, Pr	user sel -15V, or er selec lohm se V mode: . Max. v mt: 0~0. mote: 0 arate en Adjust rt mode r curren ion by II 4800, 96 6+/-1 cou eview, F 30	ect. Acc dry cont table table off, Ma oltage a 6V or sh n. Maxir coders (encoder (auto, coders (encoder (auto, coders) (coders) (cod	uracy ar act, use stance stance it Enable ort: Rem num vol coarse a safe), Fc encode ole switc 19,200 c, Local, 50	Id linear r selecta voltage: 2/Disabl tote, 2~1 tage: 30 and fine bldback of r. Numb h and D Output 0 60	30V, ma a e in: 6V 5V or o V, maxin adjustm control 1 er of ad IP switc On, Fror 80	.5% of ra ic aximum s pen: Loc mum sin hent sele (CV to CC dresses: h h ht Panel 1 100	sink curr al. k curren ctable) C), Go to 31	rent: 10m t: 5mA. local con	ntrol	X X X X X X X X X X X X X X X X X X X	X X X X X X X X X X X X X X X X X X X
S. On/Off control (rear panel) G. Output Current monitor C. Output Voltage monitor R. Power Supply OK signal C. Chable/Disable C. Chable/Disable/Disable/C. Chable/Disa	V mV mV	0-100% By elect 0~5V or 0~5V or TTL hig 0pen co Dry con By elect 0pen co 0VP/UV AC on/c Address RS232/4 Baudrat Voltage erface 6 0.12 3.0	5, 0~5/10 trical. Vc 0~10V, 0~10V, 0~10V, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10,	0Kohm f oltage: 0 accurac accurac) - OK, 0V CC mode pen: off, ' nal or O Local: C Local: C 1 al adjus al adjus put on/ol on by Vc IEEE488 ion: 120 , accurat , accurac , accurac	ull scale, ~0.6V/2- y: 1%, us -Fail 500 e: On, C' Short: or pen/Shc pen/Shc pen, Rei t by sep. t by sep. t by volt, f, Re-sta ltage (or 2 select 0, 2400, y: 0.2% Fine, Pr 20 0.4 10	user sel -15V, or -15V, or er selec Dohm se V mode: V mode: V mote: O mote: O mote: O marate en Adjust rt mode curren ion by If 4800, 90 6+/-1 cou eview, F 30 0.6 15	ect. Acc dry cont table table off, Ma oltage a 6V or sh n. Maxir coders (encoders) encoders (auto, () adjust EE enal 300 and unt oldback 40 0.8 20	uracy ar act, use stance ximum vi tt Enable ort: Rem num vol coarse a safe), Fc encode ole switc 19,200 t, Local, 50 1.0 25	voltage: voltag	30V, ma 30V, ma e in: 6V 5V or of V, maxii adjustm control 1 er of ad IP switc On, Fror 80 1.6 40	.5% of raises and the selection of the s	sink curr al. k curren ctable) C), Go to 31 Lock 150 3.0 75	rent: 10m t: 5mA. local con 300 <u>6.0</u> 150	ntrol 600 12.0 300	X X X X X X X X X X X X X X X X X X X	X X X X X X X X X X X X X X X X X X X
S. On/Off control (réar panel) G. Output Current monitor C. Output Voltage monitor R. Power Supply OK signal O. Enable/Disable 11. Local/Remote analog control 12. Local/Remote analog control indicator 1.5 FRONT PANEL C. Ontrol functions C. Display C. Display C. Display C. Display C. Besolution (0.02% of Vo Rated) C. Curacy 0.05%Vo Rated Output Voltage (*11) C. Remote Current Programming (16 bit) Resolution (0.02% of Io Rated) C. Curpet (0.1% of I	V mV mV	0-100% By elect 0-5V or 0-5V or TTL hig Open cc Dry con By elect IOpen cc Ovp/UV AC on/c Address RS232/4 Baudrat Voltage erface 0.12 3.0	5, 0-5/11 (rical. Vcc 0~10V, 0~10V, 10 14~5V, 10 10 10 10 10 10 10 10 10 10	0Kohm f oltage: 0 accurac accurac) -OK, 0V CC mod pen: off. 3 inal or 00 inal or	ull scale, ~0.6V/2- v: 1%, us -fail 500 e: On, C Short: or pen/Shoc by Volt. f, Re-sta ltage (o. 2 select 0, 2400, v: 0.2% .Fine, Pr 20 0.4 10 0.76 76	usersel- -15V, or re- re-selecc- lohm sey V mode:- N. Max, v. V mode:- N. Max, v. V mode:- note:- 0 arate en Adjust. rt mode: Curren note:- 0 for by If 4800, 9r 64-/-1 co eview, F 30 0.6 15 0.50 50	ect. Acc dry contributed table table tries resis off, Ma oltage e SV or shh. Maxim coders 1 coders 1 coder	uraci ari iact, use stance kimum vi t Enablor safe), Fc encode safe), Fc encode switc 19,200 10 50	nd linear r selecta (2)Disabl ote, 21 tage: 30 and fine oldback of r. Numb h and D Output (60 1.2 30 0.25 25	ity: +/-1 ible log 30V, maxi e in: 6V 5V or oo 5V or oo V, maxi adjustm adjustm control P switc Dn, Fror 80 1.6 40 19 9 19	.5% of ra ic aximum : pen: Loc mum sin hent sele (CV to CC dresses: h nt Panel 100 2.0 50 0.15 15	ited lout sink curr al. k curren ctable) C), Go to 31 Lock 150 3.0 75 0.10 10	rent: 10m t: 5mA. local con 300 6.0 150 0.05 5.0	600 600 12.0 300 0.03 2.6	X X X X X X X X X X X X X X X X X X X	X X X X X X X X X X X X X X X X X X X
S. On/Off control (rear panel) G. Output Current monitor C. Output Voltage monitor R. Power Supply OK signal C. Curcle Voltage monitor R. Power Supply OK signal C. Curcle Voltage monitor C. Carbon Control C. C	V mV mA) mA mA	0-100% By elect 0~5V or 0~5V or 1TL hig 0pen co Dry con By elect 0pen co 0VP/UV AC on/c Address RS232/4 Baudrat Voltage erface 6 0.12 3.00 200 4.0	5, 0-5/11 rrical. Vc 0~10V, 0~10V, 14-5V billector, 14-5V billect	0Kohm f 0Itage: 0 accurac accurac) - OK, 0V CC mod pen: off, : nal or O Local: C ual adjus al adjus but on/ol on by Vc IEEE488 ion: 120 , accura , accurat , accurac 12.5 0.25 6.3 1.20 120 2.40	ull scale, ~0.6V/2- %: 1%, us -fail 500 e: On, C' short: or pen/Shoc	user sel -15V, or er selec er selec v mode: 1. Max, v. mote: O arate en Adjust tt mode arate en Adjust tt mode 4800, 97 4800, 97 4800, 97 50 15 0.66 15 0.50 50 1.0	ect. Acc dry contri table table table Off, Ma oltage 2 Worsh n. Maxir coders 1 worsh of the second coders 1 worsh of the second test of test	uraci ari iact, use stance ximum ti Enablo coarse a safe), Fcc encode encode le switc 19,200 t, Local, 50 1.0 25	voltage: voltag	ity: +/-1 jble log 30V, may e in: 6V V, maxin adjustm control 1 P switc Dn, Fror 80 1.6 40 0.19 19 0.38	.5% of ra ic aximum : pen: Loc mum sin hent sele (CV to CC dresses: h 100 2.0 5.05 15 0.30	ted lout sink curr al. k curren ctable) C), Go to 31 Lock 150 3.0 75 0.10 10 0.20	rent: 10m t: 5mA. local con 300 6.0 150 0.05 5.0 0.10	600 600 12.0 300 0.03 2.6 0.05	X X X X X X X X X X X X X X X X X X X	X X X X X X X X X X X X X X X X X X X
S. On/Off control (rear panel) G. Output Current monitor C. Output Voltage monitor P. Output Voltage monitor P. Over Supply OK signal P. CV/CC indicator I.0. Enable/Disable I.1. Local/Remote analog control I.2. Local/Remote analog control I.2. Local/Remote analog control I.2. Local/Remote analog control I.2. Control functions C. Display C	V mV mA) mA mA	0-100% By elect 0-5V or 0-5V or TTL hig Open cc Dry con By elect IOpen cc Dry con By elect IOpen cc OvP/UW AC on/c Address RS232/4 Baudrat Voltage erface 0.12 3.0	5, 0-5/11 (rical. Vcc 0~10V, 0~10V, 10 14~5V, 10 10 10 10 10 10 10 10 10 10	0Kohm f oltage: 0 accurac accurac) -OK, 0V CC mod pen: off. 3 inal or 00 inal or	ull scale, ~0.6V/2- v: 1%, us -fail 500 e: On, C Short: or pen/Shoc by Volt. f, Re-sta ltage (o. 2 select 0, 2400, v: 0.2% .Fine, Pr 20 0.4 10 0.76 76	usersel- -15V, or re- re-selecc- lohm sey V mode:- N. Max, v. V mode:- N. Max, v. V mode:- note:- 0 arate en Adjust. rt mode: Curren note:- 0 for by If 4800, 9r 64-/-1 co eview, F 30 0.6 15 0.50 50	ect. Acc dry contributed table table tries resis off, Ma oltage e SV or shh. Maxim coders 1 coders 1 coder	uraci ari iact, use stance kimum vi t Enablor safe), Fc encode safe), Fc encode switc 19,200 10 50	nd linear r selecta (2)Disabl ote, 21 tage: 30 and fine oldback of r. Numb h and D Output (60 1.2 30 0.25 25	ity: +/-1 ible log 30V, maxi e in: 6V 5V or oo 5V or oo V, maxi adjustm adjustm control P switc Dn, Fror 80 1.6 40 19 9 19	.5% of ra ic aximum : pen: Loc mum sin hent sele (CV to CC dresses: h nt Panel 100 2.0 50 0.15 15	ited lout sink curr al. k curren ctable) C), Go to 31 Lock 150 3.0 75 0.10 10	rent: 10m t: 5mA. local con 300 6.0 150 0.05 5.0	600 600 12.0 300 0.03 2.6	X X X X X X X X X X X X X X X X X X X	X X X X X X X X X X X X X X X X X X X
S. On/Off control (réar panel) G. Output Current monitor C. Output Voltage monitor R. Power Supply OK signal O. CV/CC indicator I. Condicator I. Local/Remote analog control I. Local/Remote analog control indicator I. Local/Remote analog control indicator I. Control functions C. Display S. Indications I. G Interface RS-232&RS-485 or Optional GPIB / Model I. Remote Voltage Programming (16 bit) Resolution (0.02% of Iv Rated) Accuracy (0.9% of Io Rated+0.1% of Io Actual Output)(*10 Resolution (0.002% of Io Rated) Accuracy (0.1% of Io Rated+0.1% of Io Actual Output)(*10 Resolution (0.002% of Io Rated). S. Readback Voltage	V mV mV mA mA mA	0-100% By elect 0~5V or 0~5V or TTL hig 0pen co Dry con By elect 0pen co 0VP/UV AC on/c Address RS232/2 Baudrat Voltage erface 6 0.12 3.00 200 4.0 400	5, 0-5/11 rrical. Vc 0~10V, 0~10V, 14-5V billector, 14-5V bille	0Kohm f 0Itage: 0 accurac accurac) - OK, 0V CC mod pen: off, ' nal or O Local: C ual adjus al adjus al adjus but on/ol on by Vc IEEE488 ion: 120 accurat , accurat , acurat , acurat	ull scale, ~0.6V/2- %: 1%, us -fail 500 e: On, C' short: or pen/Shoc	user sel -15V, or er selec er selec v mode: . Max, v. mote: O arate en Adjust rt mode data arate en Adjust rt mode h/-1 co t/-1 co t/-1 co -0.6 15 0.50 50 0.0 1.0	ect. Acc dry cont dry cont table table off, Ma oltage z work off,	uraci ar iact, use stance ximum t Enable coarse a safe), Fc encode encode switc 19,200 t, Local, i 50 1.0 25	voltage: voltag	ity: +/-1 ible log <u>30V, max</u> e in: 6V V, maxin adjustm control I control Control	.5% of raises in the selection of the se	ted lout sink curr al. k curren ctable) C, Go to 31 Lock 150 3.0 75 0.10 10 0.20	rent: 10m t: 5mA. local con 300 6.0 150 0.05 5.0 0.10 10	600 12.0 300 0.03 2.6 0.05 5.2	X X X X X X X X X X X X X X X X X X X	X X X X X X X X X X X X X X X X X X X
S. On/Off control (réar panel) G. Output Current monitor C. Output Voltage monitor R. Power Supply OK signal O. Chickator I. Condicator I. Condicator I. Condicator I. Control functions C. Display C. Control functions C. Display C. Display C. Display C. Control functions C. Display C. Display C. Control functions C. Display C. D	V mV mA mA mA mA mA	0-100% By elect 0-5V or 0-5V or TTL hig Open cc Dry con By elect Open cc Vout/lo OVP/UV AC on/c Address R5232/4 Baudrat Voltage erface 6 0.12 3.0 2.00 4.0 400	5, 0-5/11 rrical. Vcc 0~10V, 0~10V, 14-5V, 01ector, 14-5V, 01ector, 14-5V, 01ector, 14-5V, 01ector, 14-5V, 01ector, 14-5V	0Kohm f 0Kohm f 0Itage: 0 accurac accurac) -OK, 0V CC moc pen: off, : nal or O Local: C ut on/oi on by Vc IEEE488 ion: 120 accuraa , accuraa , accurat 12.5 6.3 1.20 1.20 2.40 2.40 2.40 1.125	ull scale, ~	usersel- 15V, or re- re-selecc- re-selecc- ver-selecc- ver-selecc- ndate- ndate- re- arate en Adjust- rt. 00. arate en Adjust- rt. 00. arate en Adjust- rt. 00. arate- re- arate- arate- re- arate- ar	ect. Acc dry contract of the sector of the s	uraci ari iact, use stance ximum i t Enable coarse a safe). Fc encode encode encode encode encode encode encode switc 19,200 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,	nd linear r selecta c/Disabl c/Disabl c/Disabl c/Disabl note, 21 tage: 30 and fine ldback or r, Numb h and D output of 60 1.2 30 0.25 2.5 0.50 50	ity: +/-1 ible log 30V, ma e in: 6V V V, maxii adjustm 25 V or o, er of ad P switc 0, Fror 1.6 40 19 9 19 0.38 38	.5% of raises in the selection of the se	ted lout sink curr al. k curren ctable)), Go to 31 Lock 150 3.0 75 0.10 10 0.20 20 10.50	rent: 10m t: 5mA. local col 300 6.0 150 0.05 5.0 0.10 10	600 12.0 300 0.03 2.6 0.05 5.2 12	X X X X X X X X X X X X X X X X X X X	X X X X X X X X X X X X X X X X X X X
S. On/Off control (réar panel) G. Output Current monitor 7. Output Voltage monitor 8. Power Supply OK signal 9. CV/CC indicator 10. Enable/Disable 11. Local/Remote analog control 12. Local/Remote analog control indicator 1. S FRONT PANEL 1. Control functions 2. Display 3. Indications 1.6 Interface RS-232&RS-485 or Optional GPIB / Model 1. Remote Voltage Programming (16 bit) Resolution (0.02% of Ivo Rated) Accuracy (0.1% of Io Rated+0.1% of Io Actual Output)(*10 Resolution (0.002% of Io Rated) Accuracy (0.1% of Io Rated+0.1% of Io Actual Output)(*10 3. Readback Voltage Resolution of Vo Rated Accuracy 0.05% Vo Rated	V mV mV mA mA mA	0-100% By elect 0~5V or 0~5V or TTL hig 0pen co Dry con By elect 0pen co 0VP/UV AC on/c Address RS232/2 Baudrat Voltage erface 6 0.12 3.00 200 4.0 400	5, 0-5/11 rrical. Vc 0~10V, 0~10V, 14-5V billector, 14-5V bille	0Kohm f 0Itage: 0 accurac accurac) - OK, 0V CC mod pen: off, ' nal or O Local: C ual adjus al adjus al adjus but on/ol on by Vc IEEE488 ion: 120 accurat , accurat , acurat , acurat	ull scale, ~0.6V/2- %: 1%, us -fail 500 e: On, C' short: or pen/Shoc	user sel -15V, or er selec er selec v mode: . Max, v. mote: O arate en Adjust rt mode data arate en Adjust rt mode h/-1 co t/-1 co t/-1 co -0.6 15 0.50 50 0.0 1.0	ect. Acc dry cont dry cont table table off, Ma oltage z work off,	uraci ar iact, use stance ximum t Enable coarse a safe), Fc encode encode switc 19,200 t, Local, i 50 1.0 25	voltage: voltag	ity: +/-1 ible log <u>30V, max</u> e in: 6V V, maxin adjustm control I control Control	.5% of raises in the selection of the se	ted lout sink curr al. k curren ctable) C, Go to 31 Lock 150 3.0 75 0.10 10 0.20	rent: 10m t: 5mA. local con 300 6.0 150 0.05 5.0 0.10 10	600 12.0 300 0.03 2.6 0.05 5.2	X X X X X X X X X X X X X X X X X X X	X X X X X X X X X X X X X X X X X X X
S. On/Off control (réar panel) G. Output Current monitor C. Output Voltage monitor R. Power Supply OK signal O. Chable/Disable C. Control cator C. Control functions C. Control functions C. Display	V mV mV mA mA mA mA mA mV mV	0-100% By elect 0-5V or 0-5V or TTL hig Open cc Dry con By elect Open cc Vout/lo OVP/UV AC on/c Address R5232/4 Baudrat Voltage erface 6 0.12 3.0 2.00 4.0 400	5, 0-5/11 rrical. Vcc 0~10V, 0~10V, 14-5V, 01ector, 14-5V, 01ector, 14-5V, 01ector, 14-5V, 01ector, 14-5V,	0Kohm f 0Itage: 0: accurac accurac) - OK, 0V CC mode pen: off.: nal or O Local: C ial adjust al adjust al adjust al adjust iut on/ol on by Vc IEEE488 ion: 120 . accurat . accurat	ull scale, ~.0.6V/2- ~.0.6V/2- ~.0.6V/2- ~.0.6V/2- ~.0.6V/2- ~.0.6V/2- ~.0.6V/2- ~.0.76	usersel- 15V, or re- re-selecc- re-selecc- ver- 10hm se- 10hm se- 10h	ect. Acc dry contracted and a sector of the	uraci ari iact, use stance ximum i t Enable coarse a safe). Fc encode eswitc 19,200	nd linear r selecta (2Disabl (2Disabl (2Disabl (2Disabl)	ity: +/-1 ible log 30V, ma e in: 6V V, maxii adjustm control V, maxii adjustm On, Fror 0, Fror 80 1.6 40 1.6 1.6 40	.5% of raises in the selection of the se	ted lout sink curr al. k curren ctable)), Go to 31 	ent: 10m t: 5mA. local con 300 6.0 150 0.05 5.0 0.10 10 10	ntrol 600 12.0 300 0.03 2.6 0.05 5.2 12 300	X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X	X X X X X X X X X X X X X X X X X X X
S. On/Off control (rear panel) G. Output Current monitor C. Output Voltage monitor R. Power Supply OK signal C. Output Voltage monitor R. Power Supply OK signal C. Output Coltage analog control C. Calder analog control C	V mV mV mA mA mA mA mV mV mV	0-100% By elect 0~5V or 0~5V or 1TL hig 0pen co Dry con By elect 0pen co 0VP/UV AC on/c Address RS232/4 Baudrat Voltage erface 6 0.12 3.00 200 4.0 4.0 400	5, 0-5/11 rical. Vc 0~10V, 0~10V, 14-5V 014	0Kohm f 0Kohm f 0Itage: 0 accurac accurac) - OK, 0V CC mod pen: off, nal or O Local: C al adjus al adjus but on/ol on by Vc IEEE488 ion: 120 , accura , accurat , accura	ull scale, ~	user sel -15V, or er selec er selec er selec vmode: . Max, v. mote: O arate en Adjust tr mode arate en Adjust tr mode 4800, 97 4800, 97 4800, 97 4800, 97 50 15 0.66 15 0.50 1.0 1.00 1.20 1.25	ect. Acc dry conti table table table off, Ma oltage 2 Worsh n. Maxir coders 1 worsh of the second coders 1 worsh of the second coders 1 adjust 2 tet enat old adjust 2 tet enat	uracy are stance stance ximum vi t Enable coarse a coarse a safe). Fc encode	nd linear r selecta //Disabl /ote.2~1 tage: 30 ind fine //disabl//disabl/	ity: +/-1 ible log 30V, ma in: 6V V, maxin adjustm control I P switc 0n, Fror 80 1.6 40 0.19 19 0.38 38 1.60 40	.5% of raises in the selection of the se	ted lout sink curr al. k curren ctable) C), Go to 31 Lock 150 3.0 75 0.10 10 0.20 20 10.50 75	rent: 10m t: 5mA. local con 300 6.0 150 0.05 5.0 0.10 10 12 150	600 12.0 300 0.03 2.6 0.05 5.2 12 300	X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X	X X X X X X X X X X X X X X X X X X X
S. On/Off control (réar panel) G. Output Current monitor 7. Output Voltage monitor 8. Power Supply OK signal 9. CV/CC indicator 10. Enable/Disable 11. Local/Remote analog control 12. Local/Remote analog control 12. Local/Remote analog control 12. Local/Remote analog control 13. FRONT PANEL 1. Control functions 2. Display 3. Indications 1.6 Interface RS-232&RS-485 or Optional GPIB / Model 1. Remote Voltage Programming (16 bit) Resolution (0.02% of Vo Rated) Accuracy 0.05%Vo Rated Output Voltage (*11) 2. Remote Current Programming (16 bit) Resolution (0.002% of Io Rated) Accuracy (0.1% of Io Rated+0.1% of Io Actual Output)(*10 3. Readback Voltage Resolution of Vo Rated Accuracy 0.05% Vo Rated 4. Readback Current Resolution of Io Rated Accuracy 0.05% Vo Rated	V mV mV mA	0-100% By elect 0-5V or 0-5V or TTL hig 0pen co Dry con By elect Open co 0VP/UV AC on/c Address R5232/4 Baudrat Voltage erface 0.12 3.0 2.00 4.0 400 200 4.0 12 3	5,0-5/11 rical. Vc 0~10V, 0~10V, 14-5V 1	0Kohm f 0Itage: 0: accurac accurac) - OK, 0V CC mode pen: off.: nal or O Local: C al adjust al adjust al adjust al adjust al adjust int on/ol on by Vc IEEE488 ion: 120 i.accurat ; accurat ; accurat	ull scale, ~0.6V/2- %: 1%, us -76, 150 %: 1%, us -76, 150 %: 0, C %: 0, C %: 0, C %: 0, C %: 0, C %: 0, 2 %: 152 %: 152	user sel -15V, or er selec er selec windet -15V, or er selec -15V, or -15V, or -15V, or -110V, or -	ect. Acc drawn of the sector o	uracy ar iact, use stance kximum vol coarse a safe), Fc encode le switt 19,200 1, Local, i 50 1,0 25 0,60 60 1,5 25 1,5 25	nd linear r selecta e/Disabl iote, 21 tage: 30 and fine oldback or r, Numb h and D Output 0 60 1.2 30 0.25 25 0.50 50 1.2 30 1.25	ity: +/-1 ible log 30V, mm a ein: 6V 5V or oj V, maxin adjustm control - er of ad P switc 20n, Fror 80 1.6 40 0.19 19 0.38 38 38 1.6 40 0.19 19 0.38 38	.5% of raise .5% o	ted lout sink curr al. k curren ctable) C), Go to 31 Cock 150 3.0 75 0.10 0.20 20 10.50 75 1.10	ent: 10m t: 5mA. local con 300 6.0 150 0.05 5.0 0.10 10 12 150 0.13 7.50 0.15	ntrol 600 12.0 300 0.03 2.6 0.05 5.2 12 300 0.12 3.90 0.10	X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X	X X X X X X X X X X X X X X X X X X X
S. On/Off control (réar panel) G. Output Current monitor 7. Output Voltage monitor 8. Power Supply OK signal 9. CV/CC indicator 10. Enable/Disable 11. Local/Remote analog control 12. Local/Remote analog control 12. Local/Remote analog control 12. Local/Remote analog control 12. Local/Remote analog control 13. FRONT PANEL 1. Control functions 2. Display 3. Indications 1.6 Interface RS-232&RS-485 or Optional GPIB / Model 1. Remote Voltage Programming (16 bit) Resolution (0.02% of Vo Rated) Accuracy 0.05%Vo Rated Output Voltage (*11) 2. Remote Current Programming (16 bit) Resolution (0.002% of Io Rated) Accuracy (0.1% of Io Rated+0.1% of Io Actual Output)(*10 3. Readback Voltage Resolution of Vo Rated Accuracy 0.05% Vo Rated 4. Readback Current Resolution of Io Rated Accuracy 0.3%	V mV mV mA	0-100% By elect 0~5V or 17TL hig 0pen cc Dry con By elect 0pen cc 0VP/UV AC on/c Address R5232/2 Baudrat Voltage erface 6 0.12 3.0 2.00 2.00 2.00 4.0 4.0 12 3	5,0-5/11 rrical. Vc 0~10V, 0~10V, 14-5V billector, 14-5V billector, 14-5V billector, 14-5V billector, 14-5V billector, 14-5V 14-	0Kohm f 0Itage: 0 accurac accurac) - OK, 0V CC mod pen: off, : nal or O Local: C ut and adjust al adjust al adjust put on/oi on by VC IEEE488 ion: 120 inby CC IEEE488 ion: 120 accurat , accurat , ac	ull scale, ~0.6V/2- %: 1%, us -fail 500 e: On, C short: or pen/Shoc p	usersel -15V, or er selec er selec V mode: V mode: V mode: V mode: V mode: On arate en Adjust. Tt 0~0. arate en Adjust. Adjus	ect. Acc dry con't table table table off, Ma oltage c works works and table off mail off mail ecoders i encoder enco	uraci ar iact, use stance ximum vi t Enable coarse a coarse a coar	nd linear r selecta (20isabl oct.21 tage: 30 and fine lidback of r. Numb h and D 0utput of 60 1.2 30 0.25 25 0.50 50 50 1.2 30	ity: +/-1 ible log 30V, ma e in: 6V V, maxin adjustm control 1 er of ad P switc 0n, Fror 80 1.6 40 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	.5% of raises in the selection of the se	ted lout sink curr al. k curren ctable)), Go to 31 Lock 150 3.0 75 0.10 10 0.20 10.50 75 15	rent: 10m t: 5mA. local col 300 6.0 150 0.05 5.0 0.10 10 10 12 150	ntrol 600 12.0 300 2.6 0.05 5.2 12 300 0.12 3.90	X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X	X X X X X X X X X X X X X X X X X X X
S. On/Off control (réar panel) G. Output Current monitor C. Output Voltage Programming (16 bit) C. Output Voltage Programming (16 bit) C. Resolution (0.02% of Io Rated) C. Output Voltage Programming (16 bit) C. Resolution (0.02% of Io Rated) C. Current Programming (16 bit) C. Resolution (0.02% of Io Rated) C. Current Programming (16 bit) C. Resolution (0.02% of Io Rated) C. Current Programming (16 bit) C. Current Control (0.02% of Io Rated) C. Current Programming (16 Dit) C. Current Control (0.02% of Io Rated) C. Current Programming (16 Dit) C. Current (0.02% of Io Rated) C. Current (0.02% of Io Rated) C. Current (10) C. Curr	V mV mV mA	0-100% By elect 0~5V or 0~5V or 1TL hig 0pen cc 0ry con By elect 0pen cc 0VP/UV AC on/c Address RS232/c Baudrat Voltage erface 6 0.12 3.00 200 4.0 4.0 400	5, 0-5/11 rical. Vc 0~10V, 0~10V, 0 14-5V billector, 1 14-5V billector, 1 14-5V billector, 1 14-5V billector, 1 14-5V billector, 1 14-5V	0Kohm f 0Kohm f 0Itage: 0 accurac accurac) - OK, 0V CC mod pen: off, : nal or O Local: C ial adjus al adjus int on/oi on by Vc IEEE488 ion: 120 , accura , accurat , acc	ull scale, ~0.6V/2- %: 1%, us -76ail 500 e: On, C' short: or pen/Shoc pen/Shoc t by sept. by Volt. f, Re-sta tby sept. by Volt. f, Re-sta to 2 select 0.2400, 2 select 0.2400, 2 select 0.2400, 2 select 0.2400, 1152 1.20 10 1.52 1.20 10 1.14 1.14 1.14 1.52 228	user sel -15V, or er selec er selec er selec v mode: . Max, v. mote: O arate en Adjust: tt mode arate en Adjust: tt mode h/1 co t/-1 co t/-1 co -2.0 15 -0.50 50 -0.50 50 -0.50 50 -0.50 50 -0.50 50 -0.50 50 -0.50 50 -0.50 50 -0.50 50 -0.50 50 -0.50 50 -0.5	ect. Acc dry conti table table table off, Ma oltage 2 works of the encoder enc	uraci ar iact, use stance ximum t t Enable coarse a safe), Fc encode encode switc 19,200 	nd linear r selecta //Disabl /ote.2~1 tage: 30 //Disabl /ote.2~1 tage: 30 //Disabl /	ity: +/-1 ible log 30V, maximised adjustm control	.5% of raises .5\% of raises .5	ted lout sink curr al. k curren ctable) C, Go to 31 Lock 150 3.0 75 0.10 10 0.20 20 10.50 75 1.10 30	rent: 10m t: 5mA. local con 300 6.0 150 0.05 5.0 0.10 10 12 150 0.13 7.50 0.15 15	600 12.0 300 0.03 2.6 0.05 5.2 12 300 0.12 3.90 0.10 7.8	X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X	X X X X X X X X X X X X X X X X X X X
S. On/Off control (réar panel) G. Output Current monitor 7. Output Voltage monitor 8. Power Supply OK signal 9. CV/CC indicator 10. Enable/Disable 11. Local/Remote analog control 12. Local/Remote analog control indicator 1. S FRONT PANEL 1. Control functions 1. Interface RS-232&RS-485 or Optional GPIB / Model 1. Remote Voltage Programming (16 bit) Resolution (0.02% of lo Rated) Accuracy (0.1% of lo Rated+0.1% of lo Actual Output)(*10 Resolution (0.002% of lo Rated) Accuracy (0.1% of lo Rated+0.1% of lo Actual Output)(*10 Resolution (0.002% of lo Rated) Accuracy (0.9% of lo Rated Accuracy (0.9% of lo Rated Accuracy 0.05% Vo Rated Accuracy 0.03% of lo Rated (*10) Resolution of lo Rated Accuracy 0.3% of lo Rated (*10) Resolution (0.1% of Vo Rated)	V mV mV mA mA	0-100% By elect 0~5V or 0~5V or TTL hig 0pen cc 0pen cc 0pen cc 0pen cc 0vP/UV AC on/c Address R5232/2 Baudrat Voltage current Voltage current Voltage current 0.12 3.0 2.00 2.00 4.0 4.0 12 3.0 0.12 3.0 0 0.12 3.0 0 0.12 3.0 0 0 0.12 3.0 0 0 0.12 3.0 0 0 0.12 3.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5,0-5/11 rrical.vco 0~10V, 0~10V, 14-5V billector, 14-5V billector, 14-5V billector, 14-5V billector, 14-5V billector, 14-5V 14-	0Kohm f 0Kohm f 0Itage: 0 accurac accurac) - OK, 0W CC mod pen: off, : nal or O Local: C ut on/oi on by VC inal or O on by VC inal or O on by VC in 20 in 20 i	ull scale, ~0.6V/2- v: 1%, us -76, 1%, us -76, 1%, us -76, 150 -76, 152 -10, 20, 10, 10, 10, 10, 10, 10, 10, 10, 10, 1	usersel -15V, or er selec er selec V mode: V m	ect. Acc dry con't able able able able able able able able	uraci ar iact, use stance ximum 'u t Enable coarse a coarse a coar	nd linear r selecta (20isabl oct.21 tage: 30 and fine lidback of r. Numb h and D b and fine 0 utput of 60 1.2 30 0.25 25 0.50 50 50 50 1.25 30 1.25 75 60	ity: +/-1 jble log 30V, may e in: 6V V V, maxin adjustm control 1 SV or o, v, maxin adjustm 2 0, Fror 80 0,19 19 0,38 80 1,66 40 40 9 9 9 9,38 38 1,60 40 40 9 80 1,14 57 80	.5% of raises in the selection of the se	ted lout sink curr al. k curren ctable)), Go to 31 .), Go to 31 , Go to 30 , Go to 30 , Go to 31 , Go to 31 , Go to 31 , Go to 31 , Go to 31 , Go to 30 , Go to 31 , Go to 30 , Go to 31 , Go to 30 , Go to 30	rent: 10m t: 5mA. local col 300 6.0 150 0.05 5.0 0.10 10 10 12 150 0.13 7.50 0.15 15 300	ntrol 600 12.0 300 0.03 2.6 5.2 12 300 0.12 3.90 0.10 7.8 600	X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X	X X X X X X X X X X X X X X X X X X X
S. On/Off control (réar panel) G. Output Current monitor C. Output Voltage monitor R. Power Supply OK signal C. Output Coltage monitor R. Power Supply OK signal C. Output Coltage analog control C. Control functions C. Display C. Output Coltage Programming (16 bit) Resolution (0.02% of lo Rated) Accuracy (0.1% of lo Rated) Accuracy (0.1% of lo Rated Accuracy 0.05% Vo Rated C. Control for Rated C. Control	V mV mV mA mV	0-100% By elect 0~5V or 0~5V or 17L hig 0pen cc 0pen cc 0pen cc 0pen cc 0pen cc 0ve/UV AC on/c Address RS232/4 Baudrat Voltage current Voltage erface 0.12 3.0 2.00 2.00 4.0 4.0 4.0 4.0 4.0 6 0.12 3.0 2.00 2.00 2.00 2.00 2.00 2.00 2.00	5, 0-5/11 rical. Vc 0~10V, 0~10V, 0~10V, 0 14-5V billector, 1 14-5V billector, 1 14-5V billector, 1 14-5V billector, 1 14-5V	0Kohm f 0Kohm f 0Itage: 0 accurac accurac) - OK, 0V CC mod pen: off, : nal or O Local: C ial adjus al adjus int on/oi on by Vc IEEE488 ion: 120 , accura , accurat , acc	ull scale, ~0.6V/2- y: 1%, us ~1%, us ~1%, us ~1%, us ~1%, us ~1%, us ~1%, u	usersel -15V, or er selece er selece V mode: V mode: V mode: V mode: 0 arate en Adjust. Tt 0~0. mote: 0 arate 1.0 1.0 1.0 1.0 1.0 30 300 300	ect. Acc dry con't able able able able able able able able	uraci ar iact, use stance ximum 'u t Enable coarse a coarse a coar	nd linear r selecta //Disabl /	ity: +/-1 ible log 30V, ma e in: 6V V, maxin adjustm control 1 P switc 0n, Fror 80 1.6 40 1.6 40 1.6 40 1.6 1.6 40 1.1 80 80 1.14 57 80 80 80	.5% of raises in the selection of the se	ted lout sink curr al. k curren ctable)), Go to 31 .), Go to 31 	rent: 10m t: 5mA. local con 300 6.0 150 0.05 5.0 0.10 10 12 150 0.13 7.50 0.15 15 300 3000	ntrol 600 12.0 300 0.03 2.6 0.05 5.2 12 300 0.10 7.8 600 6000	X X X X	X X X X X X X X X X X X X X X X X X X
S. On/Off control (réar panel) G. Output Current monitor 7. Output Voltage monitor 8. Power Supply OK signal 9. CV/CC indicator 10. Enable/Disable 11. Local/Remote analog control 11. Local/Remote analog control indicator 12. Local/Remote analog control indicator 1. S FRONT PANEL 1. Control functions 1. I. Control functions 1. I. Control functions 1. I. Control functions 1. I. Control functions 1. Control functions 1. I. Control functions 1. Remote Voltage Programming (16 bit) Resolution (0.02% of Vo Rated) Accuracy 0.05% Vo Rated Output Voltage (*11) Accuracy (0.1% of lo Rated+0.1% of lo Actual Output)(*10 Resolution (0.002% of lo Rated) Accuracy (0.1% of lo Rated+0.1% of lo Actual Output)(*10 Resolution of Vo Rated Accuracy 0.3% of lo Rate	V mV mV mA mA mA mA mV mV mV mV mV of Vo Rat	0-100% By elect 0~5V or 0~5V or 17TL hig 0pen cd Dry con By elect 0pen cd 0VP/UV AC on/c Address R5232/4 Baudrat Voltage erface 6 0.12 3.0 2.00 4.0 4.0 400 200 2.00 2.00 2.00 2	5,0-5/11 rrical.vco 0~10V, 0~10V, 14-5V billector, 14-5V billector, 14-5V billector, 14-5V billector, 14-5V billector, 14-5V 14-	0Kohm f 0Kohm f 0Itage: 0 accurac accurac) - OK, 0W CC mod pen: off, : nal or O Local: C ut on/oi on by VC inal or O on by VC inal or O on by VC in 20 in 20 i	ull scale, ~0.6V/2- %: 1%, us -76.1500 e: On, C short: or pen/Shoc pen/Shoc pen/Shoc t by sep. by Volt. f, Re-sta tby sep. by Volt. f, Re-sta tage (0, 2 select 0, 2400, c; 0.052 y; 0.2% Fine, Pr 20 0.4 10 0.76 76 1.52 152 1.20 10 1.14 1.14 1.14 1.14 1.14 1.52 228 20 200 *	user sel -15V, or er selec er selec er selec v mode: . Max, v. mote: 0 arate en Adjust rt mode Adjust rt mode h/-1 co t/-1 co t/-1 co t/-1 co -2.5 -5.	ect. Acc dry con't table table table off, Ma oltage z works off, Ma	uraci ar iact, use stance ximum ti Enable coarse a safe), Fc encode encode encode encode switc 19,200 ; tocarse a coarse a encode encode switc 19,200 ; tocal, i solo 60 60 1.5 25 1.20 90 500 500 500 500	nd linear r selecta //Disabl /	ity: +/-1 ible log <u>30V, ma</u> e in: 6V V, maxin adjustm adjustm control I v, maxin adjustm adjustm adjustm 20, Fror 0, Fror 0, Fror 80 1.6 40 40 9 9 9 28,50 1.14 57 80 800 800 800 800 800	.5% of raises .5\% of raises .5	ted lout sink curr al. k curren ctable)), Go to 31 .), Go to 30 .), Go to 30 .], Go to 31.], Go to 31.], Go	rent: 10m t: 5mA. local con 300 6.0 150 0.05 5.0 0.10 10 12 150 10 10 12 150 0.13 7.50 0.15 15 15 300 3000 d for a loa	ntrol 600 12.0 300 0.03 2.6 0.05 5.2 12 300 0.12 3.90 0.10 7.8 600 6000 d chang	X X X X X X X X X X X X X X X X X X X	X X X X
S. On/Off control (réar panel) G. Output Current monitor C. Output Voltage monitor R. Power Supply OK signal C. Output Coltage monitor R. Power Supply OK signal C. Output Coltage analog control C. Control functions C. Display C. D	V mV mV mA mA mA mA mV mV mV mV mV of Vo Rat	0-100% By elect 0~5V or 0~5V or 17TL hig 0pen cd Dry con By elect 0pen cd 0VP/UV AC on/c Address R5232/4 Baudrat Voltage erface 6 0.12 3.0 2.00 4.0 4.0 400 200 2.00 2.00 2.00 2	5,0-5/11 rrical.vco 0~10V, 0~10V, 14-5V billector, 14-5V billector, 14-5V billector, 14-5V billector, 14-5V billector, 14-5V 14-	0Kohm f 0Kohm f 0Itage: 0 accurac accurac) - OK, 0W CC mod pen: off, : nal or O Local: C ut on/oi on by VC inal or O on by VC inal or O on by VC in 20 in 20 i	ull scale, ~0.6V/2- v: 1%, us ~1%, us ~1%, us ~1%, us ~1%, us ~1%, us ~1%, u	user sel -15V, or er selec er selec er selec vmode: . Max, v. mote: 0 mote: 0 mote: 1 mote: 0 mote: 1 mote: 0 mote: 0 mote: 1 mote:	ect. Acc dry con't able able able able able able able able	uracy ar iact, use stance ximum 'u t Enable coarse a coarse a coar	nd linear r selecta //Disabl /	ity: +/-1 jble log 30V, ma e in: 6V V V, maxin adjustm ontrol ler 9 switc 0n, Fror 80 1.6 40 0.19 19 0.38 38 1.60 40 0.19 19 0.38 38 1.60 40 40 1.14 57 80 800 0.09 1.14 57	.5% of raises .5\% of raises .5	ted lout sink curr al. k curren ctable)), Go to 31 .), Go to 31 	rent: 10m t: 5mA. local col 300 6.0 150 0.05 5.0 0.10 10 12 150 0.13 7.50 0.15 15 300 3000 d for a loa be. For 60	ntrol 600 12.0 300 0.03 2.6 0.05 5.2 12 300 0.10 7.8 600 6000 d chang	X X X X X X X X X X X X X X X X X X X	X X X X X X X X X X X X X X X X X X X

*4: 85~132VaC or 1/0~265VaC, constant load.
 *5: From No-load to Full-load, constant input voltage.
 *6: For load voltage change, equal to the unit voltage rating, constant input voltage.
 *7: For 6V models the ripple is measured at 2~6V output voltage and full output current. For other models, the ripple is measured at 10~100% output voltage and full output current.

*10: The Constant Current programming readback and monitoring accuracy does not include the warm-up and Load regulation thermal drift.
 *11: Measured at the sense point.

General Specifications Genesys[™] 750W/1500W

1. Input voltage/freq. (*1)	85~265Vac continuous, 47~63Hz, single phase
2. Power Factor	0.99 @100/200Vac, rated output power.
3. EN61000-3-2,3 compliance	Complies with EN61000-3-2 class A and EN61000-3-3 at 20~100% output power.
. Input current 100/200Vac	750W :10.5A / 5A, 1500W :21A / 11A
Inrush current 100/200Vac	750W :Less than 25A. 1500W :Less than 50A
. Hold-up time	More than 20mS, 100Vac, at 100% load.
.2 POWER SUPPLY CONFIGURATION	
. Parallel Operation	Up to 4 units in master/slave mode with single wire current balance connection
. Series Operation	Up to 2 units, with external diodes. 600V Max to Chassis ground
· · · · · · · · · · · · · · · · · · ·	
.3 ENVIRONMENTAL CONDITIONS	
Operating temp	0~50°C, 100% load.
. Storage temp	-20~70°C
. Operating humidity	30~90% RH (non-condensing).
. Storage humidity	10~95% RH (non-condensing).
. Vibration	ML-810E, method 514.4, test cond. I-3.3.1. The EUT is fixed to the vibrating surface.
. Shock	Less than 20G, half sine, 11mSec. Unit is unpacked.
. Altitude	Operating: 10000ft (3000m), Derat output current by 2%/100m above 2000m. Non operating: 40000ft (12000m).
.4 EMC	
. Applicable Standards:	
LESD	IEC1000-4-2, Air-disch8KV. contact disch4KV
. Fast transients	IEC1000-4-4.2KV
. Surge immunity	IEC1000-4-5. 1KV line to line, 2KV line to ground
. Conducted immunity	IEC1000-4-6.3V
. Radiated immunity	IEC1000-4-3, 3V/m
. Conducted emission	EN55022B, FCC part 15J-B, VCCI-B.
. Radiated emission	EN550228, FCC part 15-8, VCCI-8. EN55022A, FCC part 15-A, VCCI-A.
9. Voltage dips	EN61000-4-11
0. Conducted emission	EN55022B, FCC part 15-B, VCCI-B.
1. Radiated emission	EN55022A, FCC part 15-A, VCCI-A.
2.5 SAFETY	
.Applicable standards:	UL 60950-1, CSA22,2 No.60950-1, IEC 60950-1, EN 60950-1
	Models with Vout 50V: Output is SELV, all communication/control interfaces (RS232/485, IEEE, Isolated Analog,
	LAN, Sense, Remote Programming and Monitoring) are SELV. Models with 60V Vout 400V: Output is Hazardous, communication/control interfaces: RS232/485, IEEE,
2.Interface classification	Isolated Analog, LAN, Remote Programing and Monitoring (pins 1-3, pins14-16) are SELV, Sense, Remote
	Broarsamping and Monitoring (ving 9.12, ping 1.12) are Harardour
	Programming and Monitoring (pins 8-13, pins 21-25) are Hazardous. Models with 400V Vout 600V: Output is Hazardous, all communication/control interfaces (RS232/485, IEEE,
	Isolated Analog I AN Sense Remote Programming and Monitoring are Hazardous
	Isolated Analog, LAN, Sense, Remote Programming and Monitoring) are Hazardous. Vout 50V models : Input-Output (SELV): 4242VDC 1min, Input-communication/control (SELV): 4242VDC 1min,
	Input-Ground: 2828VDC 1min.
	60V Vout 150V models: Input-Output (Hazardous): 3425VDC 1min, Input-communication/control (SELV):
With the stand state and	4242VDC 1min, Output(Hazardous)-SELV: 2307VDC 1min, Output(Hazardous)-Ground: 1414VDC 1min,
8.Withstand voltage	Input-Ground: 2828VDC 1min.
	300V Vout 600V models: Input-Output(Hazardous): 3490VDC 1min, Input-communication/control (SELV):
	4242VDC 1min, Hazardous. Output-communication/control(SELV): 4242VDC 1min,
	Output(Hazardous)-Ground: 2738VDC 1min, Input-Ground: 2828VDC 1min.
I.Insulation resistance	More than 100Mohm at 25°C , 70% RH.
.6 MECHANICAL CONSTRUCTION	
. Cooling	Forced air flow: from front to rear. No ventilation holes at the top or bottom of the chassis; Variable fan speed.
. Dimensions (WxHxD)	W: 422.8mm, H: 43.6mm, D: 432.8mm (excluding connectors, encoders, handles, etc.)
. Weight	750W: 7Kg (15 Lbs) 1500W: 8.5Kg (18 Lbs)
	750W: IEC320 AC Inlet.
4. AC Input connector	1500W: Screw terminal block, Phoenix P/N: FRONT-4-H-7.62, with strain relief
5. Output connectors	6V to 60V models: Bus-bars (hole Ø 8.5mm). 80V to 600V models: wire clamp connector, Phoenix P/N: FRONT-4-H-7.62
.7 RELIABILITY SPECS	

*1: For cases where conformance to various safety standards (UL, IEC etc.) is required, to be described as 100-240Vac (50/60Hz). All specifications subject to change without notice.

Genesys™ Power Parallel and Series Configurations

Parallel operation - Master/Slave:

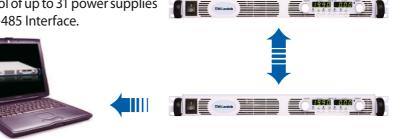
Active current sharing allows up to four identical units to be connected in an auto-parallel configuration for four times the output power. In Advanced Parallel Master/Slave Mode, total current is programmed and reported by the Master, Up to four supplies act as one.

Series operation

Up to two units may be connected in series to increase the output voltage or to provide bipolar output. (Max 600V to Chassis Ground).

Remote Programming via RS-232 & RS-485 Interface

Standard Serial Interface allows chain control of up to 31 power supplies on the same bus with built-in RS-232 & RS-485 Interface.



Toklambola

Titlantola

Toklambob

Programming Options (Factory installed)

 Digital Programming via IEEE Multi-Drop Allows IEEE Master to control up to 30 slave Only the Master needs be equipped with IE IEEE 488.2 SCPI Compliant Program Voltage Measure Voltage Over Voltage setting and shutdown Error and Status Messages 	es over RS-485 daisy-chain	P/N: IEEE
Isolated Analog Programming		
Four Channels to Program and Monitor Voltage a Isolation allows operation with floating reference Choose between programming with Voltage or Connection via removable terminal block: Phoer	es in harsh electrical environment Current.	S.
 Voltage Programming, user-selectable 0-5\ Power supply Voltage and Current Program Power supply Voltage and Current Monitor 	nming Accuracy ±1%	P/N: IS510
 Current Programming with 4-20mA signal. Power supply Voltage and Current Program Power supply Voltage and Current Monitor 		P/N: IS420
LAN Interface	Compliant to Class C	P/N: LAN
 Meets all LXI-C Requirements Address Viewable on Front Panel Fixed and Dynamic Addressing Compatible with most standard Networks 	 VISA & SCPI Compatible LAN Fault Indicators Auto-detects LAN Cross-over Fast Startup 	[,] Cable

Power Supply Identification / Accessories How to order

GEN	600	- 2.6	-	-
			Factory Options	AC Cable option is 750W only
Series	Output	Output	Option: IEEE	Region: E - Europe
Name	Voltage	Current	IS510	GB - United Kingdom
	(0~600V)	(0~2.6A)	IS420	J - Japan
			LAN	I - Middle East

Models 750/1500W

Model	Output Voltage VDC	Output Current (A)	Output Power (W)
GEN6-100	0~6V	0~100	600
GEN6-200	0~6V	0~200	1200
GEN8-90	0.01/	0~90	720
GEN8-180	0~8V	0~180	1440
GEN12.5-60	0 12 51/	0~60	750
GEN12.5-120	0~12.5V	0~120	1500
GEN20-38	0.201/	0~38	760
GEN20-76	0~20V	0~76	1520
GEN30-25	0.201/	0~25	750
GEN30-50	0~30V	0~50	1500
GEN40-19	0 401/	0~19	760
GEN40-38	0~40V	0~38	1520

Factory option

RS-232/RS-485 Interface built-in Standard GPIB Interface Voltage Programming Isolated Analog Interface Current Programming Isolated Analog Interface LAN Interface (Complies with LX Class C)

AC Cords sets (750W only)

Region	Europe	United Kingdom	Japan	Middle East	North America
Output Power AC Cords Wall Plug Power Supply	750W 10A/250Vac L=2m INT'L 7/VII IEC320-C13	750W 10A/250Vac L=2m BS1363 IEC320-C13	750W 13A/125Vac L=2m IEC320-C13	750W 10A/250Vac L=2m SI-32 IEC320-C13	750W 13A/125Vac L=2m NEMA 5-15P IEC320-C13
Connector					
Part Number	P/N: GEN/E	P/N: GEN/GB	P/N: GEN/J	P/N: GEN/I	P/N : GEN/U

Accessories

1. Communication cable

RS-232/RS-485 Cable is used to connect the power supply to the PC Controller.

Mode	RS-485	RS-232	RS-232
PC Connector	DB-9F	DB-9F	DB-25F
Communication Cable	Shield Ground L=2m	Shield Ground L=2m	Shield Ground L=2m
Power Supply Connector	EIA/TIA-568A (RJ-45)	EIA/TIA-568A (RJ-45)	EIA/TIA-568A (RJ-45)
P/N	GEN/485-9	GEN/232-9	GEN/232-25

2. Serial link cable*

Daisy-chain up to 31 Genesys[™] power supplies.

Mode	Power Supply Connector	Communication Cable	P/N
RS-485	EIA/TIA-568A (RJ-45)	Shield Ground L=50cm	GEN/RJ45
* Included with power supply		·	· · · · · · · · · · · · · · · · · · ·

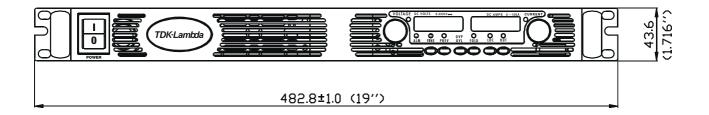
Model	Output Voltage VDC	Output Current (A)	Output Power (W)
GEN50-30	0~50V	0~30	1500
GEN60-12.5	0 601	0~12.5	750
GEN60-25	0~60V	0~25	1500
GEN80-9.5	0~80V	0~9.5	760
GEN80-19		0~19	1520
GEN100-7.5	0~100V	0~7.5	750
GEN100-15	0~1000	0~15	1500
GEN150-5	0~150V	0~5	750
GEN150-10		0~10	1500
GEN300-2.5	0.2001/	0~2.5	750
GEN300-5	0~300V	0~5	1500
GEN600-1.3	0 (00)/	0~1.3	780
GEN600-2.6	0~600V	0~2.6	1560

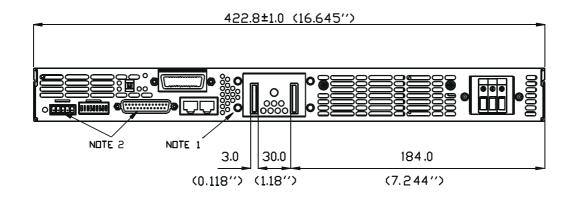
U-North America

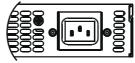
P/N

IEEE IS510 IS420 LAN

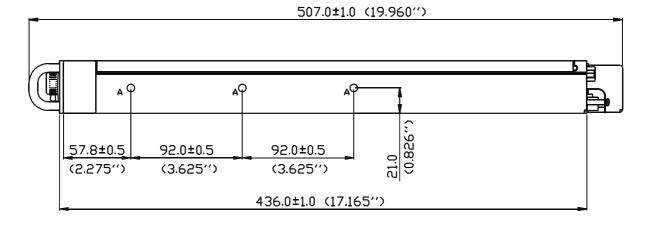
Outline Drawing Genesys[™] 750W/1500W Units







MODEL 750W IEC INLET



NOTE

- 1. Bus bars for 6v to 60v models (shown)
- Wire clamp connector for 80V to 600V models
- 2. Plug connectors included with the power supply
- 3. Chassis slides mounting holes #10-32 marked "A" GENERAL DEVICES P/N: C-300-S-116 or equivalent



TDK-Lambda France SAS Tel: +33 1 60 12 71 65

tlf.fr.powersolutions@tdk.com/fr www.emea.lambda.tdk.com/fr

Italy Sales Office

Tel: +39 02 61 29 38 63 tlf.it.powersolutions@tdk.com www.emea.lambda.tdk.com/it

Netherlands

tlf.nl.powersolutions@tdk.com www.emea.lambda.tdk.com/nl

TDK-Lambda Germany GmbH

Tel: +49 7841 666 0 tlg.powersolutions@tdk.com www.emea.lambda.tdk.com/de

Austria Sales Office Tel: +43 2256 655 84

tlg.at.powersolutions@tdk.com www.emea.lambda.tdk.com/at

Switzerland Sales Office

Tel: +41 44 850 53 53 tlg.ch.powersolutions@tdk.com www.emea.lambda.tdk.com/ch

Nordic Sales Office

Tel: +45 8853 8086 tlg.dk.powersolutions@tdk.com www.emea.lambda.tdk.com/dk

TDK-Lambda UK Ltd. Tel: +44 (0) 12 71 85 66 66 tlu.powersolutions@tdk.com

www.emea.lambda.tdk.com/uk

*

TDK-Lambda Ltd.

Tel: +9 723 902 4333 tli.powersolutions@tdk.com www.emea.lambda.tdk.com/il-en



TDK-Lambda Americas Tel: +1 800-LAMBDA-4 or 1-800-526-2324 tla.powersolutions@tdk.com www.us.lambda.tdk.com



TDK Electronics do Brasil Ltda Tel: +55 11 3289-9599 sales.br@tdk-electronics.tdk.com



TDK-Lambda Corporation Tel: +81-3-6778-1113 www.jp.lambda.tdk.com

www.tdk-electronics.tdk.com/en



TDK-Lambda (China) Electronics Co. Ltd. Tel: +86 21 6485-0777

tlc.powersolutions@tdk.com www.lambda.tdk.com.cn



TDK-Lambda Singapore Pte Ltd. Tel: +65 6251 7211 tls.marketing@tdk.com www.sg.lambda.tdk.com



TDK India Private Limited, Power Supply Division

Tel: +91 80 4039-0660 mathew.philip@tdk.com www.sg.lambda.tdk.com



• = +

