Specifications typical at 25 °C. HV = +330 V. Current mode load = 1 mH + 60 mΩ. Load capacitance each side to ground 0.47 µF.

Model	Current Mode							Voltage Mode (-V)		
	Output (±A Peak) Pulse Duration / Off time (ms)							Output (kVA) Duration/ Off time (ms)		Load
	(DC)	500/500	100/100	10/20	170/1000	25/1000	4/100	(DC)	500/500	(Ω)
265P	150	187	212	250	250	312	312	33	45	1.5 1.0

PEAK CURRENT SHUTDOWN 324 A

VOLTAGE OUTPUT ±300 VDC, depends on load resistance
- Slew Rate: V/L Amps/s
  where V = 300 V and L = load inductance

INPUT LIMITER Adjustable
- Current Mode: ±19 to ±312 A
- Voltage Mode: ±30 to ±330 V

SATURATION RESISTANCE 0.024 Ω

GAIN Adjustable with programmable span
- Current Mode Adjustment Span: 1.2 to 25 A/V
- Voltage Mode: 50.0 V/V, 34 dB

OUTPUT OFFSET ±130 mA, adjustable to zero
- Amplifier Adjustment Span: 0.9 A
  - Factory Preset to: 0 A

INPUT CHARACTERISTICS
- Main Input 1: Differential
- Impedance: 50 kΩ each input to ground, 25 kΩ differrential
- Max Input Voltage: ±18 V either input or differential
- Common Mode Rejection: 80 dB minimum, DC to 360 Hz
- Input 2: Same as Input 1
- Gain: Programmable

DC OUTPUT RESISTANCE
- Current Mode: 800 Ω
- Voltage Mode: 0.002 Ω

LOAD
- Current Mode: 1.0 mH + 60 mΩ; Load capacitance 0.47 µF each side to ground
- Voltage Mode: 1.5 Ω
- Adaptable Range: 2 µH to 8 H; 0.04 Ω to Open

CURRENT MODE RESPONSE
- Small Signal Bandwidth: –3 dB @ 5.2 kHz

RAMP SETTLING TIME
- Input Ramp Slope: ±250 A/1.0 ms
- Time Reference: End of input ramp
  - Ramp 0 to ±250 A: 150 µs to within 2.5 A, 1%
    260 µs to within 0.5 A, 0.2%
  - Ramp ±250 A to 0 A: 150 µs to within 2.5 A, 1%
    260 µs to within 0.5 A, 0.2%

VOLTAGE MODE RESPONSE	Flat to DC
Power Bandwidth	DC to 5 kHz, –1 dB
Load Resistance	1.8 Ω
Small Signal	–3 dB @ 12 kHz, programmable to ±1 dB
Open Load	+2, –3 dB, DC to 22 kHz
TOTAL HARMONIC DISTORTION	
Current Mode	200 Hz, 150 A RMS, 0.2% max
Voltage Mode	200 Hz, 28 kVA, 0.3% max
Load	1 mH + 60 mΩ
DC DRIFT	After 1 hour
Current Mode Offset, vs. Ambient	5 mA/°C
Self Heating Drift, 0 to ±120 A	60 mA/10 minute maximum
Scale Factor, vs. Ambient	30 ppm/°C
Voltage Mode Offset	1 mV/°C
Scale Factor	50 ppm/°C
SWITCHING FREQUENCY	81 kHz
Synchronization	Input or output
NOISE OUTPUT	
Current Mode:	
10 Hz to 10 kHz	1.4 mA RMS
10 Hz to 500 Hz	0.6 mA RMS (27 µA RMS/√Hz)
Voltage Mode:	
10 Hz to 20 kHz	4 mA RMS
10 Hz to 500 Hz	1 mA RMS
RIPPLE NOISE OUTPUT	81 kHz
Each Side to Ground	5 V RMS max, same phase
160 V Out, Differential	5 V RMS max
Current, 0 V Output	0.8 mA/L RMS
Current, 160 V Output	8 mA/L RMS where L = load inductance in mH
Current, each Output Lead	5 V RMS/Z where Z is the impedance at 81 kHz from ground to the measuring lead
DC POWER SUPPLY SENSITIVITY	
Current Mode	1.0 mA/V max
CURRENT MONITOR	Display panel BNC and rear panel D connector ±1 V/25 A ±1%
Source Resistance	470 Ω on BNC connector, 0.1 Ω on D connector
VOLTAGE MONITOR	Display panel BNC and rear panel D connector ±1 V/40 V ±1%
Source Resistance	470 Ω on BNC connector, 0.1 Ω on D connector
PARALLEL OPERATION	Amplifier may be connected for Master/Slave operation
PROGRAMMING HEADER	Sets gain and response for specific load
Accessibility	Rear panel D connector
REMOTE SHUTDOWN	Switch closure enables output Selectable **Enable** or **Inhibit** Grounded or opto-isolated input Front panel **Inhibit** switch must be off
SWITCHES (on Display Panel)	**Inhibit**, with LED, **Reset**, also on rear panel

LOAD PROTECTION	
Voltage or Current	Adjustable input limiter
	Soft start
Shutdown	Current vs. time
	All four bridge arms open
Diode Clamps	To +HV and ground
AMPLIFIER PROTECTION	
Overload	Input limiter
Current vs Time	Shutdown
Each Heat Sink Temp	Shutdown 87 °C
Overvoltage Shutdown	373 V
Undervoltage Shutdown	97 V
Fan Undervoltage Shutdown	22 V
DIGITAL MULTIPLEXER (P10)	16 status outputs multiplexed
ANALOG MULTIPLEXER (P10)	32 analog signals multiplexed
REAR PANEL DIP SWITCH	Six-position switch on Rear Panel
Chassis Select	DIP switch positions 1 to 4 (USEL0 – USEL3)
Clock Internal/External	DIP switch position 5 (SYNC)
Clock Disable	DIP switch position 6 (CLOCK)
5 V CMOS STATUS OUTPUTS	Fault is Low
+5V	+5 V Regulated, HV is on
CHANNEL ON	Master and slaves enabled and operating
NORMAL/FAULT	Green: Amplifier operates if enabled; Red: Inverse of Normal
DC	One or more DC voltages out of range
HOT	Coil or heat sink over-temperature
OVER-CURRENT	Too much current for too long
MODULE 1	Module 1 fault
MODULE 2	Module 2 fault
MODULE 3	Module 3 fault
MODULE 4	Module 4 fault
MODULE 5	Module 5 fault
Maximum Current Output	10 mA each output
SYNCHRONIZING I/O (81 kHz)	BNC on rear panel, 0 to 5 V CMOS also on P1 and J2 connectors on rear panel
DISPLAY PANEL (optional)	
Size	3.5" high x 19" wide x 2" deep; can be rack mounted
	8.9 cm high x 48.3 cm wide x 5.1 cm deep
Weight	2 lb, 0.9 kg
Display Panel LEDs	
POWER ON	HV is on
CHANNEL ON	Master and slaves enabled and operating
NORMAL	Amplifier operates if enabled
FAULT	Inverted normal
DC FLT	One or more DC voltages out of range
HOT	Coil or heat sink over-temperature
OVER-CURRENT	Too much current for too long
MODULE 1	Module 1 fault
MODULE 2	Module 2 fault
MODULE 3	Module 3 fault
MODULE 4	Module 4 fault
MODULE 5	Module 5 fault

POWER REQUIREMENTS (each amplifier)

Low Voltage Power Supply	Required for each amplifier
Fan Supply	+28 VDC @ 3 A
High Voltage DC Power Supply	
High Voltage Supply	+100 V to +330 VDC
Internal Capacitance, Each Amplifier	18700 µF

THERMAL REQUIREMENTS (each amplifier)

Power Dissipation at 150 A RMS	3000 W
Peak Dissipation at 212 A	5900 W
Panel Inlet Air Temperature	–20 °C to +35 °C
Storage	–30 °C to +85 °C

MECHANICAL

Amplifiers - Each	
Size	10.5" H x 19" W x 23.4" D; can be rack mounted 26.7 cm H x 48.3 cm W x 59.4 cm D
Weight	88 lb, 39.9 kg