

For Axle Counter and General Applications



- The DD820 is a highly versatile integrated power system which can be configured for a wide range of uses.
- The Axle Counter Power Supply unit is built around the proven DD763 rectifier module. Offering N+1 redundancy, together with monitoring functions and automatic battery capacity testing.
- The system contains hot-swappable battery trays and rectifiers allowing for easy maintenance and/or replacement.

- Network Rail PADS approved PA05/03952
- 60VDC and 48VDC output options available
- Up to 1320W N+1 of power continuous
- 110/230VAC and 230/400VAC input options
- Modular design for easy upgrade or swap out
- Hot-swappable DD763 power modules
- Convection cooled
- Internal removable battery trays or external battery options
- Rugged wall-mountable or free-standing cabinet

INPUT

AC Voltage : 110VAC \pm 10%, 230VAC \pm 15% or 400VAC \pm 15% (see variants)
 Current : 5.0A@110VDC, 2.5A@230VAC or 1.5A@400VAC per power module
 Frequency : 50-60Hz

OUTPUT

Current/Power : 60VDC 440W to 1320W N+1 or 48VDC 440W to 1320W N+1
 Voltage Range : 48-60VDC or 60-72VDC
 Current Share : <10% variation between DD763 modules
 Noise : <7mV rms
 Psopho Noise : <2mV rms
 Efficiency : >90% at Full Load
 Battery : Dual 5Ah internal tray option or external batteries can be used

VARIANT OPTIONS

Output	Battery	Input	NR Cat No.
60VDC 440W N+1	Internal 2 x 5Ah	110 or 230VAC	086/001950
60VDC 880W N+1	Internal 2 x 5Ah	110 or 230VAC	086/001951
60VDC 1320W N+1	Internal 2 x 5Ah	110 or 230VAC	086/001952
60VDC 440W N+1	External *	110 or 230VAC	086/001953
60VDC 880W N+1	External *	110 or 230VAC	086/001954
60VDC 1320W N+1	External *	110 or 230VAC	086/001955
60VDC 440W N+1	Internal 2 x 5Ah	230 or 440VAC	086/001930
60VDC 880W N+1	Internal 2 x 5Ah	230 or 440VAC	086/001931
60VDC 1320W N+1	Internal 2 x 5Ah	230 or 440VAC	086/001932
60VDC 440W N+1	External *	230 or 440VAC	086/001933
60VDC 880W N+1	External *	230 or 440VAC	086/001934
60VDC 1320W N+1	External *	230 or 440VAC	086/001935
48VDC 440W N+1	Internal 2 x 5Ah	110 or 230VAC	086/001956
48VDC 880W N+1	Internal 2 x 5Ah	110 or 230VAC	086/001957
48VDC 1320W N+1	Internal 2 x 5Ah	110 or 230VAC	086/001958
48VDC 440W N+1	External *	110 or 230VAC	086/001959
48VDC 880W N+1	External *	110 or 230VAC	086/001960
48VDC 1320W N+1	External *	110 or 230VAC	086/001961
24VDC 330W N+1	Internal 2 x 5Ah	110 or 230VAC	086/001962
24VDC 660W N+1	Internal 2 x 5Ah	110 or 230VAC	086/001963
24VDC 990W N+1	Internal 2 x 5Ah	110 or 230VAC	086/001964
24VDC 330W N+1	External *	110 or 230VAC	086/001965
24VDC 660W N+1	External *	110 or 230VAC	086/001966
24VDC 990W N+1	External *	110 or 230VAC	086/001967

* Batteries not included, but can be supplied if requested

PROTECTION

DD820 System Input 1x 16A 2-pole MCB
 Output 2 x 32A 1-pole MCBs
 Battery 2 x 32A 1-pole MCBs

DD763 Input Internal 4A HRC fast fuse
 Output External 16A A/S fuse

SAFETY

Insulation Input-Earth >1.5kV rms
 Input-Output >2.2KV rms
 Output-Earth >500VDC
 Earth Leakage <0.9mA per DD763 module

MECHANICAL/ENVIRONMENTAL/RELIABILITY

Dimensions 500mm High x 360mm Deep x
 560mm Wide (630mm wide with
 mounting brackets)
 Weight <58kg (with internal 5Ah batteries)
 <45kg (without internal batteries)
 IP Rating IP31 to EN50125 part 3
 Cooling Natural convection
 Temperature
 Operation -10°C to +50°C (up to +60 °C with
 reduced load)
 Storage -25°C to +60°C
 Compensation 0°C to 35°C
 Relative Humidity 85% to 35°C, 75% >35°C
 MTBF >386,000 hours (calculated)

ALARMS

DD820 System AC on, Load 1, Load 2, Battery 1 and
 Battery 2 (LEDs)
 DD763 Modules Rectifier Fail and Power On (LEDs)
 DD761U Monitor High Volts, Low Volts, Batteries Charged,
 Test in Progress and Batteries Failed Test
 (LEDs)
 Output Volts, Battery Current, Load
 Current and Battery Ah Setting (LCD
 Display)
 Alarm Relays Mains Fail, Rectifier Fail, Volts and Low
 Volts

COMPLIANCES/STANDARDS

EMC Transmitted	Surges	BS EN61000-4-5
And Railroad	Flicker	BS EN61000-3-3
	Harmonics	BS EN61000-3-2
	Emissions	BS EN61000-6-3
	Immunity	BS EN61000-6-4
	Rail	BS EN50121-4:2006
Voltage	EN60950 low voltage directive (LVD)	

ALSO SEE COMPACT OPTIONS

086/001989 DD835-1 60V 1.5A Axle-Counter power supply
 086/001990 DD835-2 60V 2.0A Axle-Counter power supply