

30 Watts

- Compact lightweight design
- UL62368-1 and EN62368-1 approvals
- Class B conducted & radiated emissions
- Universal AC input range 85 to 264VAC
- Output voltages from 5V to 48V DC
- High efficiency
- DC output LED indicator
- -30°C to +70°C operating temperature
- 300VAC Input surge withstand
- MTBF = 300kHrs (MIL-HDBK-217F, +25°C GB)
- 3 year warranty



Dimensions:

DRC30:

3.6 x 1.38 x 2.28" (92.6 x 35.0 x 58.0 mm)

The DRC range of compact lightweight DIN rail mount power supplies is a convenient and cost effective power conversion solution for many industrial and commercial applications. With international safety certification, an industrial temperature range and class B emission compliance, the DRC series also features a DC "on" LED, wide output voltage adjustment range and alternative DC input range.

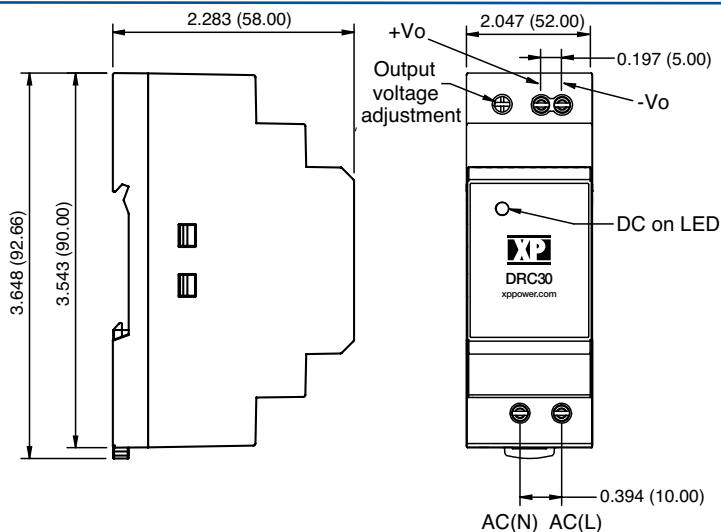
Models & Ratings

Output Voltage	Output Power	Output Voltage Range ⁽¹⁾	Output Current	Ripple & Noise pk-pk	Typical Efficiency ⁽²⁾	Maximum Capacitive Load	Model Number
5V	15W	4.9 - 5.5V	3.0A	80mV	82%	12000µF	DRC30US05
12V	24W	10.8 - 13.8V	2.0A	120mV	88%	6000µF	DRC30US12
15V	30W	13.5 - 18.0V	2.0A	120mV	89%	5000µF	DRC30US15
24V	36W	21.6 - 29.0V	1.5A	150mV	89%	1400µF	DRC30US24
48V	36W	43.2 - 55.2V	0.75A	240mV	90%	600µF	DRC30US48

Notes

1. Output power rating must not be exceeded.
2. Efficiency measured at 230V AC full load.

Mechanical Details



Notes

1. All dimensions in inches (mm)
2. Weight: 0.253 lbs (115 g)
3. Tolerance: ±0.039 in (±1.0 mm)
4. Screw terminal wire gauge: 12-24AWG
5. Connection screw maximum torque: 4.0 lbs-in (0.4 Nm)
6. Mounting rail type TS35

Input

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Input Voltage - Operating	85		264	VAC	See input voltage derating curve. Alternatively 120-370VDC ⁽¹⁾
Input Frequency	47	50/60	63	Hz	
Input Current - Full Load			0.9/0.5	A	115/230 VAC
Inrush Current			25/45	A	At 115/230 VAC
Earth Leakage Current			0.25	mA rms	At 264 VAC, 60 Hz
No Load Input Power			0.3/0.4	W	Models below 48V output / 48V model
Input Protection	Internal fuse fitted				
Surge Withstand		300		VAC	5s

Note

1. DC input voltage was not assessed as part of the safety certification process.

Output

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Output Voltage	4.9		55.2	VDC	See Models and Ratings table
Initial Set Accuracy		±2		%	
Output Voltage Adjustment	See Models and Ratings table, output power rating must not be exceeded				
Minimum Load	0			A	No minimum load required
Capacitive Load				µF	See Models & Ratings table
Start Up Delay			3	s	Rise time 4ms
Hold Up Time		12/60		ms	At full load and 115 VAC/230 VAC
Line Regulation		±0.5		%	
Load Regulation		±1.5		%	
Transient Response			4	%	Max deviation recovering to within 2% in 2ms for a 50% load change.
Ripple & Noise				mV pk-pk	Measured at 20 MHz bandwidth. See Models & Ratings table
Overvoltage Protection			7.5	V	DRC30US05
			16		DRC30US12
			20		DRC30US15
			36		DRC30US24
			60		DRC30US48
Overload Protection		120		%	Auto recovery
Short Circuit Protection	Trip and Restart (Hiccup Mode)				
Temperature Coefficient			±0.02	%/°C	

General

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Isolation: Input to Output	4000			VAC	
Switching Frequency		65		kHz	
Output LED	Green LED to indicate output on				
Mean Time Between Failure	300			kHrs	MIL-HDK-217F@25°C
Case Material	Black plastic UL94V-0 rated				
Weight		0.253 (115)		lb (g)	

Environmental

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Operating Temperature	-30		+70	°C	See thermal derating curve
Storage Temperature	-40		+85	°C	
Cooling	Natural convection				
Operating Humidity			95	%RH	Non-condensing
Operating Altitude			2000	m	
Vibration and Shock	Tested to GB/T2423.10-2008 and GB-T2423.22-2002				

EMC: Emissions

Phenomenon	Standard	Test Level	Criteria	Notes & Conditions
Conducted	EN55032	Class B		
Radiated	EN55032	Class B		

EMC: Immunity

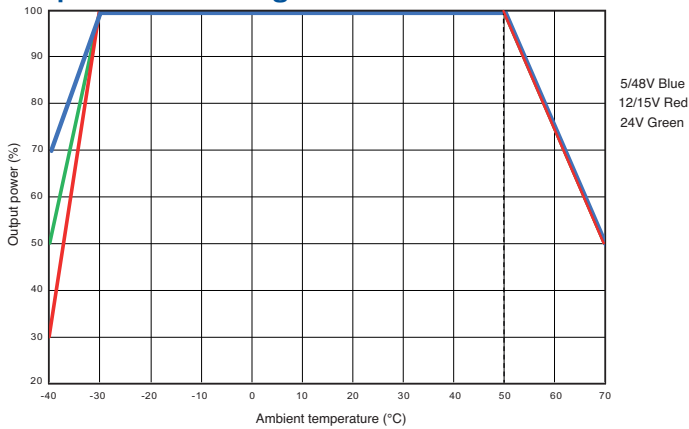
Phenomenon	Standard	Test Level	Criteria	Notes & Conditions
ESD Immunity	EN61000-4-2	±6 kV	A	Contact
		±8 kV		Air Discharge
Radiated Immunity	EN61000-4-3	10 V/m	A	
EFT/Burst	EN61000-4-4	±2 kV	A	
Surges	EN61000-4-5	±2 kV	A	Line to line
Conducted	EN61000-4-6	10 V rms	A	
Dips	EN61000-4-11 (220VAC)	Dip. 100% (0VAC), 10ms Dip. 100% (0VAC), 20ms Dip. 60% (88VAC), 200ms Dip. 30% (154VAC), 500ms Dip. 20% (176VAC), 5000ms	A	
Interrupt		Int. 100% (0VAC), 5000ms	B	

Safety Approvals

Safety Agency	Safety Standard	Notes & Conditions
UL	UL62368-1	
TUV	EN62368-1	

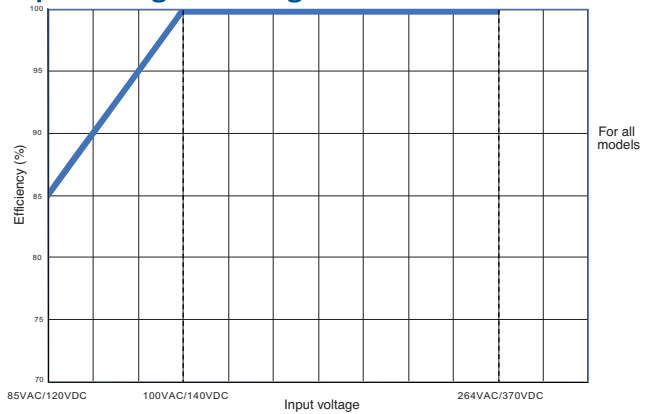
Application Notes

Temperature Derating

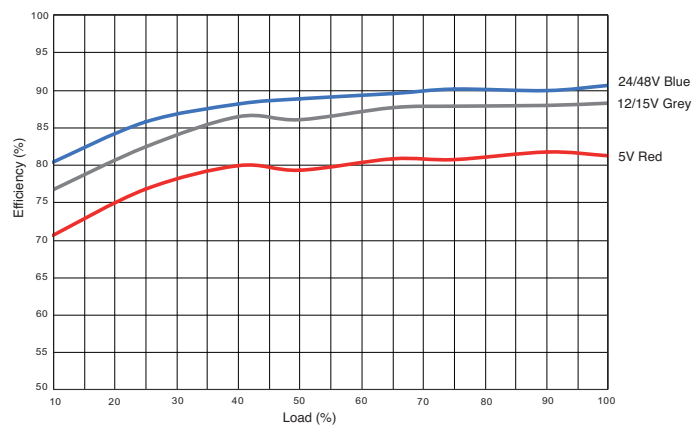


1. Derating applies for start up below -30°C. Ripple & noise specifications may be exceeded.

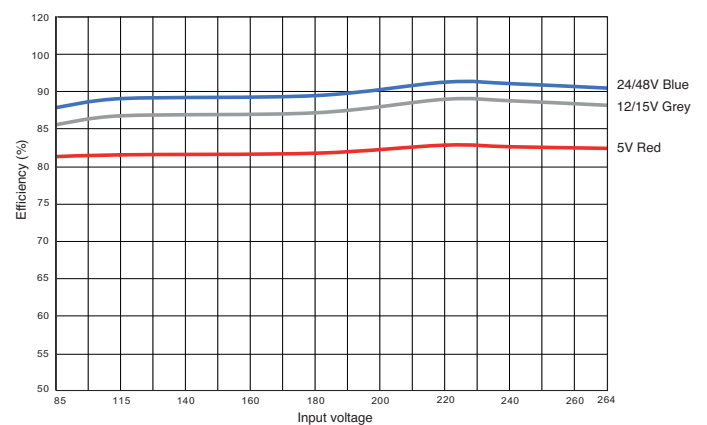
Input Voltage Derating



Efficiency vs Load



Efficiency vs Input Voltage



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