

120 W AC/DC Din Rail Power Supply

- UL, cUL, TÜV, CE certified
- Compact design
- High efficiency up to 87%
- Input voltage 115/230 V_{AC} selectable
- P.F.C



Input characteristics

Characteristics	Conditions	min.	typ.	max.	unit
Rated input voltage	I _o nom	115 / 230 (auto select)			V _{AC}
Input voltage range	T _a min - T _a max, I _o nom	115V selected	90	132	V _{AC}
		230V selected	186	264	V _{AC}
		DC	210	370	V _{DC}
Line frequency	V _i nom, I _o nom	47		63	Hz
Inrush current	V _i nom, I _o nom	V _i : 115 V _{AC}		24	A
		V _i : 230 V _{AC}		48	A
P.F.C.	V _i : 230 V _{AC} , I _o nom		0.7		

Model selection guide

Typ	Output power [W]	Output voltage [V _{DC}]	Output current [A]	Efficiency typ. [%]
DRAN120-12x	120	+ 12	10.0	84
DRAN120-24x	120	+ 24	5.0	86
DRAN120-24xL	92	+ 24	3.8	85
DRAN120-48x	120	+ 48	2.5	87

General characteristics

Characteristics	Conditions	min.	typ.	max.	unit
Switch in frequency	V _i nom, I _o nom	80			kHz
Isolation voltage	Input / output	3000			V _{AC}
Isolation resistance	Input / output, @ 500 V _{DC}	100			Mohm
Ambient temperature	Operating at V _i nom	-25		+71	°C
Derating	V _i nom, I _o nom +61° - +71°C			2.5	%/°C
Storage temperature	Non operational	-20		+85	°C
MTBF	According to MIL-HDBK-217F, GF40		200'000		hours
Relative humidity	V _i nom, I _o nom	20		95	% RH
Weight	0.92 kg				
Case material	Metal				
Cooling	Free air convection				
UL / cUL	UL508 Listed, UL60950-1 Recognized, UL1310 class 2 power (AL/BL models only)				
TÜV	EN60950-1				
CE	EN61000-6-3, EN55022 class B, EN61000-3-2, EN61000-3-3, EN61000-6-2, EN55024				

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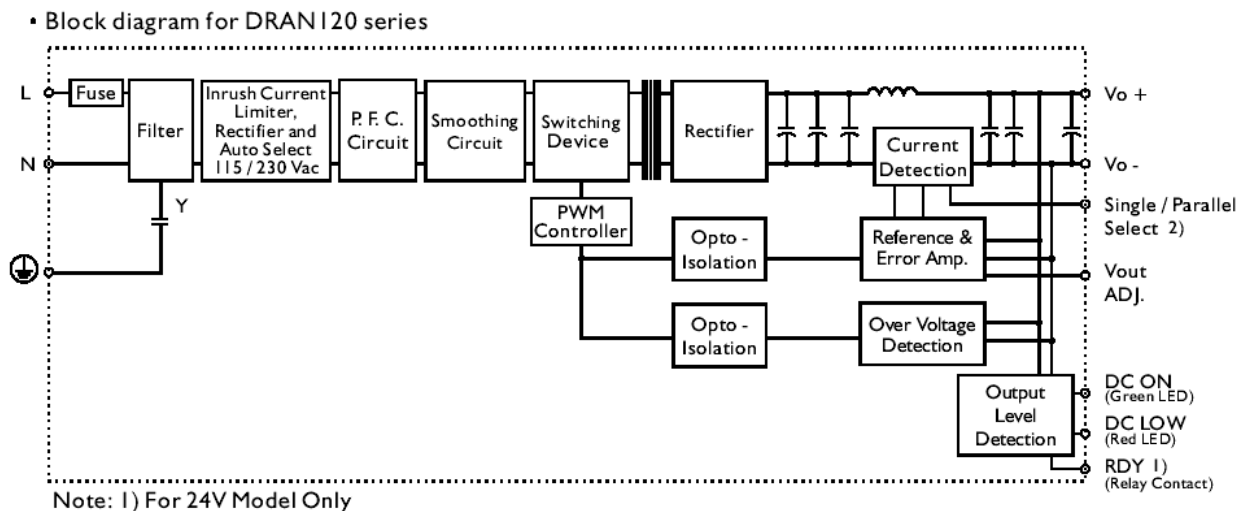
Output Specifications

Characteristics	Conditions	min.	typ.	max.	unit
Output voltage accuracy	V_i nom, I_o max	-0		+1	%
Minimum load	V_i nom	0			%
Line regulation	I_o nom, V_i min - V_i max			+ 0.5	%
Load regulation	V_i nom, I_o min - I_o nom			+1	%
Temperature coefficient	V_i nom, I_o min			+0.3	% / °C
Ripple and noise	V_i nom, I_o nom, BW = 20 Mhz			50	mV
Hold up time	V_i nom, I_o nom	$V_i = 115 V_{AC}$	25		ms
		$V_i = 230 V_{AC}$	30		ms
Voltage trim range	V_i nom, I_o nom	12V	11.4	14.5	V_{DC}
		24V	22.5	28.5	V_{DC}
		48V	45	55	V_{DC}
DC On indicator threshold at start up	V_i nom, I_o nom	12V	10	11.2	V_{DC}
		24V	17.6	19.4	V_{DC}
		48V	37	43	V_{DC}
DC Low indicator threshold at start up	V_i nom, I_o nom	12V	10	11.2	V_{DC}
		24V	17.6	19.4	V_{DC}
		48V	37	43	V_{DC}
Parallel operation (Except AL/BL models)	0.9 I_o max			3	unit
Efficiency	V_i nom, I_o nom, P_o / P_i	Up to 87 %, see model list			

Control and Protection

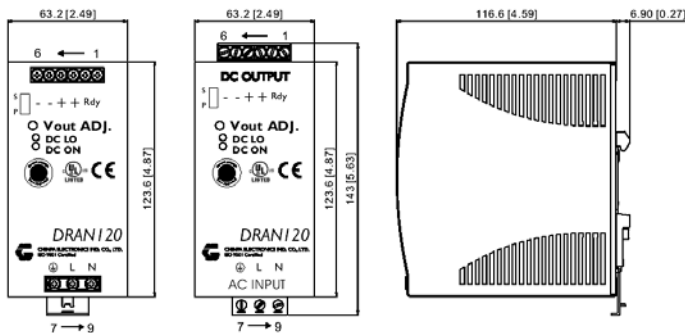
Characteristics	Conditions	min.	typ.	max.	unit
Input fuse		T3.15A / 250VAC internal			
Rated over load protection	V_i nom	110		145	%
Power Rdy (for 24V model only)	Threshold voltage of contact closed (at start up)	17.6		19.4	V_{DC}
	Electrical Isolation	500			V_{DC}
	Contact rating at 60 V_{DC}			03	A
Output short circuit	V_i nom, I_o nom	Current limited			

Circuit schematic



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Dimensions



CONSTRUCTION

Easy snap-on mounting onto the DIN-Rail (TS35/7.5 or TS35/15), unit sits safely and firmly on the rail; no tools required even to remove

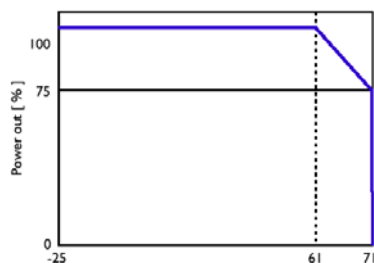
INSTALLATION

Ventilation / Cooling
 Normal convection
 Above/below 25m/m free space
 For cooling recommended
 Connector size range
 Screw terminal:
 10-24awg Flexible / solid cable,
 8 m/m stripping at cable end recommends

Pin assignment

Pin no.	Designation	Description
1	Out	RDY
2		A normal open relay contact for DC On level control (Never connect except 24V model)
3		V+
4		V+
5		V-
6		V-
7	In	PE, earth
8		L
9		N
	Other	DC On
		DC Lo
		Vout Adj.
		S / P

Derating:



Life Support Policy: HY-LINE does not authorize the use of any of its products for use in life support devices or systems without the express written approval of an officer of the Company. Life support systems are devices which support or sustain life, and whose failure to perform, when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in significant injury to the user. Rev: 08.2008