

Power supply - regulated, 120 W

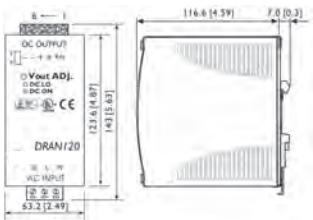
Primary switchmode power supply, PFC, Single-phase, screw terminal - pluggable

Input: Wide range input AC 90–132 V; AC 186–264 V, DC 210–370 V

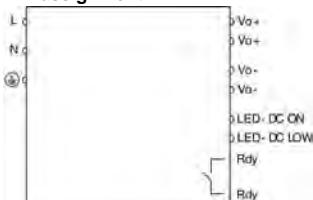
Output: 12 V / 24 V / 48 V - adjustable



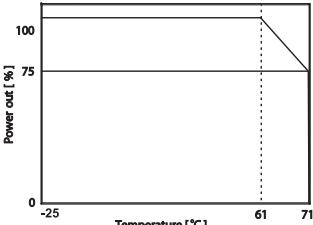
Dimensions



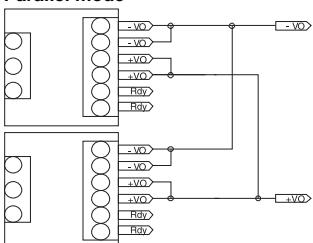
PIN assignment



Derating



Parallel mode



Description	Part-No.	Type	PU
Screw terminal, pluggable			
Output voltage/current	DC 12 V; 10 A	DRAN 120-12B	1
	DC 24 V; 5 A	DRAN 120-24B	1
	DC 48 V; 2.5 A	DRAN 120-48B	1
Input			
Nominal voltage	AC 115 / 230 V (auto select)	DRAN 120-12B	DRAN 120-24B
Operation voltage range	AC 90–132 V; AC 186–264 V / DC 210–370 V	DRAN 120-24B	DRAN 120-48B
Line frequency	47 – 63 Hz	DRAN 120-12B	DRAN 120-24B
Rated current	$U_i = \text{AC } 115 \text{ V}: 1.25 \text{ A} / U_i = \text{AC } 230 \text{ V}: 0.63 \text{ A}$	DRAN 120-12B	DRAN 120-24B
Inrush current	$U_i = \text{AC } 115 \text{ V}: 24 \text{ A} / U_i = \text{AC } 230 \text{ V}: 48 \text{ A}$	DRAN 120-12B	DRAN 120-24B
Internal fuse	T3, 15 A / AC 250 V	DRAN 120-12B	DRAN 120-24B
External fuse	Mini-circuit breaker: B 5 A	DRAN 120-12B	DRAN 120-24B
Power Factor Correction P.F.C.	0.7	DRAN 120-12B	DRAN 120-24B
Output			
Rated voltage output	DC 12 V	DC 24 V	DC 48 V
Rated current output	10 A	5 A	2.5 A
Max. output current	–	–	–
Peak output current	–	–	–
Voltage trim range	11.4–14.5 V	22.5–28.5 V	45/55 V
Accuracy	±1 %	±1 %	±1 %
Line regulation	±0.5 %	±0.5 %	±0.5 %
Load regulation	Single ±1 %, Parallel ±5 %	Single ±1 %, Parallel ±5 %	Single ±1 %, Parallel ±5 %
Rise time	1 s	1 s	1 s
Temperature coefficient	±0.03 % / °C	±0.03 % / °C	±0.03 % / °C
Ripple & Noise	50 mV	50 mV	50 mV
Hold up time	$V_{in} = 115 \text{ V}: 25 \text{ ms} / V_{in} = 230 \text{ V}: 30 \text{ ms}$	$V_{in} = 115 \text{ V}: 25 \text{ ms} / V_{in} = 230 \text{ V}: 30 \text{ ms}$	$V_{in} = 115 \text{ V}: 25 \text{ ms} / V_{in} = 230 \text{ V}: 30 \text{ ms}$
Status indication DC ON LED green	$\geq 10\text{--}11.2 \text{ V}$	$\geq 17.6\text{--}19.4 \text{ V}$	$\geq 37\text{--}43 \text{ V}$
Status indication DC LOW LED red	$\leq 10\text{--}11.2 \text{ V}$	$\leq 17.6\text{--}19.4 \text{ V}$	$\leq 37\text{--}43 \text{ V}$
Parallel mode	max. 3 units at 90% load current, manual switch		
Efficiency	84 %	86 %	87 %
Low power loss	24 W	20 W	19 W
Rated over load protection	105–125 %	125–145 %	125–145 %
Over voltage protection	125–145 %	125–145 %	125–145 %
Short circuit characteristics	Current limit	Current limit	Current limit
General			
Switching frequency	approx. 80 kHz	approx. 80 kHz	approx. 80 kHz
Insulation voltage input/output	AC 3.0 kV _{eff}	AC 3.0 kV _{eff}	AC 3.0 kV _{eff}
Insulation voltage input / ground	AC 1.5 kV _{eff}	AC 1.5 kV _{eff}	AC 1.5 kV _{eff}
Insulation voltage output / ground	–	–	–
Insulation resistance at DC 500 V	100 MΩ	100 MΩ	100 MΩ
Operation temperature range	-25 °C – 70 °C (derating)	-25 °C – 70 °C (derating)	-25 °C – 70 °C (derating)
Derating	-2.5% / °C starting at 60 °C	-2.5% / °C starting at 60 °C	-2.5% / °C starting at 60 °C
Storage temperature range	-25 °C – 85 °C	-25 °C – 85 °C	-25 °C – 85 °C
M.T.B.F.	440000 h	450000 h	482000 h
Relative humidity	20–90% RH	20–90% RH	20–90% RH
Dimensions (w × h × d) in mm	63.5 × 142.0 × 116.0	63.5 × 142.0 × 116.0	63.5 × 142.0 × 116.0
Cooling	Air convection	Air convection	Air convection
Housing material	metal	metal	metal
Field installation	rail TS 35 (EN 50022)	rail TS 35 (EN 50022)	rail TS 35 (EN 50022)
Application height	– m	– m	– m
Installation position	vertical	vertical	vertical
Protection class	IP 20	IP 20	IP 20
Overvoltage category	II	II	II
Pollution degree	2	2	2
Protection class	–	–	–
Weight (kg/piece)	0.920	0.920	0.920
Termination	Screw terminal: 0.2–2.0 mm ²	Screw terminal: 0.2–2.0 mm ²	Screw terminal: 0.2–2.0 mm ²
Approvals	UL: UL 508 listed; cUL: UL 60950-1; TÜV: EN 60950, CE: EN 61000-6-3, EN 55022 Class B, EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 55024	UL: UL 508 listed; cUL: UL 60950-1; TÜV: EN 60950, CE: EN 61000-6-3, EN 55022 Class B, EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 55024	UL: UL 508 listed; cUL: UL 60950-1; TÜV: EN 60950, CE: EN 61000-6-3, EN 55022 Class B, EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 55024
Monitoring			
DC ON Control (Rdy)	–	Normally open	–
Switching voltage	–	DC 60 V	–
Switching current	–	max. 300 mA	–
Switching capacity	–	–	–
Insulation voltage	–	DC 500 V	–