

Technical data sheet

Power supply · regulated, 30 W

Switchmode power supply, Single-phase

Input: wide-range input AC 85–264 V, DC 120–375 V

Output: DC 24 V, adjustable



Identification

Type	DRS1-24A
Part No.	722704

Product version

Datasheet version	00
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Input

Number of phases	1
Rated voltage U_N	AC 100–240 V
Operation voltage range	AC 85–264 V / DC 120–375 V
Frequency range	47 Hz – 63 Hz
Rated current I_N	335 mA @ AC 115 V / 210 mA @ AC 230 V
Inrush current	20 A @ AC 115 V / 40 A @ AC 230 V
Internal fuse	T2A / AC 250 V
External protection	Mini-circuit breaker: C 4 A

Output

Output voltage/current	DC 24 V/1.25 A
Rated voltage U_N	DC 24 V
Rated current I_N	1.25 A
Power Dissipation	5.7 W @ AC 230 V
Setting range $U_{out\ min.}/U_{out\ max.}$	22.5–28.5 V
Accuracy	±1 %
Load regulation	±1 %
Line regulation	±1 %
Rise time	150 ms
Temperature coefficient	±0.03 % / °C
Ripple and noise	100 mV
Hold up time	20 ms @ 115 V / 50 ms @ 230 V

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Efficiency	86 %
Over voltage protection	DC 28.8–32.4 V
Rated over load protection	140 %
Short circuit	Hiccup Mode

Status indication

Status indication DC ON LED green	DC 19.2–21.6 V
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General

Switching frequency	65 kHz
Insulation voltage input / output	AC 3 kV / DC 4.2 kV
Insulation voltage input / ground	AC 1.5 kV / DC 2.1 kV
Insulation voltage output / ground	AC 500 V / DC 710 V
Insulation resistance at DC 500 V	100 MΩ
Derating	2.5 %/°C starting 51 °C
Cooling	Air convection, 25 mm clearance all-round
Housing material	Plastic
Mounting	DIN rail mountable TS35 (EN 60715)
Max. altitude operation	5000 m (EN 62368-1)
Installation position	Vertical
MTBF	764000 h
Degree of protection	IP20
Protection class	I
Weight/unit	0.14 kg
Connection type	Screw terminal 0.20 mm ² – 2.5 mm ² AWG 26 – AWG 12
Dimensions (w × h × d)	22.5 mm × 90.0 mm × 100.0 mm
PU (units)	1

General ambient conditions

Operation temperature range	-25 °C ... +71 °C (Derating)
Storage temperature range	-40 °C ... +85 °C
Over voltage category	II
Degree of pollution	2
Relative air humidity	20 – 95 % RH

Approvals/Standards

Approvals	UL 508 Listed (E249179) UL 1310 Class 2 (E320708) UL 62368-1 CE UKCA
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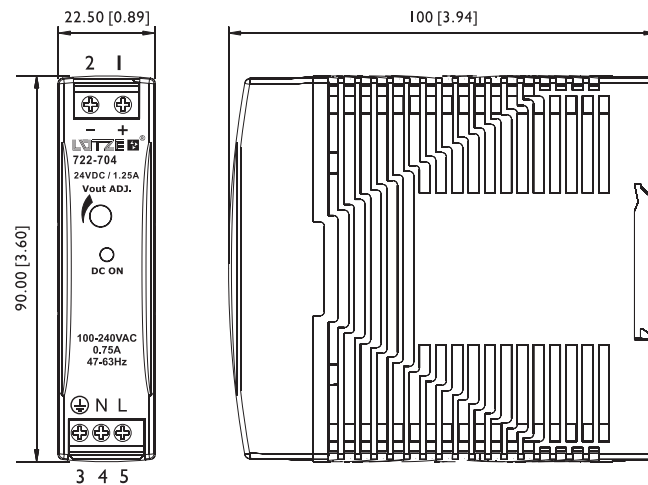
Power supply · regulated, 30 W

Standards

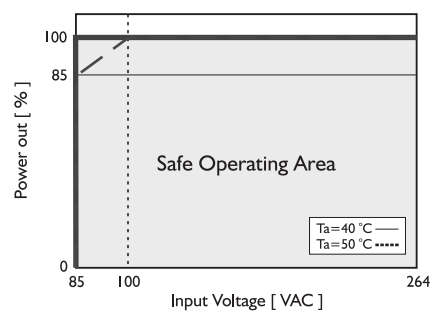
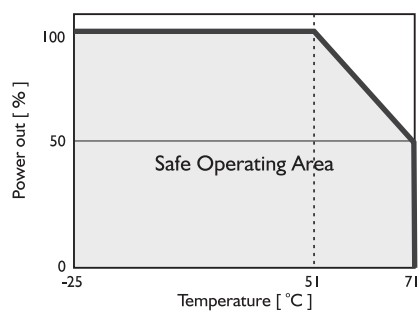
EN 62368-1
EN 61000-6-3
EN 55032 Class B
EN 61000-3-2
EN 61000-3-3
EN 61000-6-2
EN 55024
EN 61000-4-2 Level 4
EN 61000-4-3 Level 3
EN 61000-4-4 Level 4
EN 61000-4-5 L-N Level 3
L/N-FG Level 4
EN 61000-4-6 Level 3
EN 61000-4-8 Level 4
EN 61000-4-11 ENV 50204 Level 2
EN 61204-3

Dimensions

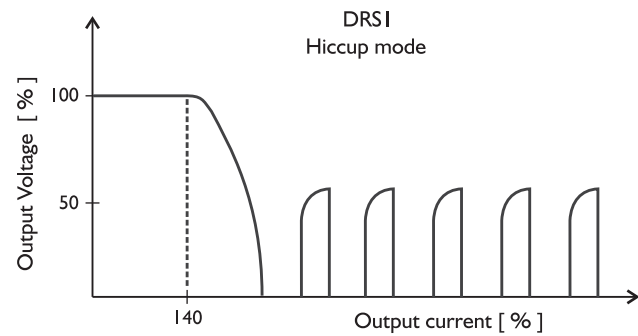
mm [inch]



Derating



Short circuit characteristics



Pin assignment

PIN NO.		Designation	Description
1	OUT	V +	Positive output terminal
2		V -	Negative output terminal
3		⊕	Ground this terminal to minimize high-frequency emissions
4	IN	N	Input terminals (neutral conductor, no polarity at DC input)
5		L	Input terminals (phase conductor, no polarity at DC input)
	OTHER	DC ON	Operation indicator LED
		Vout ADJ.	Trimmer-potentiometer for Vout adjustment

Circuit diagram

