

A solid red circle.

DIN Rail Industrial Power Supply Datasheet

Overview

These slim power supply features a compact size, making it ideal for TS-35/7.5 or 15 DIN rail installation. The metal casing design enhances heat dissipation, durability, and electromagnetic compatibility, allowing it to operate reliably in harsh environments.

Benefits

- Slim Design to Save Cabinet Space
- Wide Operating Temperature Range for Industrial Environments
- Short Circuit, Overload, Over Voltage, Over Temperature Quadruple Protection
- Mountable on DIN Rail TS-35/7.5 or 15
- Built-in DC OK Relay Contact for Real-time Monitoring (Only for SDR Series)
- DC OK LED for Instant Power Status Visibility (Only for NDR Series)

Product Specification

Description	HDR-30-24	SDR-240-48	NDR-240-48	NDR-480-48
DC Voltage	24V	48V	48V	48V
Rated Current	1.5A	5A	5A	10A
Current Range	0-1.5A	0-5A	0-5A	0-10A
Rated Power	36W	240W	240W	480W
Ripple & Noise (Max.)	150mVp-p	50mVp-p	150mVp-p	150mVp-p
Voltage ADJ. Range	21.6-29V	48-55V	48-55V	48-55V
Voltage Tolerance	±1.0%	±1.0%	±1.0%	±1.0%
Line Regulation	±1.0%	±0.5%	±0.5%	±0.5%
Load Regulation	±1.0%	±1.0%	±1.0%	±1.0%
Setup, Rise Time	500ms, 50ms/230VAC 500ms, 50ms/115VAC at full load	650ms, 60ms/230VAC 1300ms, 60ms/115VAC at full load	1500ms, 100ms/230VAC 3000ms, 100ms/115VAC at full load	1500ms, 100ms/230VAC 3000ms, 100ms/115VAC at full load
Hold Up Time (Typ.)	30ms/230VAC 12ms/115VAC at full load	20ms/230VAC 20ms/115VAC at full load	28ms/230VAC 22ms/115VAC at full load	16ms/230VAC 16ms/115VAC at full load
Voltage Range	85-264VAC (277VAC operational) 120-370VDC (390VDC operational)	88-264VAC 124-370VDC	90-264VAC 127-370VDC	90-264VAC 127-370VDC
Frequency Range	47-63Hz			
Power Factor (Typ.)	-	-	-	0.98/115VA 0.94/230VAC at full load
Efficiency (Typ.)	89%	94%	90%	92.5%
AC Current (Typ.)	0.88A/115VAC 0.48A/230VAC	2.6A/115VAC 1.3A/230VAC	2.5A/115VAC 1.3A/230VAC	4.8A/115VAC 2.4A/230VAC

Inrush Current (Typ.)	25A/115VAC 45A/230VAC	33A/115VAC 55A/230VAC	20A/115VAC 35A/230VAC	20A/115VAC 35A/230VAC
Leakage Current	-	<1mA/240VA	<1mA/240VA	<2mA/240VAC
Overload	105-160% ratedoutputput power Hiccup mode when output voltage <50%, recovers automatically after fault condition is removed Constant current limiting within 50% -100% rated output voltage, recovers automatically after fault condition is removed	Normally works within 110-150% rated output power for more than 3 seconds and then shut down o/p voltage with autorecovery 29-33V>150% rated power, constant current limiting with auto-recovery within 2 seconds and may cause to shut down if over 2 second	105-130% rated output power Protection type: Constant current limiting, recovers automatically after fault condition is removed	105-130% rated output power Protection type: Constant current limiting, unit will shut down after 3 sec., re-power on to recover
Over Voltage	30-36V	56-65V		
Over Temperature	-	95°C±5°C	-	
Working Temp.	-30 to 70°C(-22 to 158°F)	-25 to 70°C(-13 to 158°F)	-20 to 70°C(-4 to 158°F)	-20 to 70°C(-4 to 158°F)
Working Humidity	20-90% RH non-condensing	20-95% RH non-condensing		
Storage Temp., Humidity	-40 to 85°C, 10 to 95% RH			
Temp. Coefficient	+0.03%/°C (0 to 50°C)			
Vibration	Component:10-500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes; Mounting: Compliance to IEC60068-2-6			
DC OK Realy Contact Ratings (Max.)	-	±60Vdc/0.3A, 30Vdc/1A, 30Vac/0.5A resistive load	-	-
Safety Standards	UL62368-1 UL508 TUV BS EN/EN61558-2-16 BS EN/EN61558-1 IEC62368-1 EAC TP TC 004 BSMI CNS15598-1 approved Design refer to TUV BS EN/ EN62368-1	UL508 TUV BS EN/EN62368-1 AS/NZS 62368.1 approved (meet BS EN/EN60204-1) EAC TP TC 004	UL508 TUV BS EN/EN62368-1 AS/NZS 62368.1 EAC TP TC 004 approved (meet BS EN/EN60204-1)	UI508 TUV BS EN/EN62368-1 EAC TP TC 004 BSMI CNS15598-1 IS13252(Part1)/IEC6095 0-1(except for 48V) approved (meet BS EN/EN60204-1)
Withstand Voltage	I/P-O/P:4KVAC	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC O/P-DC OK:0.5KVAC	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC
Isolation Resistance	I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH	I/P-O/P, I/P-FG, O/P-FG:>100M Ohms / 500VDC / 25°C / 70% RH		
MTBF	3670.4K hrs min. Telcordia SR-332 (Bellcore)	1160.3K hrs min. Telcordia SR-332 (Bellcore)	1645.2Khrsmin. Telcordia SR-332 (Bellcore)	964.2K hrs min. Telcordia SR-332 (Bellcore)

	968.1K hrs min. MIL-HDBK-217F (25) °C	169.3K hrs min. MIL-HDBK-217F (25°C)	230.2K hrs min. MIL-HDBK-217F (25°C)	91.9K hrs min. MIL-HDBK-217F (25) °C
Dimensions (HxWxD)	90x 35x 54.5mm (3.54"x 1.38 "x 2.15")	125.2x 63x 113.5mm (4.93" x 2.48" x 4.47")	125.2x 63x 113.5mm (4.93" x 2.48" x 4.47")	125.2x 85.5x 128.5mm (4.93" x 3.37" x 5.06")



Delaware, United States

Address: Delaware: 380 Centerpoint Blvd, New Castle, DE 19720, United States
Email: US@fs.com
Tel: +1 (888) 468-9910

Germany

Address: Röntgenstraße 18, 85757 Karlsfeld, Germany
Email: DE@fs.com
Tel: +49 (0) 8131 377 3008

Australia

Address: 57-59 Edison Rd, Dandenong South, VIC 3175, Australia
Email: AU@fs.com
Tel: +61 3 5909 9990

Japan

Address: JS Progress Building 5F, 4-1-23, Heiwajima, Ota Ku, Tokyo, 143-0006, Japan
Email: JP@fs.com
Tel: +81-3-6897-9438

California, United States

Address: California: 15241 Don Julian Rd, City of Industry, CA 91745, United States
Email: US@fs.com
Tel: +1 (888) 468-9910

United Kingdom

Address: Unit 8, Urban Express Park, Union Way, Aston, Birmingham B6 7FH, United Kingdom
Email: UK@fs.com
Tel: +44 (0) 121 726 4775

Singapore

Address: 7002 ANG MO KIO AVENUE 5 #05-02 Singapore 569914
Email: SG@fs.com
Tel: +65 31381992



FS has several offices around the world. Addresses, phone numbers are listed on the FS Website at https://www.fs.com/contact_us.html. FS and FS logo are trademarks or registered trademarks of FS in the U.S. and other countries.