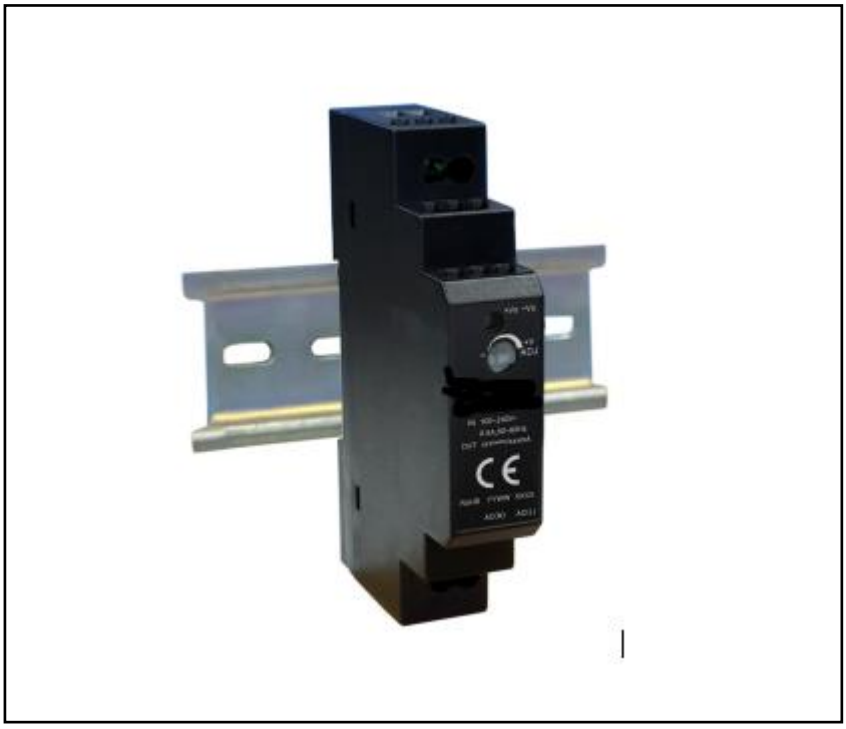
FEATURES

- Universal 85 - 264V AC or 120-370 VDC
- Slimline design: width 17.5mm
- Efficiency up to 87%
- Low standby power consumption
- Output voltage adjustment
- DIN rail TS35X7.5/ TS35X15 mountable
- Operating temperature range - 40℃ to +70℃
- DC ON output indicator LED
- Output short circuit, over-current, over-voltage protection.
- EMI performance meets. CISPR32 / EN55032 CLASS B
- Safety according to IEC/EN/UL62368, IEC60335-1, IEC/EN61558-1, IEC/EN61010-1

RS PRO Embedded Switch Mode Power Supplies

2358689, 2358690, 2358691, 2358692, 2358693



RS Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

Embedded Switch Mode Power Supplies (SMPS)

Product Description

AC-DC DIN rail power supply suitable for a wide range of Industrial, Machinery and Instrumentation applications. Featuring a universal AC input this cost-effective, slimline design is available in a range of standard outputs. Complying with International and European EMC and safety standards IEC/EN/UL62368, IEC/EN61000-4, CISPR32/EN55032, IEC/EN61010, IEC/EN61558 and IEC60335

General Specifications

Model	AC-DC 15W power supply
Mounting Type	DIN Rail mount
MTBF	MIL-HDBK-217F@25°C > 300,000 h
Applications	Industrial control systems, instrumentation and machinery equipment

RS Stock#	Input Voltage	Output Voltage	Output Current	Adj'range (V)	Wattage	Efficiency (Typ)
2358689	85 to 264V ac 120 to 370V dc	5V	2.4A	4.5-5.5V	12W	80%
2358690	85 to 264V ac 120 to 370V dc	12V	1.25A	10.8-13.8V	15W	85%
2358691	85 to 264V ac 120 to 370V dc	15V	1A	13.5-18V	15W	85.5%
2358692	85 to 264V ac 120 to 370V dc	24V	0.63A	21.6-29V	15.2W	86%
2358693	85 to 264V ac 120 to 370V dc	48V	0.32A	43.2-55.2V	15.4W	87%

Input Specifications

Input Specification	
Voltage Range	85 to 264V ac, 120 to 370V dc
Frequency	47 to 63Hz
Input current	0.5A/115V ac, 0.25A/230V ac
Inrush Current	15A/ 115V ac, 25A / 230V ac
Leakage	<0.5mA
Stand-by Power Consumption	0.3W

Output Specifications

Output Specification					
Output voltage	5V	12V	15V	24V	48V
Trim range	4.5-5.5V	10.8-13.8V	13.5-18V	21.6-29V	43.2-55.2V
Rated Current	2.4A	1.25A	1A	0.63A	0.32A
Ripple & Noise (max.) *	80mV	120mV	120mV	150mV	240mV
Rated Power	12W	15W	15W	15.2W	15.4W
Line Regulation typ.	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
Load Regulation typ.	±1%	±1%	±1%	±1%	±1%
Max Capacitive load µF	2,000µF	1,500µF	1,100µF	700µF	300µF
Minimum Load	0%	0%	0%	0%	0%

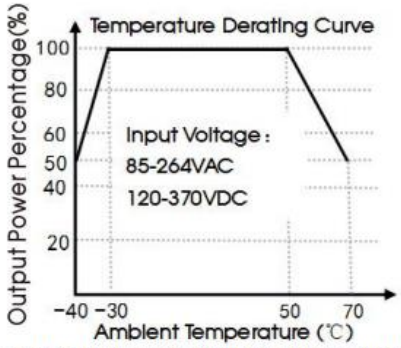
Hold Up Time 115/230Vac	12/30ms	
Over Voltage Protection	5V Output	≤6.75V (Output voltage hiccup0
	12V Output	≤16.2V (Output voltage hiccup)
	15V Output	≤22.5V (Output voltage hiccup)
	24V Output	≤36V (Output voltage hiccup)
	48V Output	≤64.8V (Output voltage hiccup)
Short Circuit Protection	Hiccup, continuous, self-recovery	
Note: *The "Tip and barrel method" is used for ripple and noise test, using a 12” twisted pair-wire terminated with a 0.1uf ceramic capacitor & 47uf parallel capacitor, please refer to Enclosed Switching Power Supply Application Notes for specific information.		

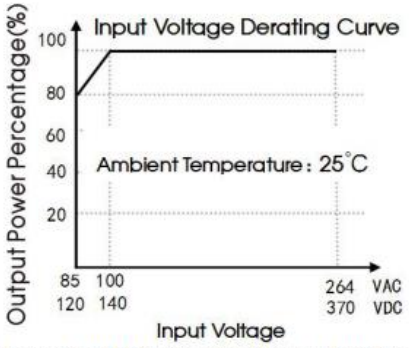
Embedded Switch Mode Power Supplies (SMPS)

General Specifications

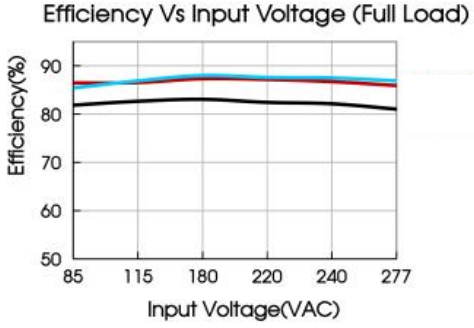
Item		Operating Conditions		Min	Typ	Max.	Unit
Isolation	Input-Output	Electric Strength Test for 1min., (leakage current＜5mA)		4000	-	-	VAC
Operating Temperature				-40	-	+70	℃
Storage Temperature				-40	-	+85	
Storage Humidity		Non-condensing		-	-	95	%RH
Power Derating		Operating temperature derating	-40 to -30℃	5	-	-	%/℃
			+50 to +70℃	2.5			
		85VAC-100VAC		1.34	-	-	%/VAC
Safety Standard				Design refer to UL/IEC62368-1/EN62368-1 IEC/EN61010-1 IEC/EN61558-1 IEC60335-1 EN62368-1 (Report) Safety Approval			
Safety Class				CLASS II			
MTBF		MIL-HDBK-217F@25℃		＞300,000 h			

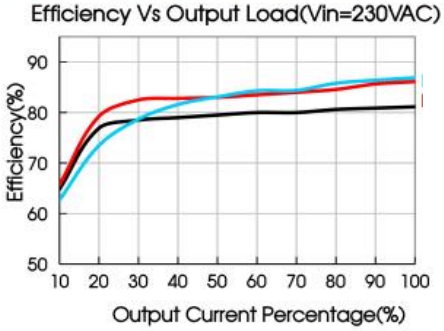
Derating





Note: ① With an AC input between 85-100VAC and a DC input between 120-140VDC, the output power must be derated as per temperature derating curves;
② This product is suitable for applications using natural air cooling; for applications in closed environment please consult factory or one of our FAE.



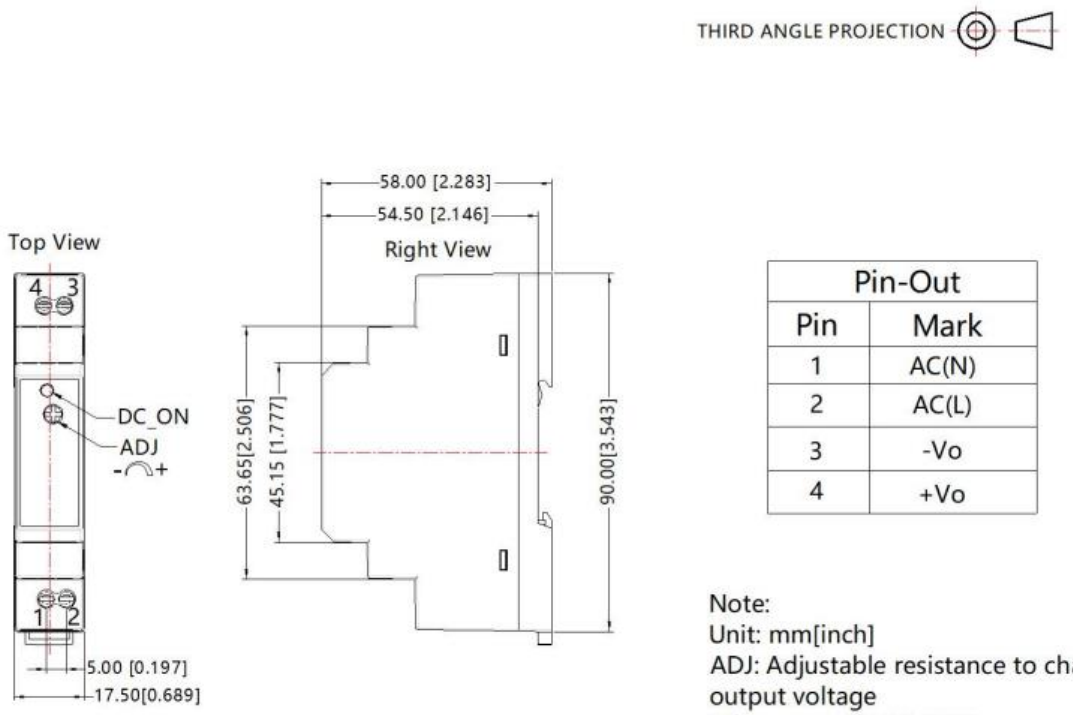


EMC Specifications

Emissions	CE	CISPR32/EN55032 CLASS B	
	RE	CISPR32/EN55032 CLASS B	
	Harmonic Current	IEC/EN61000-3-2 CLASS A	
Immunity	ESD	IEC/EN61000-4-2 Contact ±4KV/ Air ±8KV	Perf. Criteria A
	RS	IEC/EN61000-4-3 10V/m	Perf. Criteria A
	EFT	IEC/EN61000-4-4 ±2KV	Perf. Criteria A
	Surge	IEC/EN61000-4-5 line to line ±1KV	Perf. Criteria A
	CS	IEC/EN61000-4-6 10Vr.m.s	Perf. Criteria A
	Voltage dips, short interruptions and voltage variations immunity	IEC/EN61000-4-11 100% dip 1 periods, 30% dip 25 periods, 100% interruptions 250 periods	Perf. Criteria B

Mechanical Specifications

Case Material	Plastic, heat-resistant (UL94V-0)
Dimensions	90.00 x 58.00 x 17.50mm
Weight	60g (Typ.)
Cooling Method	Free air convection



Pin-Out	
Pin	Mark
1	AC(N)
2	AC(L)
3	-Vo
4	+Vo

Note:
Unit: mm[inch]
ADJ: Adjustable resistance to change output voltage
Wire range: 24-12 AWG
Tightening torque: Max 0.4 N·m
Mounting rail: TS35, rail needs to connect safety ground
General tolerances: ±1.00[±0.039]

Approvals

Safety Standards	Meet IEC/EN/UL62368, IEC/EN61010-1, IEC/EN61558-1, IEC60335-1
	EN62368-1 (Report) Safety Approval
Safety Class	Class II

Note:

1. Unless otherwise specified, parameters in this datasheet were measured under the conditions of Ta=25℃, humidity
2. All index testing methods in this datasheet are based on our company corporate standards
3. Specifications are subject to change without prior notice
4. Products are related to laws and regulations: see "Features" and "EMC"
5. Our products shall be classified according to ISO14001 and related environmental laws and regulations and shall be handled by qualified units.