

15W DC to DC Power Supply DIN Rail Mount

multicomp PRO

**RoHS
Compliant**



Features

- 4:1 Wide Input Range
- Short Circuit Protection
- Internal Input Filter
- Remote ON / OFF
- Low Profile
- 3 Years Warranty



Model List

Model No.	Input Voltage	Input Current		Output Wattage	Output Voltage	Output Current	EFF. (min.)	EFF. (typ.)
		(Type)	(max.)					
Single Output Models								
MP-DRD15-05	9V DC to 36 V DC	0.70 A	1.9 A	13.5 WATTS	2.7 A	78%	79%	80%
MP-DRD15-12		0.76 A	2.1 A	15 WATTS	+12V DC	1.25 A	80%	82%
MP-DRD15-24					+24V DC	0.63 A	81%	83%

Specification

All Specifications Typical At Nominal Line, Full Load, 25°C Unless Otherwise Noticed

General					
Characteristics	Conditions	min.	typ.	max.	Unit
Switching Frequency	Vi nom, Io nom	100		200	kHz
Isolation Voltage	Input - Output	1,500			V DC
Isolation Resistance	Input- Output, @ 500V DC	100			MΩ
Ambient Temperature	Operating at Vi nom	-40		+71	°C
Derating (see derating curve)	Vi nom, from +51°C to +71°C			2.5	% / °C
Storage Temperature	Non operational	-40		+ 85	°C
Relative Humidity	Vi nom, Io nom	20		95	% RH
Temperature Coefficient	Vi nom, Io min			±0.03	% / °C
MTBF	Bellcore Issue 6 @40°C, GB	3.3V		1,066,000	Hours
		5V		996,000	
		9V		1,055,000	
		12V		951,000	
		15V		998,000	
24V		989,000			
Altitude During Operation	IEC 60068-2-13			4,850	m
Dimension		L91 × W18 × D56.5			mm
Cooling	Free air convection				
Installation Position	Vertical (other direction may derating using)				
Pollution Degree		2			

Newark.com/multicomp-pro
Farnell.com/multicomp-pro
Element14.com/multicomp-pro

multicomp PRO

15W DC to DC Power Supply DIN Rail Mount

multicomp PRO

Input Specifications					
Characteristics	Conditions	min.	typ.	max.	Unit
Input voltage range	Ta min ... Ta max, Io nom	9	24	36	V DC
No load input current	Vi nom, Io = 0			30	mA
Input voltage w/o damage	Io nom			40	V DC
Startup voltage	Io nom		8.5		V DC
Input filter	Pi type	47		63	Hz

Output Specifications

Characteristics	Conditions	min.	typ.	max.	Unit
Output voltage accuracy	Vi nom, Io max			+ 1	%
Minimum Load	Vi nom	0			%
Line Regulation	Io nom, Vi min ... Vi max			+ 1	%
Load regulation	Vi nom, Io min ... Io nom	3.3V Other		± 1.5 ± 1	%
Startup time	Vi nom, Io nom			50	ms
Transient recovery time	Vi nom, 1~0.5 Io nom			1	ms
Ripple & noise	Vi nom, Io nom, BW = 20MHz			100	mV
Power back immunity	Vi nom, Io nom	3.3V 5V 9V 12V 15V 24V	5.0 7.5 15 18 22 35		V DC
Capacitor load	Vi nom, Io nom	3.3V, 5V 9V 12V, 15V 24V		3,500 2,200 1,000 470	µF
DC ON indicator threshold at start up (Green LED)	Vi nom, Io nom	3.3V 5V 9V 12V 15V 24V	2.6 3.5 6.8 9 11 19.2	3 4.5 8.1 10.8 13.5 21.6	V DC
DC LOW indicator threshold after start up (Red LED)	Vi nom, Io nom	3.3V 5V 9V 12V 15V 24V	2.6 3.5 6.8 9 11 19.2	3 4.5 8.1 10.8 13.5 21.6	V DC
Efficiency	Vi nom, Io nom, Po / Pi	Up to 83%, See model list and typ efficiency curve			

15W DC to DC Power Supply DIN Rail Mount

multicomp PRO

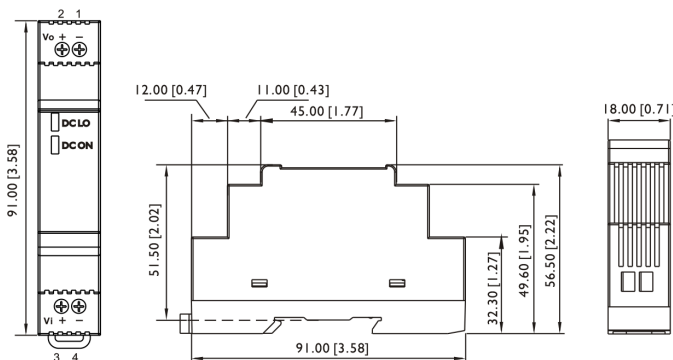
Control and Protection						
Characteristics	Conditions	min.	typ.	max.	unit	
Input fuse		T3A / 63VDC internal				
Internal surge voltage protection	IEC 61000-4-5	Varistor				
Rated over load protection	Vi nom (see typ current limited curve)	110		165	%	
Over voltage protection	Vi nom, 0.8 Io nom	3.3V	3.8		4.3	V DC
	(Auto Recovery)	5V	5.75		6.5	
		9V	10.35		11.7	
		12V	14.4		16.2	
		15V	17.25		19.5	
	24V	28.8		32.4		
Output short circuit		Current limited (Auto-recovery)				
Degree of protection		IP20				

Approvals and Standards	
UL / cUL	UL 508
cTUVUS	UL 60950-1 Recognized
TUV	EN 60950-1
CE	EN 61000-6-3, EN 55032 Class B EN 61000-6-2, EN 55024, EN 61000-4-2, EN 61000-4-3, EN 61000-4-4 EN 61000-4-5, EN 61000-4-6, EN61000-4-8, ENV 50204, EN 61204-3
Vibration resistance	Meet IEC 60068-2-6 (Mounting on rail : 10-500 Hz, 2G, along X, Y, Z each Axis, 60 min for each Axis)
Shock resistance	Meet IEC 60068-2-27 (15G, 11ms, 3 Axis, 6 Faces, 3 times for each Face)

Physical Characteristics

Case size	91mm × 18mm × 56.5mm (3.58 inches × 0.71 inches × 2.22 inches)
Case material	Plastic
Weight	65g

Mechanism & Pin Configuration



Dimensions : Millimetres (Inches)

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
All sides 25m/m free space For cooling recommended
Connector size range
AWG26-12 (0.2mm² to 2.5mm²) flexible / solid cable
-Connector can withstand torque at maximum 5 pound-inches.
4~5m/m stripping at cable end recommends. Use copper conductors only, 60/75°C

Newark.com/multicomp-pro
Farnell.com/multicomp-pro
Element14.com/multicomp-pro

multicomp PRO

15W DC to DC Power Supply DIN Rail Mount

multicomp PRO

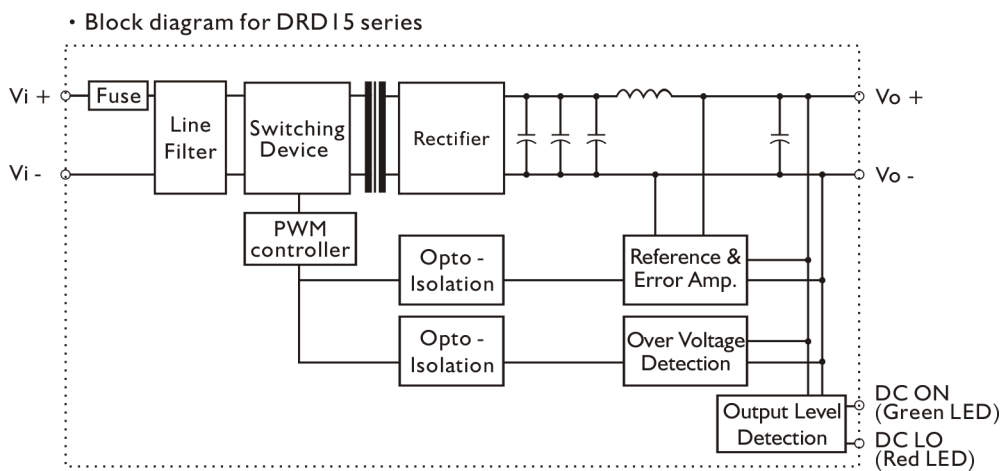
Mechanism & Pin Configuration

General Tolerance	
0[0.00] - 30[1.18]	±0.3[0.01]
30[1.18] - 120[4.72]	±0.5[0.02]

Dimensions : Millimetres (Inches)

Pin Assignment			
PIN NO.	Designation	Description	
1	OUT	-	Negative output terminal
2		+	Positive output terminal
4	IN	+	Positive input terminal
		-	Negative input terminal
	OTHER	DC ON	Operation indicator LED
		DC LO	DC Low indicator LED

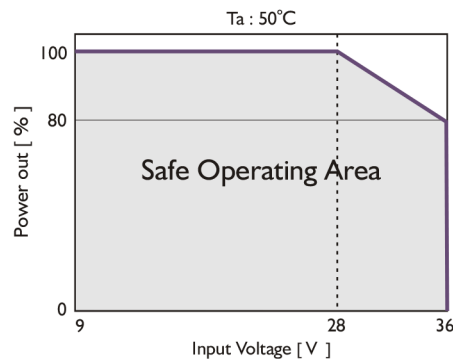
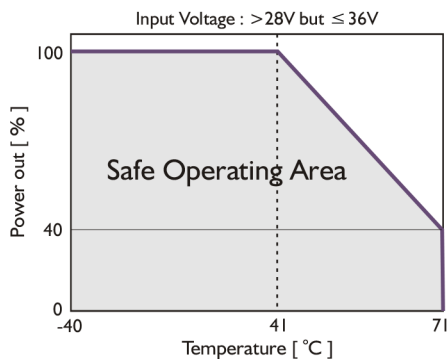
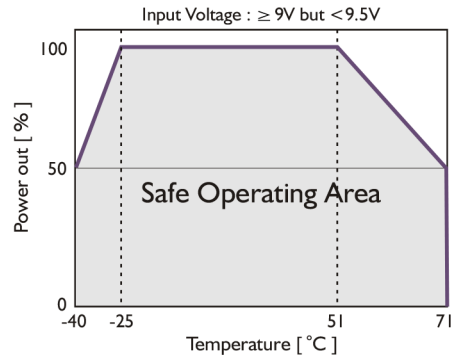
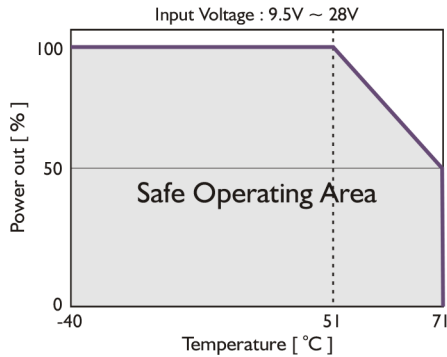
Circuit Schematic



15W DC to DC Power Supply DIN Rail Mount

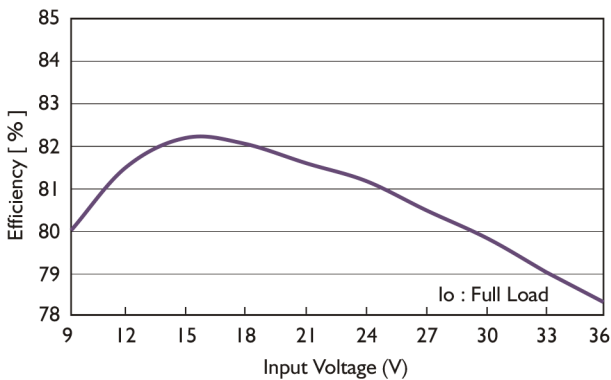
multicomp PRO

Derating Curve

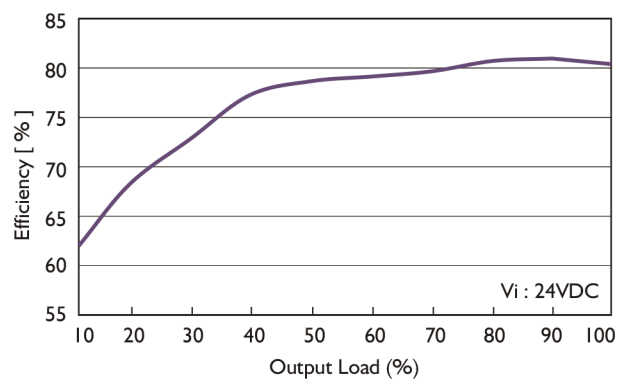


Type Efficiency Curve

Efficiency Vs Input Voltage



Efficiency Vs Output Load



Important Notice : This data sheet and its contents (the "Information") belong to the members of the AVNET group of companies (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. Multicomp Pro is the registered trademark of Premier Farnell Limited 2019.

Newark.com/multicomp-pro
Farnell.com/multicomp-pro
Element14.com/multicomp-pro

multicomp PRO