

859 Series DC to DC Converters

## **Features**

- Ultra-wide input voltage range
- Overload and short circuit protection
- Low ripple and noise
- I/O-isolation 1500 VDC
- Compact, slim plastic case
- Reliable snap-on 35mm DIN rail mount
- Wall-mount bracket included
- 2-year warranty



859-801

WAGO 859 Series DC to DC Converters									
Part Number	Price	Input Voltage Range	Input Current Max. @ Vin, [lout = 0% / 100%]	Output Voltage	Output Current Max	Output Power	Weight grams [oz]	Drawing Link	
<u>859-801</u>	\$69.00	10-30 VDC	80mA / 2.5 A @ 12VDC	5VDC	0.5 A	2.5 W	34.6 [1.22]	<u>PDF</u>	
<u>859-802</u>	\$69.00	15-30 VDC	80mA / 1.3 A @ 24VDC 60mA / 0.7 A @ 48VDC	10VDC	0.5 A	5W	41.1 [1.44]	<u>PDF</u>	
<u>859-805</u>	\$69.00	15-30 VDC		12VDC	0.5 A	6W	35 [1.23]	<u>PDF</u>	

WAGO 859 Series DC to DC Converters Accessory						
Part Number	Price	Description	Drawing Link			
<u>859-525-5</u>	\$5.00	WAGO end cover, package of 5. For use with WAGO DC to DC converters.	PDF			



859-525-5

www.automationdirect.com

1-800-633-0405



## **B** 859 Series DC to DC Converters

General Specifications					
Startup Voltage / Undervoltage Shut-down	17.2 VDC / 15.7 VDC [PSP24-DC12-1: 8.4 VDC / 7.6 VDC]				
Efficiency (Typical)	<u>859-801</u> 70% <u>859-802</u> and <u>859-805</u> 85%				
Output Voltage	<u>859-801</u> - 5VDC <u>859-802</u> - 10VDC <u>859-805</u> - 12VDC				
Overvoltage Protection, Trigger Point	$\frac{859-801}{859-802} \le 6.5 \text{ V}$ $\frac{859-802}{859-805} \le 24 \text{ V}$				
Output Voltage Regulation*	<u>859-801</u> ≤ 0.5% <u>859-802</u> and <u>859-805</u> ≤ 0.7%				
Ripple/Noise (20MHz bandwidth)	<u>859-801</u> ≤ 150mV <u>859-802</u> and <u>859-805</u> ≤ 20mV				
Temperature: Operating Storage (non-operating) Derating	-25 to 70°C max [-13 to 158°F max] -25 to 85°C max, [-13 to 185°F max] 1.5%/K above 50°C [122°F] for 25W models, 2%/K above 40°C [104°F] for 60W models				
Humidity (Non-condensing)	95 % relative humidity max.				
Temperature Coefficient	0.02%/K				
Switching Frequency	20kHz [nominal]				
Isolation Voltage (1 min.) – Input/Output	1500VDC				
Safety Standards					
Electromagnetic Compatibility (EMC)	Emissions: EN 61000-6-3; Immunity: EN 61000-6-2				
Parallel Operation	No parallel operation				
Safety Class	Degree of protection class 111				
Environmental Air	No corrosive gases permitted				
Enclosure Rating	IP20 [per EN 60529]				
Enclosure Material	Plastic FR2010-110C [UL 94V-0 rated]				
Mounting	DIN rails per EN 50022-35x15/7.5 [snap-on with self-locking spring]; bracket for wall/chassis mount included				
Mounting Orientation	Vertical only				
Wiring	28-14 AWG [0.08-2.5 mm²]				
Connections	Cage Clamp®, recommended tightening torque 0.5-0.7 Nm [4.5-6.2 in-lb]				
Short Circuit Protection	Current limited at 110% typical				
MTBF (IEC 61709 @ 25°C)	> 2.5 million hours				
Agency Approvals**	UL 508 File E175199, CE, RoHS				

\* Input variation Vin min to Vin max and load variation 0 to 100% \*\* To obtain the most current agency approval information, see the Agency Approval Compliance & Certifications Checklist section on the specific part number's web page.

Note: All specifications valid at nominal input voltage, full load and +25°C after warm-up time unless otherwise stated.