



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, [Iout = 0% / 100%]	Output Voltage	Output Current Max	Output Power	Weight grams [oz]	Drawing Link
<u>859-801</u>	\$69.00	10-30 VDC	80mA / 0.15A @ 24 VDC	5 VDC	0.5A	2.5W	34.6 [1.22]	<u>PDF</u>
<u>859-802</u>	\$69.00	10-30 VDC	80mA / 0.25A @ 24 VDC	10 VDC	0.5A	5W	41.1 [1.44]	<u>PDF</u>
<u>859-805</u>	\$69.00	10-30 VDC	80mA / 0.29A @ 24 VDC	12 VDC	0.5A	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.	<u>PDF</u>



859-525-5



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)	859-801 70% 859-802 and 859-805 85%
Output Voltage	859-801 - 5VDC 859-802 - 10VDC 859-805 - 12VDC
Overvoltage Protection, Trigger Point	859-801 ≤ 6.5 V 859-802 ≤ 24 V 859-805 ≤ 42 V
Output Voltage Regulation*	859-801 $\leq 0.5\%$ 859-802 and 859-805 $\leq 0.7\%$
Ripple/Noise (20MHz bandwidth)	859-801 ≤ 150 mV 859-802 and 859-805 ≤ 20 mV
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 mm ²]
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.