POWER SUPPLY 1-PHASE, 24 V DC DIMENSION Q SERIES

QS3.241
POWER SUPPLY 24VDC 3A

- Output currents of 3.4 and 5 A
- Up to 90% efficiency
- 50% bonus power up to 4 seconds
- Spring clamp terminals

PRODUCT DESCRIPTION

The most outstanding features of this Dimension Q-Series DIN-rail power supply are the high efficiency and the small size, which are achieved by a synchronous rectification and further novel design details. The Q-Series is part of the Dimension family, existing alongside the lower featured C-Series. With short-term peak power capability of 150% and built-in large sized output capacitors, these features help start motors, charge capacitors and absorb reverse energy and often allow a unit of a lower wattage class to be used
High immunity to transients and power surges as well as low electromagnetic emission makes usage in nearly every environment possible.
Unique quick-connect spring-clamp terminals allow a safe and fast installation and a large international approval package for a variety of applications makes this unit suitable for nearly every situation.

- AC 100-240V Wide-range Input ƒ
- Width only 40mm ƒ
- Efficiency up to 92.7% ƒ
- 150% Peak Load Capability
- ƒEasy Fuse Tripping due to High Overload Current
- ƒActive Power Factor Correction (PFC) ƒ
- DC Input from 88 to 360Vdc ƒ
- Negligible low Inrush Current Surge ƒ
- Short-term Operation down to 60Vac and up to 300Vac
- ƒFull Power Between -25°C and +60°C ƒ
- DC-OK Relay Contact
- ƒQuick-connect Spring-clamp Terminals
- 3 Year Warranty

SPECIFICATIONS

Input voltage range	Wide-range
Number of phases	1
Input voltage AC	100-240 V
Input voltage ac min	85 V AC
Input voltage ac max	276 V AC

Input voltage DC	110-150 V
Input voltage dc min	88 V DC
Input voltage dc max	150 V DC
Inrush current at 120 V ac typical	5 A
Inrush current at 230 V ac typical	10 A
Power Factor at 120 V AC, full load. Typical	0,53
Power Factor at 230 V AC, full load. Typical	0,47
Supply Frequency	50-60 ±6 %
Power Consumption At 120 V AC	1,42 A
Power Consumption At 230 V AC	0,82 A
Type Power Supply	AC-DC
Output voltage	24 V DC
Output voltage min	24 V DC
Output voltage max	28 V DC
Output Current	3,4 A
Effect	80 W
Power Reduction Of 60 To 70 ° C	2 W/°C
Ripple. max	50 mV pp
Temperature Range Without Derating From	-25 °C
Temperature Range Without Derating To	60 °C
Efficiency At 120 V AC, full load. Typical	88,7 %
Efficiency At 230 V AC. Typical	88,3 %
Efficiency At 230 V AC, full load. Typical	90 %
Lifetime at 120 V ac, full load and +40 ° C	62000 h
Lifetime at 230 V ac, full load and +40 ° C	79000 h
MTBF (IEC 61709) 230 V AC, Maximum Load, 40 ° C	1451000 h
Width	32 mm
Height	124 mm
Depth	102 mm
Weight	0,44 kg
Clamp type	Spring-clamp

Series	Dimension Q
Approvals	ABS, CB, CE, CSA, GL, UL
Material Protection	Aluminium
Hold-up time at 120 V AC, full load. Typical.	41 ms
Hold-up time at 230 V AC, full load. Typical.	174 ms
IP Class	IP20

Fig. 6-1 Output voltage vs. output current, typ.

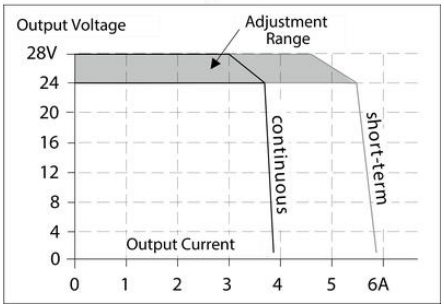

Fig. 14-1 Output current vs. ambient temp.

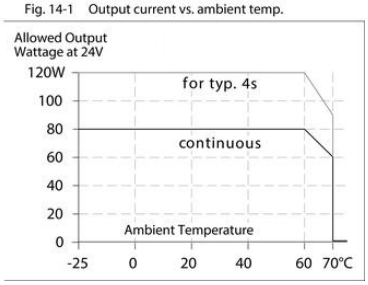

Fig. 8-2 Losses vs. output current at 24V, typ.

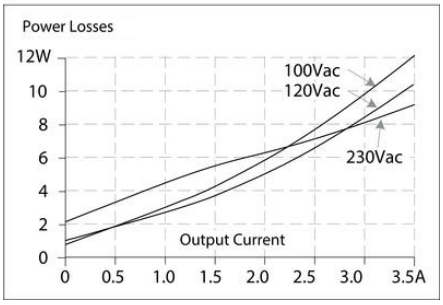

Fig. 8-1 Efficiency vs. output current at 24V, typ

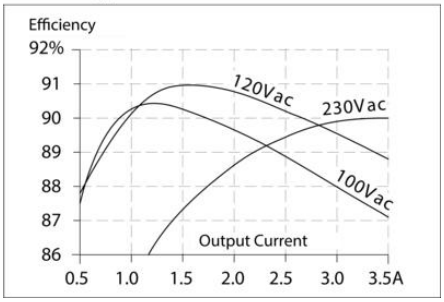

Fig. 6-2 Bonus time vs. output power

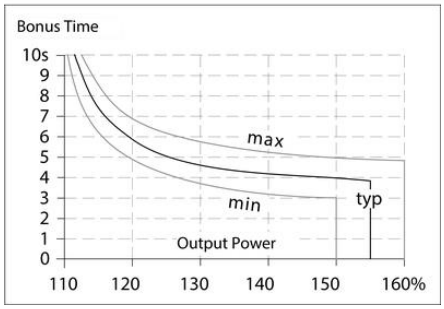

Fig. 21-1 Front view

Fig. 21-2 Side view