POWER SUPPLY 1-PHASE, 48 V DC DIMENSION Q SERIES

QS20.481
POWER SUPPLY 48VDC 480W 10A

- Output current of 5 A or 10 A
- From 60 mm wide
- Up to 94.3% efficiency
- 50% bonus power
- Maximum performance

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.
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.
The integrated output power manager, a wide range input voltage design and virtually no input inrush current make installation and usage simple.
Diagnostics are easy due to the dry DC-ok contact, a green DC-ok LED and red overload LED.
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.

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	187 V DC
Inrush current at 120 V ac typical	9 A
Inrush current at 230 V ac typical	7 A

Power Factor at 120 V AC, full load. Typical	0.95
Power Factor at 230 V AC, full load. Typical	0.9
Supply Frequency	50-60 ±6 %
Power Consumption At 120 V AC	4.56 A
Power Consumption At 230 V AC	2.48 A
Type Power Supply	AC-DC
Output voltage	48 V DC
Output voltage min	48 V DC
Output voltage max	56 V DC
Output Current	10 A
Effect	480 W
Power Reduction Of 60 To 70 ° C	12 W/°C
Ripple. max	100 mV pp
Temperature Range Without Derating From	-25 °C
Temperature Range Without Derating To	60 °C
Efficiency At 120 V AC, full load. Typical	92.8 %
Efficiency At 230 V AC. Typical	93.4 %
Efficiency At 230 V AC, full load. Typical	94.3 %
Lifetime at 120 V ac, full load and +40 ° C	63000 h
Lifetime at 230 V ac, full load and +40 ° C	92000 h
MTBF (IEC 61709) 230 V AC, Maximum Load, 40 ° C	469000 h
Width	82 mm
Height	124 mm
Depth	127 mm
Weight	1.2 kg
Clamp type	Spring-clamp
Series	Dimension Q
Approvals	ABS, CB, CE, CSA, GL, UL
DC relay output	Yes
Material Protection	Aluminium
Hold-up time at 120 V AC, full load. Typical.	32 ms

Hold-up time at 230 V AC, full load. Typical.	51 ms
IP Class	IP20

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

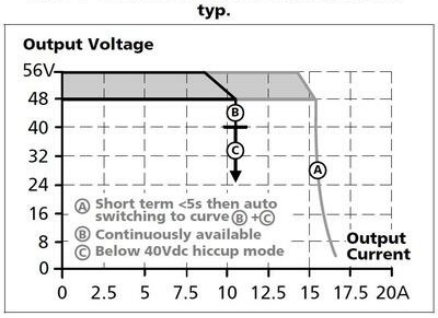


Fig. 15-1 **Output current vs. ambient temp.**

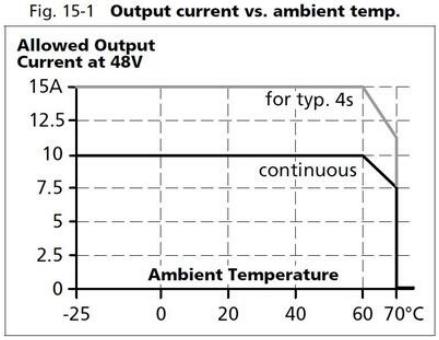


Fig. 9-1 **Efficiency vs. output current at 48V, typ**

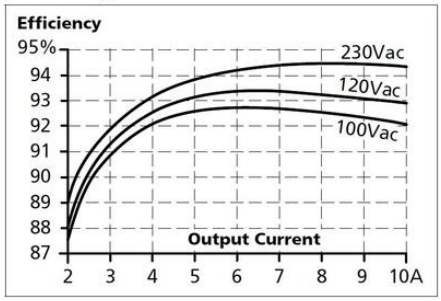


Fig. 9-2 **Losses vs. output current at 48V, typ.**

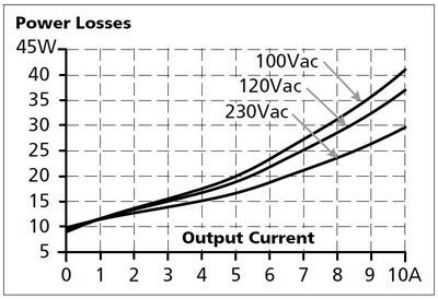


Fig. 6-2 **Bonus time vs. output power**

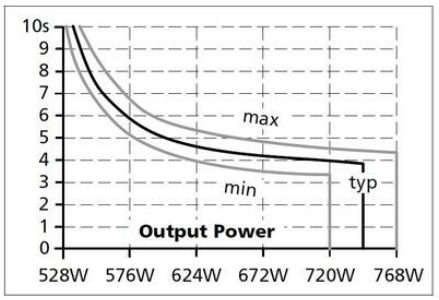
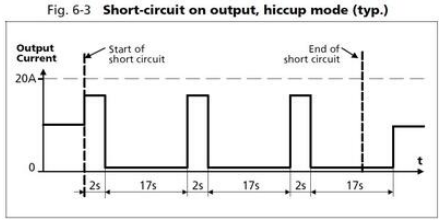


Fig. 6-3 **Short-circuit on output, hiccup mode (typ.)**

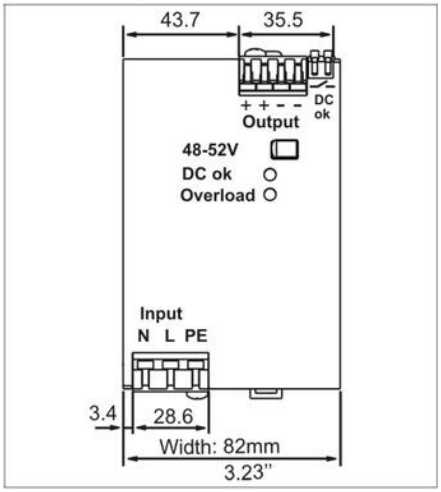


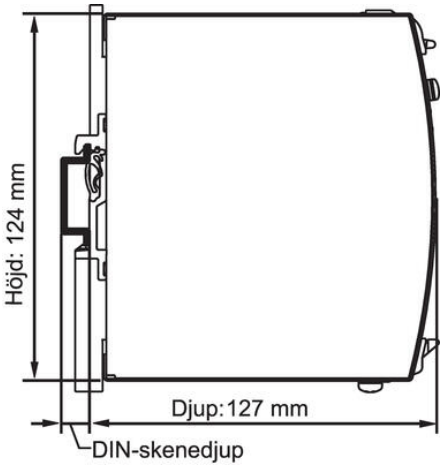
Maximal wire length*) for a fast (magnetic) tripping:

	0.75mm²	1.0mm²	1.5mm²	2.5mm²
C-2A	67m	86m	129m	185m
C-3A	48m	63m	92m	157m
C-4A	32m	44m	63m	93m
C-6A	12m	18m	23m	38m
C-8A	5m	6m	9m	14m
C-10A	4m	5m	7m	11m
C-13A	2m	2m	3m	5m
B-6A	30m	39m	52m	87m
B-10A	11m	16m	22m	29m
B-13A	9m	12m	17m	24m
B-16A	-	2m	2m	4m

Fig. 13-1 **Front side**

Fig. 20-1 **Front view**




Höjd: 124 mm
Djup:127 mm
DIN-skenedjup