

SQK SERIES

5~6W DC/DC CONVERTERS Single Output & Dual Outputs



H8.5×W30×L47 (mm)

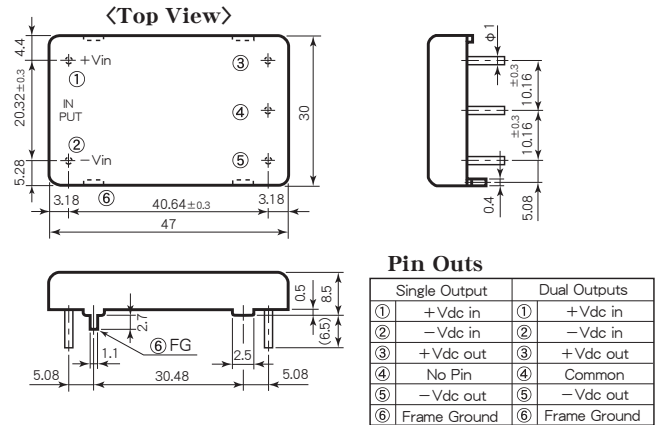
Features

- | | |
|---|----------------------------|
| ● Low Profile 8.5mm | ● 薄型 8.5mm |
| ● Built-in Input Filter | ● 入力フィルタ内蔵 |
| ● Input-Output Isolation | ● 入出力間絶縁 |
| ● High Efficiency 80~85% | ● 高効率 80~85% |
| ● Wide Input Voltage Range | ● 広範囲な入力電圧 |
| ● High Reliability | ● 高信頼性 |
| ● Low No Load Current | ● 無負荷電流が少ない |
| ● 5 Sided Metal Shielding | ● 5面メタルシールド |
| ● Operating Ambient Temp. -40°C~+85°C | ● 動作周囲温度 -40°C~+85°C |
| ● Max. Case Temperature +100°C | ● 最大ケース温度 +100°C |
| ● Conformity to RoHS2 Directive | ● RoHS2指令対応 |
| ● Not built-in aluminum and tantalum electrolytic capacitor | ● アルミ電解コンデンサ及びタンタルコンデンサ不使用 |

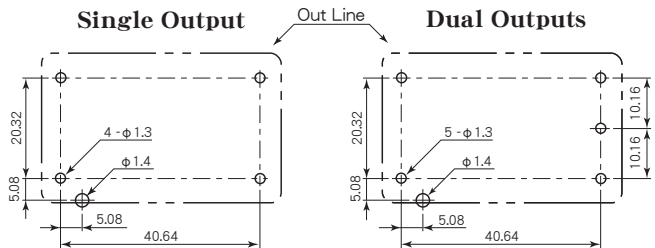
General Characteristics

- | | |
|------------------------------------|---|
| ● Input Voltage, Range | (at Ta : 25°C, Full Load, Nominal Vin)
DC5, 12, 24, 48V (See Table 1) |
| ● Output Voltage, Current | See Table 1 |
| ● Output Voltage Accuracy | ±3% |
| ● Efficiency | See Table 1 |
| ● Line Regulation | 0.3% max. (at Vin Range) |
| ● Load Regulation | Single : ±0.5% max.
(0~100% Load)
Dual : ±3% max.
±5% max. (±5V Vout only)
(10~100% Load) |
| ● Reflected Input Ripple and Noise | (2% Vin)Vp-p max. |
| ● Output Ripple | 20mVp-p max. |
| ● Output Noise | 100mVp-p max. |
| ● Short Circuit Protection | Built-in, Auto-restart (See Fig. 2) |
| ● Temperature Coefficient | 0.02%/°C max. |
| ● Operating Ambient Temp. | -40°C~+85°C (See Fig. 1)
-30°C~+85°C (5V Vin only) |
| ● Storage Temperature | -40°C~+100°C |
| ● Isolation Voltage | AC500V one minute
(Input-Output-Case) |
| ● Isolation Impedance | 100MΩ min. (at DC1000V)
(Input-Output-Case) |
| ● Weight | 30g max. |
| ● Humidity | 20~95% RH |
| ● Shock | 490m/s ² (11msec 3directions) |
| ● Vibration | 10~55Hz 98m/s ²
(30minutes 3directions) |
| ● Surface Structure | 5 Sided Steel Case |
| ● Soldering Conditions | Soldering DIP: 260°C, for 15 seconds max.
Soldering iron: 360°C, for 5 seconds max. |
| ● MTBF | Single : 720,000H
Dual : 600,000H
(Ta : 25°C, 80% Load, Nominal Vin) |
| ● Warranty | 5 years |

Pin Outs & Dimensions (±0.5mm)



Hole Configurations on PCB (Top View)



Selection Guide

Table 1

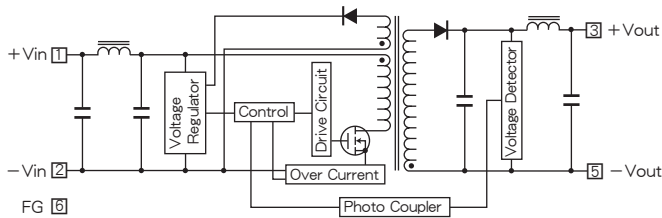
Model Number	Input Volt. (Range) (V. DC)	Output Voltage (V. DC)	Output Current (mA)	Efficiency (Typical) (%)	
SQK 5 - 5S1000	5 (4.5~9)	5	1000	84	
SQK 5 - 6S 900		6	900	84	
SQK 5 - 12S 500		12	500	84	
SQK 5 - 15S 400		15	400	85	
SQK 5 - 24S 250		24	250	85	
SQK 5 - 5D 500		±5	±500	81	
SQK 5 - 12D 250		±12	±250	85	
SQK 5 - 15D 200		±15	±200	85	
SQK 12 - 5S1000		12 (8~18)	5	1000	80
SQK 12 - 6S 900			6	900	80
SQK 12 - 12S 500	12		500	83	
SQK 12 - 15S 400	15		400	83	
SQK 12 - 24S 250	24		250	83	
SQK 12 - 5D 500	±5		±500	81	
SQK 12 - 12D 250	±12	±250	83		
SQK 12 - 15D 200	±15	±200	83		
SQK 24 - 5S1000	24 (16~36)	5	1000	80	
SQK 24 - 6S 900		6	900	80	
SQK 24 - 12S 500		12	500	84	
SQK 24 - 15S 400		15	400	84	
SQK 24 - 24S 250		24	250	83	
SQK 24 - 5D 500		±5	±500	80	
SQK 24 - 12D 250		±12	±250	83	
SQK 24 - 15D 200		±15	±200	83	
SQK 48 - 5S1000	48 (32~72)	5	1000	80	
SQK 48 - 6S 900		6	900	80	
SQK 48 - 12S 500		12	500	84	
SQK 48 - 15S 400		15	400	84	
SQK 48 - 24S 250		24	250	84	
SQK 48 - 5D 500		±5	±500	81	
SQK 48 - 12D 250		±12	±250	83	
SQK 48 - 15D 200		±15	±200	83	

※ 上記仕様以外にも対応可能ですので お問い合わせ下さい。
Please consult with us about other specification.

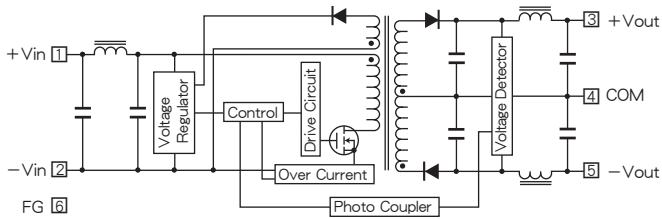
SQK SERIES DATA SHEET

Block Diagram

Single Output



Dual Outputs



Characteristic Curves

Fig. 1 Derating Curve

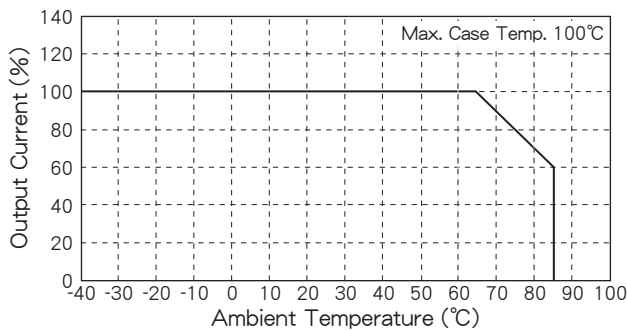


Fig. 2 Short Circuit Operating Area

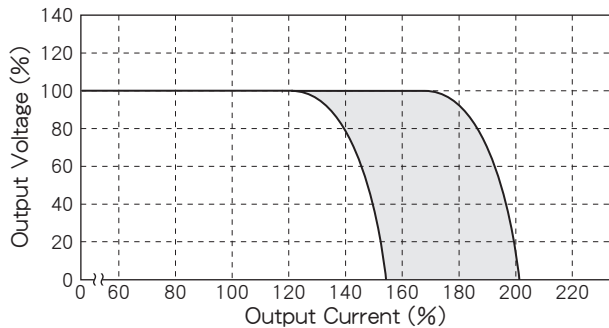


Fig. 3 Temperature Characteristic on Case Surface

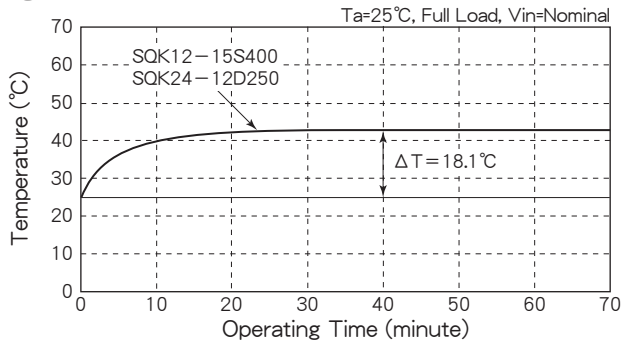


Fig. 4 No Load Current vs. Input Voltage

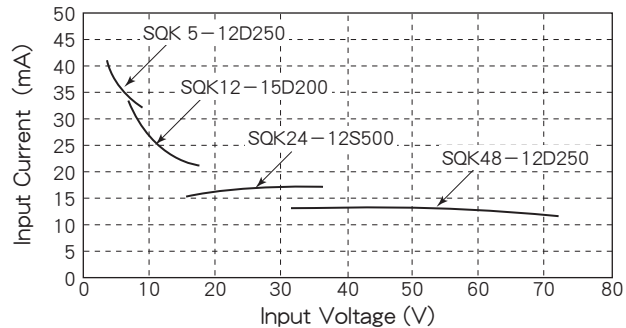


Fig. 5 Efficiency vs. Output Current (Single Output)

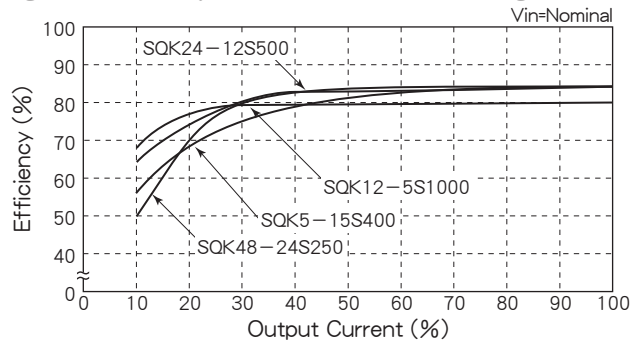


Fig. 6 Efficiency vs. Output Current (Dual Outputs)

