FEATURES：

- Wide 2:1 input voltage range
- High efficiency up to 85%
- I/O isolation test voltage 3000VDC
- Short circuit protection
- Output over-voltage protection
- Operating ambient temperaturerange:-40℃to +85℃
- Industry standard pin-out
- IGBT dedicated regulated DC-DCconverter

Selection Guide

Part No.	INPUT			OUTPUT		Full Load Efficiency （%/Typ）	CapacitiveLoad(μF)
	Norminal （Vdc）	Range （Vdc）	Current(mA, Typ.) Full Load/No Load	Voltage (VDC) +Vo1/+Vo2	Current (mA) +Io1/+Io2		
QAW01	12	9-18	471/16	+15/-9	±200/±10	85	1000
QAW02	24	18-36	235/8	+15/-9	±200/±10	85	1000

customized accepted ,pls contact sales for details

Input Specifications

Item	Operating Conditions	Min.	Typ.	Max.
Surge Voltage	12VDC input	-0.7VDC	-	25VDC
	24VDC input	-0.7VDC	-	50VDC
Start-up Voltage	12VDC input	-	-	9VDC
	24VDC input	-	-	18VDC
Input Filter		PI Filter		

Output Specifications

Item	Operating Conditions	Min.	Typ.	Max.
Output Power		0.24W	-	4.8W
Voltage Accuracy	Main output(+15V output)	-	±1%	±2%
	Supplement output(-9V output)	-	±3%	±5%
Linear Regulation	Input voltage variation from low to high at full load	-	±0.2%	±0.5%
Load Regulation	5% to 100% load	-	±0.5%	±1%
Transient Recovery Time	25% load step change	-	300μs	500μs
Transient Response Deviation		-	±3%	±5%
Temperature Coefficient	Full load	-	-	±0.03 %/℃
Ripple & Noise	20MHz bandwidth	-	100mVp-p	200mVp-p
Short-circuit Protection	Input voltage range	Continuous, self-recovery		
Over-voltage Protection	Input voltage range	110%Vo	120%Vo	140%Vo

Gerneral Specifications

Item	Operating Conditions	Min.	Typ.	Max.
Isolation Voltage	Input-output Electric strength test for 1 minute with a leakage current of 1mA max	3000Vdc	-	-

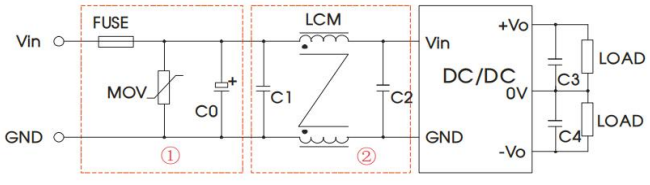
Insulation Resistance	Input- output resistance at 500VDC	1000MΩ	-	-
Isolation capacitor	Input- output capacitor at 100kHz/0.1V	-	100pF	-
Operating Temperature		-40℃	-	105℃
Storage Temperature		-55℃	-	125℃
Pin Soldering Resistance Temperature	Soldering spot is 1.5mm away from case for 10 seconds	-	-	300℃
Case Temperature Rise	Ta=25℃, nominal input voltage, full load	-	30℃	40℃
Storage Humidity	Non-condensing	5%RH	-	95%RH
Switching Frequency	Full load, nominal input voltage	-	300Khz	-
MTBF	MIL-HDBK-217F@25℃	1000 k hours	-	-
Cooling Method	Free air convection			
Case Material	Black plastic; flame-retardant and heat-resistant			
Weight	4.3 g (Typ.)			

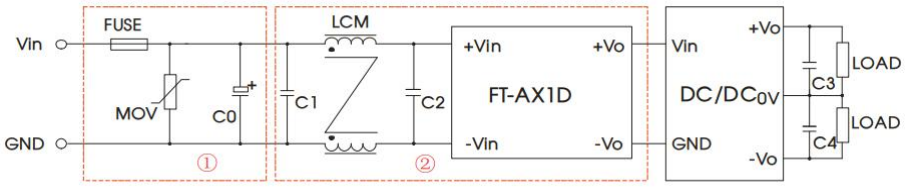
Recommended Circuit

Vin	12V/24V
Cin	100μF
Cout	100μF

EMC Circuit

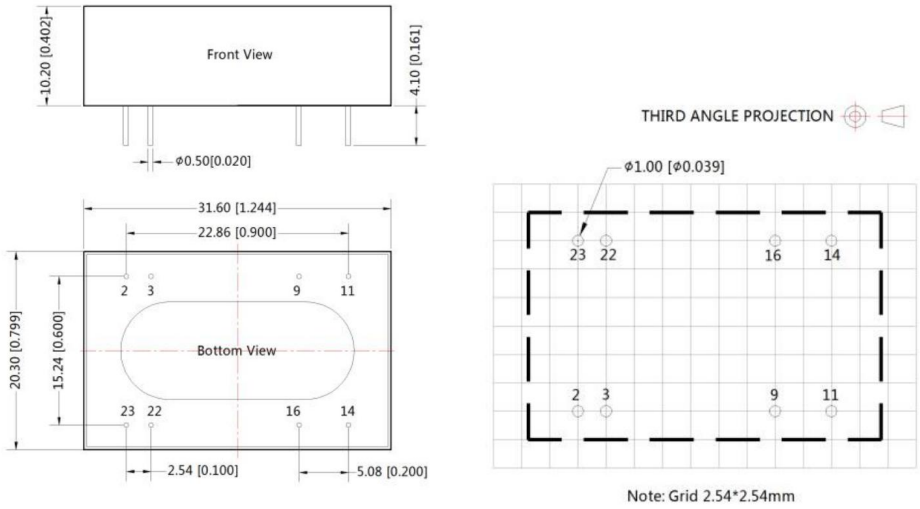
EMC solution-recommended circuit(QAW01)





Model	QAW01	QAW02
FUSE	Choose according to practical input current	
MOV	14D390K	14D560K
C0	680μF/25V	330μF/50V
C1, C2	4.7μF/50V	
C3, C4	Refer to the Cout in Fig.2	
LCM	1mH	3.3mH
Module	--	FT-AX1D

Dimensions and Recommended Layout



Note: Grid 2.54*2.54mm

Note:
Unit: mm[inch]
Pin diameter tolerances: ±0.10[±0.004]
General tolerances: ±0.50[±0.020]

Pins

Pin	Mark		
2,3	GND		
9	0V		
11	-Vo		
14	+Vo		
16	0V		
22,23	Vin		

Noted

1. Input current: Ensure that the output current of the power supply meets the instantaneous starting current of the power module (that is, twice the average input current of the power module).
2. Output load requirements: Avoid no-load use. When the actual power consumption of the load is less than 10% of the rated output power of the module or no load occurs, connect an external resistance to the output end (the sum of the external resistance and the load power is greater than or equal to 10% of the rated load) or select a module with a smaller rated power.
3. The external capacitance of the output end should not be too large; otherwise, the module may be overcurrent or poorly started. For details, see the external capacitance recommendation table.
4. External LC filter circuit can be connected for occasions with high ripple noise requirements.