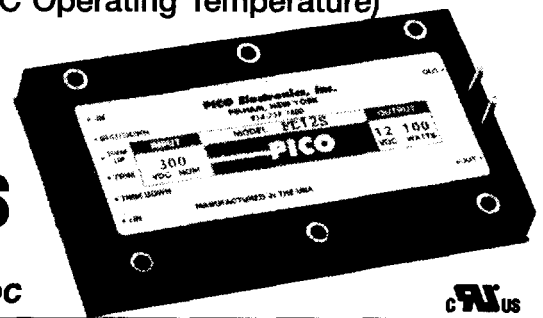


MILITARY SERIES FC (-40°C to +85°C Operating Temperature)

SERIES MC (-55°C to +85°C Operating Temperature)

3.3 to 300 VDC Outputs available
 Isolated Regulated 100 Watts
 DC-DC Converters
 Wide Input Range/100-180 VDC
 Short Circuit Protected
 † Parallel Operation



The new PICO Series FC and MC of high power DC-DC Converters allow a wide input voltage of 100-180 VDC, while maintaining a regulated output. They are fully safeguarded for over voltage, over temperature and continuous short circuit protection.

The availability of Dual Isolated outputs, small size, and the capability of parallel operation as standard features should reduce your design and component costs, while the fixed frequency operation helps parallel connections for higher power requirements.

This high-density unit is assembled in the USA with PICO quality and component selection, allowing it to meet the most stringent commercial requirements.

SERIES FC/MC SINGLE - 100 WATTS - INPUT 100-180 VDC

INPUT VOLT-AGE RANGE (V DC)	OUTPUT VOLTAGE (V DC)	MAX. OUTPUT POWER (W)	EFF. @ FULL LOAD TYPICAL (%)	MAX LOAD REGULATION (%) **		MAX LINE REGULATION AT FULL LOAD (%)		OUTPUT VOLTAGE RIPPLE FULL LOAD 1-1 MHz BW (MVP-P)	OUTPUT VOLTAGE TOLERANCE (±%) *	Series FC single (-40°C to +85°C)		Series MC single (-55°C to +85°C)	
				10-50%	50-100%	100-150V	150-180V			PICO PART NUMBER	PRICE	PICO PART NUMBER	PRICE
				100-180	3.3	50	76			1.00	1.00	0.75	0.75
100-180	5	75	78	1.00	1.00	0.75	0.75	50	1.5	FC5S	208.00	MC5S	312.00
100-180	5.2	75	78	1.00	1.00	0.75	0.75	50	1.5	FC5.2S	208.00	MC5.2S	312.00
100-180	9	100	84	0.75	0.75	0.50	0.50	50	1.0	FC9S	208.00	MC9S	312.00
100-180	12	100	86	0.75	0.75	0.50	0.50	50	1.0	FC12S	208.00	MC12S	312.00
100-180	15	100	87	0.75	0.75	0.50	0.50	50	1.0	FC15S	208.00	MC15S	312.00
100-180	24	100	88	0.50	0.50	0.30	0.30	50	0.5	FC24S	208.00	MC24S	312.00
100-180	28	100	88	0.50	0.50	0.20	0.20	50	0.5	FC28S	208.00	MC28S	312.00
100-180	48	100	88	0.50	0.50	0.20	0.20	50	0.5	FC48S	208.00	MC48S	312.00
100-180	100	100	87	0.50	0.50	0.30	0.30	50	0.5	FC100S	312.00	MC100S	468.00

10% Minimum load required at all times
 *Using proper thermal management maximum temp of +85°C (case) **Reading taken at nominal 150 VDC input

SERIES FC/MC DUAL - 100 WATTS - INPUT 100-180 VDC

INPUT VOLT-AGE RANGE (V DC)	OUTPUT VOLTAGE (V DC)	MAX. OUTPUT POWER (W)	EFF. @ FULL LOAD TYPICAL (%)	MAX LOAD REGULATION (%) **		MAX LINE REGULATION AT FULL LOAD (%)		OUTPUT VOLTAGE RIPPLE FULL LOAD 1-1 MHz BW (MVP-P)	OUTPUT VOLTAGE TOLERANCE (±%) *	Series FC single (-40°C to +85°C)		Series MC single (-55°C to +85°C)	
				10-50%	50-100%	100-150V	150-180V			PICO PART NUMBER	PRICE	PICO PART NUMBER	PRICE
				100-180	5	37.5/37.5	78			1.00	1.00	0.75	0.75
100-180	9	50/50	84	0.75	0.75	0.50	0.50	50	1.0	FC9D	298.00	MC9D	447.00
100-180	12	50/50	88	0.75	0.75	0.50	0.50	50	1.0	FC12D	298.00	MC12D	447.00
100-180	15	50/50	87	0.75	0.75	0.50	0.50	50	1.0	FC15D	298.00	MC15D	447.00
100-180	24	50/50	88	0.50	0.50	0.30	0.30	50	0.5	FC24D	298.00	MC24D	447.00
100-180	28	50/50	88	0.50	0.50	0.20	0.20	50	0.5	FC28D	298.00	MC28D	447.00
100-180	48	50/50	88	0.50	0.50	0.20	0.20	50	0.5	FC48D	298.00	MC48D	447.00

10% Minimum load required at all times
 *Using proper thermal management maximum temp of +85°C (case) **Reading taken at nominal 150 VDC input

FEATURES:

- Dual isolated outputs
- Short circuit protection
- Input voltage protection
- Thermal, over temp. shutdown
- Line regulation
- Load regulation
- No external components required
- Hi density, hi efficiency design
- Remote shutdown
- Trim capabilities
- Fixed frequency-100 KHz

TYPICAL CHARACTERISTICS:

Frequency: 100 KHz
 Base plate: Max. +85°C
 Operating Temp.: See thermal chart,
 -40°C to +85°C base plate
 -55°C to +85°C base plate
 Test conditions: 25°C ambient
 Isolation Base Input: 2121 VDC
 Isolation Input output: 4242 VDC
 Isolation Output to Base: 1000 VDC
 Storage Temp.: -55°C to +105°C

For All Variations Call Factory

SERIES FC

(-40°C to +85°C Operating Temperature)

SERIES MC

(-55°C to +85°C Operating Temperature)

SURGE	Meets MIL STD 704
VIBRATION	Meets MIL STD 202 Method 204 Cond. D
HUMIDITY	Meets MIL STD 202 Method 106
SHOCK	Meets MIL STD 202 Method 213 Cond. 1
ALTITUDE	Meets MIL STD 202 Method 105 Cond. D
Selected MIL STD 883 Options also Available	
STABILIZATION BAKE	MIL STD 883 Method 1008 24 Hrs TA=125°C
BURN IN	MIL STD 883 Method 1015 160 Hrs at 90°C
TEMPERATURE CYCLE	MIL STD 883 -55°C to +105°C Method 1010 Cond. B

†HIGH VOLTAGE SERIES FC/MC TO 300 VDC - 100 WATTS - INPUT 100-180 VDC

INPUT VOLT-AGE RANGE (V DC)	OUTPUT VOLTAGE (V DC)	MAX. OUTPUT POWER (W)	EFF. @ FULL LOAD TYPICAL (%)**	MAX LOAD REGULATION (%) **		MAX LINE REGULATION AT FULL LOAD (%)		OUTPUT VOLTAGE RIPPLE FULL LOAD 1-1 MHz BW (MVP-P)	OUTPUT VOLTAGE TOLERANCE (±%)**	PICO PART NUMBER	PRICE	PICO PART NUMBER	PRICE
				10-50%	50-100%	100-150V	150-180V						
				100-180	125	100	85						
100-180	150	100	85	0.5	0.5	0.3	0.3	1	0.5	FC150S	312.00	MC150S	468.00
100-180	175	100	85	0.5	0.5	0.3	0.3	1	0.5	FC175S	312.00	MC175S	468.00
100-180	200	100	85	0.5	0.5	0.3	0.3	1	0.5	FC200S	416.00	MC200S	624.00
100-180	225	100	85	0.5	0.5	0.3	0.3	1	0.5	FC225S	416.00	MC225S	624.00
100-180	250	100	85	0.5	0.5	0.3	0.3	1	0.5	FC250S	416.00	MC250S	624.00
100-180	275	100	85	0.5	0.5	0.3	0.3	1	0.5	FC275S	416.00	MC275S	624.00
100-180	300	100	85	0.5	0.5	0.3	0.3	1	0.5	FC300S	520.00	MC300S	780.00

10% Minimum load required at all times
 *Using proper thermal management maximum temp of +85°C (case) **Reading taken at nominal 150 VDC input

†Parallel Operation
 Consult factory to optimize for your application

Application Notes
 page 138
 Mechanical Configuration
 page 142

Dual Isolated Outputs
 Special Voltage Combinations Available

Delivery - stock to one week

Full thermal analysis can be determined using application notes on page 138. By using the efficiency and thermal resistance of your desired unit to the formula you can complete your evaluation. The curves below were generated for Part #FC48S/MC48S using Application Notes. Please consult factory with any questions.

