

DC/DC Converter

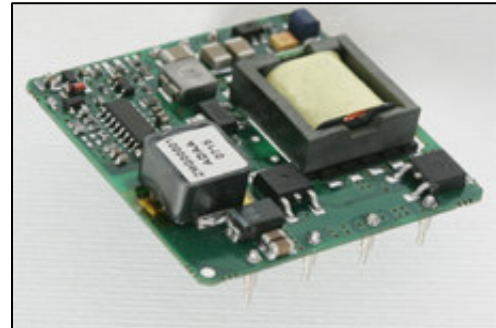
Power Solution

DC/DC CONVERTER

FFT series

Features:

- 12, 18, 24, 48V
Wide Input voltage range (19.2 – 75 Vdc)
- Single and Double Output (3.3 - 5.0 Vdc)
- Size 2.0" x 2.0" x 0.5" (LxWxH)
- Hiccup Mode Current Protection
- Adjustable Output Voltage
- Synchronization to External Secondary Clock
- Under Voltage Lockout (UVLO)
- Extended Operating Temp. Range –40/85°C
- Open Frame



APPLICATION:

The FFT series is a family of DC/DC Converter Modules, designed to offer optimum power solution for a wide variety of applications:

Telecommunications, Industrial electronics, Computers.

BENEFITS:

The FFT series is characterized by high efficiency and excellent regulation of the output voltage, according to the load and the input line. The series has many models and 5 ranges of input voltages. The package is 2" x 2" x 0.5" with free air convection. Output trimming, within +/-10% of the nominal output voltage, and external clock synchronization are available. The short-circuit protection allows the module shutdown and have a continuous protection with hiccup mode to automatic recovery; Under Voltage Lockout and Over Voltage Protection turn off the module when the input voltage is below 17Vdc or over 78Vdc.

Power range covered: from 14 Watts to 25 Watts.

DC/DC CONVERTER

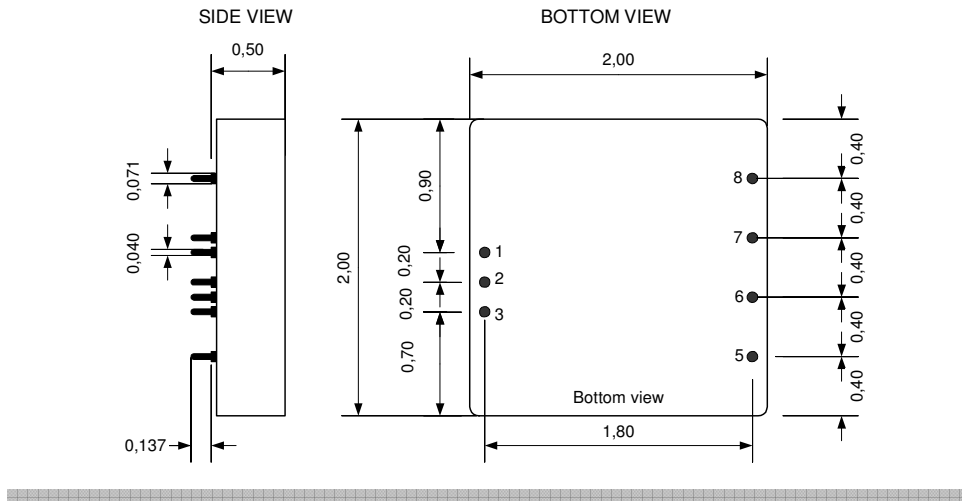
FFT series

FFT series – Single output – Open frame case					
Models	Input Voltage Range	Output Voltage	Output Current max	Efficiency typ	Output Power Pout
FFT14-12S1V8	9 ÷ 18 Vdc (12Vin nom)	1,8 Vdc	5000 mA	84%	14,40 W
FFT16-12S2V5		2,5 Vdc	5000 mA	88%	16,25 W
FFT16-12S3V3		3,3 Vdc	5000 mA	89%	16,50 W
FFT25-12S5V0		5,0 Vdc	5000 mA	89%	25,00 W
FFT25-12S12V		12 Vdc	2080 mA	88%	24,96 W
FFT25-12D12V		3,3 - 5,0 Vdc	5050\1670 mA	88%	25,00 W
FFT25-12D12V		5,0 - 3,3 Vdc	3330\2520 mA	88%	25,00 W
FFT14-18S1V8	9 ÷ 36 Vdc (18Vin nom)	1,8 Vdc	8000 mA	84%	14,40 W
FFT16-18S2V5		2,5 Vdc	6500 mA	88%	16,25 W
FFT16-18S3V3		3,3 Vdc	5000 mA	89%	16,50 W
FFT25-18S5V0		5,0 Vdc	5000 mA	89%	25,00 W
FFT25-18S12V		12 Vdc	2080 mA	88%	24,96 W
FFT25-18D3350		3,3 - 5,0 Vdc	5050\1670 mA	88%	25,00 W
FFT25-18D5033		5,0 - 3,3 Vdc	3330\2520 mA	88%	25,00 W
FFT14-24S1V8	18 ÷ 36 Vdc (24Vin nom)	1,8 Vdc	8000 mA	84%	14,40 W
FFT16-24S2V5		2,5 Vdc	6500 mA	88%	16,25 W
FFT16-24S3V3		3,3 Vdc	5000 mA	89%	16,50 W
FFT25-24S5V0		5,0 Vdc	5000 mA	89%	25,00 W
FFT25-24S12V		12 Vdc	2080 mA	88%	24,96 W
FFT25-12D3350		3,3 - 5,0 Vdc	5050\1670 mA	88%	25,00 W
FFT25-12D5033		5,0 - 3,3 Vdc	3330\2520 mA	88%	25,00 W
FFT14-48S1V8	36 ÷ 75 Vdc (48Vin nom)	1,8 Vdc	8000 mA	84%	14,40 W
FFT16-48S2V5		2,5 Vdc	6500 mA	88%	16,25 W
FFT16-48S3V3		3,3 Vdc	5000 mA	89%	16,50 W
FFT25-48S5V0		5,0 Vdc	5000 mA	89%	25,00 W
FFT25-48S12V		12 Vdc	2080 mA	88%	24,96 W
FFT25-12D3350		3,3 - 5,0 Vdc	5050\1670 mA	88%	25,00 W
FFT25-12D5033		5,0 - 3,3 Vdc	3330\2520 mA	88%	25,00 W
FFT14-WRS1V8	19 ÷ 75 Vdc 4:1 Wide Range	1,8 Vdc	8000 mA	84%	14,40 W
FFT16-WRS2V5		2,5 Vdc	6500 mA	87%	16,25 W
FFT16-WRS3V3		3,3 Vdc	5000 mA	88%	16,50 W
FFT25-WRS5V0		5,0 Vdc	5000 mA	88%	25,00 W
FFT25-WRS12V		12 Vdc	2080 mA	87%	24,96 W
FFT25-WRD3350		3,3 - 5,0 Vdc	5050\1670 mA	88%	25,00 W
FFT25-WRD5033		5,0 - 3,3 Vdc	3330\2520 mA	88%	25,00 W

DC/DC CONVERTER

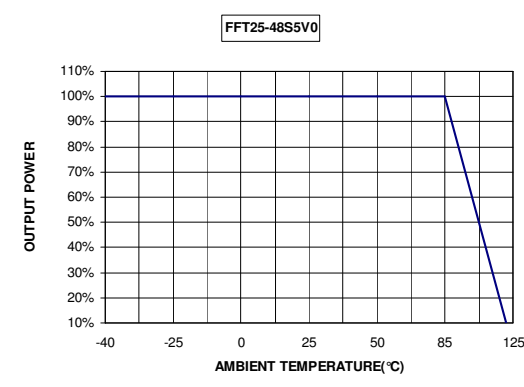
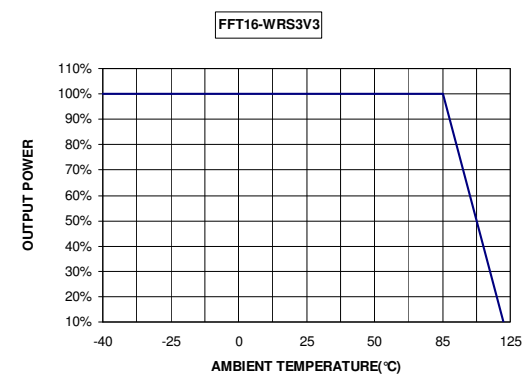
FFT series

DIMENSIONS



PIN DESCRIPTION

PIN	FUNCTION Single Output	FUNCTION Double Output	PIN	FUNCTION Single Output	FUNCTION Double Output	Safety Standard: pending	Conducted noise (input):	Material Flammability:
1	Vin(+)	Vin(+)	6	Trim	Vout(-)	EN60950-1	EN55022A	UL94V-0
2	Vin(-)	Vin(-)	7	Vout(-)	Vout1(+)			
3	Sync	Sync	8	Vout(-)	Vout2(+)	UL1950		
5	Vout(+)	Trim				CSA950		



DC/DC CONVERTER

MFT series

Features:

- 12, 18, 24, 48V
Wide Input voltage range (19.2 – 75 Vdc)
- Single and Double Output(3.3 – 5.0 Vdc)
- Size 2.0" x 2.0" x 0.5" (LxWxH)
- Hiccup Mode Current Protection
- Adjustable Output Voltage
- Synchronization to External Secondary Clock
- Under Voltage Lockout (UVLO)
- Extended Operating Temp. Range –40/85°C
- Metal Case



APPLICATION:

The MFT series is a family of DC/DC Converter Modules, designed to offer optimum power solution for a wide variety of applications:
Telecommunications, Industrial electronics, Computers.

BENEFITS:

The MFT series is characterized by high efficiency and excellent regulation of the output voltage, according to the load and the input line. The series has many models and 5 ranges of input voltages. The package is 2" x 2" x 0.5" with free air convection. Output trimming, within +/-10% of the nominal output voltage, and external clock synchronization are available. The short-circuit protection allows the module shutdown and is a continuous protection with hiccup mode to automatic recovery; Under Voltage Lockout and Over Voltage Protection turn off the module when the input voltage is below 17Vdc or over 78Vdc.

Power range covered: from 18 Watts to 40 Watts.

DC/DC CONVERTER

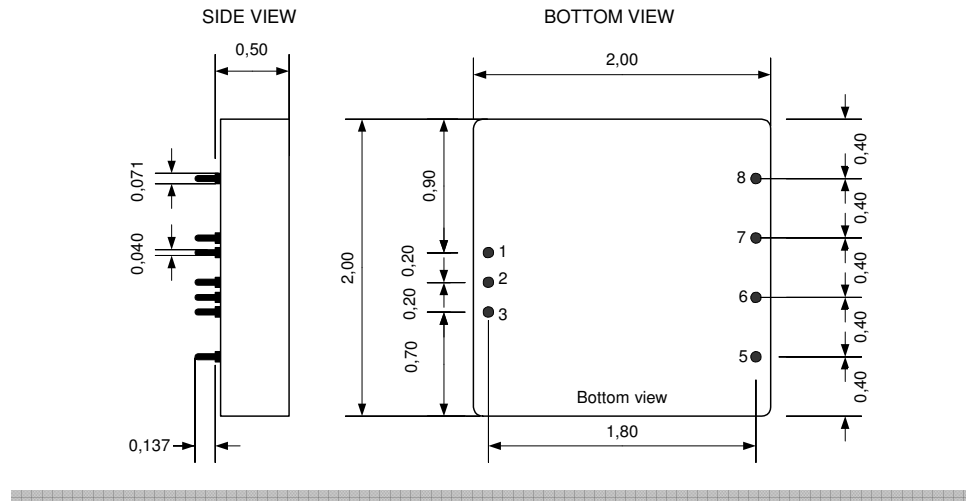
MFT series

MFT series – Single output – Metal case					
Models	Input Voltage Range	Output Voltage	Output Current max	Efficiency typ	Output Power Pout
MFT18-12S1V8	9 ÷ 18 Vdc (12Vin nom)	1,8 Vdc	10000 mA	84%	18,00 W
MFT21-12S2V5		2,5 Vdc	8500 mA	88%	21,25 W
MFT24-12S3V3		3,3 Vdc	7500 mA	89%	24,75 W
MFT40-12S5V0		5,0 Vdc	8000 mA	89%	40,00 W
MFT40-12S12V		12 Vdc	3330 mA	88%	39,96 W
MFT40-12D3350		3,3 - 5,0 Vdc	8100\2660 mA	88%	40,00 W
MFT40-12D5033		5,0 - 3,3 Vdc	5350\4030 mA	88%	40,00 W
MFT18-18S1V8	9 ÷ 36 Vdc (18Vin nom)	1,8 Vdc	10000 mA	84%	18,00 W
MFT21-18S2V5		2,5 Vdc	8500 mA	88%	21,25 W
MFT24-18S3V3		3,3 Vdc	7500 mA	89%	24,75 W
MFT40-18S5V0		5,0 Vdc	8000 mA	89%	40,00 W
MFT40-18S12V		12 Vdc	3330 mA	88%	39,96 W
MFT40-18D3350		3,3 - 5,0 Vdc	8100\2660 mA	88%	40,00 W
MFT40-18D5033		5,0 - 3,3 Vdc	5350\4030 mA	88%	40,00 W
MFT18-24S1V8	18 ÷ 36 Vdc (24Vin nom)	1,8 Vdc	10000 mA	84%	18,00 W
MFT21-24S2V5		2,5 Vdc	8500 mA	88%	21,25 W
MFT24-24S3V3		3,3 Vdc	7500 mA	89%	24,75 W
MFT40-24S5V0		5,0 Vdc	8000 mA	89%	40,00 W
MFT40-24S12V		12 Vdc	3330 mA	88%	39,96 W
MFT40-24D3350		3,3 - 5,0 Vdc	8100\2660 mA	88%	40,00 W
MFT40-24D5033		5,0 - 3,3 Vdc	5350\4030 mA	88%	40,00 W
MFT18-48S1V8	36 ÷ 75 Vdc (48Vin nom)	1,8 Vdc	10000 mA	84%	18,00 W
MFT21-48S2V5		2,5 Vdc	8500 mA	88%	21,25 W
MFT24-48S3V3		3,3 Vdc	7500 mA	89%	24,75 W
MFT40-48S5V0		5,0 Vdc	8000 mA	89%	40,00 W
MFT40-48S12V		12 Vdc	3330 mA	88%	39,96 W
MFT40-48D3350		3,3 - 5,0 Vdc	8100\2660 mA	88%	40,00 W
MFT40-48D5033		5,0 - 3,3 Vdc	5350\4030 mA	88%	40,00 W
MFT18-WRS1V8	19 ÷ 75 Vdc 4:1 Wide Range	1,8 Vdc	10000 mA	84%	18,00 W
MFT21-WRS2V5		2,5 Vdc	8500 mA	87%	21,25 W
MFT24-WRS3V3		3,3 Vdc	7500 mA	88%	24,75 W
MFT40-WRS5V0		5,0 Vdc	8000 mA	88%	40,00 W
MFT40-WRS12V		12 Vdc	3330 mA	87%	39,96 W
MFT40-WRD3350		3,3 - 5,0 Vdc	8100\2660 mA	88%	40,00 W
MFT40-WRD5033		5,0 - 3,3 Vdc	5350\4030 mA	88%	40,00 W

DC/DC CONVERTER

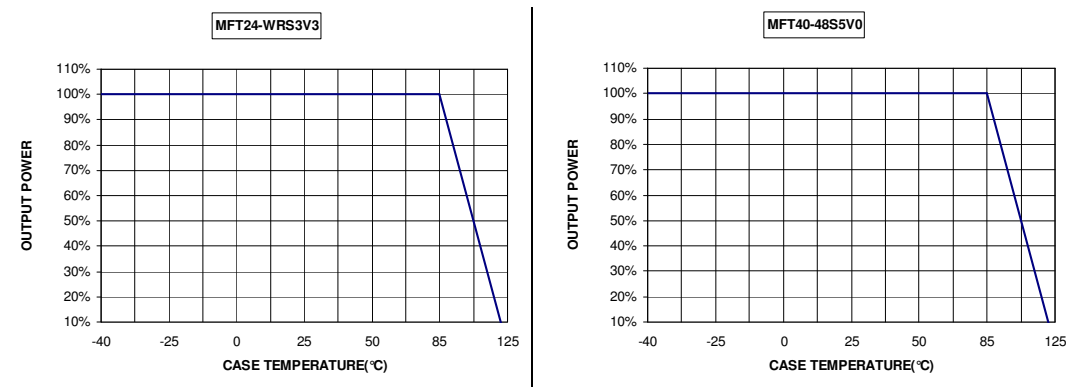
MFT series

DIMENSIONS



PIN DESCRIPTION

PIN	FUNCTION Single Output	FUNCTION Double Output	PIN	FUNCTION Single Output	FUNCTION Double Output	Safety Standard: pending	Conducted noise (input):	Material Flammability:
1	Vin(+)	Vin(+)	6	Trim	Vout(-)	EN60950-1	EN55022A	UL94V-0
2	Vin(-)	Vin(-)	7	Vout(-)	Vout1(+)			
3	Sync	Sync	8	Vout(-)	Vout2(+)	UL1950		
5	Vout(+)	Trim				CSA950		



DC/DC CONVERTER

FET series

Features:

- 12, 18, 24, 48V
Wide Input voltage range (19.2 – 75 Vdc)
- Single and Double Output(3.3 – 5.0 Vdc)
- Size 2.0" x 1.5" x 0.5" (LxWxH)
- Hiccup Mode Current Protection
- Adjustable Output Voltage
- Synchronization to External Secondary Clock
- Under Voltage Lockout (UVLO)
- Extended Operating Temp. Range –40/85°C
- Open Frame

APPLICATION:

The FET series is a family of DC/DC Converter Modules, designed to offer optimum power solution for a wide variety of applications:
Telecommunications, Industrial electronics, Computers.

BENEFITS:

The FET series is characterized by high efficiency and excellent regulation of the output voltage, according to the load and the input line. The series has many models and 5 ranges of input voltages. The package is 2" x 1.5" x 0.5" with free air convection. Output trimming, within +/-10% of the nominal output voltage, and external clock synchronization are available. The short-circuit protection allows the module shutdown and have a continuous protection with hiccup mode and automatic recovery; Under Voltage Lockout and Over Voltage Protection turn off the module when the input voltage is below 17Vdc or over 78Vdc.

Power range covered: from 10 Watts to 25 Watts.

DC/DC CONVERTER

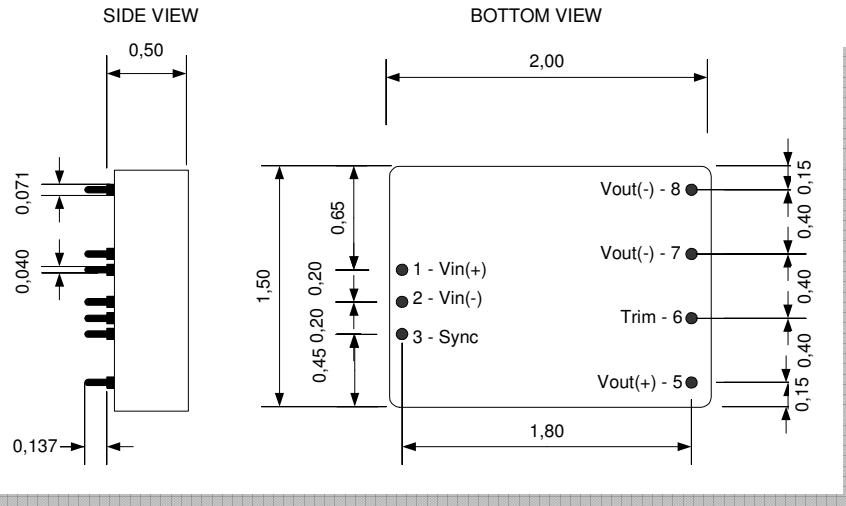
FET series

FET series – Single output – Open frame case					
Models	Input Voltage Range	Output Voltage	Output Current max	Efficiency typ	Output Power Pout
FET10-12S1V8	9 ÷ 18 Vdc (12Vin nom)	1,8 Vdc	6000 mA	84%	10,80 W
FET13-12S2V5		2,5 Vdc	5500 mA	88%	13,75 W
FET16-12S3V3		3,3 Vdc	5000 mA	89%	16,50 W
FET25-12S5V0		5,0 Vdc	5000 mA	89%	25,00 W
FET25-12S12V		12 Vdc	2080mA	88%	24,96 W
FET25-12D3350		3,3 - 5,0 Vdc	5050\1670 mA	88%	25,00W
FET25-12D5033		5,0 - 3,3 Vdc	3330\2520 mA	88%	25,00W
FET10-18S1V8	9 ÷ 36 Vdc (18Vin nom)	1,8 Vdc	6000 mA	85%	10,80 W
FET13-18S2V5		2,5 Vdc	5500 mA	88%	13,75 W
FET16-18S3V3		3,3 Vdc	5000 mA	89%	16,50 W
FET25-18S5V0		5,0 Vdc	5000 mA	89%	25,00 W
FET25-18S12V		12 Vdc	2080mA	88%	24,96 W
FET25-18D3350		3,3 - 5,0 Vdc	5050\1670 mA	88%	25,00W
FET25-18D5033		5,0 - 3,3 Vdc	3330\2520 mA	88%	25,00W
FET10-24S1V8	18 ÷ 36 Vdc (24Vin nom)	1,8 Vdc	6000 mA	85%	10,80 W
FET13-24S2V5		2,5 Vdc	5500 mA	88%	13,75 W
FET16-24S3V3		3,3 Vdc	5000 mA	89%	16,50 W
FET25-24S5V0		5,0 Vdc	5000 mA	89%	25,00 W
FET25-24S12V		12 Vdc	2080mA	88%	24,96 W
FET25-24D3350		3,3 - 5,0 Vdc	5050\1670 mA	88%	25,00W
FET25-24D5033		5,0 - 3,3 Vdc	3330\2520 mA	88%	25,00W
FET10-48S1V8	36 ÷ 75 Vdc (48Vin nom)	1,8 Vdc	6000 mA	85%	10,80 W
FET13-48S2V5		2,5 Vdc	5500 mA	88%	13,75 W
FET16-48S3V3		3,3 Vdc	5000 mA	88%	16,50 W
FET25-48S5V0		5,0 Vdc	5000 mA	88%	25,00 W
FET25-48S12V		12 Vdc	2080mA	88%	24,96 W
FET25-48D3350		3,3 - 5,0 Vdc	5050\1670 mA	88%	25,00W
FET25-48D5033		5,0 - 3,3 Vdc	3330\2520 mA	88%	25,00W
FET10-WRS1V8	19 ÷ 75 Vdc 4:1 Wide Range	1,8 Vdc	6000 mA	85%	10,80 W
FET13-WRS2V5		2,5 Vdc	5500 mA	87%	13,75 W
FET16-WRS3V3		3,3 Vdc	5000 mA	88%	16,50 W
FET25-WRS5V0		5,0 Vdc	5000 mA	88%	25,00 W
FFT25-WRS12V		12 Vdc	2080 mA	87%	24,96 W
FET25-WRD3350		3,3 - 5,0 Vdc	5050\1670 mA	88%	25,00W
FET25-WRD5033		5,0 - 3,3 Vdc	3330\2520 mA	88%	25,00W

DC/DC CONVERTER

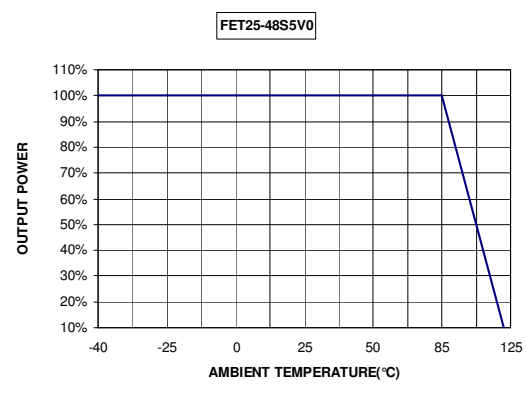
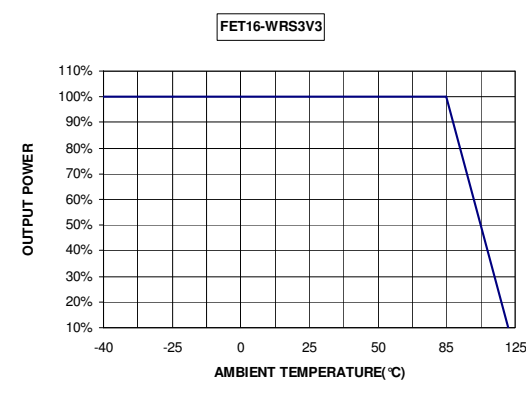
FET series

DIMENSIONS



PIN DESCRIPTION

PIN	FUNCTION	PIN	FUNCTION	Safety Standard:	Conducted noise (input):	Material Flammability:
1	Vin(+)	6	Trim	pending	EN55022A	UL94V-0
2	Vin(-)	7	Vout(-)	EN60950-1		
3	Sync	8	Vout(-)	UL1950		
5	Vout(+)			CSA950		



DC/DC CONVERTER

MET series

Features:

- 12, 18, 24, 48V
Wide Input voltage range (19.2 – 75 Vdc)
- Single and Double Output (3,3 – 5.0 Vdc)
- Size 2.0" x 1.5" x 0.5" (LxWxH)
- Hiccup Mode Current Protection
- Adjustable Output Voltage
- Synchronization to External Secondary Clock
- Under Voltage Lockout (UVLO)
- Extended Operating Temp. Range –40/85°C
- Metal Case

APPLICATION:

The MET series is a family of DC/DC Converter Modules, designed to offer optimum power solution for a wide variety of applications:
Telecommunications, Industrial electronics, Computers.

BENEFITS:

The MET series is characterized by high efficiency and excellent regulation of the output voltage, according to the load and the input line. The series has many models and 5 ranges of input voltages. The package is 2" x 1.5" x 0.5" with free air convection. Output trimming, within +/-10% of the nominal output voltage, and external clock synchronization are available. The short-circuit protection allows the module shutdown and have a continuous protection with hiccup mode and automatic recovery; Under Voltage Lockout and Over Voltage Protection turn off the module when the input voltage is below 17Vdc and or 78Vdc.

Power range covered: from 16 Watts to 30 Watts.

DC/DC CONVERTER

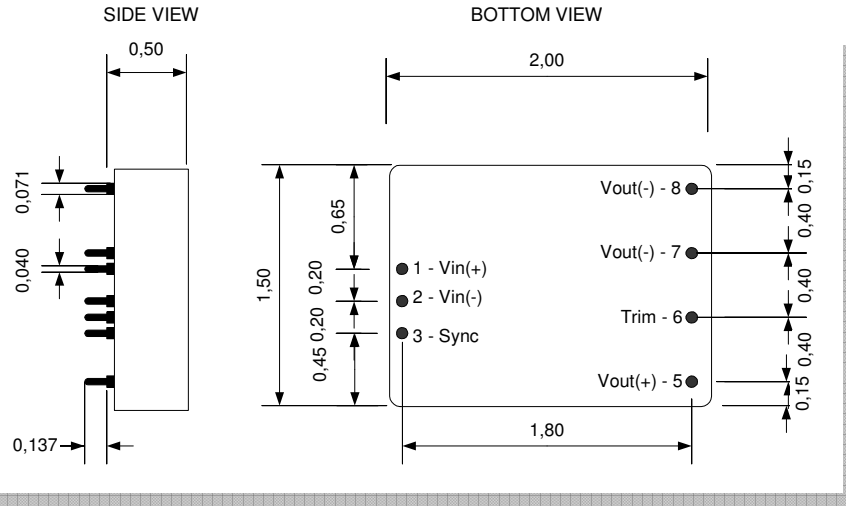
MET series

MET series – Single output – Metal case					
Models	Input Voltage Range	Output Voltage	Output Current max	Efficiency typ	Output Power Pout
MET16-12S1V8	9 ÷ 18 Vdc (12Vin nom)	1,8 Vdc	9000 mA	84%	16,20 W
MET18-12S2V5		2,5 Vdc	7000 mA	88%	17,50 W
MET20-12S3V3		3,3 Vdc	6000 mA	89%	19,80 W
MET30-12S5V0		5,0 Vdc	6000 mA	89%	30,00 W
MET30-12S12V		12 Vdc	2500 mA	88%	30,00 W
MET30-12D3350		3,3 - 5,0 Vdc	6060\2000 mA	88%	30,00 W
MET30-12D5033		5,0 - 3,3 Vdc	4000\3000 mA	88%	30,00 W
MET16-18S1V8	9 ÷ 36 Vdc (18Vin nom)	1,8 Vdc	6000 mA	85%	16,20 W
MET18-18S2V5		2,5 Vdc	5500 mA	88%	17,50 W
MET20-18S3V3		3,3 Vdc	5000 mA	89%	19,80 W
MET30-18S5V0		5,0 Vdc	5000 mA	89%	30,00 W
MET30-18S12V		12 Vdc	2080mA	88%	30,00 W
MET30-18D3350		3,3 - 5,0 Vdc	6060\2000 mA	88%	30,00W
MET30-18D5033		5,0 - 3,3 Vdc	4000\3000 mA	88%	30,00W
MET16-24S1V8	18 ÷ 36 Vdc (24Vin nom)	1,8 Vdc	9000 mA	84%	16,20 W
MET18-24S2V5		2,5 Vdc	7000 mA	88%	17,50 W
MET20-24S3V3		3,3 Vdc	6000 mA	89%	19,80 W
MET30-24S5V0		5,0 Vdc	6000 mA	89%	30,00 W
MET30-24S12V		12 Vdc	2500 mA	88%	30,00 W
MET30-24D3350		3,3 - 5,0 Vdc	6060\2000 mA	88%	30,00 W
MET30-24D5033		5,0 - 3,3 Vdc	4000\3000 mA	88%	30,00 W
MET16-48S1V8	36 ÷ 75 Vdc (48Vin nom)	1,8 Vdc	9000 mA	88%	16,20 W
MET18-48S2V5		2,5 Vdc	7000 mA	88%	17,50 W
MET20-48S3V3		3,3 Vdc	6000 mA	88%	19,80 W
MET30-48S5V0		5,0 Vdc	6000 mA	88%	30,00 W
MET30-48S12V		12 Vdc	2500 mA	88%	30,00 W
MET30-48D3350		3,3 - 5,0 Vdc	6060\2000 mA	88%	30,00 W
MET30-48D5033		5,0 - 3,3 Vdc	4000\3000 mA	88%	30,00 W
MET16-WRS1V8	19 ÷ 75 Vdc 4:1 Wide Range	1,8 Vdc	9000 mA	84%	16,20 W
MET18-WRS2V5		2,5 Vdc	7000 mA	88%	17,50 W
MET20-WRS3V3		3,3 Vdc	6000 mA	89%	19,80 W
MET30-WRS5V0		5,0 Vdc	6000 mA	89%	30,00 W
MET30-WRS12V		12 Vdc	2500 mA	87%	30,00 W
MET30-WRD3350		3,3 - 5,0 Vdc	6060\2000 mA	88%	30,00 W
MET30-WRD5033		5,0 - 3,3 Vdc	4000\3000 mA	88%	30,00 W

DC/DC CONVERTER

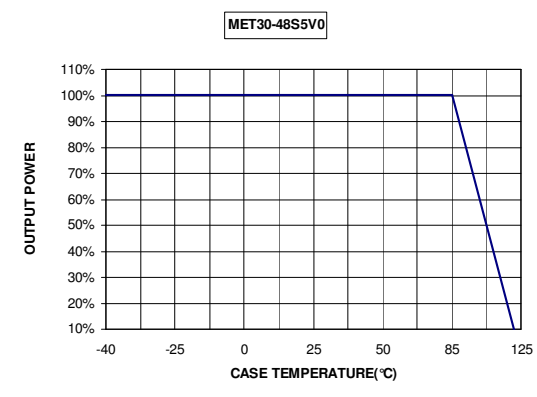
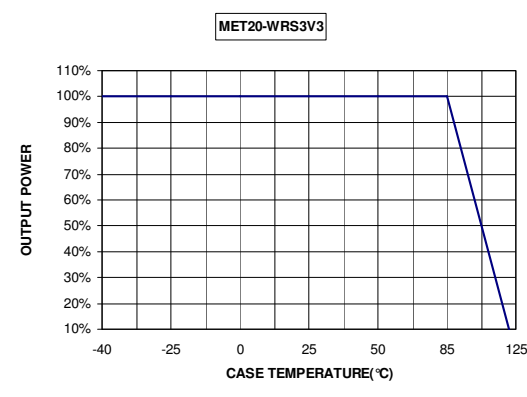
MET series

DIMENSIONS



PIN DESCRIPTION

PIN	FUNCTION	PIN	FUNCTION	Safety Standard:	Conducted noise (input):	Material Flammability:
1	Vin(+)	6	Trim	pending		
2	Vin(-)	7	Vout(-)	EN60950-1	EN55022A	UL94V-0
3	Sync	8	Vout(-)	UL1950		
5	Vout(+)			CSA950		



DC/DC CONVERTER

FDT series

Features:

- 12, 18, 24, 48V
- Wide Input voltage range (19.2 – 75 Vdc)
- Size 2.0" x 1.0" x 0.5" (LxWxH)
- Hiccup Mode Current Protection
- Adjustable Output Voltage
- Synchronization to External Secondary Clock
- Under Voltage Lockout (UVLO)
- Extended Operating Temp. Range –40/85 °C
- Free Air Convection
- Open Frame



APPLICATION:

The FDT series is a family of DC/DC Converter Modules, designed to offer optimum power solution for a wide variety of applications:
Telecommunications, Industrial electronics, Computers.

BENEFITS:

The FDT series is characterized by high efficiency and excellent regulation of the output voltage, according to the load and the input line. The series has 20 models and 4 ranges of input voltages. The package is 2" x 1.0" x 0.5" with free air convection. Output trimming, within +/-10% of the nominal output voltage, and external clock synchronization are available. The short-circuit protection allows the module shutdown and is a continuous protection with hiccup mode and automatic recovery; Under Voltage Lockout and Over Voltage Protection turn off the module when the input voltage is below 17Vdc and over 78Vdc.

Power range covered: from 8 Watts to 15 Watts.

DC/DC CONVERTER

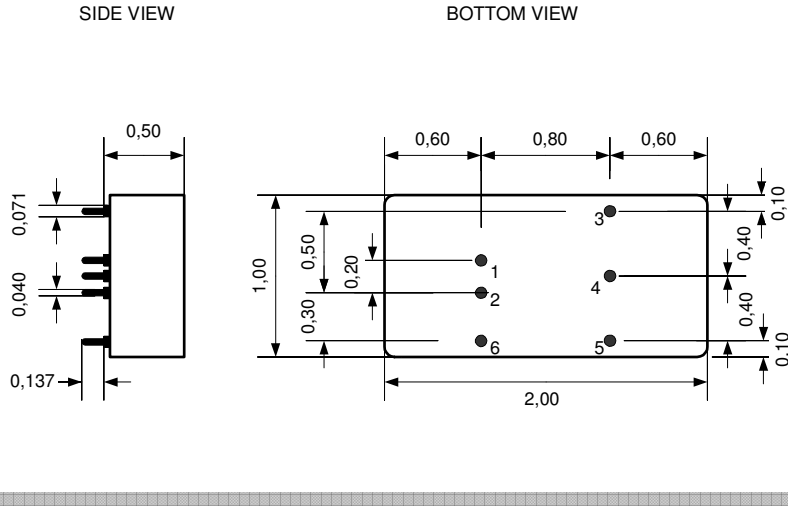
FDT series

FDT series – Single output – Open frame case					
Models	Input Voltage Range	Output Voltage	Output Current max	Efficiency typ	Output Power Pout
FDT08-12S1V8	9 ÷ 18 Vdc (12Vin nom)	1,8 Vdc	4500 mA	84%	8,10 W
FDT08-12S2V5		2,5 Vdc	3500 mA	88%	8,75 W
FDT10-12S3V3		3,3 Vdc	3000 mA	89%	9,90 W
FDT15-12S5V0		5,0 Vdc	3000 mA	89%	15,00 W
FDT15-12S12V		12 Vdc	1200 mA	88%	14,40 W
FDT15-12D3350		3,3 - 5,0 Vdc	3000\1000 mA	88%	15,00 W
FDT15-12D5033		5,0 - 3,3 Vdc	2000\1500 mA	88%	15,00 W
FDT08-18S1V8	9 ÷ 36 Vdc (18Vin nom)	1,8 Vdc	4500 mA	84%	8,10 W
FDT08-18S2V5		2,5 Vdc	3500 mA	88%	8,75 W
FDT08-18S3V3		3,3 Vdc	3000 mA	89%	9,90 W
FDT10-18S5V0		5,0 Vdc	3000 mA	89%	15,00 W
FDT15-18S12V		12 Vdc	1200 mA	88%	14,40 W
FDT15-18D3350		3,3 - 5,0 Vdc	3000\1000 mA	88%	15,00 W
FDT15-18D5033		5,0 - 3,3 Vdc	2000\1500 mA	88%	15,00 W
FDT08-24S1V8	18 ÷ 36 Vdc (24Vin nom)	1,8 Vdc	4500 mA	85%	8,10 W
FDT08-24S2V5		2,5 Vdc	3500 mA	88%	8,75 W
FDT10-24S3V3		3,3 Vdc	3000 mA	89%	9,90 W
FDT15-24S5V0		5,0 Vdc	3000 mA	89%	15,00 W
FDT15-24S12V		12 Vdc	1200 mA	88%	14,40 W
FDT15-12D3350		3,3 - 5,0 Vdc	3000\1000 mA	88%	15,00 W
FDT15-12D5033		5,0 - 3,3 Vdc	2000\1500 mA	88%	15,00 W
FDT08-48S1V8	36 ÷ 75 Vdc (48Vin nom)	1,8 Vdc	4500 mA	85%	8,10 W
FDT08-48S2V5		2,5 Vdc	3500 mA	88%	8,75 W
FDT10-48S3V3		3,3 Vdc	3000 mA	89%	9,90 W
FDT15-48S5V0		5,0 Vdc	3000 mA	89%	15,00 W
FDT15-48S12V		12 Vdc	1200 mA	88%	14,40 W
FDT15-12D3350		3,3 - 5,0 Vdc	3000\1000 mA	88%	15,00 W
FDT15-12D5033		5,0 - 3,3 Vdc	2000\1500 mA	88%	15,00 W
FDT08-WRS1V8	19 ÷ 75 Vdc 4:1 Wide Range	1,8 Vdc	4500 mA	85%	8,10 W
FDT08-WRS2V5		2,5 Vdc	3500 mA	86%	8,75 W
FDT10-WRS3V3		3,3 Vdc	3000 mA	88%	9,90 W
FDT15-WRS5V0		5,0 Vdc	3000 mA	88%	15,00 W
FDT15-WRS12V		12 Vdc	1200 mA	88%	14,4 W
FDT15-WRD3350		3,3 - 5,0 Vdc	3000\1000 mA	88%	15,00 W
FDT15-WRD5033		5,0 - 3,3 Vdc	2000\1500 mA	88%	15,00 W

DC/DC CONVERTER

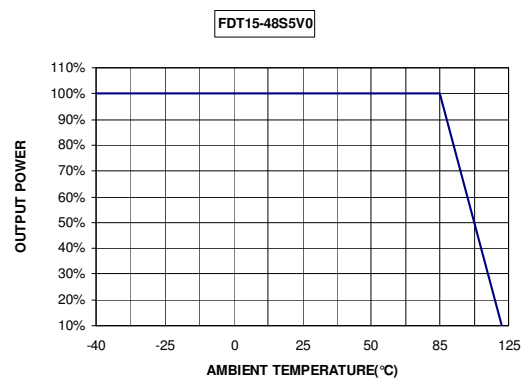
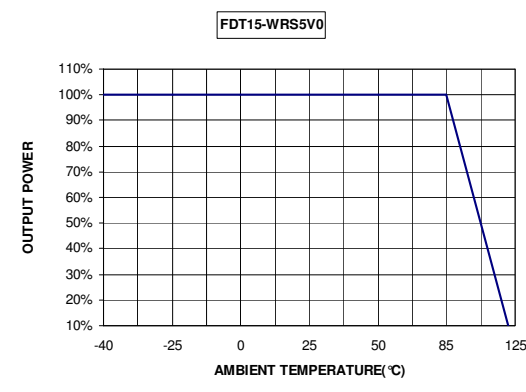
FDT series

DIMENSIONS



PIN DESCRIPTION

PIN	FUNCTION	PIN	FUNCTION	Safety Standard:	Conducted noise (input):	Material Flammability:
1	Vin(+)	5	Vout(-)	pending		
2	Vin(-)	6	Sync	EN60950-1	EN55022A	UL94V-0
3	Vout(+)			UL1950		
4	Trim			CSA950		



DC/DC CONVERTER

MDT series

Features:

- Wide Input voltage range (19.2 – 75 Vdc)
- Single and Double Output (3.3 – 5.0 Vdc)
- Size 2.0" x 1.0" x 0.5" (LxWxH)
- Hiccup Mode Current Protection
- Adjustable Output Voltage
- Synchronization to External Secondary Clock
- Under Voltage Lockout (UVLO)
- Extended Operating Temp. Range –40/85 °C
- Metal Case



APPLICATION:

The MDT series is a family of DC/DC Converter Modules, designed to offer optimum power solution for a wide variety of applications:
Telecommunications, Industrial electronics, Computers.

BENEFITS:

The MDT series is characterized by high efficiency and excellent regulation of the output voltage, according to the load and the input line. The series has many models and 5 ranges of input voltages. The package is 2" x 1.0" x 0.5" with free air convection. Output trimming, within +/-10% of the nominal output voltage, and external clock synchronization are available. The short-circuit protection allows the module shutdown and have a continuous protection with hiccup mode to automatic recovery; Under Voltage Lockout and Over Voltage Protection turn off the module when the input voltage is below 17Vdc or over 78Vdc.

Power range covered: from 10 Watts to 20 Watts.

DC/DC CONVERTER

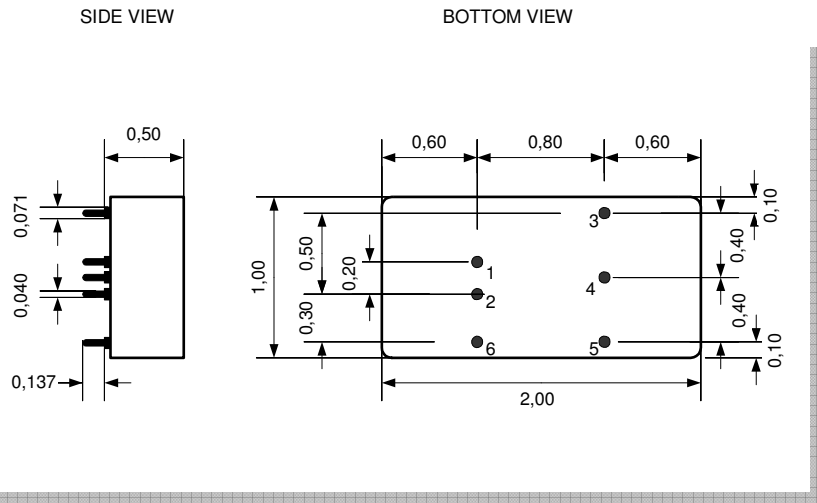
MDT series

MDT series – Single output – Metal case					
Models	Input Voltage Range	Output Voltage	Output Current max	Efficiency typ	Output Power Pout
MDT10-12S1V8	9 ÷ 18 Vdc (12Vin nom)	1,8 Vdc	6000 mA	0,84	10,80 W
MDT13-12S2V5		2,5 Vdc	5500 mA	0,88	13,75 W
MDT16-12S3V3		3,3 Vdc	5000 mA	0,89	16,50 W
MDT20-12S5V0		5,0 Vdc	4000 mA	0,89	20,00 W
MDT20-12S12V		12 Vdc	1670 mA	0,88	20,40 W
MDT20-12D3350		3,3 - 5,0 Vdc	4040\1350 mA	88%	20,00 W
MDT20-12D5033		5,0 - 3,3 Vdc	2660\2030 mA	88%	20,00 W
MDT10-24S1V8	9 ÷ 36 Vdc (18Vin nom)	1,8 Vdc	6000 mA	85%	10,80 W
MDT13-24S2V5		2,5 Vdc	5500 mA	88%	13,75 W
MDT16-24S3V3		3,3 Vdc	5000 mA	89%	16,50 W
MDT20-24S5V0		5,0 Vdc	4000 mA	89%	20,00 W
MDT20-24S12V		12 Vdc	1670 mA	88%	20,40 W
MDT20-18D3350		3,3 - 5,0 Vdc	4040\1350 mA	88%	20,00 W
MDT20-12D5033		5,0 - 3,3 Vdc	2660\2030 mA	88%	20,00 W
MDT10-24S1V8	18 ÷ 36 Vdc (24Vin nom)	1,8 Vdc	6000 mA	85%	10,80 W
MDT13-24S2V5		2,5 Vdc	5500 mA	88%	13,75 W
MDT16-24S3V3		3,3 Vdc	5000 mA	89%	16,50 W
MDT20-24S5V0		5,0 Vdc	4000 mA	89%	20,00 W
MDT20-24S12V		12 Vdc	1670 mA	88%	20,40 W
MDT20-24D3350		3,3 - 5,0 Vdc	4040\1350 mA	88%	20,00 W
MDT20-12D5033		5,0 - 3,3 Vdc	2660\2030 mA	88%	20,00 W
MDT10-48S1V8	36 ÷ 75 Vdc (48Vin nom)	1,8 Vdc	6000 mA	85%	10,80 W
MDT13-48S2V5		2,5 Vdc	5500 mA	88%	13,75 W
MDT16-48S3V3		3,3 Vdc	5000 mA	89%	16,50 W
MDT20-48S5V0		5,0 Vdc	4000 mA	89%	20,00 W
MDT20-48S12V		12 Vdc	1670 mA	88%	20,40 W
MDT20-48D3350		3,3 - 5,0 Vdc	4040\1350 mA	88%	20,00 W
MDT20-48D5033		5,0 - 3,3 Vdc	2660\2030 mA	88%	20,00 W
MDT10-WRS1V8	19 ÷ 75 Vdc 4:1 Wide Range	1,8 Vdc	6000 mA	84%	10,80 W
MDT13-WRS2V5		2,5 Vdc	5500 mA	86%	13,75 W
MDT16-WRS3V3		3,3 Vdc	5000 mA	88%	16,50 W
MDT20-WRS5V0		5,0 Vdc	4000 mA	87%	20,00 W
MDT20-WRS12V		12 Vdc	1670 mA	88%	20,40 W
MDT20-WRD3350		3,3 - 5,0 Vdc	4040\1350 mA	88%	20,00 W
MDT20-WRD5033		5,0 - 3,3 Vdc	2660\2030 mA	88%	20,00 W

DC/DC CONVERTER

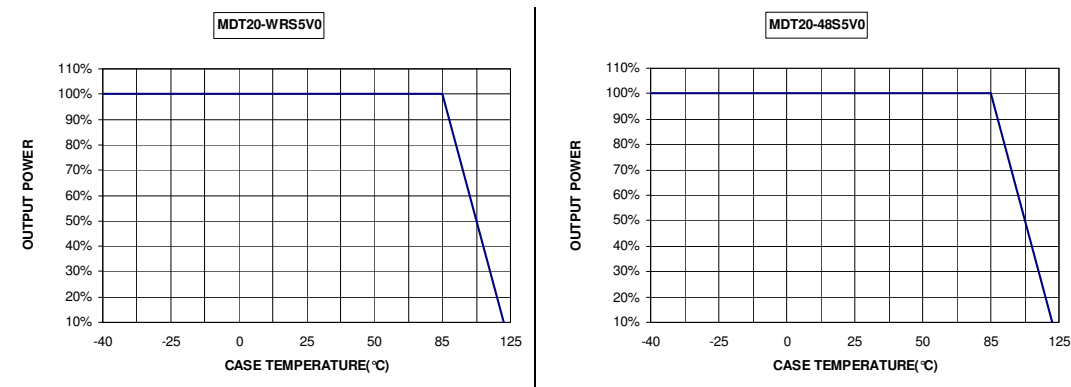
MDT series

DIMENSIONS



PIN DESCRIPTION

PIN	FUNCTION	PIN	FUNCTION	Safety Standard:	Conducted noise (input):	Material Flammability:
1	Vin(+)	5	Vout(-)	pending		
2	Vin(-)	6	Sync	EN60950-1	EN55022A	UL94V-0
3	Vout(+)			UL1950		
4	Trim			CSA950		



DC/DC CONVERTER

PCT series

Features:

- 12, 18, 24, 48V
Wide Input voltage range (19.2 – 75 Vdc)
- Single and Double Output (3.3 – 5.0 Vdc)
- Size 1.25" x 0.8" x 0.5" (LxWxH) DIL Package
- Continuous Short Circuit Protection
- Under Voltage Lockout (UVLO)
- Extended Operating Temp. Range –40/85°C
- Free Air Convection
- Plastic Case

APPLICATION:

The PCT series is a family of DC/DC Converter Modules, designed to offer optimum power solution for a wide variety of applications:
Telecommunications, Industrial electronics, Computers.

BENEFITS:

The PCT series is characterized by high efficiency and excellent regulation of the output voltage, according to the load and the input line. The series has many models and 5 ranges of input voltages. The package is 1.25" x 0.8" x 0.5" with free air convection. Output trimming, within +/-10% of the nominal output voltage, and external clock synchronization are available. The short-circuit protection allows the module shutdown and is a continuous protection with hiccup mode to automatic recovery; Under Voltage Lockout and Over Voltage Protection turn off the module when the input voltage is below 17Vdc or over 78Vdc.

Power range covered: from 8 Watts to 15 Watts.

DC/DC CONVERTER

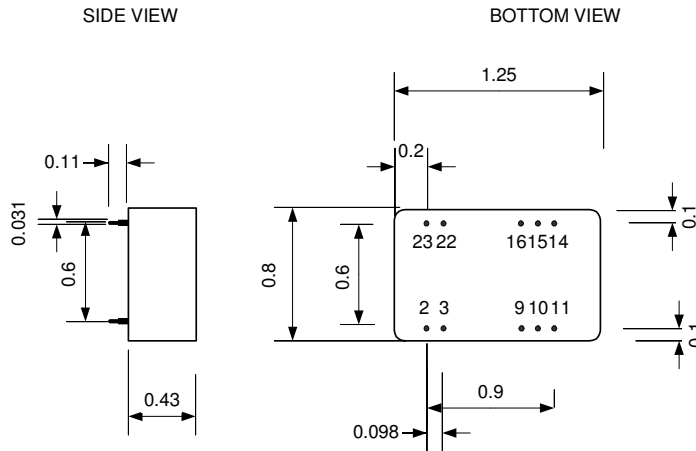
PCT series

PCT series – Single/Double output – Metal case					
Models	Input Voltage Range	Output Voltage	Output Current max	Efficiency typ	Output Power Pout
PCT02-12S3V3	9 ÷ 18 Vdc (12Vin nom)	3,3 Vdc	800 mA	78%	2,64 W
PCT04-12S5V5		5,0 Vdc	800 mA	80%	4,00 W
PCT04-12S9V9		9,0 Vdc	450 mA	82%	4,05 W
PCT04-12S12V		12 Vdc	330 mA	83%	3,96 W
PCT04-12S15V		15 Vdc	260 mA	84%	3,90 W
PCT02-12D5V0		± 5 Vdc	±350 mA	84%	1,75 W
PCT04-12D3350		3,3 - 5,0 Vdc	800\270 mA	84%	4,00 W
PCT04-12D5033		5,0 - 3,3 Vdc	540\400 mA	84%	4,00 W
PCT02-18S3V3		9 ÷ 36 Vdc (18Vin nom)	3,3 Vdc	800 mA	78%
PCT04-18S5V0	5,0 Vdc		800 mA	79%	4,00 W
PCT04-18S9V0	9,0 Vdc		450 mA	81%	4,05 W
PCT03-18S12V	12 Vdc		330 mA	83%	3,96 W
PCT03-18S15V	15 Vdc		260 mA	83%	3,90 W
PCT02-18S5V0	± 5 Vdc		±350 mA	83%	1,75 W
PCT04-18D3350	3,3 - 5,0 Vdc		800\270 mA	84%	4,00 W
PCT04-18D5033	5,0 - 3,3 Vdc		540\400 mA	84%	4,00 W
PCT02-24S3V3	18 ÷ 36 Vdc (24Vin nom)		3,3 Vdc	800 mA	78%
PCT04-24S5V0		5,0 Vdc	800 mA	79%	4,00 W
PCT04-24S9V0		9,0 Vdc	450 mA	81%	4,05 W
PCT03-24S12V		12 Vdc	330 mA	83%	3,96 W
PCT03-24S15V		15 Vdc	260 mA	83%	3,90 W
PCT02-24S5V0		± 5 Vdc	±350 mA	83%	1,75 W
PCT04-24D3350		3,3 - 5,0 Vdc	800\270 mA	84%	4,00 W
PCT04-24D5033		5,0 - 3,3 Vdc	540\400 mA	84%	4,00 W
PCT02-48S3V3		36 ÷ 75 Vdc (48Vin nom)	3,3 Vdc	800 mA	78%
PCT04-48S5V0	5,0 Vdc		800 mA	80%	4,00 W
PCT04-48S9V0	9,0 Vdc		450 mA	82%	4,05 W
PCT04-48S12V	12 Vdc		330 mA	83%	3,96 W
PCT04-48S15V	15 Vdc		260 mA	84%	3,90 W
PCT02-48D5V0	± 5 Vdc		±350 mA	84%	1,75 W
PCT04-48D3350	3,3 - 5,0 Vdc		800\270 mA	84%	4,00 W
PCT04-48D5033	5,0 - 3,3 Vdc		540\400 mA	84%	4,00 W
PCT02-WRS3V3	19 ÷ 75 Vdc 4:1 Wide Range		3,3 Vdc	800 mA	78%
PCT04-WRS5V0		5,0 Vdc	800 mA	79%	4,00 W
PCT04-WRS9V0		9,0 Vdc	450 mA	81%	4,05 W
PCT04-WRS12V		12 Vdc	330 mA	82%	3,96 W
PCT04-WRS15V		15 Vdc	260 mA	82%	3,90 W
PCT02-WRD5V0		± 5 Vdc	± 350 mA	79%	1,75 W
PCT04-WRD3350		3,3 - 5,0 Vdc	800\270 mA	84%	4,00 W
PCT04-WRD5033		5,0 - 3,3 Vdc	540\400 mA	84%	4,00 W

DC/DC CONVERTER

PCT series

DIMENSIONS



Dimension are in inch

PIN DESCRIPTION

PIN	FUNCTION	
	SINGLE	DUAL
2	Vin(-)	Vin(-)
3	Vin(-)	Vin(-)
9	NC	COMMON
10	NC	NC
11	NC	Vout(-)
14	Vout(+)	Vout(+)
15	NC	NC
16	Vout(-)	COMMON
22	Vin(+)	Vin(+)
23	Vin(+)	Vin(+)

Safety Standard: pending	EN60950-1 UL1950 CSA950
Conducted noise (input):	EN55022A
Material Flammability:	UL94V-0

DC/DC Converter SUBRACK

Power Solution

DC/DC CONVERTER

DF200R / MDF300R series

Features:

- 2 gamme di Tensioni di Ingresso AC e DC
- Costruito in subrack 19" 6U / 8TE (P= 220mm)
- Elevata stabilità delle tensioni di Uscita
- Basso livello di Ripple
- Isolamento Ingresso /Uscita 2500Vac
- Protezione al Sovraccarico e Cortocircuito
- Tensione di Uscita Regolabile
- Convezione Naturale

Description & Application:

La serie MDF200R è una famiglia di convertitori Switching progettati per offrire un'ampia varietà di applicazioni: Telecomunicazioni , Industria elettronica , Computer.

E' caratterizzata da un'elevata stabilità della tensione di uscita in risposta alle variazioni di carico e della tensione applicata in ingresso.

La serie è composta da 12 modelli, divisi in due gamme di tensione di ingresso; i convertitori sono realizzati in contenitore metallico subrack 19" da 3U / 8TE e profondità 220mm nominali, con raffreddamento a convezione naturale.

Tutta la serie è provvista di un trimmer di taratura posto sul frontale, mediante il quale è possibile effettuare la regolazione della tensione di uscita (+/-10% della tensione di uscita nominale) in funzione delle esigenze di impianto. Gli apparati sono dotati di protezione al cortocircuito in uscita, con disabilitazione istantanea dell'apparato e ripristino automatico.

Sul connettore di uscita sono disponibili 2 allarmi denominati Power Good e Power Down, i quali forniscono rispettivamente un eventuale allarme remoto di tensione di uscita fuori limiti e tensione di ingresso fuori limiti.

E' inoltre possibile effettuare il collegamento parallelo degli apparati; tale soluzione risulta particolarmente utile nel caso sia necessario garantire la continuità di funzionamento delle utenze (in caso di anomalia è possibile sostituire uno degli alimentatori senza provocare il fermo dell'impianto), oppure per disporre di una maggiore corrente massima: la funzione "Power Sharing" permette di ripartire uniformemente tra i due alimentatori la corrente assorbita dalle utenze.

La serie con ingresso AC è completata dalle versioni MDF300R, caratterizzate da una maggiore potenza in uscita; su questi modelli la ventilazione è forzata.

DC/DC CONVERTER

DF200R / MDF300R series

Tecnical Specification

Serie MDF200R Versione ingresso DC

Modello	Tensione di ingresso	Tensione di uscita	Corrente di uscita max	Rendimento Tipico
MDF200R-DC05V	35 ÷ 75 Vdc (48Vdc nom)	5,0 Vdc	35 A	75 %
MDF200R-DC12V		12,0 Vdc	16,5 A	80 %
MDF200R-DC24V		24,0 Vdc	8,5 A	82 %
MDF200R-DC05VD		± 5,0 Vdc	+ 25 A / - 10 A	75 %
MDF200R-DC12VD		± 12,0 Vdc	+ 12 A / - 4,5 A	80 %
MDF200R-DC24VD		± 24,0 Vdc	+ 6 A / - 2,5 A	82 %

Serie MDF200R Versione ingresso AC

Modello	Tensione di ingresso	Tensione di uscita	Corrente di uscita max	Rendimento Tipico
MDF200R-AC05V	187 ÷ 254 Vac (220Vac nom)	5,0 Vdc	35 A	75 %
MDF200R-AC12V		12,0 Vdc	16,5 A	80 %
MDF200R-AC24V		24,0 Vdc	8,5 A	82 %
MDF200R-AC05VD		± 5,0 Vdc	+ 25 A / - 10 A	75 %
MDF200R-AC12VD		± 12,0 Vdc	+ 12 A / - 4,5 A	80 %
MDF200R-AC24VD		± 24,0 Vdc	+ 6 A / - 2,5 A	82 %

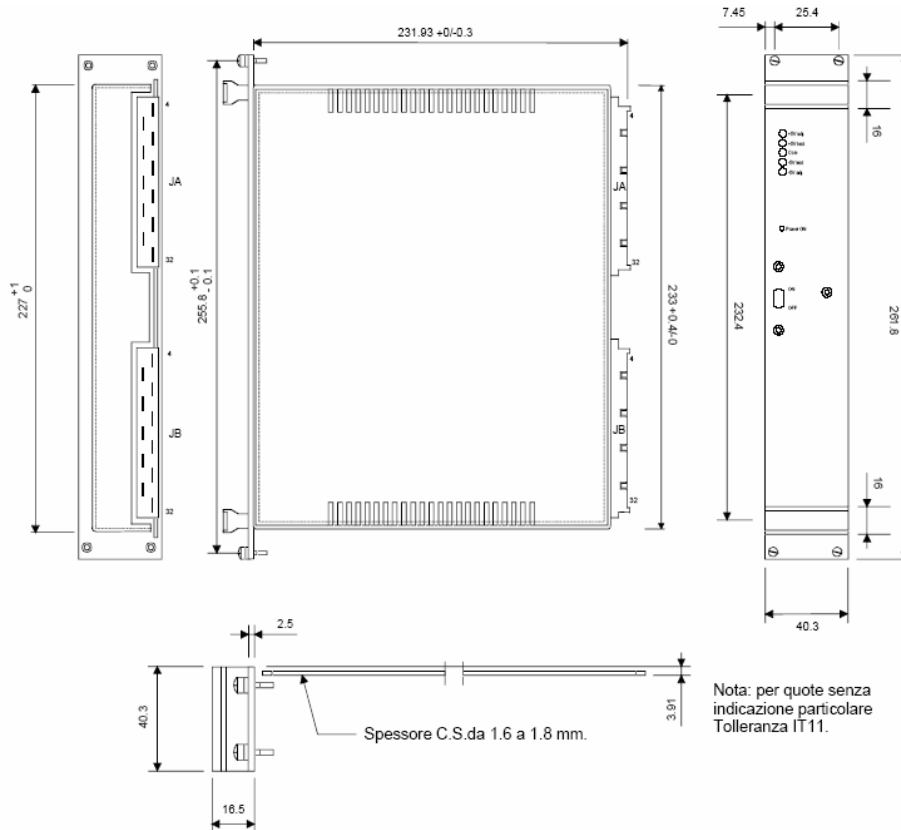
Serie MDF300R Versione ingresso AC Ventilazione forzata

Modello	Tensione di ingresso	Tensione di uscita	Corrente di uscita max	Rendimento Tipico
MDF300R-AC05VF	187 ÷ 254 Vac (220Vac nom)	5,0 Vdc	60 A	81 %
MDF300R-AC12VF		12,0 Vdc	25 A	83 %
MDF300R-AC24VF		24,0 Vdc	12,5 A	83 %
MDF300R-AC05VDF		± 5,0 Vdc	+ 42,5 A / - 17,5 A	81 %
MDF300R-AC12VDF		± 12,0 Vdc	+ 18 A / - 7 A	83 %
MDF300R-AC24VDF		± 24,0 Vdc	+ 8,8 A / - 3,7 A	83 %

Nota: nel modello MDF300R-AC05VF le terminazioni di uscita sono così realizzate:
 connettore JA terminali 6/8/14/16 = +5 V out
 connettore JA terminali 18/20/22/24 = GND out

DC/DC CONVERTER

DF200R / MDF300R series



Nota: per quote senza indicazione particolare Tolleranza IT11.

- JA
- 04) +Vout TEST (pin di misura della + Vout)
 - 06) + Vout
 - 08) + Vout
 - 10) + Vout Sense (pin di sensing della + Vout)
 - 12) - Vout TEST (pin di misura della - Vout)
 - 14) - Vout (+ Vout nel modello MDF300R-AC05VF)
 - 16) - Vout (+ Vout nel modello MDF300R-AC05VF)
 - 18) - Vout Sense (pin di sensing della - Vout) (GND out nel modello MDF300R-AC05VF)
 - 20) GND out
 - 22) GND out
 - 24) Non connesso (GND out nel modello MDF300R-AC05VF)
 - 26) ALIM_DWx (allarme mancanza alimentazione primaria rilevata da alimentatore x: aperto allarme)
 - 28) ALIM_ALLx (allarme alimentazione da alimentatore x a modulo allarmi)
 - 30) Servizio 1 (pin di connessione tra JAA1 dell'alimentatore 1 e JAA2 dell'alimentatore 2)
 - 32) Servizio 2 (pin di connessione tra JAA1 dell'alimentatore 1 e JAA2 dell'alimentatore 2)
- Connettore DIN 41612 H15

- JB
- 04)
 - 06) 220Vac (versione AC)
 - 08) Non connesso
 - 10) 220Vac (versione AC)
 - 12) Non connesso
 - 14) Non connesso
 - 16) Non connesso
 - 18) Non connesso
 - 20) Non connesso
 - 22) - 48Vdc1 (versione DC)
 - 24) +48Vdc1 (versione DC)
 - 26) Non connesso
 - 28) - 48Vdc2 (versione DC)
 - 30) +48Vdc2 (versione DC)
 - 32) Terra di riferimento (*)
- (*) Terra di riferimento contatto di sicurezza (pin più lungo)

Safety Standard: pending	EN60950-1 UL1950 CSA950
Conducted noise (input):	EN55022A
Material Flammability:	UL94V-0