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COSEL DC-DC Converters PCB Mount Type

MGFS80

Ordering information

MGF ① S ② 80 ③ 24 ④ 05 ⑤ -□ ⑥



①Series name
②Single output
③Output wattage
④Input voltage
⑤Output voltage
⑥Optional
G: Capacitor between Input and Output is removed.
R: with Remote ON/OFF (Positive logic control)

MODEL		MGFS80243R3	MGFS802405	MGFS802412	MGFS802415
MAX OUTPUT WATTAGE[W]		59.4	80	80.4	81
DC OUTPUT	VOLTAGE[V] *1	3.3	5	12	15
	CURRENT[A]	18	16	6.7	5.4

SPECIFICATIONS

	MODEL		MGFS80243R3	MGFS802405	MGFS802412	MGFS802415
INPUT	VOLTAGE[V]		DC9 - 36 (Surge Voltage 50V, 100ms max)			
	CURRENT[A]	*2	2.69typ	3.60typ	3.56typ	3.59typ
	EFFICIENCY[%]	*2	92typ	93typ	94typ	94typ
OUTPUT	VOLTAGE[V]		3.3	5	12	15
	CURRENT[A]		18	16	6.7	5.4
	LINE REGULATION[mV]		13.2max	20max	48max	60max
	LOAD REGULATION[mV]		20max	20max	48max	60max
	RIPPLE[mVp-p] *3	-20 to +60℃	75max	75max	100max	100max
		-40 to -20℃	100max	100max	120max	120max
		Io=0 to 10%	200max	200max	240max	240max
	RIPPLE NOISE[mVp-p] *3	-20 to +60℃	75max	75max	100max	100max
		-40 to -20℃	150max	150max	150max	150max
		Io=0 to 10%	250max	250max	270max	270max
	TEMPERATURE REGULATION[mV]	-20 to +60℃	50max	50max	150max	180max
		-40 to +60℃	80max	80max	240max	290max
	DRIFT[mV]	*4	20max	20max	48max	60max
	START-UP TIME[ms]		30max (Minimum input, Rated load)			
	OUTPUT VOLTAGE ADJUSTMENT RANGE		Fixed (TRM pin open) ±10% adjustable by external VR			
	OUTPUT VOLTAGE SETTING[V]	*5	3.296 - 3.404	4.975 - 5.137	11.857 - 12.243	14.839 - 15.321
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION		Works over 105% of rating and recovers automatically			
	OVERVOLTAGE PROTECTION		Work over 115 to 140% of rating			
	REMOTE ON/OFF		Provided (Negative logic L:ON, H:OFF)			

MODEL		MGFS80483R3	MGFS804805	MGFS804812	MGFS804815
MAX OUTPUT WATTAGE[W]		59.4	80	80.4	81
DC OUTPUT	VOLTAGE[V] *1	3.3	5	12	15
	CURRENT[A]	18	16	6.7	5.4

SPECIFICATIONS

	MODEL		MGFS80483R3	MGFS804805	MGFS804812	MGFS804815
INPUT	VOLTAGE[V]		DC18 - 76 (Surge Voltage 100V, 100ms max)			
	CURRENT[A]	*2	1.35typ	1.80typ	1.78typ	1.80typ
	EFFICIENCY[%]	*2	92typ	93typ	94typ	94typ
OUTPUT	VOLTAGE[V]		3.3	5	12	15
	CURRENT[A]		18	16	6.7	5.4
	LINE REGULATION[mV]		13.2max	20max	48max	60max
	LOAD REGULATION[mV]		20max	20max	48max	60max
	RIPPLE[mVp-p] *3	-20 to +60℃	75max	75max	100max	100max
		-40 to -20℃	100max	100max	120max	120max
		Io=0 to 10%	200max	200max	240max	240max
	RIPPLE NOISE[mVp-p] *3	-20 to +60℃	75max	75max	100max	100max
		-40 to -20℃	150max	150max	150max	150max
		Io=0 to 10%	250max	250max	270max	270max
	TEMPERATURE REGULATION[mV]	-20 to +60℃	50max	50max	150max	180max
		-40 to +60℃	80max	80max	240max	290max
	DRIFT[mV]	*4	20max	20max	48max	60max
	START-UP TIME[ms]		30max (Minimum input, Rated load)			
	OUTPUT VOLTAGE ADJUSTMENT RANGE		Fixed (TRM pin open) ±10% adjustable by external VR			
	OUTPUT VOLTAGE SETTING[V]	*5	3.296 - 3.404	4.975 - 5.137	11.857 - 12.243	14.839 - 15.321
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION		Works over 105% of rating and recovers automatically			
	OVERVOLTAGE PROTECTION		Work over 115 to 140% of rating			
	REMOTE ON/OFF		Provided (Negative logic L:ON, H:OFF)			

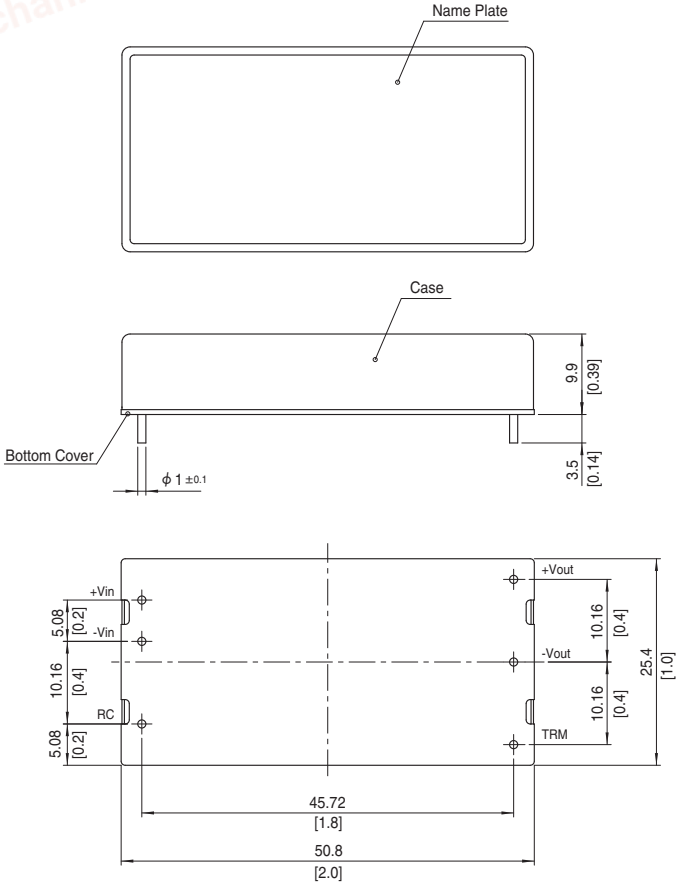
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GENERAL SPECIFICATIONS

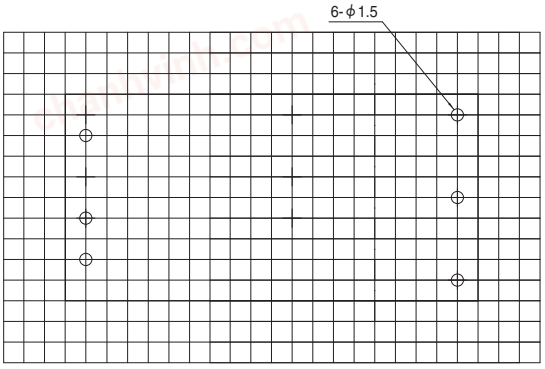
ISOLATION	INPUT-OUTPUT	DC1,500V 1minute, Cutoff current = 10mA, DC500V 1,000MΩ min (20±15℃)
	INPUT-CASE	DC1,000V 1minute, Cutoff current = 10mA, DC500V 1,000MΩ min (20±15℃)
	OUTPUT-CASE	DC1,000V 1minute, Cutoff current = 10mA, DC500V 1,000MΩ min (20±15℃)
ENVIRONMENT	OPERATING TEMP.,HUMID.AND ALTITUDE	-40 to +85℃, 20 to 95%RH (Non condensing) (Required Derating), 5,000m (16,400feet) max
	STORAGE TEMP.,HUMID.AND ALTITUDE	-40 to +100℃, 20 to 95%RH (Non condensing), 9,000m (30,000feet) max
	VIBRATION	10 - 55Hz, 98.0m/s² (10G), 3minutes period, 60minutes each along X, Y and Z axis
	IMPACT	490.3m/s² (50G), 11ms, once each along X, Y and Z axis
SAFETY	AGENCY APPROVALS	UL62368-1, C-UL(CSA62368-1), EN62368-1
OTHERS	CASE SIZE/WEIGHT	25.4×9.9×50.8mm (W×H×D) / 50g max
	COOLING METHOD	Convection/Forced air

*1 MGFW80xx12/MGFW80xx15 is available as single output +24V/+30V
*2 Rated input voltage (DC24V, DC48V) Io=100%
*3 Riple and Ripple Noise is measured by using test board with ceramic capacitor 22μF and Recommended Capacitance at 50mm from output pins. (20MHz Oscilloscope)
*4 Drift is the DC output accuracy for eight hour period after a half-hour warm-up at 25℃
*5 Rated input voltage (DC24V, DC48V), rated output wattage, ambient temperature at 25℃
* Parallel operation with other model is not possible.

External view



※Recommended Pad and Hole dia.
(TOP VIEW)



※Unit : 0.1inch
※Dimension : mm

※ Tolerance ±0.5 [±0.02]
※ Dimensions in mm, [ ]=inches
※ Pin terminal material : Copper
※ Plating treatment of terminal : Lead free plating
※ Case material : Brass
※ Plating treatment of case : Nickel plating
※ Bottom Cover : FR4 (t=0.6) [t=0.024]
※ Please keep enough creepage distance with the pattern on PCB and other components.
※ Weight 50g max