OHM
POWER
SOLUTIONS

MK-650

800Watt

Singel/DUAL OUTPUTS

DC/DC Converter

Features:

- Designed to meet MIL-STD-1275
- High Efficiency – up to 90%
- Fully protected for Over Load/Short, Over-voltage and Over-Temperature
- Two isolated outputs
- Forced air cooling
- Designed to meet MIL-STD-461E

Typical applications:

- Military
- Ruggedized
- Telecom
- Industrial

General specification	
DC Input	
Input voltage range	18-33V_{DC}
Input Per MIL-STD-1275A	(Including 100V for 50ms – no damage)
Protection	Reverse Polarity Protection
Internal Switching Frequency (**KHz**)	312.5
DC Output	
Output voltage / Current	See table below
Line Load & Temperature regulation	< +/-2%
Current limit on each output	115% - 130% of rated current
OVP	Over-Voltage on each output - Non-latch type
Turn on Transient	No turn on transient
Isolation	
INPUT to OUTPUT	100 V_{DC}
INPUT to CASE	100 V_{DC}
OUTPUT to CASE	100 V_{DC}
Interface	
Control Signals	**TTL** logic
Inhibit Signals	**ON/OFF** = Open, P.S. is **OFF**. **ON/OFF** = GND (-2V ÷ +2V) P.S. is **ON** (GND is isolated).
External Synchronization	281 KHz to 343.75 KHz. Duty cycle: 50% TTL level- Low < 0.7V, 5V > High > 2.4V.
LEDs	2 LEDs for each output with the following logic: Input voltage ok & PS in off state -> both LEDs (LED1 & LED2) are red Output on and within regulation -> relevant LED is green Malfunction in one of the outputs -> relevant LED is red
Environmental	
Operating Temperature	–40°C to +55°C ambient
Over-Temperature protection	to +105°C with auto recovery at +95°C
Shock & Vibration	per MIL-STD-810G
EMI-RFI	Designed to meet MIL-STD-461E
Mechanical	
Size L x H x W (mm)	230x155x71
Weight (*grams*)	3300
Cooling	Forced air cooling
Input/Output connector	**INPUT** – AMPHENOL P/N: **D38999/24ZG11PN** or Eq. **OUTPUT** – AMPHENOL P/N: **D38999/24ZH21SN** or Eq.

Ordering information

MODEL #	OUTPUT #	INPUT Voltage (V)	OUTPUT Voltage (V)	OUTPUT Current (A)	POWER (W)	POWER TOTAL (W)	R&N (mV)
MK-650	1	$28V_{DC}$	30V	20	600	800	50
	2		28V	7	200		50

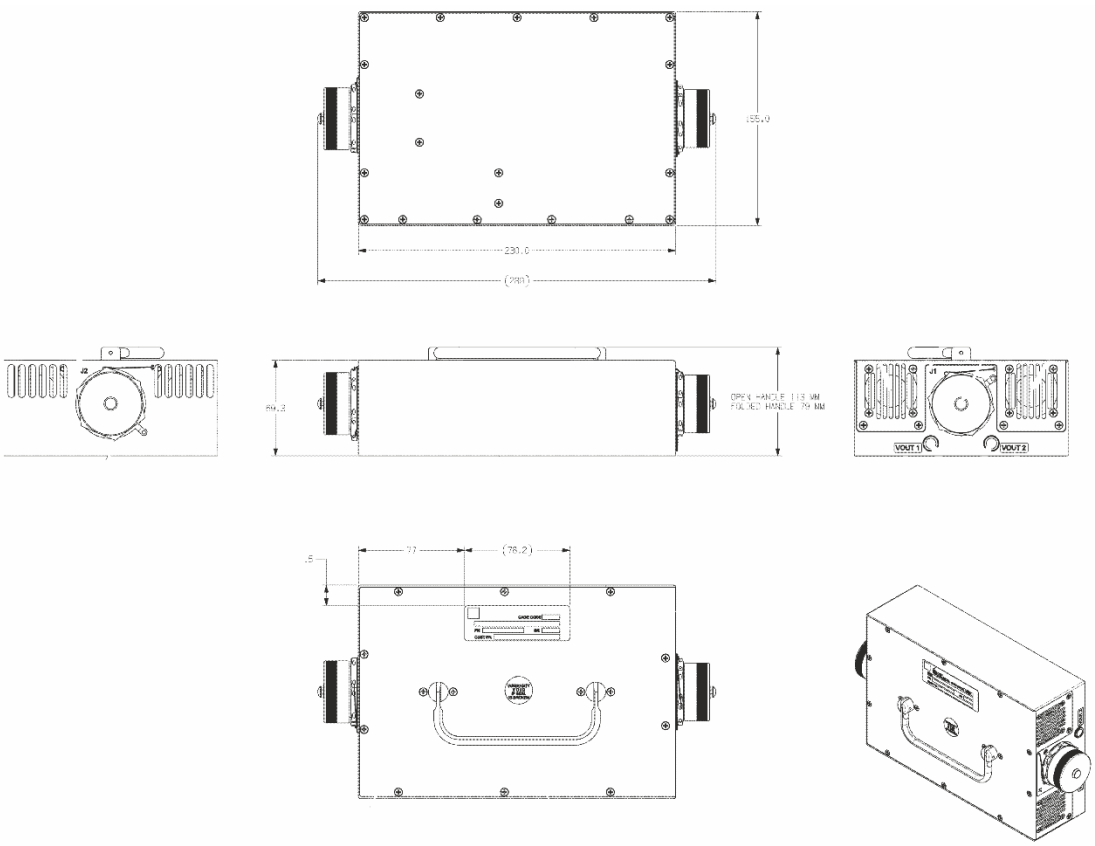
INPUT **J1** PIN – Assignment

PIN #	PIN Function	PIN #	PIN Function
A	IN $28V_{DC}$	E	IN RTN $28V_{DC}$
B	IN $28V_{DC}$	F	IN RTN $28V_{DC}$
C	IN $28V_{DC}$	G	IN RTN $28V_{DC}$
D	IN $28V_{DC}$	H	IN RTN $28V_{DC}$
K	IN $28V_{DC}$	J	IN RTN $28V_{DC}$
		L	N.C

OUTPUT **J2** PIN – Assignment

PIN #	PIN Function	PIN #	PIN Function
A	OUT $32V_{DC}$	M	OUT $32V_{DC}$ RTN
B	PS_ON	N	OUT $32V_{DC}$ RTN
C	PS_ON_RTN	P	OUT $32V_{DC}$
D	SYNC	R	OUT $32V_{DC}$
E	SYNC_RTN	S	OUT $32V_{DC}$
F	OUT $32V_{DC}$	T	OUT $32V_{DC}$
G	OUT $32V_{DC}$	U	OUT $32V_{DC}$ RTN
H	N.C	V	OUT $32V_{DC}$ RTN
J	OUT $32V_{DC}$ RTN	W	OUT $32V_{DC}$ RTN
K	OUT $28V_{DC}$	X	OUT $32V_{DC}$ RTN
L	OUT $28V_{DC}$ RTN		

Outline Drawing



Note: Specifications are subject to change without prior notice by the manufacturer.
Additional configurations and modifications available. Contact us for more details.