



Titan 4th Generation Series



Ruggedized | Military Power Supplies | AC-DC, Fan-less



Titan 4th Generation ("Titan 4G", "T4G"), Power Supply

DC power supply & battery charger with nominal output of 28 / 48 VDC, with its reliable construction and electronics, is best suited for harsh environmental conditions. Its waterproof housing, high performance and superb reliability make the Titan 4G the ideal DC power source for use in land, naval, open air applications and many others. The Titan 4G products can be tailored to meet specific project requirements and holds certifications for MIL-STD along with safety and industrial certifications.

About Us

Designer & manufacturer of power conversion products & systems for over 50 years with focus on **COTS & MOTS** outdoor ruggedized power supplies, convection cooling (Fan-Less) for **EXTREME** environment.

Titan 4th Generation (T4G) Series

A broad line of **Military** leading high performance **Power Supplies & Battery Chargers**



- Quality
- Safety
- Performance
- Fan-less
- MIL-STDs
- Extreme Temperatures
- Wide Input Range
- Maintenance Free
- IP 65 / 67 / 68
- C.O.T.S & M.O.T.S

Challenge us with your environment

Titan 4th Generation (T4G) Series

T4G **Broad** Products Line



Products

T4G	-	01D2	-	28	-	1	-	001
Titan 4 th Generation Series		Output Power (kW) Continuous		Output Voltage (Vdc)		No. of outputs		Specific Part Number
		01D2 – 1.2		28, 48		1, 2		
		01D6 – 1.6		28		2		
		02D0 – 2.0		28, 48		1, 2, 4		
		15D0 (soon)						



Titan 4th Generation (T4G) Series

T4G wide Input range



	Unit / Name	T4G o1D2	T4G o1D6	T4G o2D0	Remarks
Input Voltage	VAC	85-264	85-264	85-264	
Input Frequency	HZ	47-63	47-63	47-63	For 115VAC, up to 440 HZ

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T4G Extra **Flexibility**



	Unit / Name	T4G 01D2	T4G 01D6	T4G 02D0	Remarks
Continuous Output Power	Watts ^G	1,200	1,600	2,000	@115Vac, 60Hz, 25°C
Power Supply		Available	Available	Available	
Battery Charger		Available	Available	Available	SLA, 24V – Contact Manufacturer for specific applications

T4G Benefits:  Power Supply  Battery Charger

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T4G Quality / Safety Agency Approvals

	T4G - 01D2	T4G - 01D6	T4G - 02D0	Remarks
Environmental	MIL-STD-810G	MIL-STD-810G	MIL-STD-810G	
EMC	MIL-STD-461F	MIL-STD-461F	MIL-STD-461F	
Safety	EN62638-1	EN60950-1	EN60950-1	
RoHS Compliant	✓	Contact Manufacturer	✓	
CE	✓	Contact Manufacturer	Contact Manufacturer	
Short Circuit Protection	✓	✓	✓	
Over Load Protection	✓	✓	✓	Auto Recovery
Over Voltage Protection	✓	✓	✓	
Over Temp Protection	✓	✓	✓	

Titan 4th Generation (T4G) Series

T4G Maintenance Free



T4G Benefits:

- **100% natural convection** cooled
- **No** internal or external **fans** needed
- **No base-plate** needed
- Calibration Free

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T4G Ingress Protection (IP) **65 / 67 / 68**



T4G Benefits:

- No ingress of **dust**
- Complete protection against contact (dust-tight)
- **Up to 8 hours** based on airflow
- **Liquid ingress** protection of **up to 1.0 m** below sea level for **30 min**

Titan 4th Generation (T4G) Series

Value-Add System Solutions – Why ?



T4G MOTS:

- When Content includes: **80% standard Building Blocks**
- Minimum Yearly Turnover or single project
- Typical Development / Design cycle – **4 Months**
- Typical – **No / Limited NRE**

Titan 4th Generation (T4G) Series

Value-Add System Solutions Definitions - Available



T4G MOTS:

- Using standard products to meet customer's specific needs
- Alternative to customize power supplies
- Minimum development risks
- High quality, using existing field proven building blocks
- Short cycle time to market
- Cost effective with minimum NRE

Titan 4th Generation (T4G) Series

Value-Add System Solutions Definitions - When to Use?



T4G MOTS:

- **Technical Requirements:** (Power, Features, special regulations)
- **Application Requirements:** Mechanical Changes, Extreme ambient temperatures, High vibration and shock, Protection classes up to IP68, System constraints (size, form..), Number of outputs
- **Economic Requirements:** Saving development costs, Minimize risk, Samples available quickly, Fast access times

	Topics	Titan 3G	Nautilus	Titan 4G	Titan 5G
1	Type	Analog	Analog	Analog	Digital
2	Type	Power Supply (*)	Power Supply	Power Supply (*)	PS & BC (voltage / current dynamic control)
3	Input (VAC)	115/230	115	85-264	85- 264
4	Phase	Single	3 Phase	Single	Single
5	Input (Hz)	50 , 60	50 , 60	50, 60, 400(**)	47 - 440
6	Power Factor	230 Only	Exist	Exist	Exist
7	Output (kW)	1.2, 1.5, 1.8	1.8	1.2, 1.6, 2.0	2.0 (***)
8	Output (VDC)	28	31	28 / 48	23 – 32
9	Cooling Method	Convection	Convection	Convection	Convection
10	Operating temp	< 65	< 65	< 65	< 70
11	Derating (Temp. C)	50	50	50	65
12	Ingress Protection	IP 65	IP 67	IP 65 / 67/68	IP 67/68

(*) Limited BC capabilities
 (PS=Power Supply, BC = Battery Charger)
 (**) 400Hz@115Vdc Only
 (***) RoadMap – Q3 21 : 2kW. Followed by 1 & 3 kW

Our Products

Challenge us with your environment



HORIZON ELECTRONICS Ltd
Power Systems

Thank You

Your power solutions for
EXTREME conditions