

TORNAGO Moving Light Enclosures



Tornado Moving Light Enclosures

Tempest, the world's leading manufacturer of specialist lighting and projector enclosures, brings you Tornado, simply the best lighting enclosures in the world to protect valuable automated luminaires from any weather, in any climate.

The evolution of twenty years experience protecting lights in all climates around the world, today's Tornado brings you:

- DEC4 control, with a choice of RS485 (RDM) or Ethernet monitoring — with webbased monitoring coming soon.
- Powerful fans change the air every 1-2 seconds in the enclosure when the luminaire is on, maintaining a cool operating environment and optimizing equipment and lamp life.
- Aluminum, stainless steel and acrylic construction for excellent corrosion resistance in any climate.
- More sizes, tailored for the latest generation of highefficiency moving lights.

Thousands of Tornado enclosures are in daily use in every climate type there is, from the frozen North to the tropics and deserts, in theme parks, resorts, attractions and cruise ships.

Tornado is our finest general purpose lighting enclosure family yet, building on an unmatched experience base, and offering you the best protection in the world for your lighting investment.

For salt fog environments on ships and beach locations, check out our *Tornado Marine* catalog.

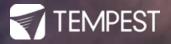




Our biggest Tornado ever — Tornado 2500, shown here with a Syncrolite SyncroMITE Beam



Tornado 1925V, base up, globe down, for Super Sharpy and similar luminaires



Tornado Moving Light Enclosures **TEMPEST**

Tornado

UV-resistant acrylic globe is guaranteed not to yellow for 5 years. In fact, they last indefinitely.

Spun aluminum top shell, finished with polyester powder coat. Standard color black, other colors to order.

Stainless steel draw latches hold the globe securely in place even in high winds. Padlock rings are provided for security.

Fan chimneys duct cool air up into the globe, and contain heaters to maintain minumum temperatures in cold locations and combat condensation \

EPDM Rubber seal resists oil, salt and chemicals

DEC4 User Interface

Universal stainless steel luminaire mount with two height settings and universal mounting for bolts, quarter-turn fasteners or omega clamps.

Washable electrostatic inlet filter slides out this side

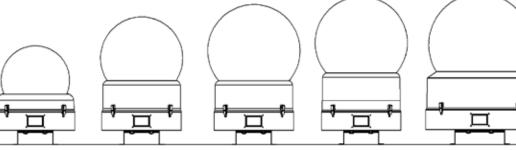
Bolt to structure through holes in stainless steel legs. Slots provided to attach safety cables (not supplied) where required

Exhaust air is expelled both sides of the housing base. Exhaust filters prevent insect ingress.

DEC4 control electronics are readily accessible without removing the luminaire

Tornado Moving Light Enclosures

Which Tornado?



Tornado 1850

Luminaire max:

A: 16.5"/420mm B: 16"/410mm

Watts: 500

Tornado 1900

Luminaire max:

A: 24.5"/620mm B: 16"/410mm Watts: 600

Globe Ø: 20"/510mm Globe Ø: 24"/610mm

Tornado 1925/35

Luminaire max: A: 28"/710mm

B: 16"/410mm

Watts: 1925: 600 1935: 800

Globe Ø: 27"/686mm

Tornado 1975

Luminaire max:

A: 30.5"/775mm B: 16"/410mm Watts: 600

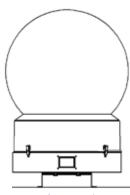
Globe Ø: 27"/686mm Globe Ø: 30"/762mm

Tornado 2000

Luminaire max:

A: 30.5"/775mm

B: 24"/610mm Watts: 1,200



Tornado 2300/2360*

Luminaire max:

A: 38"/970mm B: 24"/610mm

Watts: 1,700 Globe Ø: 36"/915mm

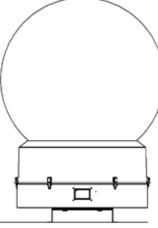
Tornado 2400

Luminaire max:

A: 44"/1,115mm

B: 28"/710mm Watts: 2,500

Globe Ø: 42"/1,067mm



Tornado 2500

Luminaire max:

A: 52"/1,320mm

B: 28"/710mm Watts: 3,000

Globe Ø: 48"/1,219mm

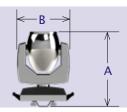
Notes:

NEW! Tornado 2360, just for Vari*Lite

VL6000

Beam

- · Luminaire Max Watts means total power consumption, not lamp wattaae
- · LED luminaires with multiple LED circuits — it is ok to exceed max watts if luminaires will rarely be used in white
- · Luminaire Max Height assumes luminaire mounting in low fixture beam setting, using omega clamps. For maximum luminaire height, omit omegas and mount directly to luminaire base (see manual)



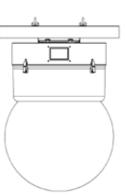
Globe Up

(Standard Configuration)



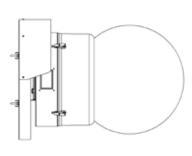
Globe Down

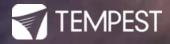
Add V to model number



Horizontal (Models 1850-2500)

Add H to model number





Yeosu, Korea — the 2012 Maritime World Fair. The Big O, constructed on a man-made island in Yeosu harbor, is 50m in diameter, and houses 48 Martin MAC2K luminaires, in Tornado enclosures. There are another 32 Tornados around the base and on shore, with MAC3 luminaires.

Now the bad news — between each light on the Big O is an automated water jet — like a programmable fire hose creating an amazing water ballet. Oh yes, and it's SALT water, pumped right out of the harbor!

So, since 2012 these lights have been running every night in a kind of saltwater Niagara Falls — probably the worst environment you could imagine.

The good news? No problems.



Big O: Design by ECA2, Paris Integration By Hansam Systems, Seoul

Watch the video at tempest.biz/installations



Tornado Moving Light Enclosures

RS485 Comms (standard)

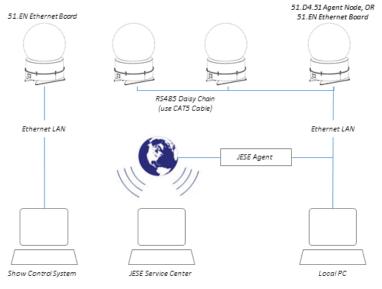
Daisy-chain a group of Tornado enclosures together with this RS485 board — one per enclosure, and monitor using a JESE RDM-TXI interface (Tempest part # 2000.195).

51.EN Ethernet Comms

Use this Ethernet adapter to connect one Tornado or a group of Tornados connected using RS485 to a PC or show control system, and monitor using Tempest TEMP protocol. Download the TEMP Developer Guide from www.tempest.biz/tech-support.

RS485 (DMX/RDM) Daisy Chain OPTIONAL Set Line Termination More RDM/DMX DMX/RDM Switch in last Universes SPLITTER enclosure of each RS485 run (OPTIONAL) SHOW 2000.195 CONTROL SYSTEM RDM-TRI USB Local PC RDM - JESE GetSet

System Monitoring



JESE Agent - Global Monitoring

Now, there's Agent, from Tempest partner JESE — monitor larger systems in the site control room, or worldwide, from our UK-based control center — see more below...

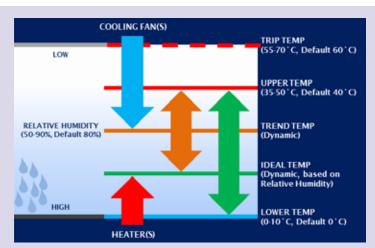
Goldilocks™

How do we keep your lights from roasting when it's 50°C and there's no shade?

And prevent condensation from destroying your projector overnight?

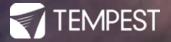
Tempest's unique Goldilocks™
Operating System (patents
pending) brings enclosure
control to a new level.

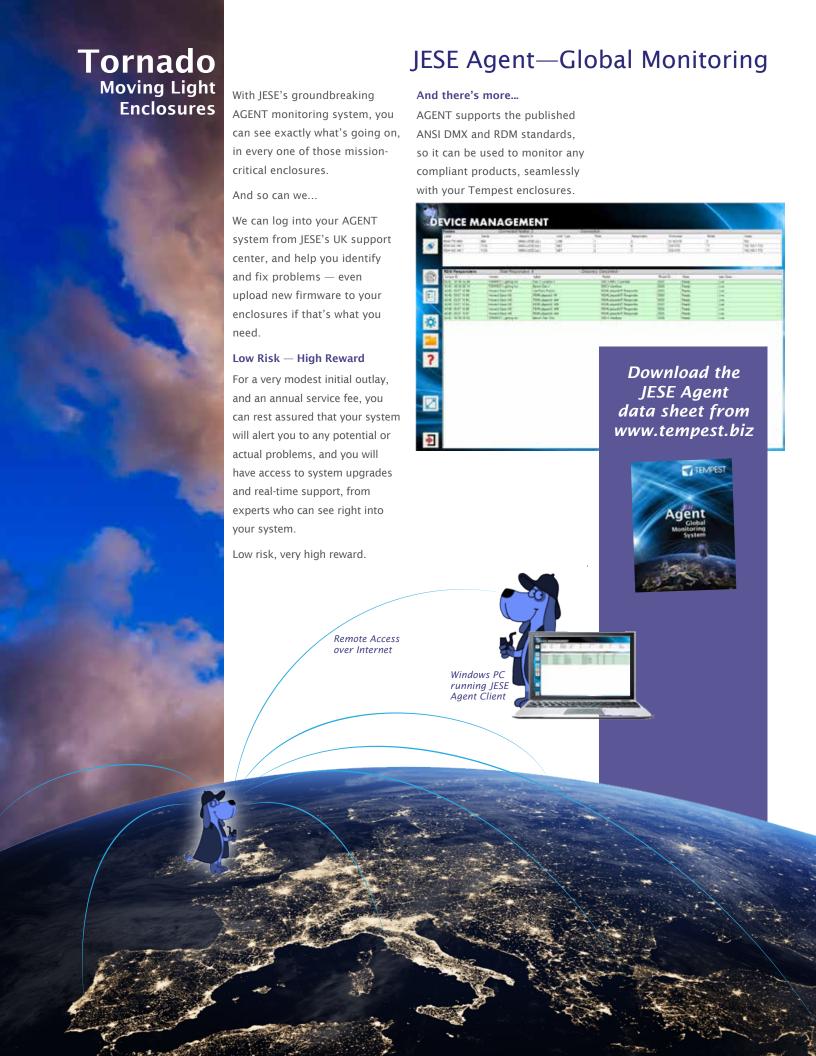
Goldilocks keeps the air temperature inside your enclosure just right, removing heat from the projector when the lamp is on or when the enclosure is heated by the sun. We're changing the air every few seconds.



Goldilocks uses a heater to maintain a minimum temperature in cold climates.

And Goldilocks tracks temperature and humidity 24/7, keeping relative humidity inside your enclosure just right by using heaters to raise the air temperature when needed, adapting constantly to prevent deadly condensation.

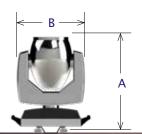






Ordering Guide - International

Part #	Description	Globe ↑↓	Volts 50/60Hz	Globe Ø in [cm]	Height in [cm]	Weight lbs [kg]	Light Max A in [cm]	Light Max B in [cm]	Light Max Watts	Shipping ** Dimensions (lwh) in [cm]	Packed Weight lbs [kg]
1850.ING	Tornado 1850, Globe Up	↑	200-250	20 [51]	32 [82]	42 [19]	16.5[42]	16 [41]	500	32x32x46	67 [30]
1850.INGV	Tornado 1850, Globe Down	\downarrow	200-250	20 [51]	32 [82]	45 [21]	16.5[42]	16 [41]	500	[81x81x102]	70 [32]
1850.INGH	Tornado 1850, Horizontal	\rightarrow	200-250	20 [51]	32 [82]	46 [21]	16.5[42]	16 [41]	500	и	70 [32]
1900.ING	Tornado 1900, Globe Up	↑	200-250	24 [61]	38 [98]	52 [24]	24.5 [62]	16 [41]	500	и	75 [34]
1900.INGV	Tornado 1900, Globe Down	\downarrow	200-250	24 [61]	39 [99]	60 [27]	24.5 [62]	16 [41]	500	u	83 [38]
1900.INGH	Tornado 1900, Horizontal	\rightarrow	200-250	24 [61]	39 [99]	60 [27]	24.5 [62]	16 [41]	500	ű	83 [38]
1925.ING	Tornado 1925, Globe Up	1	200-250	27 [69]	42 [107]	54 [25]	28[71]	16 [41]	600	и	77 [35]
1925.INGV	Tornado 1925, Globe Down	\downarrow	200-250	27 [69]	43 [109]	62 [28]	28[71]	16 [41]	600	"	91 [41]
1925.INGH	Tornado 1925, Horizontal	\rightarrow	200-250	27 [69]	43 [109]	62 [28]	28[71]	16 [41]	600	u	91 [41]
1935.ING	Tornado 1935, Globe Up	1	200-250	27 [69]	42 [107]	54 [25]	28[71]	16 [41]	800	ű	77 [35]
1935.INGV	Tornado 1935, Globe Down	\downarrow	200-250	27 [69]	42 [107]	62 [28]	28[71]	16 [41]	800	u	91 [41]
1935.INGH	Tornado 1935, Horizontal	1	200-250	27 [69]	42 [107]	62 [28]	28[71]	16 [41]	800	ű	91 [41]
1975.ING	Tornado 1975, Globe Up	↑	200-250	27 [69]	45 [115]	57 [26]	30.5 [78]	16 [41]	600	32x32x48	80 [36]
1975.INGV	Tornado 1975, Globe Down	\downarrow	200-250	27 [69]	46 [117]	65 [30]	30.5 [78]	16 [41]	600	[81x81x122]	90 [41]
1975.INGH	Tornado 1975, Horizontal	\rightarrow	200-250	27 [69]	45 [115]	57 [26]	30.5 [78]	16 [41]	600	"	80 [36]
2000.ING	Tornado 2000, Globe Up	↑	200-250	30 [76]	45 [115]	110 [50]	30.5 [78]	21 [53]	1200	39x39x54	145 [66]
2000.INGV	Tornado 2000, Globe Down	\downarrow	200-250	30 [76]	46 [117]	115[55]	30.5 [78]	21 [53]	1200	[100x100x137]	160 [73]
2000.INGH	Tornado 2000, Horizontal	\rightarrow	200-250	30 [76]	46 [117]	120 [55]	30.5 [78]	21 [53]	1200	u	165 [75]
2300.ING	Tornado 2300, Globe Up	↑	200-250	36 [91]	53 [135]	111 [51]	38 [97]	21 [53]	1,700	"	145 [66]
2300.INGV	Tornado 2300, Globe Down	\downarrow	200-250	36 [91]	54 [137]	126 [57]	38 [97]	21 [53]	1,700	u	160 [73]
2300.INGH	Tornado 2300, Horizontal	\rightarrow	200-250	36 [91]	53 [135]	130 [59]	38 [97]	21 [53]	1,700	"	165 [75]
2360.ING	Tornado 2360, Globe Up	1	200-250	36 [91]	53 [135]	111 [51]		VL6000		ű	145 [66]
2360.INGV	Tornado 2360, Globe Down	\downarrow	200-250	36 [91]	54 [137]	126 [57]		VL6000		"	160 [73]
2360.INGH	Tornado 2360, Horizontal	\rightarrow	200-250	36 [91]	53 [135]	130 [59]		VL6000		и	165 [75]
2400.ING	Tornado 2400, Globe Up	1	200-250	42 [107]	61 [153]	204 [93]	44 [112]	28 [71]	2,500	48x48x69	245 [111]
2400.INGV	Tornado 2400, Globe Down	\downarrow	200-250	42 [107]	61 [153]	209 [95]	44 [112]	28 [71]	2,500	[122x122x175]	250 [114]
2500.ING	Tornado 2500, Globe Up	1	200-250	48 [122]	67 [170]	192 [87]	52 [132]	28 [71]	3,000	54x54x75	260 [118]
2500.INGV	Tornado 2500, Globe Down	\downarrow	200-250	48 [122]	68 [172]	212 [96]	52 [132]	28 [71]	3,000	[137x137x191]	270 [123]
Options											
51.EN	Ethernet Board (Links an enclosure or a group of enclosures with RS485 boards to an Ethernet network, for use with TEMP protocol)										
51.DF.23	Spare Electrostatic Foam Inlet Filter, Tornado 1850-1975										
51.DF.32	Spare Electrostatic Foam Inlet Filter, Tornado 2000-2300										
51.DF.38	Spare Electrostatic Foam Inlet Filter, Tornado 2400-2300										
0000.CL	Custom Base Color (standard is Black). Specify White or any RAL number										



^{**} All Schedule B Export Code: 9405.99.0000

All Tornado Enclosures are built to order. Please consult factory for lead times.

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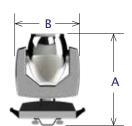
Custom Colors

All the enclosures in this brochure are shown in Tornado standard Black (Semi-matt, light texture) finish. White or any RAL color are available to special order.



Ordering Guide - North America & Japan

Part #	Description	Globe ↑↓	Volts 50/60Hz	Globe Ø US [cm]	Height US [cm]	Weight lbs [kg]	Light Max A US [cm]	Light Max B US [cm]	Light Max Watts	Shipping ** Dimensions (lwh) in [cm]	Packed Weight Ibs [kg]
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1850.USGH	Tornado 1850, Horizontal	\rightarrow	200-250*	20 [51]	32 [82]	46 [21]	16.5[42]	16 [41]	500	u	70 [32]
1900.USG	Tornado 1900, Globe Up	↑	200-250*	24 [61]	38 [98]	52 [24]	24.5 [62]	16 [41]	500	u	75 [34]
1900.USGV	Tornado 1900, Globe Down	\downarrow	200-250*	24 [61]	39 [99]	60 [27]	24.5 [62]	16 [41]	500	u	83 [38]
1900.USGH	Tornado 1900, Horizontal	\rightarrow	200-250*	24 [61]	39 [99]	60 [27]	24.5 [62]	16 [41]	500	cc	83 [38]
1925.USG	Tornado 1925, Globe Up	↑	200-250*	27 [69]	42 [107]	54 [25]	28[71]	16 [41]	600	u	77 [35]
1925.USGV	Tornado 1925, Globe Down	\downarrow	200-250*	27 [69]	43 [109]	62 [28]	28[71]	16 [41]	600	u	91 [41]
1925.USGH	Tornado 1925, Horizontal	\rightarrow	200-250*	27 [69]	43 [109]	62 [28]	28[71]	16 [41]	600	u	91 [41]
1935.USG	Tornado 1935, Globe Up	↑	200-250*	27 [69]	43 [109]	54 [25]	28[71]	16 [41]	800	cc	77 [35]
1935.USGV	Tornado 1935, Globe Down	\downarrow	200-250*	27 [69]	43 [109]	62 [28]	28[71]	16 [41]	800	u	91 [41]
1935.USGH	Tornado 1935, Horizontal	\rightarrow	200-250*	27 [69]	43 [109]	62 [28]	28[71]	16 [41]	800	u .	91 [41]
1975.USG	Tornado 1975, Globe Up	1	200-250*	27 [69]	45 [115]	57 [26]	30.5 [78]	16 [41]	600	32x32x48	80 [36]
1975.USGV	Tornado 1975, Globe Down	\downarrow	200-250*	27 [69]	46 [117]	65 [30]	30.5 [78]	16 [41]	600	[81x81x122]	90 [41]
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2000.USGH	Tornado 2000, Horizontal	\rightarrow	200-250*	30 [76]	46 [117]	120 [55]	30.5 [78]	21 [53]	1200	и	165 [75]
2300.USG	Tornado 2300, Globe Up	\uparrow	200-250*	36 [91]	53 [135]	111 [51]	38 [97]	21 [53]	1,700	u	145 [66]
2300.USGV	Tornado 2300, Globe Down	\downarrow	200-250*	36 [91]	54 [137]	126 [57]	38 [97]	21 [53]	1,700	u .	160 [73]
2300.USGH	Tornado 2300, Horizontal	\rightarrow	200-250*	36 [91]	53 [135]	130 [59]	38 [97]	21 [53]	1,700	u	165 [75]
2360.USG	Tornado 2360, Globe Up	↑	200-250	36 [91]	53 [135]	111 [51]		VL6000		ű	145 [66]
2360.USV	Tornado 2360, Globe Down	^	200-250	36 [91]	54 [137]	126 [57]		VL6000		u	160 [73]
2360.USH	Tornado 2360, Horizontal	↑	200-250	36 [91]	53 [135]	130 [59]		VL6000		u	165 [75]
2400.USG	Tornado 2400, Globe Up	1	200-250	42 [107]	61 [153]	204 [93]	44 [112]	28 [71]	2,500	48x48x69	245 [111]
2400.USGV	Tornado 2400, Globe Down	\downarrow	200-250	42 [107]	61 [153]	209 [95]	44 [112]	28 [71]	2,500	[122x122x175]	250 [114]
2500.USG	Tornado 2500, Globe Up	1	200-250	48 [122]	67 [170]	192 [87]	52 [132]	28 [71]	3,000	54x54x75	260 [118]
2500.USGV	Tornado 2500, Globe Down	\downarrow	200-250	48 [122]	68 [172]	212 [96]	52 [132]	28 [71]	3,000	[137x137x191]	270 [123]
Options											
51.EN	Ethernet Board (Links an enclosure or a group of enclosures with RS485 boards to an Ethernet network, for use with TEMP protocol)										
20.SWR	Stainless Steel Safety Wire ring on Globe Assembly (safety wire not included)										
51.DF.23	Spare Electrostatic Foam Inlet Filter, Tornado 1850-1975										
51.DF.32	Spare Electrostatic Foam Inle	t Filter, 7	ornado 200	0-2500							
51.DF.38	Spare Electrostatic Foam Inlet Filter, Tornado 2400-2500										



0000.CL

Custom Base Color (standard is Black). Specify White or any RAL number

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Custom Colors

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^{*} May be supplied 120V to special order

^{**} All Schedule B Export Code: 9405.99.0000



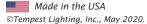
Tornado Configurator

Please complete this form and email to us at info@tempest.biz

Name	
Company	
Email	
Phone	
Project Name and	
Location	
Luminaire type	
Tornado Model	
Quantity	
Destination Country	
Install Date	
Orientation	Globe Up ☐ Globe Down ☐
	Horizontal 🗆
Required Options	
51.EN Ethernet Board	Yes, Qty No □
20.SWR Safety Wire Ring	Yes, Qty No □
Spare Inlet Filter	Yes, Qty No □
Color	Standard, Black \square
	Custom, RAL #
	Gloss Level%
Factory Use Only:	
SO Number	
Date	
Electrical	IEC NEMA

Custom Requests:		





In the interest of continuous product improvement, specifications are subject to change without notice



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