



# Tigo Energy Dual Maximizer - ES (MM-2ES) Data Sheet



## Optimize the energy harvest of your PV system using the Tigo Energy Maximizer to:

- Accelerate system payback
- Maximize the power output of the array under any condition
- Reconsider previously rejected projects because of unfavorable shade or orientation
- Maintain best-in-class conversion efficiency
- Manage the system with module-level data to minimize operational costs and keep the system at peak performance throughout its lifetime
- Introduce an unprecedented level of safety for new and existing PV solar installations
- Simplify the balance-of-system design, especially for high Voc or thin-film modules



The Tigo Energy Dual Maximizer is designed to integrate seamlessly with the industry-leading Tigo Energy Maximizer System. Each unit can be used with either one or two PV modules, giving system designers added flexibility. In addition, the Dual Maximizer can be mixed with Smart Modules in the same system – they can be connected on the same string, and can use the same MMU and Gateway communications system simultaneously.

## Dual Maximizer - ES Technical Specifications

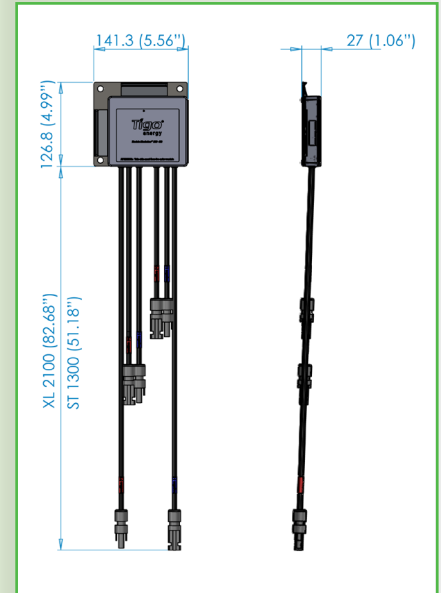
	MM-2ES 50	MM-2ES 75
<b>Electrical Ratings at STC*</b>		
<b>Input</b>	<b>Per Input</b>	<b>Per Input</b>
Nominal Input Power	375W	375W
Absolute Maximum Input Voltage (Voc)	52Vdc	75Vdc
MPPT Operating Voltage Range (Vmp)	16-48Vdc	30-65Vdc
Maximum Input Current (Isc)	10A	7.5A
Maximum Continuous Input Current (Imp)	9.5A	6.5A
<b>Output</b>		
Maximum Output Power	700W	700W
Maximum Output Current	9.5A	9.5A
Operating Output Voltage	0-52V	0-75V
<b>Mechanical</b>		
Ambient temperature range	-40°C to +70°C (-40°F to +158°F)	
Storage temperature range	-40°C to +70°C (-40°F to +158°F)	
Cooling method	Natural convection	
Dimensions (with bracket)	142.3 x 29.3 x 1631 mm (5.60" x 1.15" x 64.21")	
Weight	950 gr (2.10 LB)	
Enclosure rating	IP65, NEMA 3R	
<b>Cabling</b>		
Cabling Type	PV1-F, PV Wire	PV1-F, PV Wire
Cable length	ST: 1300 mm (51.18") XL: 2100 mm (82.68")	ST: 1300 (51.18") XL: 2100 mm (82.68")
Connector	MC4 / MC3 / Tyco	MC4 / MC3 / Tyco
UV resistance	500 hr with UV light between 300-400nm@65C 500 hr with UV light	
Maximum string Voltage	600V/1000V dual rated	600V/1000V dual rated
Cable Outer Diameter	6.9 ± 0.2 mm	6.9 ± 0.2 mm
Wire cross section	4.0mm <sup>2</sup> (12AWG)	4.0mm <sup>2</sup> (12AWG)
<b>Compliance</b>		
Safety	CSA C22.2 No. 107.1-01, UL 1741 2nd Edition (January 28th 2010), EN 62109-1: 2010, Protection Class II	
EMC	CE Council Directives 2004/108/EC, VCCI Japan Council /CISPR22 FCC Part 15B, Radio Approval	
Environmental	Pollution Degree 3	
Installation	Application Class A, Over voltage (Installation) category III	
Additional	Tested with impulse voltage at 8kV, Flammability Class V-0	

\* STC: Irr=1,000 w/m<sup>2</sup>, cell temp. = 25°C, AM=1.5



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### Mechanical Dimensions:



### Ordering Information:

#### MM - 2ES50 - MC4 - ST

**50/75\*** .....  
Maximum Voltage must be higher than PV module Voc

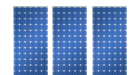
**MC4/MC3/TYCO** .....  
Connector type

**XL\*\*/ST** .....  
Output cable length

XL (2100mm / 82.68 ) for -



ST (1300mm / 51.18 ) for -



\* MM2-ES75 is available only with MC4 connectors

\*\* MM2-ES XL version is available only with MC4 connectors