



MOEBIUS  
Intelligent PV Inverters

TRIO M



**Threephase**  
**2 MPPT**

DATASHEET

**TRIO-M-10 KVA-2 | TRIO-M-15 KVA-2 |**  
**TRIO-M-20 KVA-2 | TRIO-M-25 KVA-2**

Designed and manufactured by



**DARWIN**  
RENEWABLE ENERGY INNOVATOR



<i>Efficiency</i>	TRIO-M-10 KVA-2	TRIO-M-15 KVA-2	TRIO-M-20 KVA-2	TRIO-M-25 KVA-2
Max. Efficiency	98,3%	98,4%	98,4%	98,4%
EU. Efficiency	97,8%	98,0%	98,0%	98,0%
<b>Input (PV)</b>				
Max. Input Voltage	1100 V	1100 V	1100 V	1100 V
Max. PV configuration (STC)	160,00%	160,00%	160,00%	160,00%
Max. PV Power (W)	16000 W	24000	32000	40000
Rated Input Voltage	620 V	620 V	620 V	620 V
Max. Input Current	30A + 15A	2*30A	2*30A	2*30A
Max. Short Circuit Current	40A + 20A	2*40A	2*40A	2*40A
Start Input Voltage	180V	180V	180V	180V
MPPT Operating Voltage Range	160V - 1000V	160V - 1000V	160V - 1000V	160V - 1000V
Max. Number of PV Strings	3 (2/1)	4 (2/2)	4 (2/2)	4 (2/2)
No. of MPPTs	2	2	2	2
<b>Output (Grid)</b>				
Rated AC Active Power	10000 W	15000 W	20000 W	25000 W
Max. AC Apparent Power	11000 VA	16500 VA	22000 VA	25000 VA
Max. AC Active Power (PF=1)	11000 W	16500 W	22000 W	25000 W
Max. AC Output Current	3*16,8A	3*25,3A	3*33,7A	3*39,8A
Rated AC Voltage	380V/400V/415V,3W + N + PE	380V/400V/415V,3W + N + PE	380V/400V/415V,3W + N + PE	380V/400V/415V,3W + N + PE
AC Voltage Range (1)	260V-510V (Adjustable)	260V-510V (Adjustable)	260V-510V (Adjustable)	260V-510V (Adjustable)
Rated Grid Frequency	50 Hz / 60 Hz	50 Hz / 60 Hz	50 Hz / 60 Hz	50 Hz / 60 Hz
Grid Frequency Range (2)	45Hz-55Hz / 55 Hz-65 Hz (Adjustable)	45Hz-55Hz / 55 Hz-65 Hz (Adjustable)	45Hz-55Hz / 55 Hz-65 Hz (Adjustable)	45Hz-55Hz / 55 Hz-65 Hz (Adjustable)
THDI	<3%@Rated Power	<3%@Rated Power	<3%@Rated Power	<3%@Rated Power
DC Current Injection	<0,5%@Rated Current	<0,5%@Rated Current	<0,5%@Rated Current	<0,5%@Rated Current
Power Factor	>0,99 Rated Power (Adjustable 0,8 LD-0,8 LG)	>0,99 Rated Power (Adjustable 0,8 LD-0,8 LG)	>0,99 Rated Power (Adjustable 0,8 LD-0,8 LG)	>0,99 Rated Power (Adjustable 0,8 LD-0,8 LG)

## TRIO-M-10 KVA-2 | TRIO-M-15 KVA-2 | TRIO-M-20 KVA-2 | TRIO-M-25 KVA-2

<i>General</i>		<i>Packaging &amp; logistics</i>	
Topology	Transformerless	Carton packaging dimension (W x H x D)	500 x 470 x 361 mm
IP Rating	IP66	G.W. (Gross Weight)	26,5
Night Self Consumption	< 1 W	Qty per pallet (pcs)	8+12
Cooling	Natural Cooling	Pallet Dimension (W x H x D)	1200 x 1000 x 2063 mm
Operating Temperature Range	-25°C - 60°C	Pallet m <sup>3</sup> (CBM)	2,5 m <sup>3</sup>
Relative Humidity Range	0 - 100 %	20 ft cont. Pallet Qty (Plt) / product Qty (pcs)	20 pallets / 180 pallets
Max. Operating Altitude	4000 m	40 ft cont. Pallet Qty (Plt) / product Qty (pcs)	40 pallets / 400 pallets
Noise (typical)	<45 dB		
Dimensions (W x H x D)	398 x 460 x 190 mm		
N.W. (Netto Weight)	23 kg		



**Protection**

DC switch	Support
Anti-islanding protection	Support
AC Overcurrent protection	Support
AC short current protection	Support
DC reverse connection	Support
Surge Arrester	AC Type III (Type II optional) / DC Type III (Type II Optional)
Insulation detection	Support
Leakage current protection	Support

**HMI & COM**

Display	Wireless & APP + LED, LCD (Optional)
Communication	RS485, Optional WiFi / GPRS / 4G

**Warranty**

5 years, 10 years when installed by Darwin registered installer

**Certification**

Safety	IEC62109-1, IEC62109-2
Grid Code	VDE-AR-N 4105, EN 50549-1, CEI 0-21, UNE 206006/206007-1, UNE 217001 IEC 61727/62116, AS4777.2

