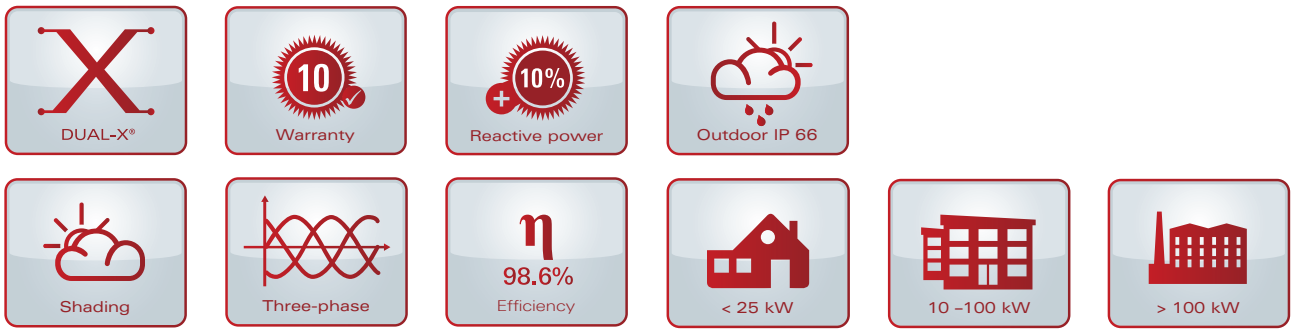
Pulls out a cool 98.6 %.
The PLATINUM® R3-M inverter.



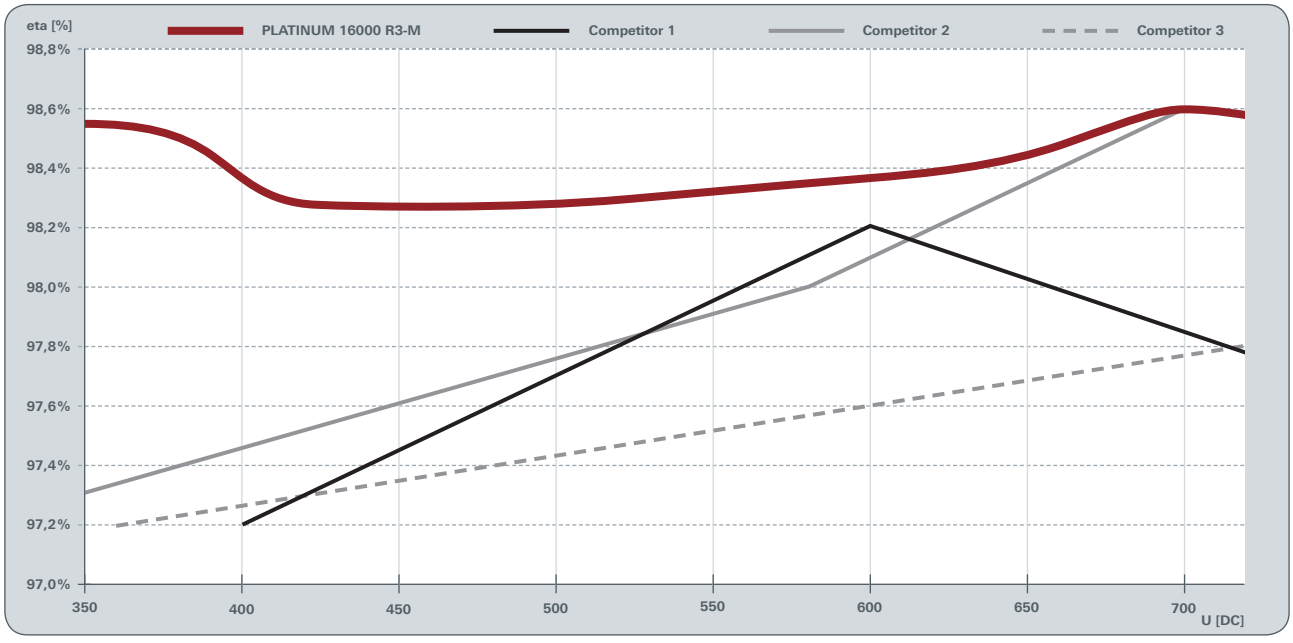


The PLATINUM® R3-M is compliant with the “Energy management (§6 EEG)” market requirement specification, the “Technical guidelines for power generating plants connected to the medium voltage grid” and the “Low voltage directive AR-N 4105”.

The transformerless, three-phase high-performance R3-M inverter is the flagship of the PLATINUM® product family. It is smaller, more compact, more lightweight and more efficient. Thanks to the innovative DUAL-X® technology, it achieves a peak efficiency of 98.6 % and thus offers an excellent yield. In addition, its 10 % increase in apparent power enables the ratings of medium-voltage systems to be maximised. The pure convection cooling reduces noise levels and maintenance requirements. Furthermore, ease of installation and comissioning are assured by the low weight and automatic master programming via the PLATINUM® network EIA 485. The graphics display shows all important operating data in a clearly legible display – even during the night. The range contains five models from 7 kW to 16 kW.

- Maximum efficiency 98.6 %
- Maximised ratings in medium-voltage plants thanks to 10 % increase in apparent power
- DIVE® technology for increased efficiency in the lower power output range
- RAC-MPP® technology for rapid MPP tracking
- Pure convection cooling reduces maintenance requirements and noise levels
- Integrated datalogger provides storage capacity for 30 years worth of operating data
- Suitable for universal use thanks to multi-country configuration

Stronger than the competition. Thanks to Dual-X®.



High efficiency across the entire MPPT voltage range thanks to innovative Dual-X® technology.
The advantage: exceptionally high yields with optimum design flexibility..

Specifications

R3 inverter	7000 R3-M	9000 R3-M	11000 R3-M
DC Input			
Max. PV power	6,700 Wp	9,000 Wp	11,200 Wp
Max. DC power	6,150 Wp	8,200 W	10,250 W
MPPT voltage range	350 ... 720 V		
Max. input voltage	900 V		
Max. MPPT inout current	2 x 10 A	2 x 13 A	2 x 16 A
Number of string inputs	1 + 1		
Number of MPP trackers	1		
DC disconnector	●		
DC short circuit current	2 x 14 A	2 x 18 A	2 x 22 A
Reverse polarity protection / Ground fault monitoring (isolation check)	● / ●		
AC Output			
Rated power	6,000 Wp	8,000 W	10,000 W
Rated current	3 x 8.7 A	3 x 11.6 A	3 x 14.5 A
Max. apparent power	6,700 VA	8,900 VA	11,200 VA
Max. AC current	3 x 11.9	3 x 13.1 A	3 x 20 A
Power feed starts at	20 W		
Mains output voltage	3AC 230 V / 400 V (+/-20 %)		
Feed in phases / connection phases	3 / 3		
Max. permitted grid impedance |Zmax| (EN 61000-3-11)	–		
Standby consumption	1 W		
Mains frequency	50 Hz (+/-5 %)		
Power factor (cos phi) (ind ... kap)	0.7 ... 0.7		
Short circuit resistance / Ground fault monitoring (RCD)	● / ●		
Interfaces			
DC connection	MC4		
AC connection	Spring clamp connectors		
RS 485 (Clamps / RJ45)	● / ●		
Ethernet / CAN	– / –		
Integrated web server	–		
Alarm relay	–		
Appliance data			
Max. efficiency	98.5 %		98.6 %
European efficiency	98.2 %		98.3 %
Weight	36 kg		44 kg
Dimensions (H x W x D in mm)	626 x 547 x 290		
Operating temperature	-20 ... +60 °C		
Storage temperature	-25 ... +80 °C		
Relative humidity	0 ... 95 %		
Sound pressure level	< 32 dB (A)		
Protection degree (DIN EN 60529)	IP 66		
Protection class / overvoltage category	I / Type 3		
Full graphic display (color / monochrome)	– / ●		
Storage capacity data logger	30 years		
System topology	Transformerless		
Cooling	Convection		
Standards / grid codes	Overview at www.diehl-controls.com		
Type designation	**7000 R3-MDX-10**	**9000 R3-MDX-10**	**11000 R3-MDX-10**

Subject to alterations. Valid as of 01/2014.

● Standard ○ Optional – Not available

Specifications

R3 inverter	14000 R3-M	16000 R3-M
DC Input		
Max. PV power	15,200 Wp	16,900 Wp
Max. DC power	13,800 W	15,350 W
MPPT voltage range	350 ... 720 V	
Max. input voltage	900 V	
Max. MPPT inout current	2 x 21 A	2 x 24 A
Number of string inputs	2 + 2	
Number of MPP trackers	1	
DC disconnector	●	
DC short circuit current	2 x 29 A	2 x 33 A
Reverse polarity protection / Ground fault monitoring (isolation check)	● / ●	
AC Output		
Rated power	13,500 W	15,000 W
Rated current	3 x 19.6 A	3 x 21.7 A
Max. apparent power	15,000 VA	16,700 VA
Max. AC current	3 x 24.2 A	
Power feed starts at	20 W	
Mains output voltage	3AC 230 V / 400 V (+/-20 %)	
Feed in phases / connection phases	3 / 3	
Max. permitted grid impedance |Zmax| (EN 61000-3-11)	–	
Standby consumption	1 W	
Mains frequency	50 Hz (+/-5 %)	
Power factor (cos phi) (ind ... kap)	0.7 ... 0.7	
Short circuit resistance / Ground fault monitoring (RCD)	● / ●	
Interfaces		
DC connection	MC4	
AC connection	Spring clamp connectors	
RS 485 (Clamps / RJ45)	● / ●	
Ethernet / CAN	– / –	
Integrated web server	–	
Alarm relay	–	
Appliance data		
Max. efficiency	98.6 %	
European efficiency	98.3 %	
Weight	44 kg	
Dimensions (H x W x D in mm)	626 x 547 x 290	
Operating temperature	-20 ... +60 °C	
Storage temperature	-25 ... +80 °C	
Relative humidity	0 ... 95 %	
Sound pressure level	< 32 dB (A)	
Protection degree (DIn EN 60529)	IP 66	
Protection class / overvoltage category	I / Type 3	
Full graphic display (color / monochrome)	– / ●	
Storage capacity data logger	30 years	
System topology	Transformerless	
Cooling	Convection	
Standards / grid codes	Overview at www.diehl-controls.com	
Type designation	**14000 R3-MDX-10**	**16000 R3-MDXB-10**

Subject to alterations. Valid as of 01/2014.

● Standard ○ Optional – Not available