

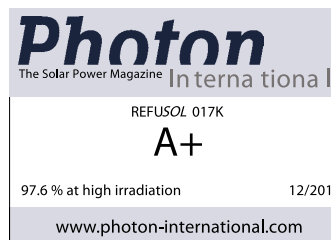
DESIGNED &
MANUFACTURED IN GERMANY

REFU*sol*
REFU*sol* 020K



Highlights:

- Integrated data logger
- Light & compact
- Highest efficiency (98.2%)
- Easy installation
- Outdoor (IP65)
- Maintenance free



Thanks to **IP65** protection, the **three phase** string inverters in the 10-20 kW power classes are suitable for interior and exterior installations, from the 10 kW rooftop system through to the megawatt park. Their low weight and volume ensure **simply handling** and **saved space** during the installation. This is simplified further by a **plug & play** functionality together with an **integrated RS485 interface** and Ethernet.

Even at a low irradiation, the inverters achieve a **peak efficiency** of up to 98.2%. This is ensured by an excellent MPP-tracking and a **wide input voltage range** of up to **380-850V**. Through the very low levels of loss over the complete input voltage range, the REFU*sol* 010K-020K can be configured for **convection cooling** only.

With the **integrated data logger** it is possible to monitor your system around the clock. These data can be transferred via the standard cable or an optional wireless connection via our new REFUconnect radio module.

Thanks to the largely insignificant voltage fluctuations against earth, the **transformerless** devices can also be used for numerous thin film modules.



Technical data

	Refusol 020K
DC data	
Max. PV power	21.2 kW
MPPT range	480 ... 850 V
Max. DC voltage	1000 V
Max. DC current	41 A
MPP tracking	One fast, precise MPP tracker
Number of DC connections	6
DC-disconnection switch	Yes
Internal overvoltage protection	Type 3
AC data	
Rated AC power	19.2 kW
Max. AC power	19.2 kW
AC grid connection	3 AC 400 V + N. 50-60 Hz
Cos ϕ	0.9i ... 1 ... 0.9c
Max. AC current	29 A
Distortion factor THD	< 1.8%
Max. efficiency	98.2%
European efficiency	97.8%
Infeed starting at	20 W
Internal consumption in night operation	< 0.5 W
Internal overvoltage protection	Type 3
Cooling, ambient conditions, EMC	
Cooling	Natural convection
Ambient temperature	-13 ... +131°F
Elevation	Up to 2000 m above sea level
Noise	< 45 dBa
Emitted interference	EN 61000-6-4: 2007
Certification	CE, AS/NZS 4777
Interference immunity	EN 61000-6-2:2005
Environmental classification	4K4H acc. to DIN IEC 721-3-3
SZS or grid protection	Acc. to VDE 0126-1-1
Interfaces	Ethernet & RS485
Mechanical	
Type of protection	IP65 as per EN 60529
Dimensions Width / Height / Depth	535 mm / 601 mm / 277 mm
Weight	41.5 kg



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