

Orion Single Phase Hybrid Storage Inverter with Dual MPPT

RCM-3.0-H-SP-D / 3.7-H-SP-D / 5.0-H-SP-D/
6.0-H-SP-D / 7.5-H-SP-D

**IP65
PROTECTION**

**ZERO-EXPORT
FEED-IN
OPERATION**



**10
YEAR FREE
WARRANTY**

- 150% PV oversized and 110% overload output
- Maximum 120% overload output

High Performance



- Higher efficiency on charging and discharging, up to 97.0%
- Built-in shadow tracking function

- Store the surplus energy from PV to battery
- Less energy loss from battery to inverter

Cost efficient



- Low start output voltage resulting to longer operation (higher yields) throughout the day

- Switchover time <10ms
- Quick configuration with U-disk
- CT compatible, loads respond within 0.3s

Smart



- Intelligent loads management (e.g., Heat pump)
- On & Off-grid parallel function, up to 15kW
- 5 work modes, 2 charging periods available

- IP65 protection level

Safe



- Integrated SPD - Type III

TECHNICAL PARAMETERS

Model	RCM-3.0-H-SP-D	RCM-3.7-H-SP-D	RCM-5.0-H-SP-D	RCM-6.0-H-SP-D	RCM-7.5-H-SP-D
DC Input					
Max. PV array input power [Wp]	4500	5500	7500	9000	10000
Max. PV input voltage [V]	600	600	600	600	600
Start output voltage [V]	90	90	90	90	90
Nominal input voltage [V]	360	360	360	360	360
MPP voltage range [V]	70~550	70~550	70~550	70~550	70~550
No. of MPP trackers / Strings per MPP tracker	2 (1/1)	2 (1/1)	2 (1/1)	2 (1/1)	2 (1/1)
Max. input current (input A/input B) [A]	16/16	16/16	16/16	16/16	16/16
Max. short circuit current (input A/input B) [A]	20/20	20/20	20/20	20/20	20/20
AC Input & Output					
Nominal AC output power [W]	3000	3680	5000	6000	7500
Max. AC output apparent power [VA]	3300	3680	5500 (4600 for VDE4105, 4999 for AS4777, 5000 for C10/11)	6600	7500
Max. AC output current [A]	14.4	16	23.9	28.6	32.6
Max. AC input apparent power [VA]	6300	7360	9200	9200	9200
Max. AC input current [A]	27.4	32	40	40	40
Nominal AC voltage [V]	230/240				
Nominal grid frequency [Hz]	50/60				
Displacement power factor	0.8 leading~0.8 lagging				
THDi (rated power) [%]	<2				
Battery Data					
Battery type	Li-ion battery / Lead-Acid Battery (Under development)				
Battery voltage range [V]	80-480				
Max. continuous charge / discharge current [A]	30				
EPS (off-grid or back-up) Output (with battery)					
Nominal output power [W]	3000	3680	5000	6000	7500
Peak apparent power [VA]	3600, 1h	3680	6000, 1h	7200, 10min	7500
Max. continous current [A]	13	16	21.7	26.1	32.6
Nominal voltage [V]; Frequency [Hz]	230; 50/60				
Switch time [ms]	<10				
Parallel operation	YES				
System Data					
Max. efficiency [%]	97.6				
Euro. efficiency [%]	97.0				
Battery charge/discharge efficiency [%]* ¹	97.0 / 97.0				
Standby consumption [W] @Night	<3				
Degree of protection	IP65				
Operating temperature range [°C]	-35~+60 (Derating above 45°C)				
Max. operation altitude [m]	<3000				
Relative humidity [%]	0~100				
Typical noise emission [dB]	<30	<30	<30	<30	<45
Storage temperature [°C]	-40~+65				
Dimensions(W×H×D) [mm]	482×417×181				
Net weight [kg]	24	24	24	24	25
Cooling concept	Nature cooling	Nature cooling	Nature cooling	Nature cooling	Smart cooling
Communication interfaces	CT / Meter (optional) / External control RS485/ / RCM-WiFi (Optional: RCM-WiFi plus/4G/LAN) / DRM / USB Upgrade / NTC				
Standard					
Safety	EN/IEC62109-1/-2				
EMC	EN61000-6-1/2/3/4;EN61000-3-2/3/11/12				
Certification	VDE4105/G99/G98/AS4777/EN50549/ CEI 0-21/IEC61727/RD1699/NRS 097-2-1/PEA/MEA/VFR2019/C10/11				

*1: PV to BAT Max. efficiency 97.0%, BAT to AC Max. efficiency 97.0%