



# Inverter technical data

## RATED VOLTAGE 560 V AC

INVERTER TYPE		PV500A60	PV800A60	PV1K0A60	PV1K6A60	PV2K4A60	PV3K2A60	PV4K0A60	PV4K8A60
<b>INPUT (DC)</b>									
Maximum DC voltage	V	1500							
MPP voltage range (at $\cos\phi = 1$ )	V	840 ÷ 1400							
Number of MPPT	-	1							
Maximum continuous current (at 40°C)	A	544	860	1088	1720	2580	3440	4300	5160
Maximum continuous current (at 25°C) <sup>(1)</sup>	A	595	946	1190	1892	2838	3784	4730	5676
Maximum short-circuit current	A	1000	1500	2000	3000	4500	6000	7500	9000
Number of protected DC inputs with fuses	-	4	5	8	10	14	18	24	28
<b>OUTPUT (AC)</b>									
Output AC power (at 50°C)	kW	439	700	878	1400	2100	2800	3500	4200
Output AC power (at 40°C)	kW	470	750	940	1500	2250	3000	3750	4500
Output AC power (at 25°C) <sup>(1)</sup>	kW	517	826	1034	1652	2478	3304	4130	4956
Output AC current (at 40°C)	A	488	774	976	1548	2322	3096	3870	4644
Rated output voltage	V	560							
Output frequency	Hz	50/60							
Harmonic current distortion (THDI)	%	< 3% at rated power							
Power factor	-	> 0.99 at rated power							
Distribution network type	-	IT- Unearthed							

## RATED VOLTAGE 600 V AC

INVERTER TYPE		PV500A60	PV800A60	PV1K0A60	PV1K6A60	PV2K4A60	PV3K2A60	PV4K0A60	PV4K8A60
<b>INPUT (DC)</b>									
Maximum DC voltage	V	1500							
MPP voltage range (at $\cos\phi = 1$ )	V	900 ÷ 1400							
Number of MPPT	-	1							
Maximum continuous current (at 40°C)	A	544	860	1088	1720	2580	3440	4300	5160
Maximum continuous current (at 25°C) <sup>(1)</sup>	A	595	946	1190	1892	2838	3784	4730	5676
Maximum short-circuit current	A	1000	1500	2000	3000	4500	6000	7500	9000
Number of protected DC inputs with fuses	-	4	5	8	10	14	18	24	28
<b>OUTPUT (AC)</b>									
Output AC power (at 50°C)	kW	470	750	940	1500	2250	3000	3750	4500
Output AC power (at 40°C)	kW	500	800	1000	1600	2400	3200	4000	4800
Output AC power (at 25°C) <sup>(1)</sup>	kW	555	885	1110	1770	2655	3540	4425	5310
Output AC current (at 40°C)	A	488	774	976	1548	2322	3096	3870	4644
Rated output voltage	V	600							
Output frequency	Hz	50/60							
Harmonic current distortion (THDI)	%	< 3% at rated power							
Power factor	-	> 0.99 at rated power							
Distribution network type	-	IT- Unearthed							

Notes: (1) valid only for "UR" version: refer to Power/temperature diagram on p.18

### RATED VOLTAGE 640 V AC

INVERTER TYPE		PV500A60	PV800A60	PV1K0A60	PV1K6A60	PV2K4A60	PV3K2A60	PV4K0A60	PV4K8A60
<b>INPUT (DC)</b>									
Maximum DC voltage	V	1500							
MPP voltage range (at $\cos\phi = 1$ )	V	960 ÷ 1400							
Number of MPPT	-	1							
Maximum continuous current (at 40°C)	A	544	860	1088	1720	2580	3440	4300	5160
Maximum continuous current (at 25°C) <sup>(1)</sup>	A	595	946	1190	1892	2838	3784	4730	5676
Maximum short-circuit current	A	1000	1500	2000	3000	4500	6000	7500	9000
Number of protected DC inputs with fuses	-	4	5	8	10	14	18	24	28
<b>OUTPUT (AC)</b>									
Output AC power (at 50°C)	kW	502	800	1004	1600	2400	3200	4000	4800
Output AC power (at 40°C)	kW	540	858	1080	1716	2574	3423	4290	5148
Output AC power (at 25°C) <sup>(1)</sup>	kW	591	944	1182	1888	2832	3776	4720	5664
Output AC current (at 40°C)	A	488	774	976	1548	2322	3096	3870	4644
Rated output voltage	V	640							
Output frequency	Hz	50/60							
Harmonic current distortion (THDI)	%	< 3% at rated power							
Power factor	-	> 0.99 at rated power							
Distribution network type	-	IT- Unearthed							

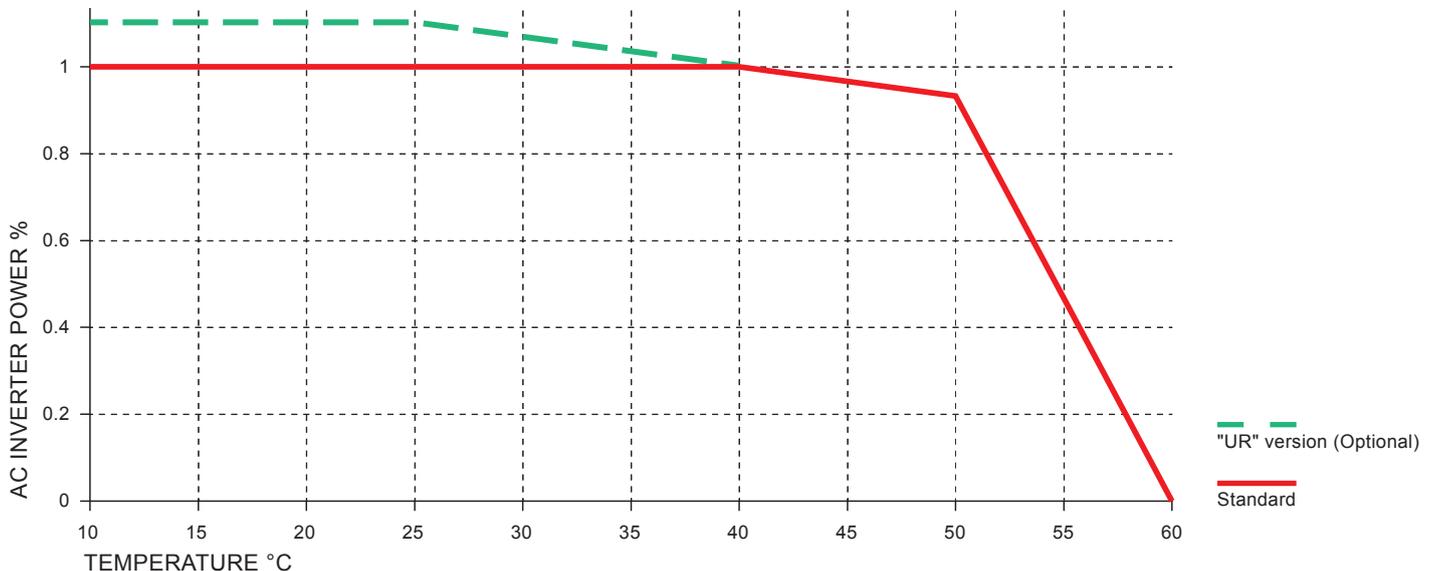
### RATED VOLTAGE 690 V AC

INVERTER TYPE		PV500A60	PV800A60	PV1K0A60	PV1K6A60	PV2K4A60	PV3K2A60	PV4K0A60	PV4K8A60
<b>INPUT (DC)</b>									
Maximum DC voltage	V	1500							
MPP voltage range (at $\cos\phi = 1$ )	V	1035 ÷ 1400							
Number of MPPT	-	1							
Maximum continuous current (at 40°C)	A	544	860	1088	1720	2580	3440	4300	5160
Maximum continuous current (at 25°C) <sup>(1)</sup>	A	595	946	1190	1892	2838	3784	4730	5676
Maximum short-circuit current	A	1000	1500	2000	3000	4500	6000	7500	9000
Number of protected DC inputs with fuses	-	4	5	8	10	14	18	24	28
<b>OUTPUT (AC)</b>									
Output AC power (at 50°C)	kW	541	862	1082	1742	2586	3488	4310	5172
Output AC power (at 40°C)	kW	583	925	1166	1850	2775	3700	4625	5550
Output AC power (at 25°C) <sup>(1)</sup>	kW	638	1018	1276	2036	3054	4072	5090	6108
Output AC current (at 40°C)	A	488	774	976	1548	2322	3096	3870	4644
Rated output voltage	V	690							
Output frequency	Hz	50/60							
Harmonic current distortion (THDI)	%	< 3% at rated power							
Power factor	-	> 0.99 at rated power							
Distribution network type	-	IT- Unearthed							

# Inverter technical data

INVERTER TYPE		PV500A60	PV800A60	PV1K0A60	PV1K6A60	PV2K4A60	PV3K2A60	PV4K0A60	PV4K8A60
<b>EFFICIENCY AND POWER CONSUMPTION</b>									
Maximum ( $\eta_{MAX}$ )	%	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0
Euro efficiency ( $\eta_{EU}$ ) <sup>(2)</sup>	%	98.7	98.7	98.8	98.8	98.8	98.8	98.8	98.8
Self consumption in operation <sup>(3)</sup>	W	943	943	1875	1875	2807	3739	4670	5603
Standby consumption	W	83	83	155	155	227	299	370	443
<b>ENVIRONMENTAL LIMITS</b>									
Installation	-	Outdoor							
Degree of protection	-	IP54 (Outdoor)							
Operating temperature range <sup>(4)</sup>	°C	-20 + + 50							
Maximum ambient temperature	°C	60							
Maximum altitude (above sea level)	m	2000 (derating 1% for each 100m over 2000, max. 4000)							
Relative humidity	%	4 + 100							
Maximum noise level <sup>(5)</sup>	dBA	76	78	78	78	78	78	< 80	< 80
<b>PROTECTION</b>									
Motorized DC on-load switch disconnectors		Yes							
DC Overvoltage and surge arrester (Type II)		Yes							
Ground fault monitoring		Yes							
AC circuit breaker (short circuit and overload)		Yes							
Anti-islanding		Yes							
Grid monitoring		Yes							
<b>GENERAL DATA</b>									
Overall dimensions (W/H/D)	mm	W 2800	W 2800	W 3800	W 3800	W 4600	W 5800	W 7300	W 8100
		H 2260	H 2260	H 2260	H 2260	H 2260	H 2260	H 2300	H 2300
Weight	kg	D1280	D 1280						
		2750	2750	3800	3800	4600	5700	8000	8500
Cooling system		Forced air							
Color /Painting cycle		RAL7035 / C4							
Local user interface		HMI with graphic LCD display backlitged, PC tool (DVM)							
Communications		Modbus RTU, Modbus TCP/IP, Profibus DP (optional: Profinet , Ethernet /IP)							
Safety Standards and efficiency		IEC EN 62109-1, IEC EN 62109-2							
		IEC EN 61683, EN 50530							
		UL 1741, IEEE 1547, IEEE 1547.1, UL 1998 (UL 1741 SA supplement and CSA 22.2 No. 107 in progress)"							
EMC Standards and harmonics		IEC EN 61000-6-2, EN 61000-6-4, EN 55011, CISPR 11, IEC EN 61000-3-12							
Environmental Standards		IEC EN 60529, IEC EN 60068-2-78							
Certifications and grid approvals		Mexico, C-UL, IEC, BDEW, CEI (6)							
Compliance attestation		TUV Sud, UL							
Grid support functions		Reactive power generation, L/HFRT, L/HVRT, Power ramp rate, Power Curtailment, Power factor control function.							
Options		Multiple MMPT, "Miro" function, grounding kit, "Q-night" function, Power uprating, AC power analyzer, AC Ground fault monitoring, DC input current monitoring, HMI, indoor version.							

## POWER/TEMPERATURE DIAGRAM



Notes: (2) Internal witness test with self consumption (ref. IEC 61683) - (3) at rated power (4) refer to Power/temperature diagram above (5) Sound pressure level at at distance of 1 mt at full power (ISO3746) - (6) Contact NIS for more information