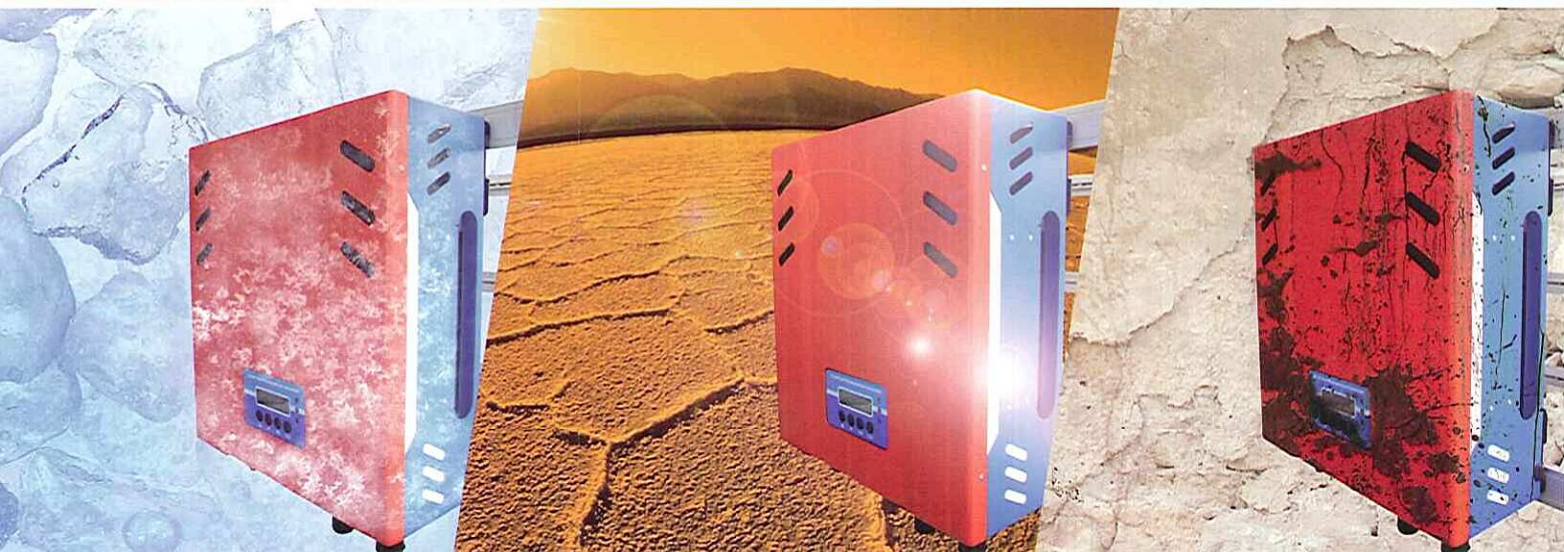




TOUGH Series

3kW, 3.3kW, 4kW, 5kW
Grid tied PV inverter

- Single/Dual MPPT (Maximum power point tracking), the range of MPPT: 150~500 Vdc.
- Maximum DC voltage is up to 650V to design system on best MPPT easily.
- IP65 water/ dust proof enclosure
- Maintenance-free fan-less nature cooling design.
- Up to 55°C without derating.
- Low acoustic noise while the inverter operates.
- Monitor the power information and the system settings via a computer, the monitoring software and RS232 / RS485 / Bluetooth (optional) interfaces
- Conformity to the EMC, Low Voltage Directives and Standards, e.g. 2004/108/EC, 2006/95/EC, IEC/EN 62109-1/-2 and VDE-AR-N 4105



TOUGH Series

Specification

Ver. 07

Model	LCE-3000	LCE168S033	LCE168S040	LCE168S050
Output Data (AC)				
Maximum AC Output	3000W	3300W	4000W	5000W*
Maximum AC Output Current	14.5 a.c.A	16.5 a.c.A	20 a.c.A	22 a.c.A
Nominal AC Voltage	220-240 a.c.V			
Grid AC Frequency	50/60Hz, auto-selection			
Power Factor	> 0.99 @ 20% load			
Reactive Power Factor	1 or adjustable from -0.9 to +0.9**			
Total Harmonic Distortion	< 3%			
AC connection / Grid forms	Single-Phase / TN-C, TN-S, TN-C-S			
Input Data (DC)				
Maximum DC Power	3200W	3600W	4300W	5300W
Maximum DC Input Current	16 d.c.A	2 x 10 d.c.A	2 x 13 d.c.A	2 x 15 d.c.A
Max. number of MPP Trackers (parallel / independent)	1	2		
Maximum DC Voltage	650 d.c.V			
MPP Tracking Voltage Range	150-500 d.c.V			
Peak Power Tracking Voltage Range	200-460 d.c.V			
Efficiency				
MPPT Efficiency	>99.9%			
Maximum Efficiency	96.5%	96.5%	96.7%	96.9%
Euro. Efficiency	95.8%	96.1%	96.3%	96.6%
Consumption: Operating (standby) / Night	<12W / <0.2W	<12.5W / <0.2W		
General Specification				
Dimensions (W x H x D) in mm	405 x 442 x 152	405 x 442 x 165		
Weight	18kg	25.8kg		
Cooling Concept	free convection			
Acoustic Noise Level	< 35dB(A)			
Maximum Operating Temperature Range without derating	-20 to +45 °C	-20 to +60 °C		-20 to +55 °C
Ambient Temperature Range	-25 to +60 °C			
Humidity	0 to 95%, non-condensing			
Protection Degree	IP65			
Topology	Transformerless			
Features				
DC Connection	MC4, Tyco			
DC Disconnect	yes			
AC Connection	AC connectors			
Display	LCD 16X2 screen			
Communication Interface	RS232, RS485 ; Bluetooth (Option)			
Safety	VDE-AR-N 4105 ; IEC 62109-1 / -2			
Warranty	5 years			

* For VDE-AR-N4105, the inverter is rated 4600 VA.

** Adjustable from 0.95 over-excited to 0.95 under-excited with VDE-AR-N 4105.