Technical Documentation of (EU) No 617/2013

Product type	Notebook computer	
Product category	A	B
Manufacturer name, address	Acer Italy srl Viale De Gasperi 88/A 20017 Mazzo di Rho (MI) Italy	
Product model number	TravelMate P449	TravelMate P449G
Year of manufacture	2016	
E_{TEC} allowance with capability adjustments when discrete graphics cards are disabled	38 kWh/year	47 kWh/year
E_{TEC} allowance with capability adjustments when discrete graphics cards are enabled	Not applicable	58 kWh/year
Whether all discrete graphics card are enabled during the test	Not applicable	No
Whether switchable graphics mode with UMA is driving the display during the test	Not applicable	Yes
E_{TEC} of highest power-demanding configuration	20.05 kWh/year	21.25 kWh/year
Idle state power demand	6.6228 Watt	7.1184 Watt
Sleep mode power demand	0.6796 Watt	0.5172 Watt
Sleep mode with WOL enabled power demand	0.7972 Watt	0.6144 Watt
Off mode power demand	0.3684 Watt	0.3786 Watt
Off mode with WOL enabled power	0.3708 Watt	0.3816 Watt
Maximum power demand	Not applicable	Not applicable
Internal power supply (IPS) efficiency at 10 %, 20 %, 50 % and 100 % of rated output power	Not applicable	Not applicable
External power supply's (EPS) average active efficiency	91.70%	91.70%
Noise levels (the declared A-weighted sound power level, L_{WAd}) of idle mode	2.6 B	2.6 B
Noise levels (the declared A-weighted sound power level, L_{WAd}) of "HDD random seek" mode	2.7 B	2.7 B
Minimum number of loading cycles that the batteries can withstand	400 cycles	400 cycles
Configuration of memory	4~24 GB	4~24 GB
Configuration of internal storage	1~2 piece	1~2 piece
Configuration of discrete television tuner	0 piece	0 piece
Configuration of discrete audio card	0 piece	0 piece
Configuration of discrete graphics cards	0 piece	1 piece

Configuration of discrete graphics cards category	Not applicable	G2
The external package of the notebook provides the information, "The battery in this product cannot be easily replaced by users themselves."	Yes	Yes
For products with an integrated display, the total content of mercury is	0 mg	0 mg
Measurement methodology for E_{TEC}	COMMISSION REGULATION (EU) No 617/2013 of 26 June 2013 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for computers and computer servers: ANNEX II Ecodesign requirements and timetable: 1.3.1. E_{TEC} formula.	
Measurement methodology for idle mode	EN 62623:2013 — Desktop and notebook computers — Measurement of energy consumption: 5.2. Test setup; 5.3.4. Measuring long idle mode; 5.7. True RMS watt meter specification; 5.8. True RMS watt meter accuracy; Annex E.2 (informative) ENERGY STAR® V5 compliant testing methodology.	
Measurement methodology for sleep mode	EN 62623:2013 — Desktop and notebook computers — Measurement of energy consumption: 5.2. Test setup; 5.3.3. Measuring sleep mode; 5.4. Test conditions; 5.7. True RMS watt meter specification; 5.8. True RMS watt meter accuracy.	
Measurement methodology for off mode	EN 62623:2013 — Desktop and notebook computers — Measurement of energy consumption: 5.2. Test setup; 5.3.2. Measuring off mode; 5.4. Test conditions; 5.7. True RMS watt meter specification; 5.8. True RMS watt meter accuracy.	

Measurement methodology for IPS efficiency	Not applicable
Measurement methodology for EPS efficiency	EN 50563:2011 External a.c.—d.c. and a.c.—a.c. power supplies — Determination of no-load power and average efficiency of active modes.
Measurement methodology for noise level	ECMA-109 2nd edition (December 1987) Declared Noise Emission Values of Computer and Business Equipment: 4. Determination of the declared noise emission values. ECMA-74 11th edition (December 2010) Measurement of Airborne Noise emitted by Information Technology and Telecommunications Equipment: 5. Installation and operating instructions; 6. Method for determination of sound power levels of equipment in reverberation test rooms; 7. Method for determination of sound power levels of equipment under essentially free-field conditions over a reflecting plane; Annex C.15 Equipment category: personal computers and workstations.
Measurement methodology for battery loading cycles	EN 61960:2011 Secondary cells and batteries containing alkaline or other non-acid electrolytes — Secondary lithium cells and batteries for portable applications: 7.6.1 General; 7.6.3 Endurance in cycles (accelerated test procedure).
Sequence of steps for achieving a stable condition with respect to power demand	EN 62623:2013 — Desktop and notebook computers — Measurement of energy consumption: 5.2. Test setup; 5.3.2. Measuring off mode; 5.3.3. Measuring sleep mode; 5.3.4. Measuring long idle mode.

Description of how sleep mode was selected or programmed	EN 62623:2013 — Desktop and notebook computers — Measurement of energy consumption: 5.2. Test setup; 5.3.3. Measuring sleep mode.
Description of how off mode was selected or programmed	EN 62623:2013 — Desktop and notebook computers — Measurement of energy consumption: 5.2. Test setup; 5.3.2. Measuring off mode.
Sequence of events required to reach the mode where the equipment automatically changes to sleep mode	ENERGY STAR® Program Requirements Product Specification for Computers, Eligibility Criteria Version 6.0, Rev. Oct-2013: 1.D.4 Sleep Mode.
Sequence of events required to reach the mode where the equipment automatically changes to off mode	Not applicable
The duration of idle state condition before the computer automatically reaches sleep mode, or another condition which does not exceed the applicable power demand requirements for sleep mode	30 minutes
The length of time after a period of user inactivity in which the computer automatically reaches a power mode that has a lower power demand requirement than sleep mode	30 minutes
The length of time before the display sleep mode is set to activate after user inactivity	10 minutes
User information on the energy-saving potential of power management functionality	http://www.energystar.gov/index.cfm?c=power_mgt.pr_power_mgt_users
User information on how to enable the power management functionality	http://www.energystar.gov/index.cfm?c=power_mgt.pr_power_mgt_users
Test parameter for ambient temperature	25 ℃
Test parameter for test voltage	230 V
Test parameter for frequency	50 Hz
Test parameter for total harmonic distortion of the electricity supply system	3 %

Test parameter for information and documentation on the instrumentation, set-up and circuits used for electrical testing	Digital Power Meter: YOKOGAWA WT210 PROGRAMMABLE AC SOURCE: CHROMA 61602