

# White Paper

## Energy Consumption ESPRIMO D756/E90+

Version 1.2

In order to strengthen the leadership in implementing European environmental protection regulations, Fujitsu provides all important energy information on its products. The energy efficiency test reports required by Commission Regulation (EU) No 617/2013 are publicly available. These reports have to be done with maximum configurations which are not used by the majority of customers. To give more practical and usable values, Fujitsu provides additional information on power consumption for standard configurations based on ENERGY STAR® 6 calculation.

Fujitsu is also making a significant effort to reduce the energy consumption in data centers by delivering highest energy efficiency with PRIMERGY servers. To underline these efforts Fujitsu joined the Green Grid and Climate Savers Computing initiatives, and publishes SPECpower benchmark results for PRIMERGY servers.

### A. Web addresses for information on Energy, Environment and End-of-life treatment

Fujitsu supports important information for energy, environment and End-of-life treatments on the basis of European directives and beyond. Listed below are web addresses pertaining to this topic:

Energy reports: <http://globalsp.ts.fujitsu.com/sites/certificates/default.aspx>

Energy: <http://www.fujitsu.com/fts/energy>

Environment: <http://www.fujitsu.com/fts/green>

End-of-life treatment: <http://www.fujitsu.com/fts/recycling>

### B. Power Consumption and Typical Energy Consumption (ETEC) for Clients for typical standard configuration

| Typical Configuration   | 3.5" HDD, 2x4 GB, Slim ODD, Windows® 8.1™ |
|---|---|
| Related Processor for power consumption   | Intel® Core™ i7 6700                      |
| Power consumption: Maximum (S0*, running appl., CD in use) 1)                                 | 55.3 W                                    |
| Power consumption: short Idle (Pshort idle) (S0, running OS, Idle-mode)                       | 12.0 W                                    |
| Power consumption: long Idle (Plong idle) (S0, running OS, Idle-mode)                         | 11.6 W                                    |
| Power consumption: Standby (Psleep) (ACPI status S3*, sleep, energy saving mode, WOL enabled) | 0.84 W                                    |
| Power consumption: Minimum (Poff) (ACPI status S5, soft off, wake up power button) 2)         | 0.13 W                                    |
| Typical Energy Consumption (ETEC), ENERGY STAR® 6 based, conventional mode, 3)                | 52.9 kWh/year                             |
| Typical Energy Consumption (ETEC), ENERGY STAR® 6 based, full capability,3)                   | 40.2 kWh/year                             |
| Heat dissipation, WOL enabled, conventional mode (kBTU, 1 W = 3.4121 BTU/h)                   | 180.6 kBTU/year                           |
| Heat dissipation, WOL enabled, conventional mode (MJ, 1 W = 3.6 kJ/h)                         | 190.5 MJ/year                             |

1) The Maximum Mode is measured according to SYSTEST 32 of Fujitsu for PCs. This value gives you an indication of maximum power consumption possible and is for information only, i.e. not to be used in any ETEC calculation

2) Shipment conditions ex-factory

3) Formula used for ETEC calculation, Desktop (DT), All in One (AIO), Thin client and Notebook (NB)

ETEC =  $8760/1000 \times (P_{off} \times T_{off} + P_{sleep} \times T_{sleep} + P_{long\ idle} \times T_{long\ idle} + P_{short\ idle} \times T_{long\ idle})$

| Mode weighting | Conventional DT, AIO, Thin client | Conventional NB | Full Network Connectivity / Full Capability DT, AIO, Thin Client | Full Network Connectivity / Full Capability NB |
|----------------|-----------------------------------|-----------------|--|--|
| T off          | 45 %                              | 25 %            | 20 %   | 25 %   |
| T sleep        | 5 %                               | 35 %            | 45 %   | 45 %   |
| T long idle    | 15 %                              | 10 %            | 5 %  | 5 %  |
| T short idle   | 35 %                              | 30 %            | 30 %   | 25 %   |

**C. Power Consumption and Typical Energy Consumption (ETEC) for Clients according to Blue Angel requirements**

These measurements were taken according to Blue Angel requirements, and are based on a maximum configuration. Product categories are identical with Guideline 2009/125/EG (ErP-Guideline, The Ecodesign Directive).

| Desktop Category (Definition is identical to ENERGY STAR® 5)             | B              | C              | D              |
|--|----------------|----------------|----------------|
| Max. power consumption: Idle (S0, running OS, Idle-mode)                 | 37.5 W         | 36.7 W         | 36.7 W         |
| Max. power consumption: Standby (S3, energy saving mode, WOL enabled)    | 2.51 W         | 2.51 W         | 2.51 W         |
| Max. power consumption: Minimum (ACPI status S5, soft off, WOL disabled) | 0.34 W         | 0.35 W         | 0.35 W         |
| Max. typical energy consumption (ETEC), based on ENERGY STAR® 5          | 134.1 kWh/year | 131.4 kWh/year | 131.4 kWh/year |

#### Fujitsu OPTIMIZATION Services

In addition to FUJITSU Desktop ESPRIMO D756/E90+, Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

#### Fujitsu Portfolio

Build on industry standards, Fujitsu offers a full portfolio of IT hardware and software products, services, solutions and cloud offering, ranging from clients to datacenter solutions and includes the broad stack of Business Solutions, as well as the full stack of Cloud offering. This allows customers to leverage from alternative sourcing and delivery models to increase their business agility and to improve their IT operation's reliability.

#### Computing Products

[www.fujitsu.com/global/products/computing/](http://www.fujitsu.com/global/products/computing/)

#### Software

[www.fujitsu.com/software/](http://www.fujitsu.com/software/)

#### More information

Learn more about FUJITSU Desktop ESPRIMO D756/E90+, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.

[www.fujitsu.com/fts/ESPRIMO](http://www.fujitsu.com/fts/ESPRIMO)

#### Fujitsu green policy innovation

Fujitsu Green Policy Innovation is our worldwide project for reducing burdens on the environment.

Using our global know-how, we aim to contribute to the creation of a sustainable environment for future generations through IT. Please find further information at <http://www.fujitsu.com/global/about/environment>



#### Copyrights

All rights reserved, including intellectual property rights. Changes to technical data reserved. Delivery subject to availability. Any liability that the data and illustrations are complete, actual or correct is excluded. Designations may be trademarks and/or copyrights of the respective manufacturer, the use of which by third parties for their own purposes may infringe the rights of such owner.

For further information see [www.fujitsu.com/terms](http://www.fujitsu.com/terms)

© 2016 Fujitsu Technology Solutions GmbH

#### Disclaimer

Technical data is subject to modification and delivery subject to availability. Any liability that the data and illustrations are complete, actual or correct is excluded. Designations may be trademarks and/or copyrights of the respective manufacturer, the use of which by third parties for their own purposes may infringe the rights of such owner.

#### Contact

FUJITSU Technology Solutions GmbH  
Website: [www.fujitsu.com/fts](http://www.fujitsu.com/fts)  
2016-01-19 CE-EN