

*Lifts Energy Efficiency
according to ISO 25745-1 & -2*

Manufacturer : NANTONG FUJI ELEVATOR CO.,LTD.
(Name & Address) NO.688, LIANXI AVENIDA, LIANSHI, NANXUN,
HUZHOU, ZHEJIANG,
P. R. CHINA

Test Location : NO.688, LIANXI AVENIDA, LIANSHI, NANXUN,
HUZHOU, ZHEJIANG,
P. R. CHINA

Lift Type : **Passenger Elevator**
: **(Machine Room)**

Lift Model : **FHSP50**

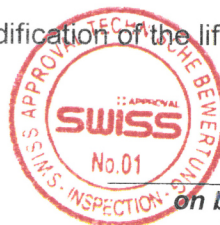
Report No. : **086-03-011-02699**

SWISS APPROVAL TECHNISCHE BEWERTUNG S.A. as an independent Inspection and Certification Body, hereby certify that the above mentioned Lift was witnessed by the body during testing. Following the witness of testing and fullness examination of the lift, we confirm that the lift facility is eligible to be labelled with the energy efficiency class as following:

Manufacturer: NANTONG FUJI ELEVATOR CO.,LTD.	Lift Energy performance class
Location: NO.688, LIANXI AVENIDA, LIANSHI, ANXUN, HUZHOU, ZHEJIANG, CHINA	
Lift Type: Hospital Elevator (Small Machine Room)	
Lift Model: FHSP50	
Nominal load: 1600 kg	
Nominal speed: 2.5 m/s	
Operating days per year: 365	
Idle Mode Performance Level: 2	
Standby after 5 mins Performance Level: 2	
Standby after 30 mins Performance Level: 1	
Specific running energy: 0.66 mWh/(kg·m) Performance Level for running: 1	
Usage category 3 according to ISO 25745-2 Comparison of energy efficiency classes is only possible under equal usage category.	
Date: 03/04/2019	Energy consumption per day: 10.0 kWh Energy consumption per year: 3634.1 kWh
Reference: ISO 25745-1:2012, ISO 25745-2:2015	

This certificate is valid until 02/04/2027 without modification of the lift.

Simon Jiang
Inspector
Simon Jiang



Tzaferis Meletis
on behalf of Company
Tzaferis Meletis

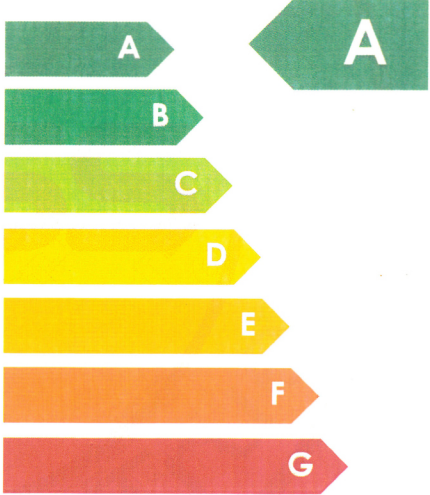


电梯能量效率

依据 ISO 25745-1 & -2

制造商	南通富士电梯有限公司
(名称和地址)	浙江省湖州市南浔区练市镇练溪大道 688 号
测试地点	浙江省湖州市南浔区练市镇练溪大道 688 号
电梯类型	有机房乘客电梯
电梯型号	FHSP50
报告编号	086-03-011-02699

SWISS APPROVAL TECHNISCHE BEWERTUNG S.A. 作为独立的审核和认证机构，在此证明：以上的涉及的电梯设备的测试是在本机构检验员的目击下进行的。依据目击的测试以及对电梯的全面检查，我们确认此电梯设备具有资格粘贴以下能效等级标识：

制造商: 南通富士电梯有限公司	电梯能量效率等级 
地点: 浙江省湖州市南浔区练市镇练溪大道 688 号	
电梯类型: 有机房乘客电梯	
电梯型号: FHSP50	
额定载重: 1600 kg	
额定速度: 2.5 m/s	
每年运行天数: 365	
空闲模式性能等级: 2	
待机 5 分钟后性能等级: 2	
待机 30 分钟后性能等级: 1	
特定运行能量需求: 0.66 mWh/(kg·m)	每天电能消耗量: 10.0 kWh 每年电能消耗量: 3634.1 kWh
运行性能等级: 1	
根据 ISO 25745-2 使用类型 3 类 能效等级的比较只在同等使用类别的条件下。	
日期: 03/04/2019 参考标准: ISO 25745-1:2012, ISO 25745-2:2015	

此证书在电梯未做变更的情况下有效期至 02/04/2027。

Simon Jiang
Inspector
Simon Jiang



Tzaferis Meletis

on behalf of Company
Tzaferis Meletis

TEST REPORT
Lifts Energy Efficiency
According to ISO 25745-1 & -2

AR No. : 086-03-011-02699
Date of issue : 09/04/2019

Manufacturer NANTONG FUJI ELEVATOR CO.,LTD.
NO.688, LIANXI AVENIDA, LIANSHI, NANXUN, HUZHOU,
ZHEJIANG, CHINA

Operator NANTONG FUJI ELEVATOR CO.,LTD.
NO.688, LIANXI AVENIDA, LIANSHI, NANXUN, HUZHOU,
ZHEJIANG, CHINA

Date of application 03/04/2019

**Inspection Body /
Department** SWISS APPROVAL TECHNISCHE BEWERTUNG S.A.
Trapezountos & Digeni Akrita, Elefsina, 19200 Greece

Test object Passenger Elevator
(Machine Room)

Type FHSP50

Serial No. 2017-00446

Test Specification ISO 25745-1:2012
ISO 25745-2:2015

Inspector
(Name & Signature): 
Simon Jiang



1 Description of the Test Object

Passenger Elevator (Machine Room)

Technical Data:

Lift Model	FHSP50	Series No.	2017-00446
Lifting Height [m]	55	Average trips per day	250
Rated Speed [m/s]	2.5	Average Jerk [m/s ³]	1.5
Stops	16	Average Acceleration [m/s ²]	0.7
Mode of Drive	Tractor	Car Weight [kg]	2065
Nominal Load [kg]	1600	Counterbalance [kg]	2753

2 Documents for the basis of the tests

Application Form for Lifts Energy Efficiency Certification

ISO 25745-1:2012 Energy performance of lifts, escalators and moving walks. Energy measurement and verification

ISO 25745-2:2015 Energy performance of lifts, escalators and moving walks. Energy calculation and classification for lifts (elevators)

3 Testing Procedures

3.1 Defaults

The applied procedure is described in ISO 25745-1:2012 & ISO 25745-2:2015.

3.2 Tests in Detail

3.2.1 Measuring of energy consumption levels:

- Idle Power (P_{id}) [W]
- Standby 5mins Power (P_{st5}) [W]
- Standby 30mins Power (P_{st30}) [W]
- Reference Cycle Running Energy (E_{rc}) [Wh]
- Short Cycle Running Energy (E_{sc}) [Wh]
- Time for Opening, Remaining Open, and Closing of Lift Doors at Landings (t_d) [s]

3.2.2 Determination of usage category:

Average trips per day: 250 Usage category: **3**
No. of trips per day (n_d): 300

3.2.3 Determination of average travel distance:

No. of Stops: 16 Average travel distance (S_{av}) 26.95 [m]
Percentage average travel distance 49%

3.2.4 Determination of load factor:

Lifts counterbalanced 43% load factor (k_L) 0.94
Percentage of rated load (Q) 3.0%

4 Details of test procedure

4.1 Test location

NO.688, LIANXI AVENIDA, LIANSHI, NANXUN, HUZHOU, ZHEJIANG, CHINA

4.2 Date of test

03/04/2019

4.3 Participants

Simon Jiang - SWISS APPROVAL TECHNISCHE BEWERTUNG S.A.
Zhu Hao - NANTONG FUJI ELEVATOR CO.,LTD.

4.4 Inspections means which have been used

Fluke 1736 Power Logger
Serial Number: 35463682

5 Findings

The measurements have been carried out as described in ISO 25745-1:2012 & ISO 25745-2:2015.

Number of Reference trips: 3

No.	E_{rc}	E_{sc}	P_{id}	P_{st5}	P_{st30}	t_d
1	118.50	66.70	90.30	68.20	39.10	18.0
2	118.20	66.50	90.40	68.30	39.00	18.0
3	118.10	66.50	90.30	68.20	39.10	18.0
Avg.	118.27	66.57	90.33	68.23	39.07	18.0

6 Calculation result

Average running energy per meter	E_{rm}	1.03	[Wh/m]
Start/stop energy consumption	E_{ssc}	2.26	[Wh]
Running energy of an average cycle with empty car	E_{rav}	60.26	[Wh]
Daily running energy	E_{rd}	8541.03	[Wh]
Time to travel the average distance	t_{av}	32.8	[s]
Running time per day	t_{rd}	2.73	[h]
Non-running time per day	t_{nr}	21.27	[h]
Daily non-running (idle/standby) energy consumption	E_{nr}	1415.50	[Wh]
Total energy consumption per day	E_d	9956.53	[Wh]
Total energy consumption per year	E_y	3634133.10	[Wh]

7 Lift energy efficiency classification

Performance level for running

Specific running energy for the average running cycle E_{spc} 0.66 [mWh/(kg·m)]

Performance level **1**

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Performance levels for idle/standby

P_{id} **2** P_{st5} **2** P_{st30} **1**

Classification of energy performance of the lift

A

8 Remarks

Tested in the manufacturer's factory.

----- **END** -----