

Firma / Company

FRIWO

Gerätetyp / Type: FW8005/US/05
Artikelnr. / Part-No.: 1898333
Zeichnungsnr. / Drawing-No.: 15.4624.511-00
Datum / Date: 22.07.2015

Sachbearbeiter Verkauf / Contact Sales: Knappheide
Sachbearbeiter Mechanik / Contact Mech. Eng.: FESTSH
Sachbearbeiter Elektronik / Contact Elec. Eng.: FEJAJN
Freigabe App. / Approved App. FEPAZH
Freigabe / Approved FELCCH

Wir bitten Sie, ein Exemplar mit Freigabevermerk an uns zurückzusenden. Sollten Sie dieser Spezifikation nicht unverzüglich widersprechen, gilt die Zustimmung und Fertigungsfreigabe auf Grundlage dieser Spezifikation als erteilt.

We may ask you to return one signed copy of the specification for our records as having your approval. Unless you do not enter your objection to the latest specification issue without delay, your acceptance and release for production on the basis of this specification is deemed to be given.

Kundenfreigabe / Customer Release:

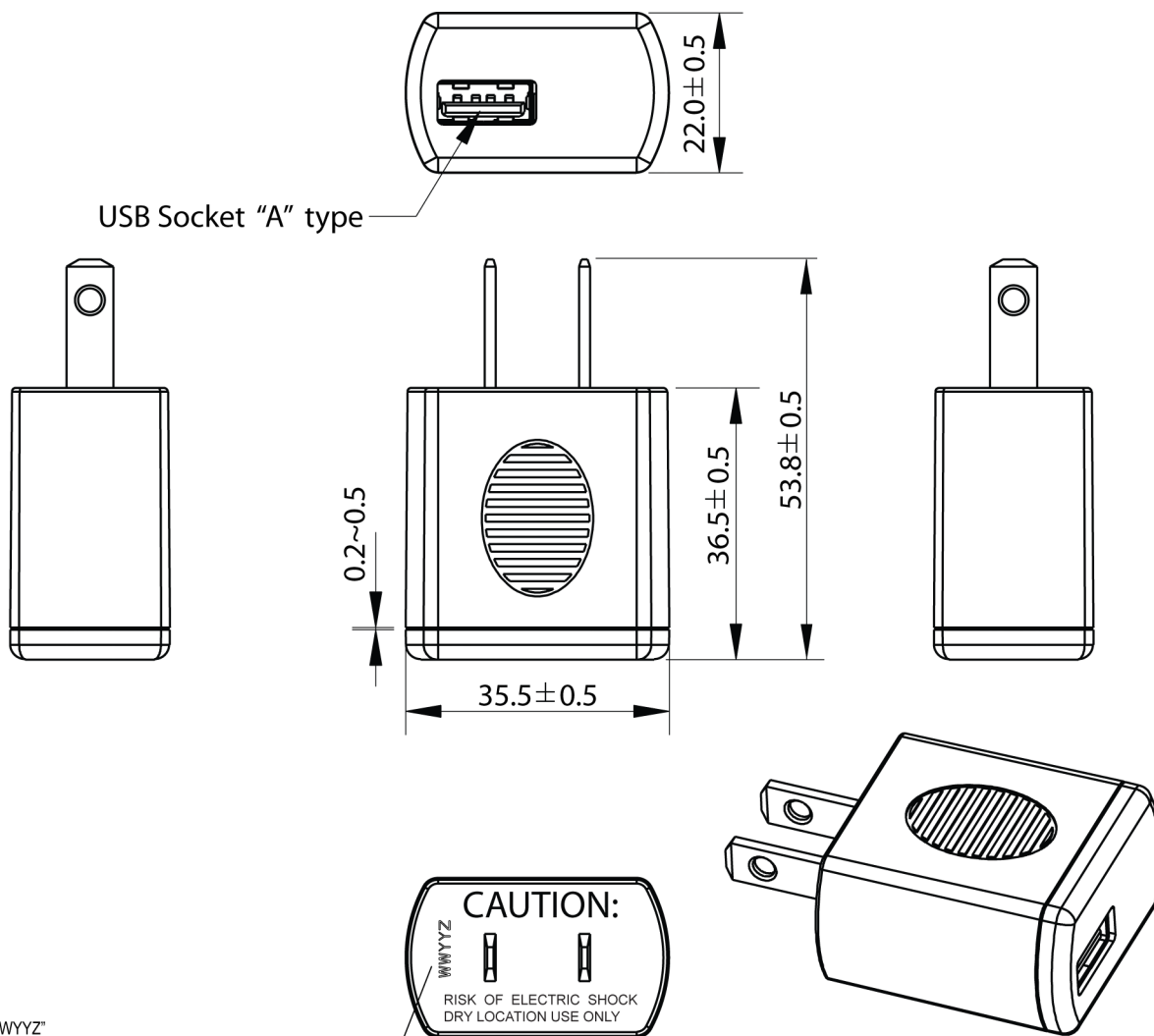
Datum / Date:

Unterschrift / Signature:

Index / Rev.	Datum / Date	Name	Einzelheit / Detail
⑤	2018/11/12	Brokhage	MR2018-0-7983:Outer dimensions from folding box updated,see point 3.1.1.Weight per unit changed to 34g±5%,see point 3.4.
⑥	2020/1/9	Schira	MR2019-0-9739: Rating inscription updated.

1 Gehäuse / Housing:

Gehäusotyp / housing type: USB
 Material: PC/ABS V1 125°C
 Farbe Boden / bottom colour: schwarz / black
 Farbe Deckel / cover colour: schwarz / black



"WYYZ"

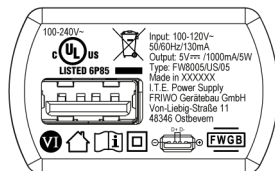
W=Week Y=Year Z=Factory Code

Note: without/ohne mark = FRIWO Gerätebau GmbH Germany

2 Gehäuseaufschriften / Housing labelling:

2.1 Deckelbeschriftung / Cover Labelling

2.1.1 15.4624.502-05XX



15.4624.502-05DE/ XXXXXX = Germany

15.4624.502-05CN/ XXXXXX = China

15.4624.502-05VN/ XXXXXX = Vietnam

2.1.2 15.2422.502-20



3 Verpackung / Packaging

3.1 Einzelverpackung / Individual packaging: 15.3693.056-10

mit Beschriftung * / with printing *

AC/DC ADAPTER

SPEC.-NO.:15.4624

PART-NO.:1898333

OUTPUT:5V DC/1,0A

INPUT:100-240V AC

Bedienungsanleitung aus Grundgerät beilegen/ Enclose the instruction manual from the basic unit

3.1.1 Aussenabmessungen / Outer dimensions: 68mm x 25mm x 43mm

3.2 Sammelverpackung / bulk packaging: 28 er UMKARTON / Carton 28

3.2.1 Aussenabmessungen / Outer dimensions: 433mm x 338mm x 196mm

3.3 Anzahl der Geräte pro Umkarton /
amount of units per master carton: 288

72 units per Layer/4layer per carton

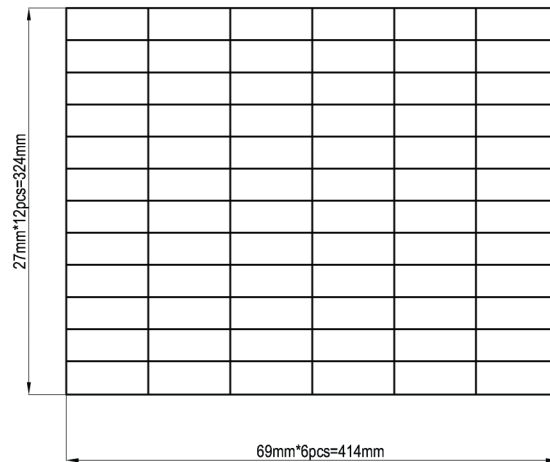
3.4 Gewicht pro Stück / weight per unit: 34 g

3.5 Lagertemperatur / storage temperature: -40°C - +70°C / 5 to 95 rel. hum.

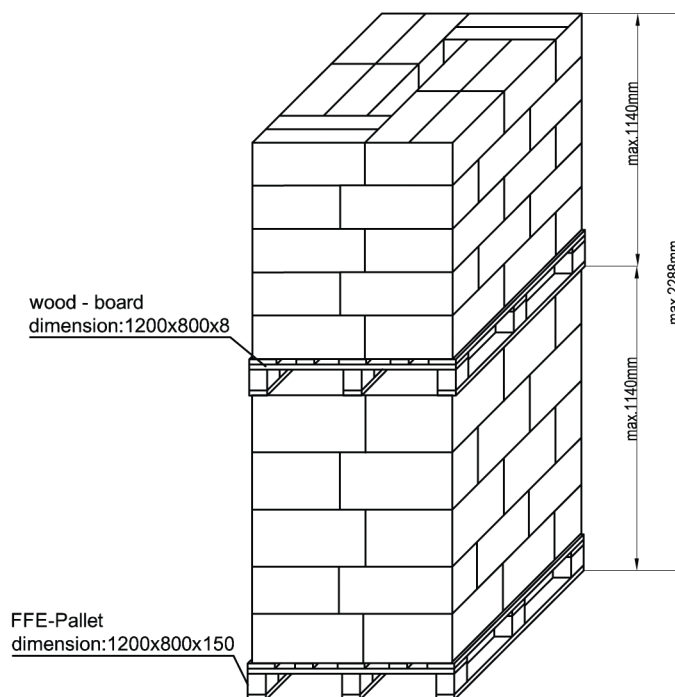
3.6 Verpackungsanweisungen / packaging specification:

- 1, 1821105 white label 152x102mm: for printing Model Number, Part Number etc.
- 2, One label on each master carton, labels must face out on a loaded pallet.

Inner package:



Pallet package:



Notes:

- 1) 288 pcs per carton
- 2) 6 carton per layer
- 3) 5 layer per pallet
- 4) total 8640 pcs per 5-layer-pallet

Notes:

- 1) 288 pcs per carton
- 2) 6 carton per layer
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- 4) total 8640 pcs per 5-layer-pallet

1 stack (5-layer-pallet and 5-layer-pallet)
 = (8640pcs. + 8640 pcs.)
 = 17280 pcs per stack

22 pallets (11 stacks of each type)
 = 190080 pcs. per 20ft container

48 pallets (24 stacks of each type)
 = 414720 pcs. per 40ft container

4 Allgemeine Prüfbedingungen / General test conditions

4.1 In einem Bereich der Umgebungstemperatur von 0°C bis +45°C bei 90% relativer Luftfeuchte, keine Betauung, muss die einwandfreie Funktion des Gerätes gewährleistet sein.

Within an ambient temperature range from 0°C to +45°C at 90% relative humidity, no condensation, the faultless function of the unit must be guaranteed.

5 Elektrische Prüfbedingungen / electrical tests

5.1 Alle nachstehend aufgeführten Werte werden bei +20°C Raumtemperatur und nach 15 Minuten Einschaltdauer gemessen.

All values listed below are measured at an ambient temperature of +20°C and after 15 minutes of operation.

5.2 Eingangsdaten / Input data:

5.2.1 Nenneingangsspannung /	100-240V AC +10/-10%
Nominal input voltage :	100-240V AC +10/-10%

5.2.2 Nenneingangsfrequenz /	50-60Hz
Nominal input frequency:	50-60Hz

5.2.3 Nenneingangsstrom /	0.13Arms @ bei Maxlast
Nominal input current:	0.13Arms @ max load

5.2.4 Leerlaufleistungsaufnahme bei UE /	230V AC : $\leq 0.1W$
Stand-by power consumption at UIn:	230V AC : $\leq 0.1W$

5.3 Ausgangsdaten / Output data:

Messaufbau siehe /	http://www.friwo.de
Measuring setup see:	

5.3.1 Ausgangsspannung /	UA: 5V DC +5% / -5%	UBr : $\leq 80mV_{ss}$
Nominal output voltage:	Uout: 5V DC +5% / -5%	UBr : $\leq 80mV_{pp}$

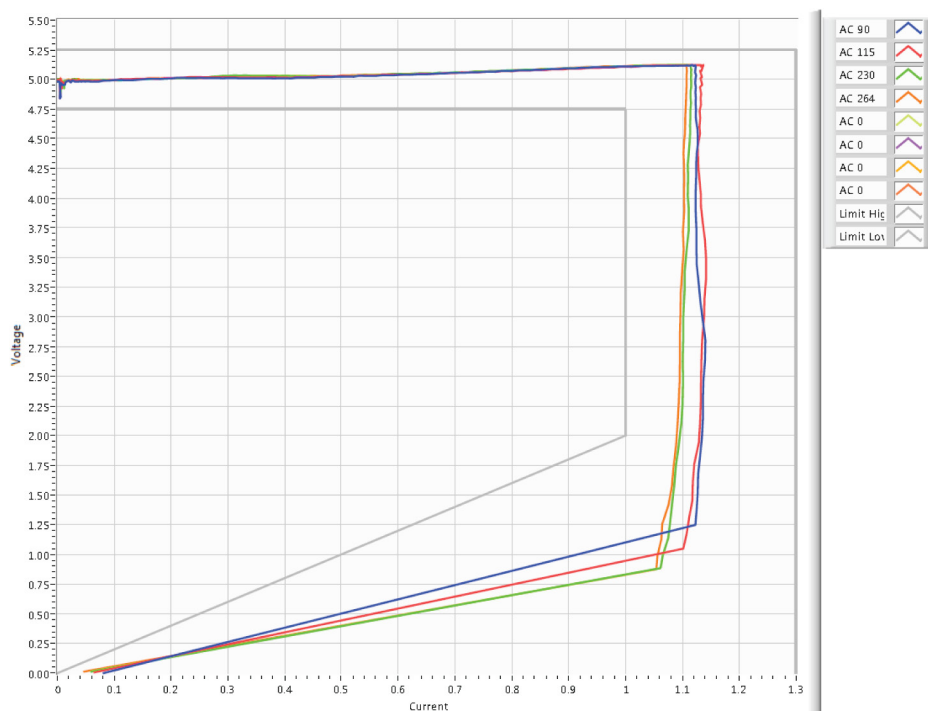
Add 0.1uF/50V ceramic capacitor in parallel with a 10uF/50V E-Cap across the output terminal.
Measured with 20MHz Bandwidth Oscilloscope.

5.3.2 Nennausgangsstrom /	IA : 1000mA
Nominal output current:	Iout : 1000mA

5.3.3 Efficiency can meet Energy Star Level " VI " ($\geq 73.63\%$ measured at USB socket)

5.3.4 Over voltage protection	: $\leq 7.5V$
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5.3.5 Ausgangskennlinie / Output characteristic:



6 Sicherheitsanleitung / Safety details:

Sicherheitsaufbau nach /
 Safety-standard acc. to : UL60950-1

Schutzklasse /
 Protection class : II

Trennung (prim.-sek.) /
 Separation (prim.-sec.) : Galvanisch durch Wandler
 Galvanic by transformer

Kriech- und Luftstrecken /
 Creepage distance and clearance : $\geq$ Kr : 5mm, Lu : 4,4mm ; Cr : 5mm, Cl : 4,4mm

Ableitstrom /
 Leakage current : I Ableit $\leq$ 90 μ A
 I leak $\leq$ 90 μ A

Gemessen nach / According to :
 siehe / see www.friwo.de UL60950-1

Hochspannungstest /
 High-voltage test : $\geq$ 3kVac

Anwendungsbereich /
 Range of application : Einrichtungen der Informationstechnik, einschließlich elekt-
 rische Büromaschinen
 Information Technology Equipment including electrical
 office equipment

Umgebungstemperatur /
 Ambient temperature range : 0°C bis / to +45°C

7 EMC-specification

7.1 Noise-suppressed: acc. to EN55024, EN55032 and FCC Part 15/B

7.2 Immunity to electrostatic discharge (ESD): acc. to IEC 61000-4-2

Discharge characteristic	Test level	Assessment criteria Uin 120Vac	Assessment criteria Uin 230Vac
Air discharge	±8KV	B	B
Contact discharge	±6KV	B	B
Indirect discharge	±8KV	B	B

7.3 Immunity to radiated electromagnetic field: acc. to IEC 61000-4-3 Test characteristic: 80 - 1000MHz; 80%AM (1 kHz)

Test level	Assessment criteria
3V/m	A

7.4 Immunity to fast electric transients (burst): acc. to IEC 61000-4-4

Coupling	Test level	assessment criteria Uin 120Vac	assessment criteria Uin 230Vac
AC-input	2KV	B	B

7.5 Surge capability: acc. to IEC 61000-4-5

Surge voltage	assessment criteria Uin 120Vac	assessment criteria Uin 230Vac
1KV	B	B

7.6 Immunity to conducted disturbances, induced by radio frequency fields: acc. to IEC 61000-4-6

Test level	Assessment criteria
3V	A

7.7 Immunity to voltage dips, short interruptions and voltage variations.

Test acc. to IEC 61000-4-11

Test performed at U in = 120Vac/230Vac

Voltage dips

Test level % UN	Voltage dips and short interruptions	duration time of voltage dips (in halfsine)	Test result Uin 120Vac	Test result Uin 230Vac
0	100	0.5	A	A
40	60	1	B	A
		5	B	B
		10	B	B
		25	B	B
		50	B	B

7.8 Assessment criteria

- a. Agreed operational behaviour within the specified limits.
- b. Time limited functional diminishment of malfunction during the tests is permitted. The function is selfreactivated by the unit following completion of the tests.
- c. Malfunction is permitted. The function can be reactivated either by reconnection to the mains or by operator intervention.