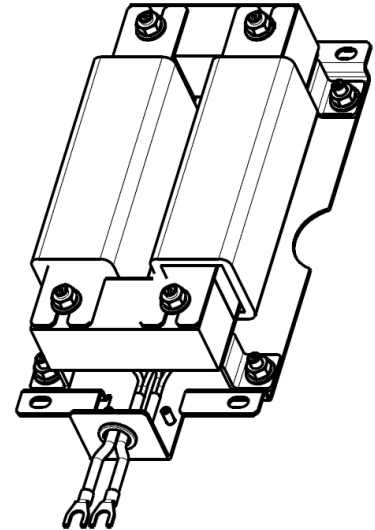


# Datasheet

Preliminary data

## 1-phase smoothing reactor for converters

780 V, 0 Hz, 21.9 A, 40 °C



### Special features:




Ordering code: **B86732G0022L220**  
 Date: **2019-05-17**  
 Version: **03**

Customer release	
Hitachi Europe GmbH	11.06.2019
Company	Date
Shuhei Takarabe	
Name	Expected date of first delivery (optional)
Engineer	<i>S. Takarabe</i>
Function	Signature
Please send back to TDK Electronics MAG PEMC or to your TDK Electronics sales representative	

**Technical data and measuring conditions**

Rated voltage	$U_R$ [L-PE]	780 V DC
Test voltage line to case for 2 s	$U_{test}$	2700 V DC
Rated temperature	$T_R$	40 °C
Insulation class		F (155 °C)
Degree of protection (IEC 60529: 2013)		IP 00

**Characteristics and ordering codes**

$I_R$	Connecting wire cross section	Inductance <sup>1)</sup>	$R_{typ}$	Approx weight.	Hitachi number / Ordering code / <i>(Preliminary code)</i>	Approvals <sup>3)</sup>		
						 IEC 60076-6	 UL 5085	 CSA C22.2 No.66.1
A	mm <sup>2</sup>	mH	mΩ	kg				
21.9	6	3.35	40.5	4.1	FPF-GD0.18-22 B86732G0022L220 <i>(P3001199E003)</i>	D	-	-

1) +/- 10% at rated current

2) at rated current, 50 Hz and 20 °C

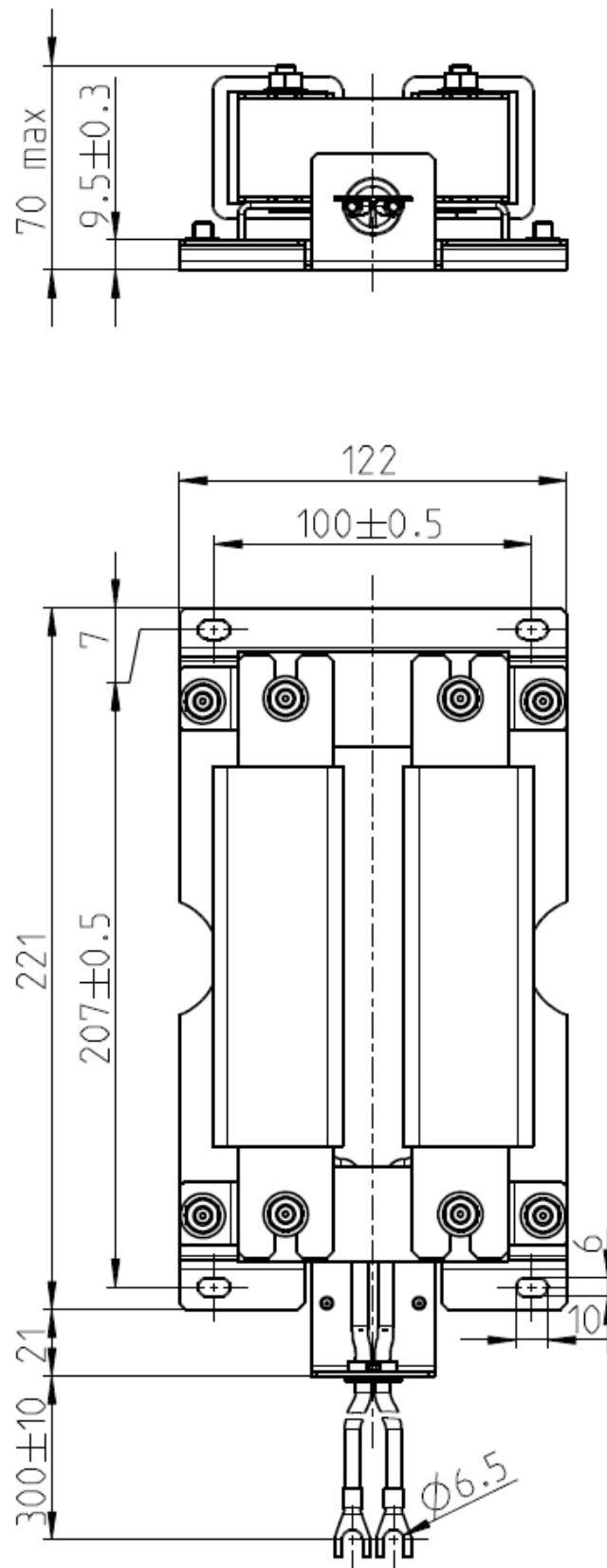
3) X = approval granted

P = pending

D = designed with reference to

- = none

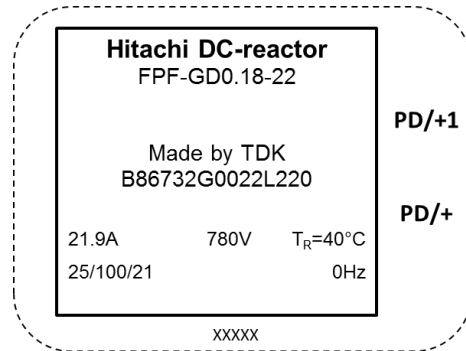
Dimensional drawings



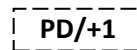
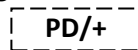
General tolerances according to ISO 2768-cL  
Dimensions in mm

Customer specific labeling

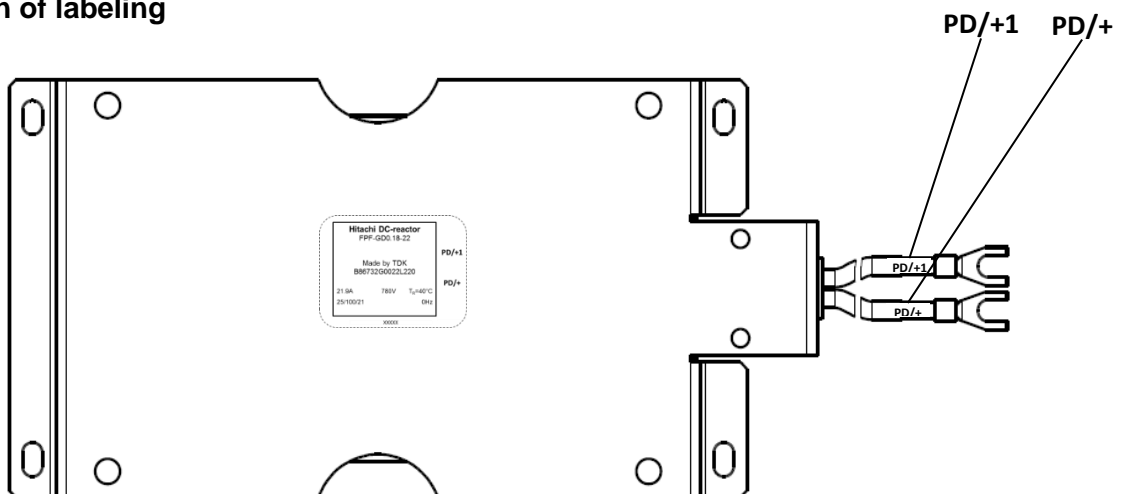
Type label



Lettering shrinking tube



Position of labeling



Packaging label



Barcodes are only samples!

### Cautions and warnings

- Please note the advices in our data book “EMC Filters” (latest edition); attention should be paid to the chapter “General safety notes”.
- It shall be ensured that only qualified persons (electricity specialists) are engaged on work such as planning, assembly, installation, operation, repair and maintenance. They must be provided with the corresponding documentation.
- The protective earth connections shall be the first to be made when the reactor is installed and the last to be disconnected.
- Impermissible overloading of the reactor, such as with circuits able to cause resonances, impermissible voltages at higher frequencies etc. can lead to bodily injury and death as well as cause substantial material damages (e.g. destruction of the insulating).
- Reactors must be protected in the application against impermissible exceeding of the rated currents by overcurrent protective.
- Output chokes and output filters must be protected in the application against impermissible exceeding of the component temperature.
- The converter output frequency must be within the specified range to avoid resonances and uncontrolled warming of the output chokes and output filters.
- Because the product can become very hot during operation, there is the risk of burns if touched. The product can remain hot for some time after the power is switched off!

### Display of ordering codes for TDK Electronics products

The ordering code for one and the same product can be represented differently in data sheets, data books, other publications, on the company website, or in order-related documents such as shipping notes, order confirmations and product labels. **The varying representations of the ordering codes are due to different processes employed and do not affect the specifications of the respective products.** Detailed information can be found on the Internet under [www.tdk-electronics.tdk.com/orderingcodes](http://www.tdk-electronics.tdk.com/orderingcodes).

**for converters**

Preliminary data

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2. We also point out that **in individual cases, a malfunction of electronic components or failure before the end of their usual service life cannot be completely ruled out in the current state of the art, even if they are operated as specified**. In customer applications requiring a very high level of operational safety and especially in customer applications in which the malfunction or failure of an electronic component could endanger human life or health (e.g. in accident prevention or life-saving systems), it must therefore be ensured by means of suitable design of the customer application or other action taken by the customer (e.g. installation of protective circuitry or redundancy) that no injury or damage is sustained by third parties in the event of malfunction or failure of an electronic component.
3. **The warnings, cautions and product-specific notes must be observed.**
4. In order to satisfy certain technical requirements, **some of the products described in this publication may contain substances subject to restrictions in certain jurisdictions (e.g. because they are classed as hazardous)**. Useful information on this will be found in our Material Data Sheets on the Internet ([www.tdk-electronics.tdk.com/material](http://www.tdk-electronics.tdk.com/material)). Should you have any more detailed questions, please contact our sales offices.
5. We constantly strive to improve our products. Consequently, **the products described in this publication may change from time to time**. The same is true of the corresponding product specifications. Please check therefore to what extent product descriptions and specifications contained in this publication are still applicable before or when you place an order.

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