## **Three Phase Rectifier Bridge Module** (Low Profile of 17mm height)

# **DF100AC** series

### IF(AV)= 100A, VRRM= 800- 1800V

SanRex Three Phase Rectifier Bridge Module DF100AC series is designed for applications requiring low profile converterinverter circuit designs. Thanks to the 17mm flat case height design, the DF100AC series can be connected with IGBT or MOSFET modules at the same 17mm case height. This advantage typically reduces the needed parts and manufacturing cost. It also enables level parallel connections for larger capacity, contributes reducing stray inductance, improving high efficiency and reliability.

#### **Features**

- \* Low Case Height of 17mm
- \* Enable easy parallel connection
- \* Very Low Forward Voltage Drop
- \* High Surge Current Capability
- \* RoHS Compliance

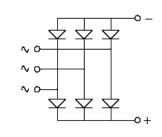
#### Typical Applications

- \* Welding and Plasma Cutting Machines
- \* Battery Chargers
- \* Power Supplies
- \* Motor Controls

<	Maximum	Ratings	>
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Isolated Package

Isolated Package



Internal schematic diagram

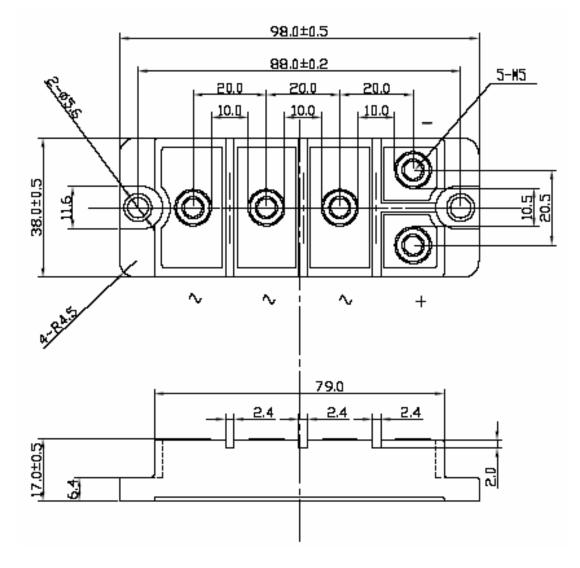
< Maximum Ratings > Tj = 25 C (unless otherwise noted						
	Item	DF100AC80	DF100AC160	DF100AC180 Unit		
Symbol						
V <sub>RRM</sub>	Repetitive Peak Reverse	800	1600	1800	V	
	Voltage					
V <sub>RSM</sub>	Non-Repetitive Peak	960	1700	1900	V	
	Reverse Voltage					

Symbol	Item		Conditions	Ratings	Unit
I <sub>F(AV)</sub>	Average Forward Current		Three phase, Full wave, T <sub>c</sub> = 106°C	100	A
I <sub>FSM</sub>	Surge Forward Current		1cycle, 60Hz, Peak value, non- repetitive	1300	A
l <sup>2</sup> t	l <sup>2</sup> t (for fusing)		Value for one cycle surge current	7000	A <sup>2</sup> s
Tj	Junction Temperature			-40 to +150	°C
Tstg	Storage Temperature			-40 to +125	°C
VISO	Isolation Voltage (R.M.S.)		A.C. 1 minute	2500	V
	Mounting	Mounting M5	Recommended 1.5-2.5	2.7	N∙m
	Torque	Terminal M5	Recommended 1.5-2.5	2.7	
	Mass		Typical Value	130	g

## **Three Phase Rectifier Bridge Modules**

## **DF100AC** series

< Electrical Characteristics >		Tj= 25 (	Tj= 25 C (unless otherwise noted)			
Symbol	Item	Conditions		Ratings		Unit
			Min.	Тур.	Max.	
I <sub>RRM</sub>	Repetitive Peak Reverse Current	$V_R = V_{RRM}$ , Tj= 150°C			15.0	mA
V <sub>FM</sub>	Forward Voltage Drop	I <sub>F</sub> = 100A, Inst. measurement			1.20	V
Rth(j-c)	Thermal Resistance	Junction to case			0.2	°C/W



\* Dimensions in millimeters (1mm=0.0394")

SanRex 50 Seaview Blvd. Port Washington, NY 11050-4618 PH.(516)625-1313 FAX(516)625-8845 Web : www.sanrex.com May 2007 - 4th.