# **SanRex**®

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

# **DF75AC** series

### IF(AV)= 75A, VRRM= 800- 1800V

SanRex Three Phase Rectifier Bridge Module DF75AC series is designed for applications requiring low profile converterinverter circuit designs. Thanks to the 17mm flat case height design, the DF75AC 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**

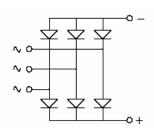
- \* Low Case Height of 17mm
- \* Enable easy parallel connection
- \* Very Low Forward Voltage Drop
- \* High Surge Current Capability
- \* RoHS Compliance

### **Typical Applications**

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



**Isolated** Package



Internal schematic diagram

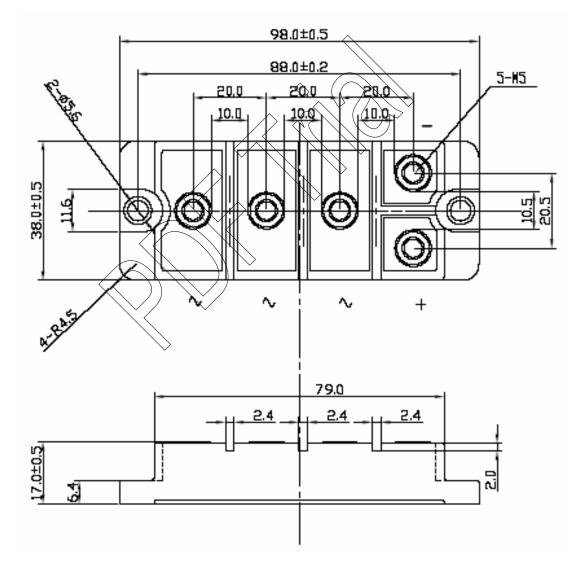
< Maximur	n Ratings >	Tj = $25^{\circ}C$ (unless otherwise noted)				
	Item	DF75AC80	DF75AC160	DF75AC180	Unit	
Symbol						
$V_{RRM}$	Repetitive Peak Reverse Voltage	800	1600	1800	V	
$V_{RSM}$	Non-Repetitive Peak Reverse Voltage	960	1700	1900	V	

Symbol		Item	Conditions	Ratings	Unit
I <sub>F(AV)</sub>	Average Fo	orward Current	Three phase, Full wave, T $_{\rm C}$ = 100°C	75	Α
I <sub>FSM</sub>	Surge Forv	vard Current	1cycle, 60Hz, Peak value, non- repetitive	1000	A
l <sup>2</sup> t	l <sup>2</sup> t (for fusing)		Value for one cycle surge current	4100	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**

## **DF75AC** series

< Electrical Characteristics >			Tj= 25°C (unless otherwise noted)			
Symbol	Item	Conditions	Ratings		Unit	
			Min.	Тур.	Max.	
I <sub>RRM</sub>	Repetitive Peak Reverse Current	V <sub>R</sub> = V <sub>RRM,</sub> Tj= 150℃			15.0	mA
V <sub>FM</sub>	Forward Voltage Drop	I <sub>F</sub> = 75A, Inst. Measurement			1.40	V
Rth(j-c)	Thermal Resistance	Junction to case			0.24	C/W



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

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