

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

DF100AC series

$I_{F(AV)} = 100A$, $V_{RRM} = 800-1800V$

SanRex Three Phase Rectifier Bridge Module **DF100AC series** is designed for applications requiring low profile converter-inverter 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

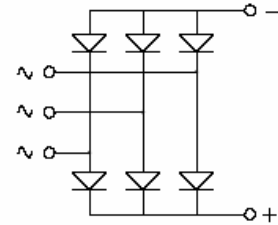
- * Low Case Height of 17mm
- * Enable easy parallel connection
- * Very Low Forward Voltage Drop
- * High Surge Current Capability
- * RoHS Compliance

Typical Applications

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



Isolated Package



Internal schematic diagram

< Maximum Ratings >

$T_j = 25^\circ\text{C}$ (unless otherwise noted)

Symbol	Item	DF100AC80	DF100AC160	DF100AC180	Unit
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
$I_{F(AV)}$	Average Forward Current	Three phase, Full wave, $T_c = 106^\circ\text{C}$	100	A
I_{FSM}	Surge Forward Current	1 cycle, 60Hz, Peak value, non-repetitive	1300	A
$I^2 t$	$I^2 t$ (for fusing)	Value for one cycle surge current	7000	A^2s
T_j	Junction Temperature		-40 to +150	$^\circ\text{C}$
T_{stg}	Storage Temperature		-40 to +125	$^\circ\text{C}$
V_{ISO}	Isolation Voltage (R.M.S.)	A.C. 1 minute	2500	V
	Mounting Torque	Mounting M5	Recommended 1.5-2.5	N·m
		Terminal M5	Recommended 1.5-2.5	
	Mass	Typical Value	130	g

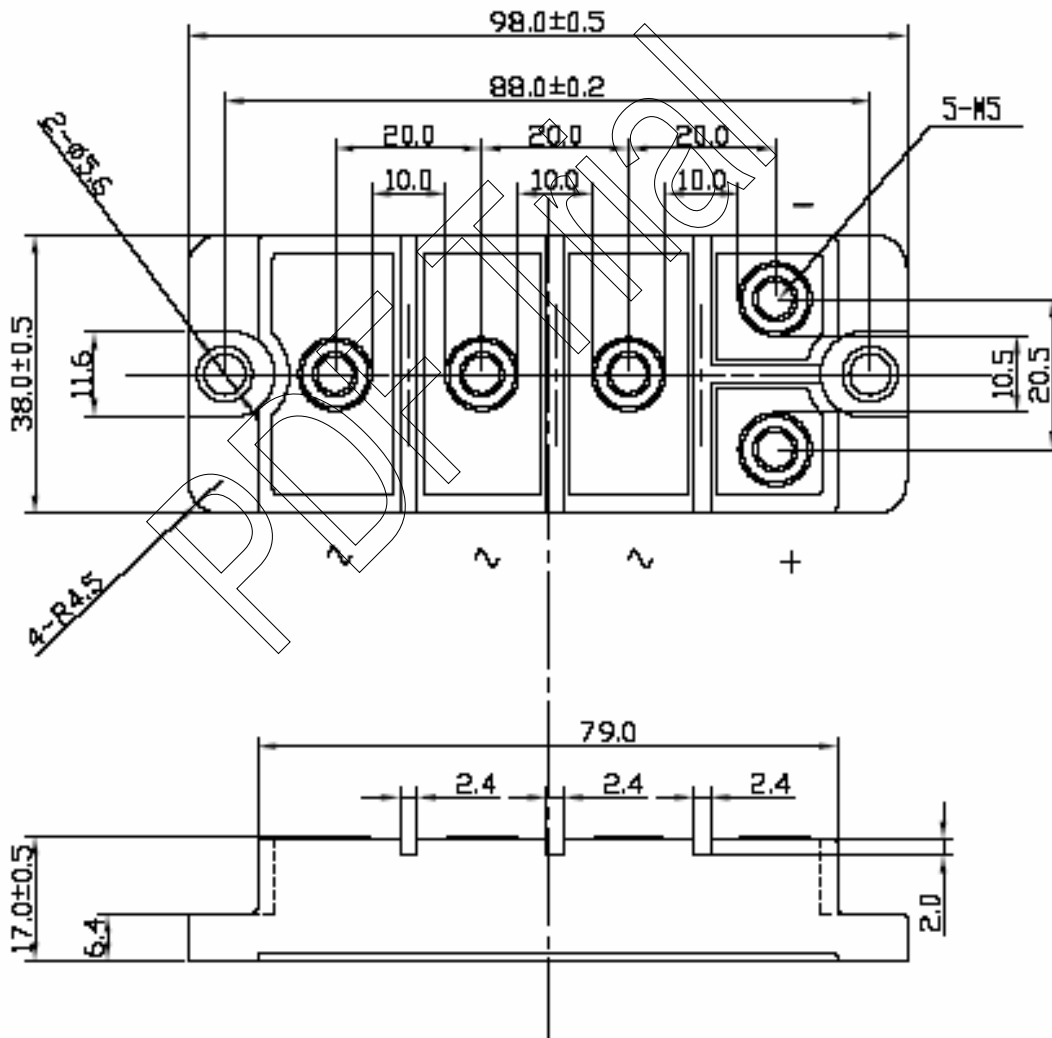
Three Phase Rectifier Bridge Modules

DF100AC series

< Electrical Characteristics >

T_j = 25°C (unless otherwise noted)

Symbol	Item	Conditions	Ratings			Unit
			Min.	Typ.	Max.	
I _{RRM}	Repetitive Peak Reverse Current	V _R = V _{RRM} , T _j = 150°C			15.0	mA
V _{FM}	Forward Voltage Drop	I _F = 100A, Inst. measurement			1.20	V
R _{th(j-c)}	Thermal Resistance	Junction to case			0.2	°C/W



* Dimensions in millimeters (1mm=0.0394")