

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

DF75AC series

$I_{F(AV)} = 75A$, $V_{RRM} = 800-1800V$

SanRex Three Phase Rectifier Bridge Module **DF75AC series** is designed for applications requiring low profile converter-inverter 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

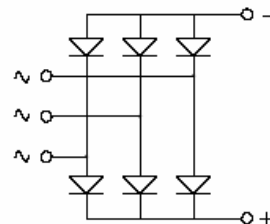
- * Low Case Height of 17mm
- * Enable easy parallel connection
- * Very Low Forward Voltage Drop
- * High Surge Current Capability
- * RoHS Compliance

Typical Applications

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



Isolated Package



Internal schematic diagram

< Maximum Ratings >

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

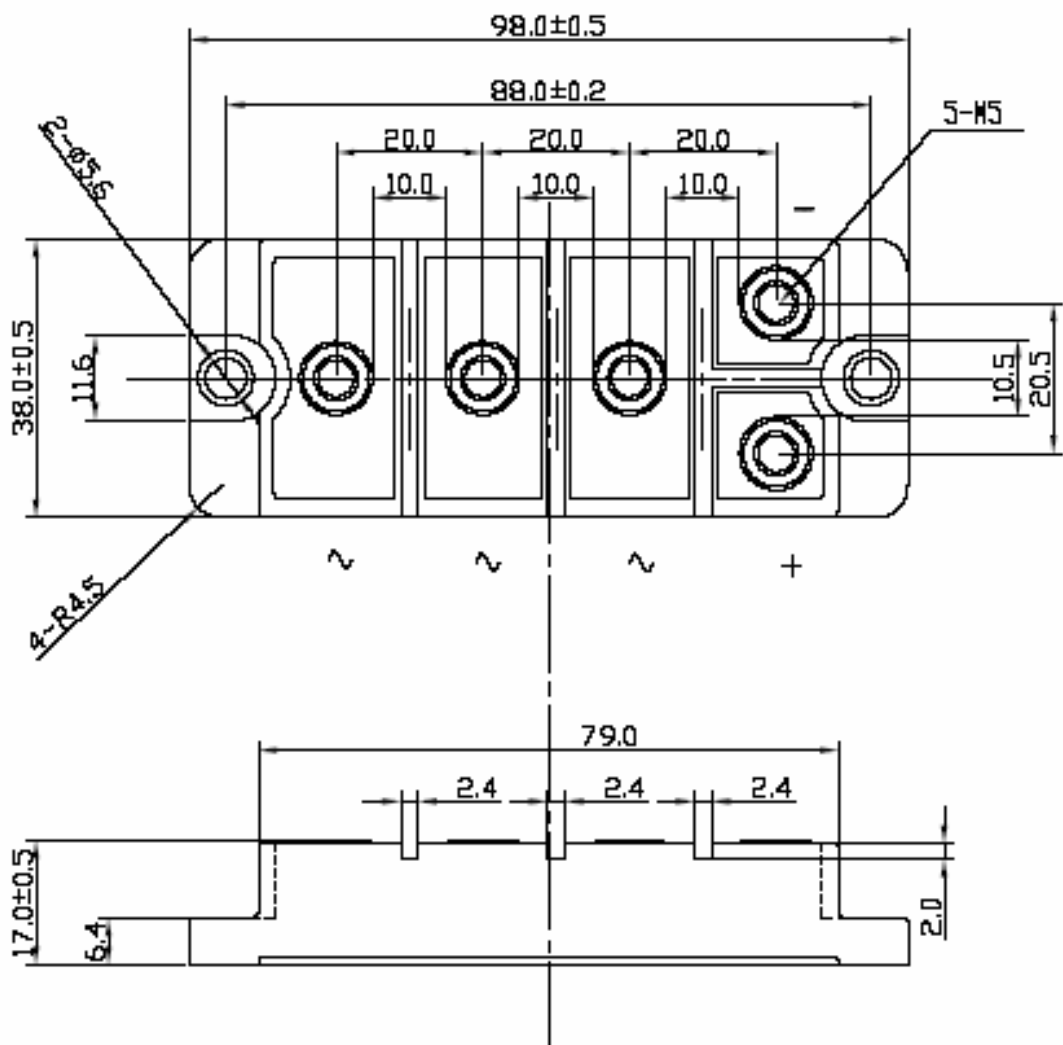
Symbol	Item	DF75AC80	DF75AC160	DF75AC180	Unit
V_{RRM}	Repetitive Peak Reverse Voltage	800	1600	1800	V
V_{RSM}	Non-Repetitive Peak Reverse Voltage	960	1700	1900	V

Symbol	Item		Conditions	Ratings	Unit
$I_{F(AV)}$	Average Forward Current		Three phase, Full wave, $T_c = 100^\circ C$	75	A
I_{FSM}	Surge Forward Current		1 cycle, 60Hz, Peak value, non-repetitive	1000	A
$I^2 t$	$I^2 t$ (for fusing)		Value for one cycle surge current	4100	$A^2 s$
T_j	Junction Temperature			-40 to +150	$^\circ C$
T_{stg}	Storage Temperature			-40 to +125	$^\circ C$
V_{ISO}	Isolation Voltage (R.M.S.)		A.C. 1 minute	2500	V
	Mounting Torque	Mounting M5	Recommended 1.5-2.5	2.7	N·m
		Terminal M5	Recommended 1.5-2.5	2.7	
	Mass		Typical Value	130	g

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< Electrical Characteristics >				Tj= 25°C (unless otherwise noted)		
Symbol	Item	Conditions	Ratings			Unit
			Min.	Typ.	Max.	
I_{RRM}	Repetitive Peak Reverse Current	$V_R = V_{RRM}, T_j = 150^{\circ}C$			15.0	mA
V_{FM}	Forward Voltage Drop	$I_F = 75A$, Inst. Measurement			1.40	V
$R_{th(j-c)}$	Thermal Resistance	Junction to case			0.24	°C/W



* Dimensions in millimeters (1mm=0.0394")