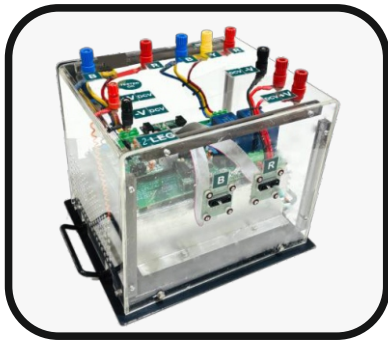




2 LEG 2 LEVEL INVERTER STACK 6.4KW



FEATURES

- SiC , IGBT and MOSFET Switches Option
- Built-in 3 Phase Rectifier
- Direct Interface with Gate Drive Modules
- Simple & Cost-Effective Solution
- DC Link Over Voltage Protection
- DC Link Safety Discharge & Indication
- TB & Banana Input, Output Connectors
- Test Points for Easy Testing

DESCRIPTION

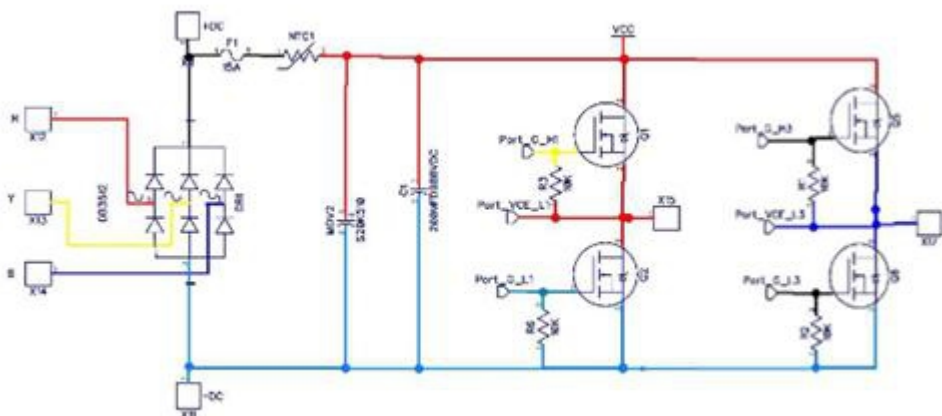
The DPM-Series of Power Modules are simple and modular blocks that could be used for fast prototyping and validation of popular power converter circuits such as, Single & Multi-Phase Inverters, Buck/Boost Converters, Single & Multi-Phase Active Rectifiers and Modular Multi-Level Converters etc. It can cover wide range of applications such as Variable Frequency Drives (VFDs), BLDC Motor Drives, PV inverters and converters in research and educational environments.

User can connect Input and output terminals using pluggable terminal blocks or banana connectors, providing ease of use in labs. Test points are also available for pain free testing. DPM Power Modules are fully compatible with gate drive modules made by VP Electronics. In addition, custom solutions could be provided up on request.

APPLICATIONS

- ❖ 3 Phase AC Motor Drive
- ❖ 3 Phase BLDC Motor Drive
- ❖ PV Inverters
- ❖ Multi-channel PFC Boost Converter

SCHEMATIC DIAGRAM



PIN DESCRIPTION

CONNECTOR	CONNECTOR DESCRIPTION	
X5, X13 & X12	Kelvin Connection Current sensing	Current Sensing
X1	-DC & -DC	DC LINK
X4	U , V, W OUTPUT	OUTPUT
X2	R, Y, B INPUT	INPUT
X6 & X7	DRIVER1	
X8 & X9	DRIVER2	

POWER STACK GENERAL SPECIFICATIONS

Characteristics	Test condition	Mosfet	IGBT	Sic	Unit
DC Input Voltage	25 °C	600	600	600	VDC
AC Input Voltage	Single or 3 phase , 50Hz	420	420	420	VAC
Over-Voltage Protection	Clamping Voltage	735	735	735	VDC
Output Current	@10kHz ,TA25°C ,DC Input	6.7	7.5	9.5	ARMS
Output Power	@10kHz, 25°C, 600V DC Input	4.4	5	6.1	kW
Output Power	@ 10 kHz, 25°C, 420V AC Input	2.9	3	3.1	kW
Overload Capacity	@2kHz, 25°C,10s	100	100	100	%
Gate Drive Voltage	Recommended	+15/-4	+15/-8	+15/-4	V
Gate Drive Resistance	Minimum	4.7	10	3	Ω
Switching Frequency	Maximum	100	20	100	kHz
Dead-time	Minimum	0.5	3	0.5	μs
Short Circuit Withstand Time	Maximum	0	10	10	μs
Recommended Gate Driver		VP001838	VP001838	VP001838	
Weight	870 gm				
Recommended Mosfet	ACM080P120Q 37A	ACM030IS065Q 92A		ACMO20P120Q 100A	



SAFETY NOTICE!

ATTENTION PLEASE! THIS DEVICE IS ESD SENSITIVE AND NEEDS TO BE HANDLED WITH CARE. HIGH VOLTAGE CONDITION MAY OCCUR DURING OPERATION OF THE DEVICE, AND HENCE USER IS SOLELY RESPONSIBLE OF EQUIPMENT AND PERSONNEL SAFETY. VP ELECTRONICS SHALL NOT BE HOLD LIABLE FOR ANY DAMAGE TO PERSONNEL AND/OR PROPERTIES AS A RESULT OF USING THIS DEVICE. USER MUST TAKE ADEQUATE STEPS TO ENSURE ELECTRICAL AND MECHANICAL SAFETY OF THE DEVICE IN USE.

For Further information or purchasing, please go to our web site:

www.vpelectronics.net

Phone: +91-9310120246

WhatsApp: +91-8851410806

E-Mail: info@vpelectronics.net

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