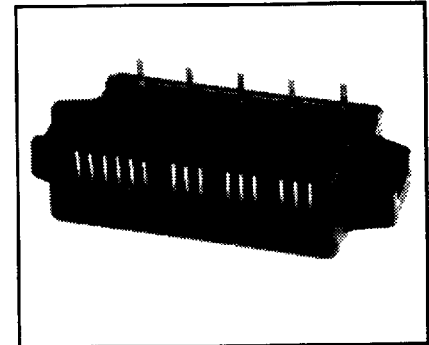
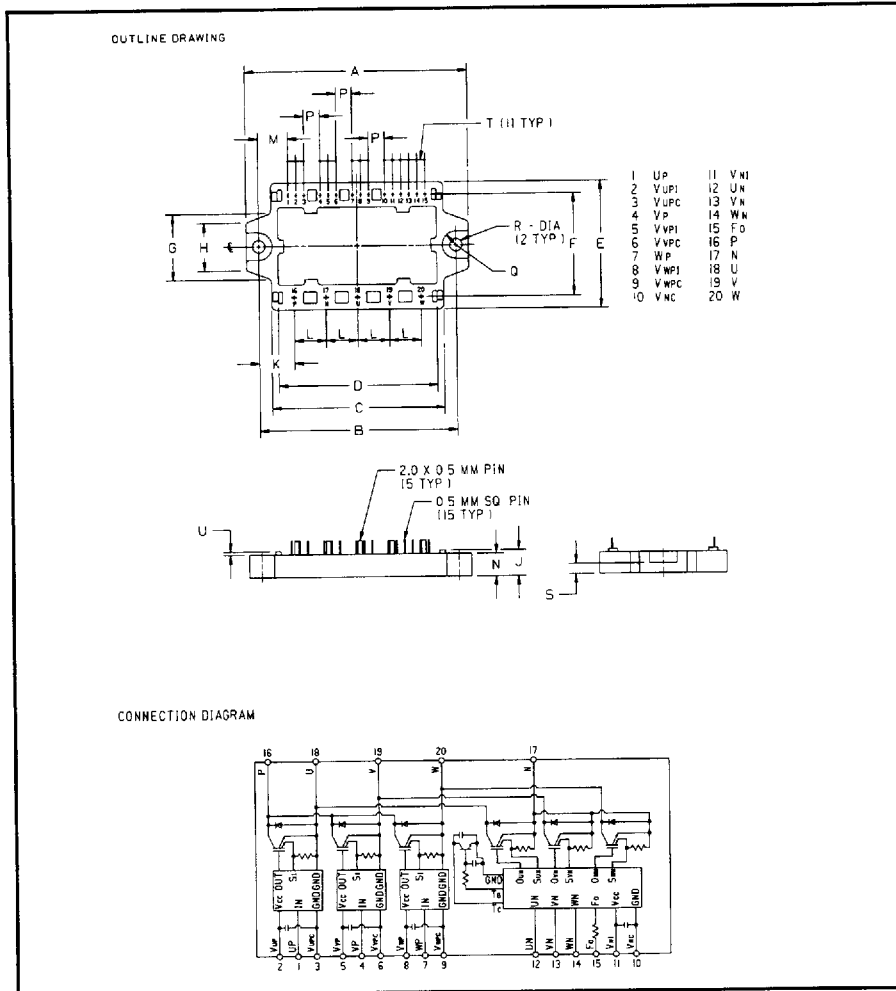




Powerex, Inc., Hillis Street, Youngwood, Pennsylvania 15697 (412) 925-7272
 Powerex, Europe, S.A. 428 Avenue G. Durand, BP107, 72003 Le Mans, France (43) 41.14.14

Intellimod™-3 Modules
 Three Phase
 IGBT Inverter Output
 15 Amperes/110-230 Volt Line



Description

Powerex Intellimod-3 Modules are designed for applications requiring a high frequency (20kHz) output switching inverter. The modules are isolated from the baseplate, consisting of complete drive, control and protection circuitry for the IGBT inverter.

Features:

- Complete Output Power Circuit
- Gate Drive Circuit
- Protection Logic
 - Short Circuit
 - Over-Current
 - Over Temperature
 - Under Voltage

Applications:

- Inverters
- Small UPS
- Motion/Servo Control
- AC Motor Control

Ordering Information
 PM15CHA060

110-230 Volt Line, PM15CHA060 Outline Drawing

Dimensions	Inches	Millimeters
A	3.86±0.04	98.0±1.0
B	3.42±0.02	87.0±0.5
C	2.99	76.0
D	2.76	70.0
E	2.20±0.04	56.0±1.0
F	1.77	45.0
G	1.14	29.0
H	0.83	21.0
J	0.63	16.0
K	0.61	15.5

Dimensions	Inches	Millimeters
L	0.55	14.0
M	0.521	13.24
N	0.39	10.0
P	0.28	7.12
Q	0.24R	6.0R
R	0.22 Dia.	5.5 Dia
S	0.20	5.0
T	0.14	3.56
U	0.06	1.5V



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PM15CHA060

Intellimod-3 Modules

Three Phase IGBT Inverter Output

15 Amperes/110-230 Volt Line

T-57-29

Absolute Maximum Ratings, $T_J = 25\text{ }^\circ\text{C}$ unless otherwise specified

Characteristics	Symbol	PM15CHA060	Units
Power Device Junction Temperature	T_J	-20 to +150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-40 to +125	$^\circ\text{C}$
Case Operating Temperature	T_C	-20 to +100	$^\circ\text{C}$
Mounting Torque, M5 Mounting Screws	—	17	Kg-cm
Module Weight (Typical)	—	90	Grams
Supply Voltage Protected by OC and SC ($V_D = 13.5 - 16.5\text{ V}$, Inverter Part)	$V_{CC\text{ (prot.)}}$	400	Volts
Isolation Voltage AC 1 minute, 60Hz	V_{RMS}	2500	Volts

Control Sector

Supply Voltage Applied Between ($V_{UP1} - V_{UPC}$, $V_{VP1} - V_{VPC}$, $V_{WP1} - V_{WPC}$, $V_{N1} - V_{NC}$)	V_D	20	Volts
Input Current Applied Between ($U_P, V_P, W_P, U_N, V_N, W_N$)	I_{CIN}	20	mA
Input Voltage Applied Between ($U_P, V_P, W_P, U_N, V_N, W_N$)	V_{CIN}	20	Volts
Fault Output Supply Voltage	V_{FO}	20	Volts
Fault Output Current	I_{FO}	20	mA

IGBT Inverter Sector

Collector-Emitter Voltage Fig. 1	V_{CES}	600	Volts
Collector Current \pm	I_C	15	Amperes
Peak Collector Current \pm	I_{CP}	30	Amperes
Supply Voltage (Applied between P - N)	V_{CC}	400	Volts
Supply Voltage (Surge) Applied between P - N	$V_{CC\text{ (surge)}}$	500	Volts
Collector Dissipation	P_C	43	Watts