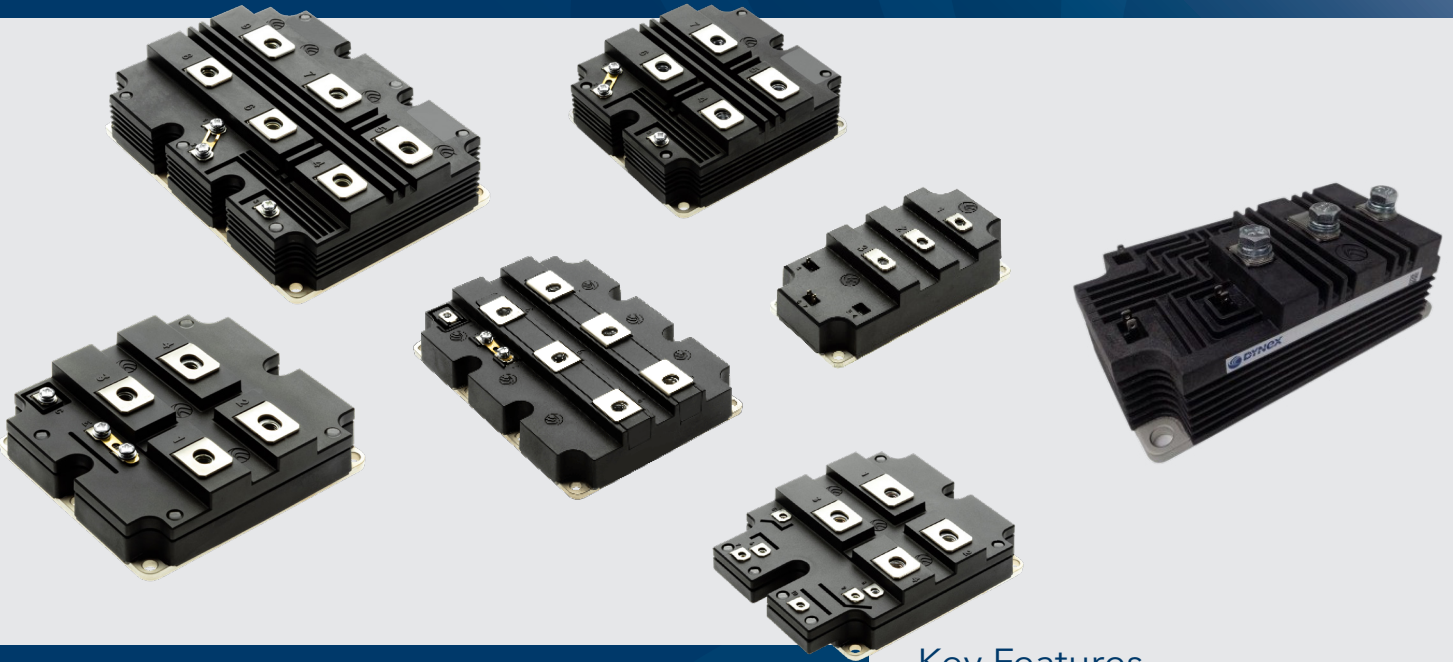




IGBT Modules

Power Cycling with the latest generation IGBT die

The Dynex plant is a facility with device design, wafer fabrication, packaging, qualification and testing available on site.

The range of Dynex power modules includes half bridge, chopper, dual, single and bi-directional switch configurations covering voltages from 3300V to 6500V and currents from 125A to 1800A.

Through initial concept to full production, Dynex support customer requirements to provide enhanced and reliable device outlines to meet specific demands.

Using our in-house design team, Dynex continue to develop processes and designs to utilise the latest techniques to improve cooling, current output, lifetime and reliability.

Great emphasis is placed on low inductance power bus bar designs, enabling the modules to function under fast switching transients such as, those of next generation Trench Gate IGBT's and SiC MOSFET.

Modules are available utilising chips that have been optimised for switching or static losses depending on the application.

Key Features (Module Dependant)

- High DC stability via advanced edge termination design and passivation
- High short circuit capability wide SCSOA
- Self-limiting short circuit current
- Trench gate generation 5 IGBT
- Temperature conditions from -40/ - 50°C to +150°C
- Low switching losses
- $T(vj\ op) = 150^{\circ}C$
- AlSiC Baseplate for increased thermal cycling capability
- Package design with CTI > 600
- Isolated base plate
- 125A to 1800A at 3300V to 6500V

Applications

- High reliability inverters
- Motor controllers
- Traction drives
- High power converters
- Renewable energy power conversion
- HVDC
- Power charging equipment
- High reliability inverters
- Various circuit topologies (half bridge, single switch, chopper)
- Electric vehicles

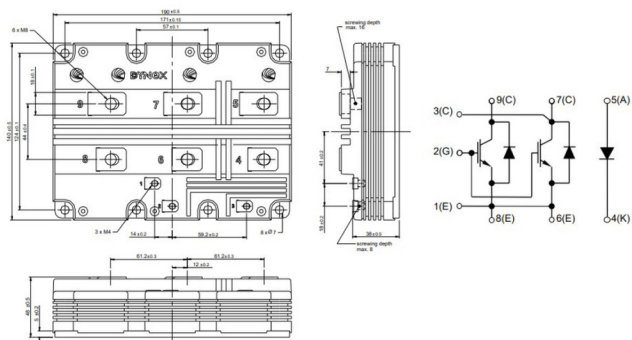
Dynex Part number	Circuit	Technology	Voltage	Current Rating	Package Outline
DIM250PHM33-PS400	Half bridge	DMOS	3.3kV	250	P
DIM250PKM33-PS401	Chopper (U)	DMOS	3.3kV	250	P
DIM250PLM33-PS400	Chopper (L)	DMOS	3.3kV	250	P
DIM250KHM33-PS400	Half bridge	DMOS	3.3kV	250	K
DIM1000NSM33-PS400	Single switch	DMOS	3.3kV	1000	N
DIM500NCM33-PS400	Chopper	DMOS	3.3kV	500	N
DIM500GDM33-PS400	Dual	DMOS	3.3kV	500	G
DIM500GCM33-PS400	Chopper	DMOS	3.3kV	500	G
DIM1500ESM33-PS400	Single switch	DMOS	3.3kV	1500	E
DIM1000ECM33-PS400	Chopper	DMOS	3.3kV	1000	E
DIM1000XSM33-PS401	Single switch	DMOS	3.3kV	1000	X
DIM1500ASM33-PS401	Single switch	DMOS	3.3kV	1500	A
DIM300PHM33-PT400	Half bridge	Trench	3.3kV	300	P
DIM300KHM33-PT400	Half bridge	Trench	3.3kV	300	K
DIM1200NSM33-PT400	Single switch	Trench	3.3kV	1200	N
DIM600NCM33-PT400	Chopper	Trench	3.3kV	600	N
DIM600GDM33-PT400	Dual	Trench	3.3kV	600	G
DIM1800ESM33-PT400	Single switch	Trench	3.3kV	1800	E
DIM1200ECM33-PT400	Chopper	Trench	3.3kV	1200	E
DIM1200XSM33-PT401	Single switch	Trench	3.3kV	1200	X
DIM1800ASM33-PT401	Single switch	Trench	3.3kV	1800	A
DIM200KHM45-PS400	Half bridge	DMOS	4.5kV	200	K
DIM400XSM45-PS400	Single switch	DMOS	4.5kV	400	X
DIM800XSM45-PS401	Single switch	DMOS	4.5kV	800	X
DIM400XCM45-PS401	Chopper	DMOS	4.5kV	400	X
DIM1200ASM45-PS401	Single switch	DMOS	4.5kV	1200	A
DIM800ACM45-PS401	Chopper	DMOS	4.5kV	800	A
DIM125KHM65-PS400	Half bridge	DMOS	6.5kV	125	K
DIM125PHM65-PS400	Half Bridge	DMOS	6.5kV	125	P
DIM500XSM65-PS400	Single switch	DMOS	6.5kV	500	X
DIM250XCM65-PS400	Chopper	DMOS	6.5kV	250	X
DIM750ASM65-PS400	Single Switch	DMOS	6.5kV	750	A
DIM500ACM65-PS400	Chopper	DMOS	6.5kV	500	A
DIM170KHM65-PT400	Half Bridge	Trench	6.5kV	170	K
DIM670XSM65-PT400	Single Switch	Trench	6.5kV	670	X
DIM330XCM65-PT400	Chopper	Trench	6.5kV	330	X
DIM1000ASM65-PT400	Single Switch	Trench	6.5kV	1000	A
DIM670ACM65-PT400	Chopper	Trench	6.5kV	670	A

- Module Outlines and Circuit Configurations

All dimensions shown in mm unless stated otherwise.

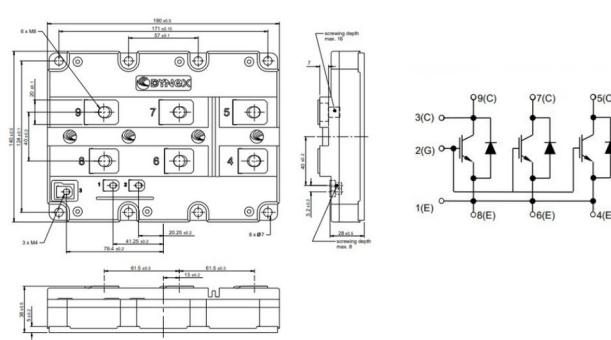
Package Type: A

Nominal Weight: 1700g



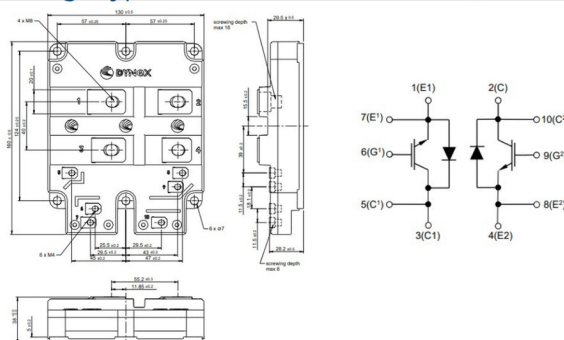
Package Type: E

Nominal Weight: 1400g



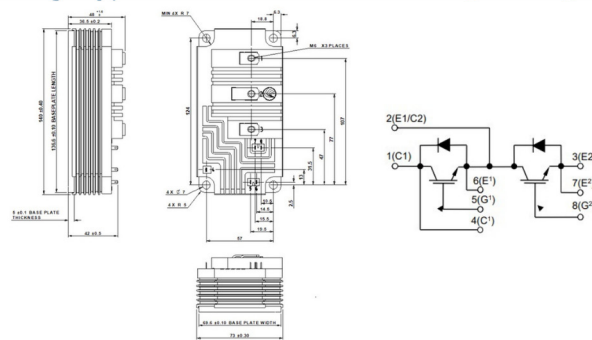
Package Type: G

Nominal Weight: 1000g



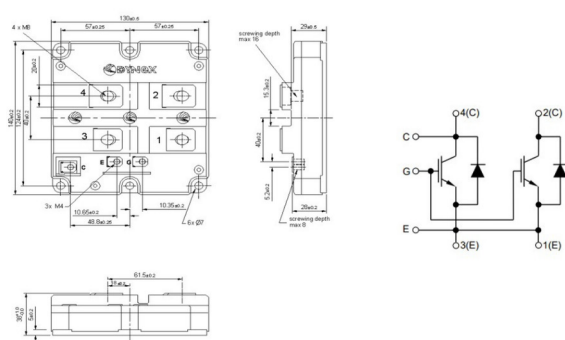
Package Type: K

Nominal Weight: 500g



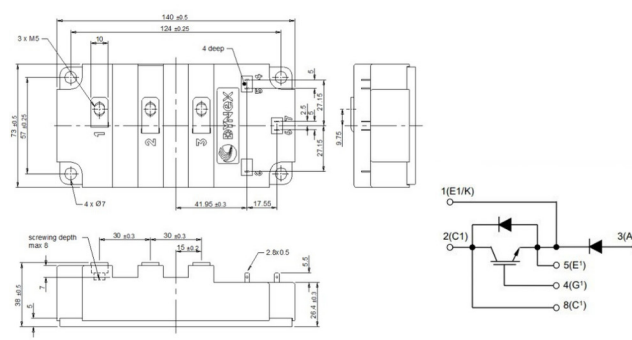
Package Type: N

Nominal Weight: 900g



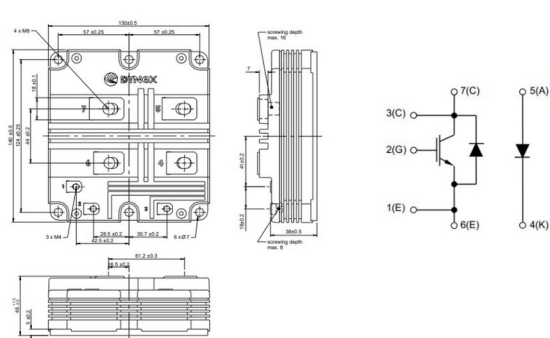
Package Type: P

Nominal Weight: 500g



Package Type: X

Nominal Weight: 1100g



For further information on our range of IGBT modules or for datasheet requests, please scan this QR code linking to our Contact Us page.

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