

CM50MD-12H

MEDIUM POWER SWITCHING USE
INSULATED TYPE**MAXIMUM RATINGS** ($T_j = 25^\circ\text{C}$)
INVERTER PART

Symbol	Parameter	Condition	Rating	Unit
V _{CES}	Collector-emitter voltage	G – E Short	600	V
V _{GES}	Gate-emitter voltage	C – E Short	±20	V
I _C	Collector Current	T _C = 25°C	50	A
I _{CM}		PULSE (Note. 2)	100	A
I _E (Note. 1)	Emitter Current	T _C = 25°C	50	A
I _{EM} (Note. 1)		PULSE (Note. 2)	100	A
P _C (Note. 3)	Maximum collector dissipation	T _f = 25°C	104	W

BRAKE PART

Symbol	Parameter	Condition	Rating	Unit
V _{CES}	Collector-emitter voltage	G – E Short	600	V
V _{GES}	Gate-emitter voltage	C – E Short	±20	V
I _C	Collector Current	T _C = 25°C	50	A
I _{CM}		PULSE (Note. 2)	100	A
P _C (Note. 3)	Maximum Collector dissipation	T _f = 25°C	104	W
V _{RRM}	Repetitive peak reverse voltage	Clamp diode part	600	V
I _{FM} (Note. 3)	Forward current	Clamp diode part	50	A

CONVERTER PART

Symbol	Parameter	Condition	Rating	Unit
V _{RRM}	Repetitive peak reverse voltage		800	V
E _a	Recommended AC input voltage		220	V
I _O	DC output current	3 ϕ rectifying circuit	50	A
I _{FSM}	Surge (non-repetitive) forward current	1 cycle at 60Hz, peak value Non-repetitive	500	A
I ² t	I ² t for fusing	Value for one cycle of surge current	1.0×10 ³	A ² s

COMMON RATING

Symbol	Parameter	Condition	Rating	Unit
T _j	Junction temperature		-40 ~ +150	°C
T _{stg}	Storage temperature		-40 ~ +125	°C
V _{iso}	Isolation voltage	AC 1 min.	2500	V
—	Mounting torque	Mounting M4 screw	0.98 ~ 1.47	N · m
—	Weight	Typical value	100	g