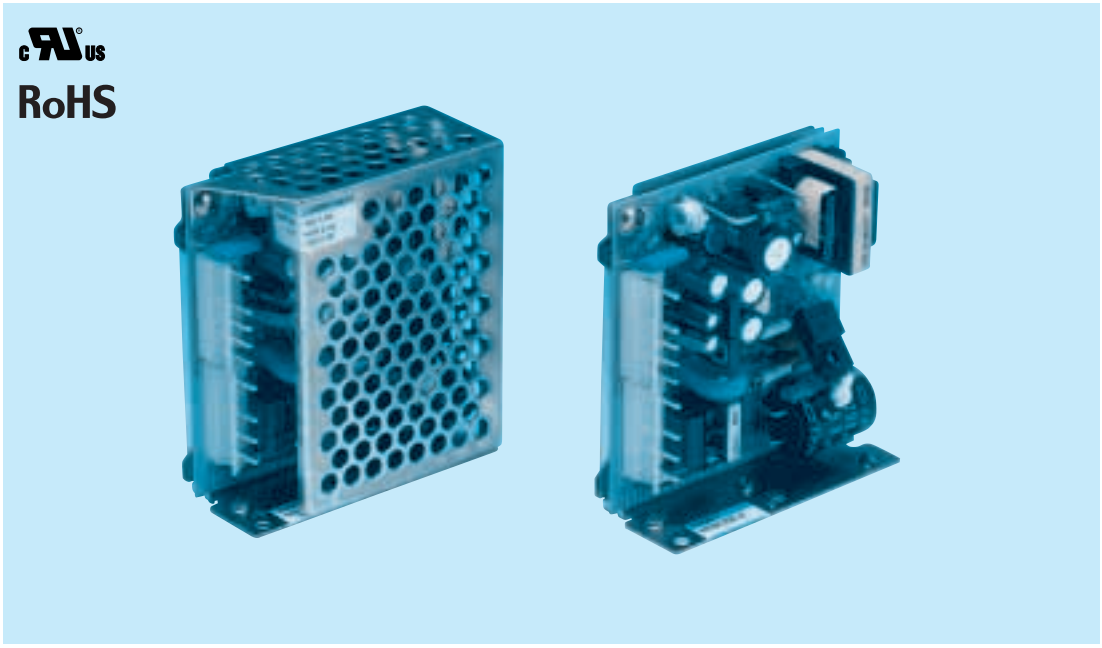
COSEL AC-DC Power Supplies Enclosed type

MMC8A

Ordering information

MMC 8A -1 -□

① ② ③ ④



①Series name
②Output wattage
③Output voltage combination
④Optional ＊2
G :Low leakage current
N :with Cover

MMC

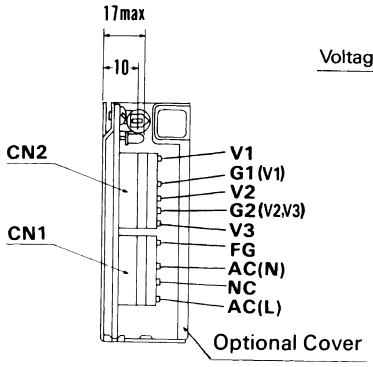
MODEL		MMC8A-1	MMC8A-2	MMC8A-3
DC OUTPUT	V1	+5V 1.2A	+5V 1.1A	+5V 1.2A
	V2	+12V 0.1A	+15V 0.1A	+12V 0.1A
	V3	-12V 0.1A	-15V 0.1A	-5V 0.1A

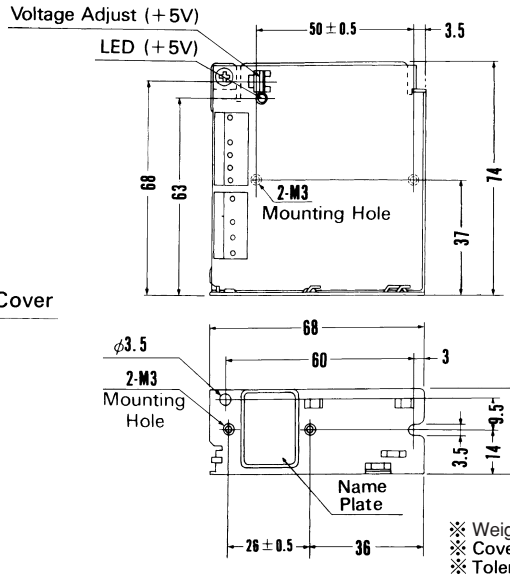
SPECIFICATIONS

	MODEL		MMC8A-1			MMC8A-2			MMC8A-3		
INPUT	VOLTAGE[V]		AC85 - 132 1φ or DC110 - 170								
	CURRENT[A]	ACIN 100V	0.3typ (Io=100%)								
	FREQUENCY[Hz]		47 - 440 or DC								
	EFFICIENCY[%]	ACIN 100V	68typ (Io=100%)								
	INRUSH CURRENT[A]	ACIN 100V	20typ (Io=100%)								
OUTPUT	VOLTAGE[V]		+5	+12	-12	+5	+15	-15	+5	+12	-5
	CURRENT[A]		1.2	0.1	0.1	1.1	0.1	0.1	1.2	0.1	0.1
	MINIMUM CURRENT[A]		0	0	0	0	0	0	0	0	0
	LINE REGULATION[mV]		20max	48max	48max	20max	60max	60max	20max	48max	20max
	LOAD REGULATION[mV]		60max	120max	120max	60max	150max	150max	60max	120max	100max
	RIPPLE[mVp-p]	＊1	80max	120max	120max	80max	120max	120max	80max	120max	120max
	RIPPLE NOISE[mVp-p]	＊1	120max	150max	150max	120max	150max	150max	120max	150max	150max
	TEMPERATURE REGULATION[mV]	0 to +50℃	50max	350max	350max	50max	350max	350max	50max	350max	350max
	START-UP TIME[ms]		100max (ACIN 85V, Io=100%)								
	HOLD-UP TIME[ms]		15typ (ACIN 85V, Io=100%)								
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]		5.00 - 5.25	Fixed	Fixed	5.00 - 5.25	Fixed	Fixed	5.00 - 5.25	Fixed	Fixed
	OUTPUT VOLTAGE SETTING[V]		——	11.40 to 12.60	-11.40 to -12.60	——	14.25 to 15.75	-14.25 to -15.75	——	11.40 to 12.60	-4.75 to -5.25
PROTECTION CIRCUIT	OVERCURRENT PROTECTION		Works over 105% of rating and recovers automatically								
ISOLATION	INPUT-CASE, OUTPUT		AC2,000V 1minute, DC500V 50MΩmin (At Room Temperature)								
	OUTPUT-CASE		AC500V 1minute, DC500V 50MΩmin (At Room Temperature)								
	OUTPUT-OUTPUT(V1-V2,V3)		AC100V 1minute, DC100V 10MΩmin (At Room Temperature)								
ENVIRONMENT	OPERATING TEMP.,HUMID.AND ALTITUDE		0 to +65℃, 20 - 90%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max								
	STORAGE TEMP.,HUMID.AND ALTITUDE		-20 to +75℃, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max								
	VIBRATION		10 - 55Hz, 19.6m/s² (2G), 3minutes period, 30minutes each along X, Y and Z axis								
	IMPACT		98.0m/s² (10G), 20ms, once each X, Y and Z axis								
SAFETY AND NOISE REGULATIONS	AGENCY APPROVALS		UL60950-1, C-UL Complies with DEN-AN								
	CONDUCTED NOISE		Complies with FCC-B								

＊1 Measured by 20MHz oscilloscope or Ripple-Noise meter(equivalent to KEISOKU-GIKEN : RM101).
＊2 Please contact us about safety approvals for the model with option.
＊ When units are operated with chassis and cover, derating is required.
＊ Avoid prolonged use under over-load.

External view





※V1 is Isolated from V2 and V3.

I/O Connector		Mating Connector	Terminal
CN1	10-31-1048	10-63-3044	Chain : 08-70-1031
CN2	09-65-2059	09-50-1053	Loose : 08-70-1030

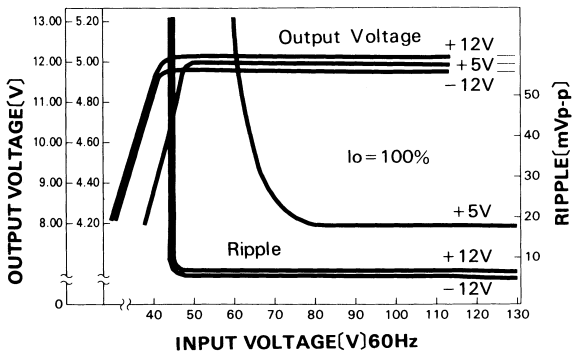
(Mfr : Molex)

※ Weight : 150g max
※ Cover is optional
※ Tolerance: ±1
※ Dimensions in mm.

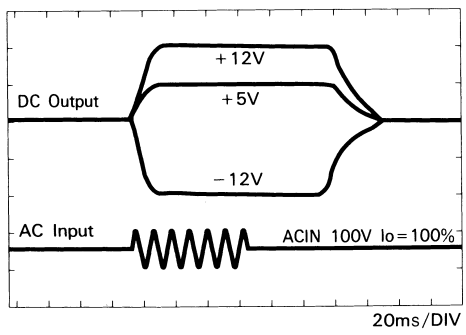
※Mounting torque : 0.6N·m (6.3kgf·cm) max

Performance data

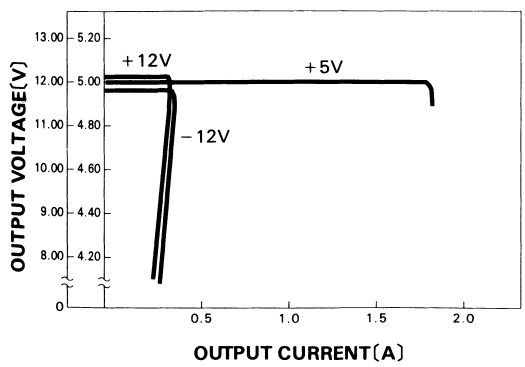
■STATIC CHARACTERISTICS (MMC8A-1)



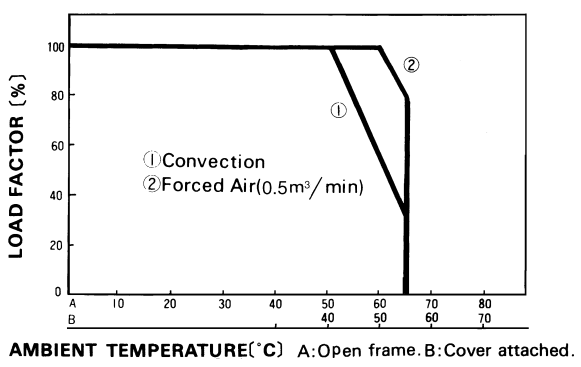
■RISE TIME & FALL TIME (MMC8A-1)



■OVERCURRENT CHARACTERISTICS (MMC8A-1)



■DERATING CURVE



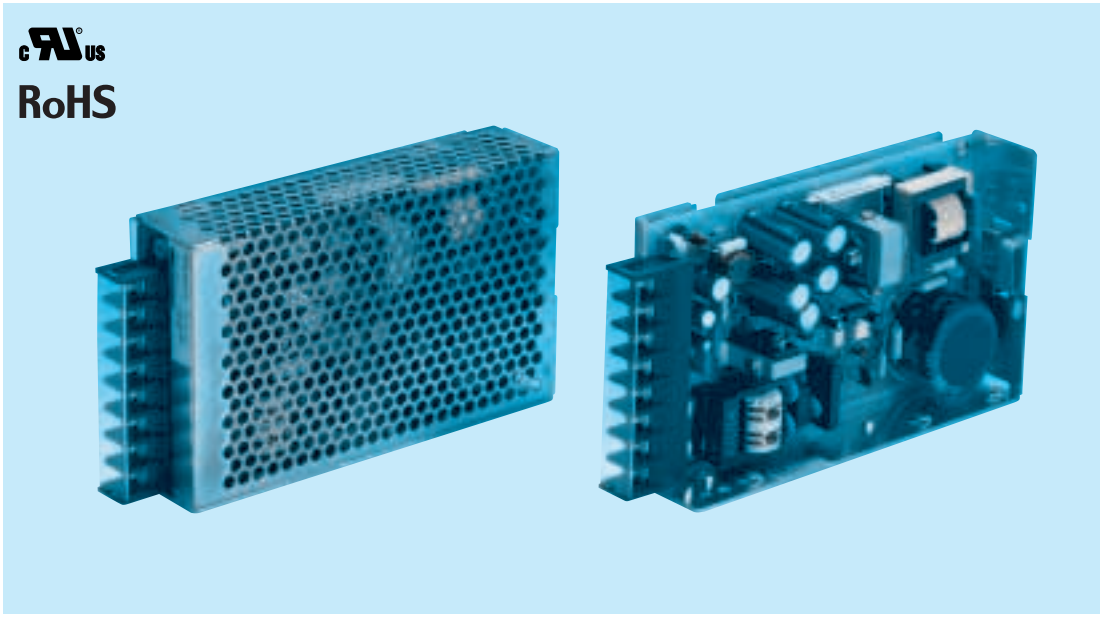
COSEL AC-DC Power Supplies Enclosed type

MMC50A

Ordering information

MMC 50A -1 -□

① ② ③ ④



①Series name
②Output wattage
③Output voltage combination
④Optional ＊3
C :with Coating
G :Low leakage current
J :Connector type
N :with Cover

MMC

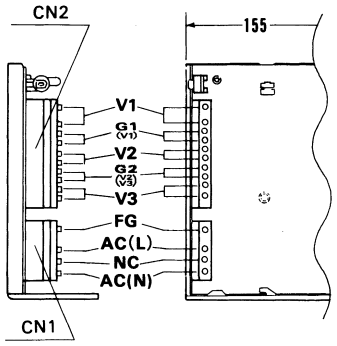
MODEL		MMC50A-1	MMC50A-2	MMC50A-3	MMC50A-4
DC OUTPUT	V1	+5V 5.0A	+5V 5.0A	+5V 5.0A	+5V 7.0A
	V2	+12V 1.5(Peak 2.0)A	+15V 1.2A	+12V 1.5(Peak 2.0)A	+12V 1.0(Peak 1.5)A
	V3	-12V 0.5A	-15V 0.5A	-5V 0.5A	-12V 0.3A

SPECIFICATIONS

	MODEL		MMC50A-1			MMC50A-2			MMC50A-3			MMC50A-4		
INPUT	VOLTAGE[V]		AC85 - 132 1φ or DC110 - 170											
	CURRENT[A]	ACIN 100V	1.5typ (Io=100%)											
	FREQUENCY[Hz]		47 - 440 or DC											
	EFFICIENCY[%]	ACIN 100V	70typ (Io=100%)											
	INRUSH CURRENT[A]	ACIN 100V	30typ (Io=100%) (At cold start)											
OUTPUT	VOLTAGE[V]		+5	+12	-12	+5	+15	-15	+5	+12	-5	+5	+12	-12
	CURRENT[A]	＊1	5	1.5 (Peak2)	0.5	5	1.2	0.5	5	1.5 (Peak2)	0.5	7	1 (Peak1.5)	0.3
	MINIMUM CURRENT[A]		0.75	0	0	0.75	0	0	0.75	0	0	0.75	0	0
	LINE REGULATION[mV]		20max	48max	100max	20max	60max	60max	20max	48max	20max	20max	48max	48max
	LOAD REGULATION[mV]		40max	150max	150max	40max	150max	150max	40max	150max	100max	40max	150max	150max
	RIPPLE[mVp-p]	＊2	80max	120max	120max	80max	120max	120max	80max	120max	120max	80max	120max	120max
	RIPPLE NOISE[mVp-p]	＊2	120max	150max	150max	120max	150max	150max	120max	150max	150max	120max	150max	150max
	TEMPERATURE REGULATION[mV]	0 to +50℃	50max	350max	350max	50max	350max	350max	50max	350max	350max	50max	350max	350max
	START-UP TIME[ms]		100max (ACIN 85V, Io=100%)											
	HOLD-UP TIME[ms]		15typ (ACIN 85V, Io=100%)											
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]		5.00 - 5.25	Fixed	Fixed	5.00 - 5.25	Fixed	Fixed	5.00 - 5.25	Fixed	Fixed	5.00 - 5.25	Fixed	Fixed
	OUTPUT VOLTAGE SETTING[V]		——	11.40 to 12.60	-11.40 to -12.60	——	14.25 to 15.75	-14.25 to -15.75	——	11.40 to 12.60	-4.75 to -5.25	——	11.40 to 12.60	-11.40 to -12.60
PROTECTION CIRCUIT	OVERCURRENT PROTECTION		Works over 105% of rating (V2 works at peak current) and recovers automatically											
	OVERVOLTAGE PROTECTION		Works at 115 - 140% of rating (+5V)											
ISOLATION	INPUT-CASE, OUTPUT		AC2,000V 1minute, DC500V 50MΩmin (At Room Temperature)											
	OUTPUT-CASE		AC500V 1minute, DC500V 50MΩmin (At Room Temperature)											
	OUTPUT-OUTPUT(V1-V2,V3)		AC100V 1minute, DC100V 10MΩmin (At Room Temperature)											
ENVIRONMENT	OPERATING TEMP.,HUMID.AND ALTITUDE		0 to +65℃, 20 - 90%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max											
	STORAGE TEMP.,HUMID.AND ALTITUDE		-20 to +75℃, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max											
	VIBRATION		10 - 55Hz, 19.6m/s² (2G), 3minutes period, 30minutes each along X, Y and Z axis											
	IMPACT		196.1m/s² (20G), 11ms, once each X, Y and Z axis											
SAFETY AND NOISE REGULATIONS	AGENCY APPROVALS		UL60950-1, C-UL Complies with DEN-AN											
	CONDUCTED NOISE		Complies with FCC-A											

＊1 Peak current for 30 seconds.
＊2 Measured by 20MHz oscilloscope or Ripple-Noise meter(equivalent to KEISOKU-GIKEN : RM101).
＊3 Please contact us about safety approvals for the model with option.
＊ When units are operated with chassis and cover, derating is required.
＊ Avoid prolonged use under over-load.

External view

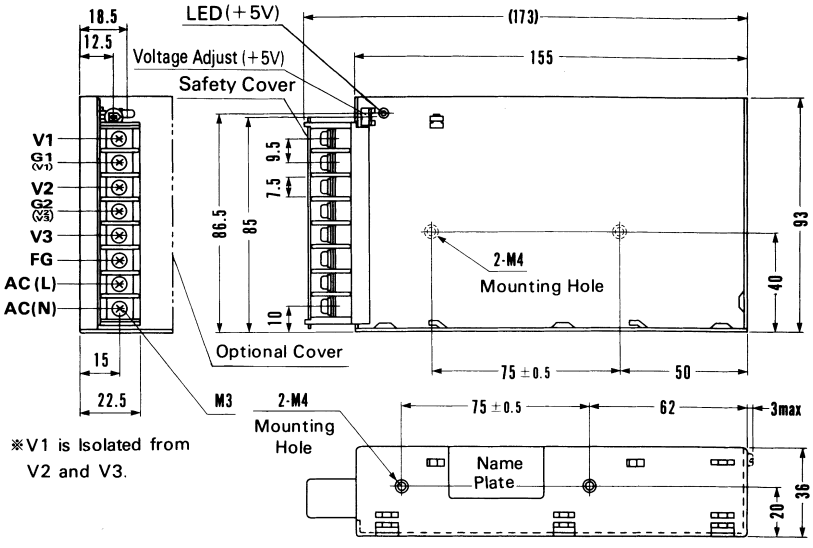


I/O Connector		Mating Connector	Terminal
CN1	10-31-1048	10-63-3044	Chain : 08-70-1031
CN2	09-65-2109	09-50-1103	Loose : 08-70-1030

(Mfr : Molex)

※Use J cover for connector type.

Connector type



※V1 is Isolated from V2 and V3.

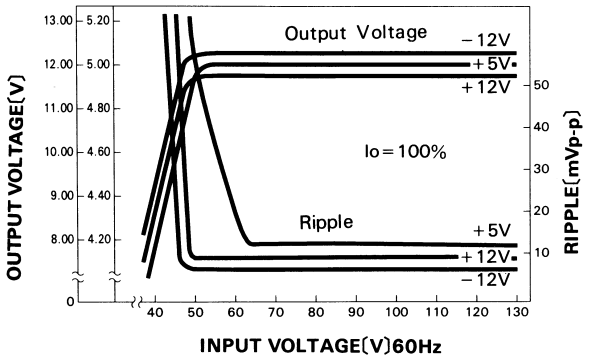
※Mounting torque : 1.2N·m (12.8kgf·cm) max

Barrier strip type

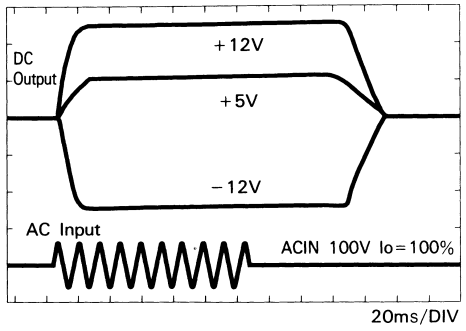
※Weight : 400g max
※Cover is optional
※Tolerance: ±1
※Dimensions in mm.

Performance data

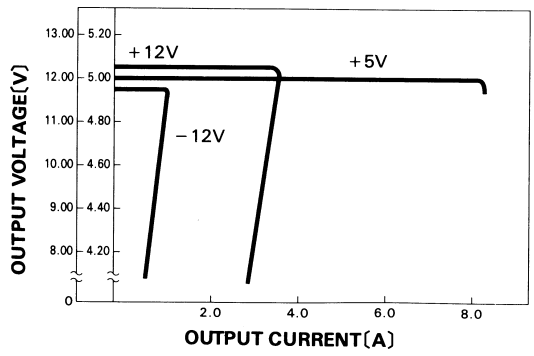
■STATIC CHARACTERISTICS (MMC50A-1)



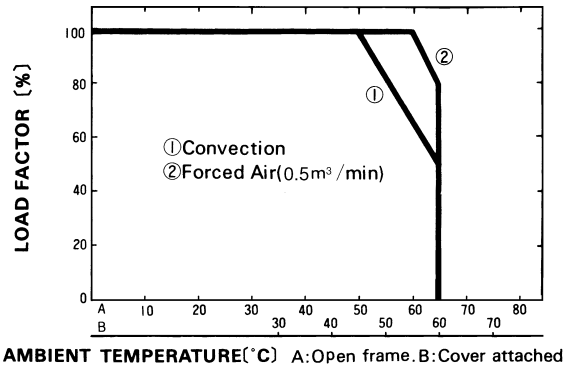
■RISE TIME & FALL TIME (MMC50A-1)



■OVERCURRENT CHARACTERISTICS (MMC50A-1)



■DERATING CURVE



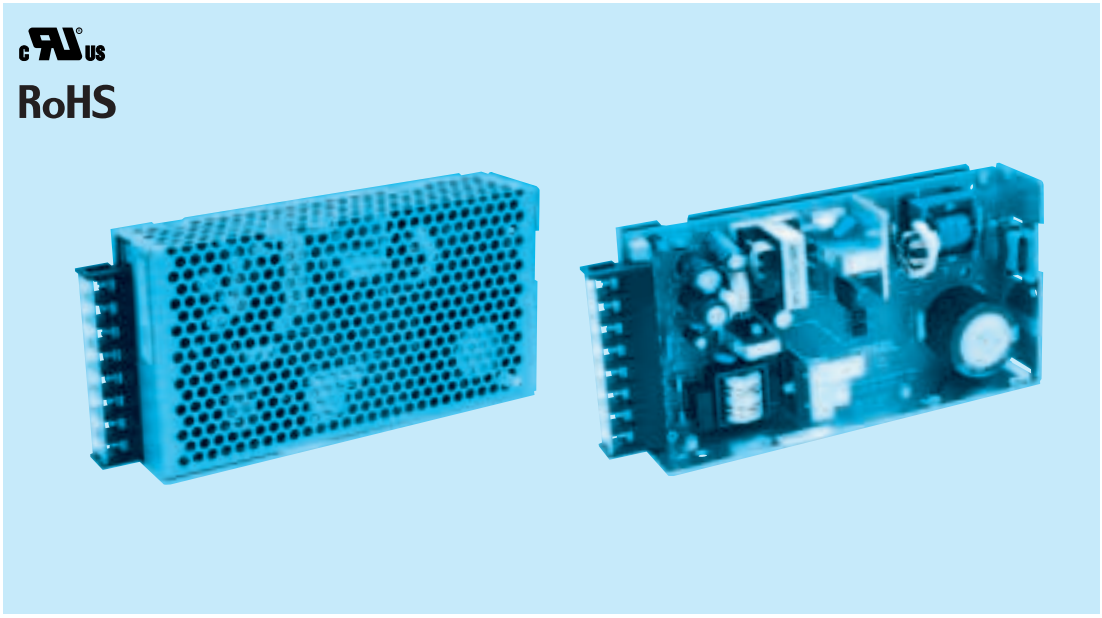
COSEL AC-DC Power Supplies Enclosed type

MMC75B

Ordering information

MMC 75B -1 -□

① ② ③ ④



①Series name
②Output wattage
③Output voltage combination
④Optional ＊2
C :with Coating
G :Low leakage current
J :Connector type
N :with Cover

MMC

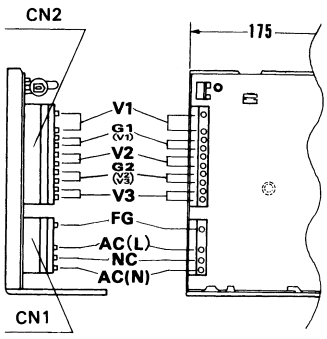
MODEL		MMC75B-1	MMC75B-2	MMC75B-3	MMC75B-4
DC OUTPUT	V1	+5V 8.0A	+5V 8.0A	+5V 8.0A	+5V 6.0A
	V2	+12V 2.5A	+15V 1.8A	+12V 2.5A	+12V 3.2A
	V3	-12V 0.5A	-15V 0.5A	-5V 0.5A	-12V 0.5A

SPECIFICATIONS

	MODEL		MMC75B-1			MMC75B-2			MMC75B-3			MMC75B-4		
INPUT	VOLTAGE[V]		AC85 - 132 1φ or DC110 - 170											
	CURRENT[A]	ACIN 100V	2.1typ (Io=100%)											
	FREQUENCY[Hz]		47 - 440 or DC											
	EFFICIENCY[%]	ACIN 100V	75typ (Io=100%)											
	INRUSH CURRENT[A]	ACIN 100V	20typ (Io=100%)											
OUTPUT	VOLTAGE[V]		+5	+12	-12	+5	+15	-15	+5	+12	-5	+5	+12	-12
	CURRENT[A]		8	2.5	0.5	8	1.8	0.5	8	2.5	0.5	6	3.2	0.5
	MINIMUM CURRENT[A]		1.5	0	0	1.5	0	0	1.5	0	0	1.5	0	0
	LINE REGULATION[mV]		20max	48max	48max	20max	60max	60max	20max	48max	20max	20max	48max	100max
	LOAD REGULATION[mV]		40max	100max	150max	40max	120max	150max	40max	100max	100max	40max	100max	150max
	RIPPLE[mVp-p]	＊1	80max	120max	120max	80max	120max	120max	80max	120max	120max	80max	120max	120max
	RIPPLE NOISE[mVp-p]	＊1	120max	150max	150max	120max	150max	150max	120max	150max	150max	120max	150max	150max
	TEMPERATURE REGULATION[mV]	0 to +50℃	50max	120max	350max	50max	150max	350max	50max	120max	350max	50max	120max	350max
	START-UP TIME[ms]		200max (ACIN 85V, Io=100%)											
	HOLD-UP TIME[ms]		15typ (ACIN 85V, Io=100%)											
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]		5.00 - 5.25	Fixed	Fixed	5.00 - 5.25	Fixed	Fixed	5.00 - 5.25	Fixed	Fixed	5.00 - 5.25	Fixed	Fixed
	OUTPUT VOLTAGE SETTING[V]		——	11.40 to 12.60	-11.40 to -12.60	——	14.25 to 15.75	-14.25 to -15.75	——	11.40 to 12.60	-4.75 to -5.25	——	11.40 to 12.60	-11.40 to -12.60
PROTECTION CIRCUIT	OVERCURRENT PROTECTION		Works over 105% of rating and recovers automatically											
	OVERVOLTAGE PROTECTION		Works at 115 - 140% of rating (+5V)											
ISOLATION	INPUT-CASE, OUTPUT		AC2,000V 1minute, DC500V 50MΩmin (At Room Temperature)											
	OUTPUT-CASE		AC500V 1minute, DC500V 50MΩmin (At Room Temperature)											
	OUTPUT-OUTPUT(V1-V2,V3)		AC100V 1minute, DC100V 10MΩmin (At Room Temperature)											
ENVIRONMENT	OPERATING TEMP.,HUMID.AND ALTITUDE		0 to +65℃, 20 - 90%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max											
	STORAGE TEMP.,HUMID.AND ALTITUDE		-20 to +75℃, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max											
	VIBRATION		10 - 55Hz, 19.6m/s² (2G), 3minutes period, 30minutes each along X, Y and Z axis											
	IMPACT		196.1m/s² (20G), 11ms, once each X, Y and Z axis											
SAFETY AND NOISE REGULATIONS	AGENCY APPROVALS		UL60950-1, C-UL Complies with DEN-AN											
	CONDUCTED NOISE		Complies with FCC-A											

＊1 Measured by 20MHz oscilloscope or Ripple-Noise meter(equivalent to KEISOKU-GIKEN : RM101).
＊2 Please contact us about safety approvals for the model with option.
＊ When units are operated with chassis and cover, derating is required.
＊ Avoid prolonged use under over-load.

External view

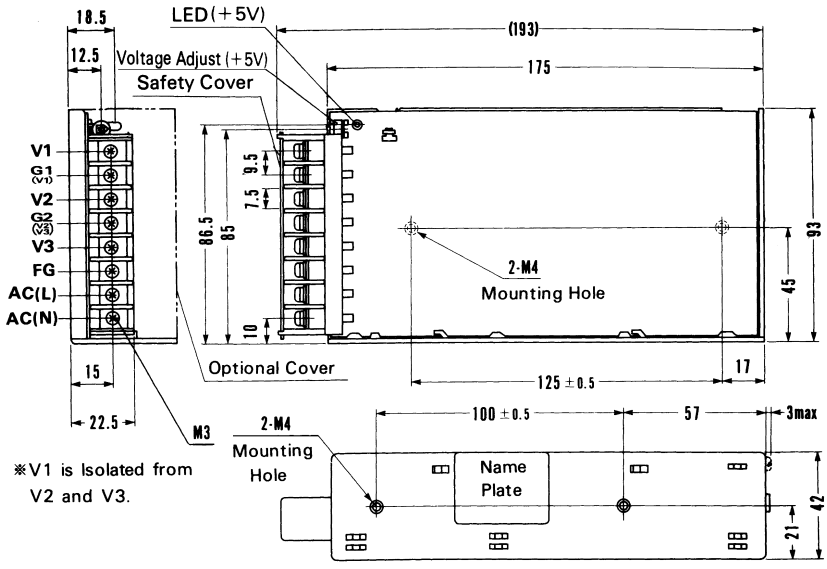


I/O Connector		Mating Connector	Terminal
CN1	10-31-1048	10-63-3044	Chain : 08-70-1031
CN2	09-65-2109	09-50-1103	Loose : 08-70-1030

(Mfr : Molex)

※Use J cover for connector type.

Connector type



※V1 is Isolated from V2 and V3.

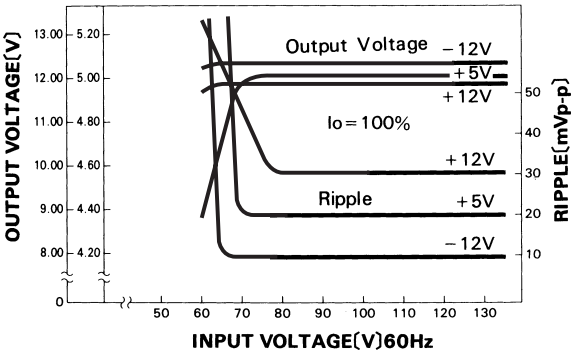
※Mounting torque : 1.2N•m (12.8kgf•cm) max

Barrier strip type

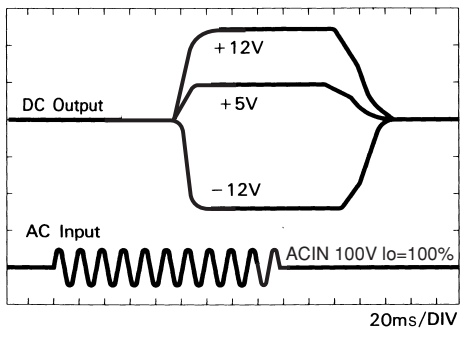
※Weight : 600g max
※Cover is optional
※Tolerance: ±1
※Dimensions in mm.

Performance data

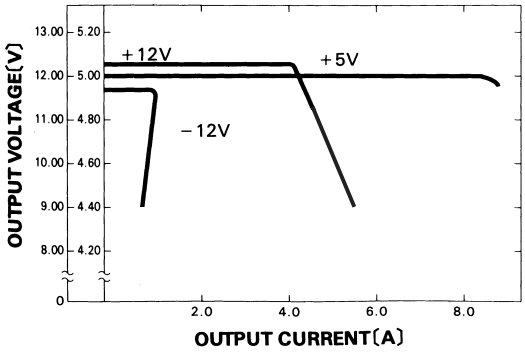
■STATIC CHARACTERISTICS (MMC75B-4)



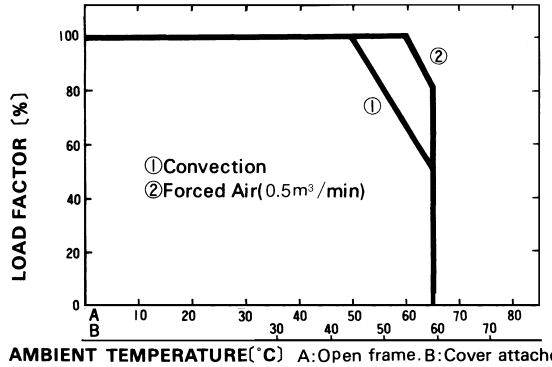
■RISE TIME & FALL TIME (MMC75B-4)



■OVERCURRENT CHARACTERISTICS (MMC75B-4)



■DERATING CURVE



COSEL AC-DC Power Supplies Enclosed type

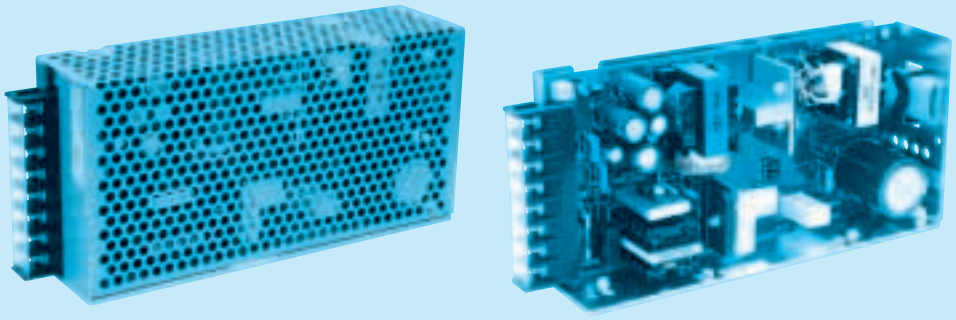
MMC100B

Ordering information

MMC 100B -1 -□

① ② ③ ④

RoHS



①Series name
②Output wattage
③Output voltage combination
④Optional ＊2
C :with Coating
G :Low leakage current
J :Connector type
N :with Cover

MMC

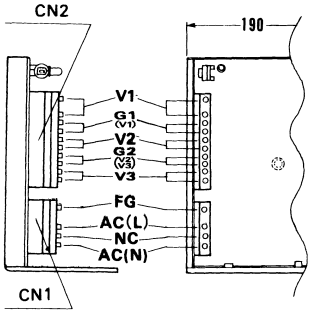
MODEL		MMC100B-1	MMC100B-2	MMC100B-3	MMC100B-4
DC OUTPUT	V1	+5V 13.0A	+5V 13.0A	+5V 13.0A	+5V 8.0A
	V2	+12V 2.0A	+15V 1.5A	+12V 2.0A	+12V 4.0A
	V3	-12V 1.0A	-15V 1.0A	-5V 1.0A	-12V 1.0A

SPECIFICATIONS

	MODEL		MMC100B-1			MMC100B-2			MMC100B-3			MMC100B-4		
INPUT	VOLTAGE[V]		AC85 - 132 1φ or DC110 - 170											
	CURRENT[A]	ACIN 100V	2.8typ (Io=100%)											
	FREQUENCY[Hz]		47 - 440 or DC											
	EFFICIENCY[%]	ACIN 100V	75typ (Io=100%)											
	INRUSH CURRENT[A]	ACIN 100V	25typ (Io=100%)											
OUTPUT	VOLTAGE[V]		+5	+12	-12	+5	+15	-15	+5	+12	-5	+5	+12	-12
	CURRENT[A]		13	2	1	13	1.5	1	13	2	1	8	4	1
	MINIMUM CURRENT[A]		1.5	0	0	1.5	0	0	1.5	0	0	1.5	0	0
	LINE REGULATION[mV]		20max	48max	48max	20max	60max	60max	20max	48max	20max	20max	48max	100max
	LOAD REGULATION[mV]		40max	100max	150max	40max	120max	150max	40max	100max	100max	40max	100max	150max
	RIPPLE[mVp-p]	＊1	80max	120max	120max	80max	120max	120max	80max	120max	120max	80max	120max	120max
	RIPPLE NOISE[mVp-p]	＊1	120max	150max	150max	120max	150max	150max	120max	150max	150max	120max	150max	150max
	TEMPERATURE REGULATION[mV]	0 to +50℃	50max	120max	350max	50max	150max	350max	50max	120max	350max	50max	120max	350max
	START-UP TIME[ms]		200max (ACIN 85V, Io=100%)											
	HOLD-UP TIME[ms]		15typ (ACIN 85V, Io=100%)											
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]		5.00 - 5.25	Fixed	Fixed	5.00 - 5.25	Fixed	Fixed	5.00 - 5.25	Fixed	Fixed	5.00 - 5.25	Fixed	Fixed
	OUTPUT VOLTAGE SETTING[V]		——	11.40 to 12.60	-11.40 to -12.60	——	14.25 to 15.75	-14.25 to -15.75	——	11.40 to 12.60	-4.75 to -5.25	——	11.40 to 12.60	-11.40 to -12.60
PROTECTION CIRCUIT	OVERCURRENT PROTECTION		Works over 105% of rating and recovers automatically											
	OVERVOLTAGE PROTECTION		Works at 115 - 140% of rating (+5V)											
ISOLATION	INPUT-CASE, OUTPUT		AC2,000V 1minute, DC500V 50MΩmin (At Room Temperature)											
	OUTPUT-CASE		AC500V 1minute, DC500V 50MΩmin (At Room Temperature)											
	OUTPUT-OUTPUT(V1-V2,V3)		AC100V 1minute, DC100V 10MΩmin (At Room Temperature)											
ENVIRONMENT	OPERATING TEMP.,HUMID.AND ALTITUDE		0 to +65℃, 20 - 90%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max											
	STORAGE TEMP.,HUMID.AND ALTITUDE		-20 to +75℃, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max											
	VIBRATION		10 - 55Hz, 19.6m/s² (2G), 3minutes period, 30minutes each along X, Y and Z axis											
	IMPACT		196.1m/s² (20G), 11ms, once each X, Y and Z axis											
SAFETY AND NOISE REGULATIONS	AGENCY APPROVALS		UL60950-1, C-UL Complies with DEN-AN											
	CONDUCTED NOISE		Complies with FCC-A											

＊1 Measured by 20MHz oscilloscope or Ripple-Noise meter(equivalent to KEISOKU-GIKEN : RM101).
＊2 Please contact us about safety approvals for the model with option.
＊ When units are operated with chassis and cover, derating is required.
＊ Avoid prolonged use under over-load.

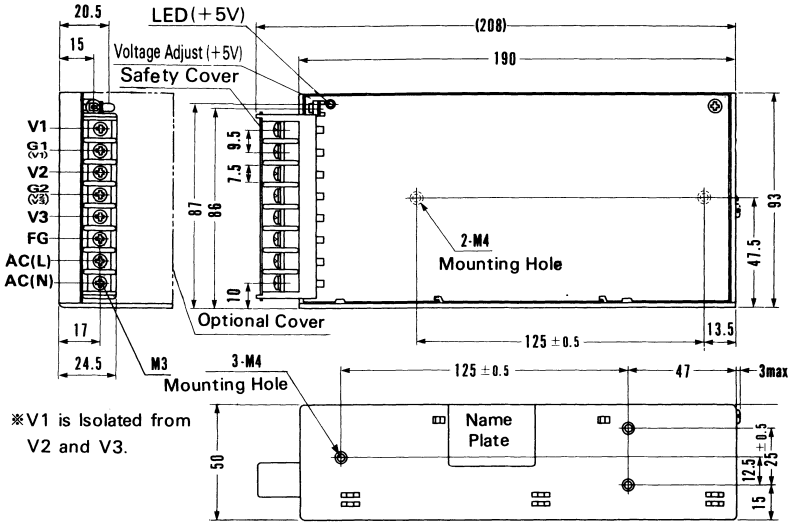
External view



I/O Connector		Mating Connector	Terminal
CN1	10-31-1048	10-63-3044	Chain : 08-70-1031
CN2	09-65-2109	09-50-1103	Loose : 08-70-1030

(Mfr : Molex)

Connector type



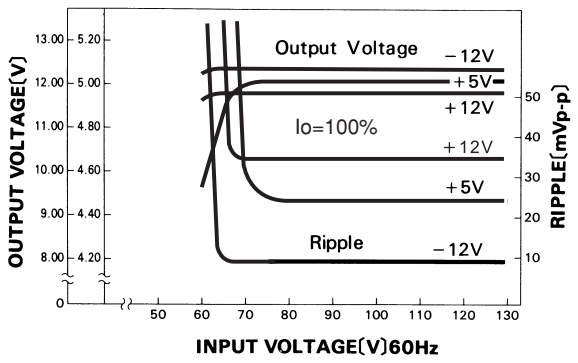
※V1 is Isolated from V2 and V3.

Barrier strip type

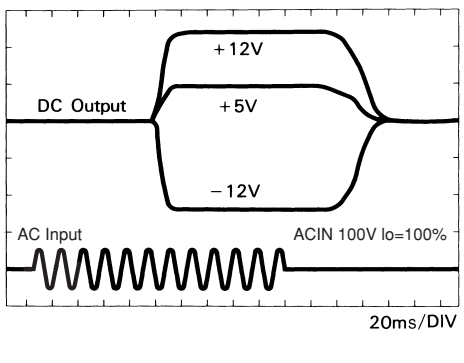
※Mounting torque : 1.2N•m (12.8kgf•cm) max
※Weight : 700g max
※Cover is optional.
※Tolerance: ±1
※Dimensions in mm.

Performance data

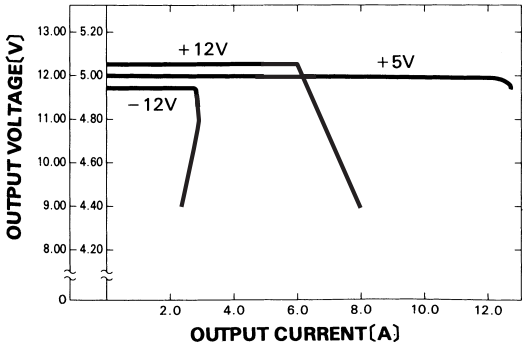
■STATIC CHARACTERISTICS (MMC100B-4)



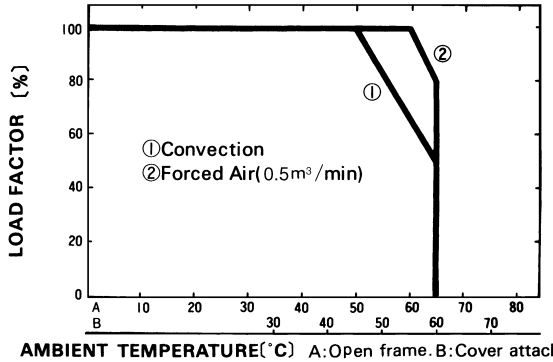
■RISE TIME & FALL TIME (MMC100B-4)



■OVERCURRENT CHARACTERISTICS (MMC100B-4)



■DERATING CURVE



Mouser Electronics

Authorized Distributor

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Cosel:

MMC75B-2-J MMC100B-1-CN MMC100B-4 MMC75A-3-J MMC50A-1-J MMC50A-1-N MMC50A-2-N MMC75B-4 MMC8A-2 MMC75B-1-C MMC50A-1 MMC75A-4-J MMC100B-3-J MMC100B-2-C MMC75A-2 MMC50A-3-J MMC75A-1-G MMC75B-3-J MMC75B-2-CN MMC50A-4-J MMC75A-2-J MMC50A-2-GN MMC8A-1 MMC75B-1-G MMC100B-4-N MMC100B-3-N MMC8A-3 MMC100B-4-G MMC75B-2-C MMC50A-1-GN MMC75B-3-N MMC50A-4-N MMC8A-1-N MMC75A-2-G MMC75B-3-G MMC75B-1-CN MMC100B-2-J MMC50A-4-CN MMC75A-1-N MMC75B-1 MMC50A-2-CN MMC75B-3 MMC75B-4-G MMC100B-1-J MMC75B-1-JN MMC75B-4-N MMC75A-4 MMC100B-3-G MMC100B-3 MMC75B-2-GN MMC50A-2-JN MMC100B-1-C MMC75B-2-N MMC75A-3-N MMC8A-2-N MMC75B-1-J MMC50A-2-C MMC50A-2-J MMC50A-4-JN MMC75B-1-CJ MMC100B-1 MMC75B-2-JN MMC100B-2 MMC50A-3-CN MMC50A-1-MN MMC75B-4-CN MMC100B-4-CN MMC75A-1-CN MMC100B-1-GN MMC8A-3-N MMC75A-3-JN MMC75A-4-N MMC50A-1-CN MMC50A-3-N MMC100B-2-N MMC75B-2 MMC100B-2-G MMC75A-1-JN MMC75A-3 MMC75B-3-CN MMC75B-4-JN MMC75B-3-JN MMC75B-4-C MMC75A-1-CJ MMC100B-4-C MMC8A-1-C MMC100B-3-JN MMC75A-2-N MMC100B-4-J MMC100B-3-C MMC100B-3-CN MMC50A-3 MMC8A-2-C MMC8A-3-C MMC75B-1-N MMC75B-3-C MMC50A-2 MMC100B-1-G MMC75B-4-J MMC75B-1-GN