PRODUCT NEWS

OMRON

Product Discontinuation Notice

Issue Date
May, 2023

Product Discontinuation	Recommended Replacement
Servo Driver	Servo Driver
R88D-GT[]	**R88D-KT[]**
R88D-GN[]-ML2	**R88D-KN[]-ML2**
Servo Motor	Servo Motor
R88M-G40030L-[]	**R88M-K40030L-[]**
R88M-G[]S-[]	**R88M-K[]S-[]**
R88M-G75030H-[]	**R88M-K75030H-[]**
R88M-G[]T-[]	**R88M-K[]T-[]**
R88M-GP40030L-[]	**R88M-K40030L-[]**
R88M-GP[]S-[]	**R88M-K[]S-[]**
R88M-GP[]T-[]	**R88M-K[]T-[]**

[Final order entry date]

The end of March, 2024

[Date of The Last Shipping]

The end of March, 2025

[Scheduled date of maintenance close]

The end of March, 2031

[Caution on recommended replacement]

1. G5 Series does not have the flat type motors(R88M-GP[]). Please replace with the standard type motors.
2. G5 Series ML2 type does not support the 4.5kW 1000r/min motors. Please replace with the G5 Series EtherCAT type.
3. The mounting dimensions are not same between R88M-G1K030T-[](flange dimension:90×90) and R88M-K1K030T-[](flange dimension:100×100), R88M-G4K020T-[](flange dimension:150×150) and R88M-K4K020T-[](flange dimension:176×176).
4. The parameters are different between G series and G5 series. Please refer to the Replace Guides (I877-E1, I878-E1).

[Difference from discontinued product]

Recommended replacement Model	Body Color	Dimen-sions	Wire connection	Mounting Dimensions	Charac-teristics	Operation ratings	Operation methods
R88D-KT[]	--	*	--	*	*	--	--
R88D-KN[]-ML2	--	*	--	*	*	--	--
R88M-K[]	**	*	--	*	--	--	**
R88M-K[] (from flat type)	**	--	--	--	--	--	**

** : Compatible
* : The change is a little/Almost compatible
-- : Not compatible
- : No corresponding specification

[Product Discontinuation and recommended replacement]

Product discontinuation	Recommended replacement
R88D-GTA5L	R88D-KTA5L
R88D-GT01L	R88D-KT01L
R88D-GT02L	R88D-KT02L
R88D-GT04L	R88D-KT04L
R88D-GT01H	R88D-KT01H
R88D-GT02H	R88D-KT02H
R88D-GT04H	R88D-KT04H
R88D-GT08H	R88D-KT08H
R88D-GT10H	R88D-KT10H
R88D-GT15H	R88D-KT15H
R88D-GT20H	R88D-KT20H
R88D-GT30H	R88D-KT30H
R88D-GT50H	R88D-KT50H
R88D-GNA5L-ML2	R88D-KNA5L-ML2
R88D-GN01L-ML2	R88D-KN01L-ML2
R88D-GN02L-ML2	R88D-KN02L-ML2
R88D-GN04L-ML2	R88D-KN04L-ML2
R88D-GN01H-ML2	R88D-KN01H-ML2
R88D-GN02H-ML2	R88D-KN02H-ML2
R88D-GN04H-ML2	R88D-KN04H-ML2
R88D-GN08H-ML2	R88D-KN08H-ML2
R88D-GN10H-ML2	R88D-KN10H-ML2
R88D-GN15H-ML2	R88D-KN15H-ML2
R88D-GN20H-ML2	R88D-KN20H-ML2
R88D-GN30H-ML2	R88D-KN30H-ML2
R88D-GN50H-ML2	R88D-KN50H-ML2
R88M-G05030T	R88M-K05030T
R88M-G05030T-O	R88M-K05030T-O
R88M-G05030T-S2	R88M-K05030T-S2
R88M-G05030T-OS2	R88M-K05030T-OS2
R88M-G05030T-B	R88M-K05030T-B
R88M-G05030T-BO	R88M-K05030T-BO
R88M-G05030T-BS2	R88M-K05030T-BS2
R88M-G05030T-BOS2	R88M-K05030T-BOS2
R88M-G10030S	R88M-K10030S
R88M-G10030S-O	R88M-K10030S-O
R88M-G10030S-S2	R88M-K10030S-S2
R88M-G10030S-OS2	R88M-K10030S-OS2
R88M-G10030S-B	R88M-K10030S-B
R88M-G10030S-BO	R88M-K10030S-BO
R88M-G10030S-BS2	R88M-K10030S-BS2
R88M-G10030S-BOS2	R88M-K10030S-BOS2
R88M-G20030S	R88M-K20030S
R88M-G20030S-O	R88M-K20030S-O
R88M-G20030S-S2	R88M-K20030S-S2
R88M-G20030S-OS2	R88M-K20030S-OS2
R88M-G20030S-B	R88M-K20030S-B
R88M-G20030S-BO	R88M-K20030S-BO

Product discontinuation	Recommended replacement
R88M-G20030S-BS2	R88M-K20030S-BS2
R88M-G20030S-BOS2	R88M-K20030S-BOS2
R88M-G40030L	R88M-K40030L
R88M-G40030L-O	R88M-K40030L-O
R88M-G40030L-S2	R88M-K40030L-S2
R88M-G40030L-OS2	R88M-K40030L-OS2
R88M-G40030L-B	R88M-K40030L-B
R88M-G40030L-BO	R88M-K40030L-BO
R88M-G40030L-BS2	R88M-K40030L-BS2
R88M-G40030L-BOS2	R88M-K40030L-BOS2
R88M-G40030S	R88M-K40030S
R88M-G40030S-O	R88M-K40030S-O
R88M-G40030S-S2	R88M-K40030S-S2
R88M-G40030S-OS2	R88M-K40030S-OS2
R88M-G40030S-B	R88M-K40030S-B
R88M-G40030S-BO	R88M-K40030S-BO
R88M-G40030S-BS2	R88M-K40030S-BS2
R88M-G40030S-BOS2	R88M-K40030S-BOS2
R88M-G10030T	R88M-K10030T
R88M-G10030T-O	R88M-K10030T-O
R88M-G10030T-S2	R88M-K10030T-S2
R88M-G10030T-OS2	R88M-K10030T-OS2
R88M-G10030T-B	R88M-K10030T-B
R88M-G10030T-BO	R88M-K10030T-BO
R88M-G10030T-BS2	R88M-K10030T-BS2
R88M-G10030T-BOS2	R88M-K10030T-BOS2
R88M-G20030T	R88M-K20030T
R88M-G20030T-O	R88M-K20030T-O
R88M-G20030T-S2	R88M-K20030T-S2
R88M-G20030T-OS2	R88M-K20030T-OS2
R88M-G20030T-B	R88M-K20030T-B
R88M-G20030T-BO	R88M-K20030T-BO
R88M-G20030T-BS2	R88M-K20030T-BS2
R88M-G20030T-BOS2	R88M-K20030T-BOS2
R88M-G40030T	R88M-K40030T
R88M-G40030T-O	R88M-K40030T-O
R88M-G40030T-S2	R88M-K40030T-S2
R88M-G40030T-OS2	R88M-K40030T-OS2
R88M-G40030T-B	R88M-K40030T-B
R88M-G40030T-BO	R88M-K40030T-BO
R88M-G40030T-BS2	R88M-K40030T-BS2
R88M-G40030T-BOS2	R88M-K40030T-BOS2
R88M-G75030H	R88M-K75030H
R88M-G75030H-O	R88M-K75030H-O
R88M-G75030H-S2	R88M-K75030H-S2
R88M-G75030H-OS2	R88M-K75030H-OS2
R88M-G75030H-B	R88M-K75030H-B
R88M-G75030H-BO	R88M-K75030H-BO
R88M-G75030H-BS2	R88M-K75030H-BS2

Product discontinuation	Recommended replacement
R88M-G75030H-BOS2	R88M-K75030H-BOS2
R88M-G75030T	R88M-K75030T
R88M-G75030T-O	R88M-K75030T-O
R88M-G75030T-S2	R88M-K75030T-S2
R88M-G75030T-OS2	R88M-K75030T-OS2
R88M-G75030T-B	R88M-K75030T-B
R88M-G75030T-BO	R88M-K75030T-BO
R88M-G75030T-BS2	R88M-K75030T-BS2
R88M-G75030T-BOS2	R88M-K75030T-BOS2
R88M-G1K030T	R88M-K1K030T
R88M-G1K030T-O	R88M-K1K030T-O
R88M-G1K030T-S2	R88M-K1K030T-S2
R88M-G1K030T-OS2	R88M-K1K030T-OS2
R88M-G1K030T-B	R88M-K1K030T-B
R88M-G1K030T-BO	R88M-K1K030T-BO
R88M-G1K030T-BS2	R88M-K1K030T-BS2
R88M-G1K030T-BOS2	R88M-K1K030T-BOS2
R88M-G1K530T	R88M-K1K530T
R88M-G1K530T-O	R88M-K1K530T-O
R88M-G1K530T-S2	R88M-K1K530T-S2
R88M-G1K530T-OS2	R88M-K1K530T-OS2
R88M-G1K530T-B	R88M-K1K530T-B
R88M-G1K530T-BO	R88M-K1K530T-BO
R88M-G1K530T-BS2	R88M-K1K530T-BS2
R88M-G1K530T-BOS2	R88M-K1K530T-BOS2
R88M-G2K030T	R88M-K2K030T
R88M-G2K030T-O	R88M-K2K030T-O
R88M-G2K030T-S2	R88M-K2K030T-S2
R88M-G2K030T-OS2	R88M-K2K030T-OS2
R88M-G2K030T-B	R88M-K2K030T-B
R88M-G2K030T-BO	R88M-K2K030T-BO
R88M-G2K030T-BS2	R88M-K2K030T-BS2
R88M-G2K030T-BOS2	R88M-K2K030T-BOS2
R88M-G3K030T	R88M-K3K030T
R88M-G3K030T-O	R88M-K3K030T-O
R88M-G3K030T-S2	R88M-K3K030T-S2
R88M-G3K030T-OS2	R88M-K3K030T-OS2
R88M-G3K030T-B	R88M-K3K030T-B
R88M-G3K030T-BO	R88M-K3K030T-BO
R88M-G3K030T-BS2	R88M-K3K030T-BS2
R88M-G3K030T-BOS2	R88M-K3K030T-BOS2
R88M-G4K030T	R88M-K4K030T
R88M-G4K030T-O	R88M-K4K030T-O
R88M-G4K030T-S2	R88M-K4K030T-S2
R88M-G4K030T-OS2	R88M-K4K030T-OS2
R88M-G4K030T-B	R88M-K4K030T-B
R88M-G4K030T-BO	R88M-K4K030T-BO
R88M-G4K030T-BS2	R88M-K4K030T-BS2
R88M-G4K030T-BOS2	R88M-K4K030T-BOS2

Product discontinuation	Recommended replacement
R88M-G5K030T	R88M-K5K030T
R88M-G5K030T-O	R88M-K5K030T-O
R88M-G5K030T-S2	R88M-K5K030T-S2
R88M-G5K030T-OS2	R88M-K5K030T-OS2
R88M-G5K030T-B	R88M-K5K030T-B
R88M-G5K030T-BO	R88M-K5K030T-BO
R88M-G5K030T-BS2	R88M-K5K030T-BS2
R88M-G5K030T-BOS2	R88M-K5K030T-BOS2
R88M-GP10030S	R88M-K10030S
R88M-GP10030S-O	R88M-K10030S-O
R88M-GP10030S-S2	R88M-K10030S-S2
R88M-GP10030S-OS2	R88M-K10030S-OS2
R88M-GP10030S-B	R88M-K10030S-B
R88M-GP10030S-BO	R88M-K10030S-BO
R88M-GP10030S-BS2	R88M-K10030S-BS2
R88M-GP10030S-BOS2	R88M-K10030S-BOS2
R88M-GP20030S	R88M-K20030S
R88M-GP20030S-O	R88M-K20030S-O
R88M-GP20030S-S2	R88M-K20030S-S2
R88M-GP20030S-OS2	R88M-K20030S-OS2
R88M-GP20030S-B	R88M-K20030S-B
R88M-GP20030S-BO	R88M-K20030S-BO
R88M-GP20030S-BS2	R88M-K20030S-BS2
R88M-GP20030S-BOS2	R88M-K20030S-BOS2
R88M-GP40030L	R88M-K40030L
R88M-GP40030L-O	R88M-K40030L-O
R88M-GP40030L-S2	R88M-K40030L-S2
R88M-GP40030L-OS2	R88M-K40030L-OS2
R88M-GP40030L-B	R88M-K40030L-B
R88M-GP40030L-BO	R88M-K40030L-BO
R88M-GP40030L-BS2	R88M-K40030L-BS2
R88M-GP40030L-BOS2	R88M-K40030L-BOS2
R88M-GP40030S	R88M-K40030S
R88M-GP40030S-O	R88M-K40030S-O
R88M-GP40030S-S2	R88M-K40030S-S2
R88M-GP40030S-OS2	R88M-K40030S-OS2
R88M-GP40030S-B	R88M-K40030S-B
R88M-GP40030S-BO	R88M-K40030S-BO
R88M-GP40030S-BS2	R88M-K40030S-BS2
R88M-GP40030S-BOS2	R88M-K40030S-BOS2
R88M-GP10030T	R88M-K10030T
R88M-GP10030T-O	R88M-K10030T-O
R88M-GP10030T-S2	R88M-K10030T-S2
R88M-GP10030T-OS2	R88M-K10030T-OS2
R88M-GP10030T-B	R88M-K10030T-B
R88M-GP10030T-BO	R88M-K10030T-BO
R88M-GP10030T-BS2	R88M-K10030T-BS2
R88M-GP10030T-BOS2	R88M-K10030T-BOS2
R88M-GP20030T	R88M-K20030T

Product discontinuation	Recommended replacement
R88M-GP20030T-O	R88M-K20030T-O
R88M-GP20030T-S2	R88M-K20030T-S2
R88M-GP20030T-OS2	R88M-K20030T-OS2
R88M-GP20030T-B	R88M-K20030T-B
R88M-GP20030T-BO	R88M-K20030T-BO
R88M-GP20030T-BS2	R88M-K20030T-BS2
R88M-GP20030T-BOS2	R88M-K20030T-BOS2
R88M-GP40030T	R88M-K40030T
R88M-GP40030T-O	R88M-K40030T-O
R88M-GP40030T-S2	R88M-K40030T-S2
R88M-GP40030T-OS2	R88M-K40030T-OS2
R88M-GP40030T-B	R88M-K40030T-B
R88M-GP40030T-BO	R88M-K40030T-BO
R88M-GP40030T-BS2	R88M-K40030T-BS2
R88M-GP40030T-BOS2	R88M-K40030T-BOS2
R88M-G1K020T	R88M-K1K020T
R88M-G1K020T-O	R88M-K1K020T-O
R88M-G1K020T-S2	R88M-K1K020T-S2
R88M-G1K020T-OS2	R88M-K1K020T-OS2
R88M-G1K020T-B	R88M-K1K020T-B
R88M-G1K020T-BO	R88M-K1K020T-BO
R88M-G1K020T-BS2	R88M-K1K020T-BS2
R88M-G1K020T-BOS2	R88M-K1K020T-BOS2
R88M-G1K520T	R88M-K1K520T
R88M-G1K520T-O	R88M-K1K520T-O
R88M-G1K520T-S2	R88M-K1K520T-S2
R88M-G1K520T-OS2	R88M-K1K520T-OS2
R88M-G1K520T-B	R88M-K1K520T-B
R88M-G1K520T-BO	R88M-K1K520T-BO
R88M-G1K520T-BS2	R88M-K1K520T-BS2
R88M-G1K520T-BOS2	R88M-K1K520T-BOS2
R88M-G2K020T	R88M-K2K020T
R88M-G2K020T-O	R88M-K2K020T-O
R88M-G2K020T-S2	R88M-K2K020T-S2
R88M-G2K020T-OS2	R88M-K2K020T-OS2
R88M-G2K020T-B	R88M-K2K020T-B
R88M-G2K020T-BO	R88M-K2K020T-BO
R88M-G2K020T-BS2	R88M-K2K020T-BS2
R88M-G2K020T-BOS2	R88M-K2K020T-BOS2
R88M-G3K020T	R88M-K3K020T
R88M-G3K020T-O	R88M-K3K020T-O
R88M-G3K020T-S2	R88M-K3K020T-S2
R88M-G3K020T-OS2	R88M-K3K020T-OS2
R88M-G3K020T-B	R88M-K3K020T-B
R88M-G3K020T-BO	R88M-K3K020T-BO
R88M-G3K020T-BS2	R88M-K3K020T-BS2
R88M-G3K020T-BOS2	R88M-K3K020T-BOS2
R88M-G4K020T	R88M-K4K020T
R88M-G4K020T-O	R88M-K4K020T-O

Product discontinuation	Recommended replacement
R88M-G4K020T-S2	R88M-K4K020T-S2
R88M-G4K020T-OS2	R88M-K4K020T-OS2
R88M-G4K020T-B	R88M-K4K020T-B
R88M-G4K020T-BO	R88M-K4K020T-BO
R88M-G4K020T-BS2	R88M-K4K020T-BS2
R88M-G4K020T-BOS2	R88M-K4K020T-BOS2
R88M-G5K020T	R88M-K5K020T
R88M-G5K020T-O	R88M-K5K020T-O
R88M-G5K020T-S2	R88M-K5K020T-S2
R88M-G5K020T-OS2	R88M-K5K020T-OS2
R88M-G5K020T-B	R88M-K5K020T-B
R88M-G5K020T-BO	R88M-K5K020T-BO
R88M-G5K020T-BS2	R88M-K5K020T-BS2
R88M-G5K020T-BOS2	R88M-K5K020T-BOS2
R88M-G90010T	R88M-K90010T
R88M-G90010T-O	R88M-K90010T-O
R88M-G90010T-S2	R88M-K90010T-S2
R88M-G90010T-OS2	R88M-K90010T-OS2
R88M-G90010T-B	R88M-K90010T-B
R88M-G90010T-BO	R88M-K90010T-BO
R88M-G90010T-BS2	R88M-K90010T-BS2
R88M-G90010T-BOS2	R88M-K90010T-BOS2
R88M-G2K010T	R88M-K2K010T
R88M-G2K010T-O	R88M-K2K010T-O
R88M-G2K010T-S2	R88M-K2K010T-S2
R88M-G2K010T-OS2	R88M-K2K010T-OS2
R88M-G2K010T-B	R88M-K2K010T-B
R88M-G2K010T-BO	R88M-K2K010T-BO
R88M-G2K010T-BS2	R88M-K2K010T-BS2
R88M-G2K010T-BOS2	R88M-K2K010T-BOS2
R88M-G3K010T	R88M-K3K010T
R88M-G3K010T-O	R88M-K3K010T-O
R88M-G3K010T-S2	R88M-K3K010T-S2
R88M-G3K010T-OS2	R88M-K3K010T-OS2
R88M-G3K010T-B	R88M-K3K010T-B
R88M-G3K010T-BO	R88M-K3K010T-BO
R88M-G3K010T-BS2	R88M-K3K010T-BS2
R88M-G3K010T-BOS2	R88M-K3K010T-BOS2
R88M-G4K510T	R88M-K4K510T
R88M-G4K510T-O	R88M-K4K510T-O
R88M-G4K510T-S2	R88M-K4K510T-S2
R88M-G4K510T-OS2	R88M-K4K510T-OS2
R88M-G4K510T-B	R88M-K4K510T-B
R88M-G4K510T-BO	R88M-K4K510T-BO
R88M-G4K510T-BS2	R88M-K4K510T-BS2
R88M-G4K510T-BOS2	R88M-K4K510T-BOS2

[Body color]

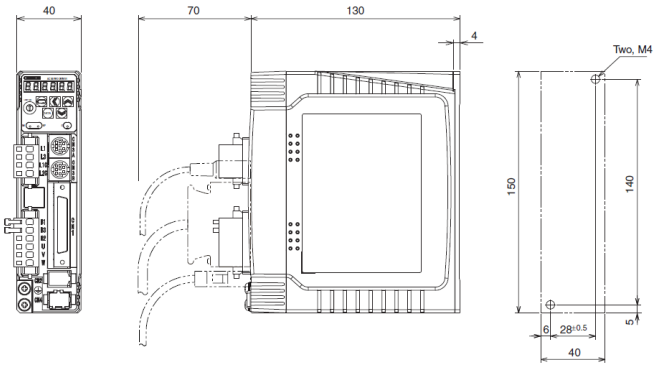
Product discontinuation R88D-GT[]/R88D-GN[]-ML2 R88M-G[]	Recommendable replacement R88D-KT[]/R88D-KN[]-ML2 R88M-K[]
R88D-GT[]/R88D-GN[]-ML2 Ivory white **R88M-G[]** Silver, Black	**R88D-KT[]/R88D-KN[]-ML2** Black **R88M-K[]** Silver, Black

[Dimensions & Mounting dimensions]

Product discontinuation
R88D-GT[]

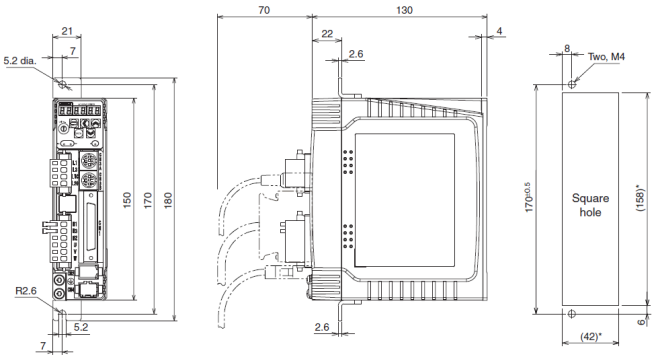
R88D-GTA5L/-GT01L/-GT01H/-GT02H
Wall Mounting

External Dimensions / Mounting Hole Dimensions



Front Panel Mounting
(Using Mounting Brackets)

External Dimensions / Mounting Hole Dimensions (Reference)



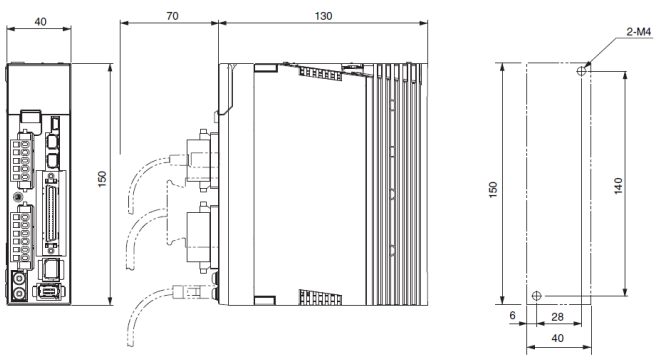
* The dimensions of the square hole are reference values.

Dimensions for front panel mounting are references values that provide leeway.

Recommendable replacement
R88D-KT[]

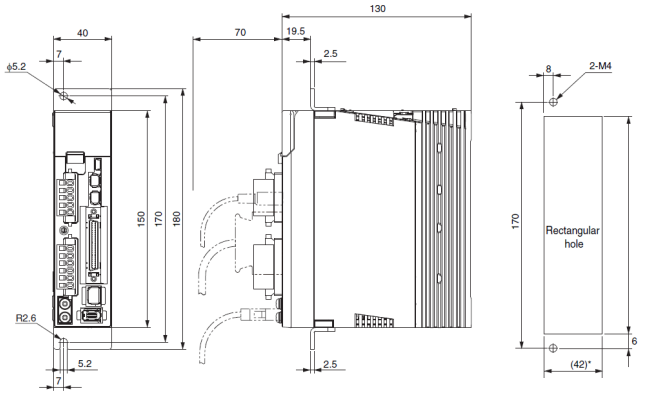
R88D-KTA5L/-KT01L/-KT01H/-KT02H
Wall Mounting

External dimensions / Mounting dimensions



Front Panel Mounting
(Using Mounting Brackets)

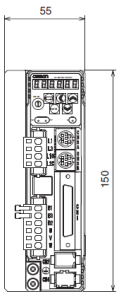
External dimensions / Mounting dimensions

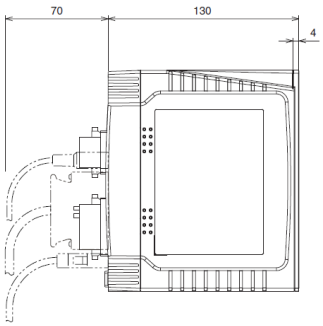


* Rectangular hole dimensions are reference values.

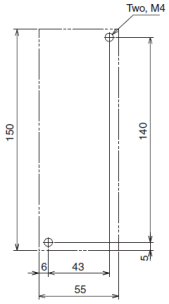
Product discontinuation R88D-GT[]	Recommendable replacement R88D-KT[]
R88D-GT02L/-GT04H Wall Mounting	**R88D-KT02L/-KT04H** Wall Mounting

External Dimensions



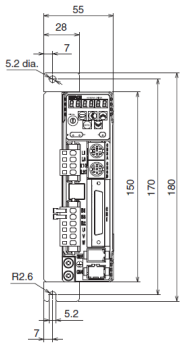


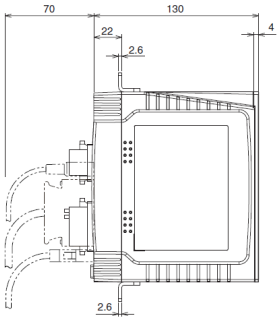
Mounting Hole Dimensions



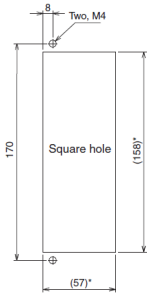
Front Panel Mounting
(Using Mounting Brackets)

External Dimensions





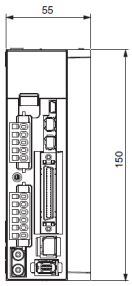
Mounting Hole Dimensions (Reference)

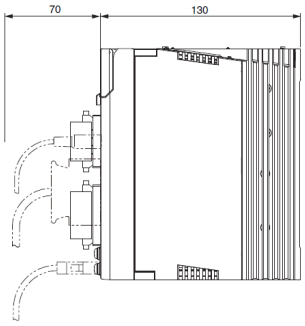


* The dimensions of the square hole are reference values.

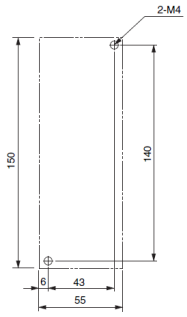
Dimensions for front panel mounting are references values that provide leeway.

External dimensions



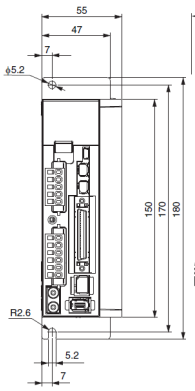


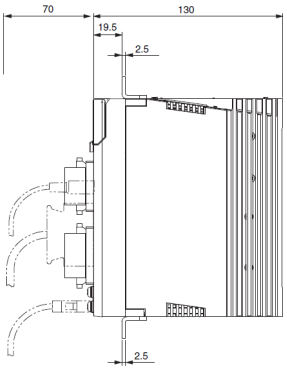
Mounting dimensions



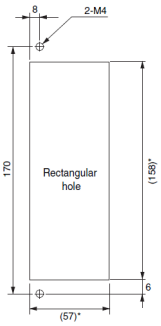
Front Panel Mounting
(Using Mounting Brackets)

External dimensions

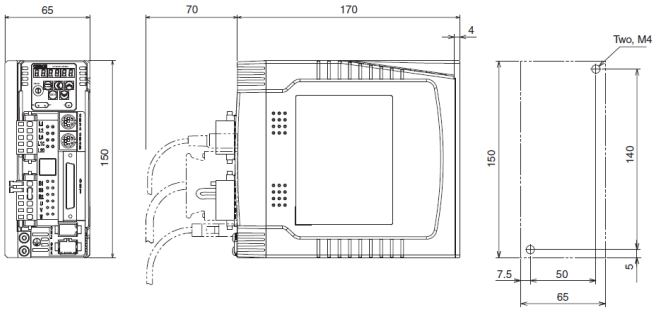
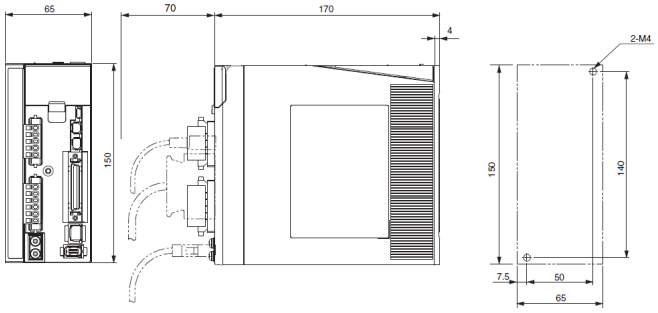
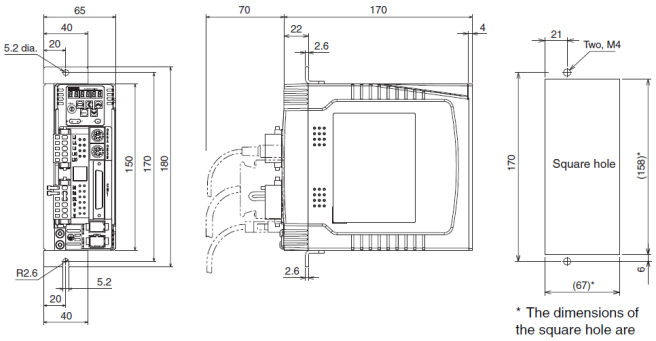
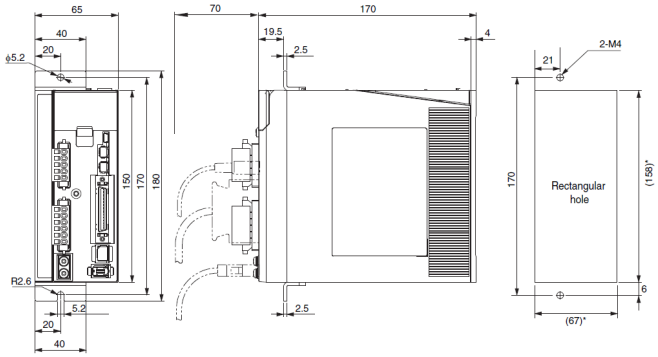




Mounting dimensions

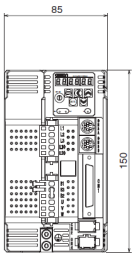


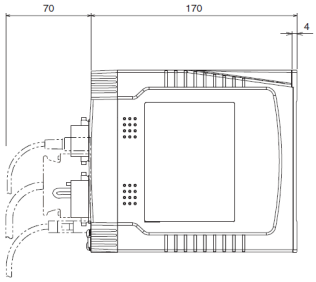
* Rectangular hole dimensions are reference values.

Product discontinuation R88D-GT[]	Recommendable replacement R88D-KT[]
R88D-GT04L/-GT08H Wall Mounting	**R88D-KT04L/-KT08H** Wall Mounting
External Dimensions / Mounting Hole Dimensions 	External dimensions / Mounting dimensions 
Front Panel Mounting (Using Mounting Brackets)	Front Panel Mounting (Using Mounting Brackets)
External Dimensions / Mounting Hole Dimensions (Reference)  * The dimensions of the square hole are reference values.	External dimensions / Mounting dimensions  * Rectangular hole dimensions are reference values.
Dimensions for front panel mounting are references values that provide leeway.	

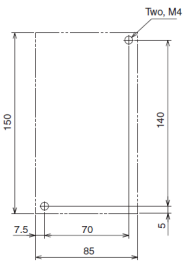
Product discontinuation R88D-GT[]	Recommendable replacement R88D-KT[]
R88D-GT10H/-GT15H Wall Mounting	**R88D-KT10H/-KT15H** Wall Mounting

External Dimensions



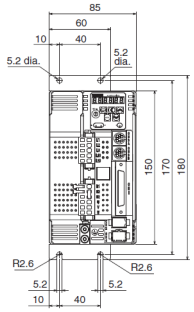


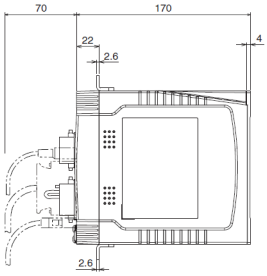
Mounting Hole Dimensions



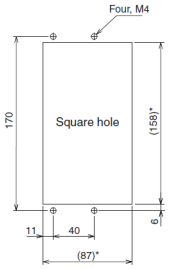
Front Panel Mounting
(Using Mounting Brackets)

External Dimensions





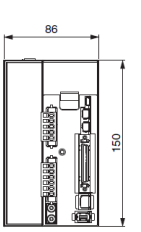
Mounting Hole Dimensions (Reference)

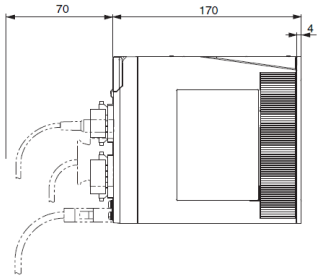


* The dimensions of the square hole are reference values.

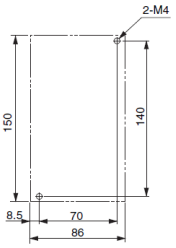
Dimensions for front panel mounting are references values that provide leeway.

External dimensions



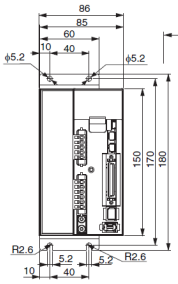


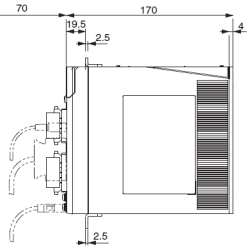
Mounting dimensions



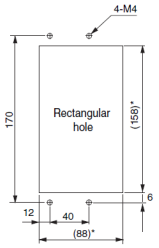
Front Panel Mounting
(Using Mounting Brackets)

External dimensions

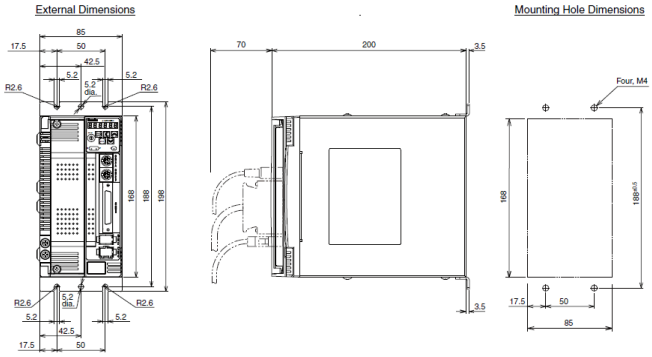
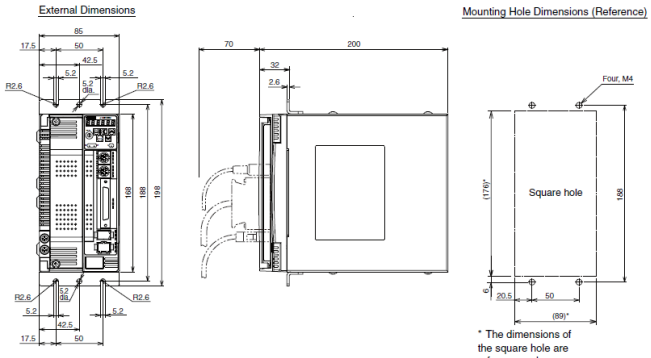
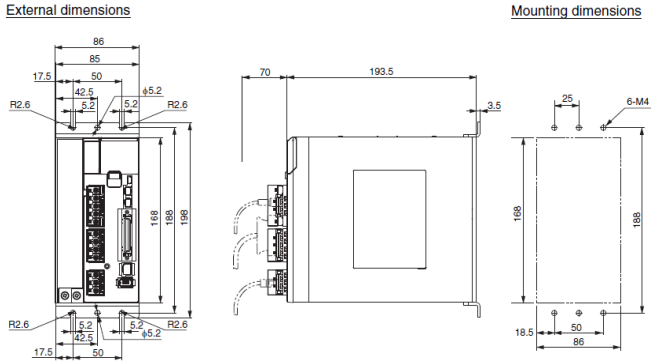
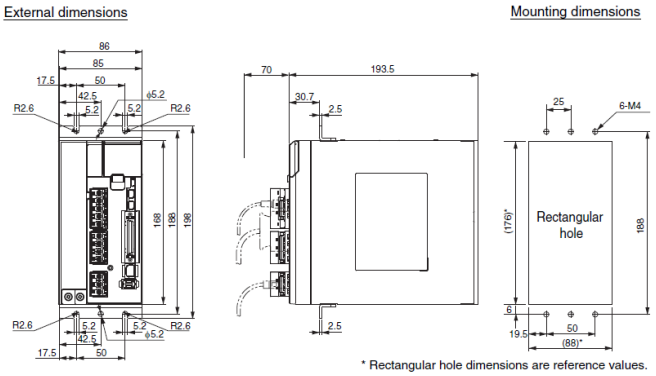




Mounting dimensions

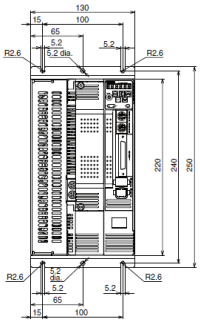


* Rectangular hole dimensions are reference values.

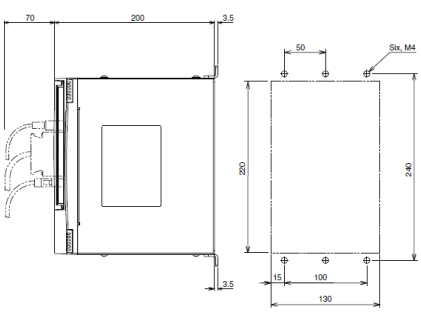
Product discontinuation R88D-GT[]	Recommendable replacement R88D-KT[]
R88D-GT20H Wall Mounting  Front Panel Mounting (Using Mounting Brackets)  Dimensions for front panel mounting are references values that provide leeway.	**R88D-KT20H** Wall Mounting  Front Panel Mounting (Using Mounting Brackets) 

Product discontinuation R88D-GT[]	Recommendable replacement R88D-KT[]
R88D-GT30H/-GT50H Wall Mounting	**R88D-KT30H/-KT50H** Wall Mounting

External Dimensions

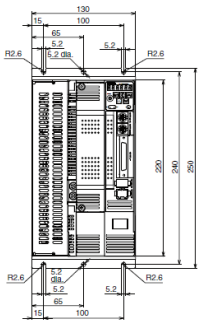


Mounting Hole Dimensions

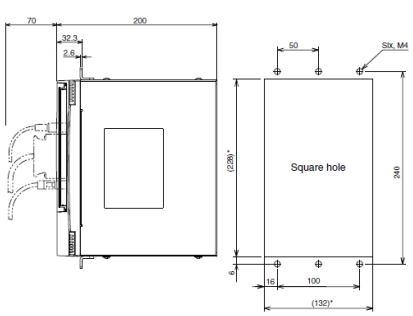


Front Panel Mounting
(Using Mounting Brackets)

External Dimensions



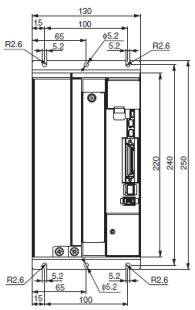
Mounting Hole Dimensions (Reference)



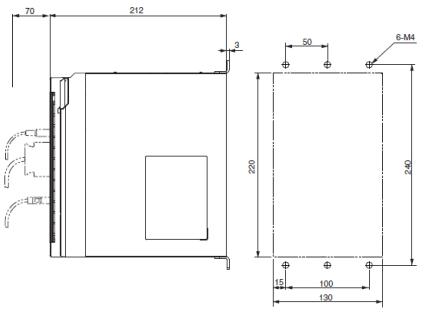
* The dimensions of the square hole are reference values.

Dimensions for front panel mounting are references values that provide leeway.

External dimensions

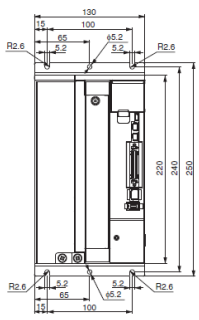


Mounting dimensions

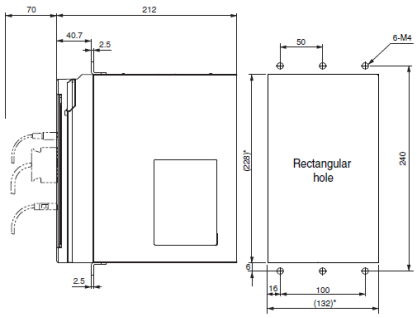


Front Panel Mounting
(Using Mounting Brackets)

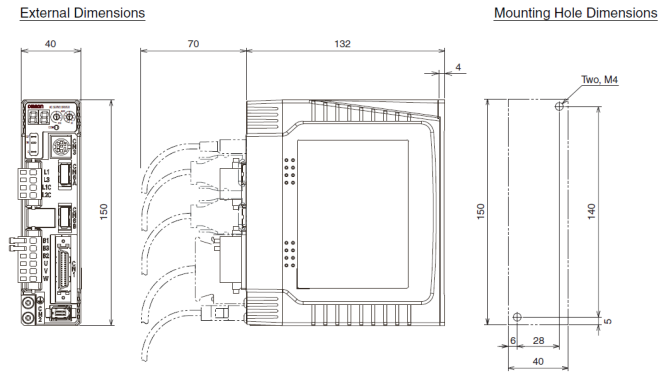
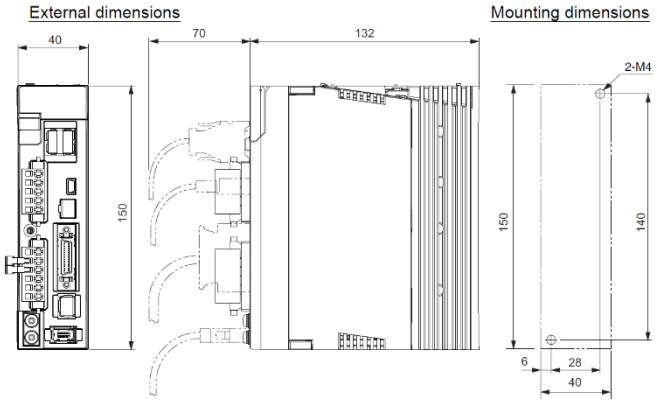
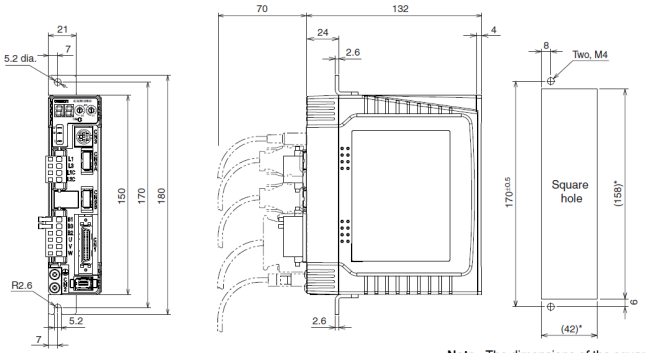
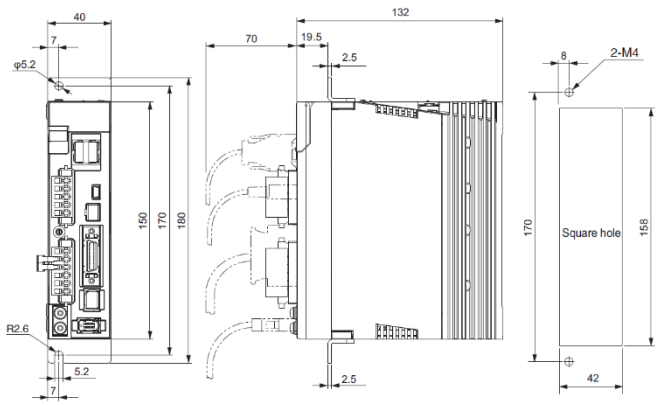
External dimensions

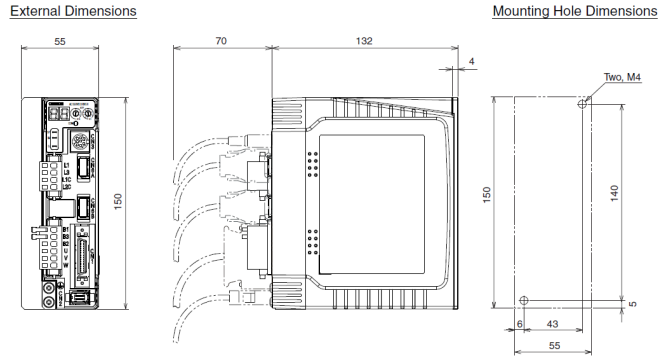
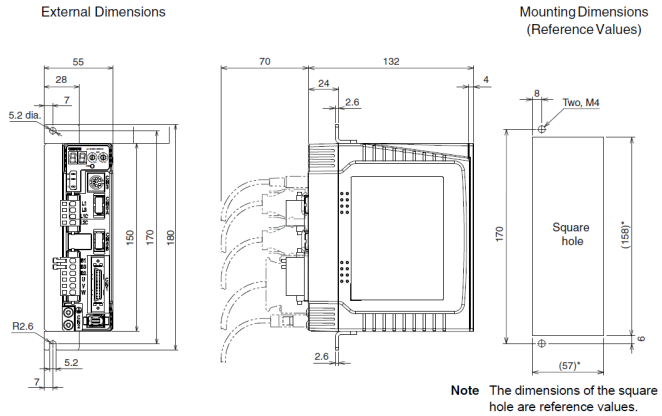
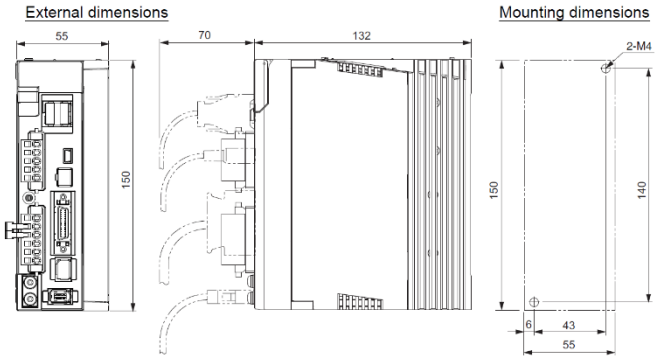
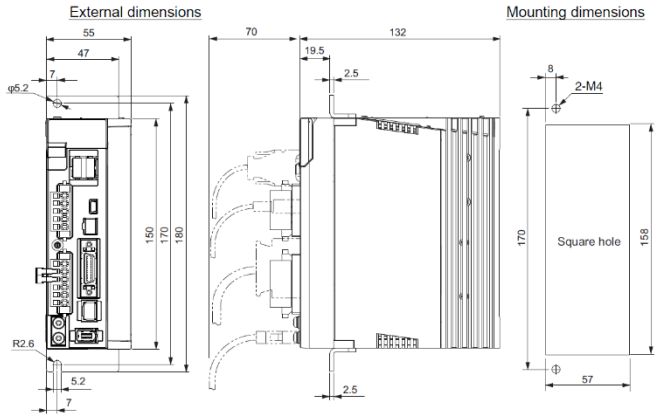


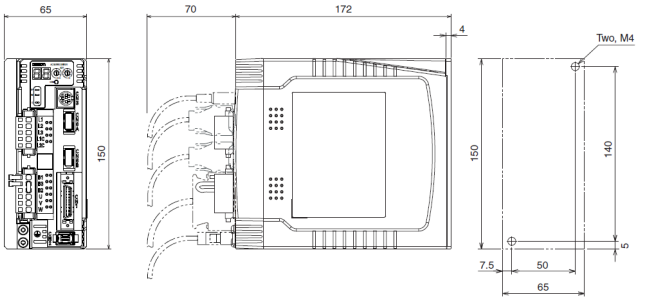
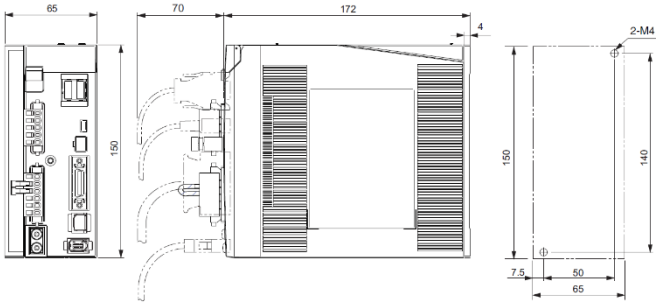
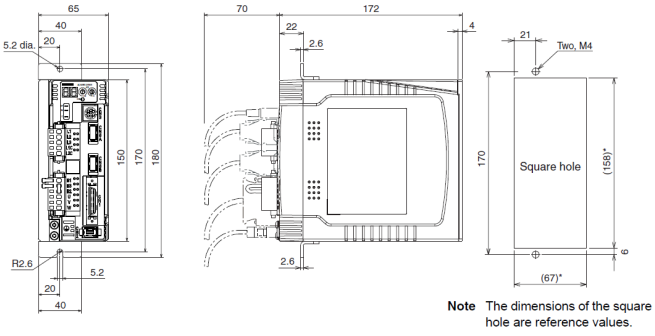
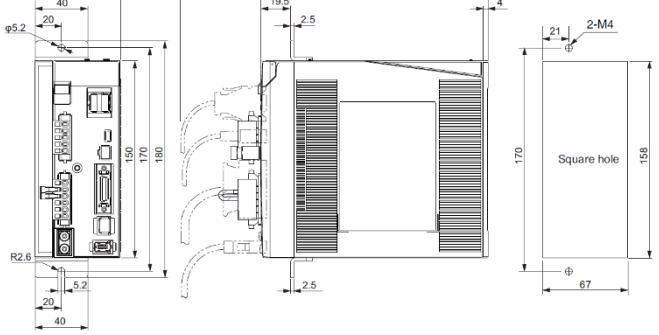
Mounting dimensions

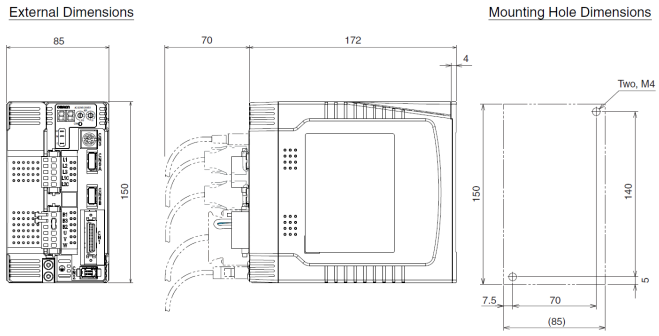
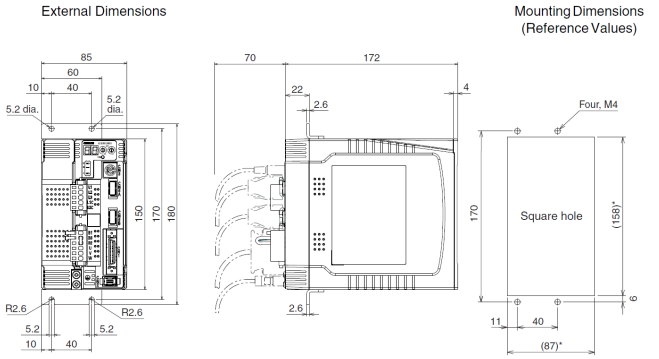
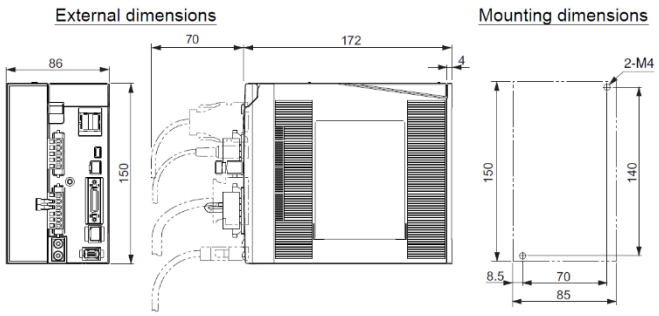
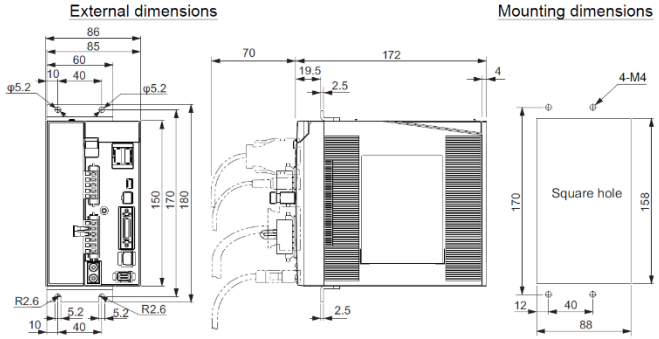


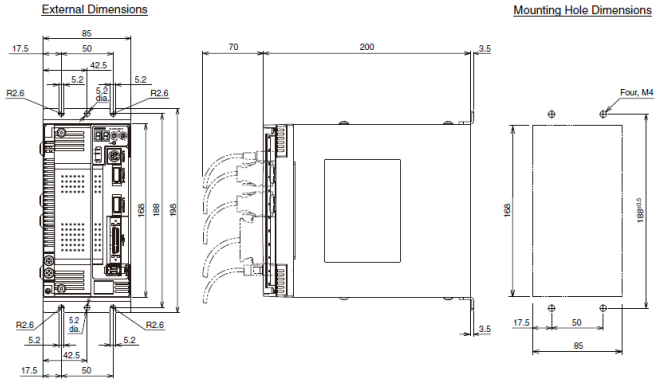
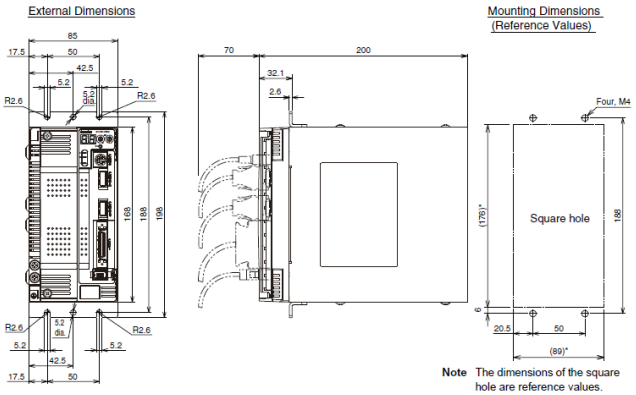
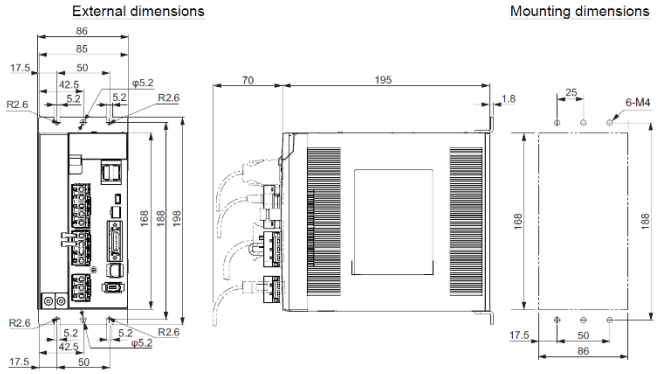
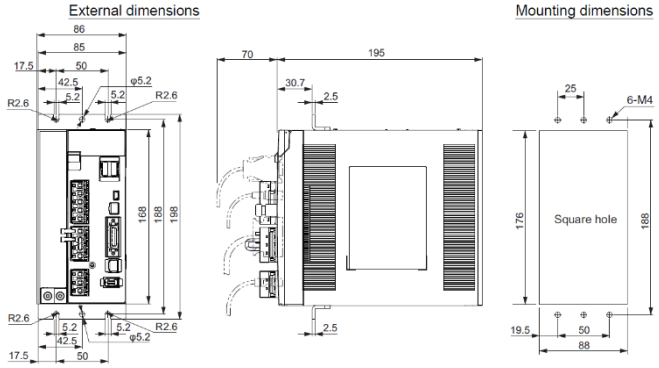
* Rectangular hole dimensions are reference values.

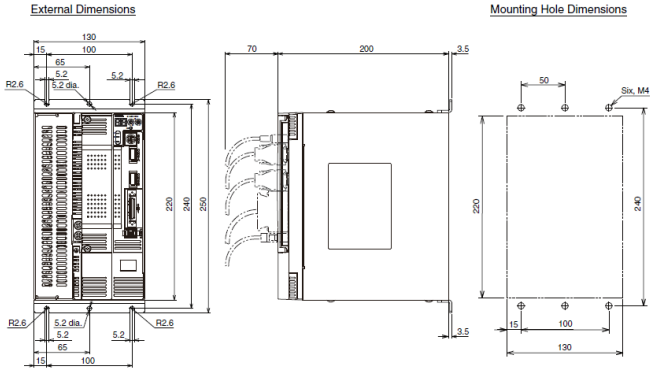
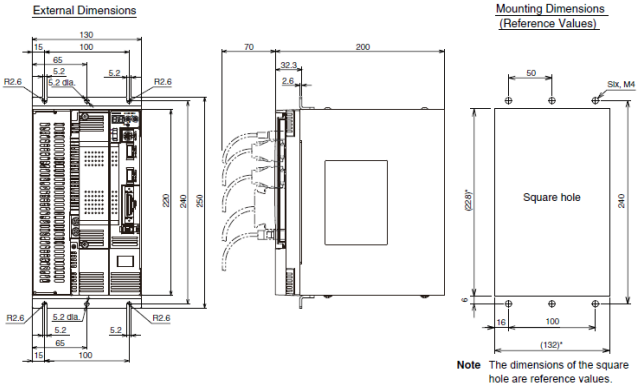
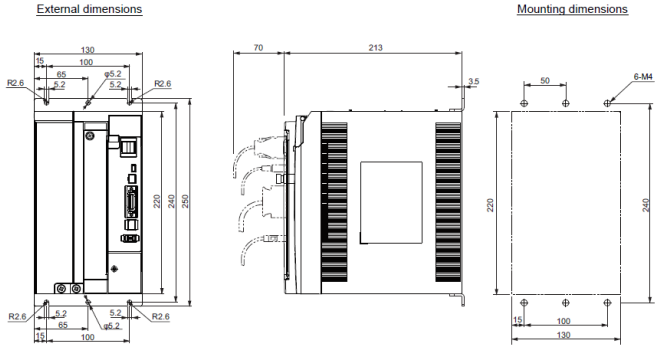
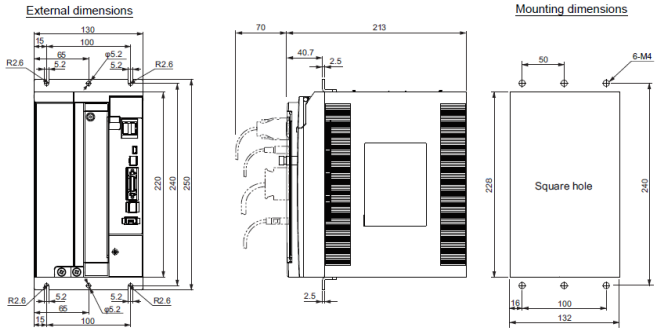
Product discontinuation R88D-GN[]-ML2	Recommendable replacement R88D-KN[]-ML2
R88D-GNA5L-ML2/-GN01L-ML2 -GN01H-ML2/-GN02H-ML2 Wall Mounting	**R88D-KNA5L-ML2/-KN01L-ML2 -KN01H-ML2/-KN02H-ML2** Wall Mounting
External Dimensions / Mounting Hole Dimensions 	External dimensions / Mounting dimensions 
Front Panel Mounting (Using Mounting Brackets)	Front Panel Mounting (Using Mounting Brackets)
External Dimensions / Mounting Dimensions (Reference Values)  **Note** The dimensions of the square hole are reference values.	External dimensions / Mounting dimensions 

Product discontinuation R88D-GN[]-ML2	Recommendable replacement R88D-KN[]-ML2
R88D-GN02L-ML2/-GN04H-ML2 Wall Mounting  Front Panel Mounting (Using Mounting Brackets)  **Note** The dimensions of the square hole are reference values.	**R88D-KN02L-ML2/-KN04H-ML2** Wall Mounting  Front Panel Mounting (Using Mounting Brackets) 

Product discontinuation R88D-GN[]-ML2	Recommendable replacement R88D-KN[]-ML2
R88D-GN04L-ML2/-GN08H-ML2 Wall Mounting	**R88D-KN04L-ML2/-KN08H-ML2** Wall Mounting
External Dimensions / Mounting Hole Dimensions 	External dimensions / Mounting dimensions 
Front Panel Mounting (Using Mounting Brackets)	Front Panel Mounting (Using Mounting Brackets)
External Dimensions / Mounting Dimensions (Reference Values)  **Note** The dimensions of the square hole are reference values.	External dimensions / Mounting dimensions 

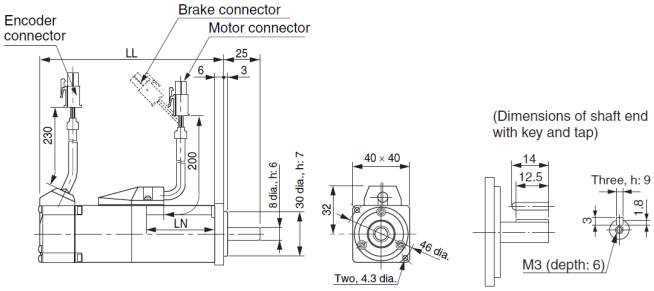
Product discontinuation R88D-GN[]-ML2	Recommendable replacement R88D-KN[]-ML2
R88D-GN10H-ML2/-GN15H-ML2 Wall Mounting  Front Panel Mounting (Using Mounting Brackets)  **Note** The dimensions of the square hole are reference values.	**R88D-KN10H-ML2/-KN15H-ML2** Wall Mounting  Front Panel Mounting (Using Mounting Brackets) 

Product discontinuation R88D-GN[]-ML2	Recommendable replacement R88D-KN[]-ML2
R88D-GN20H-ML2 Wall Mounting  Front Panel Mounting (Using Mounting Brackets)  **Note** The dimensions of the square hole are reference values.	**R88D-KN20H-ML2** Wall Mounting  Front Panel Mounting (Using Mounting Brackets) 

Product discontinuation R88D-GN[]-ML2	Recommendable replacement R88D-KN[]-ML2
R88D-GN30H-ML2/-GN50H-ML2 Wall Mounting  Front Panel Mounting (Using Mounting Brackets)  **Note** The dimensions of the square hole are reference values.	**R88D-KN30H-ML2/-KN50H-ML2** Wall Mounting  Front Panel Mounting (Using Mounting Brackets) 

Product discontinuation
R88M-G[]

R88M-G05030T-[]/-G10030S-[]/-G10030T-[]



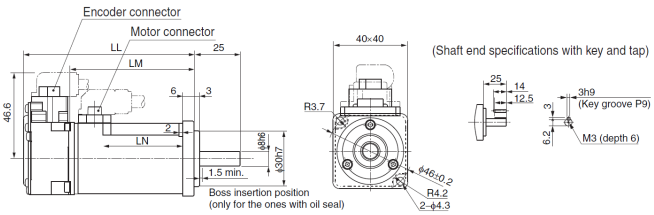
Model	Dimensions (mm)	
	LL	LN
R88M-G05030□	72	26.5
R88M-G10030□	92	46.5
R88M-G05030□-B□	102	26.5
R88M-G10030□-B□	122	46.5

Note The standard models have a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number.

Recommendable replacement
R88M-K[]

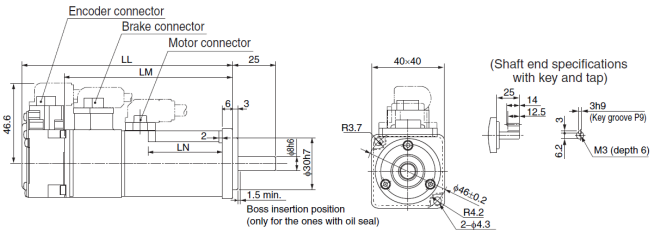
R88M-K05030T-[]/-K10030S-[]/-K10030T-[]

Without brake



Model	Dimensions (mm)		
	LL	LM	LN
R88M-K05030□	72	48	23
R88M-K10030□	92	68	43

With brake

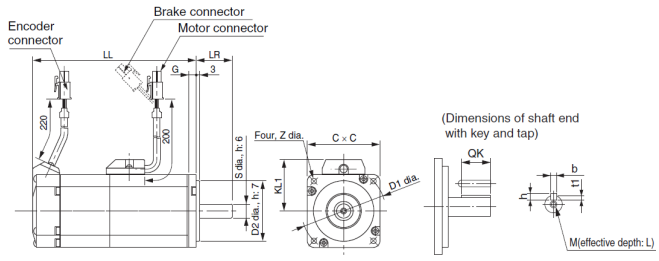


Model	Dimensions (mm)		
	LL	LM	LN
R88M-K05030□-Bx	102	78	23
R88M-K10030□-Bx	122	98	43

Note. The standard models have a straight shaft. Models with a key and tap are indicated with S2 at the end of the model number.
Models with an oil seal are indicated with O at the end of the model number. The motor dimensions do not change.

Product discontinuation
R88M-G[]

R88M-G20030S-[]/-G40030L-[]/-G40030S-[]
-G20030T-[]/-G40030T-[]
-G75030H-[]/-G75030T-[]



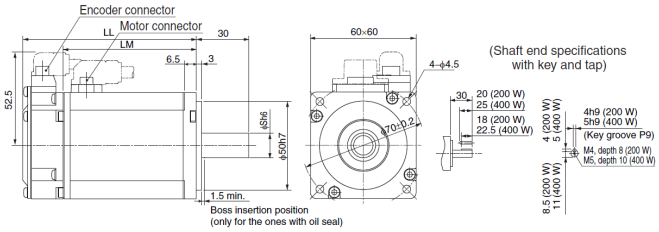
Model	Dimensions (mm)													
	LL	LR	S	D1	D2	C	G	KL1	Z	QK	b	h	M	t1	L
R88M-G20030□	79.5	30	11	70	50	60	6.5	43	4.5	18	4h9	4	M4	2.5	8
R88M-G40030□	99		14							22.5	5h9	5	M5	3	10
R88M-G75030□	112.2	35	19	90	70	80	8	53	6	22	6h9	6		3.5	
R88M-G20030□-B□	116	30	11	70	50	60	6.5	43	4.5	18	4h9	4	M4	2.5	8
R88M-G40030□-B□	135.5		14							22.5	5h9	5	M5	3	10
R88M-G75030□-B□	149.2	35	19	90	70	80	8	53	6	22	6h9	6		3.5	

Note The standard models have a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number.

Recommendable replacement
R88M-K[]

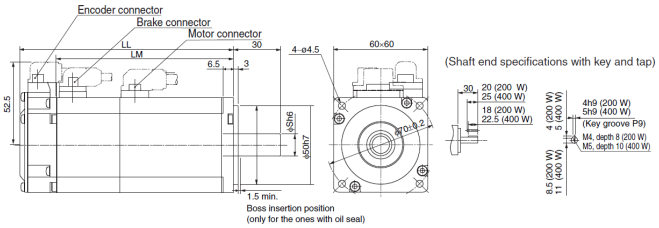
R88M-K20030S-[]/-K40030L-[]/-K40030S-[]
-K20030T-[]/-K40030T-[]

Without brake



Model	Dimensions (mm)		
	LL	LM	S
R88M-K20030□	79.5	56.5	11
R88M-K40030□	99	76	14

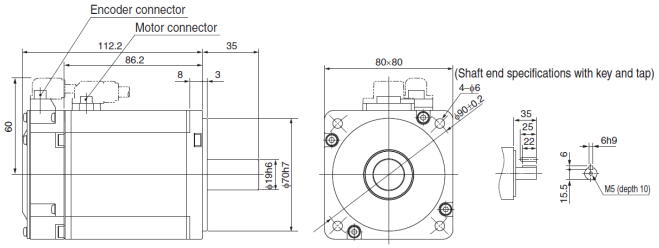
With brake



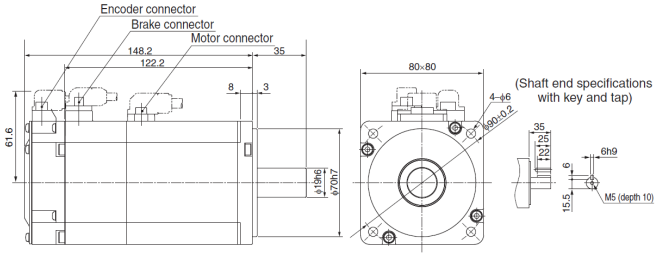
Model	Dimensions (mm)		
	LL	LM	S
R88M-K20030□-B□	116	93	11
R88M-K40030□-B□	135.5	112.5	14

R88M-K75030H-[]/-K75030T-[]

Without brake



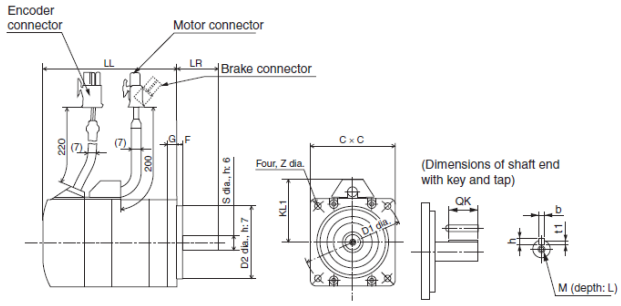
With brake



Note. The standard models have a straight shaft. Models with a key and tap are indicated with S2 at the end of the model number.
Models with an oil seal are indicated with O at the end of the model number. The motor dimensions do not change.

Product discontinuation R88M-G[]	Recommendable replacement R88M-K[]

R88M-GP10030S-[]/-GP20030S-[]
-GP40030L-[]/-GP40030S-[]
-GP10030T-[]/-GP20030T-[]/-GP40030T-[]

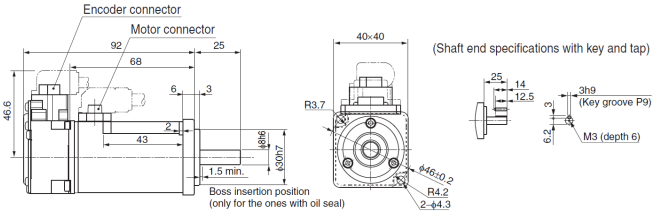


Model	Dimensions (mm)														
	LL	LR	S	D1	D2	C	F	G	KL1	Z	QK	b	h	t1	M	L
R88M-GP10030S R88M-GP10030T	87.5	25	8	70	50	60	3	7	43	4.5	12.5	3h9	3	1.8	M3	6
R88M-GP20030S R88M-GP20030T	94.5	30	11	90	70	80	5	8	53	5.5	18	4h9	4	2.5	M4	8
R88M-GP40030L	82.5		14								22.5	5h9	5	3	M5	10
R88M-GP40030S R88M-GP40030T	109.5															
R88M-GP10030S-B□ R88M-GP10030T-B□	111.5	25	8	70	50	60	3	7	43	4.5	12.5	3h9	3	1.8	M3	6
R88M-GP20030S-B□ R88M-GP20030T-B□	127	30	11	90	70	80	5	8	53	5.5	18	4h9	4	2.5	M4	8
R88M-GP40030L-B□	115		14								22.5	5h9	5	3	M5	10
R88M-GP40030S-B□ R88M-GP40030T-B□	142															

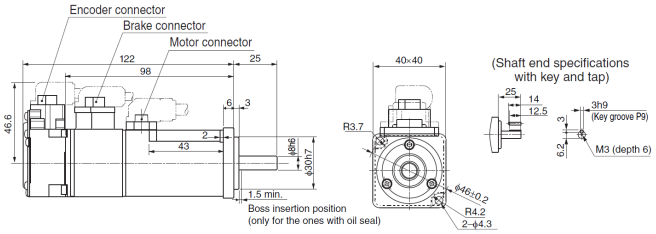
Note The standard models have a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number.

R88M-K10030S-[]/-K10030T-[]

Without brake

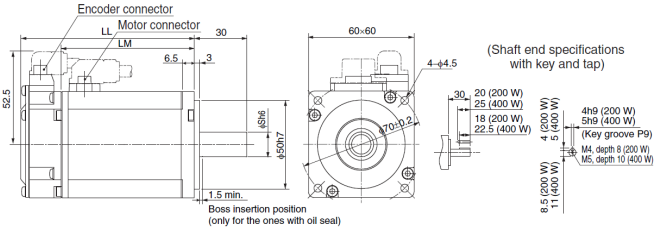


With brake



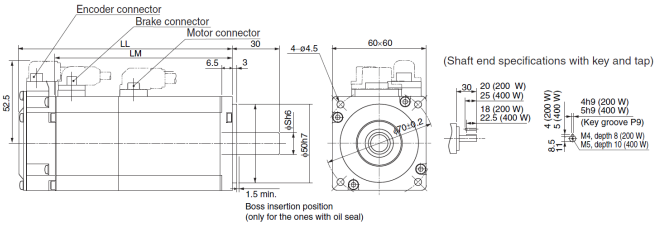
R88M-K20030S-[]/-K40030L-[]/-K40030S-[]
-K20030T-[]/-K40030T-[]

Without brake



Model	Dimensions (mm)		
	LL	LM	S
R88M-K20030□	79.5	56.5	11
R88M-K40030□	99	76	14

With brake

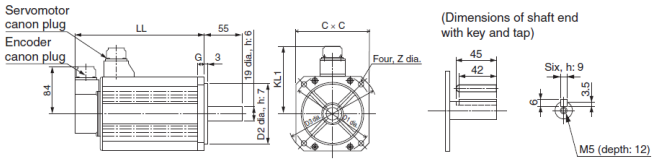


Model	Dimensions (mm)		
	LL	LM	S
R88M-K20030□-B□	116	93	11
R88M-K40030□-B□	135.5	112.5	14

Note. The standard models have a straight shaft. Models with a key and tap are indicated with S2 at the end of the model number.
Models with an oil seal are indicated with O at the end of the model number. The motor dimensions do not change.

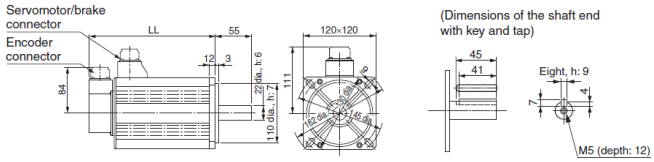
Product discontinuation
R88M-G[]

R88M-G1K030T-[]/-G1K530T-[]/-G2K030T-[]



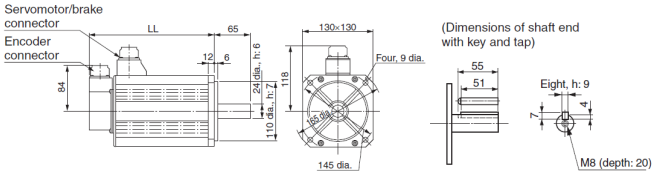
Model	Dimensions (mm)							
	LL	D1	D2	C	D3	G	KL1	Z
R88M-G1K030□	175	100	80	90	120	7	98	6.6
R88M-G1K530□	180	115	95	100	135	10	103	9
R88M-G2K030□	205							
R88M-G1K030□-B□	200	100	80	90	120	7	98	6.6
R88M-G1K530□-B□	205	115	95	100	135	10	103	9
R88M-G2K030□-B□	230							

R88M-G3K030T-[]



Model	Dimensions (mm)
	LL
R88M-G3K030□	217
R88M-G3K030□-B□	242

R88M-G4K030T-[]/-G5K030T-[]

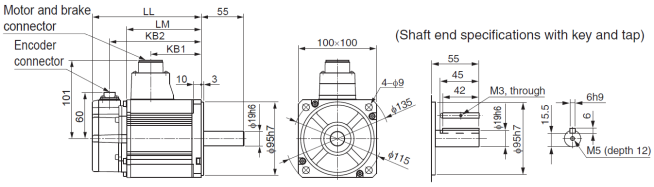


Model	Dimensions (mm)
	LL
R88M-G4K030□	240
R88M-G5K030□	280
R88M-G4K030□-B□	265
R88M-G5K030□-B□	305

Note The standard models have a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number.

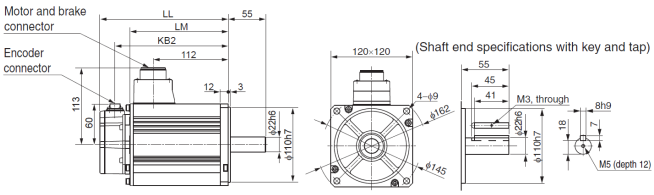
Recommendable replacement
R88M-K[]

R88M-K1K030T-[]/-K1K530T-[]/-K2K030T-[]



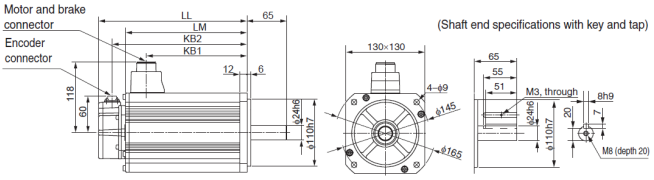
Model	Dimensions (mm)			
	LL	LM	KB1	KB2
R88M-K1K030□	141	97	66	119
R88M-K1K530□	159.5	115.5	84.5	137.5
R88M-K2K030□	178.5	134.5	103.5	156.5
R88M-K1K030□-B□	168	124	66	146
R88M-K1K530□-B□	186.5	142.5	84.5	164.5
R88M-K2K030□-B□	205.5	161.5	103.5	183.5

R88M-K3K030T-[]



Model	Dimensions (mm)		
	LL	LM	KB2
R88M-K3K030□	190	146	168
R88M-K3K030□-B□	215	171	193

R88M-K4K030T-[]/-K5K030T-[]

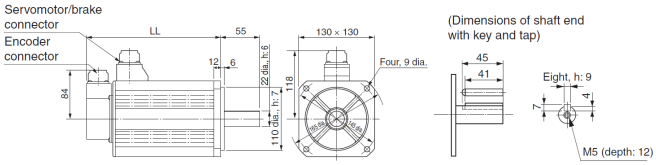


Model	Dimensions (mm)			
	LL	LM	KB1	KB2
R88M-K4K030□	208	164	127	186
R88M-K5K030□	243	199	162	221
R88M-K4K030□-B□	236	192	127	214
R88M-K5K030□-B□	271	227	162	249

Note. The standard models have a straight shaft. Models with a key and tap are indicated with S2 at the end of the model number.
Models with an oil seal are indicated with O at the end of the model number. The motor dimensions do not change.

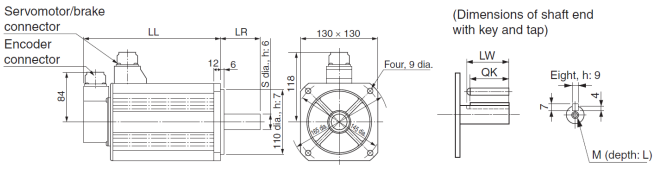
Product discontinuation
R88M-G[]

R88M-G1K020T-[]/-G1K520T-[]



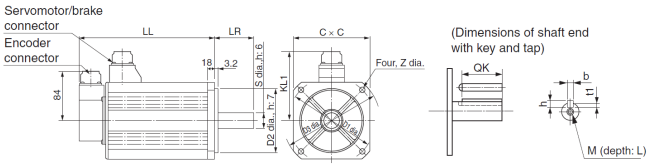
Model	Dimensions (mm)
	LL
R88M-G1K020□	150
R88M-G1K520□	175
R88M-G1K020□-B□	
R88M-G1K520□-B□	200

R88M-G2K020T-[]/-G3K020T-[]



Model	Dimensions (mm)						
	LL	LR	S	LW	QK	M	L
R88M-G2K020□	200	55	22	45	41	M5	12
R88M-G3K020□	250	65	24	55	51	M8	20
R88M-G2K020□-B□	225	55	22	45	41	M5	12
R88M-G3K020□-B□	275	65	24	55	51	M8	20

R88M-G4K020T-[]/-G5K020T-[]

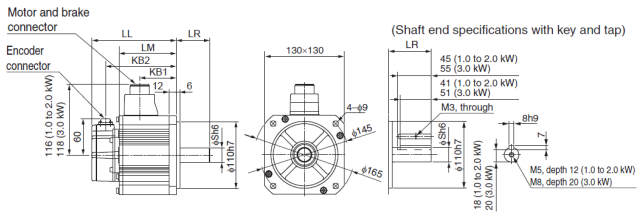


Model	Dimensions (mm)													
	LL	LR	S	D1	D2	C	D3	KL1	Z	QK	b	h	t1	M	L
R88M-G4K020□	242	65	28	165	130	150	190	128	11	51	8h9	7	4	M8	20
R88M-G5K020□	225	70	35	200	114.3	176	233	143	13.5	50	10h9	8	5	M12	25
R88M-G4K020□-B□	267	65	28	165	130	150	190	128	11	51	8h9	7	4	M8	20
R88M-G5K020□-B□	250	70	35	200	114.3	176	233	143	13.5	50	10h9	8	5	M12	25

Note The standard models have a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number.

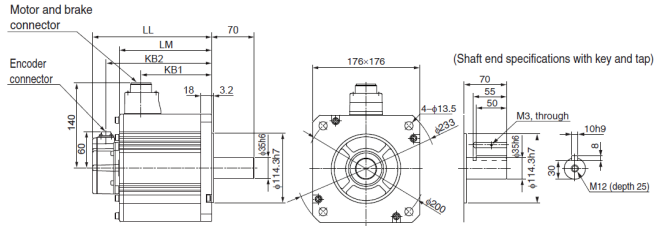
Recommendable replacement
R88M-K[]

R88M-K1K020T-[]/-K1K520T-[]
-K2K020T-[]/-K3K020T-[]



Model	Dimensions (mm)					
	LL	LR	LM	S	KB1	KB2
R88M-K1K020□	138	55	94	22	60	116
R88M-K1K520□	155.5	55	111.5	22	77.5	133.5
R88M-K2K020□	173	55	129	22	95	151
R88M-K3K020□	208	65	164	24	127	186
R88M-K1K020□-B□	166	55	122	22	60	144
R88M-K1K520□-B□	183.5	55	139.5	22	77.5	161.5
R88M-K2K020□-B□	201	55	157	22	95	179
R88M-K3K020□-B□	236	65	192	24	127	214

R88M-K4K020T-[]/-K5K020T-[]

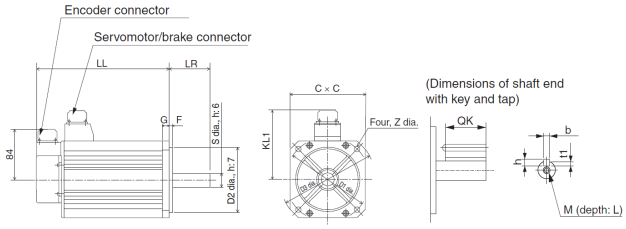


Model	Dimensions (mm)			
	LL	LM	KB1	KB2
R88M-K4K020□	177	133	96	155
R88M-K5K020□	196	152	115	174
R88M-K4K020□-B□	206	162	96	184
R88M-K5K020□-B□	225	181	115	203

Note. The standard models have a straight shaft. Models with a key and tap are indicated with S2 at the end of the model number.
Models with an oil seal are indicated with O at the end of the model number. The motor dimensions do not change.

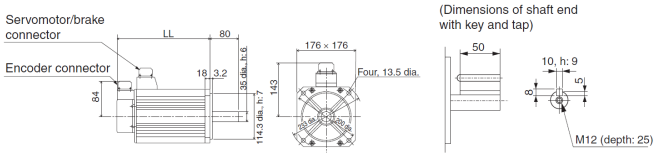
Product discontinuation R88M-G[]	Recommendable replacement R88M-K[]

R88M-G90010T-[]/-G2K010T-[]



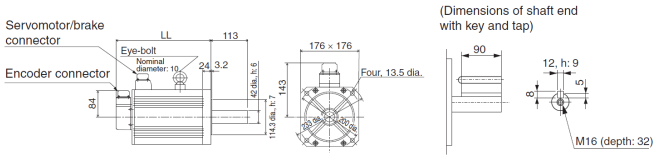
Model	Dimensions (mm)															
	LL	LR	S	D1	D2	C	D3	F	G	KL1	Z	QK	b	h	t1	M	L
R88M-G90010□	175	70	22	145	110	130	165	6	12	118	9	41	8h9	7	4	M5	12
R88M-G2K010□	182	80	35	200	114.3	176	233	3.2	18	143	13.5	50	10h9	8	5	M12	25
R88M-G90010□-B□	200	70	22	145	110	130	165	6	12	118	9	41	8h9	7	4	M5	12
R88M-G2K010□-B□	207	80	35	200	114.3	176	233	3.2	18	143	13.5	50	10h9	8	5	M12	25

R88M-G3K010T-[]



Model	Dimensions (mm)
	LL
R88M-G3K010□	222
R88M-G3K010□-B□	271

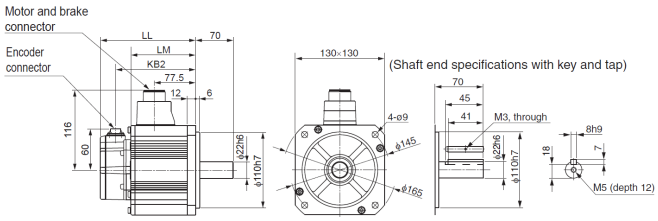
R88M-G4K510T-[]



Model	Dimensions (mm)
	LL
R88M-G4K510□	300.5
R88M-G4K510□-B□	337.5

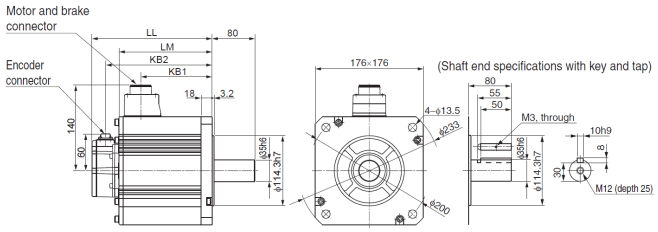
Note The standard models have a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number.

R88M-K90010T-[]



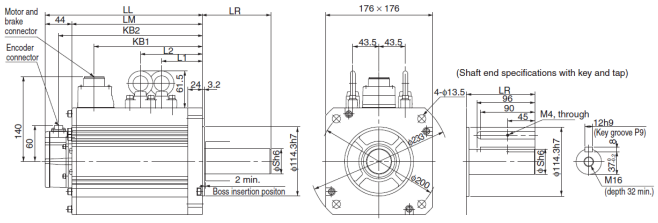
Model	Dimensions (mm)		
	LL	LM	KB2
R88M-K90010□	155.5	111.5	133.5
R88M-K90010□-B□	183.5	139.5	161.5

R88M-K2K010T-[]/-K3K010T-[]



Model	Dimensions (mm)			
	LL	LM	KB1	KB2
R88M-K2K010□	163.5	119.5	82.5	141.5
R88M-K3K010□	209.5	165.5	128.5	187.5
R88M-K2K010□-B□	192.5	148.5	82.5	170.5
R88M-K3K010□-B□	238.5	194.5	128.5	216.5

R88M-K4K510T-[]



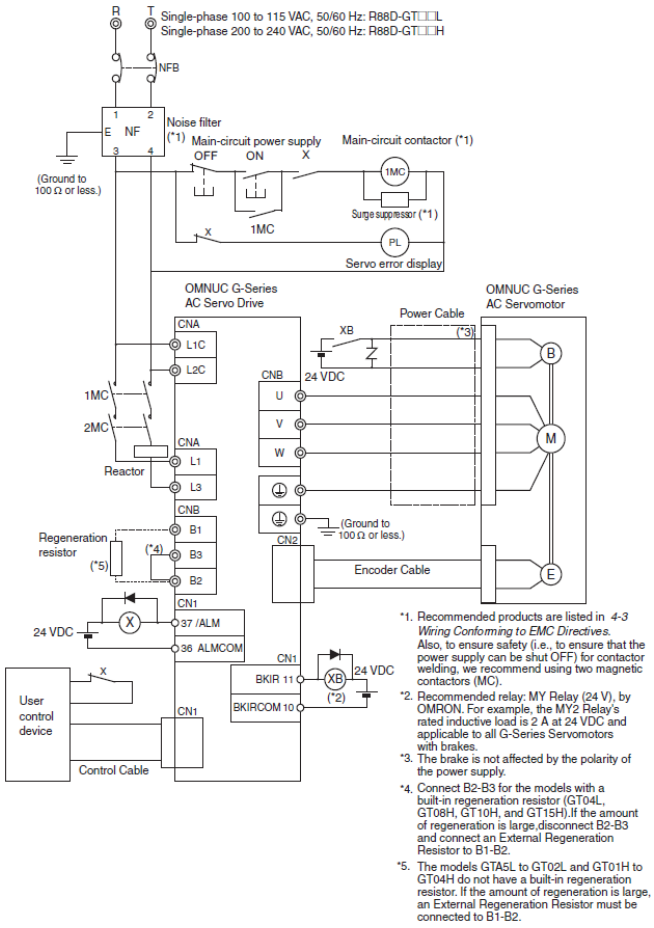
Model	Dimensions (mm)							
	LL	LR	LM	S	KB1	KB2	L1	L2
R88M-K4K510T□	266	113	222	42	185	244	98	98
R88M-K4K510T-B□	291	113	247	42	185	269	98	133

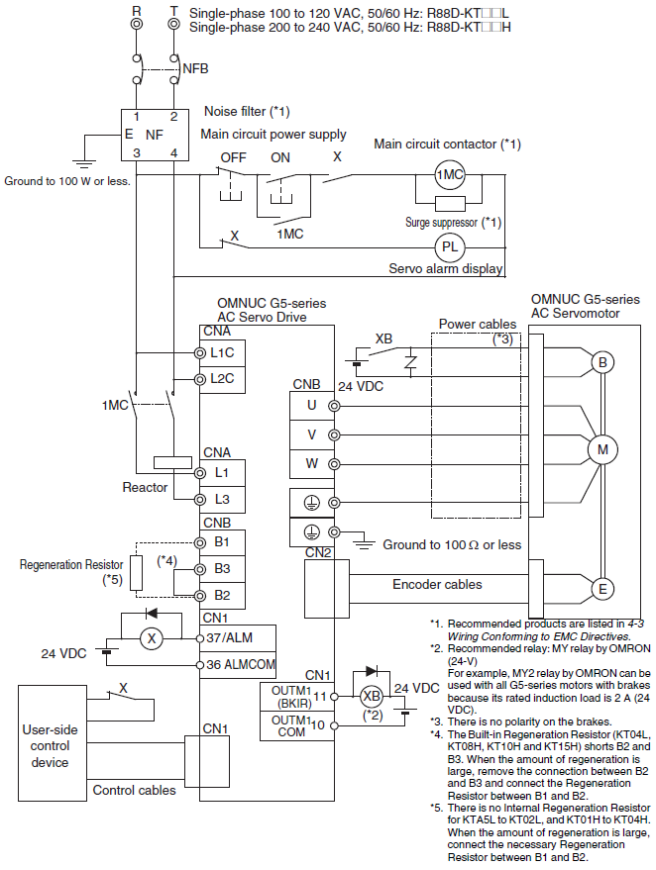
Note. The standard models have a straight shaft. Models with a key and tap are indicated with S2 at the end of the model number.
Models with an oil seal are indicated with O at the end of the model number. The motor dimensions do not change.

[Wire connection]

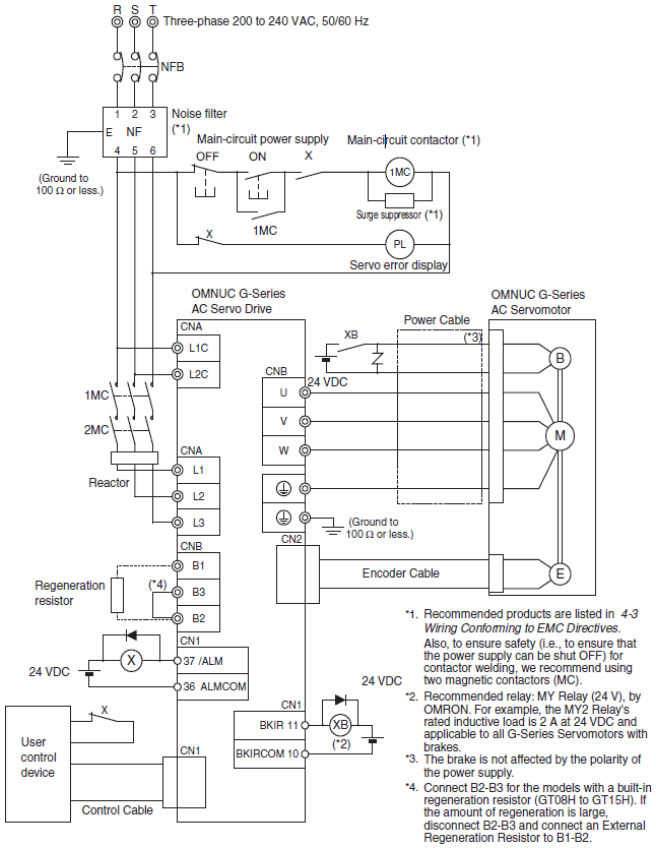
Wire connection of power supply, motor and peripheral equipment

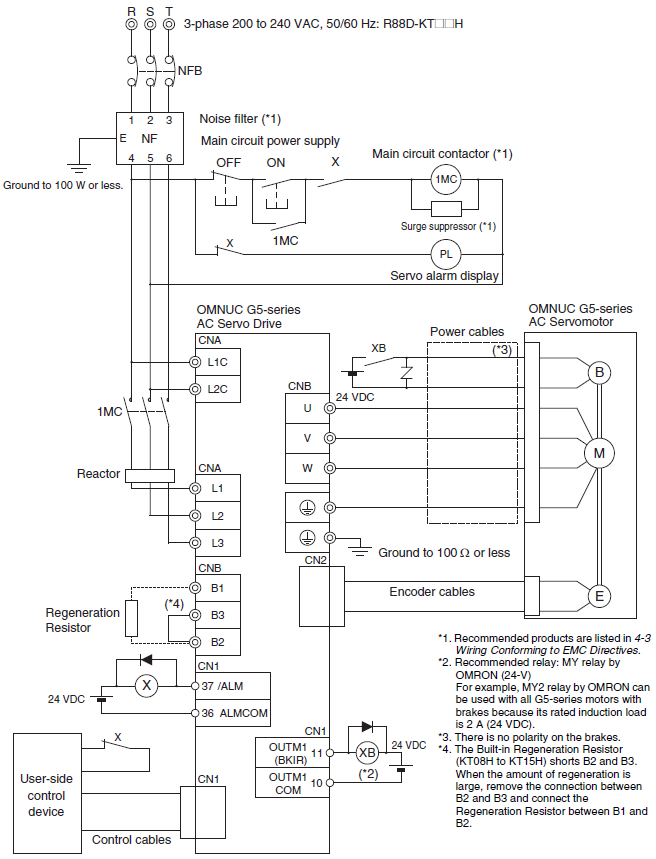
Product discontinuation R88D-GT[]	Recommendable replacement R88D-KT[]
R88D-GTA5L/-GT01L/-GT02L/-GT04L R88D-GT01H/-GT02H/-GT04H -GT08H/-GT10H/-GT15H (Single-phase Input) The cables are not same for G series and G5 series.	**R88D-KTA5L/-KT01L/-KT02L/-KT04L R88D-KT01H/-KT02H/-KT04H -KT08H/-KT10H/-KT15H (Single-phase Input)** The cables are not same for G series and G5 series.





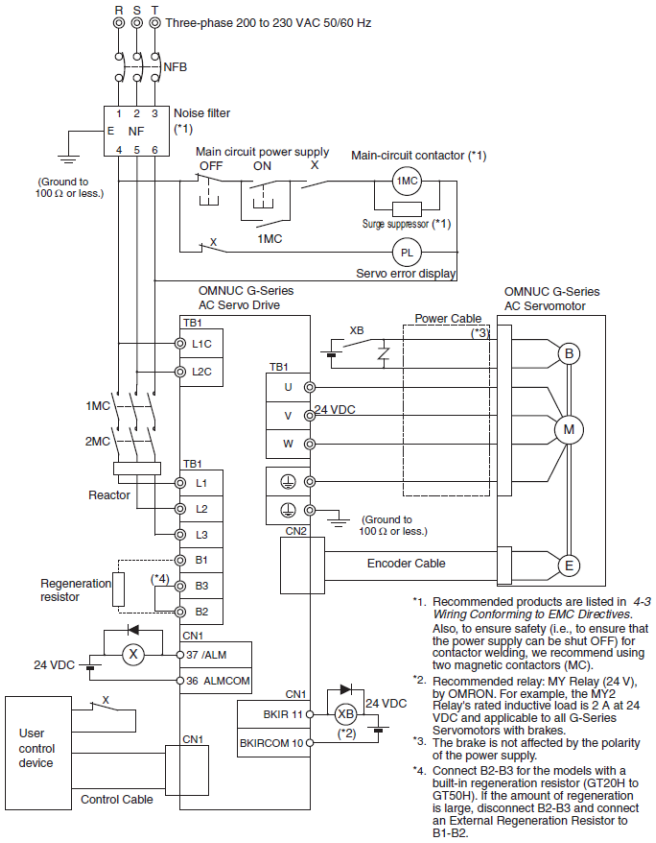
Product discontinuation R88D-GT[]	Recommendable replacement R88D-KT[]
R88D-GT08H/-GT10H/-GT15H (3-phase Input)	**R88D-KT08H/-KT10H/-KT15H (3-phase Input)**





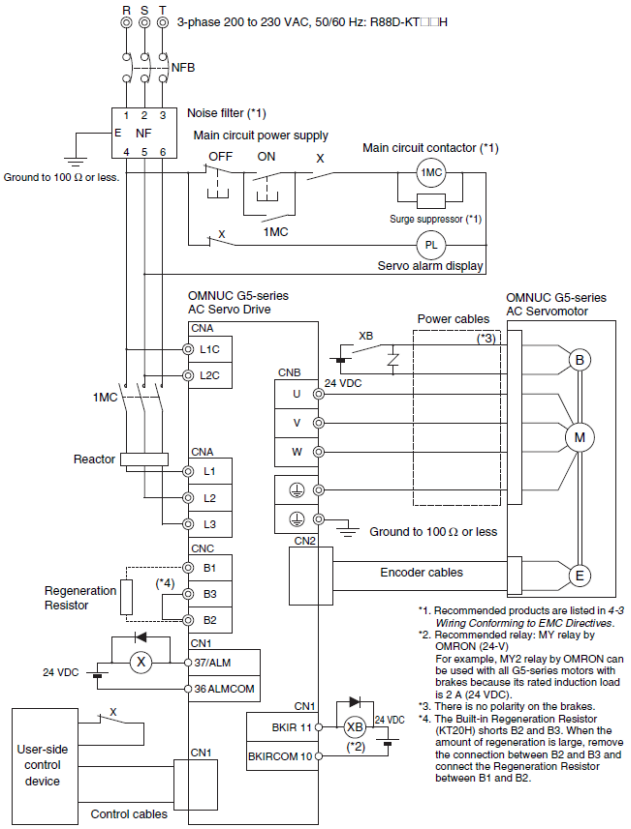
Product discontinuation R88D-GT[]	Recommendable replacement R88D-KT[]

R88D-GT20H/-GT30H/-GT50H



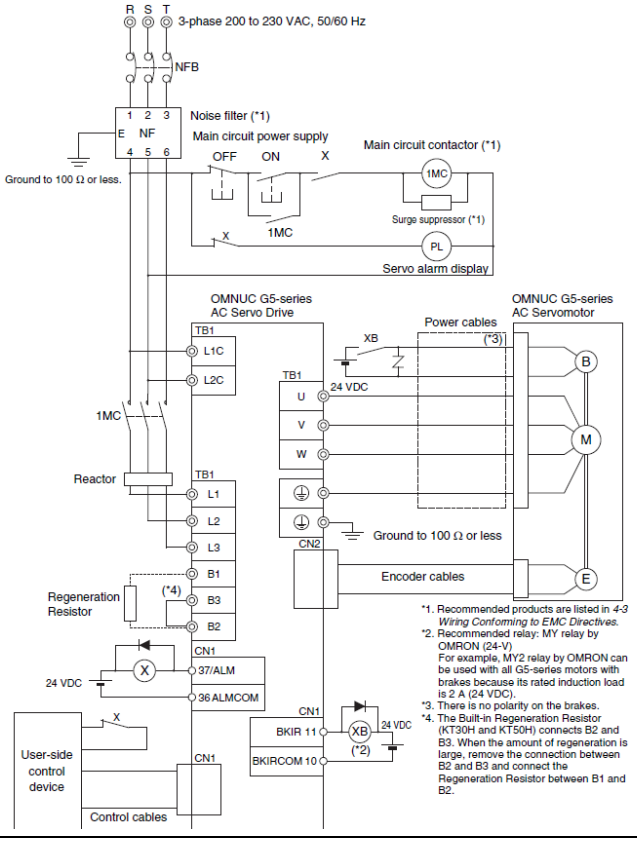
*1. Recommended products are listed in *4-3 Wiring Conforming to EMC Directives*.
Also, to ensure safety (i.e., to ensure that the power supply can be shut OFF) for contactor welding, we recommend using two magnetic contactors (MC).
*2. Recommended relay: MY Relay (24 V), by OMRON. For example, the MY2 Relay's rated inductive load is 2 A at 24 VDC and applicable to all G-Series Servomotors with brakes.
*3. The brake is not affected by the polarity of the power supply.
*4. Connect B2-B3 for the models with a built-in regeneration resistor (GT20H to GT50H). If the amount of regeneration is large, disconnect B2-B3 and connect an External Regeneration Resistor to B1-B2.

R88D-KT20H



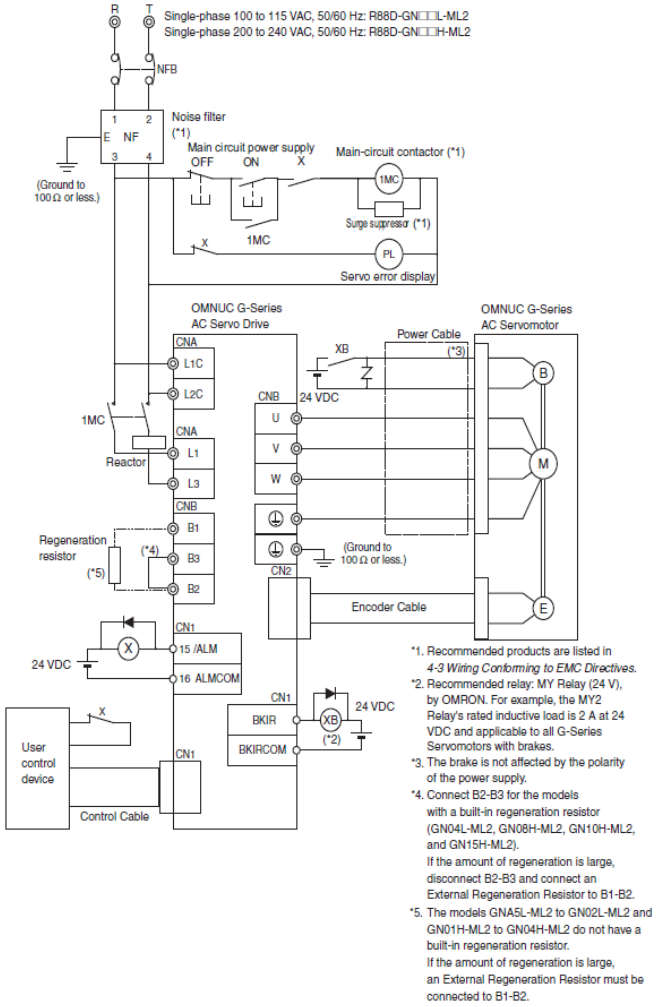
*1. Recommended products are listed in *4-3 Wiring Conforming to EMC Directives*.
*2. Recommended relay: MY relay by OMRON (24-V)
For example, MY2 relay by OMRON can be used with all G5-series motors with brakes because its rated induction load is 2 A (24 VDC).
*3. There is no polarity on the brakes.
*4. The Built-in Regeneration Resistor (KT20H) shorts B2 and B3. When the amount of regeneration is large, remove the connection between B2 and B3 and connect the Regeneration Resistor between B1 and B2.

R88D-KT30H/-KT50H

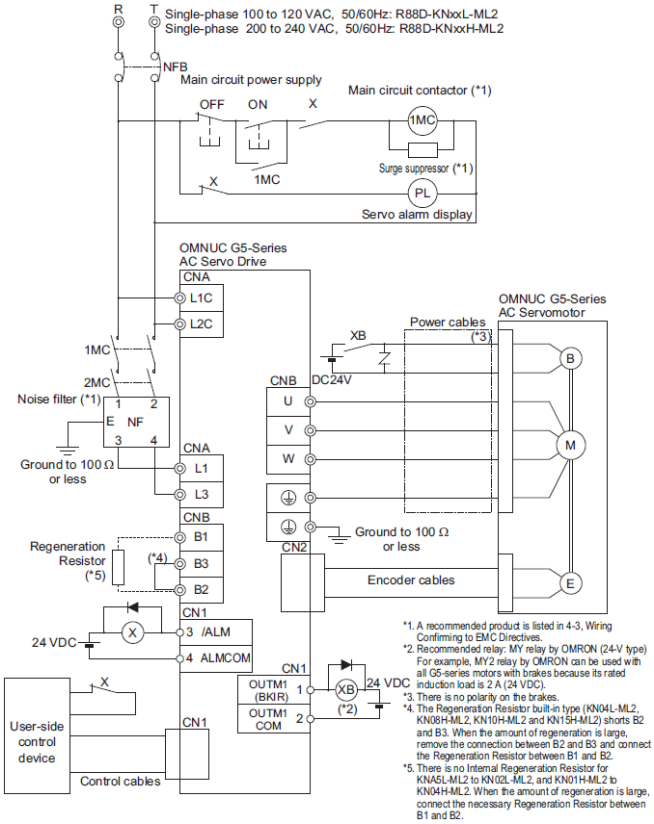


*1. Recommended products are listed in *4-3 Wiring Conforming to EMC Directives*.
*2. Recommended relay: MY relay by OMRON (24-V)
For example, MY2 relay by OMRON can be used with all G5-series motors with brakes because its rated induction load is 2 A (24 VDC).
*3. There is no polarity on the brakes.
*4. The Built-in Regeneration Resistor (KT30H and KT50H) connects B2 and B3. When the amount of regeneration is large, remove the connection between B2 and B3 and connect the Regeneration Resistor between B1 and B2.

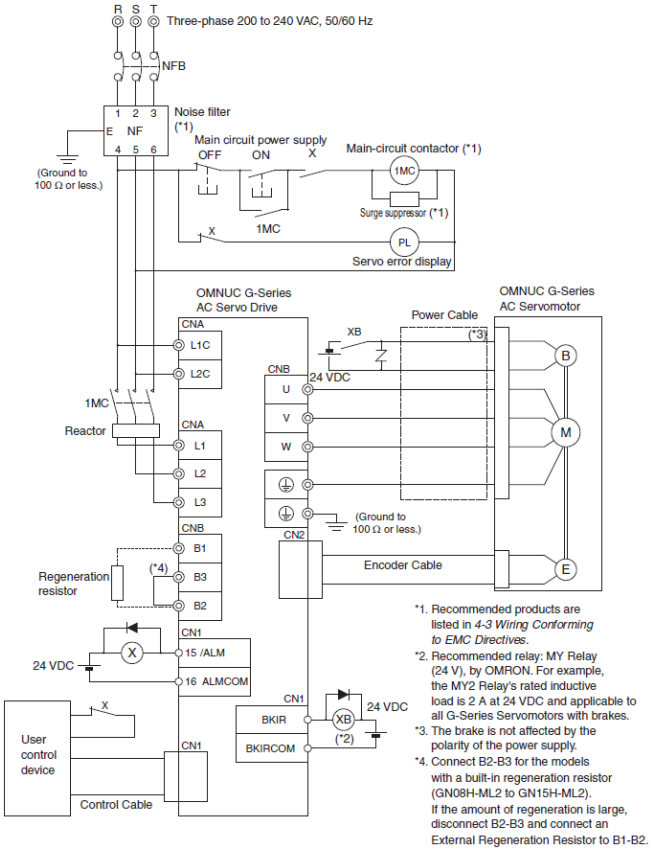
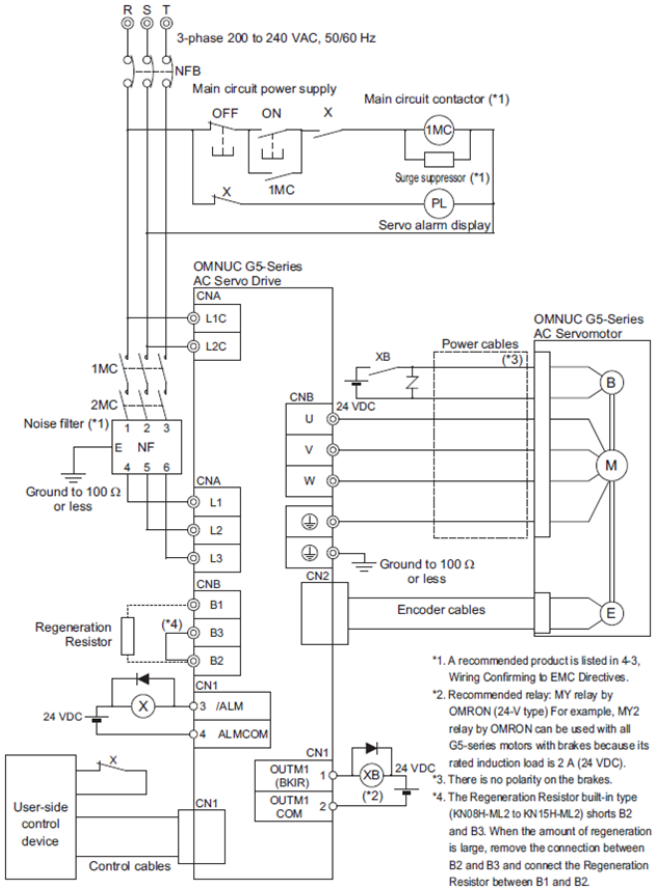
Product discontinuation R88D-GN[]-ML2	Recommendable replacement R88D-KN[]-ML2
R88D-GNA5L-ML2/-GN01L-ML2 -GN02L-ML2/-GN04L-ML2 R88D-GN01H-ML2/-GN02H-ML2/-GN04H-ML2 -GN08H-ML2/-GN10H-ML2/-GN15H-ML2 (Single-phase Input) The cables are not same for G series and G5 series.	**R88D-KNA5L-ML2/-KN01L-ML2 -KN02L-ML2/-KN04L-ML2 R88D-KN01H-ML2/-KN02H-ML2/-KN04H-ML2 -KN08H-ML2/-KN10H-ML2/-KN15H-ML2 (Single-phase Input)** The cables are not same for G series and G5 series.



*1. Recommended products are listed in *4-3 Wiring Conforming to EMC Directives.*
*2. Recommended relay: MY Relay (24 V), by OMRON. For example, the MY2 Relay's rated inductive load is 2 A at 24 VDC and applicable to all G-Series Servomotors with brakes.
*3. The brake is not affected by the polarity of the power supply.
*4. Connect B2-B3 for the models with a built-in regeneration resistor (GN04L-ML2, GN08H-ML2, GN10H-ML2, and GN15H-ML2).
If the amount of regeneration is large, disconnect B2-B3 and connect an External Regeneration Resistor to B1-B2.
*5. The models GNA5L-ML2 to GN02L-ML2 and GN01H-ML2 to GN04H-ML2 do not have a built-in regeneration resistor.
If the amount of regeneration is large, an External Regeneration Resistor must be connected to B1-B2.

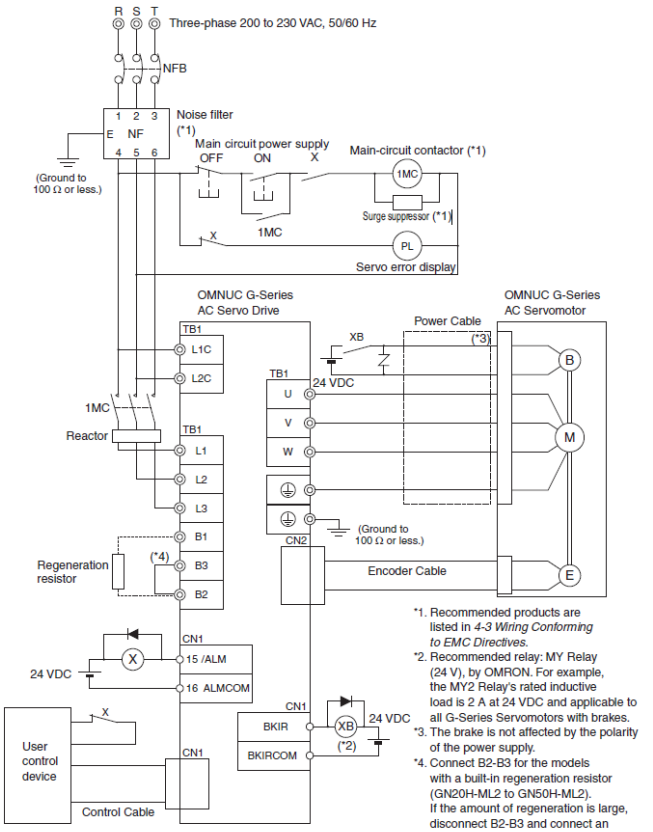


*1. A recommended product is listed in 4-3, Wiring Confirming to EMC Directives.
*2. Recommended relay: MY relay by OMRON (24-V type) For example, MY2 relay by OMRON can be used with all G5-series motors with brakes because its rated induction load is 2 A (24 VDC).
*3. There is no polarity on the brakes.
*4. The Regeneration Resistor built-in type (KN04L-ML2, KN08H-ML2, KN10H-ML2 and KN15H-ML2) shorts B2 and B3. When the amount of regeneration is large, remove the connection between B2 and B3 and connect the Regeneration Resistor between B1 and B2.
*5. There is no Internal Regeneration Resistor for KNA5L-ML2 to KN02L-ML2, and KN01H-ML2 to KN04H-ML2. When the amount of regeneration is large, connect the necessary Regeneration Resistor between B1 and B2.

Product discontinuation R88D-GN[]-ML2	Recommendable replacement R88D-KN[]-ML2
R88D-GN08H-ML2/-GN10H-ML2/-GN15H-ML2 (3-phase Input)	**R88D-KN08H-ML2/-KN10H-ML2/-KN15H-ML2 (3-phase Input)**
	

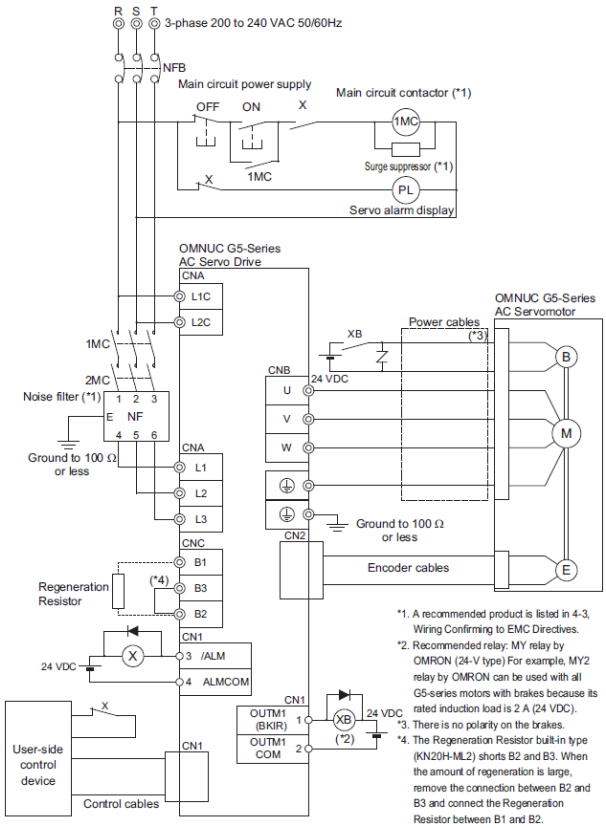
Product discontinuation R88D-GN[]-ML2	Recommendable replacement R88D-KN[]-ML2

R88D-GN20H-ML2/-GN30H-ML2/-GN50H-ML2



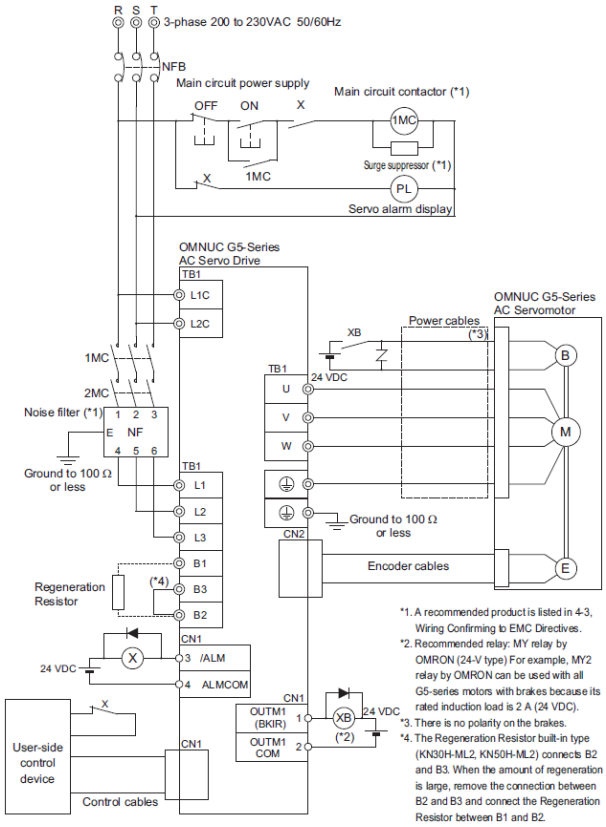
*1. Recommended products are listed in *4-3 Wiring Conforming to EMC Directives*.
*2. Recommended relay: MY Relay (24 V), by OMRON. For example, the MY2 Relay's rated inductive load is 2 A at 24 VDC and applicable to all G-Series Servomotors with brakes.
*3. The brake is not affected by the polarity of the power supply.
*4. Connect B2-B3 for the models with a built-in regeneration resistor (GN20H-ML2 to GN50H-ML2). If the amount of regeneration is large, disconnect B2-B3 and connect an External Regeneration Resistor to B1-B2.

R88D-KN20H-ML2



*1. A recommended product is listed in 4-3, Wiring Confirming to EMC Directives.
*2. Recommended relay: MY relay by OMRON (24-V type) For example, MY2 relay by OMRON can be used with all G5-series motors with brakes because its rated induction load is 2 A (24 VDC).
*3. There is no polarity on the brakes.
*4. The Regeneration Resistor built-in type (KN20H-ML2) shorts B2 and B3. When the amount of regeneration is large, remove the connection between B2 and B3 and connect the Regeneration Resistor between B1 and B2.

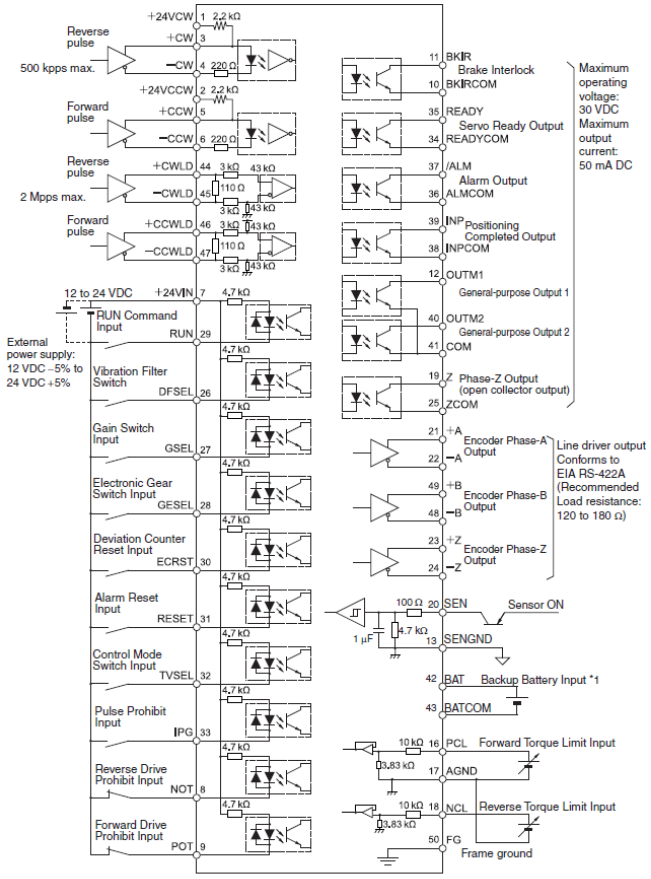
R88D-KN30H-ML2/-KN50H-ML2



*1. A recommended product is listed in 4-3, Wiring Confirming to EMC Directives.
*2. Recommended relay: MY relay by OMRON (24-V type) For example, MY2 relay by OMRON can be used with all G5-series motors with brakes because its rated induction load is 2 A (24 VDC).
*3. There is no polarity on the brakes.
*4. The Regeneration Resistor built-in type (KN30H-ML2, KN50H-ML2) connects B2 and B3. When the amount of regeneration is large, remove the connection between B2 and B3 and connect the Regeneration Resistor between B1 and B2.

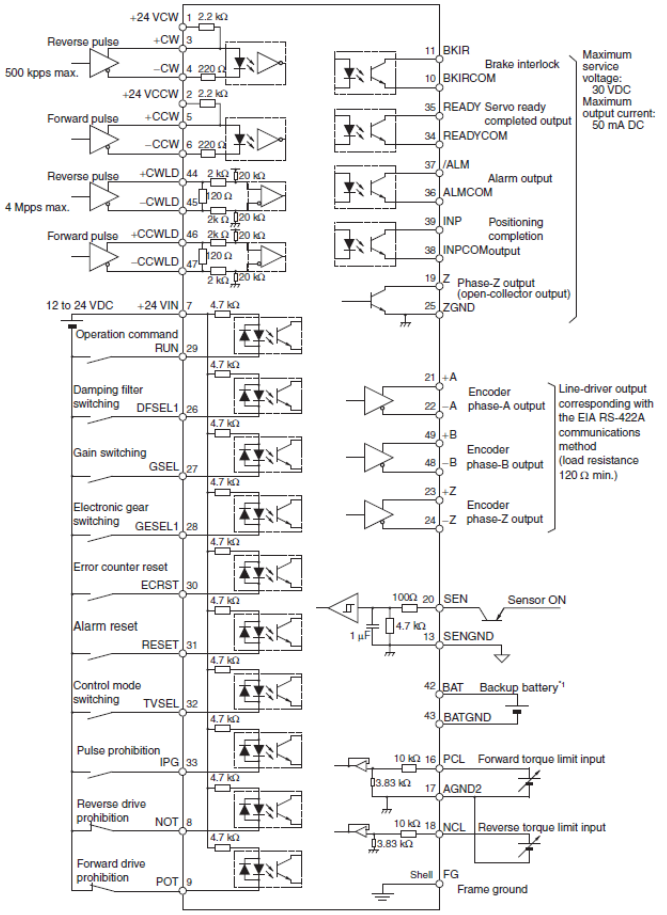
Wire connection of control I/O connector (The figure shows the case of position control)

Product discontinuation R88D-GT[]



*1. If a backup battery is connected, a cable with a battery is not required.

Recommendable replacement R88D-KT[]



*1. A cable equipped with a battery is not required if a backup battery is connected.

CN1 Pin Arrangement

2	+24VCCW	24-V Open-collector Input for Command Pulse	1	+24VCW	24-V Open-collector Input for Command Pulse	27	GSEL/TLSEL	Gain Switch/ Torque Limit Switch	26	VZERO/DF SEL/PNSEL	Zero Speed Designation Input/Vibration Filter Switch/Speed Command Rotation Direction Switch
4	−CW/ -PULS/-FA	Reverse Pulses Input/ Feed Pulses Input, or 90° Phase Difference Pulse Input (Phase A)	3	+CW/ +PULS/+FA	Reverse Pulses Input/ Feed Pulses Input, or 90° Phase Difference Pulse Input (Phase A)	28	GESEL/ VSEL3	Electronic Gear Switch/ Internally Set Speed Selection 3			
6	−CCW/ −SIGN/−FB	Forward Pulses/ Direction Signal, or 90° Phase Difference Pulse Input (Phase B)	5	+CCW/ +SIGN/+FB	Forward Pulses/ Direction Signal, or 90° Phase Difference Pulse Input (Phase B)	29	RUN	RUN Command	30	ECRST/VSEL2	Deviation Counter Reset/Internally Set Speed Selection 2
8	NOT	Reverse Drive Prohibit Input	7	+24VIN	12 to 24-VDC Power Supply Input	31	RESET	Alarm Reset Input	32	TVSEL	Control Mode Switch Input
10	BKIRCOM	Brake Interlock Output	9	POT	Forward Drive Prohibit Input	33	IPG/VSEL1	Pulse Prohibit Input/Internally Set Speed Selection 1	34	READYCOM	Servo Ready Output
12	OUTM1	General-purpose Output 1	11	BKIR	Brake Interlock Output	35	READY	Servo Ready Output	36	ALMCOM	Alarm Output
14	REF/TREF1/ VLIM	Speed Command Input/Torque Command Input/ Speed Limit Input	13	SENGND	Ground Common	37	/ALM	Alarm Output	38	INPCOM/ TGONCOM	Positioning Completed Output/Servomotor Rotation Speed Detection Output Common
16	PCL/TREF2	Forward Torque Limit Input/ Torque Command Input	15	AGND	Sensor Input Ground	39	INP/TGON	Positioning Completed Output/Servomotor Rotation Speed Detection Output	40	OUTM2	General-purpose Output 2
18	NCL	Reverse Torque Limit Input	17	AGND	Sensor Input Ground	41	COM	General-purpose Output Common	42	BAT	Absolute Encoder Backup Battery Input
20	SEN	Sensor ON Input	19	Z	Phase-Z Output (open collector)	43	BATGND	Absolute Encoder Backup Battery Input	44	+CWLD	Reverse Pulse (input for line driver only)
22	−A	Encoder Phase-A Output	21	+A	Encoder Phase-A + Output	45	−CWLD	Reverse Pulse (input for line driver only)	46	+CCWLD	Forward Pulse (input for line driver only)
24	−Z	Encoder Phase-Z Output	23	+Z	Encoder Phase-Z + Output	47	−CCWLD	Forward Pulse (input for line driver only)	48	−B	Encoder Phase-B − Output
			25	ZCOM	Phase-Z Output (open collector) Common	49	+B	Encoder Phase-B + Output	50		*

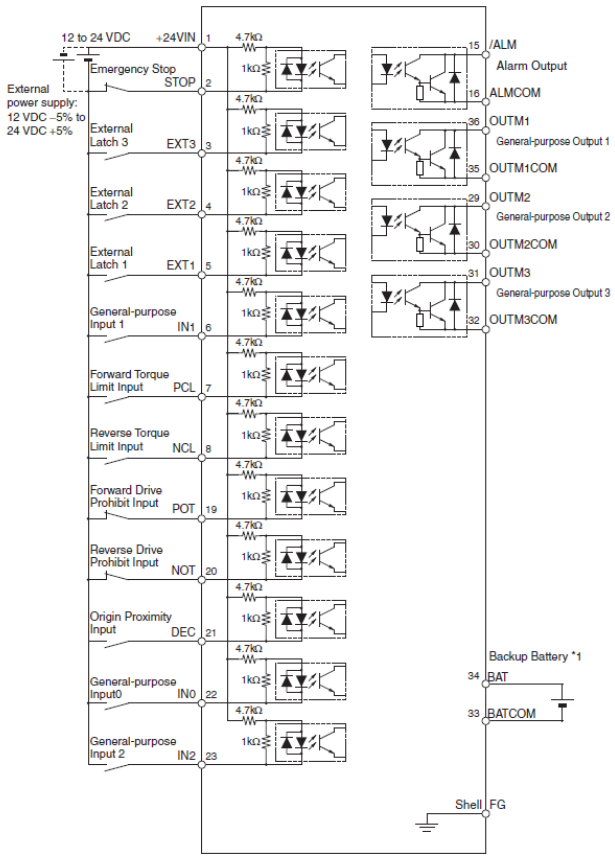
Note Do not connect anything to unused pins (*).

CN1 Pin Arrangement

2	PCOM	24-V open-collector input for command pulse	1	PCOM	24-V open-collector input for command pulse	27	SI4 (GSEL)	General-purpose input 4 (gain switching)	26	SI3*2	General-purpose input 3*2
4	−CW/ −PULS/−FA	Reverse pulses, feed pulses, or 90° phase difference signal (phase A)	3	+CW/ +PULS/+FA	Reverse pulses, feed pulses, or 90° phase difference signal (phase A)	29	SI6 (RUN)	General-purpose input 6 (operation command)	28	SI5*2	General-purpose input 5*2
6	−CCW/ −SIGN/−FB	Forward pulse, direction signal, or 90° phase difference signal (phase B)	5	+CCW/ +SIGN/+FB	Forward pulse, direction signal, or 90°phase difference signal (phase B)	31	SI8 (RESET)	General-purpose input 8 (alarm reset input)	30	SI7*2	General-purpose input 7*2
8	SI1 (NOT)	General-purpose input 1 (reverse drive prohibition input)	7	+24VIN	12 to 24-VDC power supply input	33	SI10*2	General-purpose input10*2	32	SI9 (TVSEL)	General-purpose input 9 (control mode switching)
10	SO1COM	General-purpose output 1 common	9	SI2 (POT)	General-purpose input 2 (forward drive prohibition input)	35	SO2 (READY)	General-purpose output 2 (servo ready completed output)	34	SO2COM	General-purpose output 2 common
12		*1	11	SO1 (BKIR)	General-purpose input 1 (brake interlock output)	37	/ALM [SO3]	Alarm output [general-purpose output 3]	36	ALMCOM [SO3COM]	Alarm output common [general-purpose output 3 common]
14	REF/TREF1/ VLIM	Speed command input, torque command input 1, speed limit input	13	SENGND	Signal ground	39	SO4*2	General-purpose output 4*2	38	SO4COM	General-purpose output 4 common
16	PCL/TREF2	Forward torque limit input, torque command input 2	15	AGND1	Analog ground 1	41		*1	40		*1
18	NCL	Reverse torque limit input	17	AGND2	Analog ground 2	43	BATGND	Absolute encoder backup battery input	42	BAT	Absolute encoder backup battery input
20	SEN	Sensor ON undefined	19	Z	Phase-Z output (open collector)	45	−CWLD	Reverse pulse (input for line driver only)	44	+CWLD	Reverse pulse (input for line driver only)
22	−A	Encoder phase A−output	21	+A	Encoder phase A+output	47	−CCWLD	Forward pulse (input for line driver only)	46	+CCWLD	Forward pulse (input for line driver only)
24	−Z	Encoder phase Z−output	23	+Z	Encoder phase Z+output	49	+B	Encoder phase B+output	48	−B	Encoder phase B−output
			25	ZGND	Phase-Z (open collector) common				50		*1

Note.Do not connect anything to unused pins (*1).

Product discontinuation
R88D-GN[]-ML2



*1. If a backup battery is connected, a cable with a battery is not required.
*2. Inputs for pins 19 and 20 are determined by parameter settings. The diagram shows the default configuration.

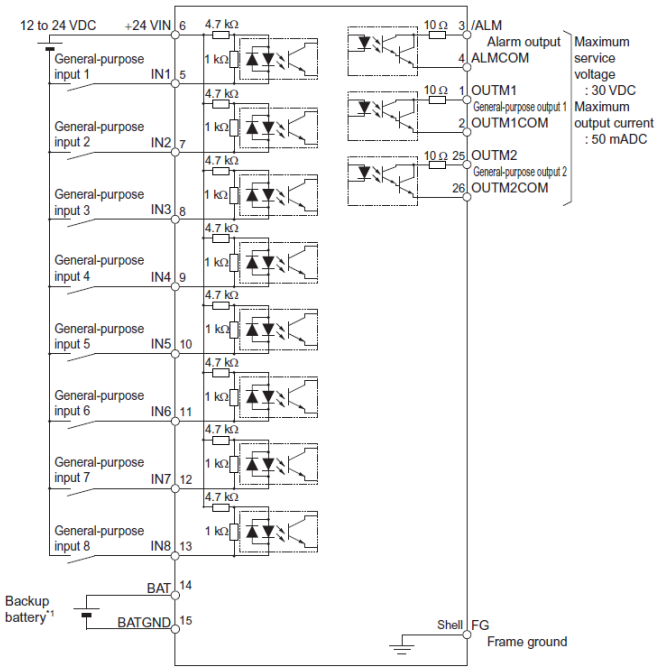
CN1 Pin Arrangement

2	STOP	Emergency Stop Input	1	+24VIN	12 to 24-VDC Power Supply Input	20	NOT	Reverse Drive Prohibit Input	19	POT	Forward Drive Prohibit Input
4	EXT2	External Latch Signal 2	3	EXT3	External Latch Signal 3	22	IN0	External General-purpose Input 0	21	DEC	Origin Proximity Input
6	IN1	External General-purpose Input 1	5	EXT1	External Latch Signal 1	24		*	23	IN2	External General-purpose Input2
8	NCL	Reverse Torque Limit Input	7	PCL	Forward Torque Limit Input	26		*	25		*
10		*	9		*	28		*	27		*
12		*	11		*	30	OUTM2COM	General-purpose Output 2	29	OUTM2	General-purpose Output 2
14		*	13		*	32	OUTM3COM	General-purpose Output 3	31	OUTM3	General-purpose Output 3
16	ALMCOM	Alarm Output	15	/ALM	Alarm Output	34	BAT	Backup Battery Input	33	BATCOM	Backup Battery Input
18		*	17		*	36	OUTM1	General-purpose Output 1	35	OUTM1COM	General-purpose Output1

Note1. Do not connect anything to unused pins (*).

Note2. Inputs for pins 19 and 20 are determined by parameter settings. The diagram shows the default configuration.

Recommendable replacement
R88D-KN[]-ML2



*1. Inputs type for pins 5, and 7 to 13 can be determined by parameter setting.
*2. Outputs type for pins 1, 2, 25 and 26 can be determined by parameter setting.
*3. A cable equipped with a battery is not required, when a backup battery is connected.
*4. It is not necessary to wire input pins that are not being used.

CN1 Pin Arrangement

2	OUTM1COM	General-purpose Output 1 Common	1	OUTM1 (BKIR)	General-purpose Output 1 (Brake Interlock Output)	15	BATGND	Absolute Encoder Backup Battery Input	14	BAT	Absolute Encoder Backup Battery Input
4	ALMCOM	Alarm Output Common	3	/ALM	Alarm Output	17		*	16		*
6	+24 VIN	12 to 24-VDC Power Supply Input	5	IN1 (STOP)	General-purpose Input 1 (Emergency Stop Input)	19		*	18		*
8	IN3 (NOT)	General-purpose Input 3 (Reverse Drive Prohibition Input)	7	IN2 (POT)	General-purpose Input 2 (Forward Drive Prohibition Input)	21		*	20		*
10	IN5 (EXT3)	General-purpose Input 5 (External Latch Input 3)	9	IN4 (DEC)	General-purpose Input 4 (Origin Proximity Input)	23		*	22		*
12	IN7 (EXT1)	General-purpose Input 7 (External Latch Input 1)	11	IN6 (EXT2)	General-purpose Input 6 (External Latch Input 2)	25	OUTM2 (READY)	General-purpose Output 2 (Servo Ready Output)	24		*
			13	IN8 (MON0)	General-purpose Input 8 (Monitor Input 0)				26	OUTM2COM	General-purpose Output 2 Common

Note Do not connect anything to unused pins (those marked with *).

[Characteristics]

Servo Drive

Item	Product discontinuation R88D-GT[]/R88D-GN[]-ML2				Recommendable replacement R88D-KT[]/R88D-KN[]-ML2			
	A5L	01L	02L	04L	A5L	01L	02L	04L
Continuous output current	1.3 A(rms)	1.8 A(rms)	2.4 A(rms)	4.9 A(rms)	1.2 A(rms)	1.7 A(rms)	2.5 A(rms)	4.6 A(rms)
Main circuit power supply voltage	Single-phase 100 to 115 VAC (85 to 127 V), 50/60 Hz				Single-phase 100 to 120 VAC (85 to 132 V) 50/60 Hz			
Control circuit power supply voltage	Single-phase 100 to 115 VAC (85 to 127 V), 50/60 Hz				Single-phase 100 to 120 VAC (85 to 132 V) 50/60 Hz			
Applicable Servomotors	G05030T	G10030S GP10030S	G20030S GP20030S	G40030L G40030S GP40030L GP40030S	K05030T	K10030S	K20030S	K40030L K40030S

Item	Product discontinuation R88D-GT[]/R88D-GN[]-ML2			Recommendable replacement R88D-KT[]/R88D-KN[]-ML2		
	01H	02H	04H	01H	02H	04H
Continuous output current	1.16 A(rms)	1.6 A(rms)	2.7 A(rms)	1.2 A(rms)	1.6 A(rms)	2.6 A(rms)
Main circuit power supply voltage	Single-phase 200 to 240 VAC (170 to 264 V), 50/60 Hz			Single-phase or 3-phase 200 to 240 VAC (170 to 264 V) 50/60 Hz		
Control circuit power supply voltage	Single-phase 200 to 240 VAC (170 to 264 V), 50/60 Hz			Single-phase 200 to 240 VAC (170 to 264 V) 50/60 Hz		
Applicable Servomotors	G05030T G10030T GP10030T	G20030T GP20030T	G40030T GP40030T	K05030T K10030T	K20030T	K40030T

Item	Product discontinuation R88D-GT[]/R88D-GN[]-ML2			Recommendable replacement R88D-KT[]/R88D-KN[]-ML2		
	08H	10H	15H	08H	10H	15H
Continuous output current	4.0 A(rms)	5.9 A(rms)	9.8 A(rms)	4.1 A(rms)	5.9 A(rms)	9.4 A(rms)
Main circuit power supply voltage	Single-phase or three-phase 200 to 240 VAC (170 to 264 V), 50/60 Hz			Single-phase or 3-phase 200 to 240 VAC (170 to 264 V) 50/60 Hz		
Control circuit power supply voltage	Single-phase 200 to 240 VAC (170 to 264 V), 50/60 Hz			Single-phase 200 to 240 VAC (170 to 264 V) 50/60 Hz		
Applicable Servomotors	G75030H G75030T	G1K020T	G1K030T G1K530T G1K520T G90010T	K75030H K75030T	K1K020T	K1K030T K1K530T K1K520T K90010T

Item	Product discontinuation R88D-GT[]/R88D-GN[]-ML2			Recommendable replacement R88D-KT[]/R88D-KN[]-ML2		
	20H	30H	50H	20H	30H	50H
Continuous output current	14.3 A(rms)	17.4 A(rms)	31.0 A(rms)	13.4 A(rms)	18.7 A(rms)	33.0 A(rms)
Main circuit power supply voltage	Three-phase 200 to 230 VAC (170 to 253 V), 50/60 Hz			3-phase 200 to 230 VAC (170 to 253 V) 50/60 Hz		
Control circuit power supply voltage	Single-phase 200 to 230 VAC (170 to 253 V), 50/60 Hz			Single-phase 200 to 230 VAC (170 to 253 V) 50/60 Hz		
Applicable Servomotors	G2K030T G2K020T	G3K030T G3K020T G2K010T	G4K030T G5K030T G4K020T G5K020T G3K010T G4K510T	K2K030T K2K020T	K3K030T K3K020T K2K010T	K4K030T K5K030T K4K020T K5K020T K3K010T K4K510T

General Specifications of Servo Drive

Item	Product discontinuation R88D-GT[]/R88D-GN[]-ML2	Recommendable replacement R88D-KT[]/R88D-KN[]-ML2
Ambient operating temperature and operating humidity	0 to 55°C, 90% RH max. (with no condensation)	0 to +55°C, 20 to 85% max. (with no condensation)
Storage ambient temperature and humidity	-20 to 65°C, 90% RH max. (with no condensation)	-20 to +65°C, 20 to 85% max. (with no condensation) Maximum allowable temperature: 80°C for 72 hours maximum (with no condensation)
Operating and storage atmosphere	No corrosive gasses	No corrosive gases
Vibration resistance	Smaller of either 10 to 60 Hz with double amplitude of 0.1 mm or acceleration of 5.88 m/s^2 max. in X, Y, and Z directions.	10 to 60 Hz and at an acceleration of 5.88 m/s^2 or less (Not to be run continuously at the resonance point)
Insulation resistance	Between power supply/power line terminals and frame ground: 0.5 MΩ min. (at 500 VDC)	Between power supply terminals/power terminals and FG terminal: 0.5 MΩ min. (at 500 VDC)
Dielectric strength	Between power supply/power line terminals and frame ground: 1,500 VAC for 1 min. at 50/60 Hz Between each control signal and frame ground: 500 VAC for 1 min.	Between power supply terminals/power line terminals and FG terminal: 1,500 VAC for 1 min at 50/60 Hz
Protective structure	Built into panel (IP10).	Built into panel
High-response frequency	1kHz	2kHz

Servomotor

Item		Product discontinuation R88M-G[]				Recommendable replacement R88M-K[]			
		05030T	10030S	20030S	40030L 40030S	05030T	10030S	20030S	40030L 40030S
Applied voltage		100 VAC				100 VAC			
Rated output [W]		50	100	200	400	50	100	200	400
Rated torque [N·m]		0.16	0.32	0.64	1.3	0.16	0.32	0.64	1.3
Rated rotation speed [r/min]		3000				3000			
Maximum rotation speed [r/min]		5000				6000			
Momentary maximum torque [N·m]		0.45	0.93	1.78	3.6	0.48	0.95	1.91	3.8
Rated current [A]		1.1(rms)	1.7(rms)	2.5(rms)	4.6(rms)	1.1(rms)	1.6(rms)	2.5(rms)	4.6(rms)
Momentary maximum current [A]		3.4(rms)	5.1(rms)	7.6(rms)	13.9(rms)	4.7(0-p)	6.9(0-p)	10.6(0-p)	19.5(0-p)
Rotor inertia [kg·m^2 (GD^2/4)]	Without brake	2.5×10^{-6}	5.1×10^{-6}	1.4×10^{-5}	2.6×10^{-5}	2.5×10^{-6}	5.1×10^{-6}	1.4×10^{-5}	2.6×10^{-5}
	With brake					2.7×10^{-6}	5.4×10^{-6}	1.6×10^{-5}	2.8×10^{-5}
Applicable load inertia		30 times the rotor inertia max.				30 times the rotor inertia max.			
Radiator plate dimensions (material)		100×80×t10 (Al)		130×120×t12 (Al)		100×80×t10 (Al)		130×120×t12 (Al)	
Ambient operating temperature and operating humidity		0 to 40°C, 85% RH max. (with no condensation)				0 to +40°C, 20% to 85% (with no condensation)			
Ambient storage temperature and humidity		-20 to 65°C, 85% RH max. (with no condensation)				-20 to +65°C, 20% to 85% (with no condensation) Maximum allowable temperature:80°C for 72 hours maximum (standard humidity)			
Storage and operating atmosphere		No corrosive gases				No corrosive gases			
Vibration resistance		10 to 2,500 Hz and acceleration of 49 m/s^2 max. in the X, Y, and Z directions				Acceleration of 49 m/s^2 24.5 m/s^2 max. in X, Y, and Z directions when the motor is stopped			
Impact resistance		Acceleration of 98 m/s^2 max. 3 times each in the X, Y, and Z directions				Acceleration of 98 m/s^2 max. 3 times each in X, Y, and Z directions			
Insulation resistance		20 MΩ min. at 500 VDC between the power terminals and FG terminal				Between power terminal and FG terminal: 20 MΩ min. (at 500 VDC)			
Dielectric strength		1,500 VAC (50 or 60 Hz) for 1 minute between the power terminals and FG terminal				1,500 VAC between power terminal and FG terminal for 1 min. 1,000 VAC between brake terminal and FG terminal for 1 min.			
Insulation grade		Type B				Type B			
Protective structure		IP65 (excluding the output shaft rotating section and lead wire ends)				IP67 (except for through-shaft parts and motor and encoder connector pins)			

Item		Product discontinuation R88M-G[]					Recommendable replacement R88M-K[]				
		05030T	10030T	20030T	40030T	75030H 75030T	05030T	10030T	20030T	40030T	75030H 75030T
Applied voltage		200 VAC					200 VAC				
Rated output [W]		50	100	200	400	750	50	100	200	400	750
Rated torque [N·m]		0.16	0.32	0.64	1.3	2.4	0.16	0.32	0.64	1.3	2.4
Rated rotation speed [r/min]		3000					3000				
Maximum rotation speed [r/min]		5000				4500	6000				
Momentary maximum torque [N·m]		0.45	0.90	1.78	3.67	7.05	0.48	0.95	1.91	3.8	7.1
Rated current [A]		1.1(rms)	1.1(rms)	1.6(rms)	2.6(rms)	4(rms)	1.1(rms)	1.1(rms)	1.5(rms)	2.4(rms)	4.1(rms)
Momentary maximum current [A]		3.4(rms)	3.4(rms)	4.9(rms)	7.9(rms)	12.1 (rms)	4.7(0-p)	4.7(0-p)	6.5(0-p)	10.2 (0-p)	17.4 (0-p)
Rotor inertia [kg·m^2 (GD^2/4)]	**Without brake**	2.5×10^{-6}	5.1×10^{-6}	1.4×10^{-5}	2.6×10^{-5}	8.7×10^{-5}	2.5×10^{-6}	5.1×10^{-6}	1.4×10^{-5}	2.6×10^{-5}	8.7×10^{-5}
	With brake						2.7×10^{-6}	5.4×10^{-6}	1.6×10^{-5}	2.8×10^{-5}	9.7×10^{-5}
Applicable load inertia		30 times the rotor inertia max.				20 times the rotor inertia max.	30 times the rotor inertia max.				20 times the rotor inertia max.
Radiator plate dimensions (material)		100×80×t10 (Al)		130×120×t12 (Al)		170×160 ×t12 (Al)	100×80×t10 (Al)		130×120×t12 (Al)		170×160 ×t12 (Al)
Ambient operating temperature and operating humidity		0 to 40°C, 85% RH max. (with no condensation)					0 to +40°C, 20% to 85% (with no condensation)				
Ambient storage temperature and humidity		-20 to 65°C, 85% RH max. (with no condensation)					-20 to +65°C, 20% to 85% (with no condensation) Maximum allowable temperature:80°C for 72 hours maximum (standard humidity)				
Storage and operating atmosphere		No corrosive gases					No corrosive gases				
Vibration resistance		10 to 2,500 Hz and acceleration of 49 m/s^2 max. in the X, Y, and Z directions					Acceleration of 49 m/s^2 24.5 m/s^2 max. in X, Y, and Z directions when the motor is stopped				
Impact resistance		Acceleration of 98 m/s^2 max. 3 times each in the X, Y, and Z directions					Acceleration of 98 m/s^2 max. 3 times each in X, Y, and Z directions				
Insulation resistance		20 MΩ min. at 500 VDC between the power terminals and FG terminal					Between power terminal and FG terminal: 20 MΩ min. (at 500 VDC)				
Dielectric strength		1,500 VAC (50 or 60 Hz) for 1 minute between the power terminals and FG terminal					1,500 VAC between power terminal and FG terminal for 1 min. 1,000 VAC between brake terminal and FG terminal for 1 min.				
Insulation grade		Type B					Type B				
Protective structure		IP65 (excluding the output shaft rotating section and lead wire ends)					IP67 (except for through-shaft parts and motor and encoder connector pins)				

Item		Product discontinuation R88M-G[]			Recommendable replacement R88M-K[]		
		1K030T	1K530T	2K030T	1K030T	1K530T	2K030T
Applied voltage		200 VAC			200 VAC		
Rated output [W]		1000	1500	2000	1000	1500	2000
Rated torque [N·m]		3.18	4.77	6.36	3.18	4.77	6.37
Rated rotation speed [r/min]		3000			3000		
Maximum rotation speed [r/min]		5000			5000		
Momentary maximum torque [N·m]		9.1	12.8	18.4	9.55	14.3	19.1
Rated current [A]		7.2(rms)	9.4(rms)	13(rms)	6.6(rms)	8.2(rms)	11.3(rms)
Momentary maximum current [A]		21.4(rms)	28.5(rms)	40(rms)	28(0-p)	35(0-p)	48(0-p)
Rotor inertia [kg·m^2 (GD^2/4)]	Without brake	1.69×10^{-4}	2.59×10^{-4}	3.46×10^{-4}	2.03×10^{-4}	2.84×10^{-4}	3.68×10^{-4}
	With brake				2.35×10^{-4}	3.17×10^{-4}	4.01×10^{-4}
Applicable load inertia		15 times the rotor inertia max.			15 times the rotor inertia max.		
Radiator plate dimensions (material)		170×160×t12 (Al)	320×300×t30 (Al)	320×300×t20 (Al)	320×300×t20 (Al)		380×350×t30 (Al)
Ambient operating temperature and operating humidity		0 to 40°C, 85% RH max. (with no condensation)			0 to +40°C, 20% to 85% (with no condensation)		
Ambient storage temperature and humidity		-20 to 80°C, 85% RH max. (with no condensation)			-20 to +65°C, 20% to 85% (with no condensation) Maximum allowable temperature:80°C for 72 hours maximum (standard humidity)		
Storage and operating atmosphere		No corrosive gases			No corrosive gases		
Vibration resistance		10 to 2,500 Hz and acceleration of 24.5 m/s^2 max. in the X, Y, and Z directions			Acceleration of 49 m/s^2 24.5 m/s^2 max. in X, Y, and Z directions when the motor is stopped		
Impact resistance		Acceleration of 98 m/s^2 max. 3 times each in the X, Y, and Z directions			Acceleration of 98 m/s^2 max. 3 times each in X, Y, and Z directions		
Insulation resistance		20 MΩ min. at 500 VDC between the power terminals and FG terminal			Between power terminal and FG terminal: 20 MΩ min. (at 500 VDC)		
Dielectric strength		1,500 VAC (50 or 60 Hz) for 1 minute between the power terminals and FG terminal			1,500 VAC between power terminal and FG terminal for 1 min. 1,000 VAC between brake terminal and FG terminal for 1 min.		
Insulation grade		Type F			Type F		
Protective structure		IP65 (excluding the output shaft rotating section and lead wire ends)			IP67 (except for through-shaft parts and motor and encoder connector pins)		

Item		Product discontinuation R88M-G[]			Recommendable replacement R88M-K[]		
		3K030T	4K030T	5K030T	3K030T	4K030T	5K030T
Applied voltage		200 VAC			200 VAC		
Rated output [W]		3000	4000	5000	3000	4000	5000
Rated torque [N·m]		9.54	12.6	15.8	9.55	12.7	15.9
Rated rotation speed [r/min]		3000			3000		
Maximum rotation speed [r/min]		5000	4500		5000	4500	
Momentary maximum torque [N·m]		27.0	36.3	45.1	28.6	38.2	47.7
Rated current [A]		18.6(rms)	24.7(rms)	28.5(rms)	18.1(rms)	19.6(rms)	24.0(rms)
Momentary maximum current [A]		57.1(rms)	75(rms)	85.7(rms)	77(0-p)	83(0-p)	102(0-p)
Rotor inertia [kg·m^2 (GD^2/4)]	Without brake	6.77×10^{-4}	1.27×10^{-3}	1.78×10^{-3}	6.50×10^{-4}	1.29×10^{-3}	1.74×10^{-3}
	With brake				6.85×10^{-4}	1.42×10^{-3}	1.86×10^{-3}
Applicable load inertia		15 times the rotor inertia max.			15 times the rotor inertia max.		
Radiator plate dimensions (material)		380×350×t30 (Al)			380×350×t30 (Al)		
Ambient operating temperature and operating humidity		0 to 40°C, 85% RH max. (with no condensation)			0 to +40°C, 20% to 85% (with no condensation)		
Ambient storage temperature and humidity		-20 to 80°C, 85% RH max. (with no condensation)			-20 to +65°C, 20% to 85% (with no condensation) Maximum allowable temperature:80°C for 72 hours maximum (standard humidity)		
Storage and operating atmosphere		No corrosive gases			No corrosive gases		
Vibration resistance		10 to 2,500 Hz and acceleration of 24.5 m/s^2 max. in the X, Y, and Z directions			Acceleration of 49 m/s^2 24.5 m/s^2 max. in X, Y, and Z directions when the motor is stopped		
Impact resistance		Acceleration of 98 m/s^2 max. 3 times each in the X, Y, and Z directions			Acceleration of 98 m/s^2 max. 3 times each in X, Y, and Z directions		
Insulation resistance		20 MΩ min. at 500 VDC between the power terminals and FG terminal			Between power terminal and FG terminal: 20 MΩ min. (at 500 VDC)		
Dielectric strength		1,500 VAC (50 or 60 Hz) for 1 minute between the power terminals and FG terminal			1,500 VAC between power terminal and FG terminal for 1 min. 1,000 VAC between brake terminal and FG terminal for 1 min.		
Insulation grade		Type F			Type F		
Protective structure		IP65 (excluding the output shaft rotating section and lead wire ends)			IP67 (except for through-shaft parts and motor and encoder connector pins)		

Item		Product discontinuation R88M-G[]			Recommendable replacement R88M-K[]		
		P10030S	P20030S	P40030L P40030S	10030S	20030S	40030L 40030S
Applied voltage		100 VAC			100 VAC		
Rated output [W]		100	200	400	100	200	400
Rated torque [N·m]		0.32	0.64	1.3	0.32	0.64	1.3
Rated rotation speed [r/min]		3000			3000		
Maximum rotation speed [r/min]		5000		4500	6000		
Momentary maximum torque [N·m]		0.84	1.8	3.6	0.95	1.91	3.8
Rated current [A]		1.6(rms)	2.5(rms)	4.4(rms)	1.6(rms)	2.5(rms)	4.6(rms)
Momentary maximum current [A]		4.9(rms)	7.5(rms)	13.3(rms)	6.9(0-p)	10.6(0-p)	19.5(0-p)
Rotor inertia [kg·m^2 (GD^2/4)]	Without brake	1.0×10^{-5}	3.5×10^{-5}	6.5×10^{-5}	5.1×10^{-6}	1.4×10^{-5}	2.6×10^{-5}
	With brake				5.4×10^{-6}	1.6×10^{-5}	2.8×10^{-5}
Applicable load inertia		20 times the rotor inertia max.			30 times the rotor inertia max.		
Radiator plate dimensions (material)		130×120×t10 (Al)	170×160×t12 (Al)		100×80×t10 (Al)	130×120×t12 (Al)	
Ambient operating temperature and operating humidity		0 to 40°C, 85% RH max. (with no condensation)			0 to +40°C, 20% to 85% (with no condensation)		
Ambient storage temperature and humidity		-20 to 80°C, 85% RH max. (with no condensation)			-20 to +65°C, 20% to 85% (with no condensation) Maximum allowable temperature:80°C for 72 hours maximum (standard humidity)		
Storage and operating atmosphere		No corrosive gases			No corrosive gases		
Vibration resistance		10 to 2,500 Hz and acceleration of 49 m/s^2 max. in the X, Y, and Z directions			Acceleration of 49 m/s^2 24.5 m/s^2 max. in X, Y, and Z directions when the motor is stopped		
Impact resistance		Acceleration of 98 m/s^2 max. 3 times each in the X, Y, and Z directions			Acceleration of 98 m/s^2 max. 3 times each in X, Y, and Z directions		
Insulation resistance		20 MΩ min. at 500 VDC between the power terminals and FG terminal			Between power terminal and FG terminal: 20 MΩ min. (at 500 VDC)		
Dielectric strength		1,500 VAC (50 or 60 Hz) for 1 minute between the power terminals and FG terminal			1,500 VAC between power terminal and FG terminal for 1 min. 1,000 VAC between brake terminal and FG terminal for 1 min.		
Insulation grade		Type B			Type B		
Protective structure		IP65 (excluding the output shaft rotating section and lead wire ends)			IP67 (except for through-shaft parts and motor and encoder connector pins)		

Item		Product discontinuation R88M-G[]			Recommendable replacement R88M-K[]		
		P10030T	P20030T	P40030T	10030T	20030T	40030T
Applied voltage		200 VAC			200 VAC		
Rated output [W]		100	200	400	100	200	400
Rated torque [N·m]		0.32	0.64	1.3	0.32	0.64	1.3
Rated rotation speed [r/min]		3000			3000		
Maximum rotation speed [r/min]		5000			6000		
Momentary maximum torque [N·m]		0.86	1.8	3.65	0.95	1.91	3.8
Rated current [A]		1(rms)	1.6(rms)	2.5(rms)	1.1(rms)	1.5(rms)	2.4(rms)
Momentary maximum current [A]		3.1(rms)	4.9(rms)	7.5(rms)	4.7(0-p)	6.5(0-p)	10.2(0-p)
Rotor inertia [kg·m^2 (GD^2/4)]	Without brake	1.0×10^{-5}	3.5×10^{-5}	6.4×10^{-5}	5.1×10^{-6}	1.4×10^{-5}	2.6×10^{-5}
	With brake				5.4×10^{-6}	1.6×10^{-5}	2.8×10^{-5}
Applicable load inertia		20 times the rotor inertia max.			30 times the rotor inertia max.		
Radiator plate dimensions (material)		130×120×t10 (Al)	170×160×t12 (Al)		100×80×t10 (Al)	130×120×t12 (Al)	
Ambient operating temperature and operating humidity		0 to 40°C, 85% RH max. (with no condensation)			0 to +40°C, 20% to 85% (with no condensation)		
Ambient storage temperature and humidity		-20 to 80°C, 85% RH max. (with no condensation)			-20 to +65°C, 20% to 85% (with no condensation) Maximum allowable temperature:80°C for 72 hours maximum (standard humidity)		
Storage and operating atmosphere		No corrosive gases			No corrosive gases		
Vibration resistance		10 to 2,500 Hz and acceleration of 49 m/s^2 max. in the X, Y, and Z directions			Acceleration of 49 m/s^2 24.5 m/s^2 max. in X, Y, and Z directions when the motor is stopped		
Impact resistance		Acceleration of 98 m/s^2 max. 3 times each in the X, Y, and Z directions			Acceleration of 98 m/s^2 max. 3 times each in X, Y, and Z directions		
Insulation resistance		20 MΩ min. at 500 VDC between the power terminals and FG terminal			Between power terminal and FG terminal: 20 MΩ min. (at 500 VDC)		
Dielectric strength		1,500 VAC (50 or 60 Hz) for 1 minute between the power terminals and FG terminal			1,500 VAC between power terminal and FG terminal for 1 min. 1,000 VAC between brake terminal and FG terminal for 1 min.		
Insulation grade		Type B			Type B		
Protective structure		IP65 (excluding the output shaft rotating section and lead wire ends)			IP67 (except for through-shaft parts and motor and encoder connector pins)		

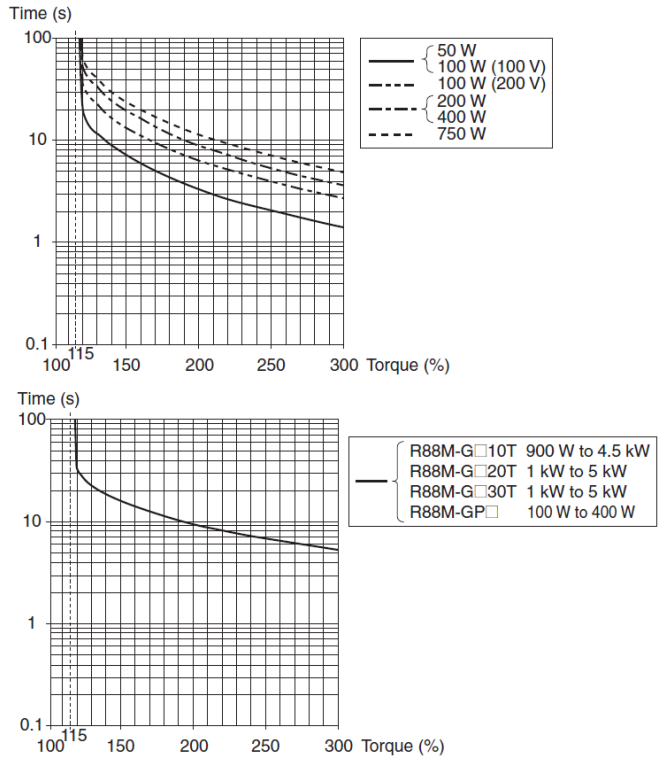
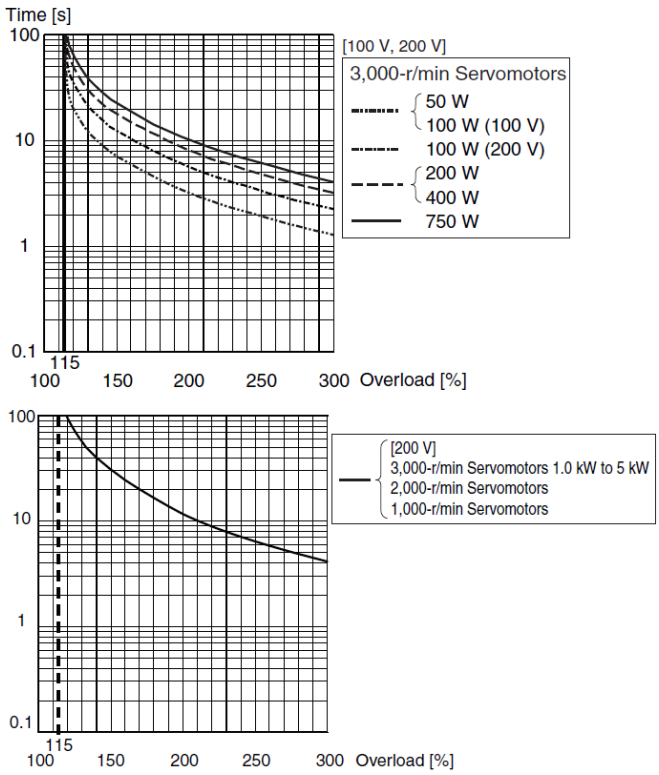
Item		Product discontinuation R88M-G[]			Recommendable replacement R88M-K[]		
		1K020T	1K520T	2K020T	1K020T	1K520T	2K020T
Applied voltage		200 VAC			200 VAC		
Rated output [W]		1000	1500	2000	1000	1500	2000
Rated torque [N·m]		4.8	7.15	9.54	4.77	7.16	9.55
Rated rotation speed [r/min]		2000			2000		
Maximum rotation speed [r/min]		3000			3000		
Momentary maximum torque [N·m]		13.5	19.6	26.5	14.3	21.5	28.6
Rated current [A]		5.6(rms)	9.4(rms)	12.3(rms)	5.7(rms)	9.4(rms)	11.5(rms)
Momentary maximum current [A]		17.1(rms)	28.5(rms)	37.1(rms)	24(0-p)	40(0-p)	49(0-p)
Rotor inertia [kg·m^2 (GD^2/4)]	Without brake	6.17×10^{-4}	1.12×10^{-3}	1.52×10^{-3}	4.60×10^{-4}	6.70×10^{-4}	8.72×10^{-4}
	With brake				5.90×10^{-4}	7.99×10^{-4}	10.0×10^{-4}
Applicable load inertia		10 times the rotor inertia max.			10 times the rotor inertia max.		
Radiator plate dimensions (material)		275×260×t15 (Al)			275×260×t15 (Al)		
Ambient operating temperature and operating humidity		0 to 40°C, 85% RH max. (with no condensation)			0 to +40°C, 20% to 85% (with no condensation)		
Ambient storage temperature and humidity		-20 to 80°C, 85% RH max. (with no condensation)			-20 to +65°C, 20% to 85% (with no condensation) Maximum allowable temperature:80°C for 72 hours maximum (standard humidity)		
Storage and operating atmosphere		No corrosive gases			No corrosive gases		
Vibration resistance		10 to 2,500 Hz and acceleration of 24.5 m/s^2 max. in the X, Y, and Z directions			Acceleration of 49 m/s^2 24.5 m/s^2 max. in X, Y, and Z directions when the motor is stopped		
Impact resistance		Acceleration of 98 m/s^2 max. 2 times vertically			Acceleration of 98 m/s^2 max. 3 times each in X, Y, and Z directions		
Insulation resistance		20 MΩ min. at 500 VDC between the power terminals and FG terminal			Between power terminal and FG terminal: 20 MΩ min. (at 500 VDC)		
Dielectric strength		1,500 VAC (50 or 60 Hz) for 1 minute between the power terminals and FG terminal			1,500 VAC between power terminal and FG terminal for 1 min. 1,000 VAC between brake terminal and FG terminal for 1 min.		
Insulation grade		Type F			Type F		
Protective structure		IP65 (excluding the output shaft rotating section and lead wire ends)			IP67 (except for through-shaft parts and motor and encoder connector pins)		

Item		Product discontinuation R88M-G[]			Recommendable replacement R88M-K[]		
		3K020T	4K020T	5K020T	3K020T	4K020T	5K020T
Applied voltage		200 VAC			200 VAC		
Rated output [W]		3000	4000	5000	3000	4000	5000
Rated torque [N·m]		14.3	18.8	23.8	14.3	19.1	23.9
Rated rotation speed [r/min]		2000			2000		
Maximum rotation speed [r/min]		3000			3000		
Momentary maximum torque [N·m]		41.2	54.9	70.6	43.0	57.3	71.6
Rated current [A]		17.8(rms)	23.4(rms)	28(rms)	17.4(rms)	21.0(rms)	25.9(rms)
Momentary maximum current [A]		54.2(rms)	71.4(rms)	85.7(rms)	74(0-p)	89(0-p)	110(0-p)
Rotor inertia [kg·m^2 (GD^2/4)]	Without brake	2.23×10^{-3}	4.25×10^{-3}	6.07×10^{-3}	1.29×10^{-3}	3.76×10^{-3}	4.80×10^{-3}
	With brake				1.42×10^{-3}	3.86×10^{-3}	4.88×10^{-3}
Applicable load inertia		10 times the rotor inertia max.			10 times the rotor inertia max.		
Radiator plate dimensions (material)		380×350×t30 (Al)	470×440×t30 (Al)		380×350×t30 (Al)	470×440×t30 (Al)	
Ambient operating temperature and operating humidity		0 to 40°C, 85% RH max. (with no condensation)			0 to +40°C, 20% to 85% (with no condensation)		
Ambient storage temperature and humidity		-20 to 80°C, 85% RH max. (with no condensation)			-20 to +65°C, 20% to 85% (with no condensation) Maximum allowable temperature:80°C for 72 hours maximum (standard humidity)		
Storage and operating atmosphere		No corrosive gases			No corrosive gases		
Vibration resistance		10 to 2,500 Hz and acceleration of 24.5 m/s^2 max. in the X, Y, and Z directions			Acceleration of 49 m/s^2 24.5 m/s^2 max. in X, Y, and Z directions when the motor is stopped		
Impact resistance		Acceleration of 98 m/s^2 max. 2 times vertically			Acceleration of 98 m/s^2 max. 3 times each in X, Y, and Z directions		
Insulation resistance		20 MΩ min. at 500 VDC between the power terminals and FG terminal			Between power terminal and FG terminal: 20 MΩ min. (at 500 VDC)		
Dielectric strength		1,500 VAC (50 or 60 Hz) for 1 minute between the power terminals and FG terminal			1,500 VAC between power terminal and FG terminal for 1 min. 1,000 VAC between brake terminal and FG terminal for 1 min.		
Insulation grade		Type F			Type F		
Protective structure		IP65 (excluding the output shaft rotating section and lead wire ends)			IP67 (except for through-shaft parts and motor and encoder connector pins)		

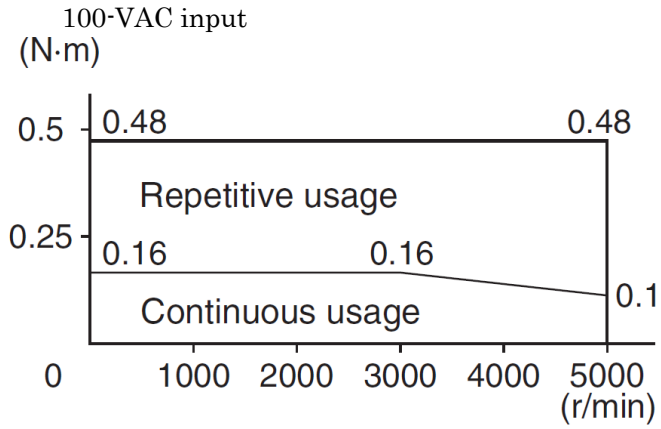
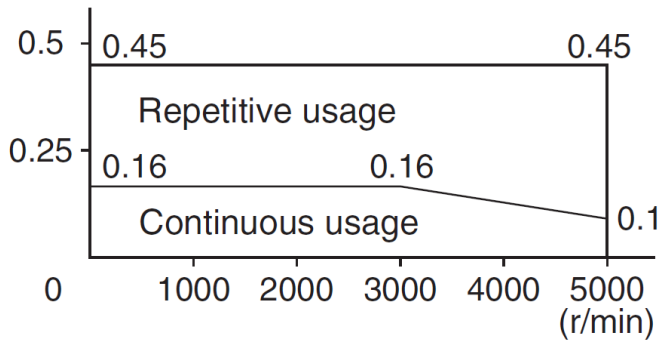
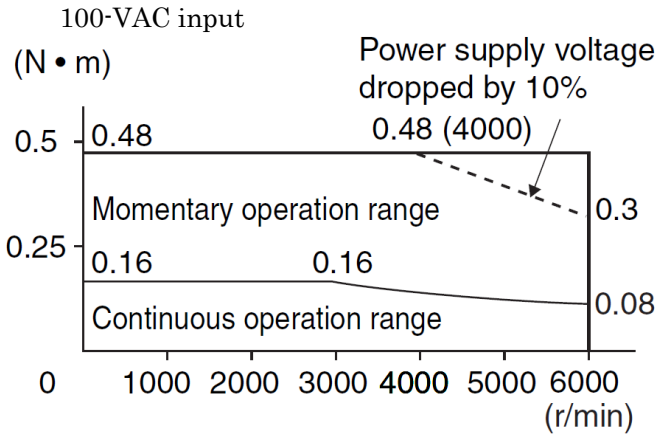
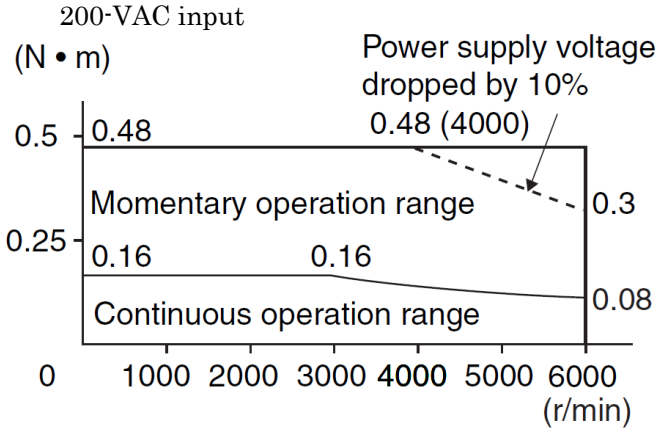
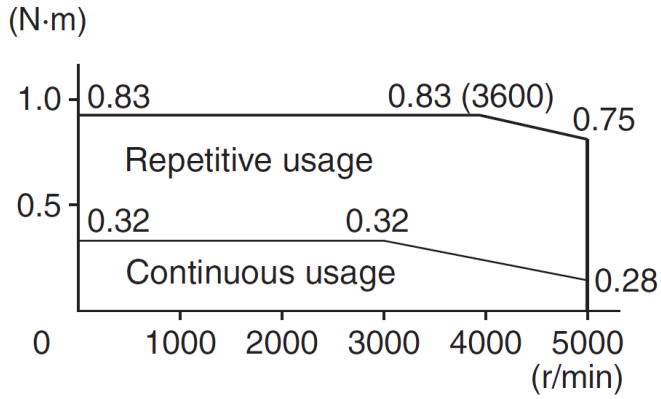
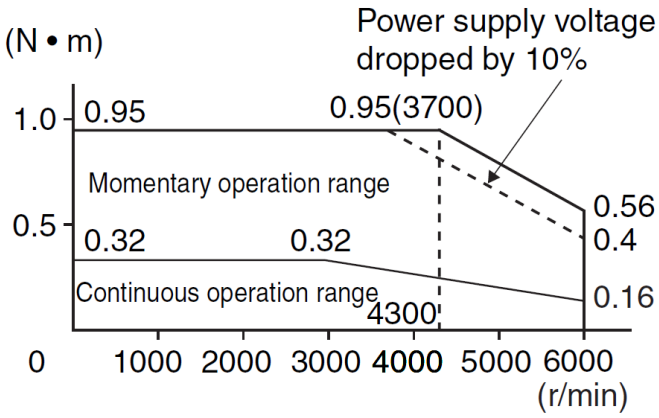
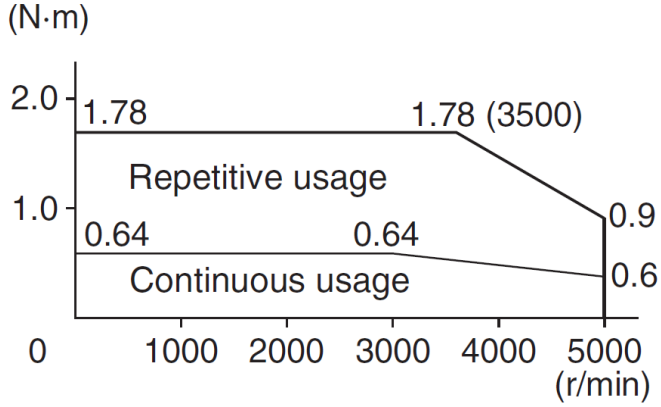
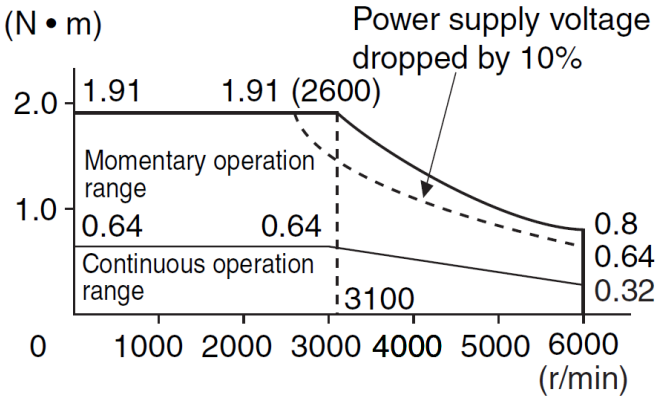
Item		Product discontinuation R88M-G[]				Recommendable replacement R88M-K[]			
		90010T	2K010T	3K010T	4K510T	90010T	2K010T	3K010T	4K510T
Applied voltage		200 VAC				200 VAC			
Rated output [W]		900	2000	3000	4500	900	2000	3000	4500
Rated torque [N·m]		8.62	19.1	28.4	42.9	8.59	19.1	28.7	43.0
Rated rotation speed [r/min]		1000				1000			
Maximum rotation speed [r/min]		2000				2000			
Momentary maximum torque [N·m]		18.4	41.5	60	101	19.3	47.7	71.7	107.0
Rated current [A]		7.6(rms)	18.5(rms)	24(rms)	33(rms)	7.6(rms)	17.0(rms)	22.6(rms)	29.7(rms)
Momentary maximum current [A]		17.1(rms)	44(rms)	57.1(rms)	84.2(rms)	24(0-p)	60(0-p)	80(0-p)	110(0-p)
Rotor inertia [kg·m^2 (GD^2/4)]	Without brake	1.12×10^{-3}	3.55×10^{-3}	5.57×10^{-3}	8.09×10^{-3}	6.70×10^{-4}	3.03×10^{-3}	4.84×10^{-3}	7.91×10^{-3}
	With brake					7.99×10^{-4}	3.14×10^{-3}	4.92×10^{-3}	8.44×10^{-3}
Applicable load inertia		10 times the rotor inertia max.				10 times the rotor inertia max.			
Radiator plate dimensions (material)		275×260 ×t15 (Al)	470×440×t30 (Al)			270×260×t15 (Al)			470×440 ×t30 (Al)
Ambient operating temperature and operating humidity		0 to 40°C, 85% RH max. (with no condensation)				0 to +40°C, 20% to 85% (with no condensation)			
Ambient storage temperature and humidity		-20 to 80°C, 85% RH max. (with no condensation)				-20 to +65°C, 20% to 85% (with no condensation) Maximum allowable temperature:80°C for 72 hours maximum (standard humidity)			
Storage and operating atmosphere		No corrosive gases				No corrosive gases			
Vibration resistance		10 to 2,500 Hz and acceleration of 24.5 m/s^2 max. in the X, Y, and Z directions				Acceleration of 49 m/s^2 24.5 m/s^2 max. in X, Y, and Z directions when the motor is stopped			
Impact resistance		Acceleration of 98 m/s^2 max. 2 times vertically				Acceleration of 98 m/s^2 max. 3 times each in X, Y, and Z directions			
Insulation resistance		20 MΩ min. at 500 VDC between the power terminals and FG terminal				Between power terminal and FG terminal: 20 MΩ min. (at 500 VDC)			
Dielectric strength		1,500 VAC (50 or 60 Hz) for 1 minute between the power terminals and FG terminal				1,500 VAC between power terminal and FG terminal for 1 min. 1,000 VAC between brake terminal and FG terminal for 1 min.			
Insulation grade		Type F				Type F			
Protective structure		IP65 (excluding the output shaft rotating section and lead wire ends)				IP67 (except for through-shaft parts and motor and encoder connector pins)			

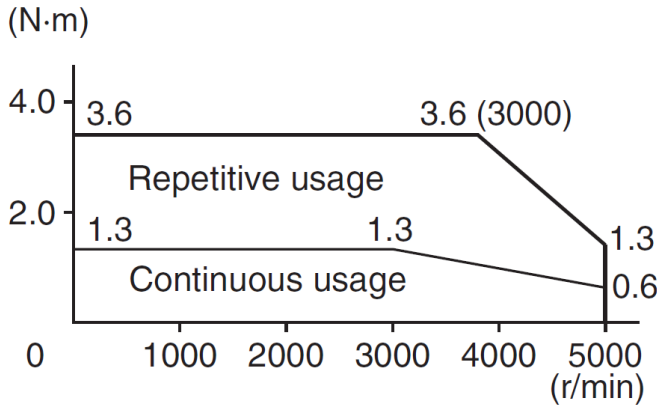
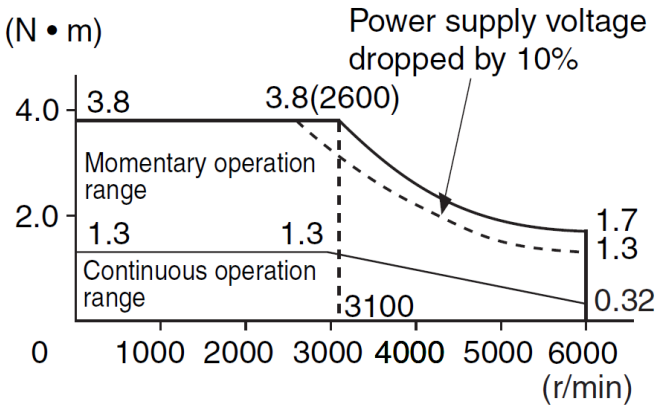
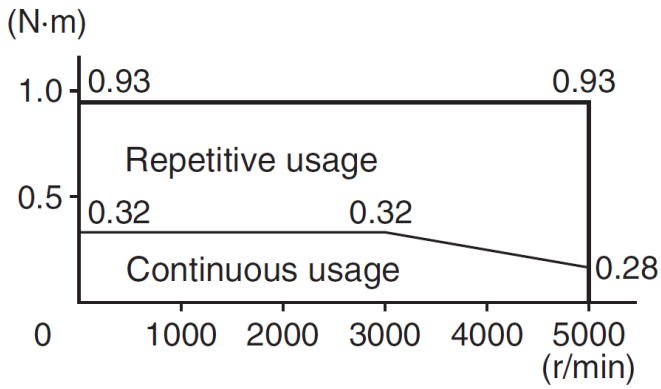
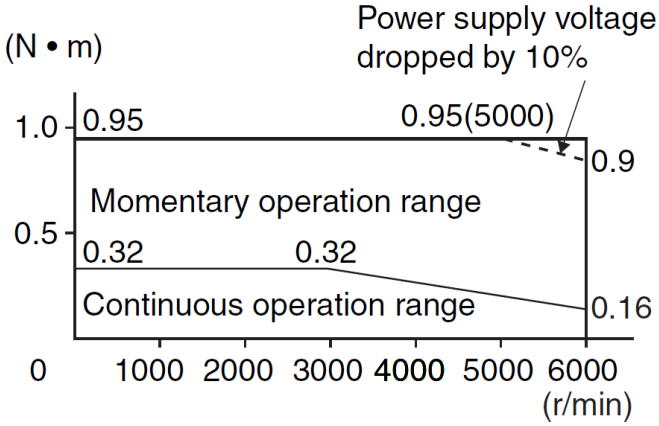
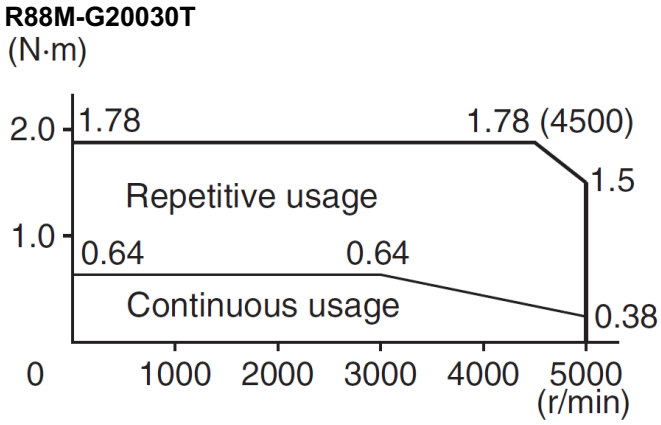
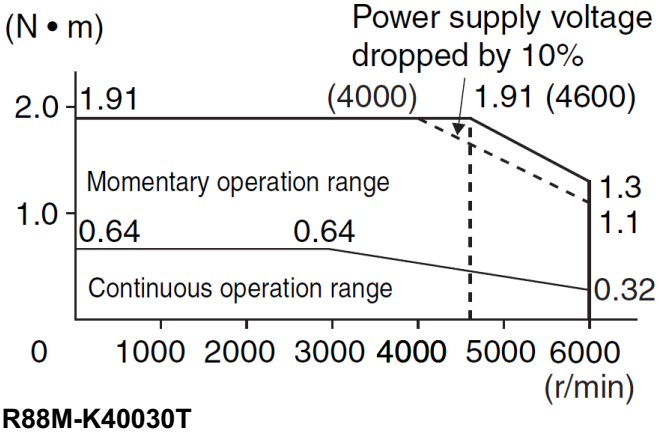
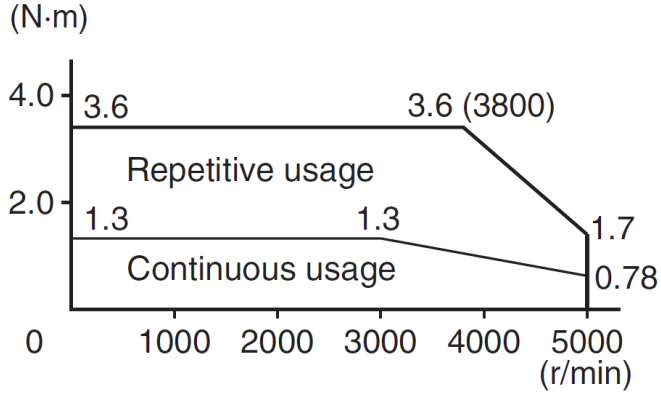
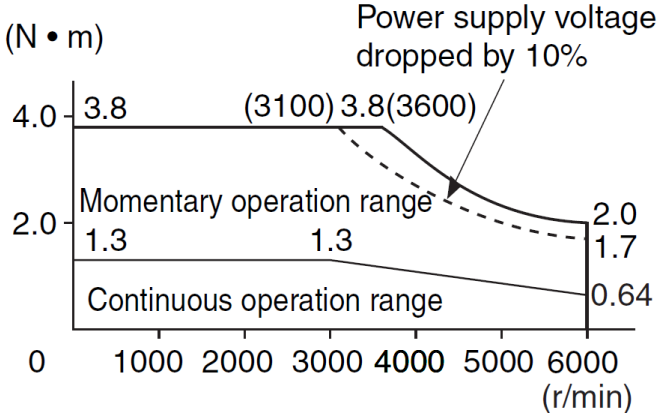
[Operation ratings]

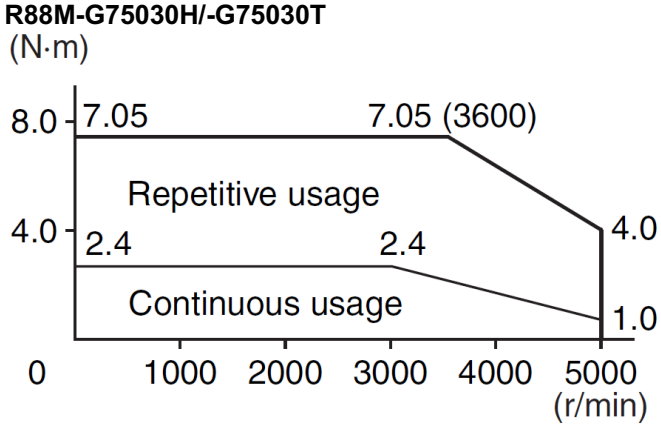
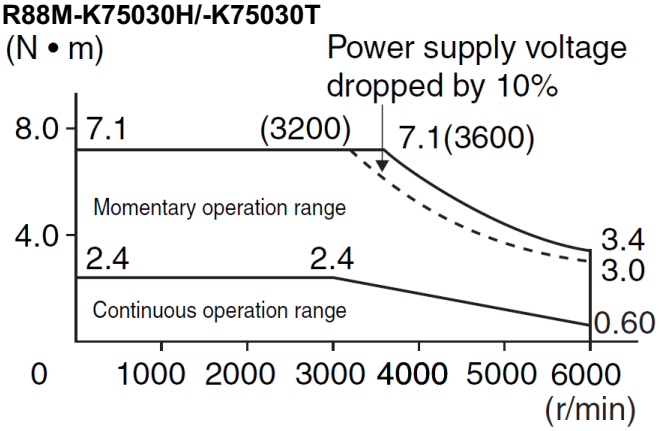
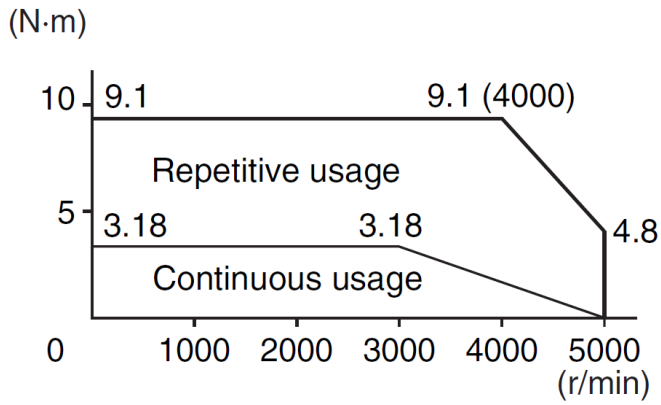
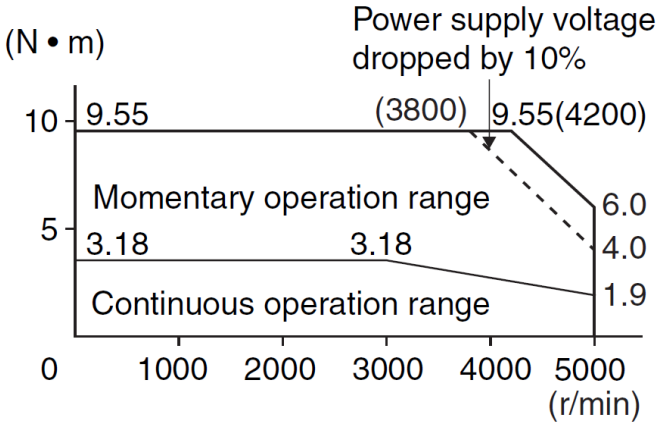
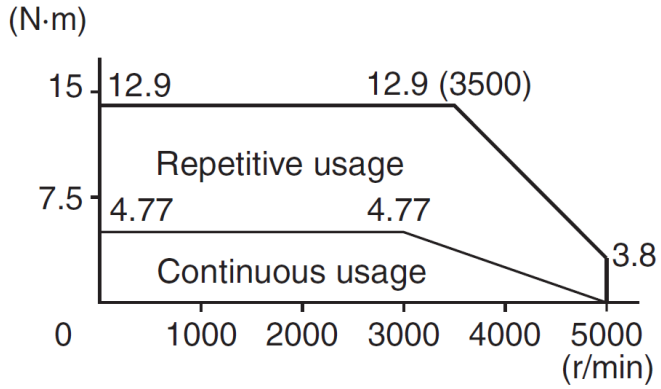
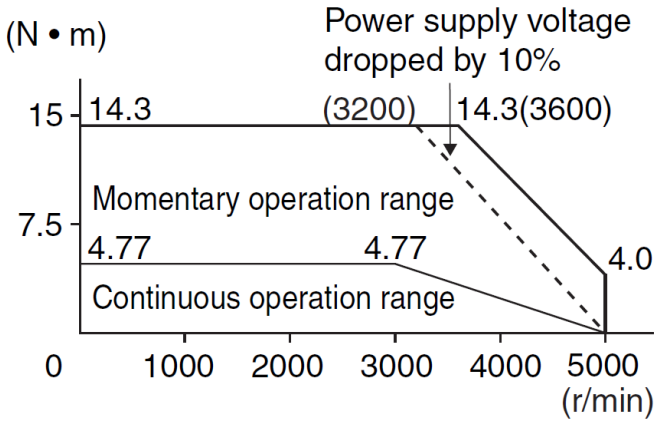
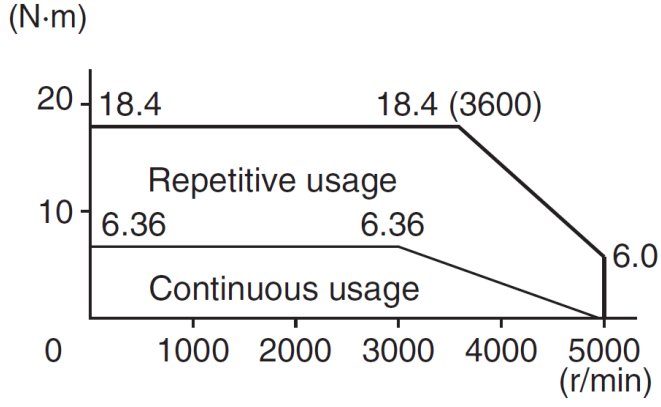
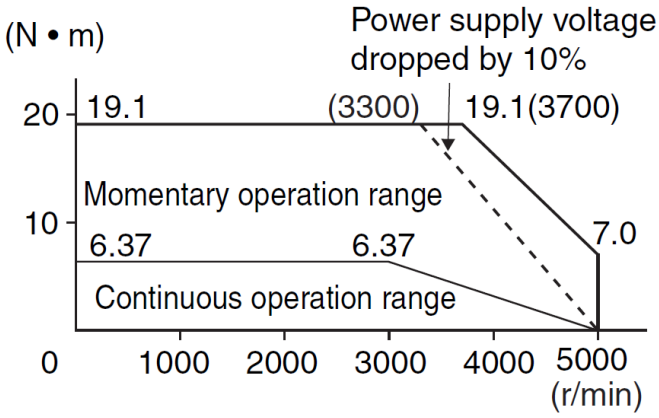
Overload Characteristics

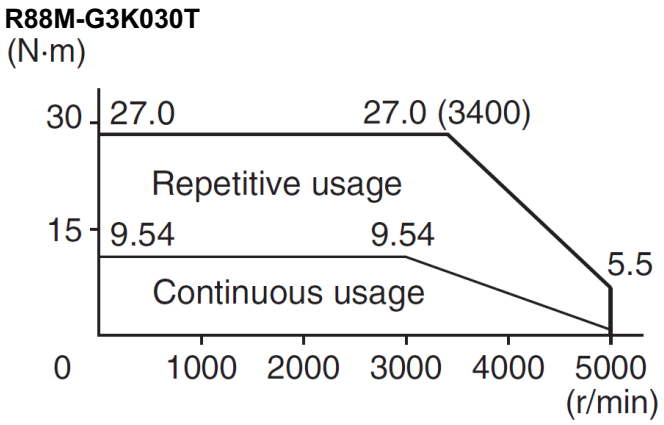
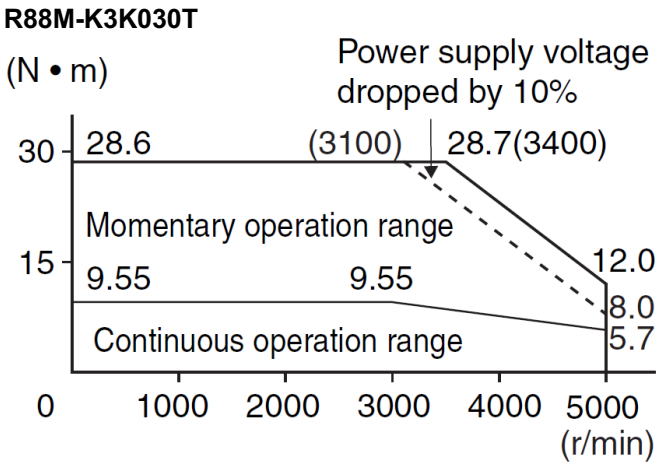
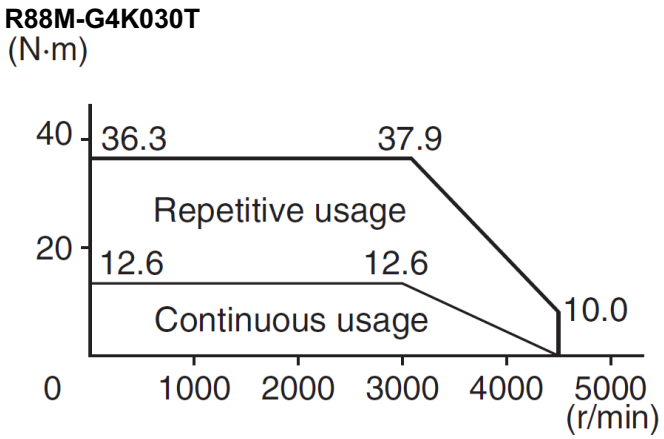
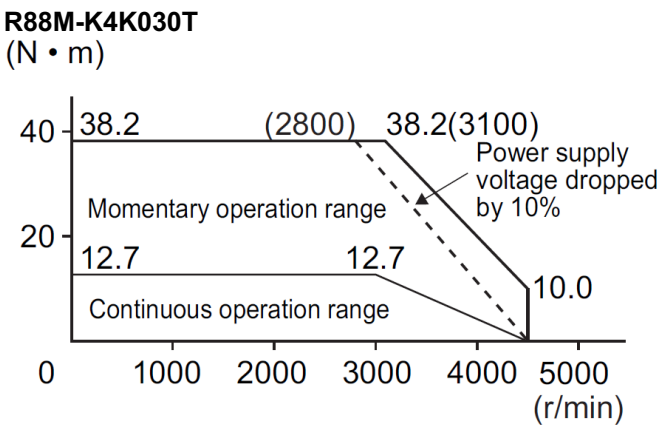
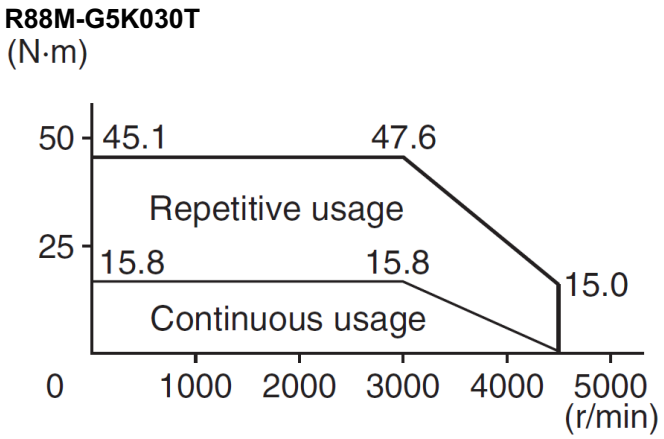
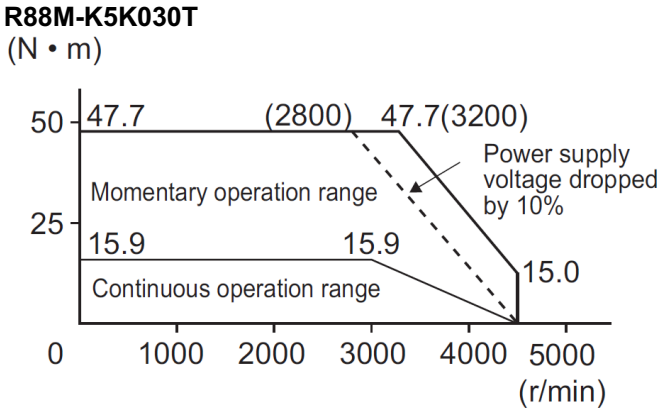
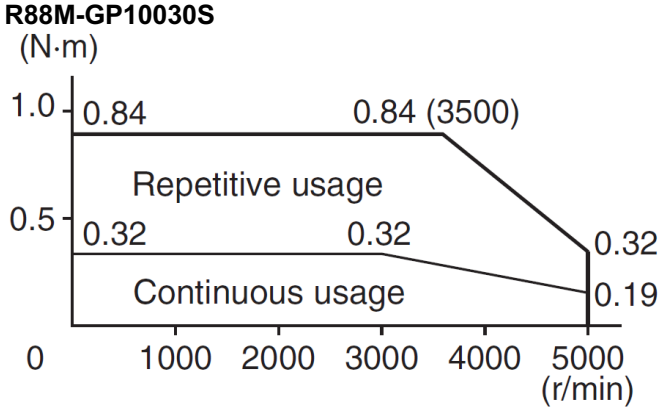
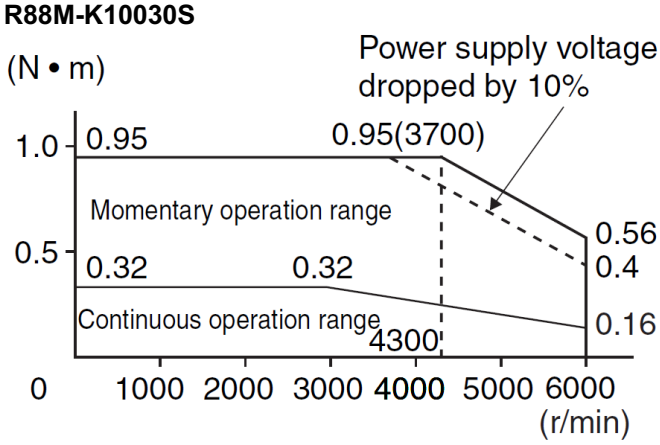
Product discontinuation R88D-GT[]/R88D-GN[]-ML2	Recommendable replacement R88D-KT[]/R88D-KN[]-ML2
	

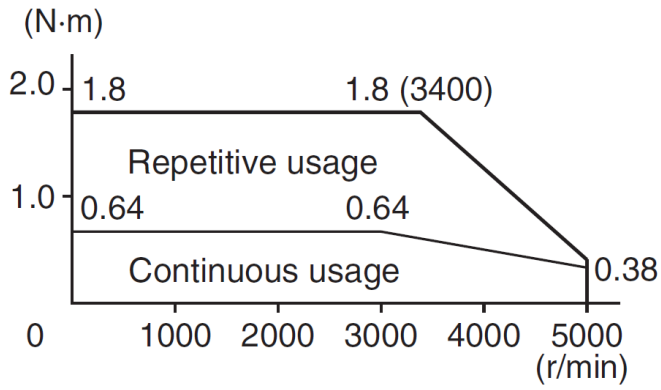
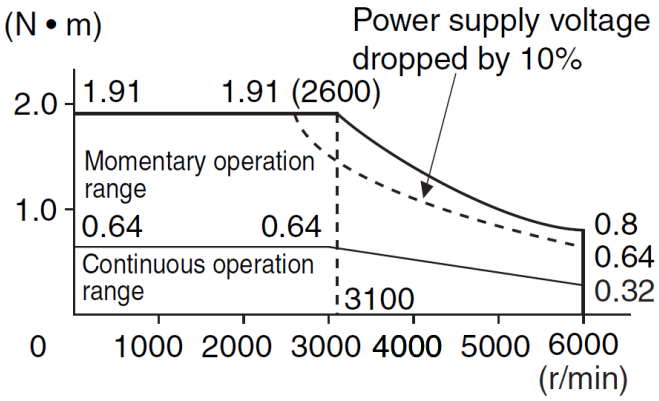
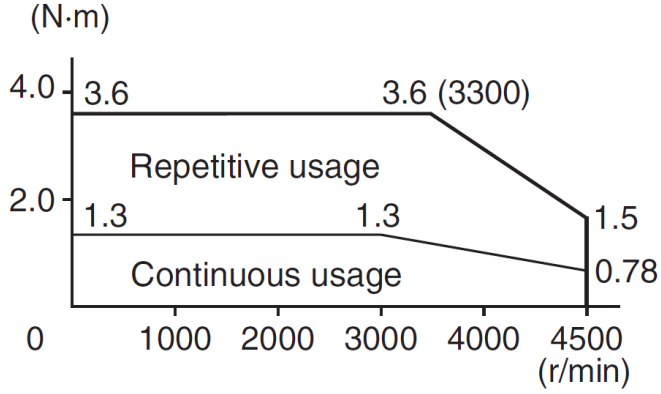
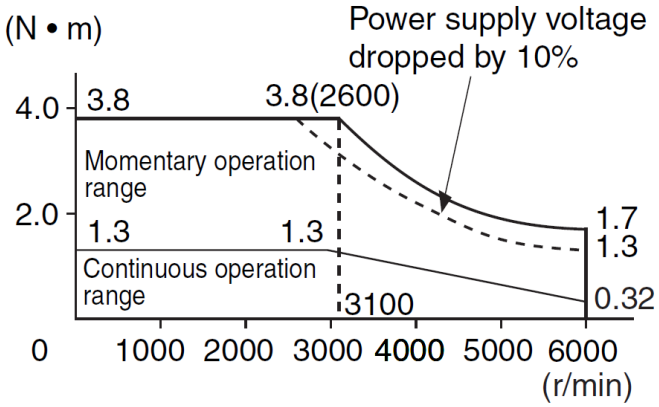
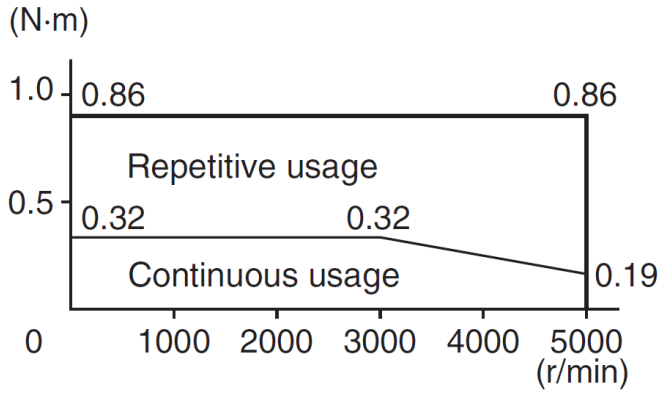
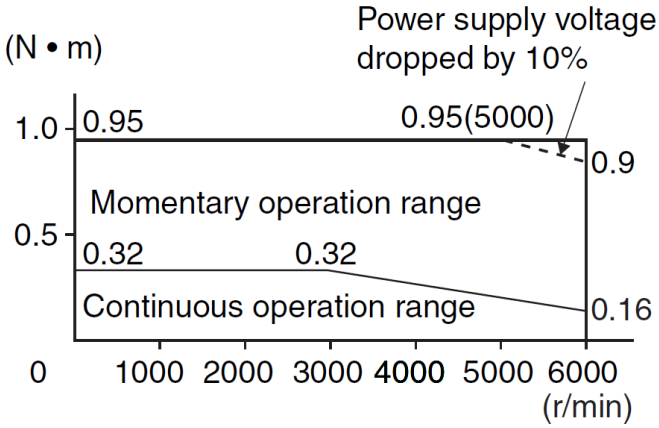
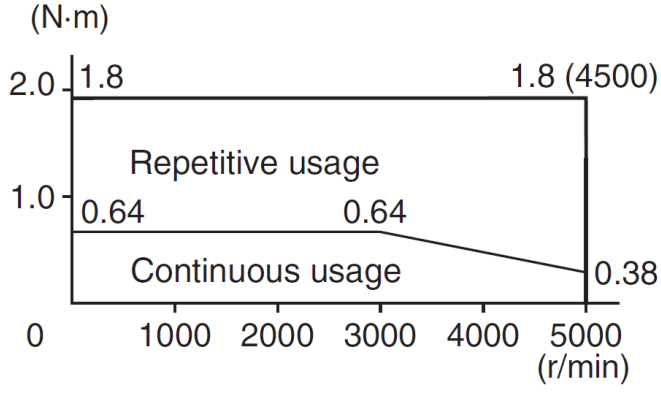
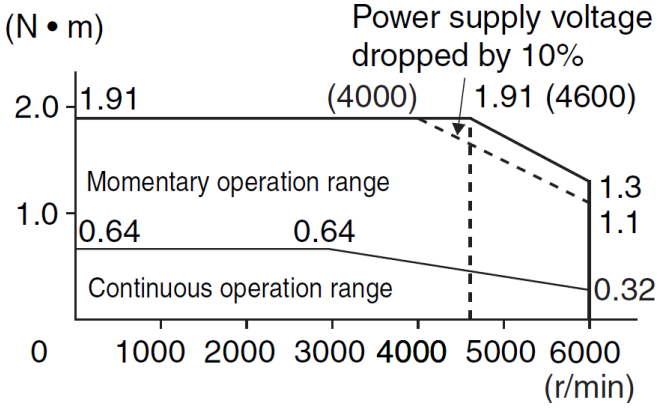
Torque-Rotational Speed Characteristics (with a 3-m standard cable)

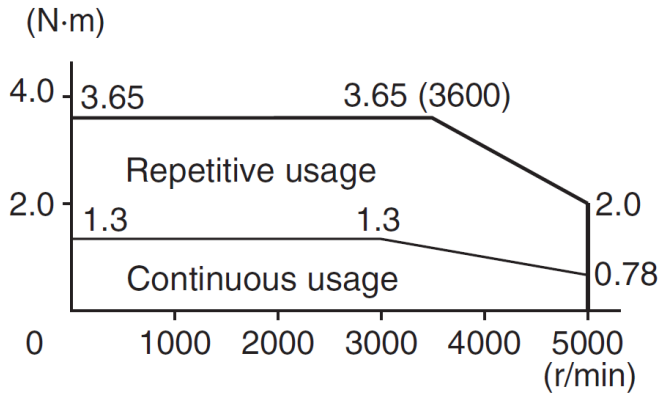
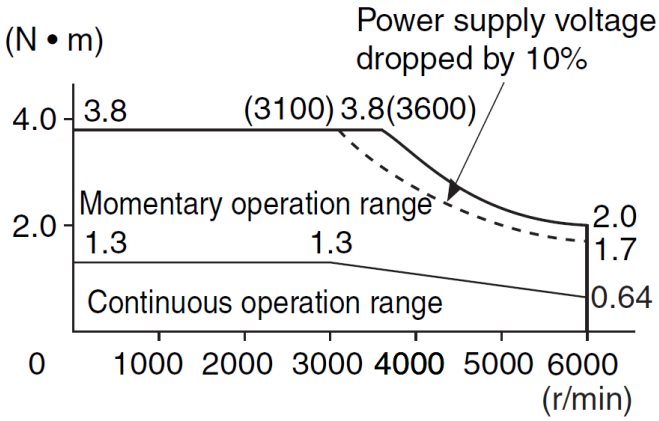
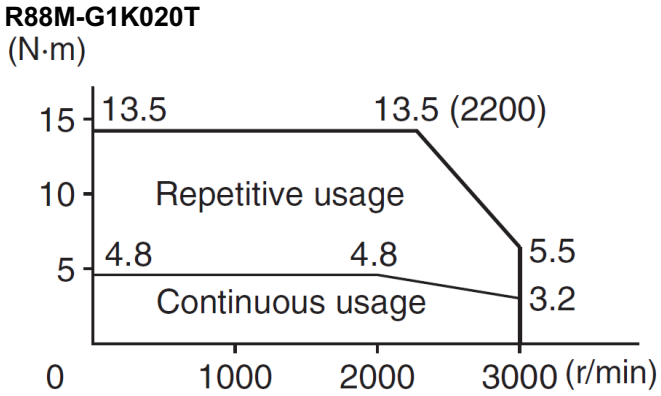
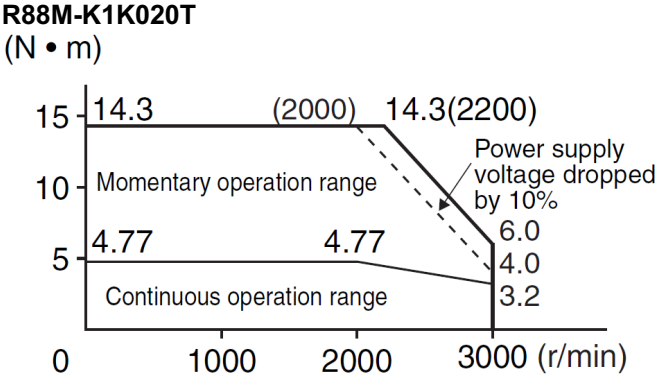
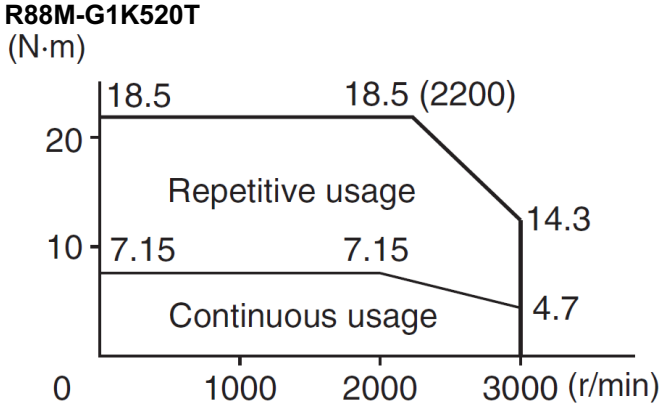
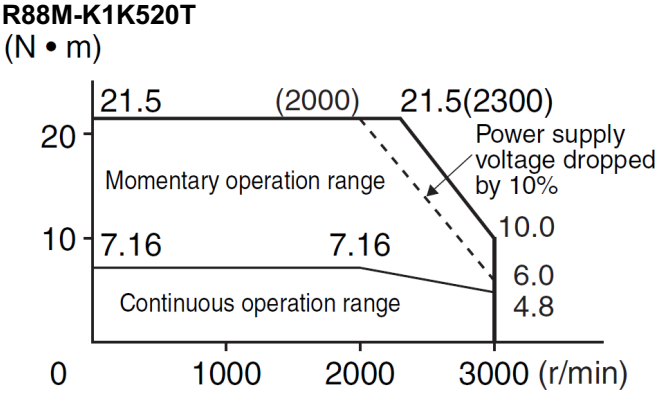
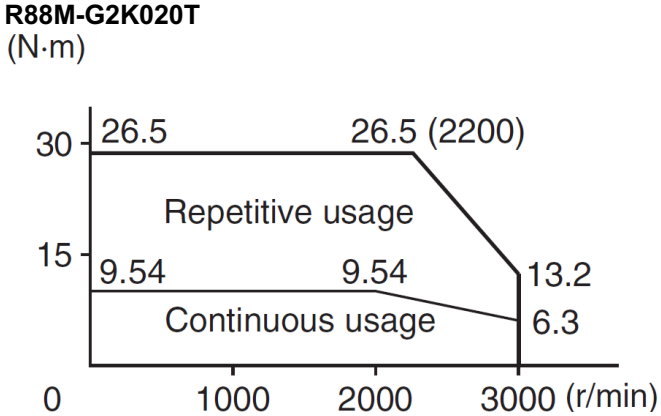
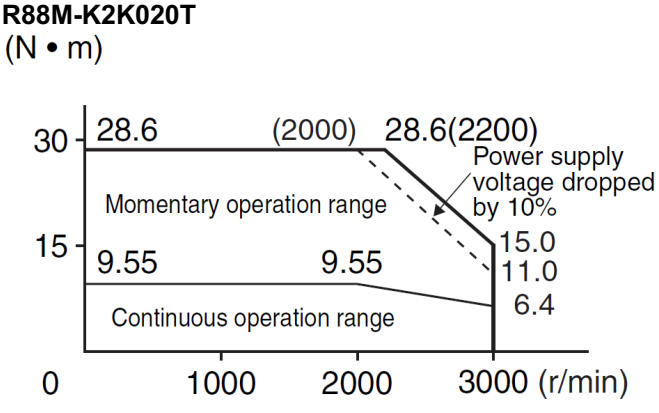
Product discontinuation R88M-G[]	Recommendable replacement R88M-K[]
R88M-G05030T 100-VAC input  200-VAC input  	**R88M-K05030T** 100-VAC input  200-VAC input 
R88M-G10030S  	**R88M-K10030S** 
R88M-G20030S  	**R88M-K20030S** 

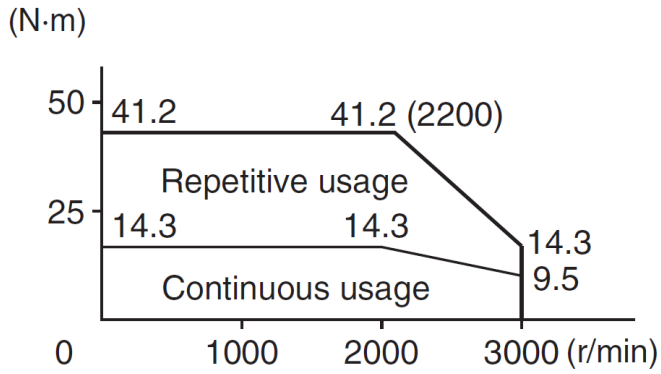
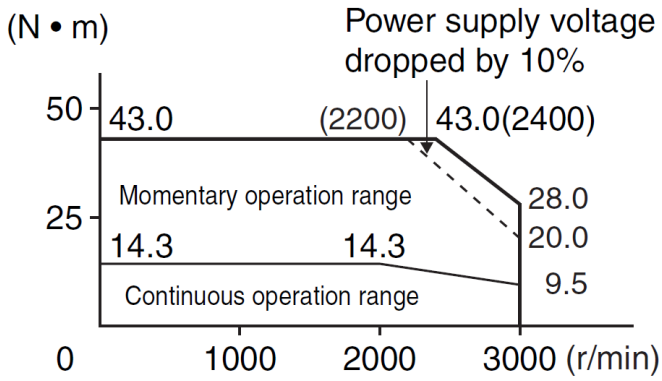
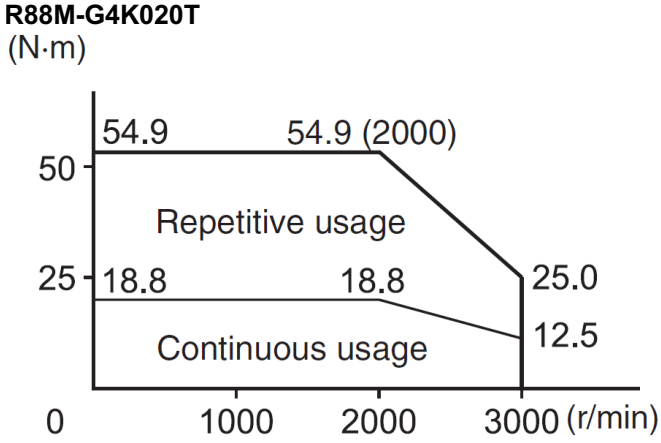
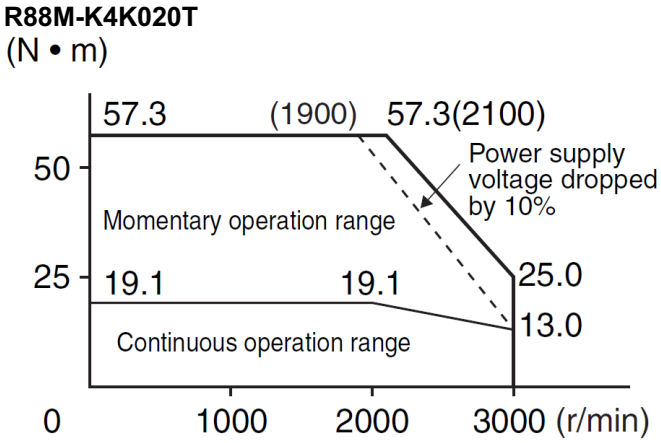
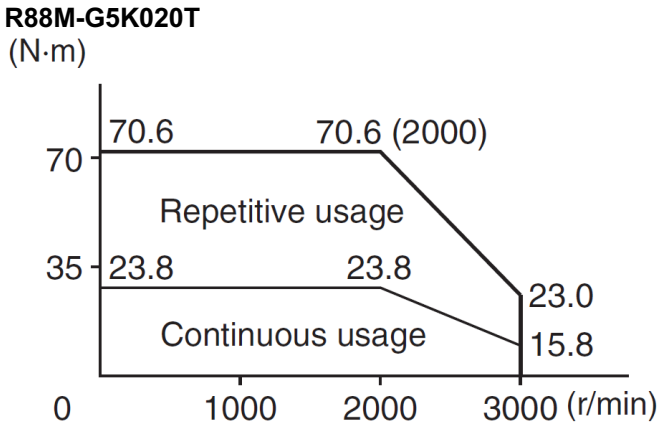
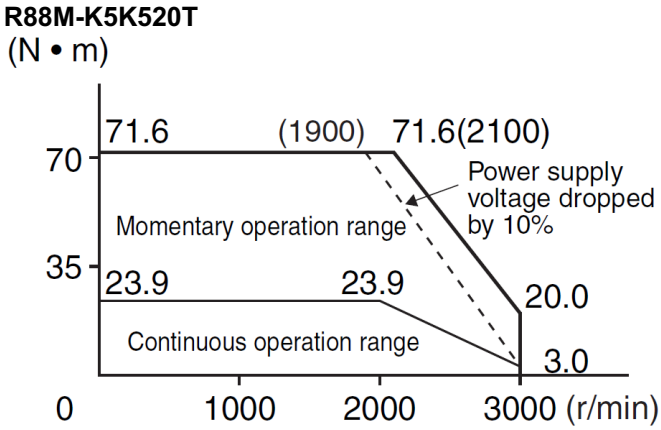
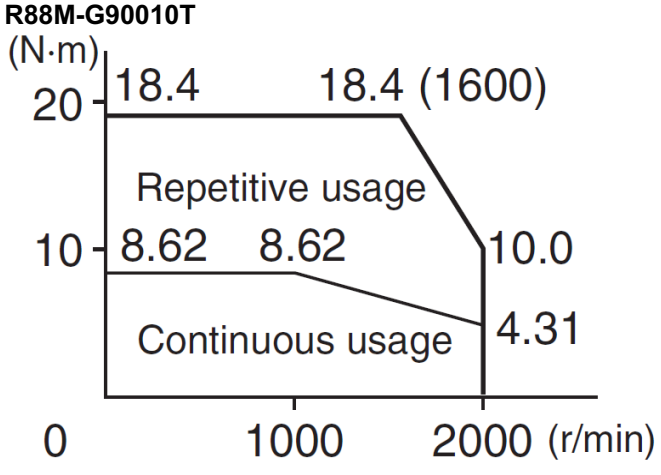
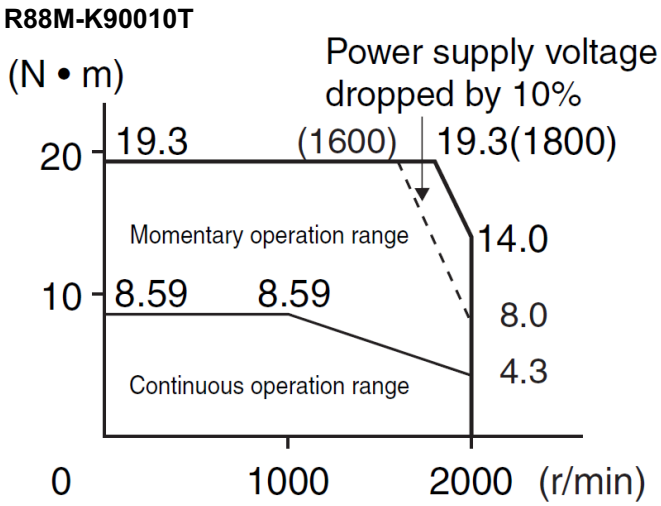
Product discontinuation R88M-G[]	Recommendable replacement R88M-K[]
R88M-G40030L/-G40030S 	**R88M-K40030L/-K40030S** 
R88M-G10030T 	**R88M-K10030T** 
R88M-G20030T 	**R88M-K20030T** 
R88M-G40030T 	**R88M-K40030T** 

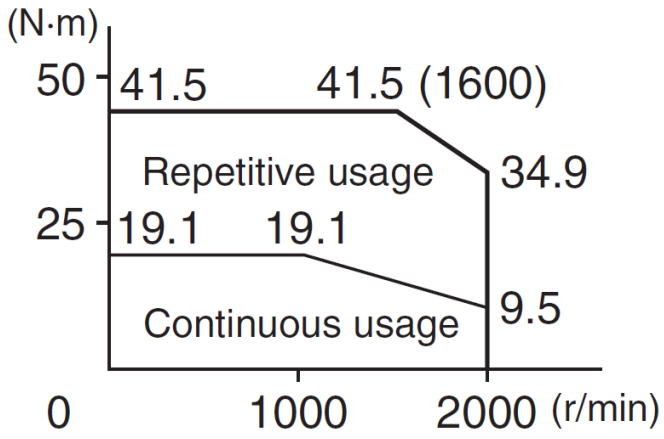
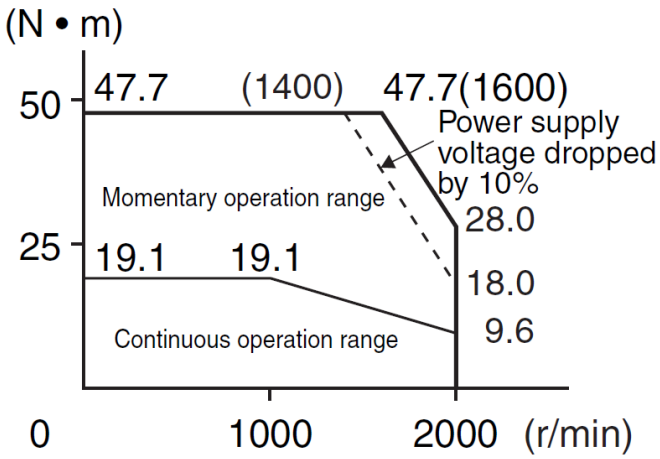
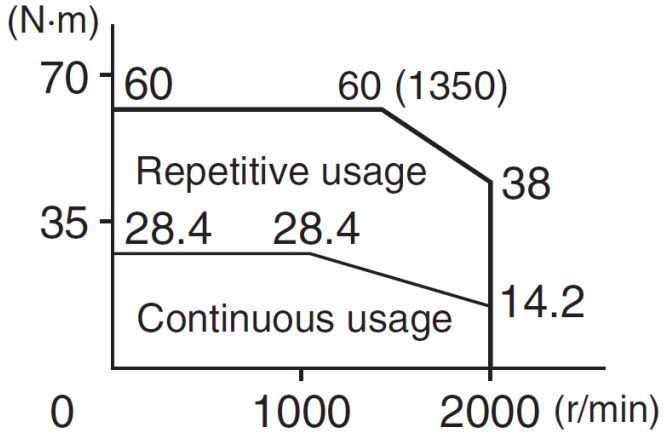
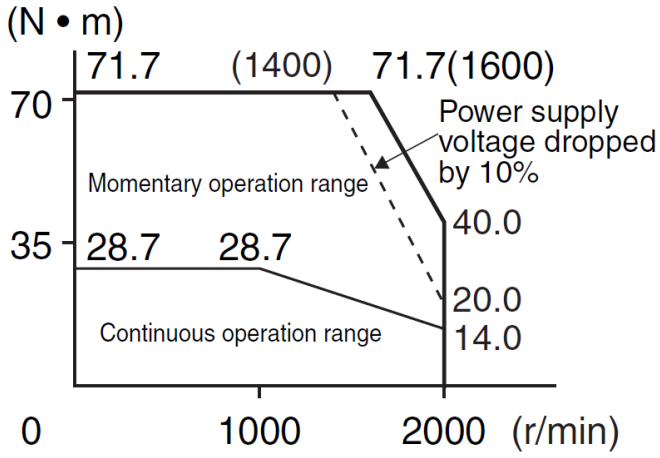
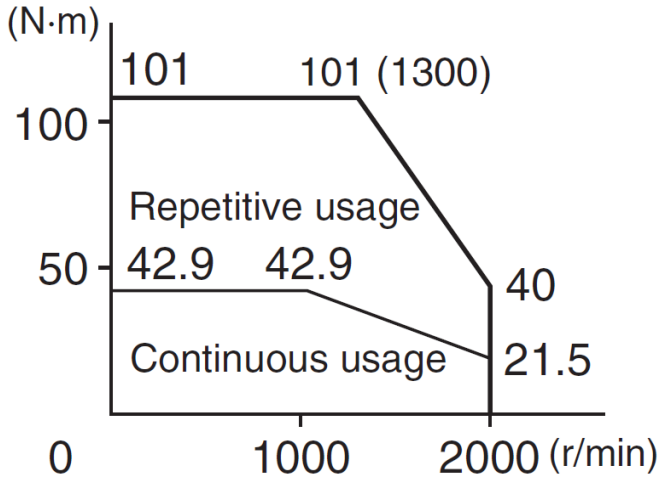
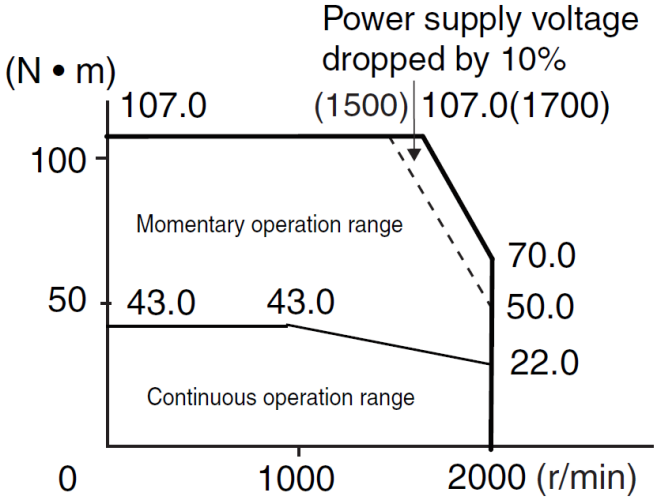
Product discontinuation R88M-G[]	Recommendable replacement R88M-K[]
R88M-G75030H/-G75030T 	**R88M-K75030H/-K75030T** 
R88M-G1K030T 	**R88M-K1K030T** 
R88M-G1K530T 	**R88M-K1K530T** 
R88M-G2K030T 	**R88M-K2K030T** 

Product discontinuation R88M-G[]	Recommendable replacement R88M-K[]
R88M-G3K030T 	**R88M-K3K030T** 
R88M-G4K030T 	**R88M-K4K030T** 
R88M-G5K030T 	**R88M-K5K030T** 
R88M-GP10030S 	**R88M-K10030S** 

Product discontinuation R88M-G[]	Recommendable replacement R88M-K[]
R88M-GP20030S 	**R88M-K20030S** 
R88M-GP40030L/-GP40030S 	**R88M-K40030L/-K40030S** 
R88M-GP10030T 	**R88M-K10030T** 
R88M-GP20030T 	**R88M-K20030T** 

Product discontinuation R88M-G[]	Recommendable replacement R88M-K[]
R88M-GP40030T 	**R88M-K40030T** 
R88M-G1K020T 	**R88M-K1K020T** 
R88M-G1K520T 	**R88M-K1K520T** 
R88M-G2K020T 	**R88M-K2K020T** 

Product discontinuation R88M-G[]	Recommendable replacement R88M-K[]
R88M-G3K020T 	**R88M-K3K020T** 
R88M-G4K020T 	**R88M-K4K020T** 
R88M-G5K020T 	**R88M-K5K520T** 
R88M-G90010T 	**R88M-K90010T** 

Product discontinuation R88M-G[]	Recommendable replacement R88M-K[]
R88M-G2K010T  	**R88M-K2K010T** 
R88M-G3K010T  	**R88M-K3K010T** 
R88M-G4K510T  	**R88M-K4K510T** 

Incremental Encoder Specifications (Absolute encoder specifications are same)

Item	Product discontinuation R88M-G[]	Recommendable replacement R88M-K[]
Encoder system	Optical encoder	Optical encoder 20 bits
Number of output pulses	Phases A and B: 2,500 pulses/rotation Phase Z: 1 pulse/rotation	Phases A and B: 262,144 pulses/rotation Phase Z: 1 pulse/rotation
Power supply voltage	5 VDC ±5%	5 VDC ±5%
Power supply current	180 mA (max.)	180 mA (max.)
Output signals	+S, -S	+S, -S
Output interface	RS-485 compliance	RS-485 compliance

[Operation methods]

Item	Product discontinuation R88D-GT[]/R88D-GN[]-ML2	Recommendable replacement R88D-KT[]/R88D-KN[]-ML2
Parameter Unit	OMNUC G Series can be operated or monitored with the Parameter Unit. Also, OMNUC G Series can be set up the parameters with the PC Tools.	OMNUC G5 Series doesn't support the Parameter Unit. Please set up the parameters with the PC Tools.
RS232/485 communications	Available	Not available (Substitute with USB)