



Changes for the Better

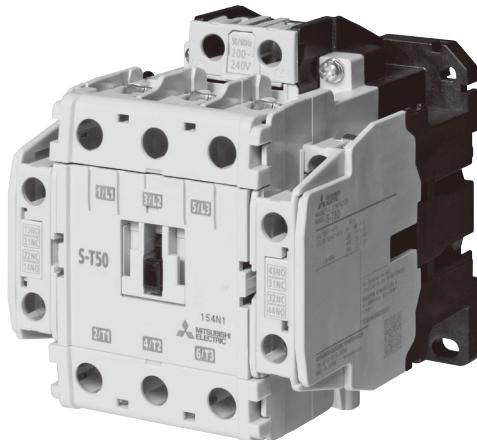
Mitsubishi Magnetic Starters Old/New Model Comparison Material

New MS-T/MS-N Series

MS-T Series



AC Operated Magnetic Contactors
S-T10



AC Operated Magnetic Contactors
S-T50

Table of Contents

	Page
1. Comparison of New and Old Specifications	
1.1 Magnetic Starters (Enclosed Type)	1
1.2 Magnetic Starters (Open Type)	3
1.3 Magnetic Contactors	7
1.4 Thermal Overload Relays	13
1.5 Contactor Relays	14
2. New and Old Model Name Comparison Table	
2.1 Magnetic Starters (Enclosed Type)	16
2.2 Magnetic Starters (Open Type)	16
2.3 Magnetic Contactors (Open Type)	17
2.4 Thermal Overload Relays	20
2.5 Contactor Relays	20
3. Comparison of New and Old Coil Rating	
3.1 Control Coil Types and Rating [AC Operation]	21
3.2 Control Coil Types and Rating [DC Operation]	22
3.3 Control Coil Types and Rating [Mechanically Latched Type]	22
4. Changes to Product Marking	
4.1 Terminal Number Display	23
4.2. Rating Display	25
4.3 Model Name Display	25
5. Differences Related to Wiring/Handling	
5.1 Terminals/Location	26
5.2 Rail Mounting	27
6. Application of Thermal Overload Relays and Optional Units	
6.1 Combining with Thermal Overload Relays and Optional Units	28
6.2 Optional Units for Thermal Overload Relays	30
6.3 Compatibility of New and Old Thermal Overload Relays and Magnetic Contactors When Used In Combination	30
7. Domestic and International Standards	
7.1 Regulations/Standards Conformance	31
7.2 Comparison of UL Certified SCCR (Short-Circuit Current Rating)	31
8. Comparison of Other Specifications	
8.1 Maintenance and Inspection	32
9. Comparison of External Dimensions/Mounting Dimensions	
9.1 Enclosed Type Magnetic Starters (Non-Reversing)	33
9.2 Open Type Magnetic Starters (Non-Reversing)	36
9.3 Magnetic Contactors (Non-Reversing)	43
9.4 Enclosed Type Magnetic Starters (Reversing)	51
9.5 Open Type Magnetic Starters (Reversing)	54
9.6 Magnetic Contactors (Reversing)	60
9.7 Thermal Overload Relays	66
9.8 Contactor Relays	68
10. New and Old Model Comparison Table for Magnetic Starters/Magnetic Contactors/Contactor Relays	
10.1 Magnetic Starters (Enclosed Type)	71
10.2 Magnetic Starters (Open Type)	72
10.3 Magnetic Contactors	73
10.4 Contactor Relays	75

[Table of Models] (New MS-T Series are models shown in)

Standard												Main Circuit 3-Pole							
Class AC-3/200V Rated Operating Current (A)			11	13	18	20	26	35	50	65	80	100	125 - 400	630	800	32	35	50	
AC Operated	Magnetic Contactors	Non-Reversing	S-	T10	T12	T20	T21	T25	T35	T50	T65	T80	T100	N125 - N400	N600	N800	T32	N38	N48
		Reversing	S-2x	T10	T12	T20	T21	T25	T35	T50	T65	T80	T100	N125 - N400	N600	N800	T32	N38	N48
	Magnetic Starters	Non-Reversing	MSO-	T10	T12	T20	T21	T25	T35	T50	T65	T80	T100	N125 - N400	-	-	-	-	-
		Reversing	MSO-2x	T10	T12	T20	T21	T25	T35	T50	T65	T80	T100	N125 - N400	-	-	-	-	-
DC Operated	Magnetic Contactors	Non-Reversing	SD-	-	T12	T20	T21	-	T35	T50	T65	T80	T100	N125 - N400	N600	N800	T32	-	-
		Reversing	SD-2x	-	T12	T20	T21	-	T35	T50	T65	T80	T100	N125 - N400	N600	N800	T32	-	-
	Magnetic Starters	Non-Reversing	MSOD-	-	T12	T20	T21	-	T35	T50	T65	T80	T100	N125 - N400	-	-	-	-	-
		Reversing	MSOD-2x	-	T12	T20	T21	-	T35	T50	T65	T80	T100	N125 - N400	-	-	-	-	-
Mechanically Latched Type AC Operated	Magnetic Contactors	Non-Reversing	SL-	-	-	-	T21	-	T35	T50	T65	T80	T100	N125 - N400	N600	N800	-	-	-
		Reversing	SL-2x	-	-	-	T21	-	T35	T50	T65	T80	T100	N125 - N400	N600	N800	-	-	-
		Non-Reversing	SLD-	-	-	-	T21	-	T35	T50	T65	T80	T100	N125 - N400	N600	N800	-	-	-
		Reversing	SLD-2x	-	-	-	T21	-	T35	T50	T65	T80	T100	N125 - N400	N600	N800	-	-	-
Number of Contacts (Total Number of Make/Break Contacts)			5	9	10														
Contactor Relays			AC Operated	SR-	T5	T9	K100												
			DC Operated	SRD-	T5	T9	K100												
			Mechanically Latched (AC Operated)	SRL-	T5	-	K100												
			Mechanically Latched (AC Operated)	SRLD-	T5	-	K100												
Thermal Overload Relays			Maximum Settling Current (A)	18	26	50	65	100	120 - 800										
			Standard with 2-Element TH-	T18	T25	T50	T65	T100	N120 - N600										
			With Open-Phase Protection TH-	T18KP	T25KP	T50KP	T65KP	T100KP	N120KP - N600KP										

1. Comparison of New and Old Specifications

1.1 Magnetic Starters (Enclosed Type)

Model Name Existing (S-N Series) [Number of Auxiliary Contacts]	New (S-T Series) [Number of Auxiliary Contacts]	Item	New MS-T Series Support for Structure/Rating
MS-N10 [1]	MS-T10 [1]	Rating (Main Circuit)	Equivalent
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Expanded Rating Range
		External Dimensions [H x W x D] (mm)	Identical (165 x 76 x 97.5 ⇒ 165 x 76 x 97.5)
		Mounting Dimension	Compatible
		Contact Arrangement	Identical
		Terminal Cover	Without Terminal Cover (Product Identical to S-N Series with IP20 Protection Degree)
		Terminal Screw Size	Identical (M3.5)
		Applicable Wire Size [ϕ mm, mm ²] (Bare Wire)	Equivalent
		Applicable Crimp Lug Size	Identical
MS-N11 [1]	MS-T12 [2]	Rating (Main Circuit)	Equivalent
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Expanded Rating Range
		External Dimensions [H x W x D] (mm)	Identical (165 x 76 x 97.5 ⇒ 165 x 76 x 97.5)
		Mounting Dimension	Compatible
		Contact Arrangement	Increased Auxiliary Contacts (1-Pole ⇒ 2-Pole)
		Terminal Cover	Without Terminal Cover (Product Identical to S-N Series with IP20 Protection Degree)
		Terminal Screw Size	Identical (M3.5)
		Applicable Wire Size [ϕ mm, mm ²] (Bare Wire)	Equivalent
		Applicable Crimp Lug Size	Identical
MS-N12 [2]	MS-T21 [4]	Rating (Main Circuit)	Equivalent
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Expanded Rating Range
		External Dimensions [H x W x D] (mm)	Identical (165 x 76 x 97.5 ⇒ 165 x 76 x 97.5)
		Mounting Dimension	Compatible
		Contact Arrangement	Identical
		Terminal Cover	Without Terminal Cover (Product Identical to S-N Series with IP20 Protection Degree)
		Terminal Screw Size	Identical (M3.5)
		Applicable Wire Size [ϕ mm, mm ²] (Bare Wire)	Equivalent
		Applicable Crimp Lug Size	Identical
MS-N20 [2]	MS-T21 [4]	Rating (Main Circuit)	Equivalent
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Expanded Rating Range
		External Dimensions [H x W x D] (mm)	Identical (176 x 104 x 110 ⇒ 176 x 104 x 110)
		Mounting Dimension	Compatible
		Contact Arrangement	Increased Auxiliary Contacts (2-Pole ⇒ 4-Pole)
		Terminal Cover	Without Terminal Cover (Product Identical to S-N Series with IP20 Protection Degree)
		Terminal Screw Size	Identical (Main: M4, Coil/Auxiliary: M3.5)
		Applicable Wire Size [ϕ mm, mm ²] (Bare Wire)	Equivalent
		Applicable Crimp Lug Size	Identical
MS-T21 [4]	MS-T21 [4]	Rating (Main Circuit)	Equivalent
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Expanded Rating Range
		External Dimensions [H x W x D] (mm)	Identical (176 x 104 x 110 ⇒ 176 x 104 x 110)
		Mounting Dimension	Compatible
		Contact Arrangement	Identical
		Terminal Cover	Without Terminal Cover (Product Identical to S-N Series with IP20 Protection Degree)
		Terminal Screw Size	Identical (Main: M4, Coil/Auxiliary: M3.5)
		Applicable Wire Size [ϕ mm, mm ²] (Bare Wire)	Equivalent
		Applicable Crimp Lug Size	Identical

[AC Operated Type]

Model Name		Item	New MS-T Series Support for Structure/Rating
Existing (S-N Series) [Number of Auxiliary Contacts]	New (S-T Series) [Number of Auxiliary Contacts]		
MS-N35 [4]	MS-T35 [4]	Rating (Main Circuit)	Identical
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Expanded Rating Range
		External Dimensions [H x W x D] (mm)	Identical (231 x 135 x 126 ⇒ 231 x 135 x 126)
		Mounting Dimension	Compatible
		Contact Arrangement	Identical
		Terminal Cover	Without Terminal Cover (Product Identical to S-N Series with IP20 Protection Degree)
		Terminal Screw Size	Identical
		Applicable Wire Size [ϕ mm, mm ²] (Bare Wire)	Different Main: 2 - 5.5 (At Load Side with Heater Designation 15A or Less) ⇒ Power Source Side 1.25 - 16 Load Side 1.25 - 14 Coil/Auxiliary: ϕ 1.6, 1.25 - 2 ⇒ ϕ 1.6, 0.75 - 2.5
MS-N50 [4]	MS-T50 [4]	Applicable Crimp Lug Size	Identical
		Rating (Main Circuit)	Identical
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Different in Part (300 VAC--260 - 350 VAC ⇒ 260 - 300 VAC), Identical Range for Others
		External Dimensions [H x W x D] (mm)	Smaller (282 x 160 x 145 ⇒ 231 x 135 x 126)
		Mounting Dimension	Not Compatible (MS-T65 for Mounting Compatibility)
		Contact Arrangement	Identical
		Terminal Cover	Without Terminal Cover (Product Identical to S-N Series with IP20 Protection Degree)
		Terminal Screw Size	Different (- 22A Designation -- Main: M6, Coil/Auxiliary: M4 ⇒ Main (Power Supply Side/Load Side): M5/M4, Coil/Auxiliary: M3.5) (- 29A Designation - - Main: M6, Coil/Auxiliary: M4 ⇒ Main (Power Supply Side/Load Side): M5/M5, Coil/Auxiliary: M3.5)
MS-N65 [4]	MS-T65 [4]	Applicable Wire Size [ϕ mm, mm ²] (Bare Wire)	Different Main : - - ⇒ Power Supply Side 1.25 - 16 Load Side 1.25 - 14 Coil/Auxiliary : ϕ 1.6, 1.25 - 2 ⇒ ϕ 1.6, 0.75 - 2.5
		Applicable Crimp Lug Size	Different (Main) (- 22A Designation -- 1.25-6 - 22-6 ⇒ (Power Supply Side/Load Side) 1.25-5 - 22-5/1.25-4 - 5.5-4) (- 29A Designation - - 1.25-6 - 22-6 ⇒ 1.25-5 - 22-5) Different (Auxiliary/Coil) [1.25-4 - 2-4 ⇒ 1.25-3.5 - 2-3.5]
		Rating (Main Circuit)	Identical
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Identical
		External Dimensions [H x W x D] (mm)	Identical
		Mounting Dimension	Compatible
		Contact Arrangement	Identical
		Terminal Cover	Without Terminal Cover (Product Identical to S-N Series with IP20 Protection Degree)
MS-N80 [4]	MS-T80 [4]	Terminal Screw Size	Identical
		Applicable Crimp Lug Size	Identical
		Rating (Main Circuit)	Identical
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Identical
		External Dimensions [H x W x D] (mm)	Smaller (317 x 190 x 163 ⇒ 282 x 160 x 145)
		Mounting Dimension	Not Compatible (MS-T100 for Mounting Compatibility)
		Contact Arrangement	Identical
		Terminal Cover	Without Terminal Cover (Product Identical to S-N Series with IP20 Protection Degree)
MS-N95 [4]	MS-T100 [4]	Terminal Screw Size	Identical
		Applicable Crimp Lug Size	Different (Main) [(Power Supply Side/Load Side) 1.25-6 - 60-6/14-6 - 22-6, 38-S6 ⇒ 60-S6/14-6 - 22-6, 38-S6] Identical (Auxiliary/Coil)
		Rating (Main Circuit)	Identical
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Identical
		External Dimensions [H x W x D] (mm)	Identical
		Mounting Dimension	Identical
		Contact Arrangement	Identical
		Terminal Cover	Without Terminal Cover (Product Identical to S-N Series with IP20 Protection Degree)

1.2 Magnetic Starters (Open Type)

[AC Operated Type]

Model Name		Item	New MSO-T Series Support for Structure/Rating
Existing (S-N Series) [Number of Auxiliary Contacts]	New (S-T Series) [Number of Auxiliary Contacts]		
MSO-N10 [1]	MSO-T10 [1]	Rating (Main Circuit)	Equivalent
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Expanded Rating Range
		External Dimensions [H x W x D] (mm)	Identical (115 x 45 x 79 ⇒ 115 x 45 x 79)
		Mounting Dimension	Not Compatible (Compatible with Adapter)
		Contact Arrangement	Identical
		Terminal Cover	Changed to Standard Equipment
		Terminal Screw Size	Identical (M3.5)
MSO-N11 [1]	MSO-T12 [2]	Applicable Wire Size [φ mm, mm ²] (Bare Wire)	Equivalent
		Applicable Crimp Lug Size	Identical
		Rating (Main Circuit)	Equivalent
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Expanded Rating Range
		External Dimensions [H x W x D] (mm)	Identical (115 x 45 x 79 ⇒ 115 x 45 x 79)
		Mounting Dimension	Compatible
		Contact Arrangement	Increased Auxiliary Contacts (1-Pole ⇒ 2-Pole)
MSO-N12 [2]	MSO-T12 [2]	Terminal Cover	Changed to Standard Equipment
		Terminal Screw Size	Identical (M3.5)
		Applicable Wire Size [φ mm, mm ²] (Bare Wire)	Equivalent
		Applicable Crimp Lug Size	Identical
		Rating (Main Circuit)	Equivalent
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Expanded Rating Range
		External Dimensions [H x W x D] (mm)	Smaller (115 x 55 x 79 ⇒ 115 x 45 x 79)
MSO-N18 [0]	MSO-T20 [2]	Mounting Dimension	Not Compatible (Compatible with Adapter)
		Contact Arrangement	Identical
		Terminal Cover	Changed to Standard Equipment
		Terminal Screw Size	Different (Main: M4, Coil/Auxiliary: M3.5 ⇒ Main: M3.5, Coil/Auxiliary: M3.5)
		Applicable Wire Size [φ mm, mm ²] (Bare Wire)	Different (Main: φ 1.6 - φ 2.6, 2 - 5.5 Coil/Auxiliary: φ 1.6, 1.25 - 2 ⇒) (Main: φ 1.6, 0.75 - 2.5 Coil/Auxiliary: φ 1.6, 0.75 - 2.5)
		Applicable Crimp Lug Size	Different (Main: 1.25-4 - 5.5-4, Coil/Auxiliary: 1.25-3.5 - 2-3.5 ⇒) (Main: 1.25-3.5 - 2-3.5 5.5-S3, Coil/Auxiliary: 1.25-3.5 - 2-3.5)
		Rating (Main Circuit)	Equivalent
		Rating (Auxiliary Circuit)	Identical
MSO-N20 [2]	MSO-T21 [4]	Rating (Coil)	Expanded Rating Range
		External Dimensions [H x W x D] (mm)	Smaller (127 x 63 x 81 ⇒ 115 x 45 x 79)
		Mounting Dimension	Not Compatible (Compatible with Adapter)
		Contact Arrangement	Identical
		Terminal Cover	Changed to Standard Equipment
		Terminal Screw Size	Different (Main: M4, Coil/Auxiliary: M3.5 ⇒ Main: M3.5, Coil/Auxiliary: M3.5)
		Applicable Wire Size [φ mm, mm ²] (Bare Wire)	Different (Main: φ 1.6 - φ 2.6, 2 - 5.5 Coil/Auxiliary: φ 1.6, 1.25 - 2 ⇒) (Main: φ 1.6, 0.75 - 2.5 Coil/Auxiliary: φ 1.6, 0.75 - 2.5)
		Applicable Crimp Lug Size	Different (Main: 1.25-4 - 5.5-4, Coil/Auxiliary: 1.25-3.5 - 2-3.5 ⇒) (Main: 1.25-3.5 - 2-3.5 5.5-S3, Coil/Auxiliary: 1.25-3.5 - 2-3.5)
MSO-N21 [4]	MSO-T21 [4]	Rating (Main Circuit)	Equivalent
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Expanded Rating Range
		External Dimensions [H x W x D] (mm)	Equivalent (127 x 63 x 81 ⇒ 128 x 63 x 82)
		Mounting Dimension	Compatible
		Contact Arrangement	Identical
		Terminal Cover	Changed to Standard Equipment
		Terminal Screw Size	Identical (Main: M4, Coil/Auxiliary: M3.5)
MSO-N21 [4]	MSO-T25 [4]	Applicable Wire Size [φ mm, mm ²] (Bare Wire)	Equivalent
		Applicable Crimp Lug Size	Identical
		Rating (Main Circuit)	Equivalent or Higher (MSO-N25 Equivalent)
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Expanded Rating Range
		External Dimensions [H x W x D] (mm)	Equivalent (127 x 63 x 81 ⇒ 128 x 63 x 82)
		Mounting Dimension	Compatible
		Contact Arrangement	Identical
		Terminal Cover	Changed to Standard Equipment
		Terminal Screw Size	Identical (Main: M4, Coil/Auxiliary: M3.5)
		Applicable Wire Size [φ mm, mm ²] (Bare Wire)	Equivalent
		Applicable Crimp Lug Size	Identical

[AC Operated Type]

Model Name		Item	New MSO-T Series Support for Structure/Rating
Existing (S-N Series) [Number of Auxiliary Contacts]	New (S-T Series) [Number of Auxiliary Contacts]		
MSO-N25 [4]	MSO-T25 [4]	Rating (Main Circuit)	Equivalent
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Expanded Rating Range
		External Dimensions [H x W x D] (mm)	Smaller (136.5 (- 15A Designation), 157.5 (22A Designation) x 75 x 91 ⇒ 128 x 63 x 82)
		Mounting Dimension	Not Compatible (Compatible with Adapter)
		Contact Arrangement	Identical
		Terminal Cover	Changed to Standard Equipment
		Applicable Wire Size [φ mm, mm²] (Bare Wire)	Different Main: 2 - 5.5 (At Load Side with Heater Designation 15A or Less) ⇒ Power Source Side 1.25 - 16 Load Side 1.25 - 14 Coil/Auxiliary: φ 1.6, 1.25 - 2 ⇒ φ 1.6, 0.75 - 2.5
		Terminal Screw Size	Different (Coil/Auxiliary Identical) [- 15A Designation -- Main (Power Supply Side/Load Side): M5/M4, Coil/Auxiliary: M3.5 ⇒ Main: M4, Coil/Auxiliary: M3.5] [- 22A Designation -- Main (Power Supply Side/Load Side): M5/M5, Coil/Auxiliary: M3.5 ⇒ Main: M4, Coil/Auxiliary: M3.5]
		Applicable Crimp Lug Size	Different (Coil/Auxiliary Identical) [- 15A Designation -- Main (Power Supply Side/Load Side): 1.25-5 - 14-5/2-4 - 5.5-4 ⇒ 1.25-4 - 5.5-4/1.25-4 - 5.5-4] [- 22A Designation -- Main (Power Supply Side/Load Side): 1.25-5 - 14-5/5.5-5 - 14-5 ⇒ 1.25-4 - 5.5-4/1.25-4 - 5.5-4]
MSO-N35 [4]	MSO-T35 [4]	Rating (Main Circuit)	Identical
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Expanded Rating Range
		Coil Properties (Operating Time)	Equivalent
		Coil Properties (Input)	Equivalent
		Coil Surge Absorber Function	Identical (Optional Support)
		External Dimensions [H x W x D] (mm)	Identical
		Mounting Dimension	Compatible
		Contact Arrangement	Identical
		Terminal Cover	Changed to Standard Equipment
MSO-N50 [4]	MSO-T50 [4]	Terminal Screw Size	Identical
		Applicable Wire Size [φ mm, mm²] (Bare Wire)	Different Main: 2 - 5.5 (At Load Side with Heater Designation 15A or Less) ⇒ Power Source Side 1.25 - 16 Load Side 1.25 - 14 Coil/Auxiliary: φ 1.6, 1.25 - 2 ⇒ φ 1.6, 0.75 - 2.5
		Applicable Crimp Lug Size	Identical
		Rating (Main Circuit)	Identical
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Different in Part (300 VAC--260 - 350 VAC ⇒ 260 - 300 VAC), Identical Range for Others
		Coil Properties (Operating Time)	ON Operation: 20 - 30 ms ⇒ 10 - 20 ms, OFF Operation: 35 - 65 ms ⇒ 5 - 14 ms
		Coil Properties (Input)	Different (2.2W ⇒ 3.8W)
		Coil Surge Absorber Function	Different (Standard Type ⇒ Optional Support)
		External Dimensions [H x W x D] (mm)	Smaller (158 x 90 x 106 ⇒ 136.5 (- 22A Designation), 157.5 (29A Designation -) x 75 x 91)
MSO-N65 [4]	MSO-T65 [4]	Mounting Dimension	Not Compatible (Compatible with Adapter)
		Contact Arrangement	Identical
		Terminal Cover	Changed to Standard Equipment
		Terminal Screw Size	Different [- 22A Designation -- Main: M6, Coil/Auxiliary: M4 ⇒ Main (Power Supply Side/Load Side): M5/M4, Coil/Auxiliary: M3.5] [- 29A Designation - - Main: M6, Coil/Auxiliary: M4 ⇒ Main (Power Supply Side/Load Side): M5/M5, Coil/Auxiliary: M3.5]
		Applicable Wire Size [φ mm, mm²] (Bare Wire)	Different Main : - ⇒ Power Supply Side 1.25 - 16 Load Side 1.25 - 14 Coil/Auxiliary: φ 1.6, 1.25 - 2 ⇒ φ 1.6, 0.75 - 2.5
		Applicable Crimp Lug Size	Different (Main) [- 22A Designation -- 1.25-6 - 22-6 ⇒ (Power Supply Side/Load Side)1.25-5 - 22-5/1.25-4 - 5.5-4] [- 29A Designation - - 1.25-6 - 22-6 ⇒ 1.25-5 - 22-5] Different (Auxiliary/Coil) [1.25-4 - 2-4 ⇒ 1.25-3.5 - 2-3.5]
		Rating (Main Circuit)	Identical
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Identical Range
		Coil Properties (Operating Time)	Identical
MSO-N80 [4]	MSO-T80 [4]	Coil Properties (Input)	Identical
		Coil Surge Absorber Function	Equivalent (Standard Equipment)
		External Dimensions [H x W x D] (mm)	Identical
		Mounting Dimension	Identical
		Contact Arrangement	Identical
		Terminal Cover	Equivalent (Special Product or Optional Support)
		Terminal Screw Size	Identical
		Applicable Crimp Lug Size	Identical
		Rating (Main Circuit)	Equivalent
		Rating (Auxiliary Circuit)	Identical
MSO-N95 [4]	MSO-T100 [4]	Rating (Coil)	Identical Range
		Coil Properties (Operating Time)	ON Operation: Equivalent, OFF Operation: 50 - 100 ms ⇒ 35 - 65 ms
		Coil Properties (Input)	Low Input (2.8W ⇒ 2.2W)
		Coil Surge Absorber Function	Equivalent (Standard Equipment)
		External Dimensions [H x W x D] (mm)	Smaller (179.5 (- 54A Designation), 196 (67A Designation) x 100 x 127 ⇒ 158 (- 54A Designation), 174.5 (67A Designation) x 90 x 106)
		Mounting Dimension	Not Compatible (Compatible with Adapter)
		Contact Arrangement	Identical
		Terminal Cover	Equivalent (Special Product or Optional Support)
		Terminal Screw Size	Identical
		Applicable Crimp Lug Size	Different (Main) [(Power Supply Side/Load Side) 1.25-6 - 60-6/14-6 - 22-6, 38-S6 ⇒ 60-S6/14-6 - 22-6, 38-S6] Identical (Auxiliary/Coil)

[DC Operated Type]

Model Name		Item	New MSOD-T Series Support for Structure/Rating
Existing (S-N Series) [Number of Auxiliary Contacts]	New (S-T Series) [Number of Auxiliary Contacts]		
MSOD-N11 [1]	MSOD-T12 [2]	Rating (Main Circuit)	Equivalent
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Identical Range
		Coil (Operating Time)	ON Operation: 45 ms ⇒ 85 ms (24 VDC or Less), 60 ms (48 VDC or More) OFF Operation: 13 ms ⇒ 10 ms
		Coil (Input)	Low Input (7W ⇒ 24 VDC or Less: 2.2W, 48 VDC or More: 3.3W)
		Coil (Polarity)	N/A ⇒ Available
		External Dimensions [H x W x D] (mm)	Equivalent or Higher (116 x 45 x 111 ⇒ 115 x 45 x 101)
		Mounting Dimension	Compatible
		Contact Arrangement	Increased Auxiliary Contacts (1-Pole ⇒ 2-Pole)
		Terminal Cover	Changed to Standard Equipment
MSOD-N12 [2]	MSOD-T20 [2]	Terminal Screw Size	Identical (M3.5)
		Applicable Wire Size [φ mm, mm²] (Bare Wire)	Equivalent
		Applicable Crimp Lug Size	Identical
		Rating (Main Circuit)	Equivalent
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Identical Range
		Coil Properties (Operating Time)	ON Operation: 45 ms ⇒ 85 ms (24 VDC or Less), 60 ms (48 VDC or More) OFF Operation: 13 ms ⇒ 10 ms
		Coil Properties (Input)	Low Input (7W ⇒ 24 VDC or Less: 2.2W, 48 VDC or More: 3.3W)
		Coil (Polarity)	N/A ⇒ Available
		External Dimensions [H x W x D] (mm)	Smaller (116 x 55 x 111 ⇒ 115 x 45 x 101)
MSOD-N21 [4]	MSOD-T21 [4]	Mounting Dimension	Not Compatible (Compatible with Adapter)
		Contact Arrangement	Identical
		Terminal Cover	Changed to Standard Equipment
		Terminal Screw Size	Identical (M3.5)
		Applicable Wire Size [φ mm, mm²] (Bare Wire)	Equivalent
		Applicable Crimp Lug Size	Identical
		Rating (Main Circuit)	Equivalent
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Identical Range
		Coil Properties (Operating Time)	ON Operation: 50 ms ⇒ 85 ms (24 VDC or Less), 60 ms (48 VDC or More) OFF Operation: 8 ms ⇒ 10 ms
MSOD-N21 [4]	MSOD-T21 [4]	Coil Properties (Input)	Low Input (9W ⇒ 24 VDC or Less: 2.2W, 48 VDC or More: 3.3W)
		Coil (Polarity)	N/A ⇒ Available
		External Dimensions [H x W x D] (mm)	Smaller (127 x 63 x 113 ⇒ 115 x 45 x 101)
		Mounting Dimension	Not Compatible (Compatible with Adapter)
		Contact Arrangement	Reduced Auxiliary Contacts (4-Pole ⇒ 2-Pole)
		Terminal Cover	Changed to Standard Equipment
		Terminal Screw Size	Different (Main: M4, Coil/Auxiliary: M3.5 ⇒ Main: M3.5, Coil/Auxiliary: M3.5)
		Applicable Wire Size [φ mm, mm²] (Bare Wire)	Different (Main: φ 1.6 - φ 2.6, 2 - 5.5 Coil/Auxiliary: φ 1.6, 1.25 - 2 ⇒ Main: φ 1.6, 0.75 - 2.5 Coil/Auxiliary: φ 1.6, 0.75 - 2.5)
		Applicable Crimp Lug Size	Different (Main: 1.25-4 - 5.5-4, Coil/Auxiliary: 1.25-3.5 - 2-3.5 ⇒ Main: 1.25-3.5 - 2-3.5 S3, Coil/Auxiliary: 1.25-3.5 - 2-3.5)
		Rating (Main Circuit)	Equivalent
MSOD-N21 [4]	MSOD-T21 [4]	Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Identical Range
		Coil Properties (Operating Time)	ON Operation: 50 ms ⇒ 90 ms (24 VDC or Less), 65 ms (48 VDC or More) OFF Operation: 8 ms ⇒ 20 ms
		Coil Properties (Input)	Low Input (9W ⇒ 24 VDC or Less: 2.2W, 48 VDC or More: 3.3W)
		Coil (Polarity)	N/A ⇒ Available
		External Dimensions [H x W x D] (mm)	Equivalent (127 x 63 x 113 ⇒ 128 x 63 x 109)
		Mounting Dimension	Compatible
		Contact Arrangement	Identical
		Terminal Cover	Changed to Standard Equipment
		Terminal Screw Size	Identical (Main: M4, Coil/Auxiliary: M3.5)
MSOD-N21 [4]	MSOD-T21 [4]	Applicable Wire Size [φ mm, mm²] (Bare Wire)	Equivalent
		Applicable Crimp Lug Size	Identical

[DC Operated Type]

Model Name		Item	New MSOD-T Series Support for Structure/Rating
Existing (S-N Series) [Number of Auxiliary Contacts]	New (S-T Series) [Number of Auxiliary Contacts]		
MSOD-N35 [4]	MSOD-T35 [4]	Rating (Main Circuit)	Identical
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Identical Range
		Coil (Operating Time)	Equivalent
		Coil (Input)	Equivalent
		Coil (Polarity)	Identical (N/A)
		External Dimensions [H x W x D] (mm)	Identical
		Mounting Dimension	Identical
		Contact Arrangement	Identical
		Terminal Cover	Changed to Standard Equipment
		Terminal Screw Size	Identical
		Applicable Wire Size [φ mm, mm²] (Bare Wire)	Different Main: 2 - 5.5 (At Load Side with Heater Designation 15A or Less) ⇒ Power Source Side 1.25 - 16 Load Side 1.25 - 14 Coil/Auxiliary: φ 1.6, 1.25 - 2 ⇒ φ 1.6, 0.75 - 2.5
		Applicable Crimp Lug Size	Identical
MSOD-N50 [4]	MSOD-T50 [4]	Rating (Main Circuit)	Identical
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Identical Range
		Coil Properties (Operating Time)	Equivalent
		Coil Properties (Input)	Low Input (18W ⇒ 9W)
		Coil (Polarity)	Identical (N/A)
		External Dimensions [H x W x D] (mm)	Smaller (161.5 x 90 x 133 ⇒ 136.5 (- 22A Designation), 157.5 (29A Designation -) x 75 x 123)
		Mounting Dimension	Not Compatible (Compatible with Adapter)
		Contact Arrangement	Identical
		Terminal Cover	Changed to Standard Equipment
		Terminal Screw Size	Different (- 22A Designation -- Main: M6, Coil/Auxiliary: M4 ⇒ Main (Power Supply Side/Load Side): M5/M4, Coil/Auxiliary: M3.5) (29A Designation -- Main: M6, Coil/Auxiliary: M4 ⇒ Main (Power Supply Side/Load Side): M5/M5, Coil/Auxiliary: M3.5)
		Applicable Wire Size [φ mm, mm²] (Bare Wire)	Different Main : - ⇒ Power Supply Side 1.25 - 16 Load Side 1.25 - 14 Coil/Auxiliary: φ 1.6, 1.25 - 2 ⇒ φ 1.6, 0.75 - 2.5
		Applicable Crimp Lug Size	Different (Main) (- 22A Designation -- 1.25-6 - 22-6 ⇒ (Power Supply Side/Load Side)1.25-5 - 22-5/1.25-4 - 5.5-4 (29A Designation -- 1.25-6 - 22-6 ⇒ 1.25-5 - 22-5 Different (Auxiliary/Coil) [1.25-4 - 2-4 ⇒ 1.25-3.5 - 2-3.5]
MSOD-N65 [4]	MSOD-T65 [4]	Rating (Main Circuit)	Identical
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Identical Range
		Coil Properties (Operating Time)	Equivalent
		Coil Properties (Input)	Equivalent
		Coil (Polarity)	Identical (N/A)
		External Dimensions [H x W x D] (mm)	Identical
		Mounting Dimension	Identical
		Contact Arrangement	Identical
		Terminal Cover	Equivalent (Special Product or Optional Support)
MSOD-N80 [4]	MSOD-T80 [4]	Terminal Screw Size	Identical
		Applicable Crimp Lug Size	Identical
		Rating (Main Circuit)	Equivalent
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Identical Range
		Coil Properties (Operating Time)	ON: 75ms ⇒ 50ms, OFF: 18ms ⇒ 13ms
		Coil Properties (Input)	Low Input (24W ⇒ 18W)
		Coil (Polarity)	Identical (N/A)
		External Dimensions [H x W x D] (mm)	Smaller (189.5 (- 54A Designation), 206 (67A Designation) x 100 x 157 ⇒ 160 (- 54A Designation), 176.5 (67A Designation) x 90 x 133)
		Mounting Dimension	Not Compatible (Compatible with Adapter)
MSOD-N95 [4]	MSOD-T100 [4]	Contact Arrangement	Identical
		Terminal Cover	Identical (N/A)
		Terminal Screw Size	Identical
		Applicable Crimp Lug Size	Different (Main) [(Power Supply Side/Load Side) 1.25-6 - 60-6/14-6 - 22-6, 38-S6 ⇒ 1.25-6 - 22-6, 38-S6/14-6 - 22-6, 38-S6] Identical (Auxiliary/Coil)
		Rating (Main Circuit)	Identical
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Identical Range
		Coil Properties (Operating Time)	Equivalent
		Coil Properties (Input)	Equivalent
		Coil (Polarity)	Identical (N/A)
		External Dimensions [H x W x D] (mm)	Identical
		Mounting Dimension	Identical
		Contact Arrangement	Identical
		Terminal Cover	Identical (Optional Support)
		Terminal Screw Size	Identical
		Applicable Crimp Lug Size	Identical

1.3 Magnetic Contactors

[AC Operated Type]

Model Name Existing (S-N Series) [Number of Auxiliary Contacts]	New (S-T Series) [Number of Auxiliary Contacts]	Item	New S-T Series Support for Structure/Rating
S-N10 [1]	S-T10 [1]	Rating (Main Circuit)	Equivalent
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Expanded Rating Range
		External Dimensions [H x W x D] (mm)	Smaller (78 x 43 x 78 ⇒ 75 x 36 x 78)
		Mounting Dimension	Not Compatible (Compatible with Adapter)
		Contact Arrangement	Identical
		Terminal Cover	Changed to Standard Equipment
		Terminal Screw Size	Identical (M3.5)
		Applicable Wire Size [φ mm, mm ²] (Bare Wire)	Equivalent
		Applicable Crimp Lug Size	Identical
S-N11 [1]	S-T12 [2]	Rating (Main Circuit)	Equivalent
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Expanded Rating Range
		External Dimensions [H x W x D] (mm)	Equivalent (78 x 43 x 78 ⇒ 75 x 43 x 78)
		Mounting Dimension	Compatible (35 x 50)
		Contact Arrangement	Increased Auxiliary Contacts (1-Pole ⇒ 2-Pole)
		Terminal Cover	Changed to Standard Equipment
		Terminal Screw Size	Identical (M3.5)
		Applicable Wire Size [φ mm, mm ²] (Bare Wire)	Equivalent
		Applicable Crimp Lug Size	Identical
S-N12 [2]	S-T32 [0]	Rating (Main Circuit)	Equivalent
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Expanded Rating Range
		External Dimensions [H x W x D] (mm)	Smaller (78 x 53 x 78 ⇒ 75 x 43 x 78)
		Mounting Dimension	Not Compatible (Compatibility with Adapter Planned)
		Contact Arrangement	Identical
		Terminal Cover	Changed to Standard Equipment
		Terminal Screw Size	Identical (M3.5)
		Applicable Wire Size [φ mm, mm ²] (Bare Wire)	Equivalent
		Applicable Crimp Lug Size	Identical
S-N18 [0]	S-T32 [0]	Rating (Main Circuit)	Equivalent or Higher
		Rating (Coil)	Expanded Rating Range
		External Dimensions [H x W x D] (mm)	Equivalent (79 x 43 x 81 ⇒ 81 x 43 x 81)
		Mounting Dimension	Compatible
		Contact Arrangement	Identical
		Terminal Cover	Changed to Standard Equipment
		Terminal Screw Size	Identical (Main: M4, Coil: M3.5)
		Applicable Wire Size [φ mm, mm ²] (Bare Wire)	Equivalent
		Applicable Crimp Lug Size	Identical
		Rating (Main Circuit)	Equivalent (Rated Motor Load AC-3)
S-N20 [2]	(Motor Load/ Resistance Load)	Rating (Coil)	Expanded Rating Range
		External Dimensions [H x W x D] (mm)	Smaller (79 x 43 x 81 ⇒ 75 x 43 x 78)
		Mounting Dimension	Not Compatible (Compatible with Adapter)
		Contact Arrangement	Identical
		Terminal Cover	Changed to Standard Equipment
		Terminal Screw Size	Different (Main: M4, Coil/Auxiliary: M3.5 ⇒ Main: M3.5, Coil/Auxiliary: M3.5)
		Applicable Wire Size [φ mm, mm ²] (Bare Wire)	Different (Main: φ 1.6 - φ 2.6, 2 - 5.5 Coil : φ 1.6, 0.75 - 2.5 ⇒ Main: φ 1.6, 0.75 - 2.5 Coil/Auxiliary: φ 1.6, 0.75 - 2.5)
		Applicable Crimp Lug Size	Different (Main: 1.25-4 - 5.5-4, Coil : 1.25-3.5 - 2-3.5 ⇒ Main: 1.25-3.5 - 2-3.5 5.5-S3, Coil/Auxiliary: 1.25-3.5 - 2-3.5)
		Rating (Main Circuit)	Almost Equivalent (Rated Motor Load AC-3 AC200 - 440V 20A ⇒ 18A) * Low Rated Resistance Load
		Rating (Auxiliary Circuit)	Identical
S-N20 [2]	(Resistance Load)	Rating (Coil)	Expanded Rating Range
		External Dimensions [H x W x D] (mm)	Smaller (81 x 63 x 81 ⇒ 75 x 43 x 78)
		Mounting Dimension	Not Compatible (Compatible with Adapter)
		Contact Arrangement	Identical
		Terminal Cover	Changed to Standard Equipment
		Terminal Screw Size	Different (Main: M4, Coil/Auxiliary: M3.5 ⇒ Main: M3.5, Coil/Auxiliary: M3.5)
		Applicable Wire Size [φ mm, mm ²] (Bare Wire)	Different (Main: φ 1.6 - φ 2.6, 2 - 5.5 Coil/Auxiliary: φ 1.6, 1.25 - 2 ⇒ Main: φ 1.6, 0.75 - 2.5 Coil/Auxiliary: φ 1.6, 0.75 - 2.5)
		Applicable Crimp Lug Size	Different (Main: 1.25-4 - 5.5-4, Coil/Auxiliary: 1.25-3.5 - 2-3.5 ⇒ Main: 1.25-3.5 - 2-3.5 5.5-S3, Coil/Auxiliary: 1.25-3.5 - 2-3.5)
		Rating (Main Circuit)	Equivalent (Rated Resistance Load AC-1)
		Rating (Auxiliary Circuit)	Identical
S-N20 [2]	(Resistance Load)	Rating (Coil)	Expanded Rating Range
		External Dimensions [H x W x D] (mm)	Identical (81 x 63 x 81 ⇒ 81 x 63 x 81)
		Mounting Dimension	Compatible
		Contact Arrangement	Increased Auxiliary Contacts (2-Pole ⇒ 4-Pole)
		Terminal Cover	Changed to Standard Equipment
		Terminal Screw Size	Identical (Main: M4, Coil/Auxiliary: M3.5)
		Applicable Wire Size [φ mm, mm ²] (Bare Wire)	Equivalent
		Applicable Crimp Lug Size	Identical
		Rating (Main Circuit)	Equivalent
		Rating (Auxiliary Circuit)	Identical
S-N21 [4]	S-T21 [4]	Rating (Coil)	Expanded Rating Range
		External Dimensions [H x W x D] (mm)	Identical (81 x 63 x 81 ⇒ 81 x 63 x 81)
		Mounting Dimension	Compatible
		Contact Arrangement	Identical
		Terminal Cover	Changed to Standard Equipment
		Terminal Screw Size	Identical (Main: M4, Coil/Auxiliary: M3.5)
		Applicable Wire Size [φ mm, mm ²] (Bare Wire)	Equivalent
		Applicable Crimp Lug Size	Identical
		Rating (Main Circuit)	Equivalent or Higher (Rated Motor Load AC-3) * Low Rated Resistance Load
		Rating (Auxiliary Circuit)	Identical
S-N25 [4]	(Motor Load/ Resistance Load)	Rating (Coil)	Expanded Rating Range
		External Dimensions [H x W x D] (mm)	Smaller (89 x 75 x 91 ⇒ 81 x 63 x 81)
		Mounting Dimension	Not Compatible (Compatible with Adapter)
		Contact Arrangement	Identical
		Terminal Cover	Changed to Standard Equipment
		Terminal Screw Size	Different (Main: M5, Coil/Auxiliary: M3.5 ⇒ Main: M4, Coil/Auxiliary: M3.5)
		Applicable Wire Size [φ mm, mm ²] (Bare Wire)	Different (Main: - Coil/Auxiliary: φ 1.6, 1.25 - 2 ⇒ Main: φ 1.6 - φ 2.6, 1.25 - 6 Coil/Auxiliary: φ 1.6, 0.75 - 2.5)
		Applicable Crimp Lug Size	Different (Main: 1.25-5 - 14-5, Coil/Auxiliary: 1.25-3.5 - 2-3.5 ⇒ Main: 1.25-4 - 5.5-4, Coil/Auxiliary: 1.25-3.5 - 2-3.5)
		Rating (Main Circuit)	Equivalent or Higher (Rated Motor Load AC-3) * Low Rated Resistance Load
		Rating (Auxiliary Circuit)	Identical

[AC Operated Type]

Model Name	Item	New S-T Series Support for Structure/Rating
Existing (S-N Series) [Number of Auxiliary Contacts]	New (S-T Series) [Number of Auxiliary Contacts]	
S-N25 [4] (Resistance Load)	S-T35 [4] (Resistance Load)	Rating (Main Circuit) Equivalent (Rated Resistance Load AC-1)
		Rating (Auxiliary Circuit) Identical
		Rating (Coil) Expanded Rating Range
		External Dimensions [H x W x D] (mm) Identical
		Mounting Dimension Identical
		Contact Arrangement Identical
		Terminal Cover Changed to Standard Equipment
		Terminal Screw Size Identical
		Applicable Wire Size [φ mm, mm ²] (Bare Wire) Different (Main: - Main: φ 1.6 - φ 3.6, 1.25 - 16 Coil/Auxiliary: φ 1.6, 0.75 - 2.5)
		Applicable Crimp Lug Size Identical
S-N28 [0]	S-T32 [0]	Rating (Main Circuit) Equivalent or Higher
		Rating (Coil) Expanded Rating Range
		External Dimensions [H x W x D] (mm) Equivalent (79 x 43 x 81 ⇒ 81 x 43 x 81)
		Mounting Dimension Compatible
		Contact Arrangement Identical
		Terminal Cover Changed to Standard Equipment
		Terminal Screw Size Identical (Main: M4, Coil: M3.5)
S-N35 [4]	S-T35 [4]	Rating (Main Circuit) Identical
		Rating (Auxiliary Circuit) Identical
		Rating (Coil) Expanded Rating Range
		Coil Properties (Operating Time) Equivalent
		Coil Properties (Input) Equivalent
		Coil Surge Absorber Function Identical (Optional Support)
		External Dimensions [H x W x D] (mm) Identical
		Mounting Dimension Identical
		Contact Arrangement Identical
		Terminal Cover Changed to Standard Equipment
S-N50 [4]	S-T50 [4]	Terminal Screw Size Identical
		Applicable Wire Size [φ mm, mm ²] (Bare Wire) Different (Main: - Main: φ 1.6 - φ 3.6, 1.25 - 16 Coil/Auxiliary: φ 1.6, 0.75 - 2.5)
		Applicable Crimp Lug Size Identical
		Rating (Main Circuit) Identical
		Rating (Auxiliary Circuit) Identical
		Rating (Coil) Different in Part (300 VAC--260 - 350 VAC ⇒ 260 - 300 VAC), Identical Range for Others
		Coil Properties (Operating Time) ON Operation: 20 - 30 ms ⇒ 10 - 20 ms, OFF Operation: 35 - 65 ms ⇒ 5 - 14 ms
		Coil Properties (Input) Different (2.2W ⇒ 3.8W)
		Coil Surge Absorber Function Different (Standard Type ⇒ Optional Support)
		External Dimensions [H x W x D] (mm) Smaller (106 x 88 x 106 ⇒ 89 x 75 x 91)
S-N65 [4]	S-T65 [4]	Mounting Dimension Not Compatible (Compatible with Adapter)
		Contact Arrangement Identical
		Terminal Cover Changed to Standard Equipment
		Terminal Screw Size Different (Main: M6, Coil/Auxiliary: M4 ⇒ Main: M5, Coil/Auxiliary: M3.5)
		Applicable Wire Size [φ mm, mm ²] (Bare Wire) Different (Main: - Main: φ 1.6 - φ 3.6, 1.25 - 16 Coil/Auxiliary: φ 1.6, 0.75 - 2.5)
		Applicable Crimp Lug Size Different (Main: 1.25-6 - 22-6, Coil/Auxiliary: 1.25-4 - 2-4 ⇒ Main: 1.25-5 - 22-5, 1.25-3.5 - 2-3.5)
		Rating (Main Circuit) Identical
S-N80 [4] (Motor Load/ Resistance Load)	S-T80 [4] (Motor Load/ Resistance Load)	Rating (Auxiliary Circuit) Identical
		Rating (Coil) Identical Range
		Coil Properties (Operating Time) ON Operation: Equivalent, OFF Operation: 50 - 100 ms ⇒ 35 - 65 ms
		Coil Properties (Input) Low Input (2.8W ⇒ 2.2W)
		Coil Surge Absorber Function Equivalent (Standard Equipment)
		External Dimensions [H x W x D] (mm) Smaller (124 x 100 x 127 ⇒ 106 x 88 x 106)
		Mounting Dimension Not Compatible (Compatible with Adapter)
		Contact Arrangement Identical
		Terminal Cover Equivalent (Special Product or Optional Support)
		Terminal Screw Size Identical
S-N80 [4] (Resistance Load)	S-T100 [4] (Resistance Load)	Applicable Crimp Lug Size Identical (Auxiliary/Coil)
		Rating (Main Circuit) Equivalent or Higher (Rated Resistance Load AC-1)
		Rating (Auxiliary Circuit) Identical
		Rating (Coil) Identical Range
		Coil Properties (Operating Time) Identical
		Coil Properties (Input) Identical
		Coil Surge Absorber Function Equivalent (Standard Equipment)
		External Dimensions [H x W x D] (mm) Identical
		Mounting Dimension Identical
		Contact Arrangement Identical
S-N95 [4]	S-T100 [4]	Terminal Cover Identical (Optional Support)
		Terminal Screw Size Identical
		Applicable Crimp Lug Size Identical
		Rating (Main Circuit) Identical
		Rating (Auxiliary Circuit) Identical
		Rating (Coil) Identical Range
		Coil Properties (Operating Time) Identical
		Coil Properties (Input) Identical
		Coil Surge Absorber Function Equivalent (Standard Equipment)
		External Dimensions [H x W x D] (mm) Identical

[DC Operated Type]

Model Name		Item	New SD-T Series Support for Structure/Rating
Existing (SD-N Series) [Number of Auxiliary Contacts]	New (SD-T Series) [Number of Auxiliary Contacts]		
SD-N11 [1]	SD-T12 [2]	Rating (Main Circuit)	Equivalent
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Identical Range
		Coil Properties (Operating Time)	ON Operation: 45 ms ⇒ 85 ms (24 VDC or Less), 60 ms (48 VDC or More) OFF Operation: 13 ms ⇒ 10 ms
		Coil Properties (Input)	Low Input (7W ⇒ 24 VDC or Less: 2.2W, 48 VDC or More: 3.3W)
		Coil (Polarity)	N/A ⇒ Available
		External Dimensions [H x W x D] (mm)	Equivalent or Higher (78 x 43 x 110 ⇒ 75 x 43 x 100)
		Mounting Dimension	Compatible
		Contact Arrangement	Increased Auxiliary Contacts (1-Pole ⇒ 2-Pole)
		Terminal Cover	Changed to Standard Equipment
		Terminal Screw Size	Identical (M3.5)
		Applicable Wire Size [φ mm, mm²] (Bare Wire)	Equivalent
SD-N12 [2]	SD-T20 [2] (Motor Load/ Resistance Load)	Applicable Crimp Lug Size	Identical
		Rating (Main Circuit)	Equivalent
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Identical Range
		Coil Properties (Operating Time)	ON Operation: 45 ms ⇒ 85 ms (24 VDC or Less), 60 ms (48 VDC or More) OFF Operation: 13 ms ⇒ 10 ms
		Coil Properties (Input)	Low Input (7W ⇒ 24 VDC or Less: 2.2W, 48 VDC or More: 3.3W)
		Coil (Polarity)	N/A ⇒ Available
		External Dimensions [H x W x D] (mm)	Smaller (78 x 53 x 110 ⇒ 75 x 43 x 100)
		Mounting Dimension	Not Compatible (Compatible with Adapter)
		Contact Arrangement	Identical
		Terminal Cover	Changed to Standard Equipment
		Terminal Screw Size	Identical (M3.5)
SD-N21 [4]	(Motor Load/ Resistance Load)	Applicable Wire Size [φ mm, mm²] (Bare Wire)	Equivalent
		Applicable Crimp Lug Size	Identical
		Rating (Main Circuit)	Almost Equivalent (Rated Motor Load AC-3 AC200 - 440V 20A ⇒ 18A) * Low Rated Resistance Load
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Identical Range
		Coil Properties (Operating Time)	ON Operation: 50 ms ⇒ 85 ms (24 VDC or Less), 60 ms (48 VDC or More) OFF Operation: 8 ms ⇒ 10 ms
		Coil Properties (Input)	Low Input (9W ⇒ 24 VDC or Less: 2.2W, 48 VDC or More: 3.3W)
		Coil (Polarity)	N/A ⇒ Available
		External Dimensions [H x W x D] (mm)	Smaller (81 x 63 x 113 ⇒ 75 x 43 x 100)
		Mounting Dimension	Not Compatible (Compatible with Adapter)
		Contact Arrangement	Reduced Auxiliary Contacts (4-Pole ⇒ 2-Pole)
		Terminal Cover	Changed to Standard Equipment
SD-T21 [4] (Motor Load/ Resistance Load)	SD-T21 [4] (Motor Load/ Resistance Load)	Terminal Screw Size	Different (Main: M4, Coil/Auxiliary: M3.5 ⇒ Main: M3.5, Coil/Auxiliary: M3.5)
		Applicable Wire Size [φ mm, mm²] (Bare Wire)	Different (Main: φ 1.6 - φ 2.6, 2 - 5.5 Coil/Auxiliary: φ 1.6, 1.25 - 2 ⇒) (Main: φ 1.6, 0.75 - 2.5 Coil/Auxiliary: φ 1.6, 0.75 - 2.5)
		Applicable Crimp Lug Size	Different (Main: 1.25-4 - 5.5-4, Coil/Auxiliary: 1.25-3.5 - 2-3.5 ⇒) (Main: 1.25-3.5 - 2-3.5 5.5-S3, Coil/Auxiliary: 1.25-3.5 - 2-3.5)
		Rating (Main Circuit)	Equivalent
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Identical Range
		Coil Properties (Operating Time)	ON Operation: 50 ms ⇒ 90 ms (24 VDC or Less), 65 ms (48 VDC or More) OFF Operation: 8 ms ⇒ 20 ms
		Coil Properties (Input)	Low Input (9W ⇒ 24 VDC or Less: 2.2W, 48 VDC or More: 3.3W)
		Coil (Polarity)	N/A ⇒ Available
		External Dimensions [H x W x D] (mm)	Equivalent (81 x 63 x 113 ⇒ 81 x 63 x 108)
		Mounting Dimension	Compatible
		Contact Arrangement	Identical
		Terminal Cover	Changed to Standard Equipment
		Terminal Screw Size	Identical (Main: M4, Coil/Auxiliary: M3.5)
		Applicable Wire Size [φ mm, mm²] (Bare Wire)	Equivalent
		Applicable Crimp Lug Size	Identical

[DC Operated Type]

Model Name		Item	New SD-T Series Support for Structure/Rating
Existing (SD-N Series) [Number of Auxiliary Contacts]	New (SD-T Series) [Number of Auxiliary Contacts]		
SD-N35 [4]	SD-T35 [4]	Rating (Main Circuit)	Identical
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Identical Range
		Coil Properties (Operating Time)	Equivalent
		Coil Properties (Input)	Equivalent
		Coil (Polarity)	Identical (N/A)
		External Dimensions [H x W x D] (mm)	Identical
		Mounting Dimension	Identical
		Contact Arrangement	Identical
		Terminal Cover	Changed to Standard Equipment
		Terminal Screw Size	Identical
		Applicable Wire Size [φ mm, mm ²] (Bare Wire)	Different (Main: - Main: φ 1.6 - φ 3.6, 1.25 - 16) Coil/Auxiliary: φ 1.6, 1.25 - 2 ⇒ Coil/Auxiliary: φ 1.6, 0.75 - 2.5)
SD-N50 [4]	SD-T50 [4]	Applicable Crimp Lug Size	Identical
		Rating (Main Circuit)	Identical
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Identical Range
		Coil Properties (Operating Time)	Equivalent
		Coil Properties (Input)	Low Input (18W ⇒ 9W)
		Coil (Polarity)	Identical (N/A)
		External Dimensions [H x W x D] (mm)	Smaller (107.5 x 88 x 133 ⇒ 89 x 75 x 123)
		Mounting Dimension	Not Compatible (Compatible with Adapter)
		Contact Arrangement	Identical
		Terminal Cover	Changed to Standard Equipment
		Terminal Screw Size	Different (Main: M6, Coil/Auxiliary: M4 ⇒ Main: M5, Coil/Auxiliary: M3.5)
SD-N65 [4]	SD-T65 [4]	Applicable Wire Size [φ mm, mm ²] (Bare Wire)	Different (Main: - Main: φ 1.6 - φ 3.6, 1.25 - 16) Coil/Auxiliary: φ 1.6, 1.25 - 2 ⇒ Coil/Auxiliary: φ 1.6, 0.75 - 2.5)
		Applicable Crimp Lug Size	Different (Main: 1.25-6 - 22-6, Coil/Auxiliary: 1.25-4 - 2-4 ⇒ Main: 1.25-5 - 22-5, 1.25-3.5 - 2-3.5)
(Motor Load/ Resistance Load)	SD-T80 [4] (Motor Load/ Resistance Load)	Rating (Main Circuit)	Identical
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Identical Range
		Coil Properties (Operating Time)	Equivalent
		Coil Properties (Input)	Equivalent
		Coil (Polarity)	Identical (N/A)
		External Dimensions [H x W x D] (mm)	Equivalent (107.5 x 88 x 133 ⇒ 106 x 88 x 133)
		Mounting Dimension	Identical
		Contact Arrangement	Identical
		Terminal Cover	Equivalent (Special Product or Optional Support)
		Terminal Screw Size	Identical
		Applicable Crimp Lug Size	Identical
(Resistance Load)	SD-T100 [4] (Resistance Load)	Rating (Main Circuit)	Equivalent (Rated Motor Load AC-3) * Low Rated Resistance Load
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Identical Range
		Coil Properties (Operating Time)	ON: 75ms ⇒ 50ms, OFF: 18ms ⇒ 13ms
		Coil Properties (Input)	Low Input (24W ⇒ 18W)
		Coil (Polarity)	Identical (N/A)
		External Dimensions [H x W x D] (mm)	Smaller (134 x 100 x 157 ⇒ 106 x 88 x 133)
		Mounting Dimension	Not Compatible (Compatible with Adapter)
		Contact Arrangement	Identical
		Terminal Cover	Identical (N/A)
		Terminal Screw Size	Identical
		Applicable Crimp Lug Size	Difference (Main) [1.25-6 - 60-6 ⇒ 1.25-6 - 60-S6] Identical (Auxiliary/Coil)
SD-N95 [4]	SD-T100 [4]	Rating (Main Circuit)	Equivalent or Higher (Rated Resistance Load AC-1)
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Identical Range
		Coil Properties (Operating Time)	Identical
		Coil Properties (Input)	Identical
		Coil (Polarity)	Identical (N/A)
		External Dimensions [H x W x D] (mm)	Identical
		Mounting Dimension	Identical
		Contact Arrangement	Identical
		Terminal Cover	Identical (Optional Support)
		Terminal Screw Size	Identical
		Applicable Crimp Lug Size	Identical

[Mechanically Latched (AC Operated/DC Operated)]

Model Name		Item	New S-T Series Support for Structure/Rating
Existing (S-N Series) [Number of Auxiliary Contacts (Valid)]	New (S-T Series) [Number of Auxiliary Contacts (Valid)]		
SL(D)-N21 [4]	SL(D)-T21 [4]	Rating (Main Circuit)	Identical
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Identical
		Coil Properties (Momentary Input)	Low Input AC Operation Closing: 220VA \Rightarrow 80VA AC Operation Tripping: 280VA \Rightarrow 110VA DC Operation Closing: 100VA \Rightarrow 40VA DC Operation Closing: 190VA \Rightarrow 150VA
		External Dimensions [H x W x D] (mm)	Identical
		Mounting Dimension	Compatible
		Contact Arrangement	Identical
		Terminal Cover	Changed to Standard Equipment
		Terminal Screw Size	Identical
		Applicable Wire Size [ϕ mm, mm ²] (Bare Wire)	Equivalent
SL(D)-N35 [4]	SL(D)-T35 [4]	Applicable Crimp Lug Size	Identical
		Rating (Main Circuit)	Identical
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Identical
		Coil Properties (Momentary Input)	Low Input (in part) AC Operation Closing: 220VA \Rightarrow 120VA AC Operation Tripping: 280VA \Rightarrow 150VA DC Operation Closing: 100VA \Rightarrow 100VA (Identical) DC Operation Closing: 190VA \Rightarrow 150VA
		External Dimensions [H x W x D] (mm)	Equivalent (89 x 75 x 146.5 \Rightarrow 89 x 75 x 145.6)
		Mounting Dimension	Compatible
		Contact Arrangement	Identical
		Terminal Cover	Changed to Standard Equipment
		Terminal Screw Size	Identical
SL(D)-N50 [4]	SL(D)-T50 [4]	Applicable Wire Size [ϕ mm, mm ²] (Bare Wire)	Different (Main: - Coil/Auxiliary: ϕ 1.6, 1.25 - 2 \Rightarrow Main: ϕ 1.6 - ϕ 3.6, 1.25 - 16 Coil/Auxiliary: ϕ 1.6, 0.75 - 2.5)
		Applicable Crimp Lug Size	Identical
		Rating (Main Circuit)	Identical
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Identical
		Coil Properties (Momentary Input)	Low Input (in part) AC Operation Closing: 120VA \Rightarrow 120VA AC Operation Tripping: 250VA \Rightarrow 150VA DC Operation Closing: 120VA \Rightarrow 100VA DC Operation Closing: 200VA \Rightarrow 150VA
		External Dimensions [H x W x D] (mm)	Different (106 x 88 x 135.5 \Rightarrow 89 x 75 x 145.6)
		Mounting Dimension	Not Compatible (Compatible with Adapter)
		Contact Arrangement	Identical
		Terminal Cover	Changed to Standard Equipment
(Class 2 Heat-Resistant)	SL(D)-T50FN [4] (Class 2 Heat-Resistant)	Terminal Screw Size	Different (Main: M6, Coil/Auxiliary: M4 \Rightarrow Main: M5, Coil/Auxiliary: M3.5)
		Applicable Wire Size [ϕ mm, mm ²] (Bare Wire)	Different (Main: - Coil/Auxiliary: ϕ 1.6, 1.25 - 2 \Rightarrow Main: ϕ 1.6 - ϕ 3.6, 1.25 - 16 Coil/Auxiliary: ϕ 1.6, 0.75 - 2.5)
		Applicable Crimp Lug Size	Different (Main: 1.25-6 - 22-6, Coil/Auxiliary: 1.25-4 - 2-4 \Rightarrow Main: 1.25-5 - 22-5, 1.25-3.5 - 2-3.5)
		Rating (Main Circuit)	Identical
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Identical
		Coil Properties (Momentary Input)	Identical

[Mechanically Latched (AC Operated/DC Operated)]

Model Name		Item	New S-T Series Support for Structure/Rating
Existing (S-N Series) [Number of Auxiliary Contacts (Valid)]	New (S-T Series) [Number of Auxiliary Contacts (Valid)]		
SL(D)-N65 [4]	SL(D)-T65 [4]	Rating (Main Circuit)	Identical
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Identical
		Coil Properties (Momentary Input)	Identical
		External Dimensions [H x W x D] (mm)	Identical
		Mounting Dimension	Compatible
		Contact Arrangement	Identical
		Terminal Cover	Equivalent (Special Product or Optional Support)
		Terminal Screw Size	Identical
SL(D)-N80 [3] (Motor Load/ Resistance Load)	(Motor Load/ Resistance Load)	Applicable Crimp Lug Size	Identical
		Rating (Main Circuit)	Equivalent (Rated Motor Load AC-3) * Low Rated Resistance Load
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Identical
		Coil Properties (Momentary Input)	Low Input (in part) AC Operation Closing: 250VA \Rightarrow 120VA AC Operation Tripping: 250VA \Rightarrow 250VA DC Operation Closing: 250VA \Rightarrow 120VA DC Operation Closing: 300VA \Rightarrow 200VA
		External Dimensions [H x W x D] (mm)	Different (172 x 100 x 127 \Rightarrow 106 x 88 x 135.5)
		Mounting Dimension	Not Compatible (Compatible with Adapter)
		Contact Arrangement	Increased Number of Valid Auxiliary Contacts (1a2b \Rightarrow 2a2b)
		Terminal Cover	Equivalent (Optional Support)
SL(D)-N80 [3] (Resistance Load)	(Resistance Load)	Terminal Screw Size	Identical
		Applicable Crimp Lug Size	Difference (Main) [1.25-6 - 60-6 \Rightarrow 1.25-6 - 60-S6] Identical (Auxiliary/Coil)
		Rating (Main Circuit)	Equivalent or Higher (Rated Resistance Load AC-1)
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Identical
		Coil Properties (Momentary Input)	Identical
		External Dimensions [H x W x D] (mm)	Identical
		Mounting Dimension	Compatible
		Contact Arrangement	Identical
SL(D)-N95 [3]	SL(D)-T100 [3]	Terminal Cover	Equivalent (Optional Support)
		Terminal Screw Size	Identical
		Applicable Crimp Lug Size	Identical
		Rating (Main Circuit)	Identical
		Rating (Auxiliary Circuit)	Identical
		Rating (Coil)	Identical
		Coil Properties (Momentary Input)	Identical
		External Dimensions [H x W x D] (mm)	Identical
		Mounting Dimension	Compatible

1.4 Thermal Overload Relays

Model Name		Item	New TH-T Series Support for Structure/Rating
Existing (TH-N Series)	New (TH-T Series)		
TH-N12	TH-T18	Heater Designation	0.12 - 11A ⇒ 0.12 - 15A
		External Dimensions [H x W x D] (mm)	Identical (55 x 45 x 76.5 ⇒ 55 x 45 x 76.5)
		Mounting Type	Identical (For Magnetic Starters. Combine with Independent Mounting Unit UT-HZ18 for Independent Mounting)
		Frame of the Combined Magnetic Contactor	N10, N11, N12 ⇒ T10, T12, T20
		Terminal Cover	Changed to Standard Equipment
		Terminal Screw Size	Identical (M3.5)
		Applicable Wire Size [φ mm, mm ²] (Bare Wire)	Equivalent
		Applicable Crimp Lug Size	Identical
TH-N18	TH-T18	Heater Designation	1.3 - 15A ⇒ 0.12 - 15A
		External Dimensions [H x W x D] (mm)	Smaller (59 x 54 x 80 ⇒ 55 x 45 x 76.5)
		Mounting Type	For Magnetic Starters ⇒ For Magnetic Starters. Combine with Independent Mounting Unit UT-HZ18 for Independent Mounting
		Frame of the Combined Magnetic Contactor	N18 ⇒ T10, T12, T20
		Terminal Cover	Changed to Standard Equipment
		Terminal Screw Size	Different (Main: M4, Auxiliary: M3.5 ⇒ Main: M3.5, Auxiliary: M3.5)
		Applicable Wire Size [φ mm, mm ²] (Bare Wire)	Different (Main: φ 1.6 - φ 2.6, 2 - 5.5 Auxiliary: φ 1.6, 1.25 - 2 ⇒) (Main: φ 1.6, 0.75 - 2.5 Auxiliary: φ 1.6, 0.75 - 2.5)
		Applicable Crimp Lug Size	Different (Main: 1.25-4 - 5.5-4, Auxiliary: 1.25-3.5 - 2-3.5 ⇒) (Main: 1.25-3.5 - 2-3.5 5.5-S3, Auxiliary: 1.25-3.5 - 2-3.5)
TH-N20	TH-T25	Heater Designation	0.24 - 15A ⇒ 0.24 - 22A
		External Dimensions [H x W x D] (mm)	Equivalent (51 x 63 x 79 ⇒ 53 x 63 x 80)
		Mounting Type	Identical (For Magnetic Starters, For Independent Mounting)
		Frame of the Combined Magnetic Contactor	N20, N21, N25, (N35) ⇒ T21, T25
		Terminal Cover	Changed to Standard Equipment
		Terminal Screw Size	Identical (Main: M4, Auxiliary: M3.5)
		Applicable Wire Size [φ mm, mm ²] (Bare Wire)	Equivalent
		Applicable Crimp Lug Size	Identical
TH-N20TA	TH-T50	Heater Designation	22 - 29A ⇒ 29 - 42A
		External Dimensions [H x W x D] (mm)	Identical
		Mounting Type	Identical (For Magnetic Starters, No Independent Mounting)
		Frame of the Combined Magnetic Contactor	N25, N35 ⇒ T35, T50
		Terminal Cover	Changed to Standard Equipment
		Terminal Screw Size	Identical
		Applicable Wire Size [φ mm, mm ²] (Bare Wire)	Different (Main: - Auxiliary: φ 1.6, 1.25 - 2 ⇒) (Main: φ 2 - φ 3.6, 2 - 14 Auxiliary: φ 1.6, 0.75 - 2.5)
		Applicable Crimp Lug Size	Identical
TH-N60	TH-T65	Heater Designation	Identical
		External Dimensions [H x W x D] (mm)	Identical
		Mounting Type	Identical (For Magnetic Starters, For Independent Mounting)
		Frame of the Combined Magnetic Contactor	N50, N65 ⇒ T65, T80
		Terminal Cover	Identical (Optional Support)
		Terminal Screw Size	Identical
		Applicable Crimp Lug Size	Identical
		Heater Designation	Identical
TH-N60TA	TH-T100	External Dimensions [H x W x D] (mm)	Identical
		Mounting Type	Identical (For Magnetic Starters, No Independent Mounting)
		Frame of the Combined Magnetic Contactor	N80, N95 ⇒ T80, T100
		Terminal Cover	Identical (N/A)
		Terminal Screw Size	Identical
		Applicable Crimp Lug Size	Identical

1.5 Contactor Relays

[AC Operated]

Model Name	Item	New SR(D)-T Series Support for Structure/Rating	
Existing (SR-N Series) [Number of Contacts]	New (SR-T Series) [Number of Contacts]		
SR-N4 [4]	SR-T5 [5]	Rating	Equivalent
		Rating (Coil)	Expanded Rating Range
		External Dimensions [H x W x D] (mm)	Equivalent (78 x 43 x 78 ⇒ 75 x 43 x 78)
		Mounting Dimension	Compatible
		Contact Arrangement (Note 1)	- ⇒ 5a, 4a ⇒ 4a1b, 3a1b ⇒ 3a2b, 2a2b ⇒ 3a2b
		Terminal Cover	Changed to Standard Equipment
		Terminal Screw Size	Identical (M3.5)
		Applicable Wire Size [φ mm, mm ²] (Bare Wire)	Equivalent
		Applicable Crimp Lug Size	Identical
		Rating (Main Circuit)	Equivalent
SR-N5 [5]	SR-T5 [5]	Rating (Coil)	Expanded Rating Range
		External Dimensions [H x W x D] (mm)	Smaller (78 x 53 x 78 ⇒ 75 x 43 x 78)
		Mounting Dimension	Not Compatible (Compatible with Adapter)
		Contact Arrangement (Note 1)	5a ⇒ 5a, 4a1b ⇒ 4a1b, 3a2b ⇒ 3a2b, 2a3b ⇒ -
		Terminal Cover	Changed to Standard Equipment
		Terminal Screw Size	Identical (M3.5)
		Applicable Wire Size [φ mm, mm ²] (Bare Wire)	Equivalent
		Applicable Crimp Lug Size	Identical
		Rating (Main Circuit)	Equivalent
		Rating (Coil)	Expanded Rating Range
SR-N8 [8]	SR-T9 [9]	External Dimensions [H x W x D] (mm)	Equivalent (78 x 43 x 106 ⇒ 75 x 43 x 108)
		Mounting Dimension	Compatible
		Contact Arrangement (Note 1)	8a ⇒ 9a, 7a1b ⇒ 7a2b, 6a2b ⇒ 7a2b, 5a3b ⇒ 5a4b, 4a4b ⇒ 5a4b
		Terminal Cover	Changed to Standard Equipment
		Terminal Screw Size	Identical (M3.5)
		Applicable Wire Size [φ mm, mm ²] (Bare Wire)	Equivalent
		Applicable Crimp Lug Size	Identical
		Rating (Main Circuit)	Equivalent
		Rating (Coil)	Expanded Rating Range

Note 1. The table below shows the contact arrangement diagram.

[DC Operated]

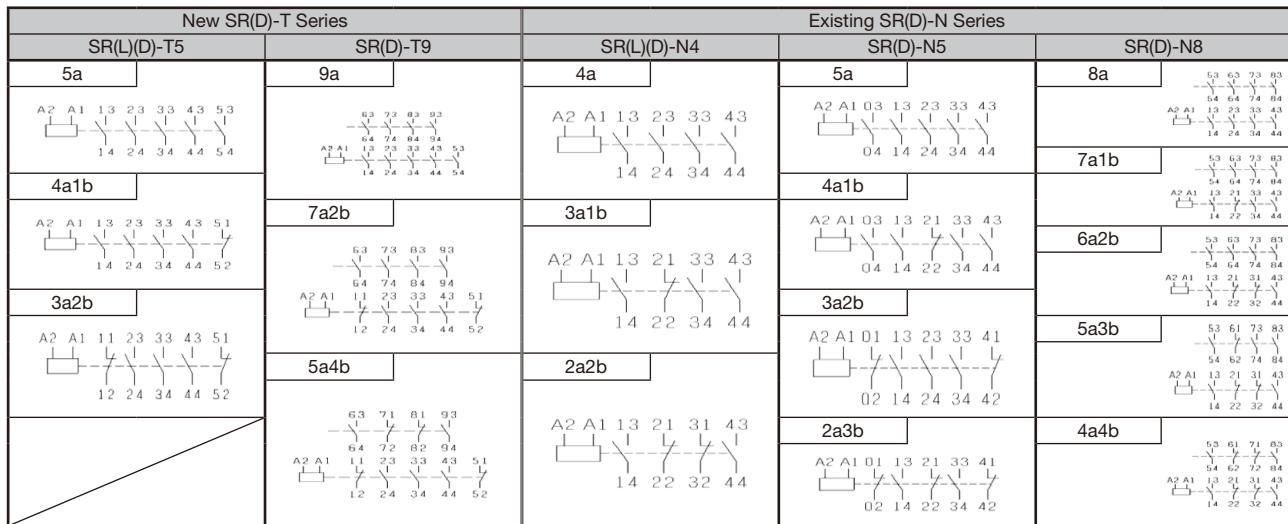
Model Name	Item	New SR(D)-T Series Support for Structure/Rating	
Existing (SRD-N Series) [Number of Contacts]	New (SRD-T Series) [Number of Contacts]		
SRD-N4 [4]	SRD-T5 [5]	Rating	Equivalent
		Rating (Coil)	Identical Range
		Coil Properties (Operating Time) [For Make Contacts]	ON Operation: 45 ms ⇒ 85 ms (24 VDC or Less), 60 ms (48 VDC or More) OFF Operation: 13 ms ⇒ 10 ms
		Coil Properties (Input)	Low Input (7W ⇒ 24 VDC or Less: 2.2W, 48 VDC or More: 3.3W)
		Coil (Polarity)	N/A ⇒ Available
		External Dimensions [H x W x D] (mm)	Equivalent (78 x 43 x 110 ⇒ 75 x 43 x 100)
		Mounting Dimension	Compatible
		Contact Arrangement (Note 1)	- ⇒ 5a, 4a ⇒ 4a1b, 3a1b ⇒ 3a2b, 2a2b ⇒ 3a2b
		Terminal Cover	Changed to Standard Equipment
		Terminal Screw Size	Identical (M3.5)
SRD-N5 [5]	SRD-T5 [5]	Applicable Wire Size [φ mm, mm ²] (Bare Wire)	Equivalent
		Applicable Crimp Lug Size	Identical
		Rating (Main Circuit)	Equivalent
		Rating (Coil)	Identical Range
		Coil Properties (Operating Time) [For Make Contacts]	ON Operation: 45 ms ⇒ 85 ms (24 VDC or Less), 60 ms (48 VDC or More) OFF Operation: 13 ms ⇒ 10 ms
		Coil Properties (Input)	Low Input (7W ⇒ 24 VDC or Less: 2.2W, 48 VDC or More: 3.3W)
		Coil (Polarity)	N/A ⇒ Available
		External Dimensions [H x W x D] (mm)	Smaller (78 x 53 x 110 ⇒ 75 x 43 x 100)
		Mounting Dimension	Not Compatible (Compatible with Adapter)
		Contact Arrangement (Note 1)	5a ⇒ 5a, 4a1b ⇒ 4a1b, 3a2b ⇒ 3a2b, 2a3b ⇒ -
SRD-N8 [8]	SRD-T9 [9]	Terminal Cover	Changed to Standard Equipment
		Terminal Screw Size	Identical (M3.5)
		Applicable Wire Size [φ mm, mm ²] (Bare Wire)	Equivalent
		Applicable Crimp Lug Size	Identical
		Rating (Main Circuit)	Equivalent
		Rating (Coil)	Identical Range
		Coil Properties (Operating Time) [For Make Contacts]	ON Operation: 45 ms ⇒ 85 ms (24 VDC or Less), 60 ms (48 VDC or More) OFF Operation: 13 ms ⇒ 10 ms
		Coil Properties (Input)	Low Input (7W ⇒ 24 VDC or Less: 2.2W, 48 VDC or More: 3.3W)
		Coil (Polarity)	N/A ⇒ Available
		External Dimensions [H x W x D] (mm)	Equivalent (78 x 43 x 138 ⇒ 75 x 43 x 130)
		Mounting Dimension	Compatible
		Contact Arrangement (Note 1)	8a ⇒ 9a, 7a1b ⇒ 7a2b, 6a2b ⇒ 7a2b, 5a3b ⇒ 5a4b, 4a4b ⇒ 5a4b
		Terminal Cover	Changed to Standard Equipment
		Terminal Screw Size	Identical (M3.5)
		Applicable Wire Size [φ mm, mm ²] (Bare Wire)	Equivalent
		Applicable Crimp Lug Size	Identical

Note 1. The table below shows the contact arrangement diagram.

[Mechanically Latched (AC Operated/DC Operated)]

Model Name		Item	New SR(D)-T Series Support for Structure/Rating	
Existing (SRL(D)-N Series) [Number of Contacts]	New (SRL(D)-T Series) [Number of Contacts]			
SRL(D)-N4 [4]	SRL(D)-T5 [5]		Rating	Equivalent
			Rating (Coil)	Identical Range
			External Dimensions [H x W x D] (mm)	Equivalent (78 x 44 x 133.5 ⇒ 75 x 43 x 133.5)
			Mounting Dimension	Compatible
			Contact Arrangement (Note 1)	- ⇒ 5a, 4a ⇒ 4a1b, 3a1b ⇒ 3a2b, 2a2b ⇒ 3a2b
			Terminal Cover	Changed to Standard Equipment
			Terminal Screw Size	Identical (M3.5)
		Applicable Wire Size [φ mm, mm ²] (Bare Wire)	Equivalent	
		Applicable Crimp Lug Size	Identical	

Note 1. The table below shows the contact arrangement diagram.



2. New and Old Model Name Comparison Table

2.1 Magnetic Starters (Enclosed Type)

Type	Class AC-3 Rated Capacity (kW)		Auxiliary Contact (Standard)		MS-T Series	MS-N Series
	200-220V	380 - 440V	MS-T	MS-N	Standard (Without Terminal Cover)	Standard (Without Terminal Cover)
AC Operated	2.5	4	1a		MS-T10	MS-N10
	3.5	5.5	1a1b	1a	MS-T12	MS-N11
				1a1b		MS-N12
	5.5	11	2a2b		MS-T21	MS-N20, MS-N21
	11	18.5	2a2b		MS-T35	MS-N35
	15	22	2a2b		MS-T50	MS-N50
	18.5	30	2a2b		MS-T65	MS-N65
	22	45	2a2b		MS-T80	MS-N80
	30	55	2a2b		MS-T100	MS-N95
	5.5	11	2a2b x 2		MS-2xT21	MS-2xN20, MS-2xN21
Reversing	11	18.5	2a2b x 2		MS-2xT35	MS-2xN35
	15	22	2a2b x 2		MS-2xT50	MS-2xN50
	18.5	30	2a2b x 2		MS-2xT65	MS-2xN65
	22	45	2a2b x 2		MS-2xT80	MS-2xN80
	30	55	2a2b x 2		MS-2xT100	MS-2xN95

2.2 Magnetic Starters (Open Type)

[AC Operated Type]

Type	Class AC-3 Rated Capacity (kW)		Auxiliary Contact (Standard)		MS-T Series		MS-N Series	
	200-220V	380 - 440V	MS-T	MS-N	Standard (With Terminal Cover)	With Fast Wiring Terminal	Standard (Without Terminal Cover)	With CAN Terminal
AC Operated	2.5	4	1a		MSO-T10	MSO-T10BC	MSO-N10	MSO-N10CX
	3.5	5.5	1a1b	1a	MSO-T12	MSO-T12BC	MSO-N11	MSO-N11CX
				1a1b			MSO-N12	MSO-N12CX
	4.5 (4:N20)	7.5	1a1b	-			MSO-N18	MSO-N18CX
				1a1b			MSO-N20	MSO-N20CX
	5.5	11	2a2b		MSO-T21	MSO-T21BC	MSO-N21	MSO-N21CX
	7.5	15	2a2b		MSO-T25	MSO-T25BC	MSO-N25	MSO-N25CX
	11	18.5	2a2b		MSO-T35	MSO-T35BC	MSO-N35	MSO-N35CX
	15	22	2a2b		MSO-T50	MSO-T50BC	MSO-N50	-
	18.5	30	2a2b		MSO-T65	-	MSO-N65	-
Reversing	22	45	2a2b		MSO-T80	-	MSO-N80	-
	30	55	2a2b		MSO-T100	-	MSO-N95	-
	2.5	4	1a x 2 + 2b		MSO-2xT10	MSO-2xT10BC	MSO-2xN10	MSO-2xN10CX
	3.5	5.5	1a1b x 2 + 2b	1a x 2 + 2b	MSO-2xT12	MSO-2xT12BC	MSO-2xN11	MSO-2xN11CX
				1a1b x 2			MSO-2xN18	MSO-2xN18CX
	4.5 (4:N20)	7.5	1a1b x 2	2a2b x 2			MSO-2xN20	MSO-2xN20CX
				1a1b x 2			MSO-2xN20	MSO-2xN20CX
	5.5	11	2a2b x 2		MSO-2xT21	MSO-2xT21BC	MSO-2xN21	MSO-2xN21CX
	7.5	15	2a2b x 2		MSO-2xT25	MSO-2xT25BC	MSO-2xN25	MSO-2xN25CX
	11	18.5	2a2b x 2		MSO-2xT35	MSO-2xT35BC	MSO-2xN35	MSO-2xN35CX
Reversing	15	22	2a2b x 2		MSO-2xT50	MSO-2xT50BC	MSO-2xN50	-
	18.5	30	2a2b x 2		MSO-2xT65	-	MSO-2xN65	-
	22	45	2a2b x 2		MSO-2xT80	-	MSO-2xN80	-
	30	45	2a2b x 2		MSO-2xT100	-	MSO-2xN95	-

[DC Operated Type]

Type	Class AC-3 Rated Capacity (kW)		Auxiliary Contact (Standard)		MS-T Series		MS-N Series	
	200-220V	380 - 440V	MS-T	MS-N	Standard (With Terminal Cover)	With Fast Wiring Terminal	Standard (Without Terminal Cover)	With CAN Terminal
DC Operated	3.5	5.5	1a1b	1a	MSOD-T12	MSOD-T12BC	MSOD-N11	MSOD-N11CX
				1a1b			MSOD-N12	MSOD-N12CX
	4.5	7.5	1a1b	-			-	-
	5.5	11	2a2b		MSOD-T21	MSOD-T21BC	MSOD-N21	MSOD-N21CX
	11	18.5	2a2b		MSOD-T35	MSOD-T35BC	MSOD-N35	MSOD-N35CX
	15	22	2a2b		MSOD-T50	MSOD-T50BC	MSOD-N50	-
	18.5	30	2a2b		MSOD-T65	-	MSOD-N65	-
	22	45	2a2b		MSOD-T80	-	MSOD-N80	-
	30	55	2a2b		MSOD-T95	-	MSOD-N95	-
	3.5	5.5	1a1b x 2 + 2b	1a x 2 + 2b	MSOD-2xT12	MSOD-2xT12BC	MSOD-2xN11	MSOD-2xN11CX
Reversing				1a1b x 2 + 2b			-	-
	4.5	7.5	1a1b x 2 + 2b	-			MSOD-2xN18	MSOD-2xN18CX
				1a1b x 2 + 2b			MSOD-2xN20	MSOD-2xN20CX
	5.5	11	2a2b x 2		MSOD-2xT21	MSOD-2xT21BC	MSOD-2xN21	MSOD-2xN21CX
	11	18.5	2a2b x 2		MSOD-2xT35	MSOD-2xT35BC	MSOD-2xN35	MSOD-2xN35CX
	15	22	2a2b x 2		MSOD-2xT50	MSOD-2xT50BC	MSOD-2xN50	-
	18.5	30	2a2b x 2		MSOD-2xT65	-	MSOD-2xN65	-
	22	45	2a2b x 2		MSOD-2xT80	-	MSOD-2xN80	-
	30	55	2a2b x 2		MSOD-2xT100	-	MSOD-2xN95	-

2.3 Magnetic Contactors (Open Type)

[AC Operated Type]

(1) Comparison Under Rated Motor Load (Class AC-3)

Type	Class AC-3 Rated Operating Current (A)		Auxiliary Contact (Standard)		MS-T Series		MS-N Series	
	200 - 220V	380 - 440V	MS-T	MS-N	Standard (With Terminal Cover)	With Fast Wiring Terminal	Standard (Without Terminal Cover)	With CAN Terminal
Non-Reversing	11	9	1a		S-T10	S-T10BC	S-N10	S-N10CX
	13	12	1a1b	1a	S-T12	S-T12BC	S-N11	S-N11CX
	18 (20:N20)	18 (20:N20)	1a1b		S-T20	S-T20BC	S-N20	S-N20CX
	25	23	2a2b		S-T21	S-T21BC	S-N21	S-N21CX
	30	30	2a2b		S-T25	S-T25BC	S-N25	S-N25CX
	40	40	2a2b		S-T35	S-T35BC	S-N35	S-N35CX
	55	48	2a2b		S-T50	S-T50BC	S-N50	—
	65	65	2a2b		S-T65	—	S-N65	—
	85	85	2a2b		S-T80	—	S-N80	—
	105	105	2a2b		S-T100	—	S-N95	—
Reversing	11	9	1a x 2 + 2b		S-2xT10	S-2xT10BC	S-2xN10	S-2xN10CX
	13	12	1a1b x 2 + 2b	1a x 2 + 2b	S-2xT12	S-2xT12BC	S-2xN11	S-2xN11CX
	18 (20:N20)	18 (20:N20)	1a1b x 2		S-2xT20	S-2xT20BC	S-2xN20	S-2xN20CX
	25	23	2a2b x 2		S-2xT21	S-2xT21BC	S-2xN21	S-2xN21CX
	30	30	2a2b x 2		S-2xT25	S-2xT25BC	S-2xN25	S-2xN25CX
	40	40	2a2b x 2		S-2xT35	S-2xT35BC	S-2xN35	S-2xN35CX
	55	48	2a2b x 2		S-2xT50	S-2xT50BC	S-2xN50	—
	65	65	2a2b x 2		S-2xT65	—	S-2xN65	—
	85	85	2a2b x 2		S-2xT80	—	S-2xN80	—
	105	105	2a2b x 2		S-2xT100	—	S-2xN95	—
Main Circuit 3-Pole	18	13	—		S-T32	S-T32BC	S-N18	S-N18CX
	26	17					S-N28	S-N28CX
	32	32					—	—
	18	13	2a2b x 2		S-2xT32	S-2xT32BC	S-2xN18	S-2xN18CX
	26	17					S-2xN28	S-2xN28CX
	32	32					—	—

(2) Comparison Under Rated Resistance Load (Class AC-1)

Type	Class AC-1 Rated Operating Current (A)		Auxiliary Contact (Standard)		MS-T Series		MS-N Series	
	100 - 240V	380 - 440V	MS-T	MS-N	Standard (With Terminal Cover)	With Fast Wiring Terminal	Standard (Without Terminal Cover)	With CAN Terminal
Non-Reversing	20	11	1a		S-T10	S-T10BC	S-N10	S-N10CX
	20	13	1a1b	1a	S-T12	S-T12BC	S-N11	S-N11CX
			1a1b		S-T12, S-T20	S-T12BC, S-T20BC	S-N12	S-N12CX
	32	32	1a1b		—	—	S-N20	S-N20CX
			2a2b		S-T21, S-T25	S-T21BC, S-T25BC	S-N21	S-N21CX
	50	50	2a2b		—	—	S-N25	S-N25CX
	60	60	2a2b		S-T35	S-T35BC	S-N35	S-N35CX
	80	80	2a2b		S-T50	S-T50BC	S-N50	—
	100	100	2a2b		S-T65	—	S-N65	—
	120	120	2a2b		S-T80	—	—	—
Reversing	135	135	2a2b		—	—	S-N80	—
	150	150	2a2b		S-T100	—	S-N95	—
	20	11	1a x 2 + 2b		S-2xT10	S-2xT10BC	S-2xN10	S-2xN10CX
	20	13	1a1b x 2 + 2b	1a x 2	S-2xT12	S-2xT12BC	S-2xN11	S-2xN11CX
			1a1b x 2		S-2xT12 S-2xT20	S-2xT12BC S-2xT20BC	—	—
	32	32	1a1b x 2		—	—	S-2xN20	S-2xN20CX
			2a2b x 2		S-2xT21 S-2xT25	S-2xT21BC S-2xT25BC	S-2xN21	S-2xN21CX
	50	50	2a2b x 2		—	—	S-2xN25	S-2xN25CX
	60	60	2a2b x 2		S-2xT35	S-2xT35BC	S-2xN35	S-2xN35CX
	80	80	2a2b x 2		S-2xT50	S-2xT50BC	S-2xN50	—
Main Circuit 3-Pole	100	100	2a2b x 2		S-2xT65	—	S-2xN65	—
	120	120	2a2b x 2		S-2xT80	—	—	—
	135	135	2a2b x 2		—	—	S-2xN80	—
	150	150	2a2b x 2		S-2xT100	—	S-2xN95	—
	25	20	—		S-T32	S-T32BC	S-N18	S-N18CX
	30	30					S-N28	S-N28CX
	32	32					—	—
	25	20	2a2b x 2		S-2xT32	S-2xT32BC	S-2xN18	S-2xN18CX
	30	30					S-2xN28	S-2xN28CX
	32	32					—	—

[DC Operated Type]

(3) Comparison Under Rated Motor Load (Class AC-3)

Type		Class AC-3 Rated Operating Current (A)		Auxiliary Contact (Standard)		MS-T Series		MS-N Series	
		200 - 220V	380 - 440V	MS-T	MS-N	Standard (With Terminal Cover)	With Fast Wiring Terminal	Standard (Without Terminal Cover)	With CAN Terminal
DC Operated	Non-Reversing	13	12	1a1b	1a	SD-T12	SD-T12BC	SD-N11	SD-N11CX
				1a1b				SD-N12	SD-N12CX
		18	18	1a1b		SD-T20	SD-T20BC	—	—
		25	23	2a2b		SD-T21	SD-T21BC	SD-N21	SD-N21CX
		40	40	2a2b		SD-T35	SD-T35BC	SD-N35	SD-N35CX
		55	48	2a2b		SD-T50	SD-T50BC	SD-N50	—
		65	65	2a2b		SD-T65	—	SD-N65	—
		85	85	2a2b		SD-T80	—	SD-N80	—
		105	105	2a2b		SD-T100	—	SD-N95	—
	Reversing	13	12	1a1b x 2 + 2b	1a x 2 + 2b	SD-2xT12	SD-2xT12BC	SD-2xN11	SD-2xN11CX
		18	18	1a1b x 2		SD-2xT20	SD-2xT20BC	—	—
		25	23	2a2b x 2		SD-2xT21	SD-2xT21BC	SD-2xN21	SD-2xN21CX
		40	40	2a2b		SD-2xT35	SD-2xT35BC	SD-2xN35	SD-2xN35CX
		55	48	2a2b		SD-2xT50	SD-2xT50BC	SD-2xN50	—
		65	65	2a2b		SD-2xT65	—	SD-2xN65	—
		85	85	2a2b		SD-2xT80	—	SD-2xN80	—
		105	105	2a2b		SD-2xT100	—	SD-2xN95	—
Main Circuit 3-Pole	Non-Reversing	32	32	—		SD-T32	SD-T32BC	—	—
	Reversing	32	32	2a2b x 2		SD-2xT32	SD-2xT32BC	—	—

(4) Comparison Under Rated Resistance Load (Class AC-1)

Type		Class AC-1 Rated Operating Current (A)		Auxiliary Contact (Standard)		MS-T Series		MS-N Series	
		100 - 240V	380 - 440V	MS-T	MS-N	Standard (With Terminal Cover)	With Fast Wiring Terminal	Standard (Without Terminal Cover)	With CAN Terminal
DC Operated	Non-Reversing	20	13	1a1b	1a	SD-T12	SD-T12BC	SD-N11	SD-N11CX
				1a1b		SD-T12, SD-T20	SD-T12BC, SD-T20BC	SD-N12	SD-N12CX
		32	32	2a2b		SD-T21	SD-T21BC	SD-N21	SD-N21CX
		60	60	2a2b		SD-T35	SD-T35BC	SD-N35	SD-N35CX
		80	80	2a2b		SD-T50	SD-T50BC	SD-N50	—
		100	100	2a2b		SD-T65	—	SD-N65	—
		120	120	2a2b		SD-T80	—	—	—
		135	135	2a2b		—	—	SD-N80	—
		150	150	2a2b		SD-T100	—	SD-N95	—
	Reversing	20	13	1a1b x 2 + 2b	1a x 2 + 2b	SD-2xT12	SD-2xT12BC	SD-2xN11	SD-2xN11CX
				1a1b x 2 + 2b	—	SD-2xT12	SD-2xT12BC	—	—
		32	32	2a2b x 2		SD-2xT21	SD-2xT21BC	SD-2xN21	SD-2xN21CX
		60	60	2a2b x 2		SD-2xT35	SD-2xT35BC	SD-2xN35	SD-2xN35CX
		80	80	2a2b x 2		SD-2xT50	SD-2xT50BC	SD-2xN50	—
		100	100	2a2b x 2		SD-2xT65	—	SD-2xN65	—
		120	120	2a2b x 2		SD-2xT80	—	—	—
		135	135	2a2b x 2		—	—	SD-2xN80	—
		150	150	2a2b x 2		SD-2xT100	—	SD-2xN95	—
Main Circuit 3-Pole	Non-Reversing	32	32	—		SD-T32	SD-T32BC	—	—
	Reversing	32	32	2a2b x 2		SD-2xT32	SD-2xT32BC	—	—

[Mechanically Latched (AC Operated/DC Operated)]

(5) Comparison Under Rated Motor Load (Class AC-3)

Type		Class AC-3 Rated Operating Current (A)		Auxiliary Contact (Valid)		MS-T Series		MS-N Series	
		200~220V	380 ~ 440V	MS-T	MS-N	Standard (With Terminal Cover)	With Fast Wiring Terminal	Standard (Without Terminal Cover)	With CAN Terminal
AC Operated	Non-Reversing	25	23	2a2b		SL-T21	SL-T21BC	SL-N21	SL-N21CX
		40	40	2a2b		SL-T35	SL-T35BC	SL-N35	SL-N35CX
		55	48	2a2b		SL-T50	SL-T50BC	SL-N50	—
		65	65	2a2b		SL-T65	—	SL-N65	—
		85	85	2a2b 1a2b		SL-T80	—	SL-N80	—
	Reversing	105	105	1a2b		SL-T100	—	SL-N95	—
		25	23	2a2b x 2		SL-2xT21	SL-2xT21BC	SL-2xN21	SL-2xN21CX
		40	40	2a2b x 2		SL-2xT35	SL-2xT35BC	SL-2xN35	SL-2xN35CX
		55	48	2a2b x 2		SL-2xT50	SL-2xT50BC	SL-2xN50	—
		65	65	2a2b x 2		SL-2xT65	—	SL-2xN65	—
DC Operated	Non-Reversing	85	85	2a2b x 2 1a2b x 2		SL-2xT80	—	SL-2xN80	—
		105	105	1a2b x 2		SL-2xT100	—	SL-2xN95	—
		25	23	2a2b		SLD-T21	SLD-T21BC	SLD-N21	SLD-N21CX
		40	40	2a2b		SLD-T35	SLD-T35BC	SLD-N35	SLD-N35CX
		55	48	2a2b		SLD-T50	SLD-T50BC	SLD-N50	—
	Reversing	65	65	2a2b		SLD-T65	—	SLD-N65	—
		85	85	2a2b 1a2b		SLD-T80	—	SLD-N80	—
		105	105	2a2b		SLD-T95	—	SLD-N95	—
		25	23	2a2b x 2		SLD-2xT21	SLD-2xT21BC	SLD-2xN21	SLD-2xN21CX
		40	40	2a2b		SLD-2xT35	SLD-2xT35BC	SLD-2xN35	SLD-2xN35CX

(6) Comparison Under Rated Resistance Load (Class AC-1)

Type		Class AC-1 Rated Operating Current (A)		Auxiliary Contact (Standard)		MS-T Series		MS-N Series	
		100 ~ 240V	380 ~ 440V	MS-T	MS-N	Standard (With Terminal Cover)	With Fast Wiring Terminal	Standard (Without Terminal Cover)	With CAN Terminal
AC Operated	Non-Reversing	32	32	2a2b		SL-T21	SL-T21BC	SL-N21	SL-N21CX
		60	60	2a2b		SL-T35	SL-T35BC	SL-N35	SL-N35CX
		80	80	2a2b		SL-T50	SL-T50BC	SL-N50	—
		100	100	2a2b		SL-T65	—	SL-N65	—
		120	120	2a2b —		SL-T80	—	—	—
	Reversing	135	135	— 1a2b		—	—	SL-N80	—
		150	150	1a2b		SL-T100	—	SL-N95	—
		32	32	2a2b x 2		SL-2xT21	SL-2xT21BC	SL-2xN21	SL-2xN21CX
		60	60	2a2b x 2		SL-2xT35	SL-2xT35BC	SL-2xN35	SL-2xN35CX
		80	80	2a2b x 2		SL-2xT50	SL-2xT50BC	SL-2xN50	—
DC Operated	Non-Reversing	100	100	2a2b x 2		SL-2xT65	—	SL-2xN65	—
		120	120	2a2b x 2 —		SL-2xT80	—	—	—
		135	135	— 1a2b x 2		—	—	SL-2xN80	—
		150	150	1a2b x 2		SL-2xT100	—	SL-2xN95	—
		32	32	2a2b		SLD-T21	SLD-T21BC	SLD-N21	SLD-N21CX
	Reversing	60	60	2a2b		SLD-T35	SLD-T35BC	SLD-N35	SLD-N35CX
		80	80	2a2b		SLD-T50	SLD-T50BC	SLD-N50	—
		100	100	2a2b		SLD-T65	—	SLD-N65	—
		120	120	2a2b —		SLD-T80	—	—	—
		135	135	— 1a2b		—	—	SLD-N80	—

2.4 Thermal Overload Relays

Type	Heater Designation	TH-T Series		TH-N Series	
		Standard (With Terminal Cover)	With Fast Wiring Terminal	Standard (Without Terminal Cover)	With CAN Terminal
Standard with 2-Element	0.12 - 11A	TH-T18	TH-T18BC	TH-N12	TH-N12CX
	1.3 - 15A			TH-N18	TH-N18CX
	0.24 - 15A	TH-T25	TH-T25BC	TH-N20	TH-N20CX
	22A			TH-N20TA	TH-N20TACX
	29A	TH-T50	TH-T50BC	TH-N20TA	TH-N20TACX
	35 - 42A	TH-T50	TH-T50BC	—	—
	15 - 54A	TH-T65	—	TH-N60	—
	67 - 82A	TH-T100	—	TH-N60TA	—
Overload/Constraint/ Open-Phase Protection (2E Type)	0.12 - 11A	TH-T18KP	TH-T18BCKP	TH-N12KP	TH-N12CXKP
	1.3 - 15A			TH-N18KP	TH-N18CXKP
	0.24 - 15A	TH-T25KP	TH-T25BCKP	TH-N20KP	TH-N20CXKP
	22A			TH-N20TAKP	TH-N20TACXKP
	29A	TH-T50KP	TH-T50BCKP	TH-N20TAKP	TH-N20TACXKP
	35 - 42A	TH-T50KP	TH-T50BCKP	—	—
	15 - 54A	TH-T65KP	—	TH-N60KP	—
	67 - 82A	TH-T100KP	—	TH-N60TAKP	—

2.5 Contactor Relays

[AC Operated Type]

Type	Contact Arrangement		T Series		N Series	
	T Series	N Series	Standard (With Terminal Cover)	With Fast Wiring Terminal	Standard (Without Terminal Cover)	With CAN Terminal
AC Operated	5a, 4a1b, 3a2b	4a, 3a1b, 2a2b	SR-T5	SR-T5BC	SR-N4	SR-N4CX
		5a, 4a1b, 3a2b, 2a3b			SR-N5	SR-N5CX
	9a, 7a2b, 5a4b	8a, 7a1b, 6a2b, 5a3b, 4a4b	SR-T9	SR-T9BC	SR-N8	SR-N8CX

[DC Operated Type]

Type	Contact Arrangement		T Series		N Series	
	T Series	N Series	Standard (With Terminal Cover)	With Fast Wiring Terminal	Standard (Without Terminal Cover)	With CAN Terminal
DC Operated	5a, 4a1b, 3a2b	4a, 3a1b, 2a2b	SRD-T5	SRD-T5BC	SRD-N4	SRD-N4CX
		5a, 4a1b, 3a2b, 2a3b			SRD-N5	SRD-N5CX
	9a, 7a2b, 5a4b	8a, 7a1b, 6a2b, 5a3b, 4a4b	SRD-T9	SRD-T9BC	SRD-N8	SRD-N8CX

[Mechanically Latched (AC Operated/DC Operated)]

Type	Contact Arrangement		T Series		N Series	
	T Series	N Series	Standard (With Terminal Cover)	With Fast Wiring Terminal	Standard (Without Terminal Cover)	With CAN Terminal
AC Operated	5a, 4a1b, 3a2b	4a, 3a1b, 2a2b	SRL-T5	SRL-T5BC	SRL-N4	SRL-N4CX
	5a, 4a1b, 3a2b	4a, 3a1b, 2a2b	SRLD-T5	SRLD-T5BC	SRLD-N4	SRLD-N4CX

3. Comparison of New and Old Coil Rating

3.1 Control Coil Types and Rating [AC Operation]

(1) Comparison of S-T10 - T50 Types, SR-T5/T9 Types and S-N10 - N35 Types, SR-N4 - N8 Types

New (For S-T10 - T50 Types, SR-T5/T9 Types)			Existing (For S-N10 - N35 Types, SR-N4 - N8 Types)		
Designation	Rated Voltage [V]		Designation	Rated Voltage [V]	
	50Hz	60Hz		50Hz	60Hz
24 VAC	24	24	24 VAC	24	24
48 VAC	48-50	48-50	48 VAC	48-50	48-50
100 VAC	100-127	100-127	100 VAC	100	100-110
			120 VAC	110-120	115-120
			127 VAC	125-127	127
200 VAC	200-240	200-240	200 VAC	200	200-220
			220 VAC	208-220	220
			230 VAC	220-240	230-240
300 VAC	260-300	260-300	260 VAC	240-260	260-280
400 VAC	380-440	380-440	380 VAC	346-380	380
			400 VAC	380-415	400-440
500 VAC	460-550	460-550	440 VAC	415-440	460-480
			500 VAC	500	500-550

Note 1. The new models have a wider rated voltage range.

Note 2. Rated voltage range for the coil designation 300 VAC for the new model S-T50 has been changed from that of the existing model S-N50. See item (3) below.

(2) Comparison of S-T10SA - T32SA Types, SR-T5SA/T9SA Types and S-N10SA - N28SA Types,
SR-N4SA - N8SA Types

New (For S-T10 - T50SA Types, SR-T5/T9SA Types)			Existing (For S-N10 - N35SA Types, SR-N4 - N8SA Types)					
Designation	Rated Voltage [V]		Varistor Voltage	Designation	Rated Voltage [V]		Varistor Voltage	
	50Hz	60Hz			50Hz	60Hz		
24 VAC	24	24	120V	24 VAC	24	24	120V	
48 VAC	48-50	48-50		48 VAC	48-50	48-50		
100 VAC	100-127	100-127	470V	100 VAC	100	100-110	470V	
				120 VAC	110-120	115-120		
				127 VAC	125-127	127		
200 VAC	200-240	200-240		200 VAC	200	200-220		
				220 VAC	208-220	220		
				230 VAC	220-240	230-240		
300 VAC	260-300	260-300	910V	New	—	—	—	
400 VAC	380-440	380-440		—	—	—		

Note 1. The new models have a wider rated voltage range.

Note 2. Coil designation 300 VAC/400 VAC has been added to the new model.

Note 3. S-T□ SA and SR-T□ SA are shipped with external coil surge absorber unit UT-SA21 for the control coil mounted.

(3) Comparison of S-T65 - T100 Types and S-N50 - N95 Types

New (S-T65 - T100 Types)		Existing (S-N50 - N95 Types)	
Designation	Rated Voltage 50Hz/60Hz	Designation	Rated Voltage 50Hz/60Hz
24 VAC	24	24 VAC	24
48 VAC	48-50	48 VAC	48-50
100 VAC	100-127	100 VAC	100-127
200 VAC	200-240	200 VAC	200-240
300 VAC	260-350	300 VAC	260-350
400 VAC	380-440	400 VAC	380-440
500 VAC	460-550	500 VAC	460-550

Note 1. No changes to coil designation and rating range.

3.2 Control Coil Types and Rating [DC Operation]

(1) Comparison of SD-T12 - T100 Types, SRD-T5/T9 Types and SD-N11 - N95 Types, SRD-N4 - N8 Types

New (For SD-T12 - T100 Types, SRD-T5/T9 Types)		Existing (For SD-N11 - N95 Types, SRD-N4 - N8 Types)	
Designation	Rated Voltage	Designation	Rated Voltage
12 VDC	12 VDC	12 VDC	12 VDC
24 VDC	24 VDC	24 VDC	24 VDC
48 VDC	48 VDC	48 VDC	48 VDC
100 VDC	100 VDC	100 VDC	100 VDC
110 VDC	110 VDC	110 VDC	110 VDC
125 VDC	120 - 125 VDC	125 VDC	120 - 125 VDC
200 VDC	200 VDC	200 VDC	200 VDC
220 VDC	220 VDC	220 VDC	220 VDC

Note 1. No changes to coil designation and rating range.

Note 2. SD-T12 - T32 have coil polarity (A1(+), A2(-)).

(2) Comparison of SD-T12 - T50SA Types, SRD-T5/T9SA Types and SD-N11 - N35SA Types, SRD-N4 - N8SA Types

New (For SD-T12 - T50SA Types, SRD-T5/T9SA Types)			Existing (For SD-N11 - N35SA Types, SRD-N4 - N8SA Types)		
Designation	Rated Voltage	Varistor Voltage	Designation	Rated Voltage	Varistor Voltage
12 VDC	12 VDC	47V Low	12 VDC	12 VDC	120V
24 VDC	24 VDC		24 VDC	24 VDC	
48 VDC	48 VDC		48 VDC	48 VDC	
100 VDC	100 VDC		100 VDC	100 VDC	
110 VDC	110 VDC		110 VDC	110 VDC	
125 VDC	120 - 125 VDC		125 VDC	120 - 125 VDC	
200 VDC	200 VDC		200 VDC	200 VDC	
220 VDC	220 VDC		220 VDC	220 VDC	

Note 1. No changes to coil designation and rating range.

Note 2. New models have coil polarity (A1(+), A2(-)).

Note 3. New models have 12 VDC/24 VDC designation varistor voltage set lower.

Note 4. SD-T□ SA and SRD-T□ SA are shipped with external coil surge absorber unit UT-SA21 for the control coil mounted.

3.3 Control Coil Types and Rating [Mechanically Latched Type]

(1) Comparison of SL-T21 - T100 Types, SRL-T5 Type and SL-N21 - N95 Types, SRL-N4 Type

New (For SL-T21 - T100 Types, SRL-T5 Type)		Existing (For SL-N21 - N95 Types, SRL-N4 Type)	
Designation	Rated Voltage	Designation	Rated Voltage
24 VAC (Note 2)	24 VAC	24 VAC (Note 2)	24 VAC
48 VAC (Note 2)	48 - 50 VAC	48 VAC (Note 2)	48 - 50 VAC
100 VAC	100 - 127 VAC	100 VAC	100 - 127 VAC
200 VAC	200 - 240 VAC	200 VAC	200 - 240 VAC
300 VAC	260 - 350 VAC	300 VAC	260 - 350 VAC
400 VAC	380 - 440 VAC	400 VAC	380 - 440 VAC
500 VAC	460 - 550 VAC	500 VAC	460 - 550 VAC

Note 1. No changes to coil designation and rating range.

Note 2. 24 VAC and 48 VAC coils cannot be manufactured for SL-T100 and SL-N80/N95.

Note 3. 12 VAC coil can be manufactured for SL-T21, SRL-T5, SL-N21, and SRL-N4.

(2) Comparison of SLD-T21 - T100 Types, SRLD-T5 Type and SLD-N21 - N95 Types, SRLD-N4 Type

New (For SLD-T21 - T100 Types, SRLD-T5 Type)		Existing (For SLD-N21 - N95 Types, SRLD-N4 Type)	
Designation	Rated Voltage	Designation	Rated Voltage
12 VDC (Note 2)	12 VDC	12 VDC (Note 2)	12 VDC
24 VDC	24 VDC	24 VDC	24 VDC
48 VDC	48 VDC	48 VDC	48 VDC
100 VDC	100 - 110 VDC	100 VDC	100 - 110 VDC
125 VDC	120 - 125 VDC	125 VDC	120 - 125 VDC
200 VDC	200 - 220 VDC	200 VDC	200 - 220 VDC

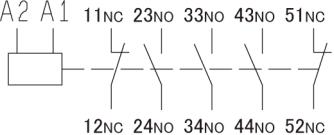
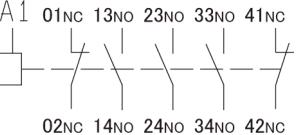
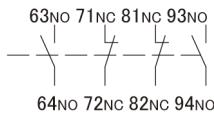
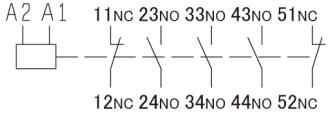
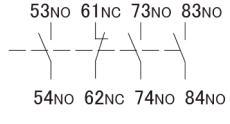
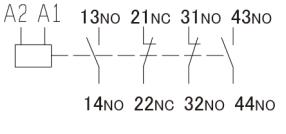
Note 1. No changes to coil designation and rating range.

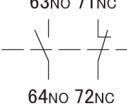
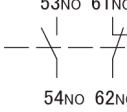
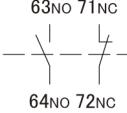
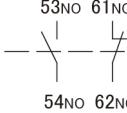
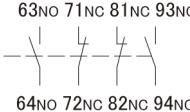
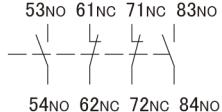
Note 2. 12 VDC coil cannot be manufactured for SLD-T100 and SLD-N80/N95.

Note 3. The coil has no polarity.

4. Changes to Product Marking

4.1 Terminal Number Display

Item	MS-T Target Model Names (Typical Model)	New MS-T Series	Existing MS-N Series	Remarks	
Display Content	Main Terminal Number	S-T10 - T100 SD-T12 - T100 SL(D)-T21 - T100 TH-T18 - T100	Supply Side: 1/L1 3/L2 5/L3 Load Side: 2/T1 4/T2 6/T3	Supply Side: 1/L1 3/L2 5/L3 Load Side: 2/T1 4/T2 6/T3	
	Auxiliary Terminal Number (Magnetic Contactor)	S-T10, T12, T20 SD-T12, T20 S-T21 - T35 SD-T21 - T35 SL(D)-T21 - T35	Make Contacts: 13NO - 14NO Break Contacts: 21NC - 22NC Make Contacts: 13NO-14NO 43NO-44NO Break Contacts: 21NC-22NC 31NC-32NC	Make Contacts: 13NO - 14NO Break Contacts: 21NC - 22NC Make Contacts: 13NO-14NO 43NO-44NO Break Contacts: 21NC-22NC 31NC-32NC	NO (Normally Open): Make Contact NC (Normally Closed): Break Contact
	Auxiliary Terminal Number (Contactor Relay)	S-T50 - T100 SD-T50 - T100 SL(D)-T50 - T100	Make Contacts: 13NO-14NO 43NO-44NO Break Contacts: 21NC-22NC 31NC-32NC	Make Contacts: 13 (13) NO-14 (14) NO 43 (23) NO-44 (24) NO Break Contacts: 21 (31) NC-22 (32) NC 31 (41) NC-32 (42) NC	
		SR-T5 SRD-T5 SRL(D)-T5	<ul style="list-style-type: none"> · Ones Place of the Number for Make Contacts: 3-4, Break Contacts: 1-2 · Tens Place of the Number Changes to 1 - 5 E.g.: SR-T5 3a2b 	<ul style="list-style-type: none"> · Ones Place of the Number for Make Contacts: 3-4, Break Contacts: 1-2 · Tens Place of the Number Changes to 0 - 4 E.g.: SR-N5 3a2b 	Complies With the International Standards IEC
	Auxiliary Terminal Number (Contactor Relay)	SR-T9 SRD-T9	<ul style="list-style-type: none"> · Ones Place of the Number for Make Contacts: 3-4, Break Contacts: 1-2 · Tens Place of the Number Changes to 1 - 9 E.g.: SR-T9 5a4b  	<ul style="list-style-type: none"> · Ones Place of the Number for Make Contacts: 3-4, Break Contacts: 1-2 · Tens Place of the Number Changes to 1 - 8 E.g.: SR-N8 5a3b  	
		S-T10 - T35 SD-T12 - T35 SL(D)-T21 - T35	A1, A2 (Embossed Characters)	A1, A2 (Simultaneous Printing With Rated Coil Display)	
	Coil Terminal Number	S-T50 - T100 SD-T50 - T100 SL(D)-T50 - T100	A1, A2 (Embossed Characters)	A1, A2 (Embossed Characters)	
		SL(D)-T21/T35 SL(D)-T100 SRL(D)-T5	E1, E2 (printed in black on white nameplates)	E1, E2 (printed in black on white nameplates)	
		SL(D)-T50	E1, E2 (printed in black on white nameplates)	E1, E2 (Embossed Characters)	
		SL(D)-T50FN/T65	E1, E2 (Embossed Characters)	E1, E2 (Embossed Characters)	
		SL(D)-T80	E1, E2 (Embossed Characters)	E1, E2 (printed in black on white nameplates)	

Item	MS-T Target Model Names (Typical Model)	New MS-T Series	Existing MS-N Series	Remarks
Display Content Auxiliary Terminal Number (Auxiliary Contact Unit)	UT-AX11	<ul style="list-style-type: none"> · Ones Place of the Number for Make Contacts: 3-4, Break Contacts: 1-2 · Tens Place of the Number Changes to 6 - 7 <p>Example: UT-AX11 1a1b (When mounted on the left side of the body)</p> 	<ul style="list-style-type: none"> · Ones Place of the Number for Make Contacts: 3-4, Break Contacts: 1-2 · Tens Place of the Number Changes to 5 - 6 <p>Example: UN-AX11 1a1b (When mounted on the left side of the body)</p> 	
	UT-AX2	<ul style="list-style-type: none"> · Ones Place of the Number for Make Contacts: 3-4, Break Contacts: 1-2 · Tens Place of the Number Changes to 6 - 7 <p>E.g.: UT-AX2 1a1b</p> 	<ul style="list-style-type: none"> · Ones Place of the Number for Make Contacts: 3-4, Break Contacts: 1-2 · Tens Place of the Number Changes to 5 - 6 <p>E.g.: UN-AX2 1a1b</p> 	
	UT-AX4	<ul style="list-style-type: none"> · Ones Place of the Number for Make Contacts: 3-4, Break Contacts: 1-2 · Tens Place of the Number Changes to 6 - 9 <p>E.g.: UT-AX4 2a2b</p> 	<ul style="list-style-type: none"> · Ones Place of the Number for Make Contacts: 3-4, Break Contacts: 1-2 · Tens Place of the Number Changes to 5 - 8 <p>E.g.: UN-AX4 2a2b</p> 	
Display Position Terminal Number	S-T10 - T20 SD-T12 - T20 SR-T5/T9 SRD-T5/T9 UT-AX2, AX4	<ul style="list-style-type: none"> · Laser printed on the product front for both the body and auxiliary contact unit 	<ul style="list-style-type: none"> · On the body (lower part of SR-N8), it is printed on the product front in blue · On the upper part of SR-N8 (auxiliary contact unit), the terminal number is printed on the paper name plate in blue 	
	UT-AX11	<ul style="list-style-type: none"> · The terminal number is printed on a paper name plate on the product front 	<ul style="list-style-type: none"> · The terminal number is printed on the paper name plate in blue 	
	S-T21 - T35 SD-T21 - T35 SL(D)-T21 - T35 SRL(D)-T5	<ul style="list-style-type: none"> · Laser printed on the front of the product 	<ul style="list-style-type: none"> · Printed on the front of the product in blue 	
	S-T50 SD-T50	<ul style="list-style-type: none"> · Laser printed on the front of the product 	<ul style="list-style-type: none"> · Printed on the name plate on the product front in blue 	
	S-T65 - T100 SD-T65 - T100 SL(D)-T100	<ul style="list-style-type: none"> · Printed on the name plate on the product front in gray 	<ul style="list-style-type: none"> · Printed on the name plate on the product front in blue 	
	SL(D)-T50	<ul style="list-style-type: none"> · Laser printed on the front of the product 	<ul style="list-style-type: none"> · Embossed characters on the top surface of the product 	
	SL(D)-T50FN/T65	<ul style="list-style-type: none"> · Embossed characters on the top surface of the product 	<ul style="list-style-type: none"> · Embossed characters on the top surface of the product 	
	SL(D)-T80	<ul style="list-style-type: none"> · Embossed characters on the top surface of the product 	<ul style="list-style-type: none"> · Printed on the name plate on the product front in blue 	

4.2. Rating Display

Item	MS-T Target Model Names (Typical Model)	MS-T Series	MS-N Series	Remarks
Main Circuit Rating	S-T10 - T35 SD-T12 - T35 SR-T5, T9 SRD-T5, T9 SL(D)-T21/T35 SRL(D)-T5	All laser printed on the side	<ul style="list-style-type: none"> The AC1=I_{th} rating (A) is printed on the front bottom left Other ratings are displayed on a name plate on the side 	
	S-T50 SD-T50 SL(D)-T50	Laser printed on the side	Printed on the name plate on the front in gray	
	S-T65 - T100 SD-T65 - T100	Printed on the name plate on the front in gray	Printed on the name plate on the front in gray	
	SL(D)-T50FN/T65/T80	Laser printed on the front	Printed on the name plate on the front in gray	
Display Method	SL(D)-T100	Printed on the name plate on the front in gray	Printed on the name plate on the front in gray	
	Coil Rating	<ul style="list-style-type: none"> Laser printed for S and SD (No color-coding) SL(D): Laser printed on closing coil Printed in black on white on tripping coil 	<ul style="list-style-type: none"> The designation 100 VAC/200 VAC has all rated ranges color-coded (between the power supply side coil terminals) 100V 50Hz 100-110V 60Hz 200V 50Hz Other ratings have all rated ranges printed on a name plate in white SD and SRD are printed in black on blue SL(D) is printed in black on green 	
		All laser printed (No color-coding)	<ul style="list-style-type: none"> The designation 100 VAC / 200 VAC are printed in black on color-coded nameplates Other ratings are printed in black on white nameplates SD is printed in black on blue SL(D) is printed in black on green 	
		S-T65 - T100 SD-T65 - T100 SL(D)-T65 - T100 SL(D)-T50FN	All are printed in black on white nameplates	
Coil Polarity (+ -)	SD-T12 - T32 SRD-T5, T9	Laser printed between the coil terminals (E.g.) 	- (no marking as it has no polarity)	

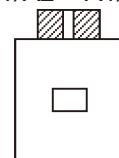
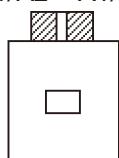
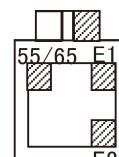
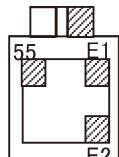
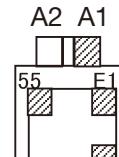
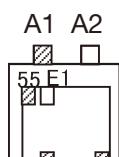
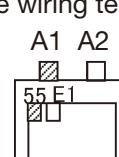
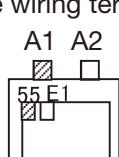
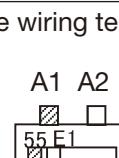
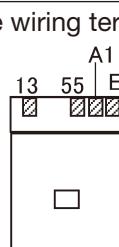
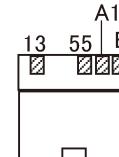
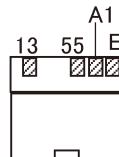
4.3 Model Name Display

Item	MS-T Target Model Names (Typical Model)	MS-T Series	MS-N Series	Remarks
Display Method	S-T10 - T35 SD-T12 - T35 SR-T5, T9 SRD-T5, T9 UT-AX2, AX4	Laser printed on the product front left (Display up to 3rd symbol)	Printed on the front left center of the product in blue	
	S-T50 SD-T50	Laser printed on the product front left (Display up to 3rd symbol)	Printed on the name plate on the product front in blue	
	S-T65 - T100 SD-T65 - T100	Printed on the name plate on the product front in gray (Display up to 3rd symbol)	Printed on the name plate on the product front in blue	
	UT-AX11	Printed on the paper name plate on the side of the product	Printed on the front center of the product in blue	
	SL(D)-T21 - T50 SRL(D)-T5	Printed on the front center of the product in black	Printed on the front center of the product in blue	
	SL(D)-T65 - T80 SL(D)-T50FN	Laser printed on the product front left	Printed on the front right of the product in blue	
	SL(D)-T100	Printed on the name plate on the product front in gray	Printed on the name plate on the product front in blue	

Note: From MS-T series magnetic starters (model name: MSO-T□), the model name sticker is applied to the side of the magnetic contactor.

5. Differences Related to Wiring/Handling

5.1 Terminals/Location

Item	MS-T Target Model Names (Typical Model)	MS-T Series	MS-N Series	Remarks										
Coil Terminal Location	S-T10 - T100 SD-T12 - T100 SR(D)-T5/T9	2 Terminals Located on the Power Supply Side A1/A2 A1/A2 	2 Terminals Located on the Power Supply Side A1/A2 A1/A2 											
	SL(D)-T21 - T35 SRL(D)-T5	■ are wiring terminals A2 A1 	■ are wiring terminals A2 A1 											
	SL(D)-T50	■ are wiring terminals A2 A1 	■ are wiring terminals A1 A2 	Rewire terminals as shown below when performing replacement. <table border="1"><tr><th>T Series Terminal</th><th>N Series Terminal</th></tr><tr><td>A1</td><td>A1</td></tr><tr><td>55</td><td>55</td></tr><tr><td>E2</td><td>E2</td></tr><tr><td>E1</td><td>64</td></tr></table>	T Series Terminal	N Series Terminal	A1	A1	55	55	E2	E2	E1	64
T Series Terminal	N Series Terminal													
A1	A1													
55	55													
E2	E2													
E1	64													
	SL(D)-T65 SL(D)-T50FN	■ are wiring terminals A1 A2 	■ are wiring terminals A1 A2 											
	SL(D)-T80	■ are wiring terminals A1 A2 	■ are wiring terminals A1 13 55 E2 	Rewire terminals as shown below when performing replacement. <table border="1"><tr><th>T Series Terminal</th><th>N Series Terminal</th></tr><tr><td>A1</td><td>A1</td></tr><tr><td>55</td><td>55</td></tr><tr><td>E2</td><td>E2</td></tr><tr><td>64</td><td>13</td></tr></table>	T Series Terminal	N Series Terminal	A1	A1	55	55	E2	E2	64	13
T Series Terminal	N Series Terminal													
A1	A1													
55	55													
E2	E2													
64	13													
	SL(D)-T100	■ are wiring terminals A1 13 55 E2 	■ are wiring terminals A1 13 55 E2 											

Item	MS-T Target Model Names (Typical Model)	MS-T Series		MS-N Series		Remarks
Contact Mark Display of Auxiliary Terminal (Displayed with engraved marks on contact and terminal, etc.)	S-T10 - T35 SD-T12 - T35 SL(D)-T21 - T35 SR-T5, SRD-T5 SRL(D)-T5	Make Contact ▽ Break Contact △		Make Contact ⊥ Break Contact ≠		
	SR-T9, SRD-T9	Lower Part (Body Side)	Upper Part (Auxiliary Contact Unit Side)	Lower Part (Body Side)	Upper Part (Auxiliary Contact Unit Side)	
		Make Contact ▽	Make Contact □	Make Contact ⊥	Make Contact ▽	
		Break Contact △	Break Contact ▵	Break Contact ≠	Break Contact △	

5.2 Rail Mounting

Item	MS-T Target Model Names (Typical Model)	MS-T Series	MS-N Series	Remarks
DIN Rail Mounting	S-T10 - T25 SD-T12 - T21 SL(D)-T21	<ul style="list-style-type: none"> Mounting 	<ul style="list-style-type: none"> Mounting 	
	S-T35 - T65 SD-T35 SL(D)-T35 - T65	<ul style="list-style-type: none"> Removal <p>Screwdriver Not Required</p> 	<ul style="list-style-type: none"> Removal <p>Screwdriver Operated by Screwdriver</p> 	
	S-T80 SD-T50 SL(D)-T80	Same Operation as N Series		Not Available

6. Application of Thermal Overload Relays and Optional Units

6.1 Combining with Thermal Overload Relays and Optional Units

(1) S(D)-(2X)T10 - T50 Types

Model Name	Thermal Overload Relays			For Magnetic Starters			Additional Auxiliary Contact Units			Mechanical Interlock Units			Surge Absorber Units for Control Coils (External)			Coil DC/AC Interfaces			Main Circuit Surge Absorbers			Reversing Connecting Conductor Units				
	TH-T18	TH-T25	TH-T50	UN-TH21	UT-TH50	UT-AX4	UT-AX2	UT-AX4	UT-AX2	UT-ML11	UT-ML20	UN-ML21	UT-SA21	UT-SA22	UT-SA13	UT-SA23	UT-SA25	UT-SA3320	UT-SA3321	UT-SA3322	UT-SY21	UT-SY22	UT-SD10	UT-SD20	UT-SD25	UT-SD25X
S-T10	○	-	-	-	-	-	-	-	-	○	-	-	○	-	-	-	-	○	-	-	○	-	-	-	-	-
S-T12	○	-	-	-	-	-	-	-	-	○	-	-	○	-	-	-	-	○	-	-	○	-	-	-	-	-
S-T20	○	-	-	-	-	-	-	-	-	○	-	-	○	-	-	-	-	○	-	-	○	-	-	-	-	-
S-T21	-	○	-	-	-	-	-	-	-	○	-	-	○	-	-	-	-	○	-	-	○	-	-	-	-	-
S-T25	-	○	-	-	-	-	-	-	-	○	-	-	○	-	-	-	-	○	-	-	○	-	-	-	-	-
S-T32	-	○	-	-	-	-	-	-	-	○	-	-	○	-	-	-	-	○	-	-	○	-	-	-	-	-
S-T35	-	○	○	-	-	-	-	-	-	○	-	-	○	-	-	-	-	○	-	-	○	-	-	-	-	-
S-T50	-	○	○	-	-	-	-	-	-	○	-	-	○	-	-	-	-	○	-	-	○	-	-	-	-	-
S-2xT10	○	-	-	-	-	-	-	-	-	■	■	■	■	■	■	■	-	-	-	-	-	-	-	-	-	-
S-2xT12	○	-	-	-	-	-	-	-	-	○	-	-	○	-	-	-	-	○	-	-	○	-	-	-	-	-
S-2xT20	○	-	-	-	-	-	-	-	-	○	-	-	○	-	-	-	-	○	-	-	○	-	-	-	-	-
S-2xT21	-	○	-	-	-	-	-	-	-	○	-	-	○	-	-	-	-	○	-	-	○	-	-	-	-	-
S-2xT25	-	○	-	-	-	-	-	-	-	○	-	-	○	-	-	-	-	○	-	-	○	-	-	-	-	-
S-2xT32	-	○	-	-	-	-	-	-	-	○	-	-	○	-	-	-	-	○	-	-	○	-	-	-	-	-
S-2xT35	-	○	-	-	-	-	-	-	-	○	-	-	○	-	-	-	-	○	-	-	○	-	-	-	-	-
S-2xT50	-	○	-	-	-	-	-	-	-	○	-	-	○	-	-	-	-	○	-	-	○	-	-	-	-	-
SD-T12	○	-	-	-	-	-	-	-	-	○	-	-	○	-	-	-	-	○	-	-	○	-	-	-	-	-
SD-T20	○	-	-	-	-	-	-	-	-	○	-	-	○	-	-	-	-	○	-	-	○	-	-	-	-	-
SD-T21	-	○	-	-	-	-	-	-	-	○	-	-	○	-	-	-	-	○	-	-	○	-	-	-	-	-
SD-T32	-	○	-	-	-	-	-	-	-	○	-	-	○	-	-	-	-	○	-	-	○	-	-	-	-	-
SD-T35	-	○	-	-	-	-	-	-	-	○	-	-	○	-	-	-	-	○	-	-	○	-	-	-	-	-
SD-T50	-	○	-	-	-	-	-	-	-	○	-	-	○	-	-	-	-	○	-	-	○	-	-	-	-	-
SD-2xT12	○	-	-	-	-	-	-	-	-	■	■	■	■	■	■	■	-	-	-	■	■	■	■	■	■	
SD-2xT20	○	-	-	-	-	-	-	-	-	○	-	-	○	-	-	-	-	○	-	-	○	-	-	-	-	-
SD-2xT21	-	○	-	-	-	-	-	-	-	○	-	-	○	-	-	-	-	○	-	-	○	-	-	-	-	-
SD-2xT32	-	○	-	-	-	-	-	-	-	○	-	-	○	-	-	-	-	○	-	-	○	-	-	-	-	-
SD-2xT35	-	○	-	-	-	-	-	-	-	○	-	-	○	-	-	-	-	○	-	-	○	-	-	-	-	-
SD-2xT50	-	○	-	-	-	-	-	-	-	○	-	-	○	-	-	-	-	○	-	-	○	-	-	-	-	-

(2) S(D)-(2X)T65 - T100 Types

Model Name	Thermal Overload Relays			Additional Auxiliary Contact Units			Mechanical Interlock Units			Surge Absorber Units for Control Coils (External)			Coil DC/AC Interfaces			Reversing Connecting Conductor Units			Live Part Protection Covers			Terminal Cover				
	TH-T65	TH-T100	UN-AX2	UN-AX4	UN-AX2	UN-AX1	UN-AX80	UN-ML80	UN-SA721	UN-SA722	UN-SA725	UN-SY31	UN-SY32	UN-SY12	UN-SD50	UN-SD80	UN-SD90	UN-CZ500	UN-CZ800	UN-CZ802	UN-CW800					
S-T65	○	-	○	○	○	○	-	○	-	-	-	○	-	-	○	-	-	○	-	-	○	-	-	-	-	-
S-T80	○	-	○	○	○	○	-	○	-	-	-	○	-	-	○	-	-	○	-	-	○	-	-	-	-	-
S-T100	○	-	○	○	○	○	-	○	-	-	-	○	-	-	○	-	-	○	-	-	○	-	-	-	-	-
S-2xT65	-	○	-	○	○	○	-	○	-	-	-	○	-	-	○	-	-	○	-	-	○	-	-	-	-	-
SD-T65	-	○	-	○	○	○	-	○	-	-	-	○	-	-	○	-	-	○	-	-	○	-	-	-	-	-
SD-T80	-	○	-	○	○	○	-	○	-	-	-	○	-	-	○	-	-	○	-	-	○	-	-	-	-	-
SD-T100	-	○	-	○	○	○	-	○	-	-	-	○	-	-	○	-	-	○	-	-	○	-	-	-	-	-
S-2xT80	-	○	-	○	○	○	-	○	-	-	-	○	-	-	○	-	-	○	-	-	○	-	-	-	-	-
SD-2xT65	-	○	-	○	○	○	-	○	-	-	-	○	-	-	○	-	-	○	-	-	○	-	-	-	-	-
SD-2xT80	-	○	-	○	○	○	-	○	-	-	-	○	-	-	○	-	-	○	-	-	○	-	-	-	-	-
SD-2xT100	-	○	-	○	○	○	-	○	-	-	-	○	-	-	○	-	-	○	-	-	○	-	-	-	-	-

Note 1. ○ : Applicable -: Not Applicable ■ : Standard Combination Product

Note 2. ■ Indicates dedicated thermal overload relays and optional units for MS-T series.

Note 3. UT-AX4/UT-AX2 and UT-AX1 cannot be mounted for usage at the same time.

(3) SL(D)-(2X)T21 - T50 Types

Model Name	Thermal Overload Relays	Connecting Conductor Kit for Magnetic Starters	Additional Auxiliary Contact Units	Mechanical Interlock Units	Surge Absorber Units for Control Coils (Closing Coil)						Surge Absorber Units for Control Coils (Tripping Coil)						Reversing Connecting Conductor Units	3-Pole Array Connection Units	
					UT-AX4 /AX2	UT-AX11	UN-ML21	UT-SA21	UT-SA22	UT-SA13	UT-SA23	UT-SA25	UN-SA721	UN-SA712	UN-SA713	UN-SA723	UT-SD25	UN-SD25CX	UN-YY21
SL-T21	○	-	○	○	○	○	○	○	○	-	○	○	○	○	-	○	-	○	-
SL-T35	○	○	○	○	○	○	○	○	○	-	○	○	○	○	-	○	-	○	-
SL-T50	○	○	○	○	○	○	○	○	○	-	○	○	○	○	-	○	-	○	-
SL-2xT21	○	-	○	○	○	○	○	○	○	-	○	○	○	○	-	○	-	○	-
SL-2xT35	○	○	○	○	○	○	○	○	○	-	○	○	○	○	-	○	-	○	-
SL-2xT50	○	○	○	○	○	○	○	○	○	-	○	○	○	○	-	○	-	○	-
SLD-T21	○	-	○	○	○	○	○	○	○	-	○	○	○	○	-	○	-	○	-
SLD-T35	○	○	○	○	○	○	○	○	○	-	○	○	○	○	-	○	-	○	-
SLD-T50	○	○	○	○	○	○	○	○	○	-	○	○	○	○	-	○	-	○	-
SLD-2xT21	○	-	○	○	○	○	○	○	○	-	○	○	○	○	-	○	-	○	-
SLD-2xT35	○	○	○	○	○	○	○	○	○	-	○	○	○	○	-	○	-	○	-
SLD-2xT50	○	○	○	○	○	○	○	○	○	-	○	○	○	○	-	○	-	○	-

(4) SL(D)-(2X)T65 - T100 Types

Model Name	Thermal Overload Relays	Additional Auxiliary Contact Units	Mechanical Interlock Units	Surge Absorber Units for Control Coils (Tripping Coil)	Reversing Connecting Conductor Units				Live Part Protection Covers	Terminal Cover	3-Pole Array Connection Units									
					UN-AX4 /AX2	UN-AX11	UN-ML80	UN-ML21	UN-SA721	UN-SA722	UN-SA713	UN-SA723	UN-SD50	UN-SA725	UN-SA723	UN-GZ500	UN-CZ502	UN-CZ800	UN-CZ506	UN-CZ806
SL-T65	○	-	○	○	-	○	-	○	○	-	○	○	○	-	○	-	○	-	○	-
SL-T80	○	○	○	○	-	○	-	○	○	-	○	○	○	-	○	-	○	-	○	-
SL-T100	○	-	○	○	-	○	-	○	-	-	○	-	○	-	○	-	○	-	○	-
SL-2xT65	○	-	○	○	-	○	-	○	-	-	○	-	○	-	○	-	○	-	○	-
SL-2xT80	○	○	○	○	-	○	-	○	-	-	○	-	○	-	○	-	○	-	○	-
SL-2xT100	○	-	○	○	-	○	-	○	-	-	○	-	○	-	○	-	○	-	○	-
SLD-T65	○	○	○	○	-	○	-	○	-	-	○	-	○	-	○	-	○	-	○	-
SLD-T80	○	○	○	○	-	○	-	○	-	-	○	-	○	-	○	-	○	-	○	-
SLD-T100	○	○	○	○	-	○	-	○	-	-	○	-	○	-	○	-	○	-	○	-
SLD-2xT65	○	-	○	○	-	○	-	○	-	-	○	-	○	-	○	-	○	-	○	-
SLD-2xT80	○	○	○	○	-	○	-	○	-	-	○	-	○	-	○	-	○	-	○	-
SLD-2xT100	○	○	○	○	-	○	-	○	-	-	○	-	○	-	○	-	○	-	○	-

Note 1. ○ : Applicable -: Not Applicable ■ : Standard Combination Product

Note 2. ■ indicates dedicated thermal overload relays and optional units for MS-T series.

6.2 Optional Units for Thermal Overload Relays

Model Name	Independent Mounting Units	Connecting Conductor Kits for MSO	Fluorescent Display Lamps for Thermal Overload Relays	for Thermal Overload Relays	Reset Releases for Thermal Overload Relays	Live Part Protection Covers/ Terminal Cover
	UT-HZ18	UN-TRM20	UN-TH21	UT-TH60	UN-TL20	UN-TL60
TH-T18	○	-	[Not Required]	○	-	○
TH-T25	-	○	○	○	-	-
TH-T50	-	-	○	○	-	-
TH-T65	-	-	-	-	○	-
TH-T100	-	-	-	-	○	○

Note 1. ○ : Applicable - Not Applicable

Note 2. █ indicates dedicated optional units for MS-T series.

6.3 Compatibility of New and Old Thermal Overload Relays and Magnetic Contactors When Used In Combination

Model Name	Thermal Overload Relays				Thermal Overload Relays			
	TH-T18	TH-T25	TH-T50	TH-T65	TH-N12	TH-N18	TH-N20	TH-N60
S-N10	-	-	-	-	-	-	-	-
S-N11	-	-	-	-	-	-	-	-
S-N12	-	-	-	-	-	-	-	-
S-N20	-	-	-	-	-	-	-	-
S-N21	-	-	-	-	-	-	-	-
S-N25	-	-	-	-	-	-	-	-
S-N35	-	-	-	-	-	-	-	-
S-N50	-	-	-	-	○	-	-	-
S-N65	-	-	-	-	○	○	-	-
S-N80	-	-	-	-	○	○	-	-
S-N95	-	-	-	-	○	○	-	-
SD-N11	-	-	-	-	-	-	-	-
SD-N12	-	-	-	-	-	-	-	-
SD-N21	-	-	-	-	-	-	-	-
SD-N35	-	-	-	-	-	-	-	-
SD-N50	-	-	-	-	-	-	-	-
SD-N65	-	-	-	-	-	-	-	-
SD-N80	-	-	-	-	○	○	-	-
SD-N95	-	-	-	-	○	○	-	-
SL(D)-N21	-	-	-	-	-	-	-	-
SL(D)-N35	-	-	-	-	-	-	-	-
SL(D)-N50	-	-	-	-	-	-	-	-
SL(D)-N65	-	-	-	-	-	-	-	-
SL(D)-N80	-	-	-	-	○	○	-	-
SL(D)-N95	-	-	-	-	○	○	-	-

Note 1. ○ : Applicable - Not Applicable

7. Domestic and International Standards

7.1 Regulations/Standards Conformance

Model		MS-T Series							MS-N Series								
		Model Name		Conformity and Compliance		CE Marking	Certified			Model Name		Conformity and Compliance		CE Marking	Certified		
Magnetic Contactors	Non-Reversing	S-T10 - T100	SD-T12 - T100	○	○	○	○	○	○	S-N10 - N95	SD-N11 - N95	○	○	○	○	○	○
		S-2XT10 - 2XT100	SD-2XT12 - 2XT100	○	○	○	○	○	-	S-2XN10 - 2XN95	SD-2XN11 - 2XN95	○	○	○	○	○	-
Open Type Magnetic Starters	Non-Reversing/2-Element	MSO-T10 - T100	MSOD-T12 - T100	○	○	*	*	*	*	MSO-N10 - N95	MSOD-N11 - N95	○	○	*	*	○	*
	Non-Reversing/3-Element	MSO-T10 - T100KP	MSOD-T12 - T100KP	○	○	Note 2 -	Note 2 -	○	Note 2 -	MSO-N10 - N95KP	MSOD-N11 - N95KP	○	○	-	○	○	Note 2 -
	Reversing/2-Element	MSO-2XT10 - 2XT100	MSOD-2XT12 - 2XT100	○	○	*	*	*	*	MSO-2XN10 - 2XN95	MSOD-2XN11 - 2XN95	○	○	*	*	○	*
	Reversing/3-Element	MSO-2XT10 - 2XT100KP	MSOD-2XT12 - 2XT100KP	○	○	Note 2 -	Note 2 -	○	Note 2 -	MSO-2XN10 - 2XN95KP	MSOD-2XN11 - 2XN95KP	○	○	-	☆	○	Note 2 -
Enclosed Type Magnetic Starters	Non-Reversing/2-Element	MS-T10 - T100	MS-T10 - T100KP	○	○	-	-	-	-	MS-N10 - N95	MS-N10 - N95KP	○	○	-	-	○	-
	Non-Reversing/3-Element	MS-T10 - T100KP	MS-T10 - T100KP	○	○	-	-	-	-	MS-N10 - N95KP	MS-N10 - N95KP	○	○	-	-	○	-
Mechanically Latched Contactors	Non-Reversing	SL(D)-T21 - T100	SL(D)-2XT21 - 2XT100	○	○	-	☆	○	-	SL(D)-N21 - N95	SL(D)-2XN21 - 2XN95	○	○	-	☆	○	-
	Reversing	SL(D)-T21 - T100	SL(D)-2XT21 - 2XT100	○	○	-	☆	○	-	SL(D)-2XN21 - 2XN95	SL(D)-2XN21 - 2XN95	○	○	-	☆	○	-
Thermal Overload Relays	2-Element	TH-T18 - T100	TH-T18 - T100KP	○	○	*	*	*	Note 3 -	TH-N12 - N60TA	TH-N12 - N60TAKP	○	○	*	*	○	*
	3-Element	TH-T18 - T100KP	TH-T18 - T100KP	○	○	○	○	○	○	TH-N12 - N60TA	TH-N12 - N60TAKP	○	○	○	○	○	○
Contactor Relays	AC Operated	SR-T, SRD-T	SR-T, SRD-T	○	○	○	○	○	○	SR-N, SRD-N	SR-N, SRD-N	○	○	○	○	○	○
	Optional Units	Additional Auxiliary Contact	UT-AX	○	○	○	○	○	○	UN-AX	UN-AX	○	○	○	○	○	○
Surge Absorber	Surge Absorber	UT-SA	UT-SA	○	○	-	○	*	-	UN-SA	UN-SA	○	○	-	○	*	-
	Mechanical Interlock	UT-ML	UT-ML	○	○	○	○	*	-	UN-ML	UN-ML	○	○	○	○	*	-

Note 1. Symbols indicate the following:

○ : Complies/conforms as standard product, ○ : Certified as standard product, ☆ : Certified with dedicated product, -: Models not yet certified (non-pending), *: Not applicable

Note 2. Compatibility and certification for magnetic starters are obtained for each magnetic contactor and thermal overload relay model name under the condition that the magnetic contactor and thermal overload relay are used in combination.

Note 3. From MS-T series, thermal overload relay 2-element products are not CCC certified.

7.2 Comparison of UL Certified SCCR (Short-Circuit Current Rating)

MS-T Series				MS-N Series									
Model Name	Main Circuit Voltage: 240 VAC Maximum		Low Voltage Circuit Breaker Used	Main Circuit Voltage: 480 VAC Maximum		Model Name	Main Circuit Voltage: 240 VAC Maximum		Low Voltage Circuit Breaker Used	Main Circuit Voltage: 480 VAC Maximum			
	SCCR	Maximum Rated Current		SCCR	Maximum Rated Current		SCCR	Maximum Rated Current		SCCR	Maximum Rated Current		
S-T10 S(D)-T12	10kA	30A	10kA	10kA	30A	18kA	S-N10 S(D)-N11 S(D)-N12	10kA	30A	18kA	10kA	30A	18kA
	25kA	30A	35kA		15A	25kA		25kA	30A	35 kA		30A	18kA
	SD-T12	14kA	20A		14kA	20A		14kA	20A	14kA		50A	18kA
S(D)-T20	10kA	50A	10kA	10kA	30A	18kA	S-N18 S-N20	10kA	50A	18kA	10kA	50A	18kA
	25kA	50A	35kA		15A	10kA		25kA	50A	35 kA		75A	18kA
	SD-T20	14kA	30A		14kA	30A		10kA	50A	18kA		75A	18kA
S(D)-T21	10kA	50A	10 kA	35kA	50A	50 kA	S(D)-N21	10kA	50A	18kA	10kA	50A	18kA
	35kA	50A	50kA		14kA	40A		25kA	50A	35 kA		100A	18kA
S-D-T21	14kA	40A	14kA	35kA	75A	50kA	S-N25	10kA	75A	18kA	10kA	75A	18kA
	35kA	75A	50kA		35kA	75A		25kA	75A	35 kA		225A	18kA
S(D)-T32	10kA	75A	14 kA	35kA	75A	50 kA	S-N28	10kA	50A	18kA	10kA	50A	18kA
	35kA	75A	50kA		75A	50 kA		25kA	50A	35 kA		225A	18kA
S(D)-T35	10kA	50A	10kA	18kA	75A	18kA	S(D)-N35	10kA	75A	18kA	10kA	75A	18kA
	14kA	40A	14kA		75A	18kA		25kA	75A	35kA		225A	18kA
	18kA	75A	18kA		75A	50kA		14kA	40A	14kA		350A	18kA
	25kA	75A	35kA	35kA	75A	50kA		14kA	40A	14kA		400A	18kA
	35kA	75A	50kA		100A	18kA		18kA	100A	18kA		500A	18kA
S(D)-T50	10kA	50A	10kA	18kA	100A	18kA	S(D)-N50	14kA	75A	14kA	18kA	100A	18kA
	14kA	75A	14kA		100A	18kA		18kA	100A	18kA		200A	18kA
	18kA	100A	18kA		100A	35kA		25kA	100A	35kA		300A	18kA
	25kA	100A	35kA	35kA	225A	35kA		14kA	100A	35kA		400A	18kA
	35kA	100A	50kA		225A	35kA		18kA	100A	35kA		500A	18kA
S(D)-T65	14kA	75A	14kA	18kA	100A	18kA	S(D)-N65	14kA	75A	14kA	18kA	100A	18kA
	18kA	100A	18kA		100A	35kA		18kA	100A	18kA		200A	18kA
	25kA	225A	35kA		225A	35kA		25kA	100A	35kA		300A	18kA
S(D)-T80	14kA	75A	14kA	18kA	100A	18kA	S(D)-N80	25kA	225A	35kA	25kA	225A	35kA
	18kA	100A	18kA		100A	35kA		25kA	225A	35kA		300A	35kA
	25kA	225A	35kA		225A	35kA		35kA	225A	35kA		400A	35kA
S(D)-T100	18kA	100A	18kA	18kA	100A	18kA	S(D)-N95	25kA	225A	35kA	25kA	225A	35kA
	25kA	225A	35kA		225A	35kA		25kA	225A	35kA		300A	35kA

8. Comparison of Other Specifications

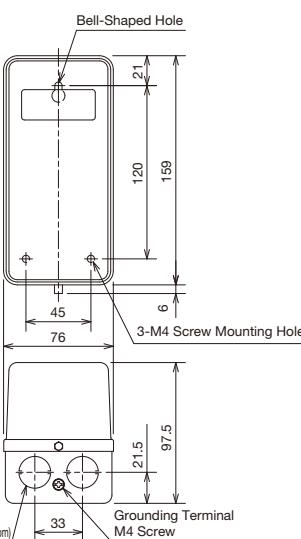
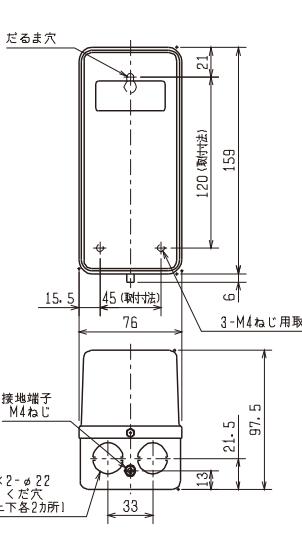
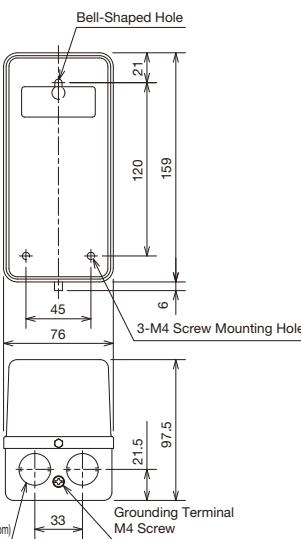
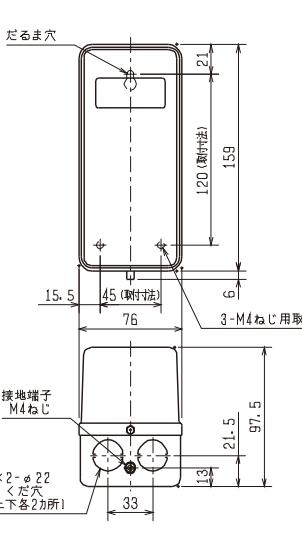
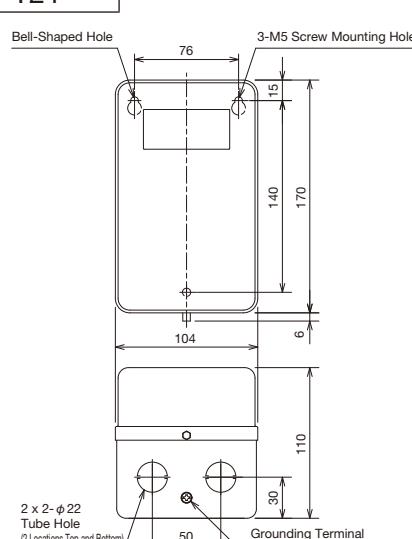
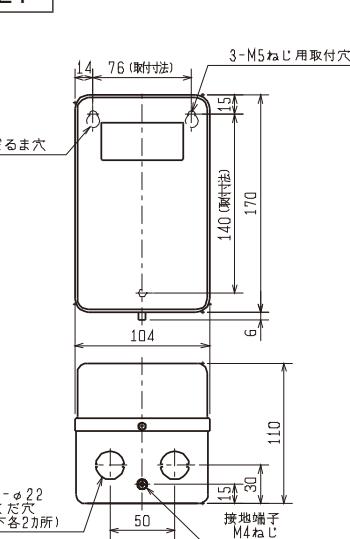
8.1 Maintenance and Inspection

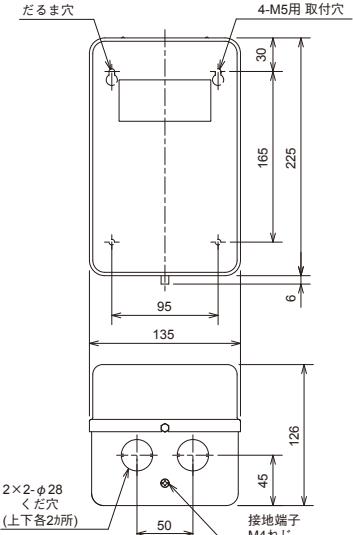
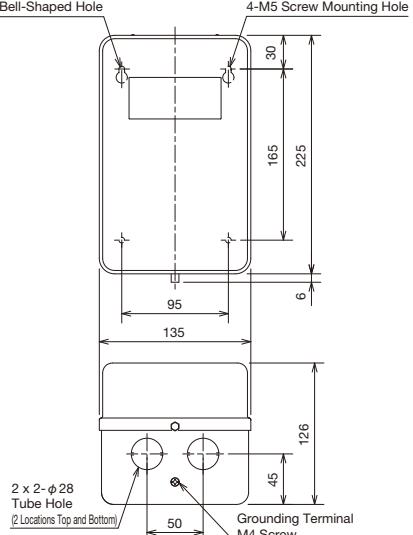
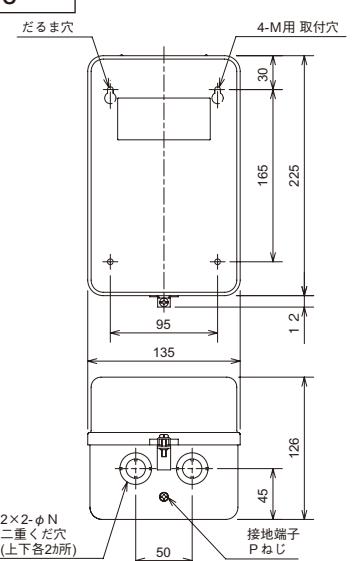
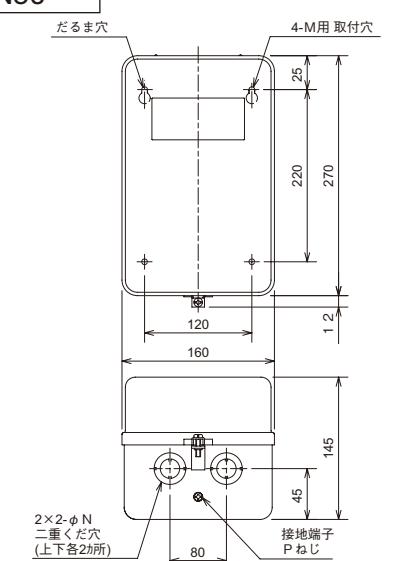
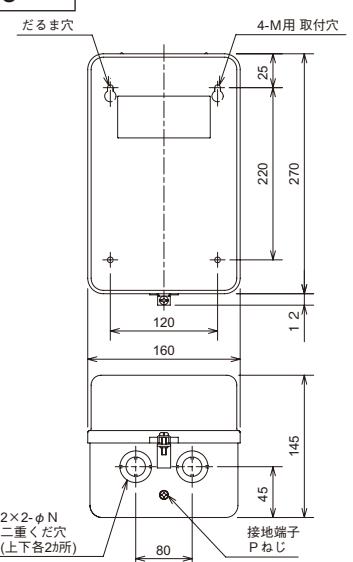
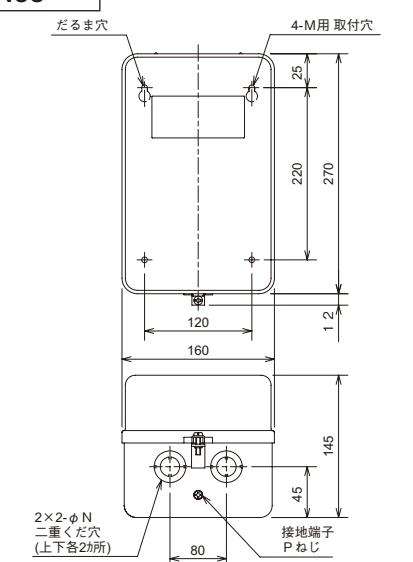
Item	MS-T Target Model Names (Typical Model)	MS-N Target Model Names (Typical Model)		
		Support Availability	Support Availability	
Contact Replacement	S-T10 - T32 SD-T12 - T32	Not Available	S-N10 - N25, N28 SD-N11 - N21	Available
	SR-T5,9 SRD-T5,9	Not Available	SR-N4 - N8 SRD-N4 - N8	Not Available
	S-T35 - T100 SD-T35 - T100	Available	S-N35 - N95 SD-N35 - N95	Available
Coil Replacement	S-T10 - T32 SD-T12 - T32	Not Available	S-N10 - N25, N28 SD-N11 - N21	Available
	SR-T5,9 SRD-T5,9	Not Available	SR-N4 - N8 SRD-N4 - N8	Available
	S-T35 - T100 SD-T35 - T100	Available	S-N35 - N95 SD-N35 - N95	Available
Contact Inspection	S-T10 - T32 SD-T12 - T32	Not Available	S-N10 - N25, N28 SD-N11 - N21	Available
	SR-T5,9 SRD-T5,9	Not Available	SR-N4 - N8 SRD-N4 - N8	Available
	S-T35 - T100 SD-T35 - T100	Available	S-N35 - N95 SD-N35 - N95	Available

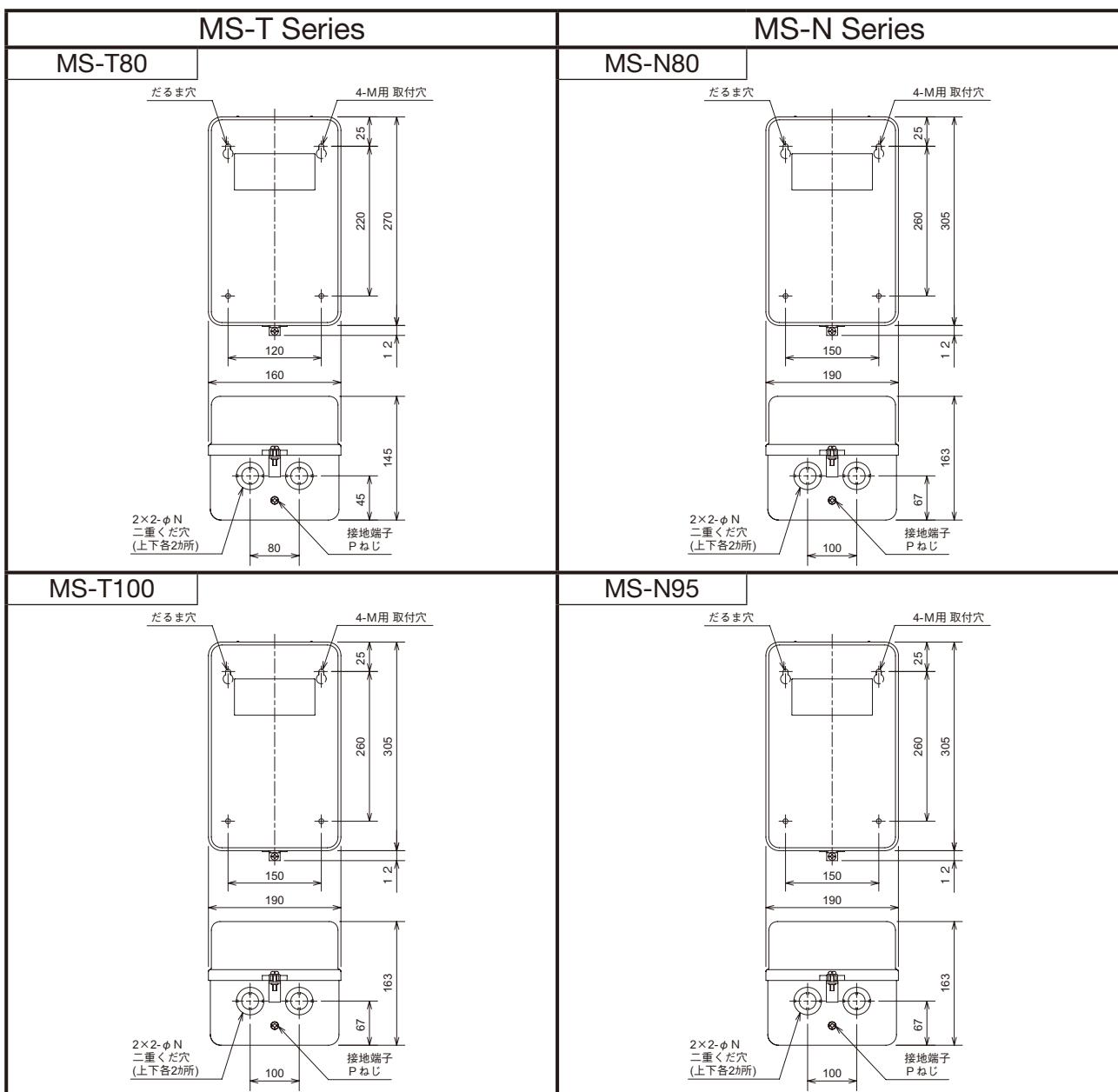
Note 1. Mechanically latched magnetic contactors are calibrated assembled products. Neither MS-T nor MS-N series can be replaced, inspected or disassembled.

9. Comparison of External Dimensions/Mounting Dimensions

9.1 Enclosed Type Magnetic Starters (Non-Reversing)

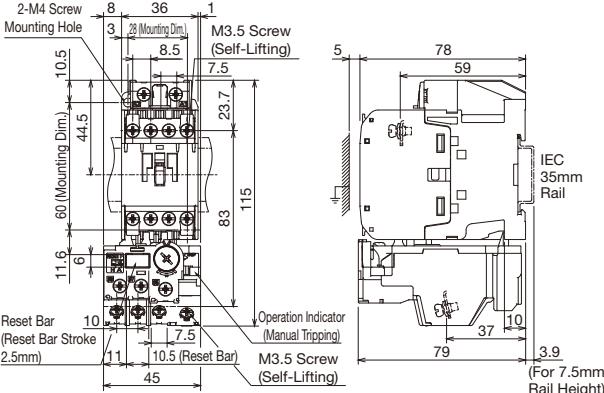
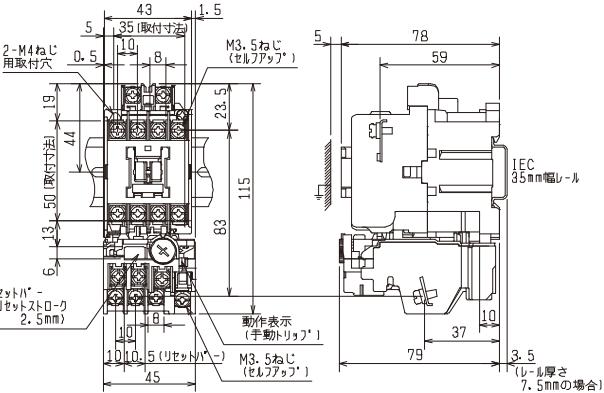
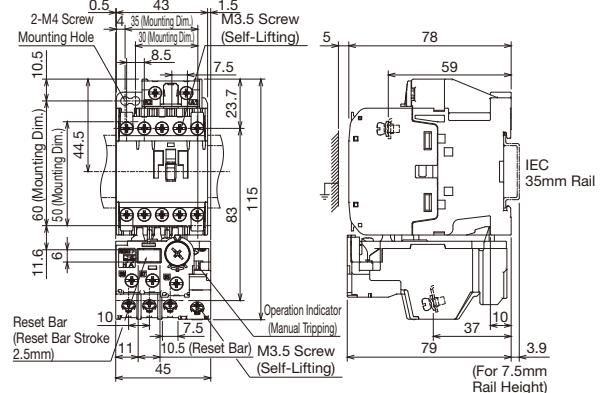
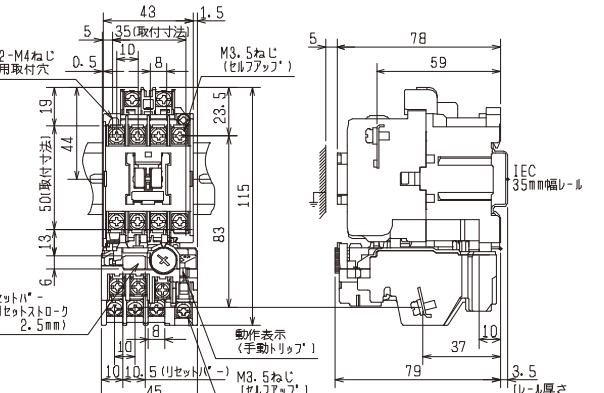
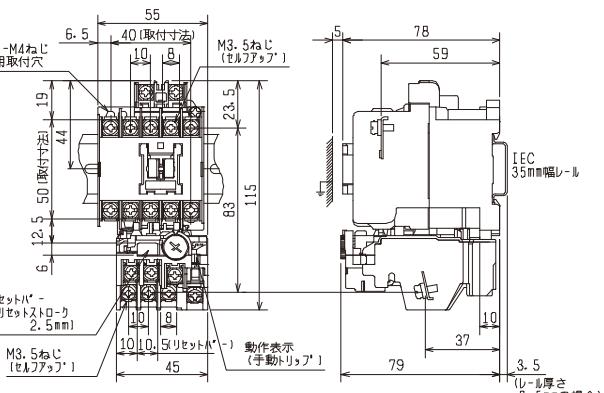
MS-T Series	MS-N Series
<p>MS-T10</p>  <p>Front View Dimensions:</p> <ul style="list-style-type: none"> Bell-Shaped Hole: 21 mm Total Height: 159 mm Width: 76 mm Depth: 6 mm 3-M4 Screw Mounting Hole: 45 mm from top edge, 76 mm from left edge Grounding Terminal M4 Screw: 21.5 mm from bottom edge, 33 mm from left edge 2 x 2-φ22 Tube Hole (2 Locations Top and Bottom): 33 mm from bottom edge, 76 mm from left edge 	<p>MS-N10</p>  <p>Front View Dimensions:</p> <ul style="list-style-type: none"> Bell-Shaped Hole: 21 mm Total Height: 159 mm Width: 76 mm Depth: 6 mm 3-M4ねじ用取付穴 (Mounting Hole for M4 screw): 15.5 mm from top edge, 45 (取付法) mm from left edge 接地端子 M4ねじ (Grounding Terminal M4 screw): 21.5 mm from bottom edge, 33 mm from left edge 2 x 2-φ22 くだ穴 (上下各2か所) (2 locations top and bottom): 13A mm from bottom edge, 76 mm from left edge
<p>MS-T12</p>  <p>Front View Dimensions:</p> <ul style="list-style-type: none"> Bell-Shaped Hole: 21 mm Total Height: 159 mm Width: 76 mm Depth: 6 mm 3-M4 Screw Mounting Hole: 45 mm from top edge, 76 mm from left edge Grounding Terminal M4 Screw: 21.5 mm from bottom edge, 33 mm from left edge 2 x 2-φ22 Tube Hole (2 Locations Top and Bottom): 33 mm from bottom edge, 76 mm from left edge 	<p>MS-N11,N12</p>  <p>Front View Dimensions:</p> <ul style="list-style-type: none"> Bell-Shaped Hole: 21 mm Total Height: 159 mm Width: 76 mm Depth: 6 mm 3-M4ねじ用取付穴 (Mounting Hole for M4 screw): 15.5 mm from top edge, 45 (取付法) mm from left edge 接地端子 M4ねじ (Grounding Terminal M4 screw): 21.5 mm from bottom edge, 33 mm from left edge 2 x 2-φ22 くだ穴 (上下各2か所) (2 locations top and bottom): 13A mm from bottom edge, 76 mm from left edge
<p>MS-T21</p>  <p>Front View Dimensions:</p> <ul style="list-style-type: none"> Bell-Shaped Hole: 15 mm Total Height: 170 mm Width: 76 mm Depth: 6 mm 3-M5 Screw Mounting Hole: 140 mm from top edge, 76 mm from left edge Grounding Terminal M4 Screw: 110 mm from bottom edge, 50 mm from left edge 2 x 2-φ22 Tube Hole (2 Locations Top and Bottom): 30 mm from bottom edge, 76 mm from left edge 	<p>MS-N20,N21</p>  <p>Front View Dimensions:</p> <ul style="list-style-type: none"> Bell-Shaped Hole: 15 mm Total Height: 170 mm Width: 76 mm Depth: 6 mm 3-M5ねじ用取付穴 (Mounting Hole for M5 screw): 140 mm from top edge, 76 mm from left edge 接地端子 M4ねじ (Grounding Terminal M4 screw): 110 mm from bottom edge, 50 mm from left edge 2 x 2-φ22 くだ穴 (上下各2か所) (2 locations top and bottom): 30 mm from bottom edge, 76 mm from left edge

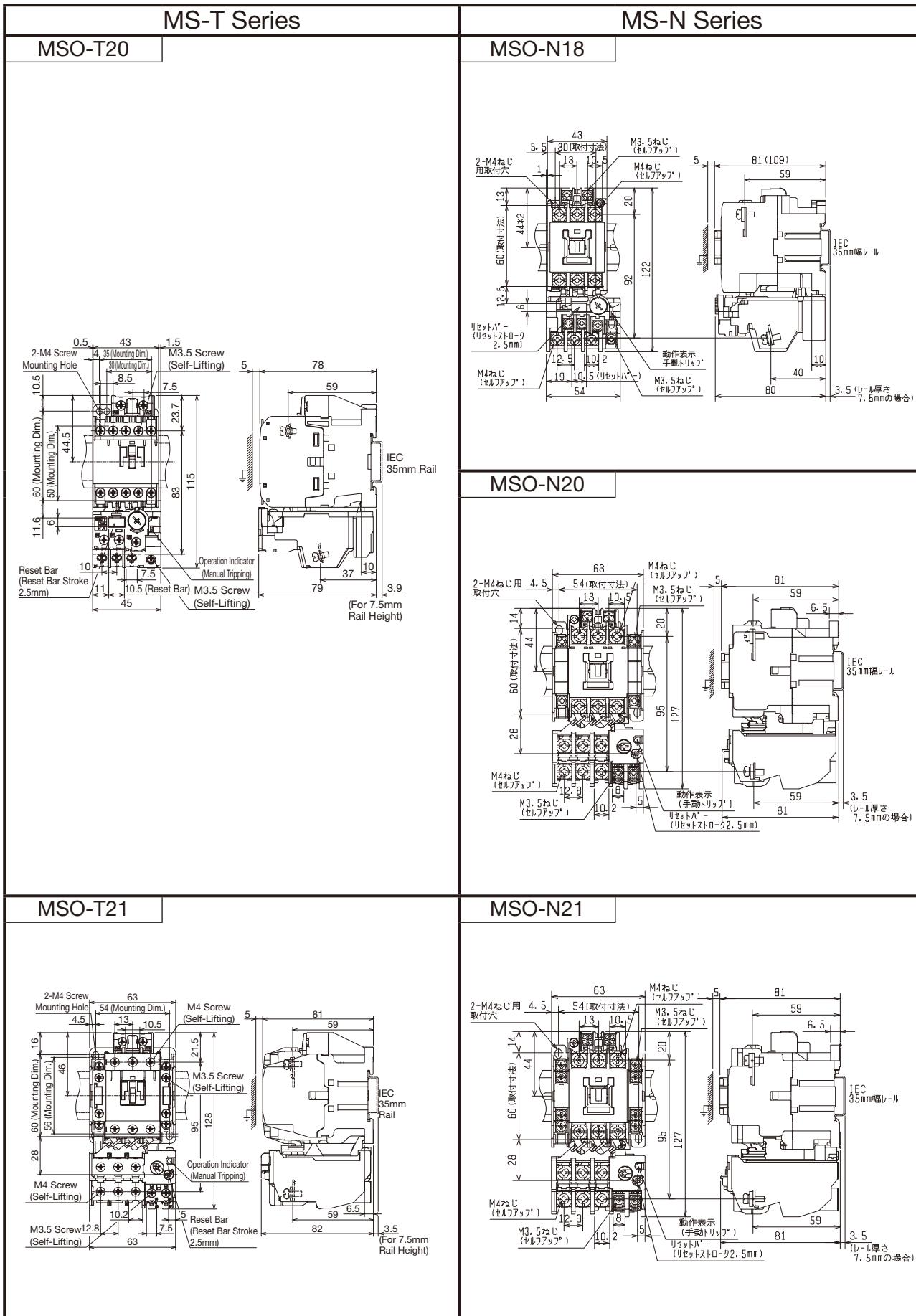
MS-T Series	MS-N Series
<p>MS-T35</p>  <p>だるま穴 4-M用 取付穴 2×2-φ28 くだ穴 (上下各2か所) 接地端子 M4ねじ 95 135 165 225 6 126 45 50 接続端子 Pねじ</p>	<p>MS-N25,N35</p>  <p>Bell-Shaped Hole 4-M5 Screw Mounting Hole 2×2-φ28 Tube Hole (2 Locations Top and Bottom) Grounding Terminal M4 Screw 95 135 165 225 6 126 45 50 接続端子 Pねじ</p>
<p>MS-T50</p>  <p>だるま穴 4-M用 取付穴 2×2-φ N 二重くだ穴 (上下各2か所) 接地端子 Pねじ 95 135 165 225 12 126 45 50 接続端子 Pねじ</p>	<p>MS-N50</p>  <p>だるま穴 4-M用 取付穴 2×2-φ N 二重くだ穴 (上下各2か所) 接地端子 Pねじ 120 160 220 270 12 145 45 80 接続端子 Pねじ</p>
<p>MS-T65</p>  <p>だるま穴 4-M用 取付穴 2×2-φ N 二重くだ穴 (上下各2か所) 接地端子 Pねじ 120 160 220 270 12 145 45 80 接続端子 Pねじ</p>	<p>MS-N65</p>  <p>だるま穴 4-M用 取付穴 2×2-φ N 二重くだ穴 (上下各2か所) 接地端子 Pねじ 120 160 220 270 12 145 45 80 接続端子 Pねじ</p>



9.2 Open Type Magnetic Starters (Non-Reversing)

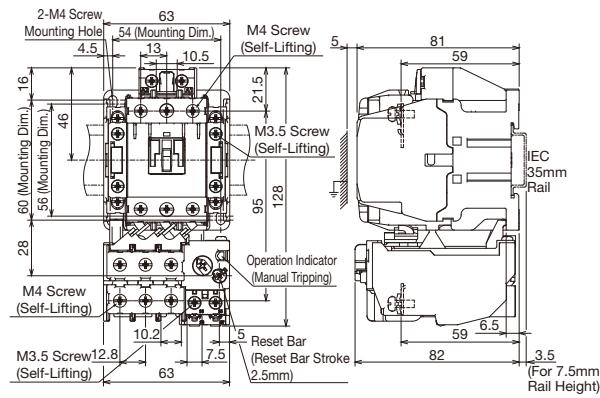
[AC Operated]

MS-T Series	MS-N Series
MSO-T10	MSO-N10
 <p>Technical drawing of MSO-T10 showing front view dimensions and internal circuit diagram. Key dimensions include:</p> <ul style="list-style-type: none"> Front panel height: 115 mm Front panel width: 79 mm Bottom rail height: 3.9 mm (for 7.5 mm rail height) Reset Bar Stroke: 2.5 mm Mounting holes: 2-M4 screw mounting hole, 35 mm mounting dim. Screws: M3.5 screw (self-lifting) Indicators: Operation Indicator (Manual Tripping) 	 <p>Technical drawing of MSO-N10 showing front view dimensions and internal circuit diagram. Key dimensions include:</p> <ul style="list-style-type: none"> Front panel height: 115 mm Front panel width: 79 mm Bottom rail height: 3.5 mm (for 7.5 mm rail thickness) Reset Bar Stroke: 2.5 mm Mounting holes: 2-M4 screw mounting hole, 35 mm mounting dim. Screws: M3.5 screw (self-lifting) Indicators: Reset Bar (リセットバー), Operation Indicator (動作表示)
MSO-T12	MSO-N11
 <p>Technical drawing of MSO-T12 showing front view dimensions and internal circuit diagram. Key dimensions include:</p> <ul style="list-style-type: none"> Front panel height: 115 mm Front panel width: 79 mm Bottom rail height: 3.9 mm (for 7.5 mm rail height) Reset Bar Stroke: 2.5 mm Mounting holes: 2-M4 screw mounting hole, 35 mm mounting dim. Screws: M3.5 screw (self-lifting) Indicators: Operation Indicator (Manual Tripping) 	 <p>Technical drawing of MSO-N11 showing front view dimensions and internal circuit diagram. Key dimensions include:</p> <ul style="list-style-type: none"> Front panel height: 115 mm Front panel width: 79 mm Bottom rail height: 3.5 mm (for 7.5 mm rail thickness) Reset Bar Stroke: 2.5 mm Mounting holes: 2-M4 screw mounting hole, 35 mm mounting dim. Screws: M3.5 screw (self-lifting) Indicators: Reset Bar (リセットバー), Operation Indicator (動作表示)
MSO-N12	
	 <p>Technical drawing of MSO-N12 showing front view dimensions and internal circuit diagram. Key dimensions include:</p> <ul style="list-style-type: none"> Front panel height: 115 mm Front panel width: 79 mm Bottom rail height: 3.5 mm (for 7.5 mm rail thickness) Reset Bar Stroke: 2.5 mm Mounting holes: 2-M4 screw mounting hole, 40 mm mounting dim. Screws: M3.5 screw (self-lifting) Indicators: Reset Bar (リセットバー), Operation Indicator (動作表示)



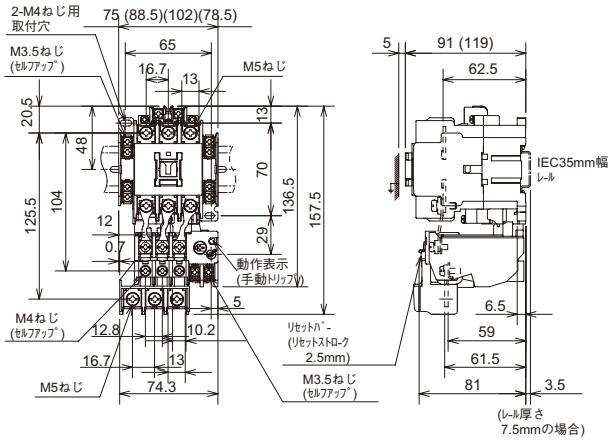
MS-T Series

MSO-T25

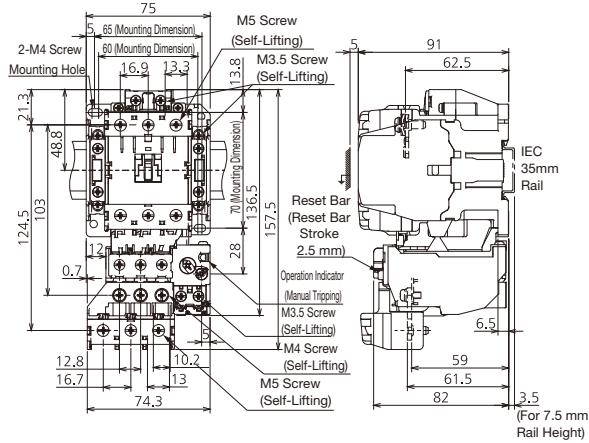


MS-N Series

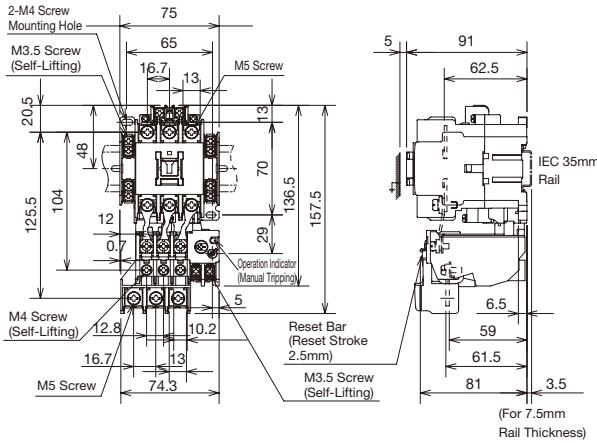
MSO-N25



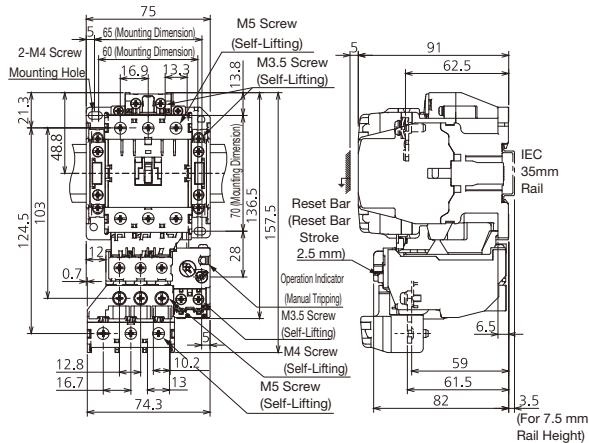
MSO-T35



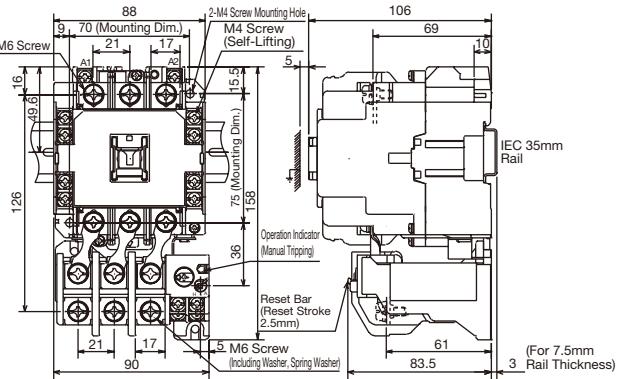
MSO-N35



MSO-T50

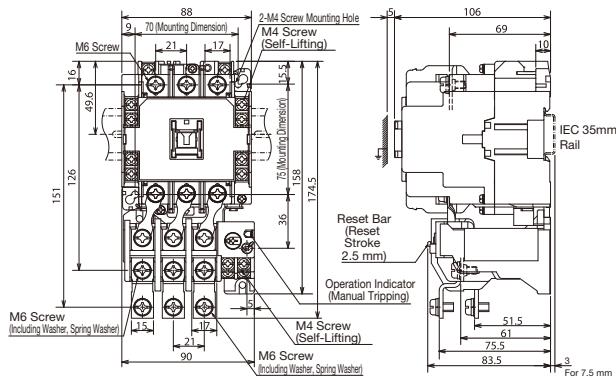


MSO-N50



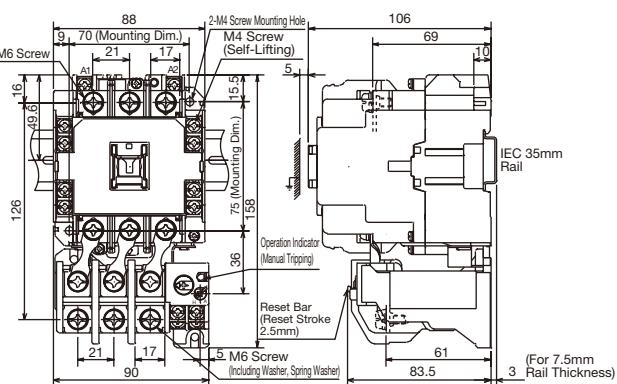
MS-T Series

MSO-T65

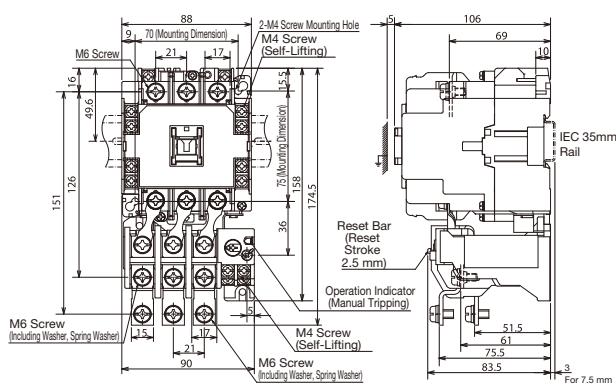


MS-N Series

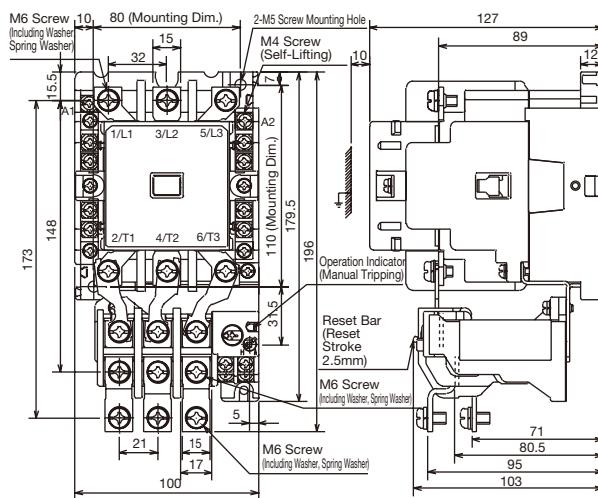
MSO-N65



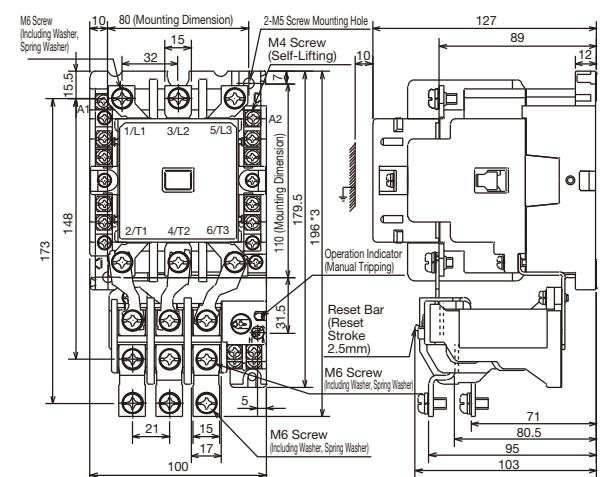
MSO-T80



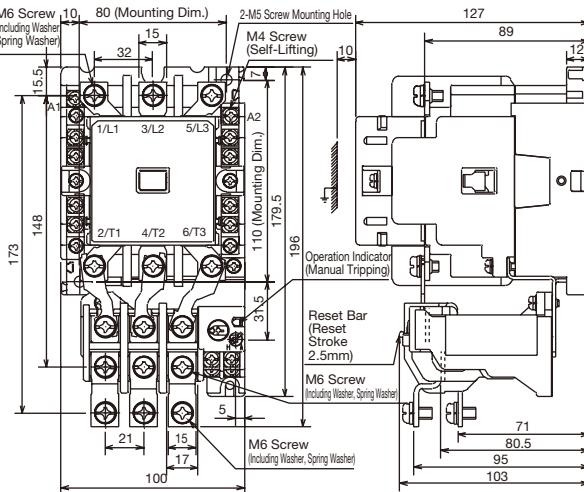
MSO-N80



MSO-T100

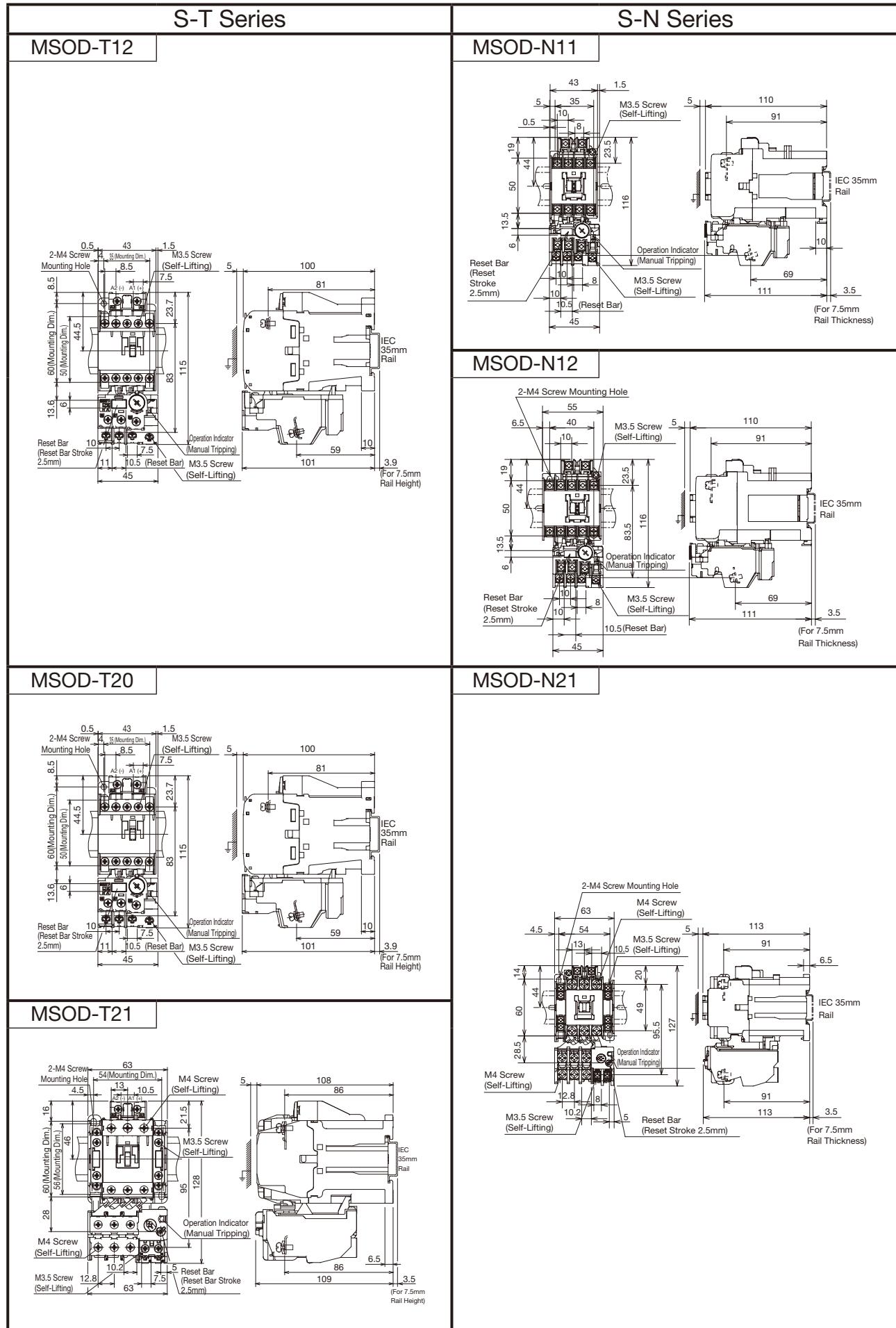


MSO-N95



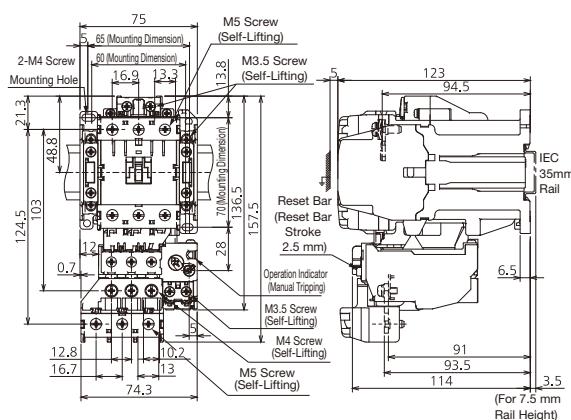
9.2 Open Type Magnetic Starters (Non-Reversing) [continued]

[DC Operated]

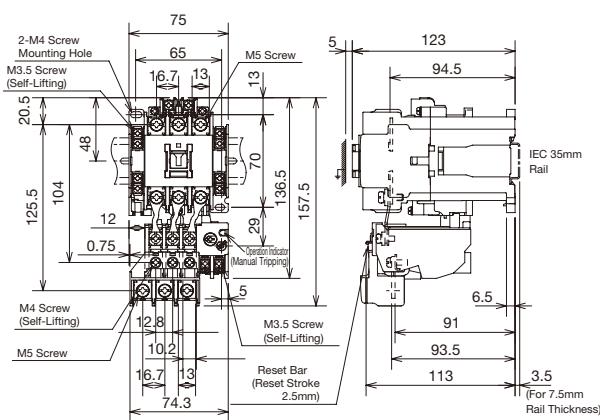


S-T Series

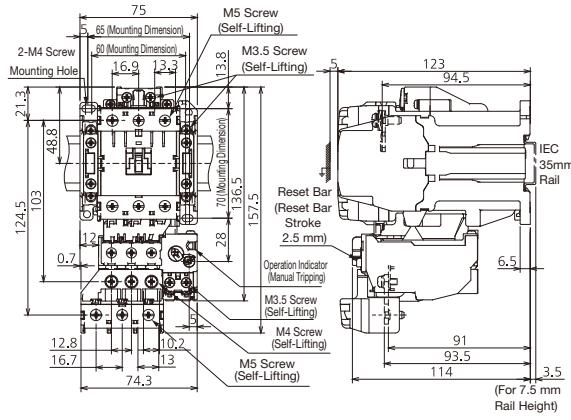
MSOD-T35

**S-N Series**

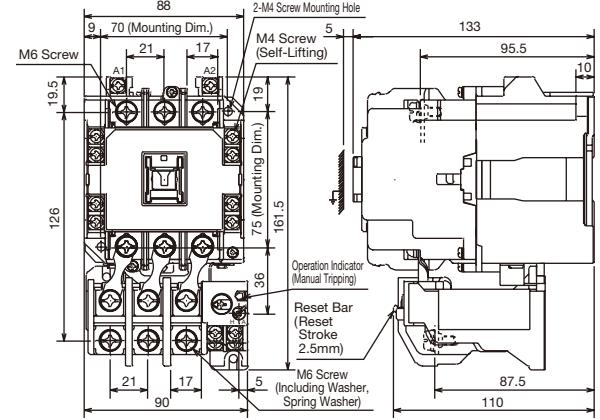
MSOD-N35



MSOD-T50

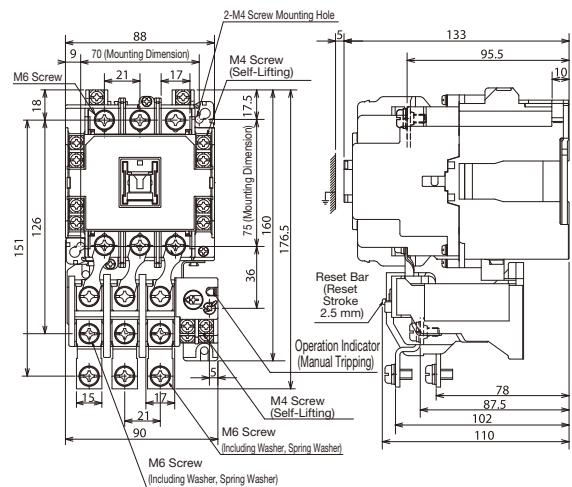


MSOD-N50



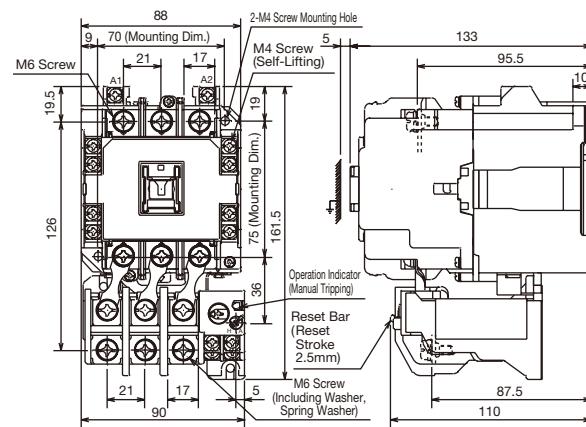
S-T Series

MSOD-T65

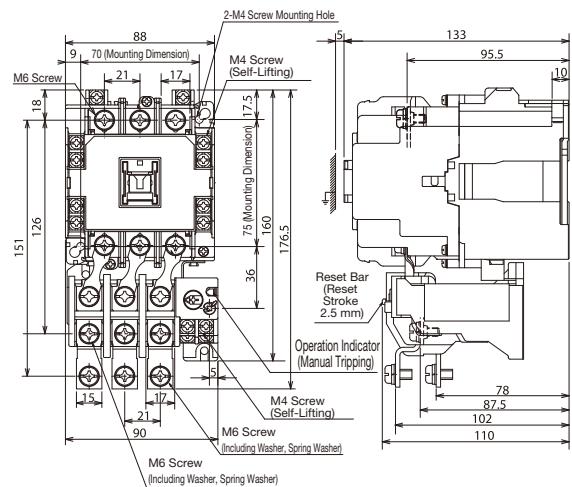


S-N Series

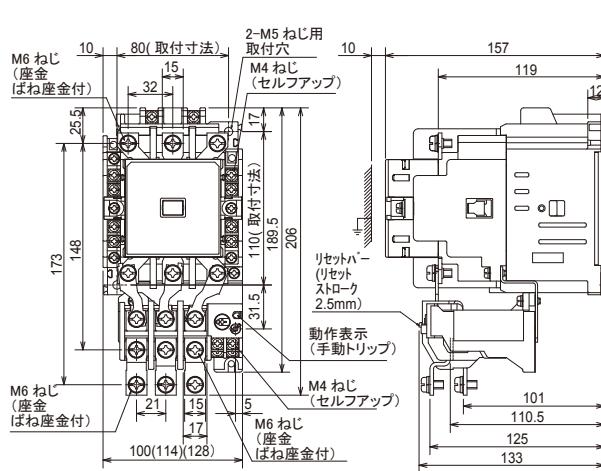
MSOD-N65



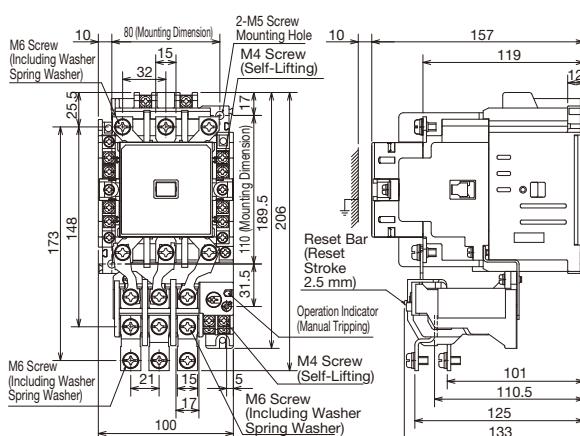
MSOD-T80



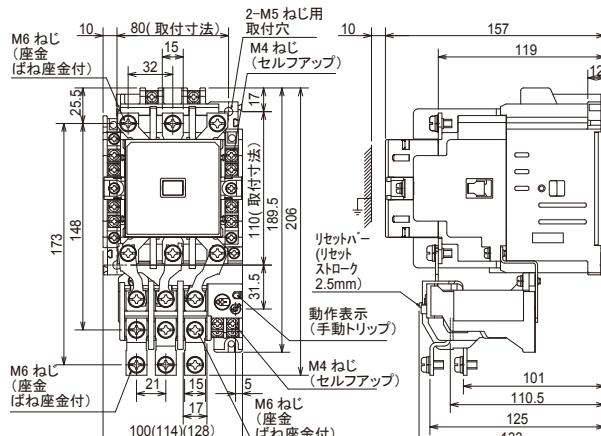
MSOD-N80



MSOD-T100



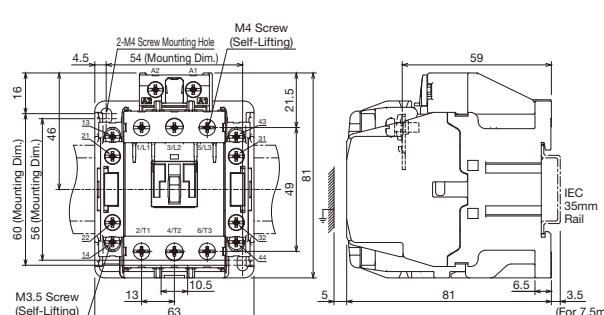
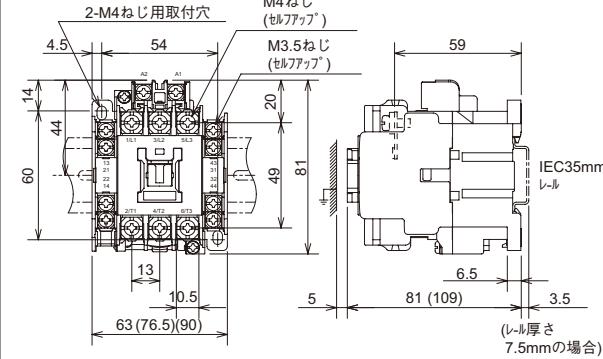
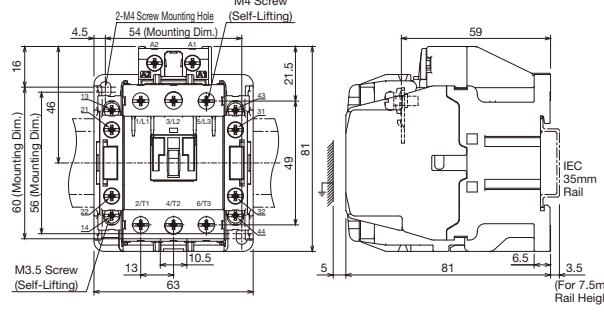
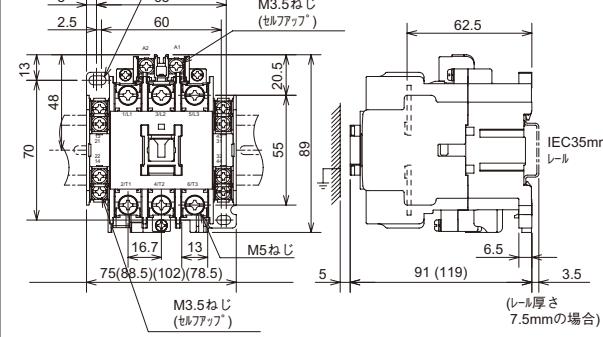
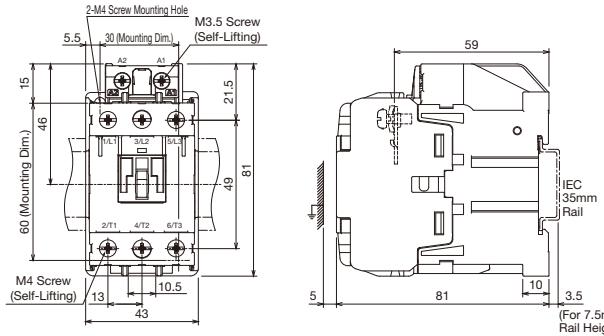
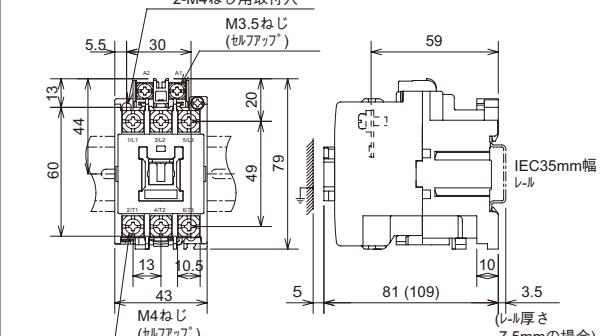
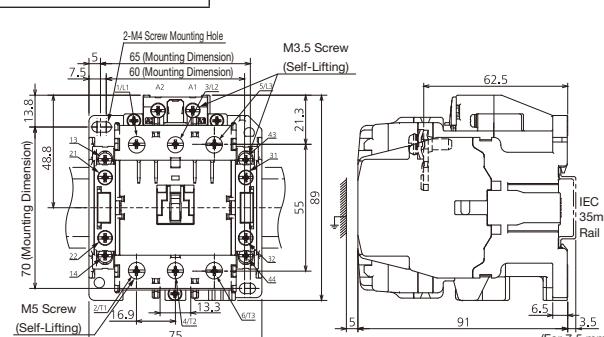
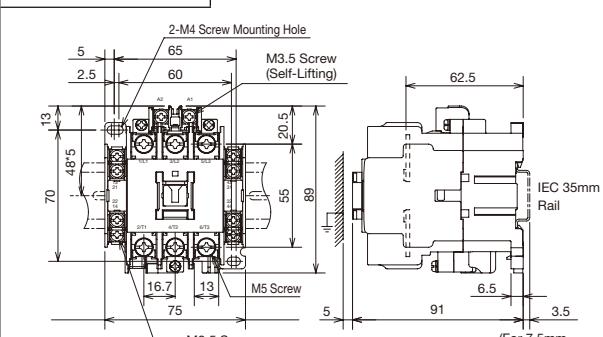
MSOD-N95

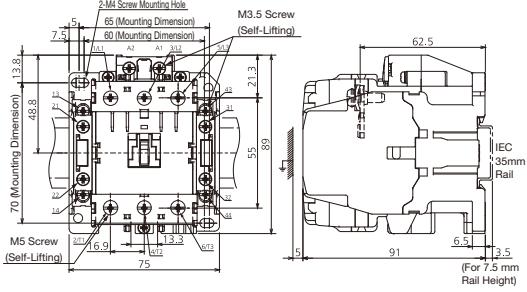
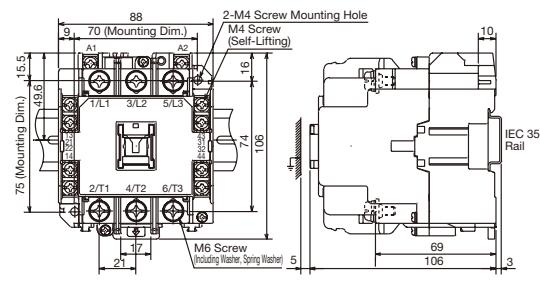
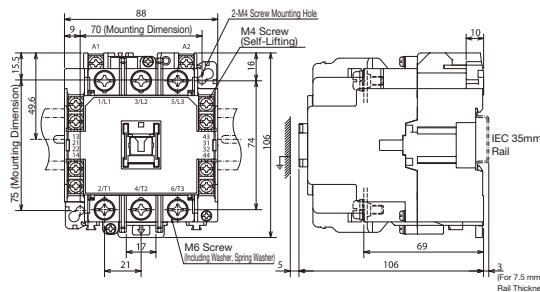
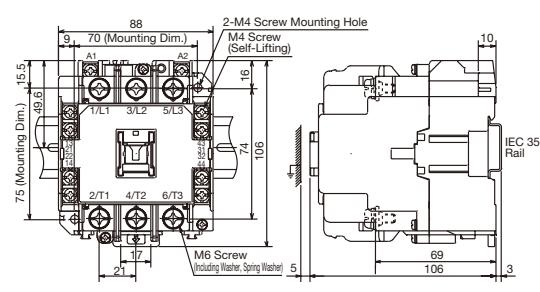
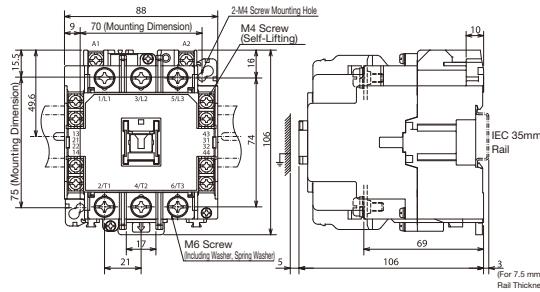
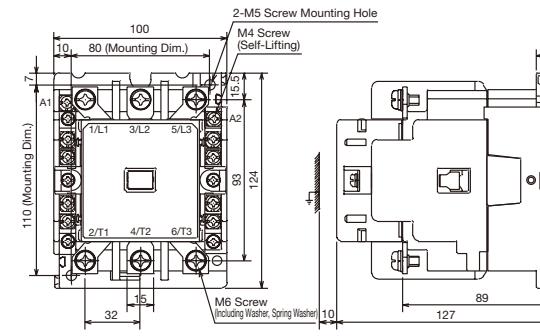
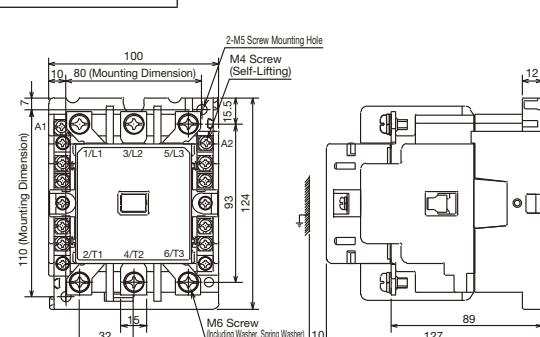
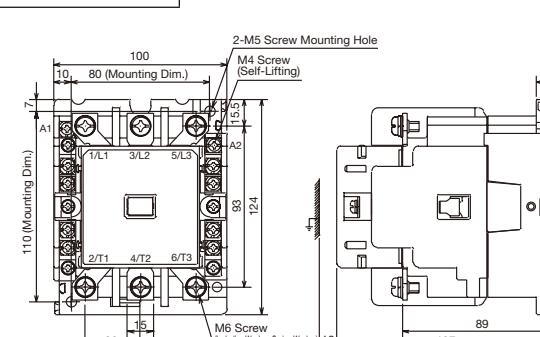


9.3 Magnetic Contactors (Non-Reversing)

[AC Operated]

S-T Series	S-N Series
S-T10 	S-N10
S-T12 	S-N11
S-T20 	S-N20

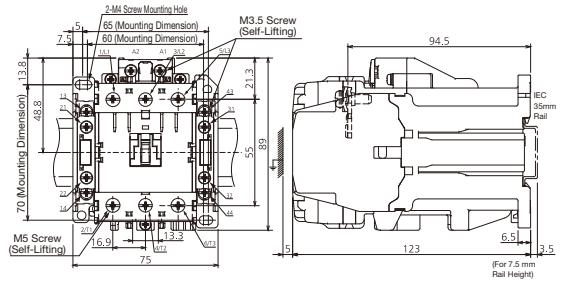
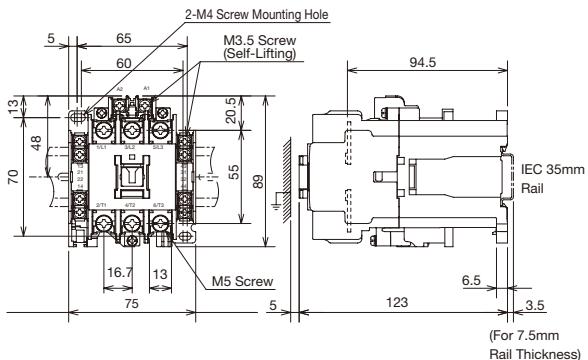
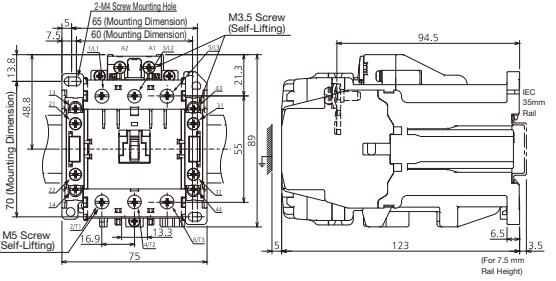
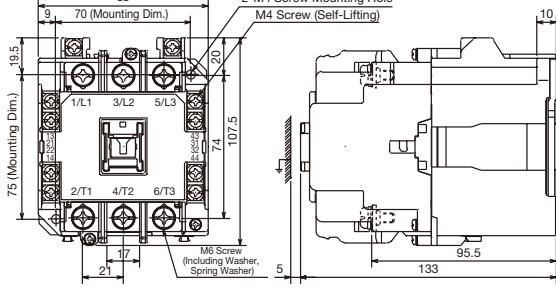
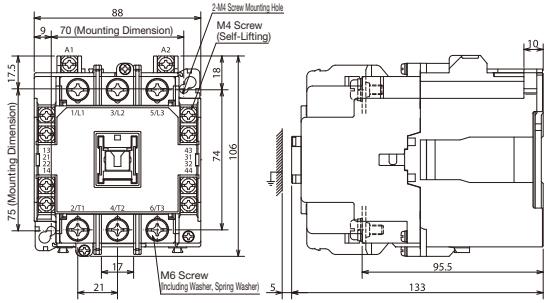
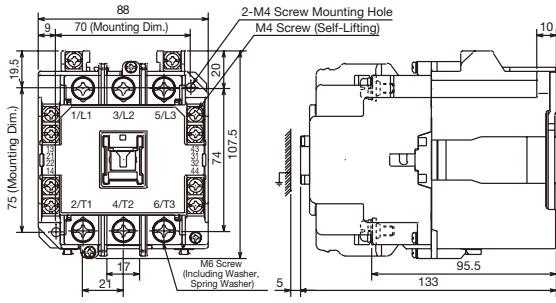
S-T Series		S-N Series	
S-T21		S-N21	
S-T25		S-N25	
S-T32		S-N18/N28	
S-T35		S-N35	

S-T Series		S-N Series	
S-T50		S-N50	
S-T65		S-N65	
S-T80		S-N80	
S-T100		S-N95	

9.3 Magnetic Contactors (Non-Reversing) [continued]

[DC Operated]

S-T Series	S-N Series
SD-T12	SD-N11
SD-T20	SD-N12
SD-T21	SD-N21
SD-T32	

S-T Series		S-N Series	
SD-T35		SD-N35	
SD-T50		SD-N50	
SD-T65		SD-N65	

S-T Series		S-N Series	
SD-T80	SD-N80	SD-T100	SD-N95
<p>SD-T80 Technical Drawing</p> <p>Dimensions:</p> <ul style="list-style-type: none"> Width: 88 mm Total Height: 175 mm Mouting Dimension: 75 mm Bottom Thickness: 21 mm Total Height (including bottom): 106 mm Internal Components: A1, A2, 1/L1, 3/L2, 5/L3, 2/T1, 4/T2, 6/T3 	<p>SD-N80 Technical Drawing</p> <p>Dimensions:</p> <ul style="list-style-type: none"> Width: 100 mm Total Height: 175 mm Mouting Dimension: 110 mm Bottom Thickness: 32 mm Total Height (including bottom): 134 mm Internal Components: A1, A2, 1/L1, 3/L2, 5/L3, 2/T1, 4/T2, 6/T3 	<p>SD-T100 Technical Drawing</p> <p>Dimensions:</p> <ul style="list-style-type: none"> Width: 100 mm Total Height: 175 mm Mouting Dimension: 110 mm Bottom Thickness: 32 mm Total Height (including bottom): 134 mm Internal Components: A1, A2, 1/L1, 3/L2, 5/L3, 2/T1, 4/T2, 6/T3 	<p>SD-N95 Technical Drawing</p> <p>Dimensions:</p> <ul style="list-style-type: none"> Width: 100 mm Total Height: 175 mm Mouting Dimension: 110 mm Bottom Thickness: 32 mm Total Height (including bottom): 134 mm Internal Components: A1, A2, 1/L1, 3/L2, 5/L3, 2/T1, 4/T2, 6/T3

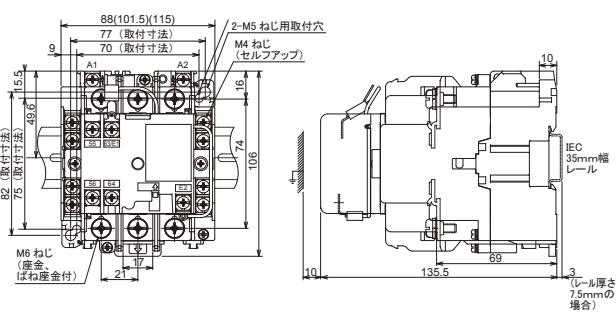
9.3 Magnetic Contactors (Non-Reversing) [continued]

[Mechanically Latched Type]

S-T Series	S-N Series
SL(D)-T21	SL(D)-N21
SL(D)-T35	SL(D)-N35
SL(D)-T50	SL(D)-N50(FN)
SL(D)-T50FN (Class 2 Heat-Resistant Type)	

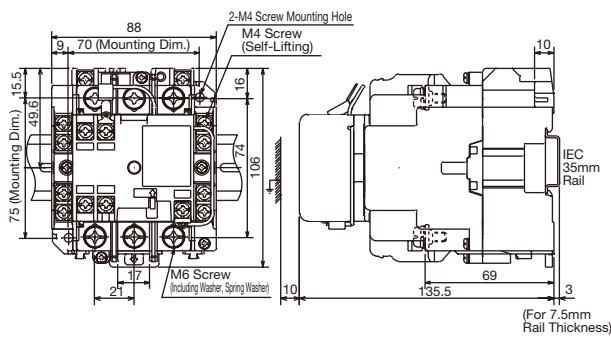
S-T Series

SL(D)-T65

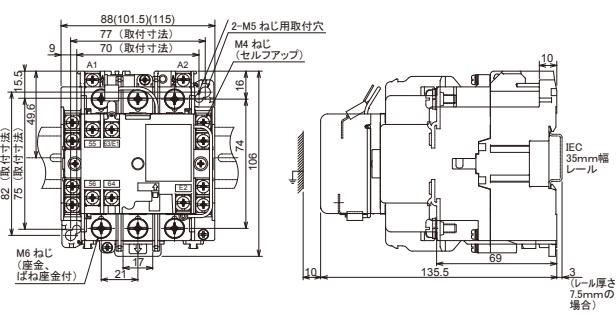


S-N Series

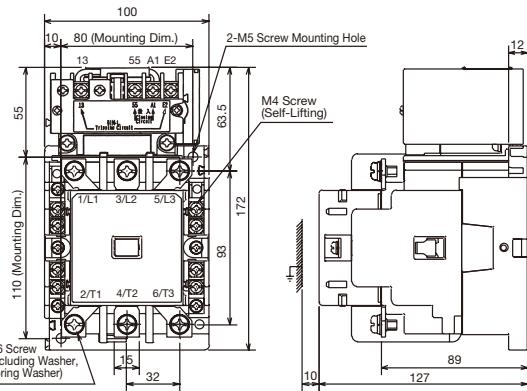
SL(D)-N65



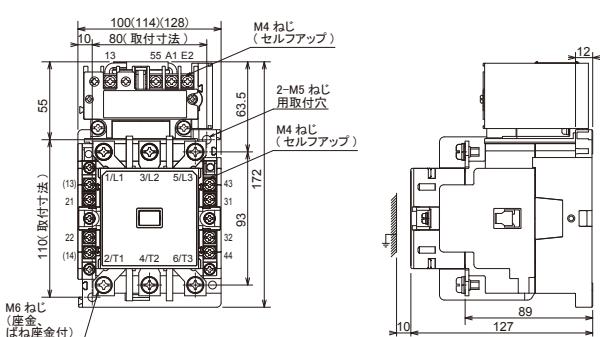
SL(D)-T80



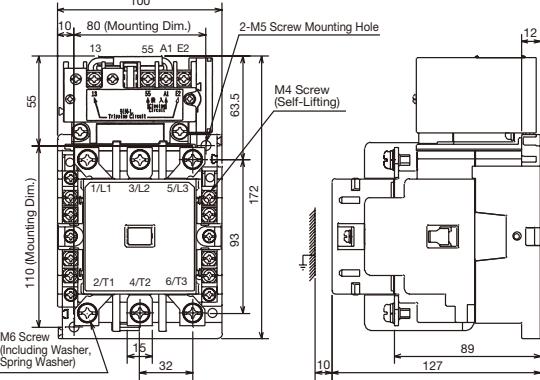
SL(D)-N80



SL(D)-T100



SL(D)-N95



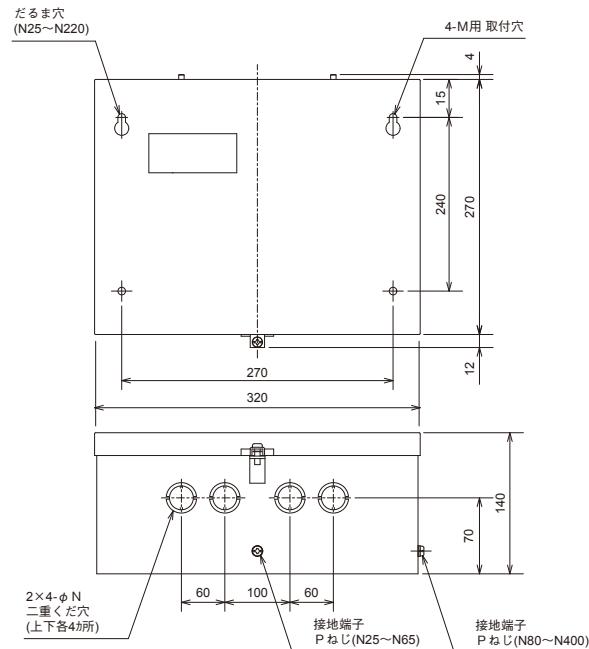
9.4 Enclosed Type Magnetic Starters (Reversing)

MS-T Series	MS-N Series
MS-2xT21	MS-2xN20/N21
<p>だるま穴 2×4-φ22 (上下各4か所) 接地端子 M5ねじ</p>	<p>だるま穴 2×4-φ22 (上下各4か所) 接地端子 M5ねじ</p>
MS-2xT35	MS-2xN25/N35
<p>だるま穴 (N25~N220) 2×4-φ N 二重×だ穴 (上下各4か所) 接地端子 Pねじ(N25~N65) 接地端子 Pねじ(N80~N400)</p>	<p>Bell-Shaped Hole (N25 - N220) 2 x 4-φ N Double-Layer Tube Hole (4 Locations Top and Bottom) 4-M Screw Mounting Hole AA A AB AC BA BB C CA Grounding Terminal P Screw (N25 - N65) Grounding Terminal P Screw (N80 - N400)</p>

MS-T Series	MS-N Series
<p>MS-2xT50</p> <p>だるま穴 (N25~N220)</p> <p>4-M用 取付穴</p> <p>2×4-φ N 二重ぐだ穴 (上下各4か所)</p> <p>接地端子 Pねじ(N25~N65)</p> <p>接地端子 Pねじ(N80~N400)</p> <p>12 70 130 70 140</p> <p>300 250 160 35 12 235 4</p>	<p>MS-2xN50</p> <p>だるま穴 (N25~N220)</p> <p>4-M用 取付穴</p> <p>2×4-φ N 二重ぐだ穴 (上下各4か所)</p> <p>接地端子 Pねじ(N25~N65)</p> <p>接地端子 Pねじ(N80~N400)</p> <p>12 70 140 70 140</p> <p>320 270 240 15 12 270 4</p>
<p>MS-2xT65</p> <p>だるま穴 (N25~N220)</p> <p>4-M用 取付穴</p> <p>2×4-φ N 二重ぐだ穴 (上下各4か所)</p> <p>接地端子 Pねじ(N25~N65)</p> <p>接地端子 Pねじ(N80~N400)</p> <p>12 70 140 70 140</p> <p>320 270 240 15 12 270 4</p>	<p>MS-2xN65</p> <p>だるま穴 (N25~N220)</p> <p>4-M用 取付穴</p> <p>2×4-φ N 二重ぐだ穴 (上下各4か所)</p> <p>接地端子 Pねじ(N25~N65)</p> <p>接地端子 Pねじ(N80~N400)</p> <p>12 70 140 70 140</p> <p>320 270 240 15 12 270 4</p>

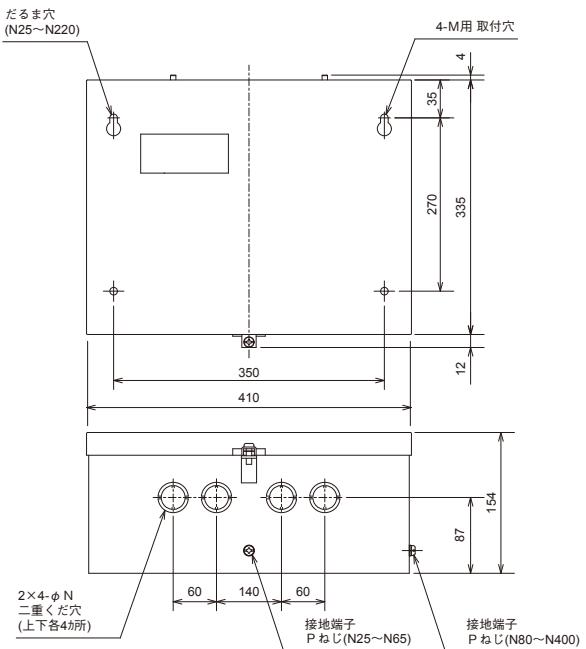
MS-T Series

MS-2xT80

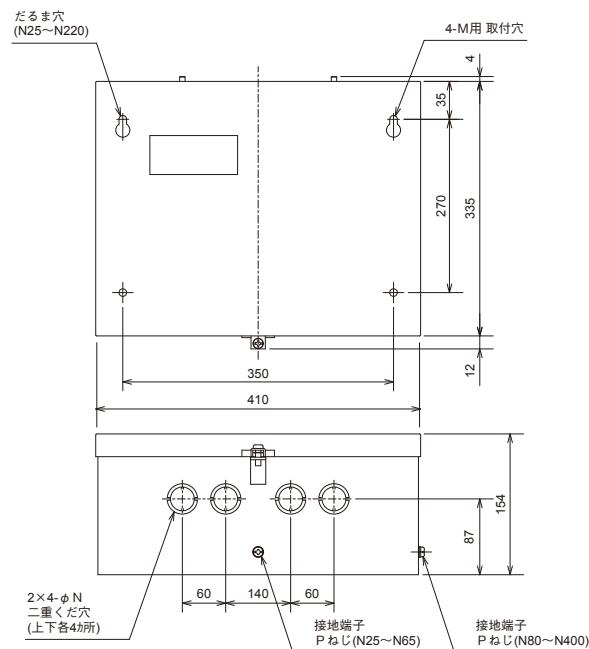


MS-N Series

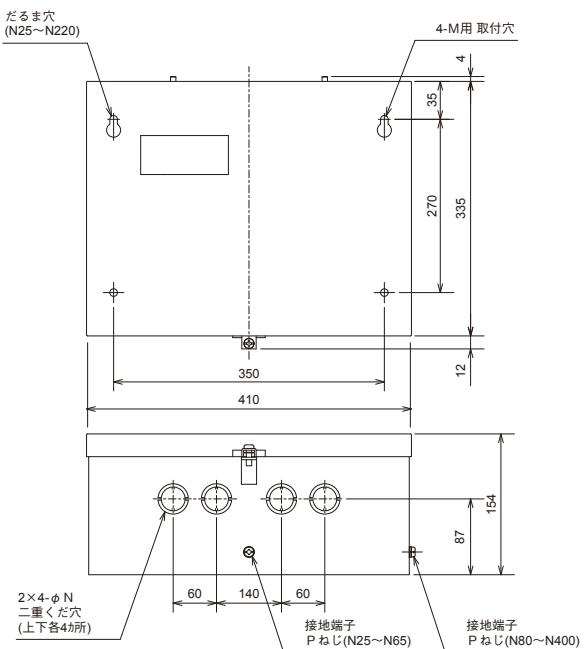
MS-2xN80



MS-2xT100

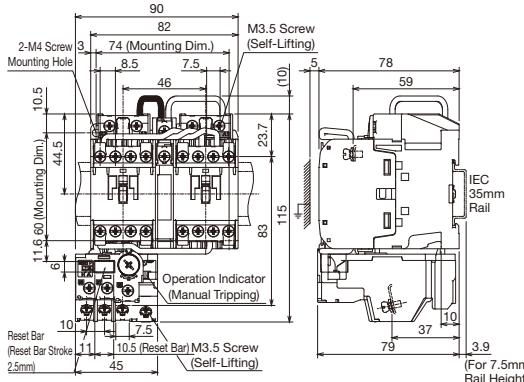
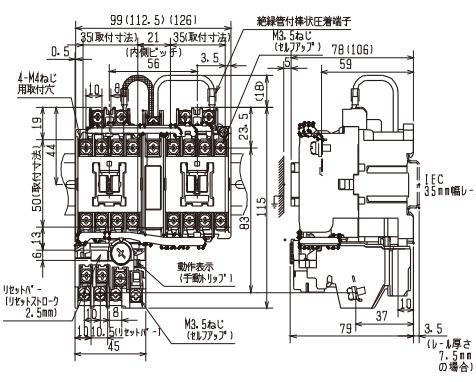
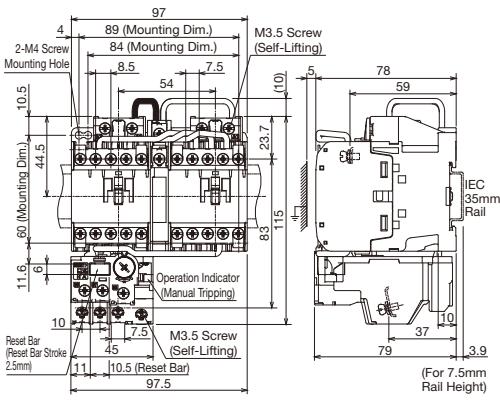
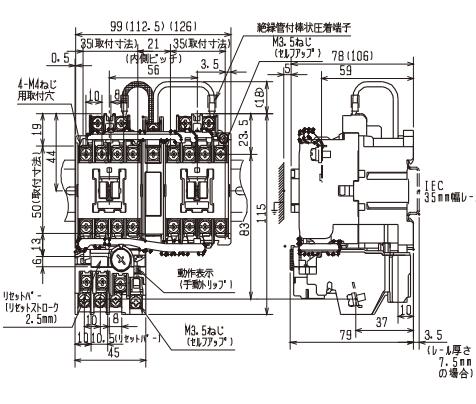
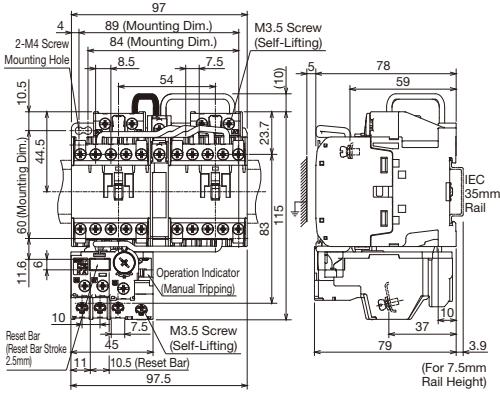
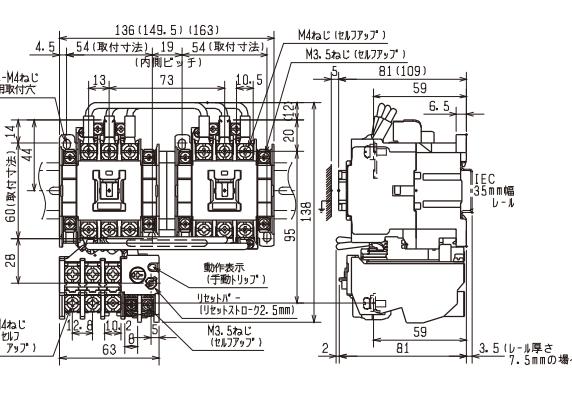


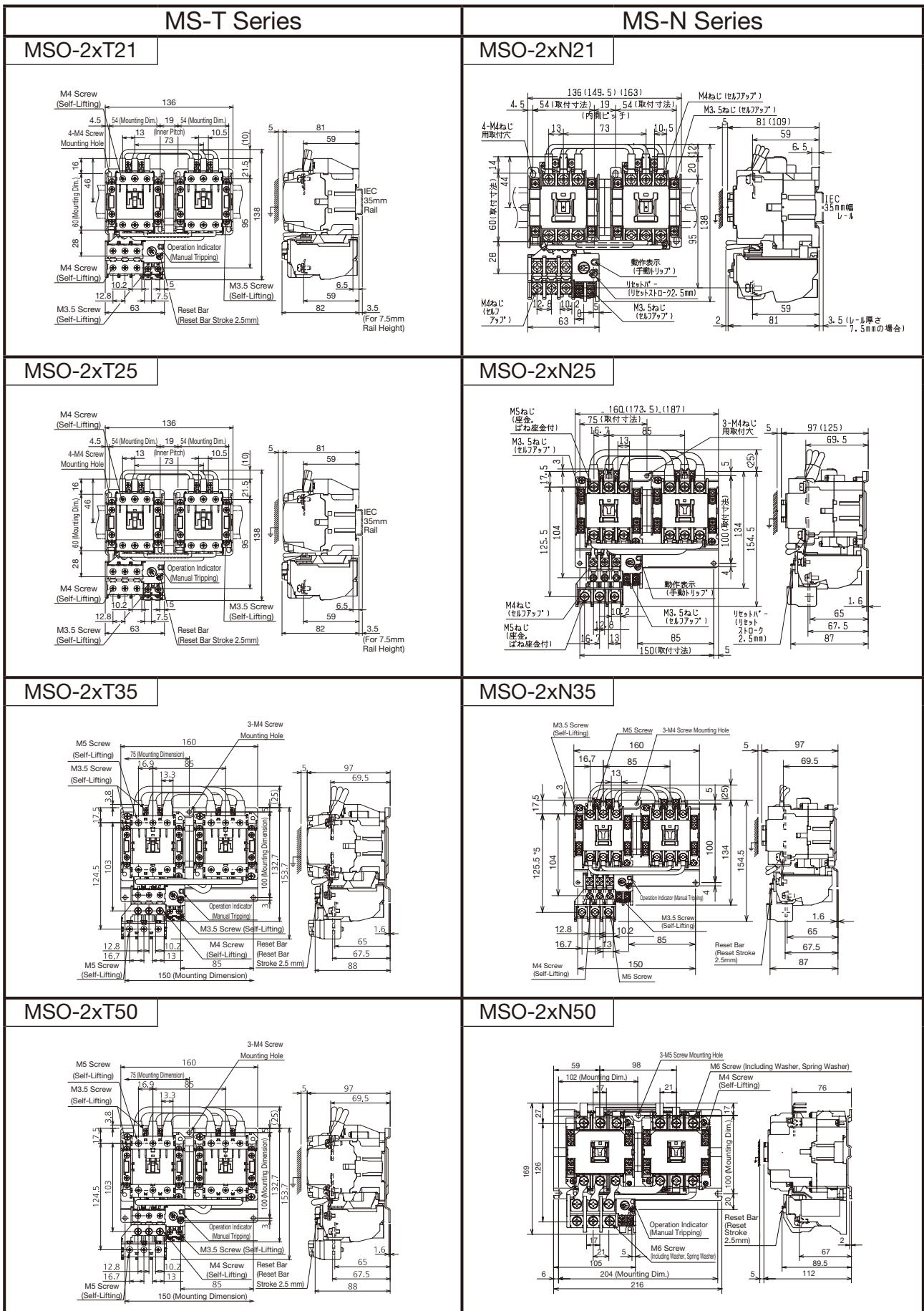
MS-2xN95



9.5 Open Type Magnetic Starters (Reversing)

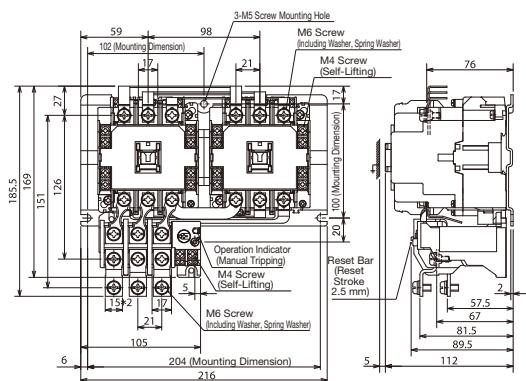
[AC Operated]

MS-T Series	MS-N Series
MSO-2xT10	MSO-2xN10
 <p>Front View Dimensions:</p> <ul style="list-style-type: none"> Width: 90 mm Height: 115 mm Depth: 23.7 mm M4 Screw Mounting Hole: 2-M4 (Mounting Dim.) Reset Bar Stroke: 2.5mm Reset Bar: 10.5 (Reset Bar) mm Operation Indicator: Manual Tripping M3.5 Screw (Self-Lifting): M3.5 (Mounting Dim.) IEC 35mm Rail: 3.9 (For 7.5mm Rail Height) 	 <p>Front View Dimensions:</p> <ul style="list-style-type: none"> Width: 99 (112.5) (126) mm Height: 115 mm Depth: 23.5 mm M4 Screw Mounting Hole: 4-M4 (Mounting Dim.) Reset Bar Stroke: 2.5mm Reset Bar: 10.5 (Reset Bar) mm Operation Indicator: Manual Tripping M3.5 Screw (Self-Lifting): M3.5 (Mounting Dim.) IEC 35mm Rail: 3.5 (For 7.5mm Rail Height)
MSO-2xT12	MSO-2xN11
 <p>Front View Dimensions:</p> <ul style="list-style-type: none"> Width: 97 mm Height: 115 mm Depth: 23.7 mm M4 Screw Mounting Hole: 2-M4 (Mounting Dim.) Reset Bar Stroke: 2.5mm Reset Bar: 10.5 (Reset Bar) mm Operation Indicator: Manual Tripping M3.5 Screw (Self-Lifting): M3.5 (Mounting Dim.) IEC 35mm Rail: 3.9 (For 7.5mm Rail Height) 	 <p>Front View Dimensions:</p> <ul style="list-style-type: none"> Width: 99 (112.5) (126) mm Height: 115 mm Depth: 23.5 mm M4 Screw Mounting Hole: 4-M4 (Mounting Dim.) Reset Bar Stroke: 2.5mm Reset Bar: 10.5 (Reset Bar) mm Operation Indicator: Manual Tripping M3.5 Screw (Self-Lifting): M3.5 (Mounting Dim.) IEC 35mm Rail: 3.5 (For 7.5mm Rail Height)
MSO-2xT20	MSO-2xN20
 <p>Front View Dimensions:</p> <ul style="list-style-type: none"> Width: 97 mm Height: 115 mm Depth: 23.7 mm M4 Screw Mounting Hole: 2-M4 (Mounting Dim.) Reset Bar Stroke: 2.5mm Reset Bar: 10.5 (Reset Bar) mm Operation Indicator: Manual Tripping M3.5 Screw (Self-Lifting): M3.5 (Mounting Dim.) IEC 35mm Rail: 3.9 (For 7.5mm Rail Height) 	 <p>Front View Dimensions:</p> <ul style="list-style-type: none"> Width: 136 (149.5) (163) mm Height: 138 mm Depth: 20 mm M4 Screw Mounting Hole: 4-M4 (Mounting Dim.) Reset Bar Stroke: 2.5mm Reset Bar: 10.5 (Reset Bar) mm Operation Indicator: Manual Tripping M3.5 Screw (Self-Lifting): M3.5 (Mounting Dim.) IEC 35mm Rail: 3.5 (For 7.5mm Rail Height)



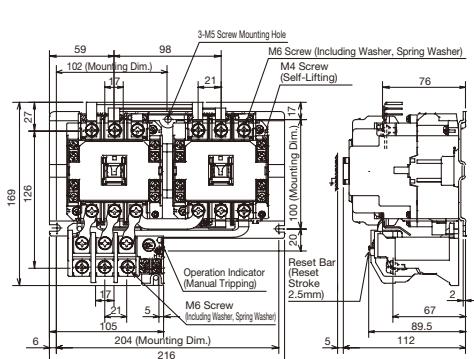
MS-T Series

MSO-2xT65

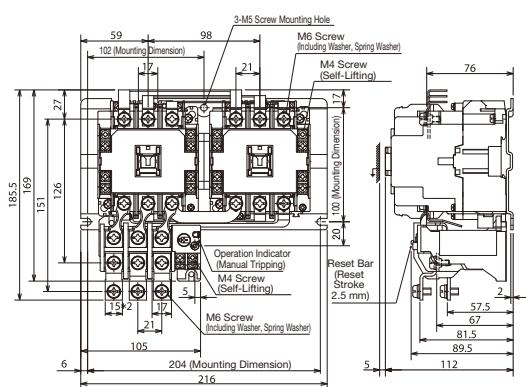


MS-N Series

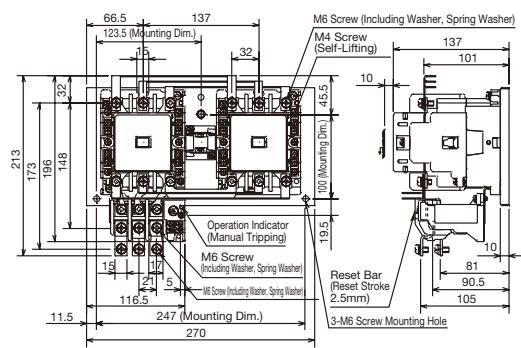
MSO-2xN65



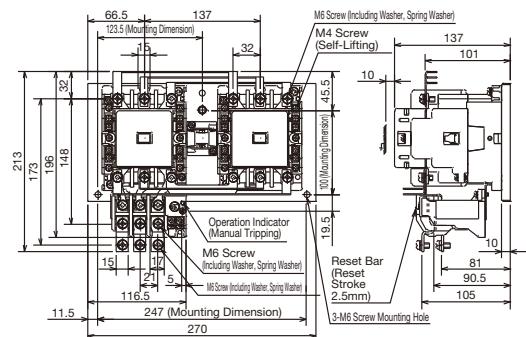
MSO-2xT80



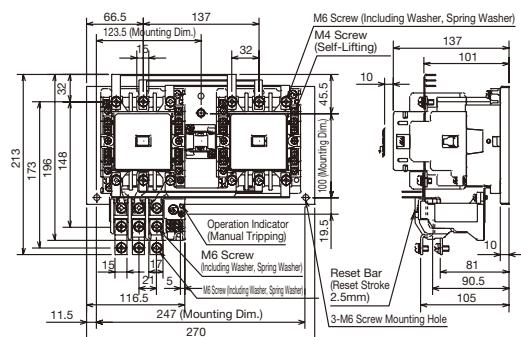
MSO-2xN80



MSO-2xT100

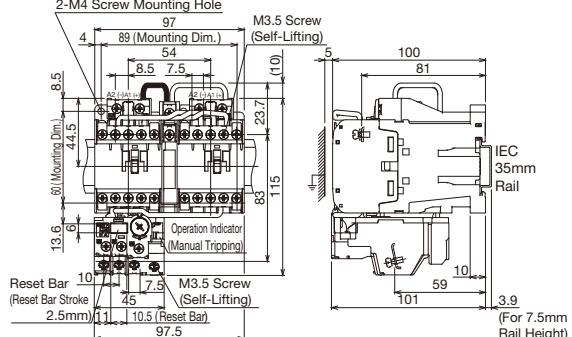
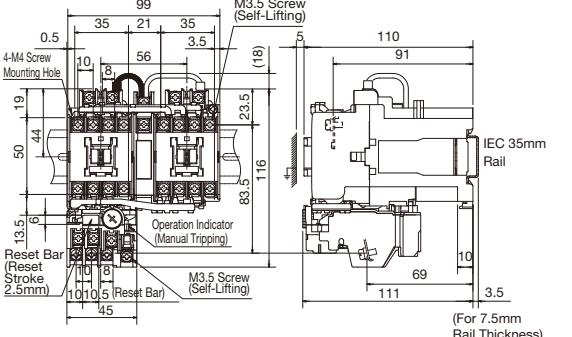
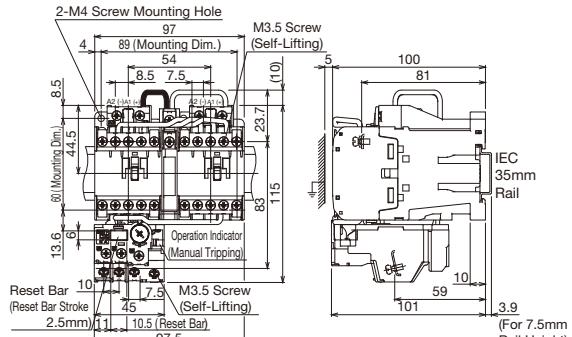
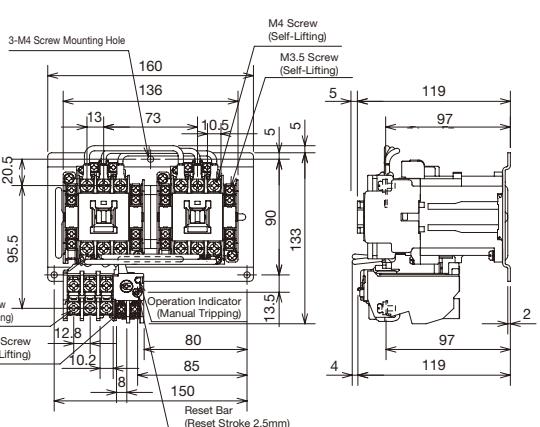
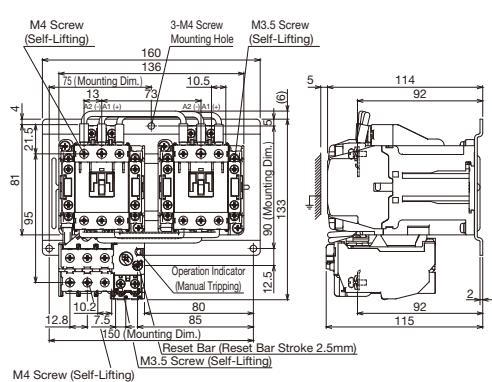


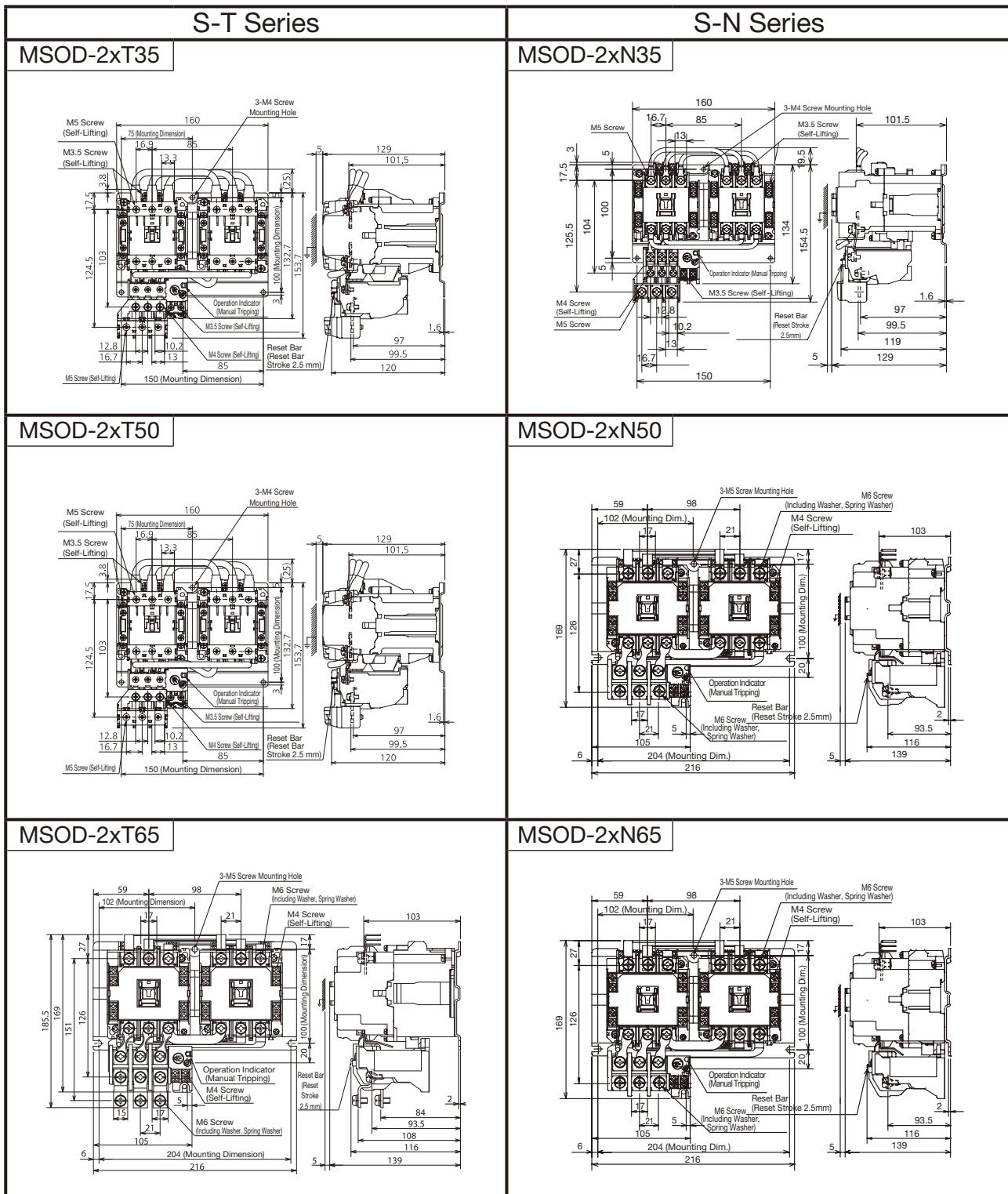
MSO-2xN95

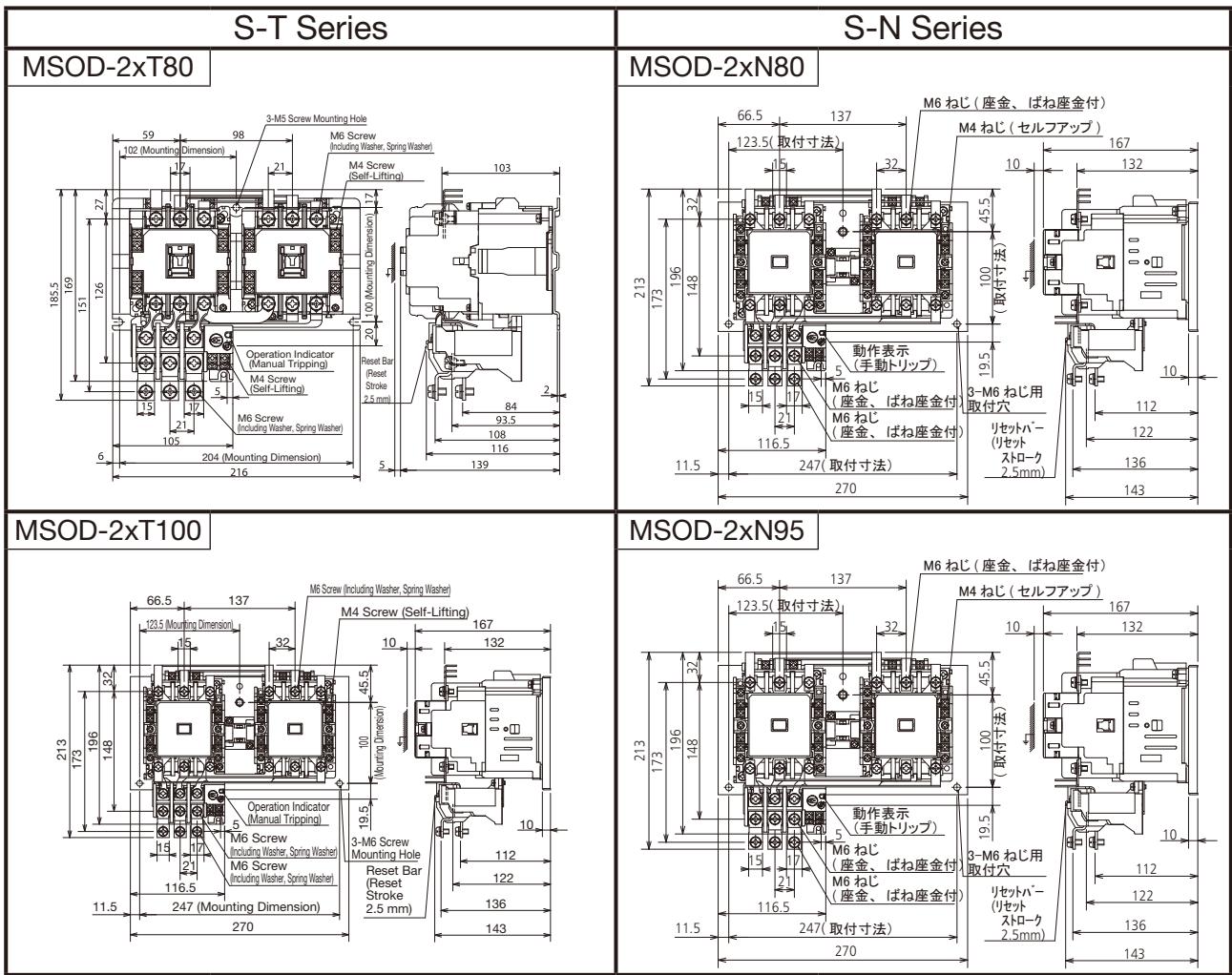


9.5 Open Type Magnetic Starters (Reversing) [continued]

[DC Operated]

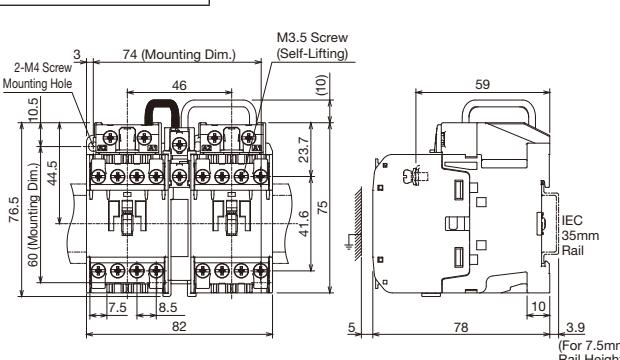
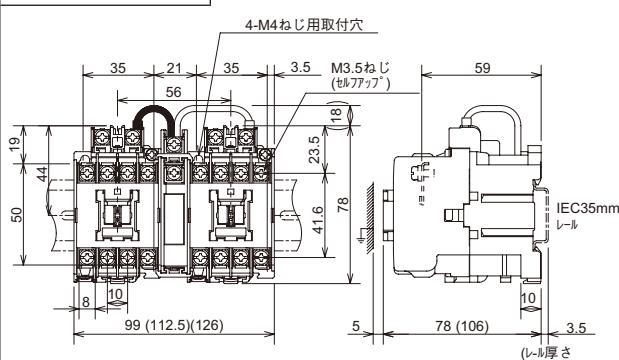
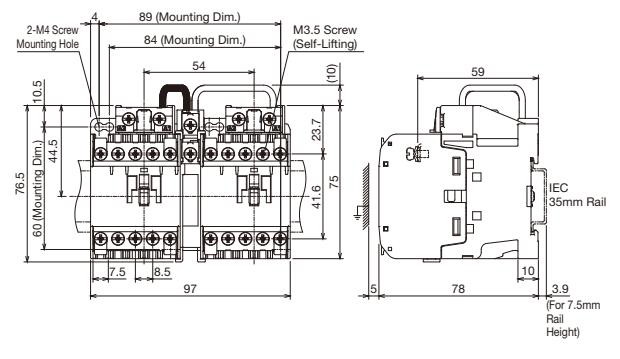
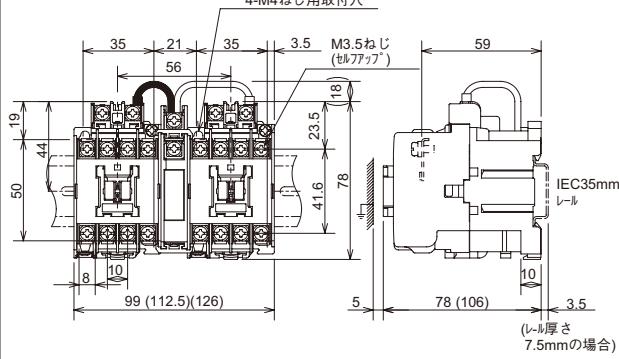
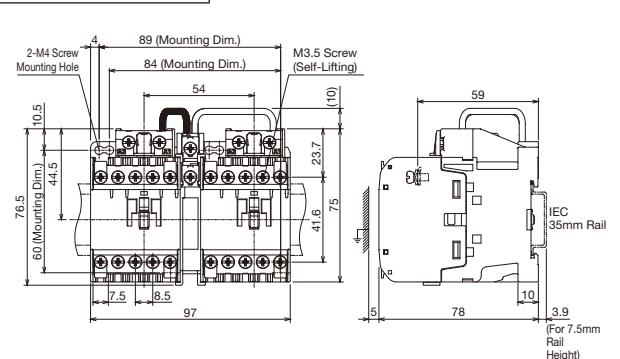
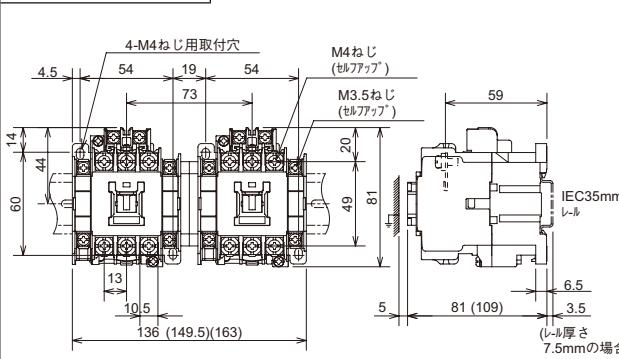
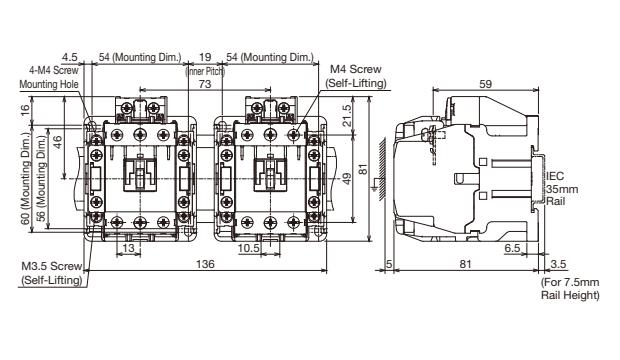
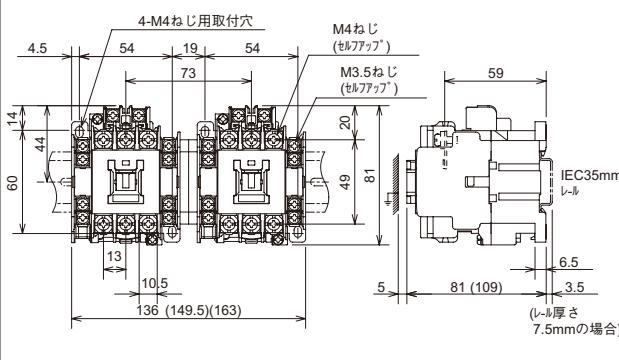
S-T Series	S-N Series
MSOD-2xT12	MSOD-2xN11
 <p>Front View Dimensions (mm):</p> <ul style="list-style-type: none"> Width: 97 (Mounting Dim.) Height: 115 (Mounting Dim.) Depth: 83.7 (For 7.5mm Rail Height) Reset Bar Stroke: 2.5mm (Reset Bar), 10.5 (Reset Bar) M3.5 Screw (Self-Lifting): 4.5, 7.5, 10 (Mounting Hole) Operation Indicator (Manual Tripping): Present 	 <p>Front View Dimensions (mm):</p> <ul style="list-style-type: none"> Width: 110 (Mounting Dim.) Height: 91 (Mounting Dim.) Depth: 69 (For 7.5mm Rail Thickness) Reset Bar (Reset Stroke 2.5mm): 10.5 (Reset Bar) M3.5 Screw (Self-Lifting): 3.5, 5.6, 9.9, 18 (Mounting Hole) Operation Indicator (Manual Tripping): Present
MSOD-2xT20	MSOD-2xN21
 <p>Front View Dimensions (mm):</p> <ul style="list-style-type: none"> Width: 97 (Mounting Dim.) Height: 115 (Mounting Dim.) Depth: 83.7 (For 7.5mm Rail Height) Reset Bar Stroke: 2.5mm (Reset Bar), 10.5 (Reset Bar) M3.5 Screw (Self-Lifting): 4.5, 7.5, 10 (Mounting Hole) Operation Indicator (Manual Tripping): Present 	 <p>Front View Dimensions (mm):</p> <ul style="list-style-type: none"> Width: 119 (Mounting Dim.) Height: 97 (Mounting Dim.) Depth: 80 (Reset Bar) Reset Bar (Reset Stroke 2.5mm): 8.5, 10.5, 13.5, 160, 136, 13 (Mounting Hole) M4 Screw (Self-Lifting): 12.8, 10.2, 8 (Mounting Hole) M3.5 Screw (Self-Lifting): 5, 5, 20.5, 90, 13.5 (Mounting Hole) Operation Indicator (Manual Tripping): Present
MSOD-2xT21	
 <p>Front View Dimensions (mm):</p> <ul style="list-style-type: none"> Width: 114 (Mounting Dim.) Height: 92 (Mounting Dim.) Depth: 81 (Reset Bar Stroke 2.5mm) Reset Bar Stroke: 2.5mm (Reset Bar) M4 Screw (Self-Lifting): 160, 136, 13, 13 (Mounting Hole) M3.5 Screw (Self-Lifting): 10.5, 8.5, 12.5, 13 (Mounting Hole) Operation Indicator (Manual Tripping): Present 	

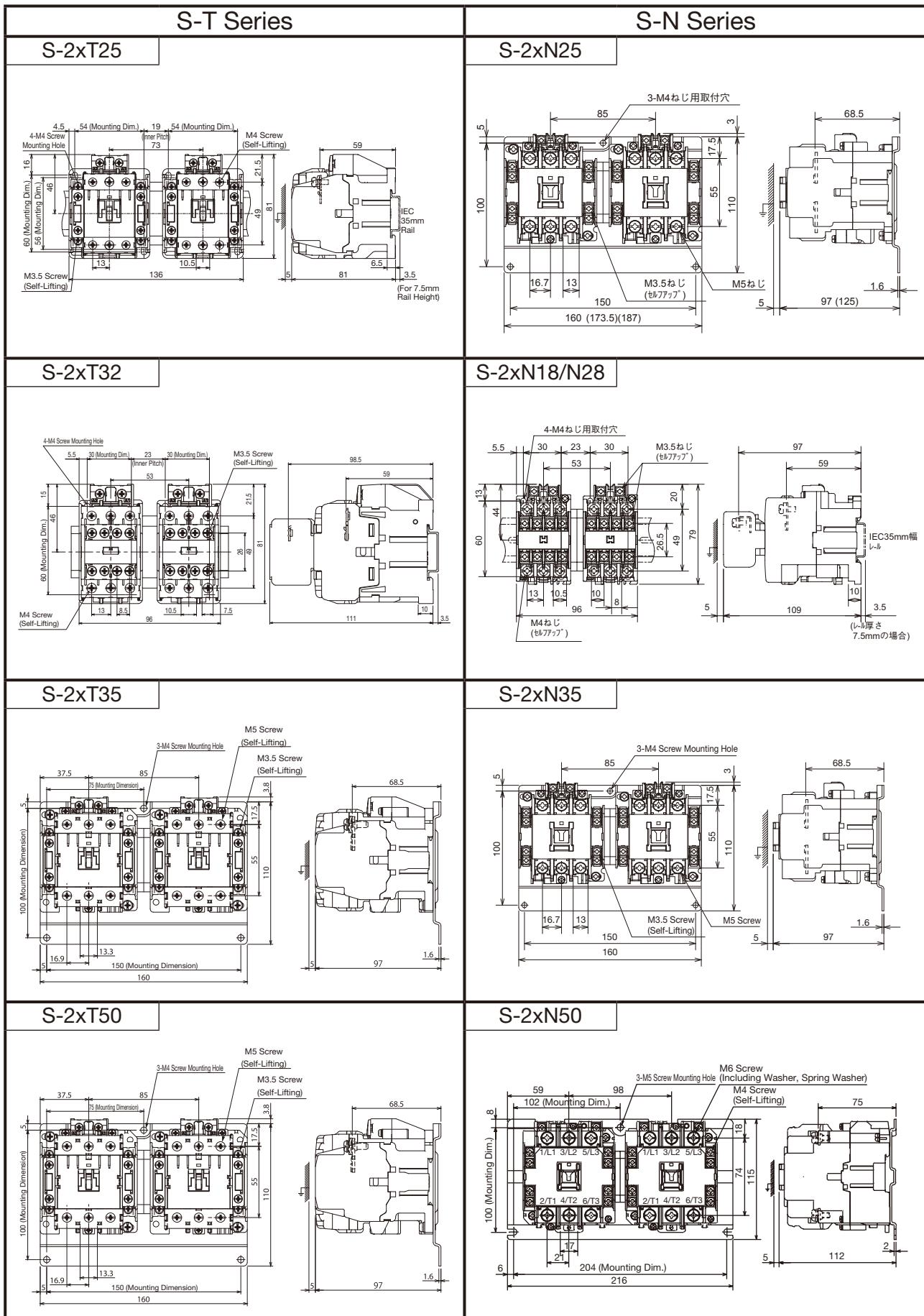


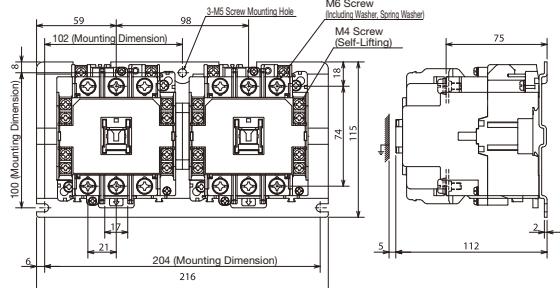
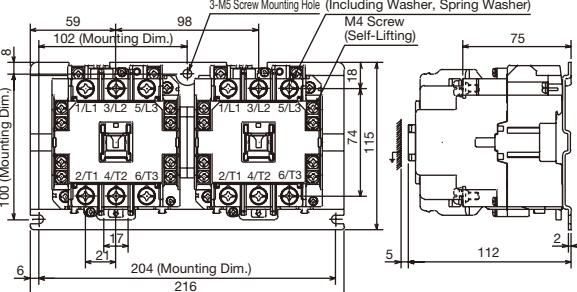
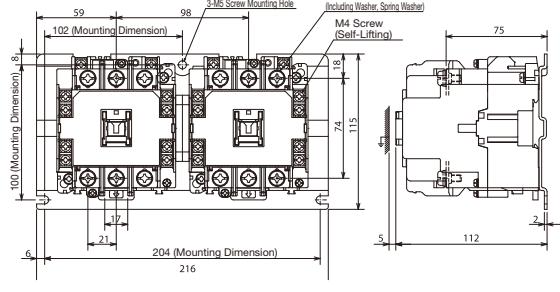
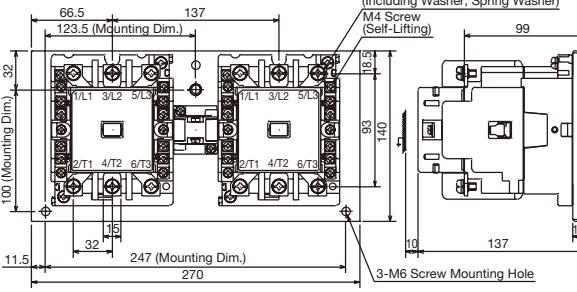
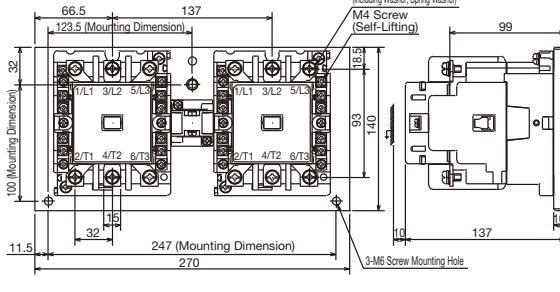
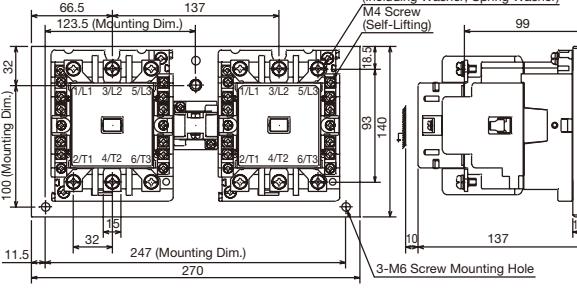


9.6 Magnetic Contactors (Reversing)

[AC Operated]

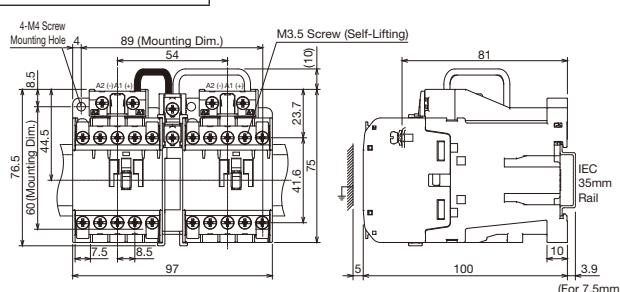
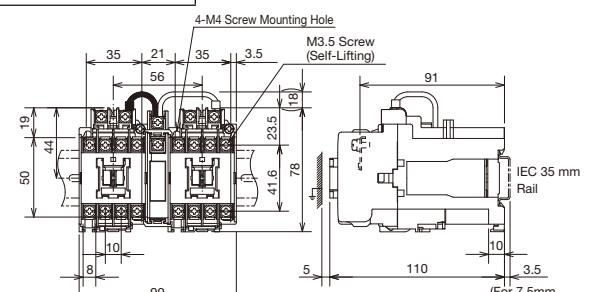
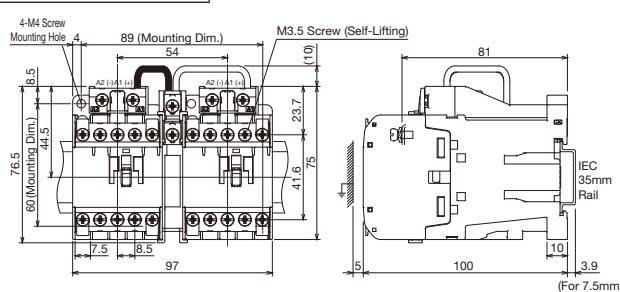
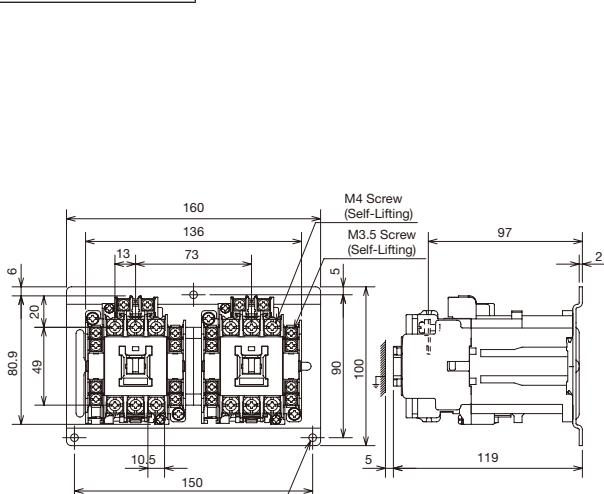
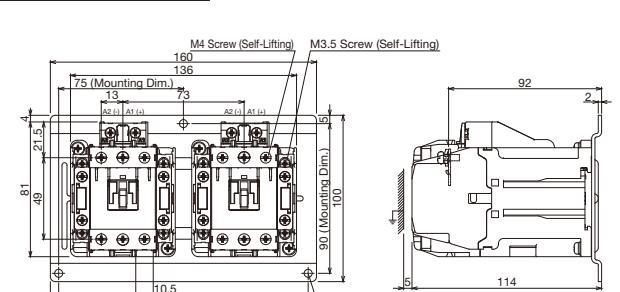
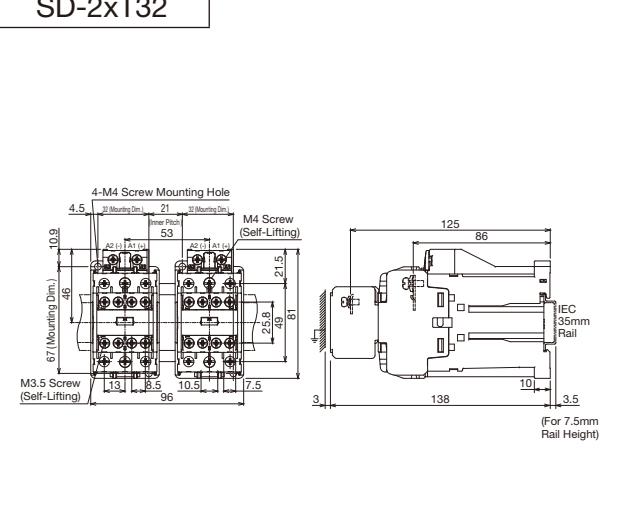
S-T Series	S-N Series
S-2xT10  <p>Front View Dimensions:</p> <ul style="list-style-type: none"> Width: 75 mm Height: 76.5 mm Depth: 10.5 mm Mounting Hole: 2-M4 Screw Mounting Dim.: 74 (Mounting Dim.) M3.5 Screw (Self-Lifting): 46 For 7.5mm Rail Height: 3.9 <p>Side View Dimensions:</p> <ul style="list-style-type: none"> Width: 59 mm Height: 75 mm Depth: 10 mm IEC 35mm Rail: 5 mm 	S-2xN10  <p>Front View Dimensions:</p> <ul style="list-style-type: none"> Width: 59 mm Height: 78 mm Depth: 10 mm Mounting Hole: 4-M4ねじ用取付穴 Mounting Dim.: 35, 21, 35, 3.5 M3.5ねじ (セルフアッフ): 56 For 7.5mm Rail Height: 3.5 <p>Side View Dimensions:</p> <ul style="list-style-type: none"> Width: 59 mm Height: 78 mm Depth: 10 mm IEC 35mm幅レール: 5 mm (レール厚さ 7.5mmの場合)
S-2xT12  <p>Front View Dimensions:</p> <ul style="list-style-type: none"> Width: 75 mm Height: 76.5 mm Depth: 10.5 mm Mounting Hole: 2-M4 Screw Mounting Dim.: 89 (Mounting Dim.), 84 (Mounting Dim.) M3.5 Screw (Self-Lifting): 54 For 7.5mm Rail Height: 3.9 <p>Side View Dimensions:</p> <ul style="list-style-type: none"> Width: 59 mm Height: 75 mm Depth: 10 mm IEC 35mm Rail: 5 mm 	S-2xN11  <p>Front View Dimensions:</p> <ul style="list-style-type: none"> Width: 59 mm Height: 78 mm Depth: 10 mm Mounting Hole: 4-M4ねじ用取付穴 Mounting Dim.: 35, 21, 35, 3.5 M3.5ねじ (セルフアッフ): 56 For 7.5mm Rail Height: 3.5 <p>Side View Dimensions:</p> <ul style="list-style-type: none"> Width: 59 mm Height: 78 mm Depth: 10 mm IEC 35mm幅レール: 5 mm (レール厚さ 7.5mmの場合)
S-2xT20  <p>Front View Dimensions:</p> <ul style="list-style-type: none"> Width: 75 mm Height: 76.5 mm Depth: 10.5 mm Mounting Hole: 2-M4 Screw Mounting Dim.: 89 (Mounting Dim.), 84 (Mounting Dim.) M3.5 Screw (Self-Lifting): 54 For 7.5mm Rail Height: 3.9 <p>Side View Dimensions:</p> <ul style="list-style-type: none"> Width: 59 mm Height: 75 mm Depth: 10 mm IEC 35mm Rail: 5 mm 	S-2xN20  <p>Front View Dimensions:</p> <ul style="list-style-type: none"> Width: 59 mm Height: 81 mm Depth: 13.5 mm Mounting Hole: 4-M4ねじ用取付穴 Mounting Dim.: 4.5, 54, 19, 54 M4ねじ (セルフアッフ): 73 M3.5ねじ (セルフアッフ): 49 For 7.5mm Rail Height: 6.5 <p>Side View Dimensions:</p> <ul style="list-style-type: none"> Width: 59 mm Height: 81 mm Depth: 13.5 mm IEC 35mm幅レール: 5 mm (レール厚さ 7.5mmの場合)
S-2xT21  <p>Front View Dimensions:</p> <ul style="list-style-type: none"> Width: 54 mm Height: 69 mm Depth: 16 mm Mounting Hole: 4-M4 Screw Mounting Dim.: 54 (Mounting Dim.), 19, 54 (Mounting Dim.) M4 Screw (Self-Lifting): 73 M3.5 Screw (Self-Lifting): 46 Inner Pitch: 13 mm For 7.5mm Rail Height: 3.5 <p>Side View Dimensions:</p> <ul style="list-style-type: none"> Width: 59 mm Height: 81 mm Depth: 6.5 mm IEC 35mm Rail: 5 mm 	S-2xN21  <p>Front View Dimensions:</p> <ul style="list-style-type: none"> Width: 59 mm Height: 81 mm Depth: 13.5 mm Mounting Hole: 4-M4ねじ用取付穴 Mounting Dim.: 4.5, 54, 19, 54 M4ねじ (セルフアッフ): 73 M3.5ねじ (セルフアッフ): 49 For 7.5mm Rail Height: 6.5 <p>Side View Dimensions:</p> <ul style="list-style-type: none"> Width: 59 mm Height: 81 mm Depth: 13.5 mm IEC 35mm幅レール: 5 mm (レール厚さ 7.5mmの場合)



S-T Series		S-N Series	
S-2xT65		S-2xN65	
S-2xT80		S-2xN80	
S-2xT100		S-2xN95	

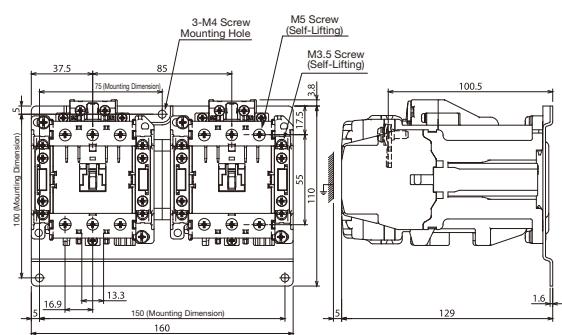
9.6 Magnetic Contactors (Reversing) [Continued]

[DC Operated]

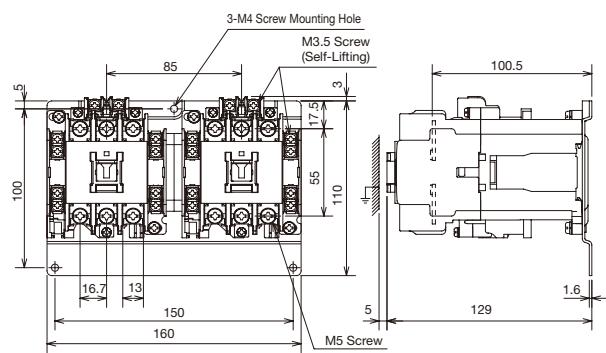
S-T Series	S-N Series
SD-2xT12 	SD-2xN11 
SD-2xT20 	SD-2xN21 
SD-2xT21 	
SD-2xT32 	

S-T Series

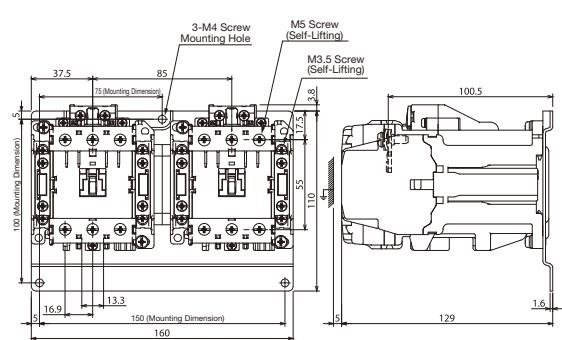
SD-2xT35

**S-N Series**

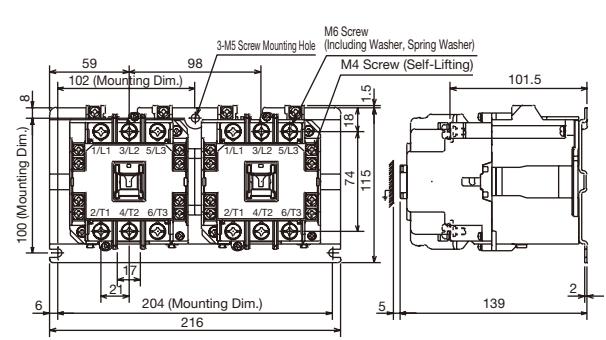
SD-2xN35



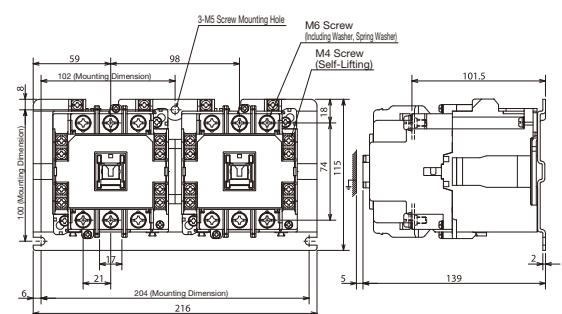
SD-2xT50



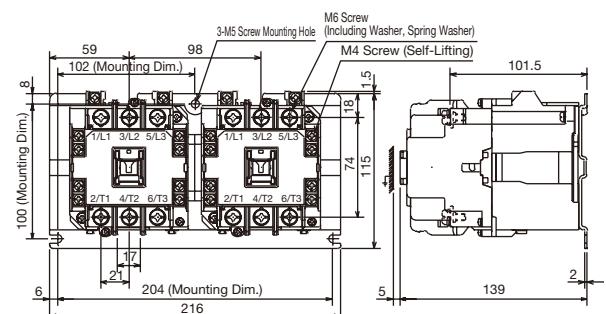
SD-2xN50



SD-2xT65

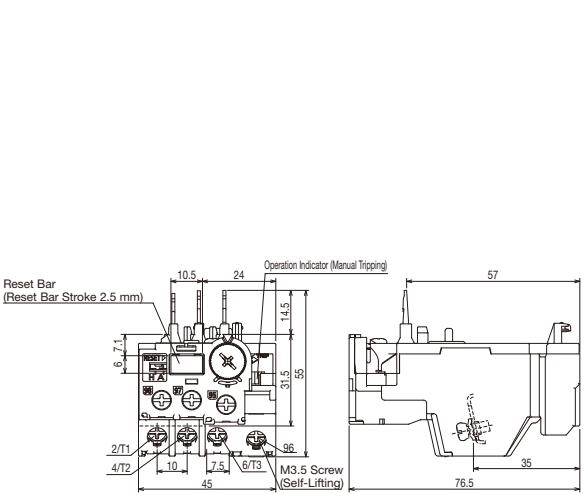
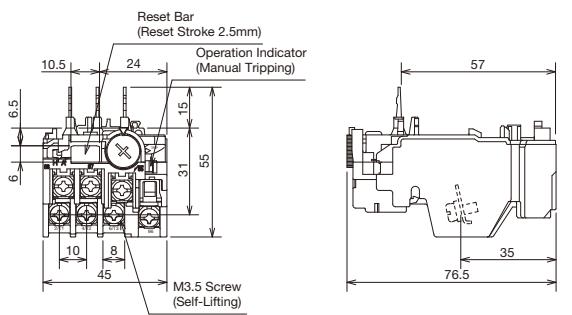
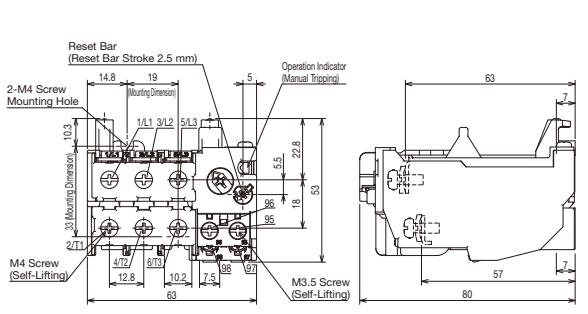
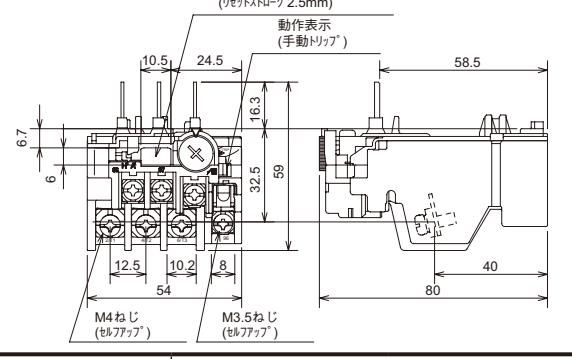
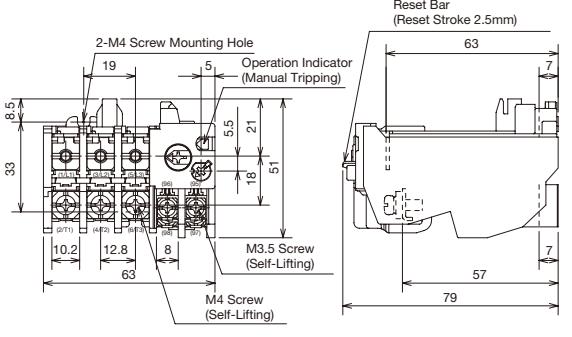
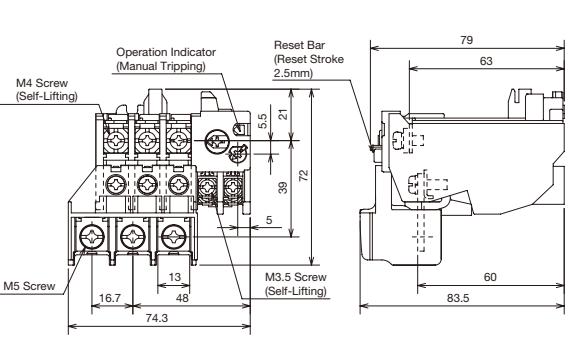


SD-2xN65



S-T Series	S-N Series
SD-2xT80	SD-2xN80
SD-2xT100	SD-2xN95

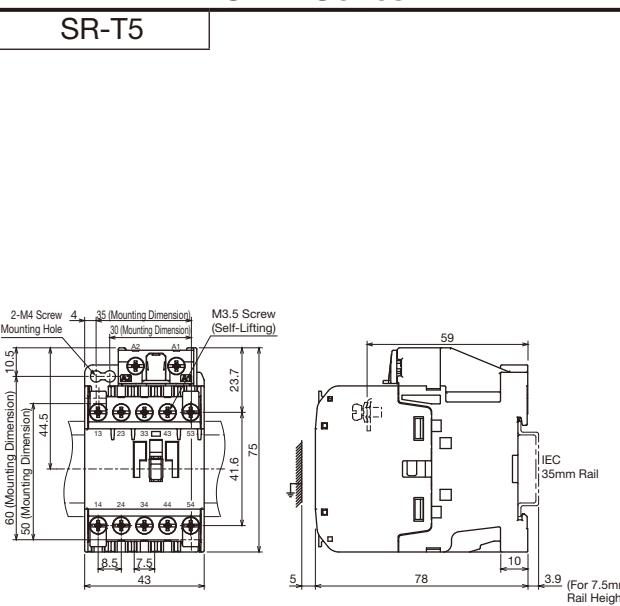
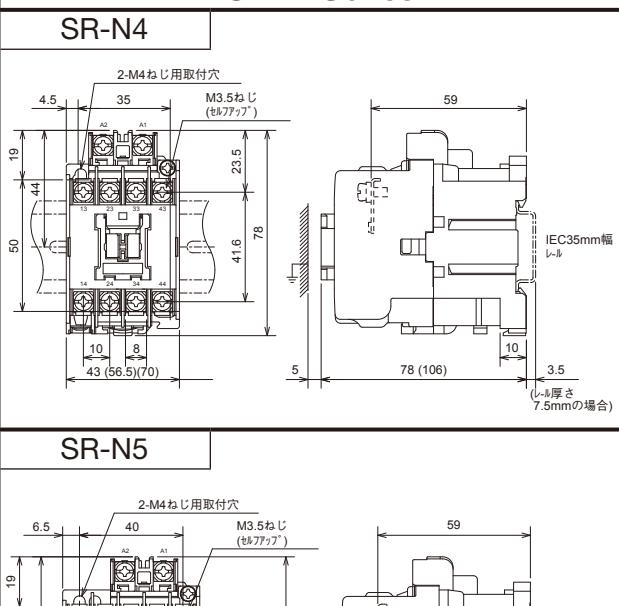
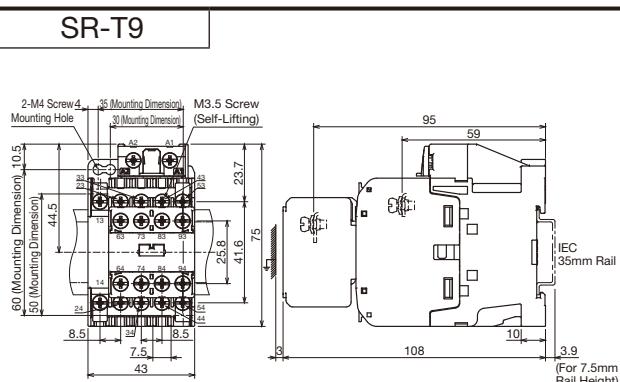
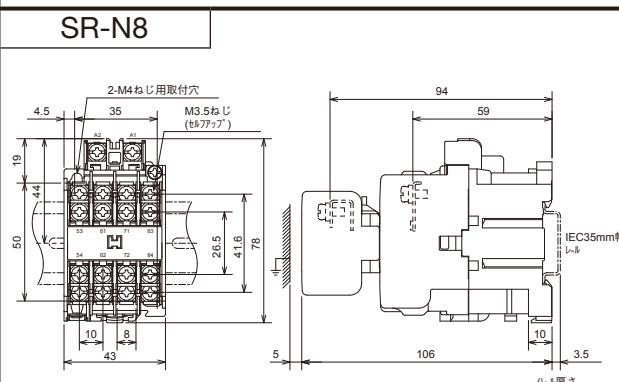
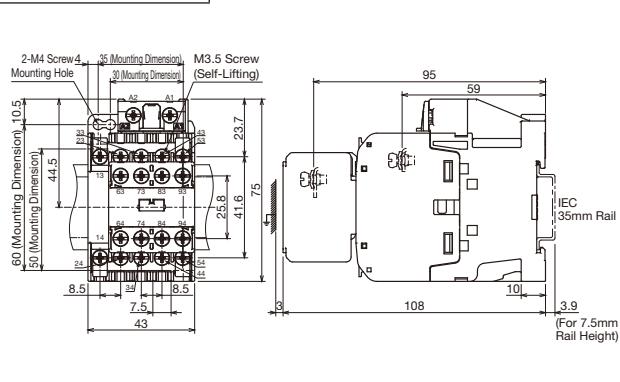
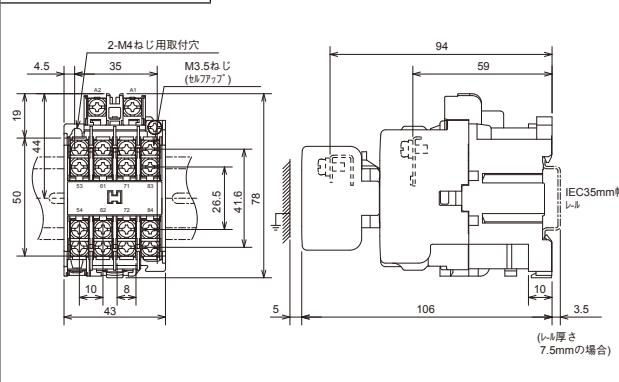
9.7 Thermal Overload Relays

TH-T Series		TH-N Series	
TH-T18		TH-N12	
TH-T25		TH-N18	
TH-T20		TH-N20	
		TH-N20TA (22A Designation)	

TH-T Series		TH-N Series	
TH-T50		TH-N20TA	
TH-T65		TH-N60	
TH-T100		TH-N60TA	

9.8 Contactor Relays

[AC Operated]

SR-T Series	SR-N Series
SR-T5	SR-N4
 <p>Technical drawing of SR-T5 contactor relay showing front view dimensions and internal component layout. Dimensions include: 2-M4 Screw Mounting Hole (4), 35 (Mounting Dimension), 30 (Mounting Dimension), M3.5 Screw (Self-Lifting), 60 (Mounting Dimension), 10.5, 50 (Mounting Dimension), 44.5, 8.5, 7.5, 43, 41.6, 23.7, 75, 59, 78, 3.9 (For 7.5mm Rail Height).</p>	 <p>Technical drawing of SR-N4 contactor relay showing front view dimensions and internal component layout. Dimensions include: 2-M4ねじ用取付穴 (4.5), 35, A2, A1, M3.5ねじ (セカフタフ) (23.5), 19, 50, 44, 10, 43 (56.5)(70), 41.6, 78, 5, 59, IEC35mm幅 レール, 10, 3.5 (レール厚さ 7.5mmの場合).</p>
SR-T9	SR-N5
 <p>Technical drawing of SR-T9 contactor relay showing front view dimensions and internal component layout. Dimensions include: 2-M4 Screw Mounting Hole (4), 35 (Mounting Dimension), 30 (Mounting Dimension), M3.5 Screw (Self-Lifting), 60 (Mounting Dimension), 10.5, 50 (Mounting Dimension), 44.5, 8.5, 7.5, 43, 21.5, 25.8, 41.6, 23.7, 75, 95, 59, 108, 3.9 (For 7.5mm Rail Height).</p>	 <p>Technical drawing of SR-N5 contactor relay showing front view dimensions and internal component layout. Dimensions include: 2-M4ねじ用取付穴 (6.5), 40, A2, A1, M3.5ねじ (セカフタフ) (78), 19, 50, 44, 10, 53, 41.6, 78, 5, 59, IEC35mm幅 レール, 10, 3.5 (レール厚さ 7.5mmの場合).</p>
SR-T9	SR-N8
 <p>Technical drawing of SR-T9 contactor relay showing front view dimensions and internal component layout. Dimensions include: 2-M4 Screw Mounting Hole (4), 35 (Mounting Dimension), 30 (Mounting Dimension), M3.5 Screw (Self-Lifting), 60 (Mounting Dimension), 10.5, 50 (Mounting Dimension), 44.5, 8.5, 7.5, 43, 21.5, 25.8, 41.6, 23.7, 75, 95, 59, 108, 3.9 (For 7.5mm Rail Height).</p>	 <p>Technical drawing of SR-N8 contactor relay showing front view dimensions and internal component layout. Dimensions include: 2-M4ねじ用取付穴 (4.5), 35, A2, A1, M3.5ねじ (セカフタフ) (41.6), 19, 50, 44, 10, 43, 25.5, 41.6, 78, 5, 94, 59, 106, IEC35mm幅 レール, 10, 3.5 (レール厚さ 7.5mmの場合).</p>

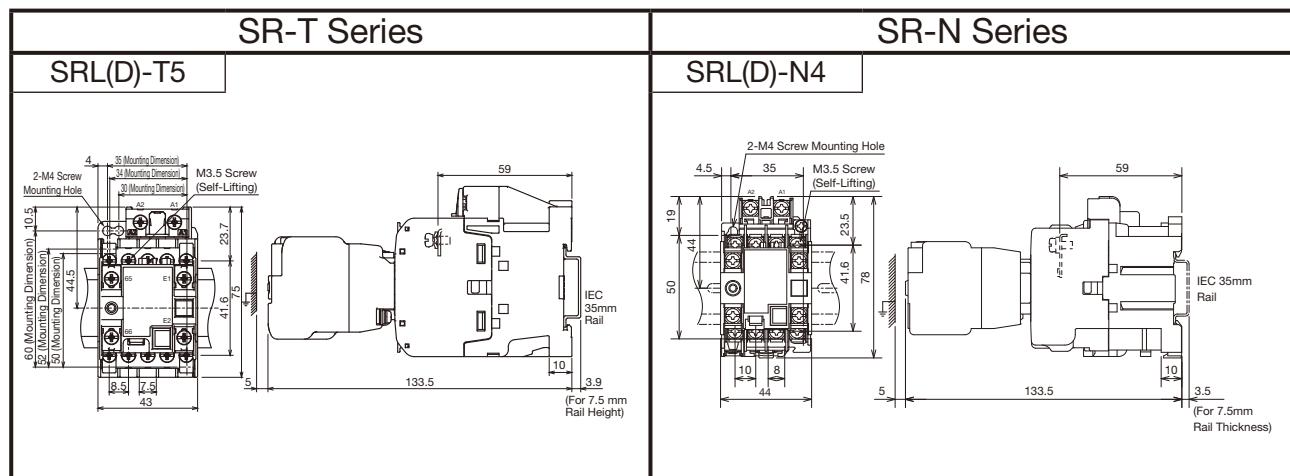
9.8 Contactor Relays

[DC Operated]

SR-T Series	SR-N Series
SRD-T5	SRD-N4
<p>2-M4 Screw Mounting Hole 60(Mounting Dimension), 8.5 44.5 A2 (1) A1 (1) M3.5 Screw (Self-Lifting) 8.5 7.5 43 23.7 41.6 75 81 100 10 5 3.9 (For 7.5mm Rail Height)</p>	<p>2-M4 Screw Mounting Hole 35(Mounting Dimension) 4.5 35 A2 (1) A1 (1) M3.5 Screw (Self-Lifting) 23.5 41.6 78 91 110 10 3.5 (For 7.5mm Rail Thickness) IEC 35mm Rail</p>
SRD-T9	SRD-N5
<p>2-M4 Screw Mounting Hole 60(Mounting Dimension), 8.5 44.5 A2 (1) A1 (1) M3.5 Screw (Self-Lifting) 8.5 7.5 8.5 43 23.7 41.6 75 117 81 130 10 3 3.9 (For 7.5 mm Rail Height)</p>	<p>2-M4 Screw Mounting Hole 6.5 40 A2 (1) A1 (1) M3.5 Screw (Self-Lifting) 23.5 41.6 78 91 110 10 3.5 (For 7.5mm Rail Thickness) IEC 35mm Rail</p>
SRD-N8	
	<p>2-M4 Screw Mounting Hole 35(Mounting Dimension) 4.5 35 A2 (1) A1 (1) M3.5 Screw (Self-Lifting) 21.5 41.6 78 126 91 138 10 3.5 (For 7.5mm Rail Thickness) IEC 35mm Rail</p>

9.8 Contactor Relays

[Mechanically Latched Type]

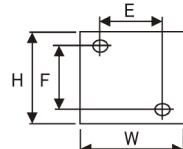


10. New and Old Model Comparison Table for Magnetic Starters/Magnetic Contactors/Contactor Relays

10.1 Magnetic Starters (Enclosed Type)

Model Name	MS-T10	MS-T12	MS-T21		
Rated Capacity (kw/A) AC-3	200 - 220V	2.2/11	3.5/13		
	380 - 440V	2.7/7	5.5/12		
Auxiliary Contact Arrangement	1a	1a1b	2a2b		
External Dimensions (mm)					
W (Width)	76	104			
H (Height)	165	176			
D (Depth)	97.5	110			
E x F (Mounting)	45 x 120	76 x 140			
Mounting Compatibility with MS-N Series	○	○	○		
Model Name	MS-N10	MS-N11	MS-N12	MS-N20	MS-N21
Rated Capacity (kw/A) AC-3	200 - 220V	2.2/11	2.7/13	2.7/13	3.7/18
	380 - 440V	2.7/7	4/9	4/9	7.5/18
Auxiliary Contact Arrangement	1a	1a	1a1b	1a1b	2a2b
External Dimensions (mm)					
W (Width)	76	104			
H (Height)	165	176			
D (Depth)	97.5	110			
E x F (Mounting)	45 x 120	76 x 140			

Note 1. Exterior, Mounting Holes



Note 2. Mounting Compatibility

○: Compatible
△: Compatible with Adapter

Model Name	MS-T35	MS-T50	MS-T65	MS-T80	MS-T100	
Rated Capacity (kw/A) AC-3	200 - 220V	11/40	15/55	18.5/65	22/85	
	380 - 440V	18.5/40	22/48	30/65	45/85	
Auxiliary Contact Arrangement	2a2b	2a2b	2a2b	2a2b	2a2b	
External Dimensions (mm)						
W (Width)	135		160		190	
H (Height)	231		282		317	
D (Depth)	126		145		163	
E x F (Mounting)	95 x 165		120 x 220		150 x 260	
Mounting Compatibility with MS-N Series	○	○	x	○	x	
Model Name	MS-N25	MS-N35	MS-N50	MS-N65	MS-N80	MS-N95
Rated Capacity (kw/A) AC-3	200 - 220V	5.5/26	7.5/34	11/50	15/65	19/80
	380 - 440V	11/25	15/32	22/48	30/65	37/80
Auxiliary Contact Arrangement	2a2b	2a2b	2a2b	2a2b	2a2b	2a2b
External Dimensions (mm)						
W (Width)	135		160		190	
H (Height)	231		282		317	
D (Depth)	126		145		163	
E x F (Mounting)	95 x 165		120 x 220		150 x 260	

10.2 Magnetic Starters (Open Type)

[AC Operated]

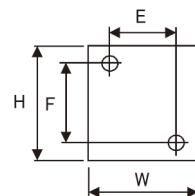
Model Name		MSO-T10	MSO-T12	MSO-T20	MSO-T21	MSO-T25		
Rated Capacity (kw/A) AC-3	200 - 220V	2.5/11	3.5/13	4.5/18	5.5/25	7.5/30		
	380 - 440V	4/9	5.5/12	7.5/18	11/23	15/30(26)		
Auxiliary Contact Arrangement	1a		1a1b		2a2b	2a2b		
External Dimensions (mm)	W (Width)	45	45	45	63	63		
	H (Height)	115	115	115	128	128		
	D (Depth)	79	79	79	82	82		
	E x F (Mounting)	28 x 60	35 x 60, 30 x 60 35 x 50 - 52, 34 x 52	35 x 60, 30 x 60 35 x 50 - 52, 34 x 52	54 x 60 54 x 56	54 x 60 54 x 56		
Mounting Compatibility with MS-N Series	△ (35 x 50, 34 x 52)	○	△ (40 x 50)	○ (54 x 60, 54 x 56)	○	○ (65 x 70, 60 x 70)		
Model Name		MSO-N10	MSO-N11	MSO-N12	MSO-N18	MSO-N20	MSO-N21	MSO-N25
Rated Capacity (kw/A) AC-3	200 - 220V	2.2/11	2.7/13	2.7/13	3.7/18	4/18	4/18	5.5/26
	380 - 440V	2.7/7	4/9	4/9	5.5/13	7.5/18	7.5/18	11/25
Auxiliary Contact Arrangement	1a	1a	1a1b	-	1a1b	2a2b	2a2b	
External Dimensions (mm)	W (Width)	45	55	54	63	63	75	
	H (Height)	115	115	122	127	127	136.5 (- 15A Designation) 157.5 (22A Designation)	
	D (Depth)	79	79	81	81	81	91	
	E x F (Mounting)	35 x 50, 30 x 48 30 x 52, 34 x 52	40 x 50 40 x 52 34 x 48 - 52	30 x 60, 35 x 50 32 x 52, 34 x 52	54 x 60, 54 x 56	54 x 60 54 x 56	65 x 70 60 x 70	

Model Name		MSO-T35	MSO-T50	MSO-T65	MSO-T80	MSO-T100
Rated Capacity (kw/A) AC-3	200 - 220V	11/40	15/55	18.5/65	22/85	30/105
	380 - 440V	18.5/40	22/48	30/65	45/85	55/105
Auxiliary Contact Arrangement	2a2b	2a2b	2a2b	2a2b	2a2b	2a2b
External Dimensions (mm)	W (Width)	75	75	90	90	100
	H (Height)	157.5	157.5	158	158	196
	D (Depth)	91	91	106	106	127
	E x F (Mounting)	65 x 70 60 x 70	65 x 70 60 x 70	70 x 75	70 x 75	80 x 110
Mounting Compatibility with MS-N Series	○	△ (70 x 75)	○	△ (80 x 110)	○	
Model Name		MSO-N35	MSO-N50	MSO-N65	MSO-N80	MSO-N95
Rated Capacity (kw/A) AC-3	200 - 220V	7.5/34	11/50	15/65	19/80	22/100
	380 - 440V	15/32	22/48	30/65	37/80	45/93
Auxiliary Contact Arrangement	2a2b	2a2b	2a2b	2a2b	2a2b	2a2b
External Dimensions (mm)	W (Width)	75	90	90	100	100
	H (Height)	157.5	158	158	196	196
	D (Depth)	91	106	106	127	127
	E x F (Mounting)	65 x 70 60 x 70	70 x 75	70 x 75	80 x 110	80 x 110

[DC Operated]

Model Name	MSOD-T12	MSOD-T20	MSOD-T21	
Rated Capacity (kw/A)	200 - 220V AC-3	3.5/13 5.5/12	4.5/18 7.5/18	
Auxiliary Contact Arrangement	1a1b	1a1b	2a2b	
External Dimensions (mm)	W (Width) H (Height) D (Depth) E x F (Mounting)	45 115 101 35 x 60, 34 x 52 35 x 50 - 52	45 115 101 35 x 60, 34 x 52 35 x 50 - 52	63 128 109 54 x 56 - 60
Mounting Compatibility with MS-N Series	○ △ (40 x 50)	△ (54 x 60, 54 x 56)	○ △ (54 x 60, 54 x 56)	
Model Name	MSOD-N11	MSOD-N12	MSOD-N21	
Rated Capacity (kw/A)	200 - 220V AC-3	2.7/13 4/9	2.7/13 4/9	
Auxiliary Contact Arrangement	1a	1a1b	2a2b	
External Dimensions (mm)	W (Width) H (Height) D (Depth) E x F (Mounting)	45 116 111 35 x 50, 30 x 48 30 x 52, 34 x 52	55 116 111 40 x 50 40 x 52 34 x 48 - 52	63 127 113 54 x 60 54 x 56

Note 1. Exterior, Mounting Holes



Note 2. Mounting Compatibility

○: Compatible
△: Compatible with Adapter

Model Name	MSOD-T35	MSOD-T50	MSOD-T65	MSOD-T80	MSOD-T100
Rated Capacity (kw/A)	200 - 220V AC-3	11/40 18.5/40	15/55 22/48	18.5/65 30/65	22/85 45/85
Auxiliary Contact Arrangement	2a2b	2a2b	2a2b	2a2b	2a2b
External Dimensions (mm)	W (Width) H (Height) D (Depth) E x F (Mounting)	75 157.5 123 65 x 70 60 x 70	75 157.5 123 65 x 70 60 x 70	90 160 133 70 x 75	90 160 133 70 x 75
Mounting Compatibility with MS-N Series	○ △ (40 x 50)	○ △ (54 x 60, 54 x 56)	○ △ (54 x 60, 54 x 56)	○ △ (54 x 60, 54 x 56)	○ △ (54 x 60, 54 x 56)
Model Name	MSOD-N35	MSOD-N50	MSOD-N65	MSOD-N80	MSOD-N95
Rated Capacity (kw/A)	200 - 220V AC-3	7.5/34 15/32	11/50 22/48	15/65 30/65	19/80 37/80
Auxiliary Contact Arrangement	2a2b	2a2b	2a2b	2a2b	2a2b
External Dimensions (mm)	W (Width) H (Height) D (Depth) E x F (Mounting)	75 157.5 123 65 x 70 60 x 70	90 161.5 133 70 x 75	90 161.5 133 70 x 75	100 206 157 80 x 110

10.3 Magnetic Contactors [AC Operated]

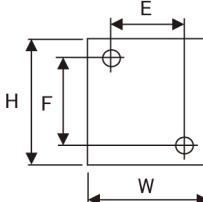
Model Name	S-T10	S-T12	S-T20	S-T21	S-T25	S-T35	S-T32		
Rated Capacity (kw/A) AC-3 (Motor Load)	200 - 220V 380 - 440V	2.5/11 4/9	3.5/13 5.5/12	4.5/18 7.5/18	5.5/25 11/23	8.5/30 15/30(26)	11/40 13.5/40		
Rating (A) AC-1 (Resistance Load)	100 - 240V 380 - 440V	20 11	20 13	20 13	32 32	32 32	32 32		
Conventional Free Air Thermal Current (A)	20	20	20	20	32	32	32		
Auxiliary Contact Arrangement	1a	1a1b	1a1b	2a2b	2a2b	2a2b	-		
External Dimensions (mm)	W (Width) H (Height) D (Depth) E x F (Mounting)	36 75 78 28 x 60	43 75 78 35 x 60, 30 x 60	43 75 78 35 x 50 - 52, 34 x 52	63 81 81 54 x 60	63 81 81 54 x 60	75 89 91 65 x 70		
Mounting Compatibility with MS-N Series	△ (35 x 50, 34 x 52)	○ △ (40 x 50)	○ △ (54 x 60, 54 x 56)	○ △ (54 x 60, 54 x 56)	○ △ (65 x 70, 60 x 70)	○ ○ ○	○ ○ ○		
Model Name	S-N10	S-N11	S-N12	S-N18	S-N20 (Motor Load/ Resistance Load)	S-N21	S-N25 (Motor Load/ Resistance Load)	S-N18	S-N28
Rated Capacity (kw/A)	200 - 220V AC-3	2.2/11 2.7/7	2.7/13 4/9	2.7/13 4/9	3.7/18 5.5/13	4/20 7.5/20	5.5/26 7.5/20	3.7/18 11/25	5.5/26 7.5/17
Rating (A) AC-1 (Resistance Load)	100 - 220V 400 - 440V	20 11	20 13	20 13	25 32	32 32	50 50	25 20	30 30
Conventional Free Air Thermal Current (A)	20	20	20	25	32	32	50	25	30
Auxiliary Contact Arrangement	1a	1a	1a1b	-	1a1b	2a2b	2a2b	-	-
External Dimensions (mm)	W (Width) H (Height) D (Depth) E x F (Mounting)	43 78 78 35 x 50, 30 x 48	53 78 79 40 x 50, 40 x 52	43 79 81 30 x 60, 35 x 50	63 81 81 54 x 60, 54 x 56	63 81 91 54 x 60	75 89 91 65 x 70	43 79 81 30 x 60, 35 x 50	43 79 81 30 x 60, 35 x 50

Model Name	S-T35	S-T50	S-T65	S-T80	S-T100	
Rated Capacity (kw/A)	200 - 220V AC-3	11/40 18.5/40	15/55 22/48	18.5/65 30/65	22/85 45/85	
Rating (A) AC-1 (Resistance Load)	100 - 240V 380 - 440V	60 60	80 80	100 100	120 120	
Conventional Free Air Thermal Current (A)	60	80	100	120	150	
Auxiliary Contact Arrangement	2a2b	2a2b	2a2b	2a2b	2a2b	
External Dimensions (mm)	W (Width) H (Height) D (Depth) E x F (Mounting)	75 89 91 65 x 70	75 89 91 65 x 70	88 106 106 70 x 75	88 106 106 70 x 75	100 124 127 80 x 110
Mounting Compatibility with MS-N Series	○ (70 x 75)	△ (80 x 110)	○ (80 x 110)	△ (80 x 110)	○ (80 x 110)	○ (80 x 110)
Model Name	S-N35	S-N50	S-N65	S-N80 (Motor Load/ Resistance Load)	S-N80 (Resistance Load)	S-N95
Rated Capacity (kw/A)	200 - 220V AC-3	7.5/34 15/32	11/50 22/48	15/65 30/65	19/80 37/80	22/100 45/93
Rating (A) AC-1 (Resistance Load)	100 - 220V 400 - 440V	60 60	80 80	100 100	135 135	150 150
Conventional Free Air Thermal Current (A)	60	80	100	120	135	150
Auxiliary Contact Arrangement	2a2b	2a2b	2a2b	2a2b	2a2b	2a2b
External Dimensions (mm)	W (Width) H (Height) D (Depth) E x F (Mounting)	75 89 91 65 x 70	88 106 106 70 x 75	88 106 106 70 x 75	100 124 127 80 x 110	100 124 127 80 x 110

[DC Operated]

Model Name	SD-T12	SD-T20	SD-T21	SD-T32	
Rated Capacity (kw/A) AC-3 (Motor Load)	200 - 220V 380 - 440V	3.5/13 5.5/12	4.5/18 7.5/18	5.5/25 11/23	7.5/32 15/32
Rating (A) AC-1 (Resistance Load)	100 - 240V 380 - 440V	20 13	20 13	32 32	32 32
Conventional Free Air Thermal Current (A)		20	20	32	32
Auxiliary Contact Arrangement	1a1b	1a1b	2a2b	-	
External Dimensions (mm)	W (Width) H (Height) D (Depth) E x F (Mounting)	43 75 100 35 x 60, 34 x 52 35 x 50 - 52	43 75 100 35 x 60, 34 x 52 35 x 50 - 52	63 81 108 54 x 60 54 x 56	43 81 108 32 x 67
Mounting Compatibility with MS-N Series	○ △ (40 x 50)	△ (54 x 60, 54 x 56)	○ ○	-	
Model Name	SD-N11	SD-N12	SD-N21 (Motor Load/Resistance Load)	SD-N21 (Resistance Load)	
Rated Capacity (kw/A) AC-3	200 - 220V 380 - 440V	2.7/13 4/9	2.7/13 7.5/20	4/20 7.5/20	
Rating (A) AC-1 (Resistance Load)	100 - 220V 400 - 440V	20 13	32 32	32 32	
Conventional Free Air Thermal Current (A)		20	20	32	
Auxiliary Contact Arrangement	1a	1a1b	2a2b	2a2b	
External Dimensions (mm)	W (Width) H (Height) D (Depth) E x F (Mounting)	43 78 110 35 x 50, 30 x 48 30 x 52, 34 x 52	53 78 110 40 x 50, 40 x 52 34 x 48 - 52	63 81 113 54 x 60, 54 x 56	63 81 113 54 x 56

Note 1. Exterior, Mounting Holes



Note 2. Mounting Compatibility

○: Compatible

△: Compatible with Adapter

Model Name	SD-T35	SD-T50	SD-T65	SD-T80	SD-T100
Rated Capacity (kw/A) AC-3	200 - 220V 380 - 440V	11/40 18.5/40	15/55 22/48	18.5/65 30/65	22/85 45/85
Rating (A) AC-1 (Resistance Load)	100 - 240V 380 - 440V	60 60	80 80	100 100	120 120
Conventional Free Air Thermal Current (A)		60	80	100	120
Auxiliary Contact Arrangement	2a2b	2a2b	2a2b	2a2b	2a2b
External Dimensions (mm)	W (Width) H (Height) D (Depth) E x F (Mounting)	75 89 123 65 x 70 60 x 70	75 89 123 65 x 70 60 x 70	88 106 133 70 x 75	88 106 133 70 x 75
Mounting Compatibility with MS-N Series	○ △ (70 x 75)	○ ○	△ (80 x 110)	○ ○	○ ○
Model Name	SD-N35	SD-N50	SD-N65	SD-N80 (Motor Load/Resistance Load)	SD-N80 (Resistance Load)
Rated Capacity (kw/A) AC-3	200 - 220V 380 - 440V	7.5/34 15/32	11/50 22/48	15/65 30/65	19/80 37/80
Rating (A) AC-1 (Resistance Load)	100 - 220V 400 - 440V	60 60	80 80	100 100	135 135
Conventional Free Air Thermal Current (A)		60	80	100	135
Auxiliary Contact Arrangement	2a2b	2a2b	2a2b	2a2b	2a2b
External Dimensions (mm)	W (Width) H (Height) D (Depth) E x F (Mounting)	75 89 123 65 x 70 60 x 70	88 106 133 70 x 75	88 106 133 70 x 75	100 124 157 80 x 110

[Mechanically Latched Type]

Model Name	SL(D)-T21	SL(D)-T35	SL(D)-T50 Note 1	SL(D)-T65	SL(D)-T80	SL(D)-T100
Rated Capacity (kw/A) AC-3	200 - 220V 380 - 440V	5.5/25 11/23	11/40 15/40	15/55 22/48	18.5/65 30/65	22/85 45/85
Rating (A) AC-1 (Resistance Load)	100 - 240V 380 - 440V	32 32	60 60	80 80	100 100	120 120
Conventional Free Air Thermal Current (A)		32	60	80	100	120
Auxiliary Contact Arrangement	Valid For Self-Demagnetization	2a2b 1a1b	2a2b 1a1b	2a2b 1a1b	2a2b 1a1b	1a2b 1a1b
External Dimensions (mm)	W (Width) H (Height) D (Depth) E x F (Mounting)	63 81 136.5 54 x 60 54 x 56	75 89 145.5 65 x 70 60 x 70	75 89 145.5 65 x 70 60 x 70	88 106 135.5 70 x 75	88 106 135.5 70 x 75
Mounting Compatibility with MS-N Series	○ ○	○ ○	△ (70 x 75)	○ ○	△ (80 x 110)	○ ○
Model Name	SL(D)-N21	SL(D)-N35	SL(D)-N50	SL(D)-N65	SL(D)-N80 (Motor Load/Resistance Load)	SL(D)-N80 (Resistance Load)
Rated Capacity (kw/A) AC-3	200 - 220V 380 - 440V	4/20 7.5/20	7.5/34 15/32	11/50 22/48	15/65 30/65	19/80 37/80
Rating (A) AC-1 (Resistance Load)	100 - 220V 400 - 440V	32 32	60 60	80 80	100 100	135 135
Conventional Free Air Thermal Current (A)		32	60	80	100	135
Auxiliary Contact Arrangement	Valid For Self-Demagnetization	2a2b 1a1b	2a2b 1a1b	2a2b 1a1b	2a2b 1a1b	1a2b 1a1b
External Dimensions (mm)	W (Width) H (Height) D (Depth) E x F (Mounting)	63 81 136.5 54 x 60 54 x 56	75 89 146.5 65 x 70 60 x 70	88 106 135.5 70 x 75	88 106 135.5 70 x 75	100 124 127 80 x 110

Note 1. SL(D)-T50 (Standard Product) and SL(D)-T50FN (Class 2 Heat-Resistant Type) external dimensions are different.

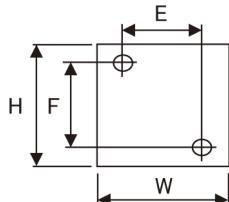
See Section 1 (Comparison of New and Old Specifications) or Section 10 (Outline Drawing) for details.

10.4 Contactor Relays

[AC Operated]

Model Name		SR-T5	SR-T9
Rated Operating Current (A) AC-15	220 VAC 440 VAC	3 1.5	3 1.5
Conventional Free Air Thermal Current (A)		10	10
No. of Contacts		5	9
External Dimensions (mm)	W (Width) H (Height) D (Depth)	43 75 78 E x F (Mounting) 35 x 60, 30 x 60 35 x 50 - 52	43 75 108 35 x 60, 30 x 60 35 x 50 - 52
Mounting Compatibility with MS-N Series		○ (40 x 50)	△ ○
Model Name		SR-N4	SR-N5
Rated Operating Current (A) AC-15	220 VAC 440 VAC	3 1.5	3 1.5
Conventional Free Air Thermal Current (A)		10	10
No. of Contacts		4	5
External Dimensions (mm)	W (Width) H (Height) D (Depth)	43 78 78 E x F (Mounting) 35 x 50, 30 x 48 30 x 52, 34 x 52	53 78 78 43 106 40 x 50, 40 x 52 34 x 48 - 52
Mounting Compatibility with MS-N Series		○ (40 x 50)	△ ○
Model Name		SRD-T5	SRD-T9
Rated Operating Current (A) AC-15	220 VAC 440 VAC	3 1.5	3 1.5
Conventional Free Air Thermal Current (A)		10	10
No. of Contacts		5	9
External Dimensions (mm)	W (Width) H (Height) D (Depth)	43 75 100 E x F (Mounting) 35 x 60, 34 x 52 35 x 50 - 52	43 75 130 35 x 60, 34 x 52 35 x 50 - 52
Mounting Compatibility with MS-N Series		○ (40 x 50)	△ ○
Model Name		SRD-N4	SRD-N5
Rated Operating Current (A) AC-15	220 VAC 440 VAC	3 1.5	3 1.5
Conventional Free Air Thermal Current (A)		10	10
No. of Contacts		4	5
External Dimensions (mm)	W (Width) H (Height) D (Depth)	43 78 110 E x F (Mounting) 35 x 50, 30 x 48 30 x 52, 34 x 52	53 78 110 43 138 40 x 50, 40 x 52 34 x 48 - 52
Mounting Compatibility with MS-N Series		○ (40 x 50)	△ ○

Note 1. Exterior, Mounting Holes



Note 2. Mounting Compatibility

○: Compatible

△: Compatible with Adapter

[DC Operated]

Model Name		SRD-T5	SRD-T9
Rated Operating Current (A) AC-15	220 VAC 440 VAC	3 1.5	3 1.5
Conventional Free Air Thermal Current (A)		10	10
No. of Contacts		5	9
External Dimensions (mm)	W (Width) H (Height) D (Depth)	43 75 100 E x F (Mounting) 35 x 60, 34 x 52 35 x 50 - 52	43 75 130 35 x 60, 34 x 52 35 x 50 - 52
Mounting Compatibility with MS-N Series		○ (40 x 50)	△ ○
Model Name		SRD-N4	SRD-N5
Rated Operating Current (A) AC-15	220 VAC 440 VAC	3 1.5	3 1.5
Conventional Free Air Thermal Current (A)		10	10
No. of Contacts		4	5
External Dimensions (mm)	W (Width) H (Height) D (Depth)	43 78 110 E x F (Mounting) 35 x 50, 30 x 48 30 x 52, 34 x 52	53 78 110 43 138 40 x 50, 40 x 52 34 x 48 - 52
Mounting Compatibility with MS-N Series		○ (40 x 50)	△ ○

[Mechanically Latched Type]

Model Name		SRL(D)-T5
Rated Operating Current (A) AC-15	220 VAC 440 VAC	3 1.5
Conventional Free Air Thermal Current (A)		10
No. of Contacts		5
External Dimensions (mm)	W (Width) H (Height) D (Depth)	43 75 133.5 E x F (Mounting) 35 x 60, 34 x 52 35 x 50 - 52
Mounting Compatibility with MS-N Series		○
Model Name		SRL(D)-N4
Rated Operating Current (A) AC-15	220 VAC 440 VAC	3 1.5
Conventional Free Air Thermal Current (A)		10
No. of Contacts		4
External Dimensions (mm)	W (Width) H (Height) D (Depth)	43 78 133.5 E x F (Mounting) 35 x 50, 30 x 48 30 x 52, 34 x 52

MEMO

Motor circuit breakers

Safety Warning

To ensure proper use of the products listed in this catalog,
please be sure to read the instruction manual prior to use.

Mitsubishi Electric Corporation Nagoya Works is a factory certified for ISO14001
(standards for environmental management systems) and ISO9001(standards for
quality assurance management systems)



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