



## Coordinated protections of motor Starters

Direct-on-line starter Normal start with Miniature Circuit Breaker  
400 V, 100 kA, 50/60 Hz, AC-3, EN/IEC 60947-4-1, type 1

Rated Output [kW]	Motor		Miniature Circuit-Breaker			Contactor		Overload Relay		Max allowed setting current [A]
	Rated Current [A]	Type	Rated Current [A]	Magnetic trip Current [A]	Limiter	Type	Type	Current setting range [A]	Trip Class	
0.06	0.22	MO325-0,25	0.25	2.44		A9	TA25DU0,25	0,16 - 0,25	10	0.25
0.09	0.33	MO325-0,40	0.40	3.9		A9	TA25DU0,40	0,25 - 0,4	10	0.40
0.12	0.42	MO325-0,63	0.63	6.14		A9	TA25DU0,63	0,4 - 0,63	10	0.63
0.18	0.64	MO325-1,00	1	11.5		A9	TA25DU1,0	0,63 - 1,00	10	1.00
0.25	0.88	MO325-1,00	1	11.5		A9	TA25DU1,0	0,63 - 1,0	10	1.00
0.37	1.22	MO325-1,60	1.6	11.5		A9	TA25DU1,4	1,0 - 1,4	10	1.35
0.55	1.5	MO325-1,60	1.6	11.5		A9	TA25DU1,8	1,3 - 1,8	10	1.60
0.75	2	MO325-2,50	2.5	27.5		A9	TA25DU2,4	1,7 - 2,4	10	2.35
1.1	2.6	MO325-4,00	4	40		A9	TA25DU3,1	2,2 - 3,1	10	2.95
1.5	3.5	MO325-4,00	4	40		A9	TA25DU4,0	2,8 - 4,0	10	3.75
2.2	5	MO325-6,3	6.3	78.7		A9	TA25DU6,5	4,5 - 6,5	10	6.25
2.5	5.7	MO325-6,3	6.3	78.7		A9	TA25DU6,5	4,5 - 6,5	10	6.25
3	6.6	MO325-9	9	135		A9	TA25DU8,5	6,0 - 8,5	10	8.00
3.7	8.2	MO325-9	9	135		A9	TA25DU11	7,5 - 11	10	9.00
4	8.5	MO325-9	9	135		A9	TA25DU11	7,5 - 11	10	9.00
5	10.5	MO325-12,5	12.5	187.5		A12	TA25DU11	7,5 - 11	10	10.5
5.5	11.5	MO325-12,5	12.5	187.5		A12	TA25DU14	10 - 14	10	12.0
6.5	13.8	MO325-16,0	16	240		A16	TA25DU19	13 - 19	10	16.0
7.5	15.5	MO325-16,0	16	240		A16	TA25DU19	13 - 19	10	16.0
8	16.7	MO325-20,0	20	300		A26	TA25DU19	13 - 19	10	18.5
9	18.3	MO325-20,0	20	300		A26	TA25DU19	13 - 19	10	18.5
11	22	MO325-25,0	25	375		A26	TA25DU25	18 - 25	10	24.5
12.5	25	S803S-KM32	32	416	S803-SCL32	A30	TA25DU32	24 - 32	10	30.5
15	30	S803S-KM32	32	416	S803-SCL32	A30	TA25DU32	24 - 32	10	30.5
18.5	37	S803S-KM40	40	520	S803-SCL63	A50	TA75DU42	29 - 42	10	39
20	40	S803S-KM50	50	650	S803-SCL63	A50	TA75DU52	36 - 52	10	48.5
22	44	S803S-KM50	50	650	S803-SCL63	A50	TA75DU52	36 - 52	10	48.5
25	50	S803S-KM50	50	650	S803-SCL63	A63	TA75DU63	45 - 63	10	61.5
30	60	S803S-KM63	63	819	S803-SCL63	A63	TA75DU63	45 - 63	10	61.5



## Coordinated protections of motor Starters

Direct-on-line starter Normal start with Miniature Circuit Breaker  
400 V, 100 kA, 50/60 Hz, AC-3, EN/IEC 60947-4-1, type 2

Rated Output [kW]	Motor		Miniature Circuit-Breaker			Contactor		Overload Relay		Max allowed setting current [A]
	Rated Current [A]	Type	Rated Current [A]	Magnetic trip Current [A]	Limiter	Type	Type	Current setting range [A]	Trip Class	
0.06	0.22	MO325-0,25	0.25	2.44		A9	TA25DU0,25	0,16 - 0,25	10	0.25
0.09	0.33	MO325-0,40	0.40	3.9		A9	TA25DU0,40	0,25 - 0,4	10	0.40
0.12	0.42	MO325-0,63	0.63	6.14		A9	TA25DU0,63	0,4 - 0,63	10	0.63
0.18	0.64	MO325-1,00	1	11.5		A9	TA25DU1,0	0,63 - 1,00	10	1.00
0.25	0.88	MO325-1,00	1	11.5		A9	TA25DU1,0	0,63 - 1,0	10	1.00
0.37	1.22	MO325-1,60	1.6	11.5		A9	TA25DU1,4	1,0 - 1,4	10	1.35
0.55	1.5	MO325-1,60	1.6	11.5		A9	TA25DU1,8	1,3 - 1,8	10	1.60
0.75	2	MO325-2,50	2.5	27.5		A9	TA25DU2,4	1,7 - 2,4	10	2.35
1.1	2.6	MO325-4,00	4	40		A9	TA25DU3,1	2,2 - 3,1	10	2.95
1.5	3.5	MO325-4,00	4	40		A12	TA25DU4,0	2,8 - 4,0	10	3.75
2.2	5	MO325-6,3	6.3	78.7		A12	TA25DU6,5	4,5 - 6,5	10	6.25
2.5	5.7	MO325-6,3	6.3	78.7		A12	TA25DU6,5	4,5 - 6,5	10	6.25
3	6.6	MO325-9	9	135		A26	TA25DU8,5	6,0 - 8,5	10	8.00
3.7	8.2	MO325-9	9	135		A26	TA25DU11	7,5 - 11	10	9.00
4	8.5	MO325-9	9	135		A26	TA25DU11	7,5 - 11	10	9.00
5	10.5	MO325-12,5	12.5	187.5		A26	TA25DU11	7,5 - 11	10	10.5
5.5	11.5	MO325-12,5	12.5	187.5		A26	TA25DU14	10 - 14	10	12.5
6.5	13.8	MO325-16,0	16	240		A26	TA25DU19	13 - 19	10	16.0
7.5	15.5	MO325-16,0	16	240		A26	TA25DU19	13 - 19	10	16.0
8	16.7	MO325-20,0	20	300		A26	TA25DU19	13 - 19	10	18.5
9	18.3	MO325-20,0	20	300		A26	TA25DU19	13 - 19	10	18.5
11	22	MO325-25,0	25	375		A30	TA25DU25	18 - 25	10	24.5
12.5	25	S803S-KM32	32	416	S803-SCL32	A40	TA25DU32	24 - 32	10	30.5
15	30	S803S-KM32	32	416	S803-SCL32	A40	TA25DU32	24 - 32	10	30.5
18.5	37	S803S-KM40	40	520	S803-SCL63	A50	TA75DU42	29 - 42	10	39
20	40	S803S-KM50	50	650	S803-SCL63	A50	TA75DU52	36 - 52	10	48.5
22	44	S803S-KM50	50	650	S803-SCL63	A50	TA75DU52	36 - 52	10	48.5
25	50	S803S-KM50	50	650	S803-SCL63	A63	TA75DU63	45 - 63	10	61.5
30	60	S803S-KM63	63	819	S803-SCL63	A63	TA75DU63	45 - 63	10	61.5



## Coordinated protections of motor Starters

Direct-on-line starter Normal start with Miniature Circuit Breaker  
400 V, 100 kA, 50/60 Hz, AC-3, EN/IEC 60947-4-1, type 1

Rated Output [kW]	Motor		Miniature Circuit-Breaker			Contactor		Overload Relay		Max allowed setting current [A]
	Rated Current [A]	Type	Rated Current [A]	Magnetic trip Current [A]	Limiter	Type	Type	Current setting range [A]	Trip Class	
0.06	0.22	MO325-0,25	0.25	2.44		A9	E16DU0,32	0,1 - 0,32	10	0.25
0.09	0.33	MO325-0,40	0.40	3.9		A9	E16DU1,0	0,3 - 1,0	10	0.40
0.12	0.42	MO325-0,63	0.63	6.14		A9	E16DU1,0	0,3 - 1,0	10	0.63
0.18	0.64	MO325-1,00	1	11.5		A9	E16DU1,0	0,3 - 1,0	10	0.95
0.25	0.88	MO325-1,00	1	11.5		A9	E16DU1,0	0,3 - 1,0	10	0.95
0.37	1.22	MO325-1,60	1.6	11.5		A9	E16DU2,7	0,9 - 2,7	10	1.6
0.55	1.5	MO325-1,60	1.6	11.5		A9	E16DU2,7	0,9 - 2,7	10	1.6
0.75	2	MO325-2,50	2.5	27.5		A9	E16DU2,7	0,9 - 2,7	10	2.35
1.1	2.6	MO325-4,00	4	40		A9	E16DU6,3	2 - 6,3	10	4
1.5	3.5	MO325-4,00	4	40		A9	E16DU6,3	2 - 6,3	10	4
2.2	5	MO325-6,3	6.3	78.7		A9	E16DU6,3	2 - 6,3	10	6.3
2.5	5.7	MO325-6,3	6.3	78.7		A9	E16DU18,9	5,7 - 18,9	10	6.3
3	6.6	MO325-9	9	135		A9	E16DU18,9	5,7 - 18,9	10	9
3.7	8.2	MO325-9	9	135		A9	E16DU18,9	5,7 - 18,9	10	9
4	8.5	MO325-9	9	135		A9	E16DU18,9	5,7 - 18,9	10	9
5	10.5	MO325-12,5	12.5	187.5	S803-SCL32	A12	E16DU18,9	5,7 - 18,9	10	12
5.5	11.5	MO325-12,5	12.5	187.5	S803-SCL32	A12	E16DU18,9	5,7 - 18,9	10	12
6.5	13.8	MO325-16,0	16	240	S803-SCL32	A16	E16DU18,9	5,7 - 18,9	10	16
7.5	15.5	MO325-16,0	16	240	S803-SCL32	A16	E16DU18,9	5,7 - 18,9	10	16
8	16.7	MO325-20,0	20	300	S803-SCL32	A26	E16DU18,9	5,7 - 18,9	10	18.5
9	18.3	MO325-20,0	20	300	S803-SCL32	A26	E16DU18,9	5,7 - 18,9	10	18.5
11	22	MO325-25,0	25	375	S803-SCL32	A26	E45DU30	9 - 30	10	25
12.5	25	S803S-KM32	32	416	S803-SCL32	A26	E45DU30	9 - 30	10	26
15	30	S803S-KM32	32	416	S803-SCL63	A30	E45DU45	15 - 45	10	32
18.5	37	S803S-KM40	40	520	S803-SCL63	A40	E45DU45	15 - 45	10	37
20	40	S803S-KM50	50	650	S803-SCL63	A50	E45DU45	15 - 45	10	40
22	44	S803S-KM50	50	650	S803-SCL63	A50	E45DU45	15 - 45	10	45
25	50	S803S-KM63	63	819	S803-SCL63	A63	E80DU80	27 - 80	10	63
30	60	S803S-KM63	63	819	S803-SCL63	A63	E80DU80	27 - 80	10	63



## Coordinated protections of motor Starters

Direct-on-line starter Normal start with Miniature Circuit Breaker  
400 V, 100 kA, 50/60 Hz, AC-3, EN/IEC 60947-4-1, type 2

Rated Output [kW]	Motor		Miniature Circuit-Breaker			Contactor		Overload Relay		Max allowed setting current [A]
	Rated Current [A]	Type	Rated Current [A]	Magnetic trip Current [A]	Limiter	Type	Type	Current setting range [A]	Trip Class	
0.06	0.22	MO325-0,25	0.25	2.44		A9	E16DU0,32	0,1 - 0,32	10	0.25
0.09	0.33	MO325-0,40	0.40	3.9		A9	E16DU1,0	0,3 - 1,0	10	0.40
0.12	0.42	MO325-0,63	0.63	6.14		A9	E16DU1,0	0,3 - 1,0	10	0.63
0.18	0.64	MO325-1,00	1	11.5		A9	E16DU1,0	0,3 - 1,0	10	0.95
0.25	0.88	MO325-1,00	1	11.5		A9	E16DU1,0	0,3 - 1,0	10	0.95
0.37	1.22	MO325-1,60	1.6	11.5		A9	E16DU2,7	0,9 - 2,7	10	1.6
0.55	1.5	MO325-1,60	1.6	11.5		A9	E16DU2,7	0,9 - 2,7	10	1.6
0.75	2	MO325-2,50	2.5	27.5		A9	E16DU2,7	0,9 - 2,7	10	2.35
1.1	2.6	MO325-4,00	4	40		A12	E16DU6,3	2 - 6,3	10	4
1.5	3.5	MO325-4,00	4	40		A12	E16DU6,3	2 - 6,3	10	4
2.2	5	MO325-6,3	6.3	78.7		A12	E16DU6,3	2 - 6,3	10	6.3
2.5	5.7	MO325-6,3	6.3	78.7		A12	E16DU18,9	5,7 - 18,9	10	6.3
3	6.6	MO325-9	9	135		A26	E16DU18,9	5,7 - 18,9	10	9
3.7	8.2	MO325-9	9	135		A26	E16DU18,9	5,7 - 18,9	10	9
4	8.5	MO325-9	9	135		A26	E16DU18,9	5,7 - 18,9	10	9
5	10.5	MO325-12,5	12.5	187.5	S803-SCL32	A26	E16DU18,9	5,7 - 18,9	10	12.5
5.5	11.5	MO325-12,5	12.5	187.5	S803-SCL32	A26	E16DU18,9	5,7 - 18,9	10	12.5
6.5	13.8	MO325-16,0	16	240	S803-SCL32	A26	E16DU18,9	5,7 - 18,9	10	16
7.5	15.5	MO325-16,0	16	240	S803-SCL32	A26	E16DU18,9	5,7 - 18,9	10	16
8	16.7	MO325-20,0	20	300	S803-SCL32	A26	E16DU18,9	5,7 - 18,9	10	18.5
9	18.3	MO325-20,0	20	300	S803-SCL32	A26	E16DU18,9	5,7 - 18,9	10	18.5
11	22	MO325-25,0	25	375	S803-SCL32	A30	E45DU30	9 - 30	10	25
12.5	25	S803S-KM32	32	416	S803-SCL32	A40	E45DU30	9 - 30	10	29
15	30	S803S-KM32	32	416	S803-SCL63	A40	E45DU45	15 - 45	10	32
18.5	37	S803S-KM40	40	520	S803-SCL63	A50	E45DU45	15 - 45	10	40
20	40	S803S-KM50	50	650	S803-SCL63	A50	E45DU45	15 - 45	10	40
22	44	S803S-KM50	50	650	S803-SCL63	A50	E45DU45	15 - 45	10	45
25	50	S803S-KM63	63	819	S803-SCL63	A63	E80DU80	27 - 80	10	63
30	60	S803S-KM63	63	819	S803-SCL63	A63	E80DU80	27 - 80	10	63



## Coordinated protections of motor Starters

Direct-on-line starter Normal start with Miniature Circuit Breaker  
400 V, 100 kA, 50/60 Hz, AC-3, EN/IEC 60947-4-1, type 1

Rated Output [kW]	Motor		Miniature Circuit-Breaker			Contactor		Overload Relay		Max allowed setting current [A]
	Rated Current [A]	Type	Rated Current [A]	Magnetic trip Current [A]	Limiter	Type	Type	Current setting range [A]	Trip Class	
0.06	0.22	MO325-0,25	0.25	2.44		A9	UMC22-FBP	0.1 - 63	10	0.25
0.09	0.33	MO325-0,40	0.40	3.9		A9	UMC22-FBP	0.1 - 63	10	0.40
0.12	0.42	MO325-0,63	0.63	6.14		A9	UMC22-FBP	0.1 - 63	10	0.63
0.18	0.64	MO325-1,00	1	11.5		A9	UMC22-FBP	0.1 - 63	10	1.00
0.25	0.88	MO325-1,00	1	11.5		A9	UMC22-FBP	0.1 - 63	10	1.00
0.37	1.22	MO325-1,60	1.6	11.5		A9	UMC22-FBP	0.1 - 63	10	1.6
0.55	1.5	MO325-1,60	1.6	11.5		A9	UMC22-FBP	0.1 - 63	10	1.6
0.75	2	MO325-2,50	2.5	27.5		A9	UMC22-FBP	0.1 - 63	10	2.5
1.1	2.6	MO325-4,00	4	40		A9	UMC22-FBP	0.1 - 63	10	4
1.5	3.5	MO325-4,00	4	40		A9	UMC22-FBP	0.1 - 63	10	4
2.2	5	MO325-6,3	6.3	78.7		A9	UMC22-FBP	0.1 - 63	10	6.3
2.5	5.7	MO325-6,3	6.3	78.7		A9	UMC22-FBP	0.1 - 63	10	6.3
3	6.6	MO325-9	9	135		A9	UMC22-FBP	0.1 - 63	10	9
3.7	8.2	MO325-9	9	135		A9	UMC22-FBP	0.1 - 63	10	9
4	8.5	MO325-9	9	135		A9	UMC22-FBP	0.1 - 63	10	9
5	10.5	MO325-12,5	12.5	187.5	S803-SCL32	A12	UMC22-FBP	0.1 - 63	10	12
5.5	11.5	MO325-12,5	12.5	187.5	S803-SCL32	A12	UMC22-FBP	0.1 - 63	10	12
6.5	13.8	MO325-16,0	16	240	S803-SCL32	A16	UMC22-FBP	0.1 - 63	10	16
7.5	15.5	MO325-16,0	16	240	S803-SCL32	A16	UMC22-FBP	0.1 - 63	10	16
8	16.7	MO325-20,0	20	300	S803-SCL32	A26	UMC22-FBP	0.1 - 63	10	20
9	18.3	MO325-20,0	20	300	S803-SCL32	A26	UMC22-FBP	0.1 - 63	10	20
11	22	MO325-25,0	25	375	S803-SCL32	A26	UMC22-FBP	0.1 - 63	10	25
12.5	25	S803S-KM32	32	416	S803-SCL32	A26	UMC22-FBP	0.1 - 63	10	26
15	30	S803S-KM32	32	416	S803-SCL63	A30	UMC22-FBP	0.1 - 63	10	32
18.5	37	S803S-KM40	40	520	S803-SCL63	A40	UMC22-FBP	0.1 - 63	10	37
20	40	S803S-KM50	50	650	S803-SCL63	A50	UMC22-FBP	0.1 - 63	10	45
22	44	S803S-KM50	50	650	S803-SCL63	A50	UMC22-FBP	0.1 - 63	10	45
25	50	S803S-KM63	63	819	S803-SCL63	A63	UMC22-FBP	0.1 - 63	10	63
30	60	S803S-KM63	63	819	S803-SCL63	A63	UMC22-FBP	0.1 - 63	10	63



## Coordinated protections of motor Starters

Direct-on-line starter Normal start with Miniature Circuit Breaker  
400 V, 100 kA, 50/60 Hz, AC-3, EN/IEC 60947-4-1, type 2

Rated Output [kW]	Motor		Miniature Circuit-Breaker			Contactor		Overload Relay		Max allowed setting current [A]
	Rated Current [A]	Type	Rated Current [A]	Magnetic trip Current [A]	Limiter	Type	Type	Current setting range [A]	Trip Class	
0.06	0.22	MO325-0,25	0.25	2.44		A9	UMC22-FBP	0.1 - 63	10	0.25
0.09	0.33	MO325-0,40	0.40	3.9		A9	UMC22-FBP	0.1 - 63	10	0.40
0.12	0.42	MO325-0,63	0.63	6.14		A9	UMC22-FBP	0.1 - 63	10	0.63
0.18	0.64	MO325-1,00	1	11.5		A9	UMC22-FBP	0.1 - 63	10	0.95
0.25	0.88	MO325-1,00	1	11.5		A9	UMC22-FBP	0.1 - 63	10	0.95
0.37	1.22	MO325-1,60	1.6	11.5		A9	UMC22-FBP	0.1 - 63	10	1.6
0.55	1.5	MO325-1,60	1.6	11.5		A9	UMC22-FBP	0.1 - 63	10	1.6
0.75	2	MO325-2,50	2.5	27.5		A9	UMC22-FBP	0.1 - 63	10	2.35
1.1	2.6	MO325-4,00	4	40		A12	UMC22-FBP	0.1 - 63	10	4
1.5	3.5	MO325-4,00	4	40		A12	UMC22-FBP	0.1 - 63	10	4
2.2	5	MO325-6,3	6.3	78.7		A12	UMC22-FBP	0.1 - 63	10	6.3
2.5	5.7	MO325-6,3	6.3	78.7		A12	UMC22-FBP	0.1 - 63	10	6.3
3	6.6	MO325-9	9	135		A26	UMC22-FBP	0.1 - 63	10	9
3.7	8.2	MO325-9	9	135		A26	UMC22-FBP	0.1 - 63	10	9
4	8.5	MO325-9	9	135		A26	UMC22-FBP	0.1 - 63	10	9
5	10.5	MO325-12,5	12.5	187.5	S803-SCL32	A26	UMC22-FBP	0.1 - 63	10	12.5
5.5	11.5	MO325-12,5	12.5	187.5	S803-SCL32	A26	UMC22-FBP	0.1 - 63	10	12.5
6.5	13.8	MO325-16,0	16	240	S803-SCL32	A26	UMC22-FBP	0.1 - 63	10	16
7.5	15.5	MO325-16,0	16	240	S803-SCL32	A26	UMC22-FBP	0.1 - 63	10	16
8	16.7	MO325-20,0	20	300	S803-SCL32	A26	UMC22-FBP	0.1 - 63	10	18.5
9	18.3	MO325-20,0	20	300	S803-SCL32	A26	UMC22-FBP	0.1 - 63	10	18.5
11	22	MO325-25,0	25	375	S803-SCL32	A30	UMC22-FBP	0.1 - 63	10	25
12.5	25	S803S-KM32	32	416	S803-SCL32	A40	UMC22-FBP	0.1 - 63	10	29
15	30	S803S-KM32	32	416	S803-SCL63	A40	UMC22-FBP	0.1 - 63	10	32
18.5	37	S803S-KM40	40	520	S803-SCL63	A50	UMC22-FBP	0.1 - 63	10	40
20	40	S803S-KM50	50	650	S803-SCL63	A50	UMC22-FBP	0.1 - 63	10	40
22	44	S803S-KM50	50	650	S803-SCL63	A50	UMC22-FBP	0.1 - 63	10	45
25	50	S803S-KM63	63	819	S803-SCL63	A63	UMC22-FBP	0.1 - 63	10	63
30	60	S803S-KM63	63	819	S803-SCL63	A63	UMC22-FBP	0.1 - 63	10	63



## Coordinated protections of motor Starters

Direct-on-line starter Heavy Duty 20s with Miniature Circuit Breaker  
400 V, 100 kA, 50/60 Hz, AC-3, EN/IEC 60947-4-1, type 1

Rated Output [kW]	Motor		Miniature Circuit-Breaker			Contactor		Overload Relay		Max allowed setting current [A]
	Rated Current [A]	Type	Rated Current [A]	Magnetic trip Current [A]	Limiter	Type	Type	Current setting range [A]	Trip Class	
0.06	0.22	MO325-0,25	0.25	2.44		A9	E16DU0,32	0,1 - 0,32	20	0.225
0.09	0.33	MO325-0,40	0.40	3.9		A9	E16DU1,0	0,3 - 1,0	20	0.32
0.12	0.42	MO325-0,63	0.63	6.14		A9	E16DU1,0	0,3 - 1,0	20	0.57
0.18	0.64	MO325-1,00	1	11.5		A9	E16DU1,0	0,3 - 1,0	20	0.90
0.25	0.88	MO325-1,00	1	11.5		A9	E16DU1,0	0,3 - 1,0	20	0.90
0.37	1.22	MO325-1,60	1.6	11.5		A9	E16DU2,7	0,9 - 2,7	20	1.45
0.55	1.5	MO325-2,50	2.5	27.5		A9	E16DU2,7	0,9 - 2,7	20	2.2
0.75	2	MO325-2,50	2.5	27.5		A9	E16DU2,7	0,9 - 2,7	20	2.2
1.1	2.6	MO325-4,00	4	40		A9	E16DU2,7	0,9 - 2,7	20	2.7
1.5	3.5	MO325-4,00	4	40		A9	E16DU6,3	2 - 6,3	20	3.5
2.2	5	MO325-6,3	6.3	78.7		A9	E16DU6,3	2 - 6,3	20	5.4
2.5	5.7	MO325-9	9	135		A9	E16DU6,3	2 - 6,3	20	6.3
3	6.6	MO325-9	9	135		A9	E16DU18,9	5,7 - 18,9	20	7.5
3.7	8.2	MO325-12,5	12.5	187.5		A12	E16DU18,9	5,7 - 18,9	20	10
4	8.5	MO325-12,5	12.5	187.5		A12	E16DU18,9	5,7 - 18,9	20	10
5	10.5	MO325-16,0	16	240	S803-SCL32	A16	E16DU18,9	5,7 - 18,9	20	14
5.5	11.5	MO325-16,0	16	240	S803-SCL32	A16	E16DU18,9	5,7 - 18,9	20	14
6.5	13.8	MO325-16,0	16	240	S803-SCL32	A16	E16DU18,9	5,7 - 18,9	20	14
7.5	15.5	MO325-20,0	20	300	S803-SCL32	A16	E16DU18,9	5,7 - 18,9	20	16
8	16.7	MO325-20,0	20	300	S803-SCL32	A26	E16DU18,9	5,7 - 18,9	20	17
9	18.3	MO325-25,0	25	375	S803-SCL32	A26	E16DU18,9	5,7 - 18,9	20	18.5
11	22	S803S-KM32	32	416	S803-SCL32	A26	E45DU30	9 - 30	20	26
12.5	25	S803S-KM32	32	416	S803-SCL32	A26	E45DU30	9 - 30	20	26
15	30	S803S-KM32	32	416	S803-SCL63	A30	E45DU45	15 - 45	20	32
18.5	37	S803S-KM40	40	520	S803-SCL63	A40	E45DU45	15 - 45	20	37
20	40	S803S-KM50	50	650	S803-SCL63	A50	E45DU45	15 - 45	20	45
22	44	S803S-KM50	50	650	S803-SCL63	A50	E45DU45	15 - 45	20	45
25	50	S803S-KM63	63	819	S803-SCL63	A63	E80DU80	27 - 80	20	63
30	60	S803S-KM63	63	819	S803-SCL63	A63	E80DU80	27 - 80	20	63



## Coordinated protections of motor Starters

Direct-on-line starter Heavy Duty 20s with Miniature Circuit Breaker  
400 V, 100 kA, 50/60 Hz, AC-3, EN/IEC 60947-4-1, type 2

Rated Output [kW]	Motor		Miniature Circuit-Breaker			Contactor		Overload Relay		Max allowed setting current [A]
	Rated Current [A]	Type	Rated Current [A]	Magnetic trip Current [A]	Limiter	Type	Type	Current setting range [A]	Trip Class	
0.06	0.22	MO325-0,25	0.25	2.44		A9	E16DU0,32	0,1 - 0,32	20	0.225
0.09	0.33	MO325-0,40	0.40	3.9		A9	E16DU1,0	0,3 - 1,0	20	0.32
0.12	0.42	MO325-0,63	0.63	6.14		A9	E16DU1,0	0,3 - 1,0	20	0.57
0.18	0.64	MO325-1,00	1	11.5		A9	E16DU1,0	0,3 - 1,0	20	0.90
0.25	0.88	MO325-1,00	1	11.5		A9	E16DU1,0	0,3 - 1,0	20	0.90
0.37	1.22	MO325-1,60	1.6	11.5		A9	E16DU2,7	0,9 - 2,7	20	1.45
0.55	1.5	MO325-2,50	2.5	27.5		A9	E16DU2,7	0,9 - 2,7	20	2.2
0.75	2	MO325-2,50	2.5	27.5		A9	E16DU2,7	0,9 - 2,7	20	2.2
1.1	2.6	MO325-4,00	4	40		A12	E16DU2,7	0,9 - 2,7	20	2.7
1.5	3.5	MO325-4,00	4	40		A12	E16DU6,3	2 - 6,3	20	3.5
2.2	5	MO325-6,3	6.3	78.7		A12	E16DU6,3	2 - 6,3	20	5.4
2.5	5.7	MO325-9	9	135		A12	E16DU6,3	2 - 6,3	20	6.3
3	6.6	MO325-9	9	135		A26	E16DU18,9	5,7 - 18,9	20	7.5
3.7	8.2	MO325-12,5	12.5	187.5		A26	E16DU18,9	5,7 - 18,9	20	10
4	8.5	MO325-12,5	12.5	187.5		A26	E16DU18,9	5,7 - 18,9	20	10
5	10.5	MO325-16,0	16	240	S803-SCL32	A26	E16DU18,9	5,7 - 18,9	20	14
5.5	11.5	MO325-16,0	16	240	S803-SCL32	A26	E16DU18,9	5,7 - 18,9	20	14
6.5	13.8	MO325-16,0	16	240	S803-SCL32	A26	E16DU18,9	5,7 - 18,9	20	14
7.5	15.5	MO325-20,0	20	300	S803-SCL32	A26	E16DU18,9	5,7 - 18,9	20	17
8	16.7	MO325-20,0	20	300	S803-SCL32	A26	E16DU18,9	5,7 - 18,9	20	17
9	18.3	MO325-25,0	25	375	S803-SCL32	A26	E16DU18,9	5,7 - 18,9	20	18.5
11	22	S803S-KM32	32	416	S803-SCL32	A30	E45DU30	9 - 30	20	25
12.5	25	S803S-KM32	32	416	S803-SCL32	A40	E45DU30	9 - 30	20	29
15	30	S803S-KM32	32	416	S803-SCL63	A40	E45DU45	15 - 45	20	32
18.5	37	S803S-KM40	40	520	S803-SCL63	A50	E45DU45	15 - 45	20	40
20	40	S803S-KM50	50	650	S803-SCL63	A50	E45DU45	15 - 45	20	40
22	44	S803S-KM50	50	650	S803-SCL63	A50	E45DU45	15 - 45	20	45
25	50	S803S-KM63	63	819	S803-SCL63	A63	E80DU80	27 - 80	20	63
30	60	S803S-KM63	63	819	S803-SCL63	A63	E80DU80	27 - 80	20	63





## Coordinated protections of motor Starters

Direct-on-line starter Heavy Duty 20s with Miniature Circuit Breaker  
400 V, 100 kA, 50/60 Hz, AC-3, EN/IEC 60947-4-1, type 1

Rated Output [kW]	Motor		Miniature Circuit-Breaker			Contactor		Overload Relay		Max allowed setting current [A]
	Rated Current [A]	Type	Rated Current [A]	Magnetic trip Current [A]	Limiter	Type	Type	Current setting range [A]	Trip Class	
0.06	0.22	MO325-0,25	0.25	2.44		A9	UMC22-FBP	0.1 - 63	20	0.225
0.09	0.33	MO325-0,40	0.40	3.9		A9	UMC22-FBP	0.1 - 63	20	0.32
0.12	0.42	MO325-0,63	0.63	6.14		A9	UMC22-FBP	0.1 - 63	20	0.57
0.18	0.64	MO325-1,00	1	11.5		A9	UMC22-FBP	0.1 - 63	20	0.90
0.25	0.88	MO325-1,00	1	11.5		A9	UMC22-FBP	0.1 - 63	20	0.90
0.37	1.22	MO325-1,60	1.6	11.5		A9	UMC22-FBP	0.1 - 63	20	1.45
0.55	1.5	MO325-2,50	2.5	27.5		A9	UMC22-FBP	0.1 - 63	20	2.2
0.75	2	MO325-2,50	2.5	27.5		A9	UMC22-FBP	0.1 - 63	20	2.2
1.1	2.6	MO325-4,00	4	40		A9	UMC22-FBP	0.1 - 63	20	2.7
1.5	3.5	MO325-4,00	4	40		A9	UMC22-FBP	0.1 - 63	20	3.5
2.2	5	MO325-6,3	6.3	78.7		A9	UMC22-FBP	0.1 - 63	20	5.4
2.5	5.7	MO325-9	9	135		A9	UMC22-FBP	0.1 - 63	20	6.3
3	6.6	MO325-9	9	135		A9	UMC22-FBP	0.1 - 63	20	7.5
3.7	8.2	MO325-12,5	12.5	187.5		A12	UMC22-FBP	0.1 - 63	20	10
4	8.5	MO325-12,5	12.5	187.5		A12	UMC22-FBP	0.1 - 63	20	10
5	10.5	MO325-16,0	16	240	S803-SCL32	A16	UMC22-FBP	0.1 - 63	20	14
5.5	11.5	MO325-16,0	16	240	S803-SCL32	A16	UMC22-FBP	0.1 - 63	20	14
6.5	13.8	MO325-16,0	16	240	S803-SCL32	A16	UMC22-FBP	0.1 - 63	20	14
7.5	15.5	MO325-20,0	20	300	S803-SCL32	A16	UMC22-FBP	0.1 - 63	20	17
8	16.7	MO325-20,0	20	300	S803-SCL32	A26	UMC22-FBP	0.1 - 63	20	17
9	18.3	MO325-25,0	25	375	S803-SCL32	A26	UMC22-FBP	0.1 - 63	20	21
11	22	S803S-KM32	32	416	S803-SCL32	A26	UMC22-FBP	0.1 - 63	20	26
12.5	25	S803S-KM32	32	416	S803-SCL32	A26	UMC22-FBP	0.1 - 63	20	26
15	30	S803S-KM32	32	416	S803-SCL63	A30	UMC22-FBP	0.1 - 63	20	32
18.5	37	S803S-KM40	40	520	S803-SCL63	A40	UMC22-FBP	0.1 - 63	20	40
20	40	S803S-KM50	50	650	S803-SCL63	A50	UMC22-FBP	0.1 - 63	20	45
22	44	S803S-KM50	50	650	S803-SCL63	A50	UMC22-FBP	0.1 - 63	20	45
25	50	S803S-KM63	63	819	S803-SCL63	A63	UMC22-FBP	0.1 - 63	20	63
30	60	S803S-KM63	63	819	S803-SCL63	A63	UMC22-FBP	0.1 - 63	20	63



## Coordinated protections of motor Starters

Direct-on-line starter Heavy Duty 20s with Miniature Circuit Breaker  
400 V, 100 kA, 50/60 Hz, AC-3, EN/IEC 60947-4-1, type 2

Rated Output [kW]	Motor		Miniature Circuit-Breaker			Contactor		Overload Relay		Max allowed setting current [A]
	Rated Current [A]	Type	Rated Current [A]	Magnetic trip Current [A]	Limiter	Type	Type	Current setting range [A]	Trip Class	
0.06	0.22	MO325-0,25	0.25	2.44		A9	UMC22-FBP	0.1 - 63	20	0.225
0.09	0.33	MO325-0,40	0.40	3.9		A9	UMC22-FBP	0.1 - 63	20	0.32
0.12	0.42	MO325-0,63	0.63	6.14		A9	UMC22-FBP	0.1 - 63	20	0.57
0.18	0.64	MO325-1,00	1	11.5		A9	UMC22-FBP	0.1 - 63	20	0.90
0.25	0.88	MO325-1,00	1	11.5		A9	UMC22-FBP	0.1 - 63	20	0.90
0.37	1.22	MO325-1,60	1.6	11.5		A9	UMC22-FBP	0.1 - 63	20	1.45
0.55	1.5	MO325-2,50	2.5	27.5		A9	UMC22-FBP	0.1 - 63	20	2.2
0.75	2	MO325-2,50	2.5	27.5		A9	UMC22-FBP	0.1 - 63	20	2.2
1.1	2.6	MO325-4,00	4	40		A12	UMC22-FBP	0.1 - 63	20	2.7
1.5	3.5	MO325-4,00	4	40		A12	UMC22-FBP	0.1 - 63	20	3.5
2.2	5	MO325-6,3	6.3	78.7		A12	UMC22-FBP	0.1 - 63	20	5.4
2.5	5.7	MO325-9	9	135		A12	UMC22-FBP	0.1 - 63	20	6.3
3	6.6	MO325-9	9	135		A26	UMC22-FBP	0.1 - 63	20	7.5
3.7	8.2	MO325-12,5	12.5	187.5		A26	UMC22-FBP	0.1 - 63	20	10
4	8.5	MO325-12,5	12.5	187.5		A26	UMC22-FBP	0.1 - 63	20	10
5	10.5	MO325-16,0	16	240	S803-SCL32	A26	UMC22-FBP	0.1 - 63	20	14
5.5	11.5	MO325-16,0	16	240	S803-SCL32	A26	UMC22-FBP	0.1 - 63	20	14
6.5	13.8	MO325-16,0	16	240	S803-SCL32	A26	UMC22-FBP	0.1 - 63	20	14
7.5	15.5	MO325-20,0	20	300	S803-SCL32	A26	UMC22-FBP	0.1 - 63	20	17
8	16.7	MO325-20,0	20	300	S803-SCL32	A26	UMC22-FBP	0.1 - 63	20	17
9	18.3	MO325-25,0	25	375	S803-SCL32	A26	UMC22-FBP	0.1 - 63	20	18.5
11	22	S803S-KM32	32	416	S803-SCL32	A30	UMC22-FBP	0.1 - 63	20	25
12.5	25	S803S-KM32	32	416	S803-SCL32	A40	UMC22-FBP	0.1 - 63	20	29
15	30	S803S-KM32	32	416	S803-SCL63	A40	UMC22-FBP	0.1 - 63	20	32
18.5	37	S803S-KM40	40	520	S803-SCL63	A50	UMC22-FBP	0.1 - 63	20	40
20	40	S803S-KM50	50	650	S803-SCL63	A50	UMC22-FBP	0.1 - 63	20	45
22	44	S803S-KM50	50	650	S803-SCL63	A50	UMC22-FBP	0.1 - 63	20	45
25	50	S803S-KM63	63	819	S803-SCL63	A63	UMC22-FBP	0.1 - 63	20	63
30	60	S803S-KM63	63	819	S803-SCL63	A63	UMC22-FBP	0.1 - 63	20	63