

## 60 Hz fuseless

Un	Iq	Starter type	Overload relay	Pn	In	cosphi	eta	Basic type	Coordination Typee	Frequency	Motor starter class
400	100	Direct starter	electronic	0,25	0,681866815	0,72	0,735	fuseless	Type 2	60	Class 10
400	100	Direct starter	electronic	0,25	0,681866815	0,72	0,735	fuseless	Type 2	60	Class 20
400	100	Direct starter	electronic	0,25	0,681866815	0,72	0,735	fuseless	Type 2	60	Class 30
440	100	Direct starter	electronic	0,25	0,619878922	0,72	0,735	fuseless	Type 2	60	Class 10
440	100	Direct starter	electronic	0,25	0,619878922	0,72	0,735	fuseless	Type 2	60	Class 20
440	100	Direct starter	electronic	0,25	0,619878922	0,72	0,735	fuseless	Type 2	60	Class 30
500	100	Direct starter	electronic	0,25	0,545493452	0,72	0,735	fuseless	Type 2	60	Class 10
500	100	Direct starter	electronic	0,25	0,545493452	0,72	0,735	fuseless	Type 2	60	Class 20
500	100	Direct starter	electronic	0,25	0,545493452	0,72	0,735	fuseless	Type 2	60	Class 30
400	100	Direct starter	electronic	0,37	0,986969135	0,7	0,773	fuseless	Type 2	60	Class 10
400	100	Direct starter	electronic	0,37	0,986969135	0,7	0,773	fuseless	Type 2	60	Class 20
400	100	Direct starter	electronic	0,37	0,986969135	0,7	0,773	fuseless	Type 2	60	Class 30
440	100	Direct starter	electronic	0,37	0,897244668	0,7	0,773	fuseless	Type 2	60	Class 10
440	100	Direct starter	electronic	0,37	0,897244668	0,7	0,773	fuseless	Type 2	60	Class 20
440	100	Direct starter	electronic	0,37	0,897244668	0,7	0,773	fuseless	Type 2	60	Class 30
500	100	Direct starter	electronic	0,37	0,789575308	0,7	0,773	fuseless	Type 2	60	Class 10
500	100	Direct starter	electronic	0,37	0,789575308	0,7	0,773	fuseless	Type 2	60	Class 20
500	100	Direct starter	electronic	0,37	0,789575308	0,7	0,773	fuseless	Type 2	60	Class 30
400	100	Direct starter	electronic	0,55	1,259610022	0,78	0,808	fuseless	Type 2	60	Class 10
400	100	Direct starter	electronic	0,55	1,259610022	0,78	0,808	fuseless	Type 2	60	Class 20
400	100	Direct starter	electronic	0,55	1,259610022	0,78	0,808	fuseless	Type 2	60	Class 30
440	100	Direct starter	electronic	0,55	1,14510002	0,78	0,808	fuseless	Type 2	60	Class 10
440	100	Direct starter	electronic	0,55	1,14510002	0,78	0,808	fuseless	Type 2	60	Class 20
440	100	Direct starter	electronic	0,55	1,14510002	0,78	0,808	fuseless	Type 2	60	Class 30
500	100	Direct starter	electronic	0,55	1,007688017	0,78	0,808	fuseless	Type 2	60	Class 10
500	100	Direct starter	electronic	0,55	1,007688017	0,78	0,808	fuseless	Type 2	60	Class 20
500	100	Direct starter	electronic	0,55	1,007688017	0,78	0,808	fuseless	Type 2	60	Class 30
400	100	Direct starter	electronic	0,75	1,74954627	0,75	0,825	fuseless	Type 2	60	Class 10
400	100	Direct starter	electronic	0,75	1,74954627	0,75	0,825	fuseless	Type 2	60	Class 20
400	100	Direct starter	electronic	0,75	1,74954627	0,75	0,825	fuseless	Type 2	60	Class 30
440	100	Direct starter	electronic	0,75	1,590496609	0,75	0,825	fuseless	Type 2	60	Class 10
440	100	Direct starter	electronic	0,75	1,590496609	0,75	0,825	fuseless	Type 2	60	Class 20
440	100	Direct starter	electronic	0,75	1,590496609	0,75	0,825	fuseless	Type 2	60	Class 30
500	100	Direct starter	electronic	0,75	1,399637016	0,75	0,825	fuseless	Type 2	60	Class 10
500	100	Direct starter	electronic	0,75	1,399637016	0,75	0,825	fuseless	Type 2	60	Class 20
500	100	Direct starter	electronic	0,75	1,399637016	0,75	0,825	fuseless	Type 2	60	Class 30
400	100	Direct starter	electronic	1,1	2,420368365	0,78	0,841	fuseless	Type 2	60	Class 10
400	100	Direct starter	electronic	1,1	2,420368365	0,78	0,841	fuseless	Type 2	60	Class 20
400	100	Direct starter	electronic	1,1	2,420368365	0,78	0,841	fuseless	Type 2	60	Class 30
440	100	Direct starter	electronic	1,1	2,200334878	0,78	0,841	fuseless	Type 2	60	Class 10
440	100	Direct starter	electronic	1,1	2,200334878	0,78	0,841	fuseless	Type 2	60	Class 20

## 60 Hz fuseless

Un	Iq	Starter type	Overload relay	Pn	In	cosphi	eta	Basic type	Coordination Typee	Frequency	Motor starter class
440	100	Direct starter	electronic	1,1	2,200334878	0,78	0,841	fuseless	Type 2	60	Class 30
500	100	Direct starter	electronic	1,1	1,936294692	0,78	0,841	fuseless	Type 2	60	Class 10
500	100	Direct starter	electronic	1,1	1,936294692	0,78	0,841	fuseless	Type 2	60	Class 20
500	100	Direct starter	electronic	1,1	1,936294692	0,78	0,841	fuseless	Type 2	60	Class 30
400	100	Direct starter	electronic	1,5	3,172719094	0,8	0,853	fuseless	Type 2	60	Class 10
400	100	Direct starter	electronic	1,5	3,172719094	0,8	0,853	fuseless	Type 2	60	Class 20
400	100	Direct starter	electronic	1,5	3,172719094	0,8	0,853	fuseless	Type 2	60	Class 30
440	100	Direct starter	electronic	1,5	2,884290085	0,8	0,853	fuseless	Type 2	60	Class 10
440	100	Direct starter	electronic	1,5	2,884290085	0,8	0,853	fuseless	Type 2	60	Class 20
440	100	Direct starter	electronic	1,5	2,884290085	0,8	0,853	fuseless	Type 2	60	Class 30
500	100	Direct starter	electronic	1,5	2,538175275	0,8	0,853	fuseless	Type 2	60	Class 10
500	100	Direct starter	electronic	1,5	2,538175275	0,8	0,853	fuseless	Type 2	60	Class 20
500	100	Direct starter	electronic	1,5	2,538175275	0,8	0,853	fuseless	Type 2	60	Class 30
400	100	Direct starter	electronic	2,2	4,412704771	0,83	0,867	fuseless	Type 2	60	Class 10
400	100	Direct starter	electronic	2,2	4,412704771	0,83	0,867	fuseless	Type 2	60	Class 20
400	100	Direct starter	electronic	2,2	4,412704771	0,83	0,867	fuseless	Type 2	60	Class 30
440	100	Direct starter	electronic	2,2	4,011549792	0,83	0,867	fuseless	Type 2	60	Class 10
440	100	Direct starter	electronic	2,2	4,011549792	0,83	0,867	fuseless	Type 2	60	Class 20
440	100	Direct starter	electronic	2,2	4,011549792	0,83	0,867	fuseless	Type 2	60	Class 30
500	100	Direct starter	electronic	2,2	3,530163817	0,83	0,867	fuseless	Type 2	60	Class 10
500	100	Direct starter	electronic	2,2	3,530163817	0,83	0,867	fuseless	Type 2	60	Class 20
500	100	Direct starter	electronic	2,2	3,530163817	0,83	0,867	fuseless	Type 2	60	Class 30
400	100	Direct starter	electronic	3	5,948712092	0,83	0,877	fuseless	Type 2	60	Class 10
400	100	Direct starter	electronic	3	5,948712092	0,83	0,877	fuseless	Type 2	60	Class 20
400	100	Direct starter	electronic	3	5,948712092	0,83	0,877	fuseless	Type 2	60	Class 30
440	100	Direct starter	electronic	3	5,407920084	0,83	0,877	fuseless	Type 2	60	Class 10
440	100	Direct starter	electronic	3	5,407920084	0,83	0,877	fuseless	Type 2	60	Class 20
440	100	Direct starter	electronic	3	5,407920084	0,83	0,877	fuseless	Type 2	60	Class 30
500	100	Direct starter	electronic	3	4,758969674	0,83	0,877	fuseless	Type 2	60	Class 10
500	100	Direct starter	electronic	3	4,758969674	0,83	0,877	fuseless	Type 2	60	Class 20
400	100	Direct starter	electronic	4	7,94679113	0,82	0,886	fuseless	Type 2	60	Class 10
400	100	Direct starter	electronic	4	7,94679113	0,82	0,886	fuseless	Type 2	60	Class 20
400	100	Direct starter	electronic	4	7,94679113	0,82	0,886	fuseless	Type 2	60	Class 30
440	100	Direct starter	electronic	4	7,224355573	0,82	0,886	fuseless	Type 2	60	Class 10
440	100	Direct starter	electronic	4	7,224355573	0,82	0,886	fuseless	Type 2	60	Class 20
440	100	Direct starter	electronic	4	7,224355573	0,82	0,886	fuseless	Type 2	60	Class 30
500	100	Direct starter	electronic	4	6,357432904	0,82	0,886	fuseless	Type 2	60	Class 10
500	100	Direct starter	electronic	4	6,357432904	0,82	0,886	fuseless	Type 2	60	Class 20
400	100	Direct starter	electronic	5,5	10,54762729	0,84	0,896	fuseless	Type 2	60	Class 10
400	100	Direct starter	electronic	5,5	10,54762729	0,84	0,896	fuseless	Type 2	60	Class 20
400	100	Direct starter	electronic	5,5	10,54762729	0,84	0,896	fuseless	Type 2	60	Class 30

## 60 Hz fuseless

Un	Iq	Starter type	Overload relay	Pn	In	cosphi	eta	Basic type	Coordination Typee	Frequency	Motor starter class
440	100	Direct starter	electronic	5,5	9,588752079	0,84	0,896	fuseless	Type 2	60	Class 10
440	100	Direct starter	electronic	5,5	9,588752079	0,84	0,896	fuseless	Type 2	60	Class 20
440	100	Direct starter	electronic	5,5	9,588752079	0,84	0,896	fuseless	Type 2	60	Class 30
500	100	Direct starter	electronic	5,5	8,43810183	0,84	0,896	fuseless	Type 2	60	Class 10
500	100	Direct starter	electronic	5,5	8,43810183	0,84	0,896	fuseless	Type 2	60	Class 20
400	100	Direct starter	electronic	7,5	14,2558438	0,84	0,904	fuseless	Type 2	60	Class 10
400	100	Direct starter	electronic	7,5	14,2558438	0,84	0,904	fuseless	Type 2	60	Class 20
400	100	Direct starter	electronic	7,5	14,2558438	0,84	0,904	fuseless	Type 2	60	Class 30
400	150	Direct starter	electronic	7,5	14,2558438	0,84	0,904	fuseless	Type 2	60	Class 20
400	150	Direct starter	electronic	7,5	14,2558438	0,84	0,904	fuseless	Type 2	60	Class 30
440	100	Direct starter	electronic	7,5	12,959858	0,84	0,904	fuseless	Type 2	60	Class 10
440	100	Direct starter	electronic	7,5	12,959858	0,84	0,904	fuseless	Type 2	60	Class 20
440	100	Direct starter	electronic	7,5	12,959858	0,84	0,904	fuseless	Type 2	60	Class 30
440	150	Direct starter	electronic	7,5	12,959858	0,84	0,904	fuseless	Type 2	60	Class 20
440	150	Direct starter	electronic	7,5	12,959858	0,84	0,904	fuseless	Type 2	60	Class 30
500	100	Direct starter	electronic	7,5	11,40467504	0,84	0,904	fuseless	Type 2	60	Class 10
500	100	Direct starter	electronic	7,5	11,40467504	0,84	0,904	fuseless	Type 2	60	Class 20
400	100	Direct starter	electronic	11	20,67981192	0,84	0,914	fuseless	Type 2	60	Class 10
400	100	Direct starter	electronic	11	20,67981192	0,84	0,914	fuseless	Type 2	60	Class 20
400	150	Direct starter	electronic	11	20,67981192	0,84	0,914	fuseless	Type 2	60	Class 10
400	100	Direct starter	electronic	11	20,67981192	0,84	0,914	fuseless	Type 2	60	Class 30
400	150	Direct starter	electronic	11	20,67981192	0,84	0,914	fuseless	Type 2	60	Class 20
400	150	Direct starter	electronic	11	20,67981192	0,84	0,914	fuseless	Type 2	60	Class 30
440	100	Direct starter	electronic	11	18,79982902	0,84	0,914	fuseless	Type 2	60	Class 10
440	100	Direct starter	electronic	11	18,79982902	0,84	0,914	fuseless	Type 2	60	Class 20
440	150	Direct starter	electronic	11	18,79982902	0,84	0,914	fuseless	Type 2	60	Class 10
440	100	Direct starter	electronic	11	18,79982902	0,84	0,914	fuseless	Type 2	60	Class 30
440	150	Direct starter	electronic	11	18,79982902	0,84	0,914	fuseless	Type 2	60	Class 20
440	150	Direct starter	electronic	11	18,79982902	0,84	0,914	fuseless	Type 2	60	Class 30
500	100	Direct starter	electronic	11	16,54384954	0,84	0,914	fuseless	Type 2	60	Class 10
500	70	Direct starter	electronic	11	16,54384954	0,84	0,914	fuseless	Type 2	60	Class 20
500	70	Direct starter	electronic	11	16,54384954	0,84	0,914	fuseless	Type 2	60	Class 30
500	100	Direct starter	electronic	11	16,54384954	0,84	0,914	fuseless	Type 2	60	Class 20
500	100	Direct starter	electronic	11	16,54384954	0,84	0,914	fuseless	Type 2	60	Class 30
690	100	Direct starter	electronic	11	11,98829677	0,84	0,914	fuseless	Type 2	60	Class 20
690	70	Direct starter	electronic	11	11,98829677	0,84	0,914	fuseless	Type 2	60	Class 30
690	100	Direct starter	electronic	11	11,98829677	0,84	0,914	fuseless	Type 2	60	Class 30
690	70	Direct starter	electronic	11	11,98829677	0,84	0,914	fuseless	Type 2	60	Class 10
690	100	Direct starter	electronic	11	11,98829677	0,84	0,914	fuseless	Type 2	60	Class 10
690	70	Direct starter	electronic	11	11,98829677	0,84	0,914	fuseless	Type 2	60	Class 20
400	100	Direct starter	electronic	15	28,66798429	0,82	0,921	fuseless	Type 2	60	Class 20

## 60 Hz fuseless

Un	Iq	Starter type	Overload relay	Pn	In	cosphi	eta	Basic type	Coordination Typee	Frequency	Motor starter class
400	100	Direct starter	electronic	15	28,66798429	0,82	0,921	fuseless	Type 2	60	Class 10
400	150	Direct starter	electronic	15	28,66798429	0,82	0,921	fuseless	Type 2	60	Class 10
400	100	Direct starter	electronic	15	28,66798429	0,82	0,921	fuseless	Type 2	60	Class 30
400	150	Direct starter	electronic	15	28,66798429	0,82	0,921	fuseless	Type 2	60	Class 20
400	150	Direct starter	electronic	15	28,66798429	0,82	0,921	fuseless	Type 2	60	Class 30
440	100	Direct starter	electronic	15	26,0618039	0,82	0,921	fuseless	Type 2	60	Class 20
440	100	Direct starter	electronic	15	26,0618039	0,82	0,921	fuseless	Type 2	60	Class 10
440	150	Direct starter	electronic	15	26,0618039	0,82	0,921	fuseless	Type 2	60	Class 10
440	100	Direct starter	electronic	15	26,0618039	0,82	0,921	fuseless	Type 2	60	Class 30
440	150	Direct starter	electronic	15	26,0618039	0,82	0,921	fuseless	Type 2	60	Class 20
440	150	Direct starter	electronic	15	26,0618039	0,82	0,921	fuseless	Type 2	60	Class 30
500	70	Direct starter	electronic	15	22,93438743	0,82	0,921	fuseless	Type 2	60	Class 10
500	70	Direct starter	electronic	15	22,93438743	0,82	0,921	fuseless	Type 2	60	Class 20
500	100	Direct starter	electronic	15	22,93438743	0,82	0,921	fuseless	Type 2	60	Class 10
500	70	Direct starter	electronic	15	22,93438743	0,82	0,921	fuseless	Type 2	60	Class 30
500	100	Direct starter	electronic	15	22,93438743	0,82	0,921	fuseless	Type 2	60	Class 20
500	100	Direct starter	electronic	15	22,93438743	0,82	0,921	fuseless	Type 2	60	Class 30
690	70	Direct starter	electronic	15	16,61912133	0,82	0,921	fuseless	Type 2	60	Class 20
690	70	Direct starter	electronic	15	16,61912133	0,82	0,921	fuseless	Type 2	60	Class 10
690	70	Direct starter	electronic	15	16,61912133	0,82	0,921	fuseless	Type 2	60	Class 30
690	100	Direct starter	electronic	15	16,61912133	0,82	0,921	fuseless	Type 2	60	Class 10
690	100	Direct starter	electronic	15	16,61912133	0,82	0,921	fuseless	Type 2	60	Class 20
400	100	Direct starter	electronic	18,5	35,16626712	0,82	0,926	fuseless	Type 2	60	Class 10
400	100	Direct starter	electronic	18,5	35,16626712	0,82	0,926	fuseless	Type 2	60	Class 20
400	150	Direct starter	electronic	18,5	35,16626712	0,82	0,926	fuseless	Type 2	60	Class 10
400	150	Direct starter	electronic	18,5	35,16626712	0,82	0,926	fuseless	Type 2	60	Class 20
400	150	Direct starter	electronic	18,5	35,16626712	0,82	0,926	fuseless	Type 2	60	Class 30
440	100	Direct starter	electronic	18,5	31,96933375	0,82	0,926	fuseless	Type 2	60	Class 10
440	100	Direct starter	electronic	18,5	31,96933375	0,82	0,926	fuseless	Type 2	60	Class 20
440	150	Direct starter	electronic	18,5	31,96933375	0,82	0,926	fuseless	Type 2	60	Class 10
440	150	Direct starter	electronic	18,5	31,96933375	0,82	0,926	fuseless	Type 2	60	Class 20
440	150	Direct starter	electronic	18,5	31,96933375	0,82	0,926	fuseless	Type 2	60	Class 30
500	50	Direct starter	electronic	18,5	28,1330137	0,82	0,926	fuseless	Type 2	60	Class 20
500	70	Direct starter	electronic	18,5	28,1330137	0,82	0,926	fuseless	Type 2	60	Class 10
500	100	Direct starter	electronic	18,5	28,1330137	0,82	0,926	fuseless	Type 2	60	Class 10
500	70	Direct starter	electronic	18,5	28,1330137	0,82	0,926	fuseless	Type 2	60	Class 30
500	100	Direct starter	electronic	18,5	28,1330137	0,82	0,926	fuseless	Type 2	60	Class 20
500	100	Direct starter	electronic	18,5	28,1330137	0,82	0,926	fuseless	Type 2	60	Class 30
690	70	Direct starter	electronic	18,5	20,38624181	0,82	0,926	fuseless	Type 2	60	Class 20
690	70	Direct starter	electronic	18,5	20,38624181	0,82	0,926	fuseless	Type 2	60	Class 30
690	100	Direct starter	electronic	18,5	20,38624181	0,82	0,926	fuseless	Type 2	60	Class 20

## 60 Hz fuseless

Un	Iq	Starter type	Overload relay	Pn	In	cosphi	eta	Basic type	Coordination Typee	Frequency	Motor starter class
690	70	Direct starter	electronic	18,5	20,38624181	0,82	0,926	fuseless	Type 2	60	Class 10
690	100	Direct starter	electronic	18,5	20,38624181	0,82	0,926	fuseless	Type 2	60	Class 10
400	100	Direct starter	electronic	22	41,13779609	0,83	0,93	fuseless	Type 2	60	Class 10
400	100	Direct starter	electronic	22	41,13779609	0,83	0,93	fuseless	Type 2	60	Class 20
400	150	Direct starter	electronic	22	41,13779609	0,83	0,93	fuseless	Type 2	60	Class 10
400	150	Direct starter	electronic	22	41,13779609	0,83	0,93	fuseless	Type 2	60	Class 20
400	150	Direct starter	electronic	22	41,13779609	0,83	0,93	fuseless	Type 2	60	Class 30
440	100	Direct starter	electronic	22	37,39799645	0,83	0,93	fuseless	Type 2	60	Class 10
440	100	Direct starter	electronic	22	37,39799645	0,83	0,93	fuseless	Type 2	60	Class 20
440	150	Direct starter	electronic	22	37,39799645	0,83	0,93	fuseless	Type 2	60	Class 10
440	150	Direct starter	electronic	22	37,39799645	0,83	0,93	fuseless	Type 2	60	Class 20
440	150	Direct starter	electronic	22	37,39799645	0,83	0,93	fuseless	Type 2	60	Class 30
500	70	Direct starter	electronic	22	32,91023688	0,83	0,93	fuseless	Type 2	60	Class 10
500	70	Direct starter	electronic	22	32,91023688	0,83	0,93	fuseless	Type 2	60	Class 20
500	70	Direct starter	electronic	22	32,91023688	0,83	0,93	fuseless	Type 2	60	Class 30
500	100	Direct starter	electronic	22	32,91023688	0,83	0,93	fuseless	Type 2	60	Class 10
500	100	Direct starter	electronic	22	32,91023688	0,83	0,93	fuseless	Type 2	60	Class 20
500	100	Direct starter	electronic	22	32,91023688	0,83	0,93	fuseless	Type 2	60	Class 30
690	70	Direct starter	electronic	22	23,84799774	0,83	0,93	fuseless	Type 2	60	Class 20
690	100	Direct starter	electronic	22	23,84799774	0,83	0,93	fuseless	Type 2	60	Class 20
690	70	Direct starter	electronic	22	23,84799774	0,83	0,93	fuseless	Type 2	60	Class 30
690	70	Direct starter	electronic	22	23,84799774	0,83	0,93	fuseless	Type 2	60	Class 10
690	100	Direct starter	electronic	22	23,84799774	0,83	0,93	fuseless	Type 2	60	Class 10
400	100	Direct starter	electronic	30	55,0738581	0,84	0,936	fuseless	Type 2	60	Class 10
400	150	Direct starter	electronic	30	55,0738581	0,84	0,936	fuseless	Type 2	60	Class 10
400	150	Direct starter	electronic	30	55,0738581	0,84	0,936	fuseless	Type 2	60	Class 20
400	150	Direct starter	electronic	30	55,0738581	0,84	0,936	fuseless	Type 2	60	Class 30
440	100	Direct starter	electronic	30	50,06714372	0,84	0,936	fuseless	Type 2	60	Class 10
440	150	Direct starter	electronic	30	50,06714372	0,84	0,936	fuseless	Type 2	60	Class 10
440	150	Direct starter	electronic	30	50,06714372	0,84	0,936	fuseless	Type 2	60	Class 20
440	150	Direct starter	electronic	30	50,06714372	0,84	0,936	fuseless	Type 2	60	Class 30
500	70	Direct starter	electronic	30	44,05908648	0,84	0,936	fuseless	Type 2	60	Class 10
500	70	Direct starter	electronic	30	44,05908648	0,84	0,936	fuseless	Type 2	60	Class 20
500	50	Direct starter	electronic	30	44,05908648	0,84	0,936	fuseless	Type 2	60	Class 20
500	100	Direct starter	electronic	30	44,05908648	0,84	0,936	fuseless	Type 2	60	Class 10
500	100	Direct starter	electronic	30	44,05908648	0,84	0,936	fuseless	Type 2	60	Class 20
500	50	Direct starter	electronic	30	44,05908648	0,84	0,936	fuseless	Type 2	60	Class 30
500	100	Direct starter	electronic	30	44,05908648	0,84	0,936	fuseless	Type 2	60	Class 30
690	100	Direct starter	electronic	30	31,92687426	0,84	0,936	fuseless	Type 2	60	Class 20
690	70	Direct starter	electronic	30	31,92687426	0,84	0,936	fuseless	Type 2	60	Class 30
690	70	Direct starter	electronic	30	31,92687426	0,84	0,936	fuseless	Type 2	60	Class 10

## 60 Hz fuseless

Un	Iq	Starter type	Overload relay	Pn	In	cosphi	eta	Basic type	Coordination Typee	Frequency	Motor starter class
690	100	Direct starter	electronic	30	31,92687426	0,84	0,936	fuseless	Type 2	60	Class 10
400	150	Direct starter	electronic	37	66,13282302	0,86	0,939	fuseless	Type 2	60	Class 20
400	150	Direct starter	electronic	37	66,13282302	0,86	0,939	fuseless	Type 2	60	Class 30
400	100	Direct starter	electronic	37	66,13282302	0,86	0,939	fuseless	Type 2	60	Class 10
400	150	Direct starter	electronic	37	66,13282302	0,86	0,939	fuseless	Type 2	60	Class 10
440	150	Direct starter	electronic	37	60,1207482	0,86	0,939	fuseless	Type 2	60	Class 20
440	150	Direct starter	electronic	37	60,1207482	0,86	0,939	fuseless	Type 2	60	Class 30
440	100	Direct starter	electronic	37	60,1207482	0,86	0,939	fuseless	Type 2	60	Class 10
440	150	Direct starter	electronic	37	60,1207482	0,86	0,939	fuseless	Type 2	60	Class 10
500	50	Direct starter	electronic	37	52,90625841	0,86	0,939	fuseless	Type 2	60	Class 30
500	100	Direct starter	electronic	37	52,90625841	0,86	0,939	fuseless	Type 2	60	Class 30
500	50	Direct starter	electronic	37	52,90625841	0,86	0,939	fuseless	Type 2	60	Class 10
500	100	Direct starter	electronic	37	52,90625841	0,86	0,939	fuseless	Type 2	60	Class 10
500	50	Direct starter	electronic	37	52,90625841	0,86	0,939	fuseless	Type 2	60	Class 20
500	100	Direct starter	electronic	37	52,90625841	0,86	0,939	fuseless	Type 2	60	Class 20
690	100	Direct starter	electronic	37	38,33786842	0,86	0,939	fuseless	Type 2	60	Class 20
690	70	Direct starter	electronic	37	38,33786842	0,86	0,939	fuseless	Type 2	60	Class 30
690	70	Direct starter	electronic	37	38,33786842	0,86	0,939	fuseless	Type 2	60	Class 10
690	100	Direct starter	electronic	37	38,33786842	0,86	0,939	fuseless	Type 2	60	Class 10
400	150	Direct starter	electronic	45	80,17565951	0,86	0,942	fuseless	Type 2	60	Class 20
400	150	Direct starter	electronic	45	80,17565951	0,86	0,942	fuseless	Type 2	60	Class 30
400	100	Direct starter	electronic	45	80,17565951	0,86	0,942	fuseless	Type 2	60	Class 10
400	150	Direct starter	electronic	45	80,17565951	0,86	0,942	fuseless	Type 2	60	Class 10
440	150	Direct starter	electronic	45	72,88696319	0,86	0,942	fuseless	Type 2	60	Class 20
440	150	Direct starter	electronic	45	72,88696319	0,86	0,942	fuseless	Type 2	60	Class 30
440	100	Direct starter	electronic	45	72,88696319	0,86	0,942	fuseless	Type 2	60	Class 10
440	150	Direct starter	electronic	45	72,88696319	0,86	0,942	fuseless	Type 2	60	Class 10
500	50	Direct starter	electronic	45	64,14052761	0,86	0,942	fuseless	Type 2	60	Class 20
500	100	Direct starter	electronic	45	64,14052761	0,86	0,942	fuseless	Type 2	60	Class 20
500	50	Direct starter	electronic	45	64,14052761	0,86	0,942	fuseless	Type 2	60	Class 10
500	100	Direct starter	electronic	45	64,14052761	0,86	0,942	fuseless	Type 2	60	Class 10
690	70	Direct starter	electronic	45	46,4786432	0,86	0,942	fuseless	Type 2	60	Class 20
690	70	Direct starter	electronic	45	46,4786432	0,86	0,942	fuseless	Type 2	60	Class 30
690	70	Direct starter	electronic	45	46,4786432	0,86	0,942	fuseless	Type 2	60	Class 10
690	100	Direct starter	electronic	45	46,4786432	0,86	0,942	fuseless	Type 2	60	Class 10
400	100	Direct starter	electronic	55	96,45654056	0,87	0,946	fuseless	Type 2	60	Class 10
400	150	Direct starter	electronic	55	96,45654056	0,87	0,946	fuseless	Type 2	60	Class 10
400	150	Direct starter	electronic	55	96,45654056	0,87	0,946	fuseless	Type 2	60	Class 20
400	150	Direct starter	electronic	55	96,45654056	0,87	0,946	fuseless	Type 2	60	Class 30
440	100	Direct starter	electronic	55	87,68776415	0,87	0,946	fuseless	Type 2	60	Class 10
440	150	Direct starter	electronic	55	87,68776415	0,87	0,946	fuseless	Type 2	60	Class 10

## 60 Hz fuseless

Un	Iq	Starter type	Overload relay	Pn	In	cosphi	eta	Basic type	Coordination Typee	Frequency	Motor starter class
440	150	Direct starter	electronic	55	87,68776415	0,87	0,946	fuseless	Type 2	60	Class 20
440	150	Direct starter	electronic	55	87,68776415	0,87	0,946	fuseless	Type 2	60	Class 30
500	50	Direct starter	electronic	55	77,16523245	0,87	0,946	fuseless	Type 2	60	Class 10
500	100	Direct starter	electronic	55	77,16523245	0,87	0,946	fuseless	Type 2	60	Class 10
690	70	Direct starter	electronic	55	55,91683511	0,87	0,946	fuseless	Type 2	60	Class 30
690	50	Direct starter	electronic	55	55,91683511	0,87	0,946	fuseless	Type 2	60	Class 20
690	50	Direct starter	electronic	55	55,91683511	0,87	0,946	fuseless	Type 2	60	Class 10
690	70	Direct starter	electronic	55	55,91683511	0,87	0,946	fuseless	Type 2	60	Class 10
400	100	Direct starter	electronic	75	132,5008268	0,86	0,95	fuseless	Type 2	60	Class 10
400	150	Direct starter	electronic	75	132,5008268	0,86	0,95	fuseless	Type 2	60	Class 10
400	150	Direct starter	electronic	75	132,5008268	0,86	0,95	fuseless	Type 2	60	Class 20
440	100	Direct starter	electronic	75	120,4552971	0,86	0,95	fuseless	Type 2	60	Class 10
440	150	Direct starter	electronic	75	120,4552971	0,86	0,95	fuseless	Type 2	60	Class 10
440	150	Direct starter	electronic	75	120,4552971	0,86	0,95	fuseless	Type 2	60	Class 20
500	50	Direct starter	electronic	75	106,0006614	0,86	0,95	fuseless	Type 2	60	Class 10
400	100	Direct starter	electronic	90	156,8431983	0,87	0,952	fuseless	Type 2	60	Class 10
400	150	Direct starter	electronic	90	156,8431983	0,87	0,952	fuseless	Type 2	60	Class 10
400	150	Direct starter	electronic	90	156,8431983	0,87	0,952	fuseless	Type 2	60	Class 20
400	150	Direct starter	electronic	90	156,8431983	0,87	0,952	fuseless	Type 2	60	Class 30
440	100	Direct starter	electronic	90	142,5847257	0,87	0,952	fuseless	Type 2	60	Class 10
440	150	Direct starter	electronic	90	142,5847257	0,87	0,952	fuseless	Type 2	60	Class 10
440	150	Direct starter	electronic	90	142,5847257	0,87	0,952	fuseless	Type 2	60	Class 20
440	150	Direct starter	electronic	90	142,5847257	0,87	0,952	fuseless	Type 2	60	Class 30
500	50	Direct starter	electronic	90	125,4745586	0,87	0,952	fuseless	Type 2	60	Class 10
400	150	Direct starter	electronic	110	191,2953614	0,87	0,954	fuseless	Type 2	60	Class 10
400	150	Direct starter	electronic	110	191,2953614	0,87	0,954	fuseless	Type 2	60	Class 20
400	150	Direct starter	electronic	110	191,2953614	0,87	0,954	fuseless	Type 2	60	Class 30
440	150	Direct starter	electronic	110	173,904874	0,87	0,954	fuseless	Type 2	60	Class 10
440	150	Direct starter	electronic	110	173,904874	0,87	0,954	fuseless	Type 2	60	Class 20
440	150	Direct starter	electronic	110	173,904874	0,87	0,954	fuseless	Type 2	60	Class 30
500	50	Direct starter	electronic	110	153,0362891	0,87	0,954	fuseless	Type 2	60	Class 10
400	150	Direct starter	electronic	132	229,0741942	0,87	0,956	fuseless	Type 2	60	Class 10
400	150	Direct starter	electronic	132	229,0741942	0,87	0,956	fuseless	Type 2	60	Class 20
400	150	Direct starter	electronic	132	229,0741942	0,87	0,956	fuseless	Type 2	60	Class 30
440	150	Direct starter	electronic	132	208,2492675	0,87	0,956	fuseless	Type 2	60	Class 10
440	150	Direct starter	electronic	132	208,2492675	0,87	0,956	fuseless	Type 2	60	Class 20
440	150	Direct starter	electronic	132	208,2492675	0,87	0,956	fuseless	Type 2	60	Class 30
500	50	Direct starter	electronic	132	183,2593554	0,87	0,956	fuseless	Type 2	60	Class 10
400	150	Direct starter	electronic	160	277,0860121	0,87	0,958	fuseless	Type 2	60	Class 10
400	150	Direct starter	electronic	160	277,0860121	0,87	0,958	fuseless	Type 2	60	Class 30
400	150	Direct starter	electronic	160	277,0860121	0,87	0,958	fuseless	Type 2	60	Class 20

## 60 Hz fuseless

Un	Iq	Starter type	Overload relay	Pn	In	cosphi	eta	Basic type	Coordination Typee	Frequency	Motor starter class
440	150	Direct starter	electronic	160	251,8963747	0,87	0,958	fuseless	Type 2	60	Class 10
440	150	Direct starter	electronic	160	251,8963747	0,87	0,958	fuseless	Type 2	60	Class 30
440	150	Direct starter	electronic	160	251,8963747	0,87	0,958	fuseless	Type 2	60	Class 20
500	50	Direct starter	electronic	160	221,6688097	0,87	0,958	fuseless	Type 2	60	Class 10
400	150	Direct starter	electronic	200	341,7082559	0,88	0,96	fuseless	Type 2	60	Class 10
400	150	Direct starter	electronic	200	341,7082559	0,88	0,96	fuseless	Type 2	60	Class 20
440	150	Direct starter	electronic	200	310,643869	0,88	0,96	fuseless	Type 2	60	Class 10
440	150	Direct starter	electronic	200	310,643869	0,88	0,96	fuseless	Type 2	60	Class 20
500	50	Direct starter	electronic	200	273,3666047	0,88	0,96	fuseless	Type 2	60	Class 10
400	150	Direct starter	electronic	250	442,2106841	0,85	0,96	fuseless	Type 2	60	Class 10
440	150	Direct starter	electronic	250	402,0097128	0,85	0,96	fuseless	Type 2	60	Class 10
500	50	Direct starter	electronic	250	353,7685473	0,85	0,96	fuseless	Type 2	60	Class 10
500	50	Direct starter	electronic	315	456,4892942	0,83	0,96	fuseless	Type 2	60	Class 10
500	50	Direct starter	electronic	355	496,5100425	0,86	0,96	fuseless	Type 2	60	Class 10
400	100	Direct starter	none	0,25	0,681866815	0,72	0,735	fuseless	Type 2	60	Class 10
440	100	Direct starter	none	0,25	0,619878922	0,72	0,735	fuseless	Type 2	60	Class 10
500	100	Direct starter	none	0,25	0,545493452	0,72	0,735	fuseless	Type 2	60	Class 10
690	100	Direct starter	none	0,25	0,39528511	0,72	0,735	fuseless	Type 2	60	Class 10
400	100	Direct starter	none	0,37	0,986969135	0,7	0,773	fuseless	Type 2	60	Class 10
440	100	Direct starter	none	0,37	0,897244668	0,7	0,773	fuseless	Type 2	60	Class 10
500	100	Direct starter	none	0,37	0,789575308	0,7	0,773	fuseless	Type 2	60	Class 10
690	100	Direct starter	none	0,37	0,57215602	0,7	0,773	fuseless	Type 2	60	Class 10
400	100	Direct starter	none	0,55	1,259610022	0,78	0,808	fuseless	Type 2	60	Class 10
440	100	Direct starter	none	0,55	1,14510002	0,78	0,808	fuseless	Type 2	60	Class 10
500	100	Direct starter	none	0,55	1,007688017	0,78	0,808	fuseless	Type 2	60	Class 10
690	100	Direct starter	none	0,55	0,730208708	0,78	0,808	fuseless	Type 2	60	Class 10
400	100	Direct starter	none	0,75	1,74954627	0,75	0,825	fuseless	Type 2	60	Class 10
440	100	Direct starter	none	0,75	1,590496609	0,75	0,825	fuseless	Type 2	60	Class 10
500	100	Direct starter	none	0,75	1,399637016	0,75	0,825	fuseless	Type 2	60	Class 10
690	100	Direct starter	none	0,75	1,014229722	0,75	0,825	fuseless	Type 2	60	Class 10
400	100	Direct starter	none	1,1	2,420368365	0,78	0,841	fuseless	Type 2	60	Class 10
440	100	Direct starter	none	1,1	2,200334878	0,78	0,841	fuseless	Type 2	60	Class 10
500	100	Direct starter	none	1,1	1,936294692	0,78	0,841	fuseless	Type 2	60	Class 10
690	100	Direct starter	none	1,1	1,403112096	0,78	0,841	fuseless	Type 2	60	Class 10
400	100	Direct starter	none	1,5	3,172719094	0,8	0,853	fuseless	Type 2	60	Class 10
440	100	Direct starter	none	1,5	2,884290085	0,8	0,853	fuseless	Type 2	60	Class 10
500	100	Direct starter	none	1,5	2,538175275	0,8	0,853	fuseless	Type 2	60	Class 10
690	100	Direct starter	none	1,5	1,839257446	0,8	0,853	fuseless	Type 2	60	Class 10
400	100	Direct starter	none	2,2	4,412704771	0,83	0,867	fuseless	Type 2	60	Class 10
440	100	Direct starter	none	2,2	4,011549792	0,83	0,867	fuseless	Type 2	60	Class 10
500	100	Direct starter	none	2,2	3,530163817	0,83	0,867	fuseless	Type 2	60	Class 10



## 60 Hz fuseless

Un	Iq	Starter type	Overload relay	Pn	In	cosphi	eta	Basic type	Coordination Typee	Frequency	Motor starter class
690	100	Direct starter	none	2,2	2,558089723	0,83	0,867	fuseless	Type 2	60	Class 10
400	100	Direct starter	none	3	5,948712092	0,83	0,877	fuseless	Type 2	60	Class 10
440	100	Direct starter	none	3	5,407920084	0,83	0,877	fuseless	Type 2	60	Class 10
500	100	Direct starter	none	3	4,758969674	0,83	0,877	fuseless	Type 2	60	Class 10
690	100	Direct starter	none	3	3,448528749	0,83	0,877	fuseless	Type 2	60	Class 10
400	100	Direct starter	none	4	7,94679113	0,82	0,886	fuseless	Type 2	60	Class 10
440	100	Direct starter	none	4	7,224355573	0,82	0,886	fuseless	Type 2	60	Class 10
500	100	Direct starter	none	4	6,357432904	0,82	0,886	fuseless	Type 2	60	Class 10
690	100	Direct starter	none	4	4,606835438	0,82	0,886	fuseless	Type 2	60	Class 10
400	100	Direct starter	none	5,5	10,54762729	0,84	0,896	fuseless	Type 2	60	Class 10
440	100	Direct starter	none	5,5	9,588752079	0,84	0,896	fuseless	Type 2	60	Class 10
500	100	Direct starter	none	5,5	8,43810183	0,84	0,896	fuseless	Type 2	60	Class 10
690	100	Direct starter	none	5,5	6,114566543	0,84	0,896	fuseless	Type 2	60	Class 10
400	100	Direct starter	none	7,5	14,2558438	0,84	0,904	fuseless	Type 2	60	Class 10
440	100	Direct starter	none	7,5	12,959858	0,84	0,904	fuseless	Type 2	60	Class 10
500	100	Direct starter	none	7,5	11,40467504	0,84	0,904	fuseless	Type 2	60	Class 10
690	100	Direct starter	none	7,5	8,264257275	0,84	0,904	fuseless	Type 2	60	Class 10
400	100	Direct starter	none	11	20,67981192	0,84	0,914	fuseless	Type 2	60	Class 10
440	100	Direct starter	none	11	18,79982902	0,84	0,914	fuseless	Type 2	60	Class 10
500	100	Direct starter	none	11	16,54384954	0,84	0,914	fuseless	Type 2	60	Class 10
690	100	Direct starter	none	11	11,98829677	0,84	0,914	fuseless	Type 2	60	Class 10
690	70	Direct starter	none	11	11,98829677	0,84	0,914	fuseless	Type 2	60	Class 10
400	100	Direct starter	none	15	28,66798429	0,82	0,921	fuseless	Type 2	60	Class 10
400	150	Direct starter	none	15	28,66798429	0,82	0,921	fuseless	Type 2	60	Class 10
440	100	Direct starter	none	15	26,0618039	0,82	0,921	fuseless	Type 2	60	Class 10
440	150	Direct starter	none	15	26,0618039	0,82	0,921	fuseless	Type 2	60	Class 10
500	100	Direct starter	none	15	22,93438743	0,82	0,921	fuseless	Type 2	60	Class 10
690	70	Direct starter	none	15	16,61912133	0,82	0,921	fuseless	Type 2	60	Class 10
690	100	Direct starter	none	15	16,61912133	0,82	0,921	fuseless	Type 2	60	Class 10
400	100	Direct starter	none	18,5	35,16626712	0,82	0,926	fuseless	Type 2	60	Class 10
400	150	Direct starter	none	18,5	35,16626712	0,82	0,926	fuseless	Type 2	60	Class 10
440	100	Direct starter	none	18,5	31,96933375	0,82	0,926	fuseless	Type 2	60	Class 10
440	150	Direct starter	none	18,5	31,96933375	0,82	0,926	fuseless	Type 2	60	Class 10
500	100	Direct starter	none	18,5	28,1330137	0,82	0,926	fuseless	Type 2	60	Class 10
500	70	Direct starter	none	18,5	28,1330137	0,82	0,926	fuseless	Type 2	60	Class 10
690	70	Direct starter	none	18,5	20,38624181	0,82	0,926	fuseless	Type 2	60	Class 10
690	100	Direct starter	none	18,5	20,38624181	0,82	0,926	fuseless	Type 2	60	Class 10
400	100	Direct starter	none	22	41,13779609	0,83	0,93	fuseless	Type 2	60	Class 10
400	150	Direct starter	none	22	41,13779609	0,83	0,93	fuseless	Type 2	60	Class 10
440	100	Direct starter	none	22	37,39799645	0,83	0,93	fuseless	Type 2	60	Class 10
440	150	Direct starter	none	22	37,39799645	0,83	0,93	fuseless	Type 2	60	Class 10

## 60 Hz fuseless

Un	Iq	Starter type	Overload relay	Pn	In	cosphi	eta	Basic type	Coordination Typee	Frequency	Motor starter class
500	70	Direct starter	none	22	32,91023688	0,83	0,93	fuseless	Type 2	60	Class 10
500	100	Direct starter	none	22	32,91023688	0,83	0,93	fuseless	Type 2	60	Class 10
690	70	Direct starter	none	22	23,84799774	0,83	0,93	fuseless	Type 2	60	Class 10
690	100	Direct starter	none	22	23,84799774	0,83	0,93	fuseless	Type 2	60	Class 10
400	150	Direct starter	none	30	55,0738581	0,84	0,936	fuseless	Type 2	60	Class 30
400	100	Direct starter	none	30	55,0738581	0,84	0,936	fuseless	Type 2	60	Class 10
400	150	Direct starter	none	30	55,0738581	0,84	0,936	fuseless	Type 2	60	Class 10
440	150	Direct starter	none	30	50,06714372	0,84	0,936	fuseless	Type 2	60	Class 30
440	100	Direct starter	none	30	50,06714372	0,84	0,936	fuseless	Type 2	60	Class 10
440	150	Direct starter	none	30	50,06714372	0,84	0,936	fuseless	Type 2	60	Class 10
500	70	Direct starter	none	30	44,05908648	0,84	0,936	fuseless	Type 2	60	Class 10
500	100	Direct starter	none	30	44,05908648	0,84	0,936	fuseless	Type 2	60	Class 10
690	100	Direct starter	none	30	31,92687426	0,84	0,936	fuseless	Type 2	60	Class 10
400	150	Direct starter	none	37	66,13282302	0,86	0,939	fuseless	Type 2	60	Class 20
400	150	Direct starter	none	37	66,13282302	0,86	0,939	fuseless	Type 2	60	Class 30
400	100	Direct starter	none	37	66,13282302	0,86	0,939	fuseless	Type 2	60	Class 10
400	150	Direct starter	none	37	66,13282302	0,86	0,939	fuseless	Type 2	60	Class 10
440	150	Direct starter	none	37	60,1207482	0,86	0,939	fuseless	Type 2	60	Class 20
440	150	Direct starter	none	37	60,1207482	0,86	0,939	fuseless	Type 2	60	Class 30
440	100	Direct starter	none	37	60,1207482	0,86	0,939	fuseless	Type 2	60	Class 10
440	150	Direct starter	none	37	60,1207482	0,86	0,939	fuseless	Type 2	60	Class 10
500	50	Direct starter	none	37	52,90625841	0,86	0,939	fuseless	Type 2	60	Class 10
500	100	Direct starter	none	37	52,90625841	0,86	0,939	fuseless	Type 2	60	Class 10
690	100	Direct starter	none	37	38,33786842	0,86	0,939	fuseless	Type 2	60	Class 10
400	80	Direct starter	none	45	80,17565951	0,86	0,942	fuseless	Type 2	60	Class 10
400	150	Direct starter	none	45	80,17565951	0,86	0,942	fuseless	Type 2	60	Class 20
400	150	Direct starter	none	45	80,17565951	0,86	0,942	fuseless	Type 2	60	Class 30
400	100	Direct starter	none	45	80,17565951	0,86	0,942	fuseless	Type 2	60	Class 10
400	150	Direct starter	none	45	80,17565951	0,86	0,942	fuseless	Type 2	60	Class 10
440	80	Direct starter	none	45	72,88696319	0,86	0,942	fuseless	Type 2	60	Class 10
440	150	Direct starter	none	45	72,88696319	0,86	0,942	fuseless	Type 2	60	Class 20
440	150	Direct starter	none	45	72,88696319	0,86	0,942	fuseless	Type 2	60	Class 30
440	100	Direct starter	none	45	72,88696319	0,86	0,942	fuseless	Type 2	60	Class 10
440	150	Direct starter	none	45	72,88696319	0,86	0,942	fuseless	Type 2	60	Class 10
500	50	Direct starter	none	45	64,14052761	0,86	0,942	fuseless	Type 2	60	Class 10
500	100	Direct starter	none	45	64,14052761	0,86	0,942	fuseless	Type 2	60	Class 10
690	100	Direct starter	none	45	46,4786432	0,86	0,942	fuseless	Type 2	60	Class 10
400	80	Direct starter	none	55	96,45654056	0,87	0,946	fuseless	Type 2	60	Class 10
400	150	Direct starter	none	55	96,45654056	0,87	0,946	fuseless	Type 2	60	Class 10
400	150	Direct starter	none	55	96,45654056	0,87	0,946	fuseless	Type 2	60	Class 20
400	150	Direct starter	none	55	96,45654056	0,87	0,946	fuseless	Type 2	60	Class 30

## 60 Hz fuseless

Un	Iq	Starter type	Overload relay	Pn	In	cosphi	eta	Basic type	Coordination Typee	Frequency	Motor starter class
440	80	Direct starter	none	55	87,68776415	0,87	0,946	fuseless	Type 2	60	Class 10
440	150	Direct starter	none	55	87,68776415	0,87	0,946	fuseless	Type 2	60	Class 10
440	150	Direct starter	none	55	87,68776415	0,87	0,946	fuseless	Type 2	60	Class 20
440	150	Direct starter	none	55	87,68776415	0,87	0,946	fuseless	Type 2	60	Class 30
500	50	Direct starter	none	55	77,16523245	0,87	0,946	fuseless	Type 2	60	Class 10
500	100	Direct starter	none	55	77,16523245	0,87	0,946	fuseless	Type 2	60	Class 10
690	100	Direct starter	none	55	55,91683511	0,87	0,946	fuseless	Type 2	60	Class 10
400	80	Direct starter	none	75	132,5008268	0,86	0,95	fuseless	Type 2	60	Class 10
400	150	Direct starter	none	75	132,5008268	0,86	0,95	fuseless	Type 2	60	Class 10
400	150	Direct starter	none	75	132,5008268	0,86	0,95	fuseless	Type 2	60	Class 20
440	80	Direct starter	none	75	120,4552971	0,86	0,95	fuseless	Type 2	60	Class 10
440	150	Direct starter	none	75	120,4552971	0,86	0,95	fuseless	Type 2	60	Class 10
440	150	Direct starter	none	75	120,4552971	0,86	0,95	fuseless	Type 2	60	Class 20
500	50	Direct starter	none	75	106,0006614	0,86	0,95	fuseless	Type 2	60	Class 10
400	80	Direct starter	none	90	156,8431983	0,87	0,952	fuseless	Type 2	60	Class 10
400	150	Direct starter	none	90	156,8431983	0,87	0,952	fuseless	Type 2	60	Class 10
440	80	Direct starter	none	90	142,5847257	0,87	0,952	fuseless	Type 2	60	Class 10
440	150	Direct starter	none	90	142,5847257	0,87	0,952	fuseless	Type 2	60	Class 10
500	50	Direct starter	none	90	125,4745586	0,87	0,952	fuseless	Type 2	60	Class 10
400	80	Direct starter	none	110	191,2953614	0,87	0,954	fuseless	Type 2	60	Class 10
400	150	Direct starter	none	110	191,2953614	0,87	0,954	fuseless	Type 2	60	Class 10
400	150	Direct starter	none	110	191,2953614	0,87	0,954	fuseless	Type 2	60	Class 20
400	150	Direct starter	none	110	191,2953614	0,87	0,954	fuseless	Type 2	60	Class 30
440	80	Direct starter	none	110	173,904874	0,87	0,954	fuseless	Type 2	60	Class 10
440	150	Direct starter	none	110	173,904874	0,87	0,954	fuseless	Type 2	60	Class 10
440	150	Direct starter	none	110	173,904874	0,87	0,954	fuseless	Type 2	60	Class 20
440	150	Direct starter	none	110	173,904874	0,87	0,954	fuseless	Type 2	60	Class 30
500	50	Direct starter	none	110	153,0362891	0,87	0,954	fuseless	Type 2	60	Class 10
400	80	Direct starter	none	132	229,0741942	0,87	0,956	fuseless	Type 2	60	Class 10
400	150	Direct starter	none	132	229,0741942	0,87	0,956	fuseless	Type 2	60	Class 10
400	150	Direct starter	none	132	229,0741942	0,87	0,956	fuseless	Type 2	60	Class 30
400	150	Direct starter	none	132	229,0741942	0,87	0,956	fuseless	Type 2	60	Class 20
440	80	Direct starter	none	132	208,2492675	0,87	0,956	fuseless	Type 2	60	Class 10
440	150	Direct starter	none	132	208,2492675	0,87	0,956	fuseless	Type 2	60	Class 10
440	150	Direct starter	none	132	208,2492675	0,87	0,956	fuseless	Type 2	60	Class 30
440	150	Direct starter	none	132	208,2492675	0,87	0,956	fuseless	Type 2	60	Class 20
500	50	Direct starter	none	132	183,2593554	0,87	0,956	fuseless	Type 2	60	Class 10
400	80	Direct starter	none	160	277,0860121	0,87	0,958	fuseless	Type 2	60	Class 10
400	150	Direct starter	none	160	277,0860121	0,87	0,958	fuseless	Type 2	60	Class 10
400	150	Direct starter	none	160	277,0860121	0,87	0,958	fuseless	Type 2	60	Class 20
400	150	Direct starter	none	160	277,0860121	0,87	0,958	fuseless	Type 2	60	Class 30

## 60 Hz fuseless

Un	Iq	Starter type	Overload relay	Pn	In	cosphi	eta	Basic type	Coordination Typee	Frequency	Motor starter class
440	80	Direct starter	none	160	251,8963747	0,87	0,958	fuseless	Type 2	60	Class 10
440	150	Direct starter	none	160	251,8963747	0,87	0,958	fuseless	Type 2	60	Class 10
440	150	Direct starter	none	160	251,8963747	0,87	0,958	fuseless	Type 2	60	Class 20
440	150	Direct starter	none	160	251,8963747	0,87	0,958	fuseless	Type 2	60	Class 30
500	50	Direct starter	none	160	221,6688097	0,87	0,958	fuseless	Type 2	60	Class 10
400	80	Direct starter	none	200	341,7082559	0,88	0,96	fuseless	Type 2	60	Class 10
400	150	Direct starter	none	200	341,7082559	0,88	0,96	fuseless	Type 2	60	Class 10
400	150	Direct starter	none	200	341,7082559	0,88	0,96	fuseless	Type 2	60	Class 20
440	80	Direct starter	none	200	310,643869	0,88	0,96	fuseless	Type 2	60	Class 10
440	150	Direct starter	none	200	310,643869	0,88	0,96	fuseless	Type 2	60	Class 10
440	150	Direct starter	none	200	310,643869	0,88	0,96	fuseless	Type 2	60	Class 20
500	50	Direct starter	none	200	273,3666047	0,88	0,96	fuseless	Type 2	60	Class 10
400	80	Direct starter	none	250	442,2106841	0,85	0,96	fuseless	Type 2	60	Class 10
400	150	Direct starter	none	250	442,2106841	0,85	0,96	fuseless	Type 2	60	Class 10
440	80	Direct starter	none	250	402,0097128	0,85	0,96	fuseless	Type 2	60	Class 10
440	150	Direct starter	none	250	402,0097128	0,85	0,96	fuseless	Type 2	60	Class 10
500	50	Direct starter	none	250	353,7685473	0,85	0,96	fuseless	Type 2	60	Class 10
500	50	Direct starter	none	315	456,4892942	0,83	0,96	fuseless	Type 2	60	Class 10
500	50	Direct starter	none	355	496,5100425	0,86	0,96	fuseless	Type 2	60	Class 10
400	100	Direct starter	SIMOCODE	0,25	0,681866815	0,72	0,735	fuseless	Type 2	60	Class 10
400	100	Direct starter	SIMOCODE	0,25	0,681866815	0,72	0,735	fuseless	Type 2	60	Class 20
400	100	Direct starter	SIMOCODE	0,25	0,681866815	0,72	0,735	fuseless	Type 2	60	Class 30
440	100	Direct starter	SIMOCODE	0,25	0,619878922	0,72	0,735	fuseless	Type 2	60	Class 10
440	100	Direct starter	SIMOCODE	0,25	0,619878922	0,72	0,735	fuseless	Type 2	60	Class 20
440	100	Direct starter	SIMOCODE	0,25	0,619878922	0,72	0,735	fuseless	Type 2	60	Class 30
500	100	Direct starter	SIMOCODE	0,25	0,545493452	0,72	0,735	fuseless	Type 2	60	Class 10
500	100	Direct starter	SIMOCODE	0,25	0,545493452	0,72	0,735	fuseless	Type 2	60	Class 20
500	100	Direct starter	SIMOCODE	0,25	0,545493452	0,72	0,735	fuseless	Type 2	60	Class 30
400	100	Direct starter	SIMOCODE	0,37	0,986969135	0,7	0,773	fuseless	Type 2	60	Class 10
400	100	Direct starter	SIMOCODE	0,37	0,986969135	0,7	0,773	fuseless	Type 2	60	Class 20
400	100	Direct starter	SIMOCODE	0,37	0,986969135	0,7	0,773	fuseless	Type 2	60	Class 30
440	100	Direct starter	SIMOCODE	0,37	0,897244668	0,7	0,773	fuseless	Type 2	60	Class 10
440	100	Direct starter	SIMOCODE	0,37	0,897244668	0,7	0,773	fuseless	Type 2	60	Class 20
440	100	Direct starter	SIMOCODE	0,37	0,897244668	0,7	0,773	fuseless	Type 2	60	Class 30
500	100	Direct starter	SIMOCODE	0,37	0,789575308	0,7	0,773	fuseless	Type 2	60	Class 10
500	100	Direct starter	SIMOCODE	0,37	0,789575308	0,7	0,773	fuseless	Type 2	60	Class 20
500	100	Direct starter	SIMOCODE	0,37	0,789575308	0,7	0,773	fuseless	Type 2	60	Class 30
400	100	Direct starter	SIMOCODE	0,55	1,259610022	0,78	0,808	fuseless	Type 2	60	Class 10
400	100	Direct starter	SIMOCODE	0,55	1,259610022	0,78	0,808	fuseless	Type 2	60	Class 20
400	100	Direct starter	SIMOCODE	0,55	1,259610022	0,78	0,808	fuseless	Type 2	60	Class 30
440	100	Direct starter	SIMOCODE	0,55	1,14510002	0,78	0,808	fuseless	Type 2	60	Class 10

## 60 Hz fuseless

Un	Iq	Starter type	Overload relay	Pn	In	cosphi	eta	Basic type	Coordination Typee	Frequency	Motor starter class
440	100	Direct starter	SIMOCODE	0,55	1,14510002	0,78	0,808	fuseless	Type 2	60	Class 20
440	100	Direct starter	SIMOCODE	0,55	1,14510002	0,78	0,808	fuseless	Type 2	60	Class 30
500	100	Direct starter	SIMOCODE	0,55	1,007688017	0,78	0,808	fuseless	Type 2	60	Class 10
500	100	Direct starter	SIMOCODE	0,55	1,007688017	0,78	0,808	fuseless	Type 2	60	Class 20
500	100	Direct starter	SIMOCODE	0,55	1,007688017	0,78	0,808	fuseless	Type 2	60	Class 30
400	100	Direct starter	SIMOCODE	0,75	1,74954627	0,75	0,825	fuseless	Type 2	60	Class 10
400	100	Direct starter	SIMOCODE	0,75	1,74954627	0,75	0,825	fuseless	Type 2	60	Class 20
400	100	Direct starter	SIMOCODE	0,75	1,74954627	0,75	0,825	fuseless	Type 2	60	Class 30
440	100	Direct starter	SIMOCODE	0,75	1,590496609	0,75	0,825	fuseless	Type 2	60	Class 10
440	100	Direct starter	SIMOCODE	0,75	1,590496609	0,75	0,825	fuseless	Type 2	60	Class 20
440	100	Direct starter	SIMOCODE	0,75	1,590496609	0,75	0,825	fuseless	Type 2	60	Class 30
500	100	Direct starter	SIMOCODE	0,75	1,399637016	0,75	0,825	fuseless	Type 2	60	Class 10
500	100	Direct starter	SIMOCODE	0,75	1,399637016	0,75	0,825	fuseless	Type 2	60	Class 20
500	100	Direct starter	SIMOCODE	0,75	1,399637016	0,75	0,825	fuseless	Type 2	60	Class 30
400	100	Direct starter	SIMOCODE	1,1	2,420368365	0,78	0,841	fuseless	Type 2	60	Class 10
400	100	Direct starter	SIMOCODE	1,1	2,420368365	0,78	0,841	fuseless	Type 2	60	Class 20
400	100	Direct starter	SIMOCODE	1,1	2,420368365	0,78	0,841	fuseless	Type 2	60	Class 30
440	100	Direct starter	SIMOCODE	1,1	2,200334878	0,78	0,841	fuseless	Type 2	60	Class 10
440	100	Direct starter	SIMOCODE	1,1	2,200334878	0,78	0,841	fuseless	Type 2	60	Class 20
440	100	Direct starter	SIMOCODE	1,1	2,200334878	0,78	0,841	fuseless	Type 2	60	Class 30
500	100	Direct starter	SIMOCODE	1,1	1,936294692	0,78	0,841	fuseless	Type 2	60	Class 10
500	100	Direct starter	SIMOCODE	1,1	1,936294692	0,78	0,841	fuseless	Type 2	60	Class 20
500	100	Direct starter	SIMOCODE	1,1	1,936294692	0,78	0,841	fuseless	Type 2	60	Class 30
400	100	Direct starter	SIMOCODE	1,5	3,172719094	0,8	0,853	fuseless	Type 2	60	Class 10
400	100	Direct starter	SIMOCODE	1,5	3,172719094	0,8	0,853	fuseless	Type 2	60	Class 20
400	100	Direct starter	SIMOCODE	1,5	3,172719094	0,8	0,853	fuseless	Type 2	60	Class 30
440	100	Direct starter	SIMOCODE	1,5	2,884290085	0,8	0,853	fuseless	Type 2	60	Class 10
440	100	Direct starter	SIMOCODE	1,5	2,884290085	0,8	0,853	fuseless	Type 2	60	Class 20
440	100	Direct starter	SIMOCODE	1,5	2,884290085	0,8	0,853	fuseless	Type 2	60	Class 30
500	100	Direct starter	SIMOCODE	1,5	2,538175275	0,8	0,853	fuseless	Type 2	60	Class 10
500	100	Direct starter	SIMOCODE	1,5	2,538175275	0,8	0,853	fuseless	Type 2	60	Class 20
500	100	Direct starter	SIMOCODE	1,5	2,538175275	0,8	0,853	fuseless	Type 2	60	Class 30
400	100	Direct starter	SIMOCODE	2,2	4,412704771	0,83	0,867	fuseless	Type 2	60	Class 10
400	100	Direct starter	SIMOCODE	2,2	4,412704771	0,83	0,867	fuseless	Type 2	60	Class 20
400	100	Direct starter	SIMOCODE	2,2	4,412704771	0,83	0,867	fuseless	Type 2	60	Class 30
440	100	Direct starter	SIMOCODE	2,2	4,011549792	0,83	0,867	fuseless	Type 2	60	Class 10
440	100	Direct starter	SIMOCODE	2,2	4,011549792	0,83	0,867	fuseless	Type 2	60	Class 20
440	100	Direct starter	SIMOCODE	2,2	4,011549792	0,83	0,867	fuseless	Type 2	60	Class 30
500	100	Direct starter	SIMOCODE	2,2	3,530163817	0,83	0,867	fuseless	Type 2	60	Class 10
500	100	Direct starter	SIMOCODE	2,2	3,530163817	0,83	0,867	fuseless	Type 2	60	Class 20
500	100	Direct starter	SIMOCODE	2,2	3,530163817	0,83	0,867	fuseless	Type 2	60	Class 30

## 60 Hz fuseless

Un	Iq	Starter type	Overload relay	Pn	In	cosphi	eta	Basic type	Coordination Typee	Frequency	Motor starter class
400	100	Direct starter	SIMOCODE	3	5,948712092	0,83	0,877	fuseless	Type 2	60	Class 10
400	100	Direct starter	SIMOCODE	3	5,948712092	0,83	0,877	fuseless	Type 2	60	Class 20
400	100	Direct starter	SIMOCODE	3	5,948712092	0,83	0,877	fuseless	Type 2	60	Class 30
440	100	Direct starter	SIMOCODE	3	5,407920084	0,83	0,877	fuseless	Type 2	60	Class 10
440	100	Direct starter	SIMOCODE	3	5,407920084	0,83	0,877	fuseless	Type 2	60	Class 20
440	100	Direct starter	SIMOCODE	3	5,407920084	0,83	0,877	fuseless	Type 2	60	Class 30
500	100	Direct starter	SIMOCODE	3	4,758969674	0,83	0,877	fuseless	Type 2	60	Class 10
500	100	Direct starter	SIMOCODE	3	4,758969674	0,83	0,877	fuseless	Type 2	60	Class 20
500	100	Direct starter	SIMOCODE	3	4,758969674	0,83	0,877	fuseless	Type 2	60	Class 30
400	100	Direct starter	SIMOCODE	4	7,94679113	0,82	0,886	fuseless	Type 2	60	Class 10
400	100	Direct starter	SIMOCODE	4	7,94679113	0,82	0,886	fuseless	Type 2	60	Class 20
400	100	Direct starter	SIMOCODE	4	7,94679113	0,82	0,886	fuseless	Type 2	60	Class 30
440	100	Direct starter	SIMOCODE	4	7,224355573	0,82	0,886	fuseless	Type 2	60	Class 10
440	100	Direct starter	SIMOCODE	4	7,224355573	0,82	0,886	fuseless	Type 2	60	Class 20
440	100	Direct starter	SIMOCODE	4	7,224355573	0,82	0,886	fuseless	Type 2	60	Class 30
500	100	Direct starter	SIMOCODE	4	6,357432904	0,82	0,886	fuseless	Type 2	60	Class 10
500	100	Direct starter	SIMOCODE	4	6,357432904	0,82	0,886	fuseless	Type 2	60	Class 20
500	100	Direct starter	SIMOCODE	4	6,357432904	0,82	0,886	fuseless	Type 2	60	Class 30
400	100	Direct starter	SIMOCODE	5,5	10,54762729	0,84	0,896	fuseless	Type 2	60	Class 10
400	100	Direct starter	SIMOCODE	5,5	10,54762729	0,84	0,896	fuseless	Type 2	60	Class 20
400	100	Direct starter	SIMOCODE	5,5	10,54762729	0,84	0,896	fuseless	Type 2	60	Class 30
400	150	Direct starter	SIMOCODE	5,5	10,54762729	0,84	0,896	fuseless	Type 2	60	Class 20
400	150	Direct starter	SIMOCODE	5,5	10,54762729	0,84	0,896	fuseless	Type 2	60	Class 30
440	100	Direct starter	SIMOCODE	5,5	9,588752079	0,84	0,896	fuseless	Type 2	60	Class 10
440	100	Direct starter	SIMOCODE	5,5	9,588752079	0,84	0,896	fuseless	Type 2	60	Class 20
440	100	Direct starter	SIMOCODE	5,5	9,588752079	0,84	0,896	fuseless	Type 2	60	Class 30
440	150	Direct starter	SIMOCODE	5,5	9,588752079	0,84	0,896	fuseless	Type 2	60	Class 20
440	150	Direct starter	SIMOCODE	5,5	9,588752079	0,84	0,896	fuseless	Type 2	60	Class 30
500	100	Direct starter	SIMOCODE	5,5	8,43810183	0,84	0,896	fuseless	Type 2	60	Class 10
500	100	Direct starter	SIMOCODE	5,5	8,43810183	0,84	0,896	fuseless	Type 2	60	Class 20
500	100	Direct starter	SIMOCODE	5,5	8,43810183	0,84	0,896	fuseless	Type 2	60	Class 30
690	70	Direct starter	SIMOCODE	5,5	6,114566543	0,84	0,896	fuseless	Type 2	60	Class 30
690	70	Direct starter	SIMOCODE	5,5	6,114566543	0,84	0,896	fuseless	Type 2	60	Class 20
690	100	Direct starter	SIMOCODE	5,5	6,114566543	0,84	0,896	fuseless	Type 2	60	Class 30
690	100	Direct starter	SIMOCODE	5,5	6,114566543	0,84	0,896	fuseless	Type 2	60	Class 20
400	100	Direct starter	SIMOCODE	7,5	14,2558438	0,84	0,904	fuseless	Type 2	60	Class 10
400	100	Direct starter	SIMOCODE	7,5	14,2558438	0,84	0,904	fuseless	Type 2	60	Class 20
400	100	Direct starter	SIMOCODE	7,5	14,2558438	0,84	0,904	fuseless	Type 2	60	Class 30
400	150	Direct starter	SIMOCODE	7,5	14,2558438	0,84	0,904	fuseless	Type 2	60	Class 20
400	150	Direct starter	SIMOCODE	7,5	14,2558438	0,84	0,904	fuseless	Type 2	60	Class 30
440	100	Direct starter	SIMOCODE	7,5	12,959858	0,84	0,904	fuseless	Type 2	60	Class 10

## 60 Hz fuseless

Un	Iq	Starter type	Overload relay	Pn	In	cosphi	eta	Basic type	Coordination Typee	Frequency	Motor starter class
440	100	Direct starter	SIMOCODE	7,5	12,959858	0,84	0,904	fuseless	Type 2	60	Class 20
440	100	Direct starter	SIMOCODE	7,5	12,959858	0,84	0,904	fuseless	Type 2	60	Class 30
440	150	Direct starter	SIMOCODE	7,5	12,959858	0,84	0,904	fuseless	Type 2	60	Class 20
440	150	Direct starter	SIMOCODE	7,5	12,959858	0,84	0,904	fuseless	Type 2	60	Class 30
500	100	Direct starter	SIMOCODE	7,5	11,40467504	0,84	0,904	fuseless	Type 2	60	Class 10
500	100	Direct starter	SIMOCODE	7,5	11,40467504	0,84	0,904	fuseless	Type 2	60	Class 20
500	100	Direct starter	SIMOCODE	7,5	11,40467504	0,84	0,904	fuseless	Type 2	60	Class 30
690	70	Direct starter	SIMOCODE	7,5	8,264257275	0,84	0,904	fuseless	Type 2	60	Class 20
690	70	Direct starter	SIMOCODE	7,5	8,264257275	0,84	0,904	fuseless	Type 2	60	Class 30
690	100	Direct starter	SIMOCODE	7,5	8,264257275	0,84	0,904	fuseless	Type 2	60	Class 30
690	100	Direct starter	SIMOCODE	7,5	8,264257275	0,84	0,904	fuseless	Type 2	60	Class 20
400	100	Direct starter	SIMOCODE	11	20,67981192	0,84	0,914	fuseless	Type 2	60	Class 10
400	100	Direct starter	SIMOCODE	11	20,67981192	0,84	0,914	fuseless	Type 2	60	Class 20
400	150	Direct starter	SIMOCODE	11	20,67981192	0,84	0,914	fuseless	Type 2	60	Class 10
400	100	Direct starter	SIMOCODE	11	20,67981192	0,84	0,914	fuseless	Type 2	60	Class 30
400	150	Direct starter	SIMOCODE	11	20,67981192	0,84	0,914	fuseless	Type 2	60	Class 20
400	150	Direct starter	SIMOCODE	11	20,67981192	0,84	0,914	fuseless	Type 2	60	Class 30
440	100	Direct starter	SIMOCODE	11	18,79982902	0,84	0,914	fuseless	Type 2	60	Class 10
440	100	Direct starter	SIMOCODE	11	18,79982902	0,84	0,914	fuseless	Type 2	60	Class 20
440	150	Direct starter	SIMOCODE	11	18,79982902	0,84	0,914	fuseless	Type 2	60	Class 10
440	100	Direct starter	SIMOCODE	11	18,79982902	0,84	0,914	fuseless	Type 2	60	Class 30
440	150	Direct starter	SIMOCODE	11	18,79982902	0,84	0,914	fuseless	Type 2	60	Class 20
440	150	Direct starter	SIMOCODE	11	18,79982902	0,84	0,914	fuseless	Type 2	60	Class 30
500	100	Direct starter	SIMOCODE	11	16,54384954	0,84	0,914	fuseless	Type 2	60	Class 10
500	70	Direct starter	SIMOCODE	11	16,54384954	0,84	0,914	fuseless	Type 2	60	Class 20
500	70	Direct starter	SIMOCODE	11	16,54384954	0,84	0,914	fuseless	Type 2	60	Class 30
500	100	Direct starter	SIMOCODE	11	16,54384954	0,84	0,914	fuseless	Type 2	60	Class 20
500	100	Direct starter	SIMOCODE	11	16,54384954	0,84	0,914	fuseless	Type 2	60	Class 30
690	70	Direct starter	SIMOCODE	11	11,98829677	0,84	0,914	fuseless	Type 2	60	Class 10
690	70	Direct starter	SIMOCODE	11	11,98829677	0,84	0,914	fuseless	Type 2	60	Class 20
690	70	Direct starter	SIMOCODE	11	11,98829677	0,84	0,914	fuseless	Type 2	60	Class 30
690	100	Direct starter	SIMOCODE	11	11,98829677	0,84	0,914	fuseless	Type 2	60	Class 20
690	100	Direct starter	SIMOCODE	11	11,98829677	0,84	0,914	fuseless	Type 2	60	Class 30
690	100	Direct starter	SIMOCODE	11	11,98829677	0,84	0,914	fuseless	Type 2	60	Class 10
400	100	Direct starter	SIMOCODE	15	28,66798429	0,82	0,921	fuseless	Type 2	60	Class 20
400	100	Direct starter	SIMOCODE	15	28,66798429	0,82	0,921	fuseless	Type 2	60	Class 10
400	150	Direct starter	SIMOCODE	15	28,66798429	0,82	0,921	fuseless	Type 2	60	Class 10
400	100	Direct starter	SIMOCODE	15	28,66798429	0,82	0,921	fuseless	Type 2	60	Class 30
400	150	Direct starter	SIMOCODE	15	28,66798429	0,82	0,921	fuseless	Type 2	60	Class 20
400	150	Direct starter	SIMOCODE	15	28,66798429	0,82	0,921	fuseless	Type 2	60	Class 30
440	100	Direct starter	SIMOCODE	15	26,0618039	0,82	0,921	fuseless	Type 2	60	Class 20

## 60 Hz fuseless

Un	Iq	Starter type	Overload relay	Pn	In	cosphi	eta	Basic type	Coordination Typee	Frequency	Motor starter class
440	100	Direct starter	SIMOCODE	15	26,0618039	0,82	0,921	fuseless	Type 2	60	Class 10
440	150	Direct starter	SIMOCODE	15	26,0618039	0,82	0,921	fuseless	Type 2	60	Class 10
440	100	Direct starter	SIMOCODE	15	26,0618039	0,82	0,921	fuseless	Type 2	60	Class 30
440	150	Direct starter	SIMOCODE	15	26,0618039	0,82	0,921	fuseless	Type 2	60	Class 20
440	150	Direct starter	SIMOCODE	15	26,0618039	0,82	0,921	fuseless	Type 2	60	Class 30
500	100	Direct starter	SIMOCODE	15	22,93438743	0,82	0,921	fuseless	Type 2	60	Class 10
500	70	Direct starter	SIMOCODE	15	22,93438743	0,82	0,921	fuseless	Type 2	60	Class 10
500	70	Direct starter	SIMOCODE	15	22,93438743	0,82	0,921	fuseless	Type 2	60	Class 20
500	70	Direct starter	SIMOCODE	15	22,93438743	0,82	0,921	fuseless	Type 2	60	Class 30
500	100	Direct starter	SIMOCODE	15	22,93438743	0,82	0,921	fuseless	Type 2	60	Class 20
500	100	Direct starter	SIMOCODE	15	22,93438743	0,82	0,921	fuseless	Type 2	60	Class 30
690	70	Direct starter	SIMOCODE	15	16,61912133	0,82	0,921	fuseless	Type 2	60	Class 10
690	70	Direct starter	SIMOCODE	15	16,61912133	0,82	0,921	fuseless	Type 2	60	Class 20
690	70	Direct starter	SIMOCODE	15	16,61912133	0,82	0,921	fuseless	Type 2	60	Class 30
690	100	Direct starter	SIMOCODE	15	16,61912133	0,82	0,921	fuseless	Type 2	60	Class 10
690	100	Direct starter	SIMOCODE	15	16,61912133	0,82	0,921	fuseless	Type 2	60	Class 20
400	100	Direct starter	SIMOCODE	18,5	35,16626712	0,82	0,926	fuseless	Type 2	60	Class 10
400	100	Direct starter	SIMOCODE	18,5	35,16626712	0,82	0,926	fuseless	Type 2	60	Class 20
400	100	Direct starter	SIMOCODE	18,5	35,16626712	0,82	0,926	fuseless	Type 2	60	Class 30
400	150	Direct starter	SIMOCODE	18,5	35,16626712	0,82	0,926	fuseless	Type 2	60	Class 10
400	150	Direct starter	SIMOCODE	18,5	35,16626712	0,82	0,926	fuseless	Type 2	60	Class 20
400	150	Direct starter	SIMOCODE	18,5	35,16626712	0,82	0,926	fuseless	Type 2	60	Class 30
440	100	Direct starter	SIMOCODE	18,5	31,96933375	0,82	0,926	fuseless	Type 2	60	Class 10
440	100	Direct starter	SIMOCODE	18,5	31,96933375	0,82	0,926	fuseless	Type 2	60	Class 20
440	100	Direct starter	SIMOCODE	18,5	31,96933375	0,82	0,926	fuseless	Type 2	60	Class 30
440	150	Direct starter	SIMOCODE	18,5	31,96933375	0,82	0,926	fuseless	Type 2	60	Class 10
440	150	Direct starter	SIMOCODE	18,5	31,96933375	0,82	0,926	fuseless	Type 2	60	Class 20
440	150	Direct starter	SIMOCODE	18,5	31,96933375	0,82	0,926	fuseless	Type 2	60	Class 30
500	50	Direct starter	SIMOCODE	18,5	28,1330137	0,82	0,926	fuseless	Type 2	60	Class 20
500	70	Direct starter	SIMOCODE	18,5	28,1330137	0,82	0,926	fuseless	Type 2	60	Class 10
500	70	Direct starter	SIMOCODE	18,5	28,1330137	0,82	0,926	fuseless	Type 2	60	Class 30
500	100	Direct starter	SIMOCODE	18,5	28,1330137	0,82	0,926	fuseless	Type 2	60	Class 10
500	100	Direct starter	SIMOCODE	18,5	28,1330137	0,82	0,926	fuseless	Type 2	60	Class 20
500	100	Direct starter	SIMOCODE	18,5	28,1330137	0,82	0,926	fuseless	Type 2	60	Class 30
690	70	Direct starter	SIMOCODE	18,5	20,38624181	0,82	0,926	fuseless	Type 2	60	Class 10
690	70	Direct starter	SIMOCODE	18,5	20,38624181	0,82	0,926	fuseless	Type 2	60	Class 20
690	100	Direct starter	SIMOCODE	18,5	20,38624181	0,82	0,926	fuseless	Type 2	60	Class 10
690	70	Direct starter	SIMOCODE	18,5	20,38624181	0,82	0,926	fuseless	Type 2	60	Class 30
690	100	Direct starter	SIMOCODE	18,5	20,38624181	0,82	0,926	fuseless	Type 2	60	Class 20
400	100	Direct starter	SIMOCODE	22	41,13779609	0,83	0,93	fuseless	Type 2	60	Class 10
400	100	Direct starter	SIMOCODE	22	41,13779609	0,83	0,93	fuseless	Type 2	60	Class 20



## 60 Hz fuseless

Un	Iq	Starter type	Overload relay	Pn	In	cosphi	eta	Basic type	Coordination Typee	Frequency	Motor starter class
400	100	Direct starter	SIMOCODE	22	41,13779609	0,83	0,93	fuseless	Type 2	60	Class 30
400	150	Direct starter	SIMOCODE	22	41,13779609	0,83	0,93	fuseless	Type 2	60	Class 10
400	150	Direct starter	SIMOCODE	22	41,13779609	0,83	0,93	fuseless	Type 2	60	Class 20
400	150	Direct starter	SIMOCODE	22	41,13779609	0,83	0,93	fuseless	Type 2	60	Class 30
440	100	Direct starter	SIMOCODE	22	37,39799645	0,83	0,93	fuseless	Type 2	60	Class 10
440	100	Direct starter	SIMOCODE	22	37,39799645	0,83	0,93	fuseless	Type 2	60	Class 20
440	100	Direct starter	SIMOCODE	22	37,39799645	0,83	0,93	fuseless	Type 2	60	Class 30
440	150	Direct starter	SIMOCODE	22	37,39799645	0,83	0,93	fuseless	Type 2	60	Class 10
440	150	Direct starter	SIMOCODE	22	37,39799645	0,83	0,93	fuseless	Type 2	60	Class 20
440	150	Direct starter	SIMOCODE	22	37,39799645	0,83	0,93	fuseless	Type 2	60	Class 30
500	70	Direct starter	SIMOCODE	22	32,91023688	0,83	0,93	fuseless	Type 2	60	Class 20
500	70	Direct starter	SIMOCODE	22	32,91023688	0,83	0,93	fuseless	Type 2	60	Class 10
500	70	Direct starter	SIMOCODE	22	32,91023688	0,83	0,93	fuseless	Type 2	60	Class 30
500	100	Direct starter	SIMOCODE	22	32,91023688	0,83	0,93	fuseless	Type 2	60	Class 10
500	100	Direct starter	SIMOCODE	22	32,91023688	0,83	0,93	fuseless	Type 2	60	Class 20
500	100	Direct starter	SIMOCODE	22	32,91023688	0,83	0,93	fuseless	Type 2	60	Class 30
690	70	Direct starter	SIMOCODE	22	23,84799774	0,83	0,93	fuseless	Type 2	60	Class 10
690	70	Direct starter	SIMOCODE	22	23,84799774	0,83	0,93	fuseless	Type 2	60	Class 20
690	70	Direct starter	SIMOCODE	22	23,84799774	0,83	0,93	fuseless	Type 2	60	Class 30
690	100	Direct starter	SIMOCODE	22	23,84799774	0,83	0,93	fuseless	Type 2	60	Class 10
690	100	Direct starter	SIMOCODE	22	23,84799774	0,83	0,93	fuseless	Type 2	60	Class 20
400	100	Direct starter	SIMOCODE	30	55,0738581	0,84	0,936	fuseless	Type 2	60	Class 30
400	100	Direct starter	SIMOCODE	30	55,0738581	0,84	0,936	fuseless	Type 2	60	Class 10
400	100	Direct starter	SIMOCODE	30	55,0738581	0,84	0,936	fuseless	Type 2	60	Class 20
400	150	Direct starter	SIMOCODE	30	55,0738581	0,84	0,936	fuseless	Type 2	60	Class 10
400	150	Direct starter	SIMOCODE	30	55,0738581	0,84	0,936	fuseless	Type 2	60	Class 20
400	150	Direct starter	SIMOCODE	30	55,0738581	0,84	0,936	fuseless	Type 2	60	Class 30
440	100	Direct starter	SIMOCODE	30	50,06714372	0,84	0,936	fuseless	Type 2	60	Class 30
440	100	Direct starter	SIMOCODE	30	50,06714372	0,84	0,936	fuseless	Type 2	60	Class 10
440	100	Direct starter	SIMOCODE	30	50,06714372	0,84	0,936	fuseless	Type 2	60	Class 20
440	150	Direct starter	SIMOCODE	30	50,06714372	0,84	0,936	fuseless	Type 2	60	Class 10
440	150	Direct starter	SIMOCODE	30	50,06714372	0,84	0,936	fuseless	Type 2	60	Class 20
440	150	Direct starter	SIMOCODE	30	50,06714372	0,84	0,936	fuseless	Type 2	60	Class 30
500	50	Direct starter	SIMOCODE	30	44,05908648	0,84	0,936	fuseless	Type 2	60	Class 10
500	50	Direct starter	SIMOCODE	30	44,05908648	0,84	0,936	fuseless	Type 2	60	Class 20
500	100	Direct starter	SIMOCODE	30	44,05908648	0,84	0,936	fuseless	Type 2	60	Class 10
500	100	Direct starter	SIMOCODE	30	44,05908648	0,84	0,936	fuseless	Type 2	60	Class 20
500	50	Direct starter	SIMOCODE	30	44,05908648	0,84	0,936	fuseless	Type 2	60	Class 30
500	100	Direct starter	SIMOCODE	30	44,05908648	0,84	0,936	fuseless	Type 2	60	Class 30
690	100	Direct starter	SIMOCODE	30	31,92687426	0,84	0,936	fuseless	Type 2	60	Class 20
690	70	Direct starter	SIMOCODE	30	31,92687426	0,84	0,936	fuseless	Type 2	60	Class 30

## 60 Hz fuseless

Un	Iq	Starter type	Overload relay	Pn	In	cosphi	eta	Basic type	Coordination Typee	Frequency	Motor starter class
690	70	Direct starter	SIMOCODE	30	31,92687426	0,84	0,936	fuseless	Type 2	60	Class 10
690	100	Direct starter	SIMOCODE	30	31,92687426	0,84	0,936	fuseless	Type 2	60	Class 10
400	150	Direct starter	SIMOCODE	37	66,13282302	0,86	0,939	fuseless	Type 2	60	Class 30
400	150	Direct starter	SIMOCODE	37	66,13282302	0,86	0,939	fuseless	Type 2	60	Class 20
400	100	Direct starter	SIMOCODE	37	66,13282302	0,86	0,939	fuseless	Type 2	60	Class 10
400	150	Direct starter	SIMOCODE	37	66,13282302	0,86	0,939	fuseless	Type 2	60	Class 10
440	150	Direct starter	SIMOCODE	37	60,1207482	0,86	0,939	fuseless	Type 2	60	Class 30
440	150	Direct starter	SIMOCODE	37	60,1207482	0,86	0,939	fuseless	Type 2	60	Class 20
440	100	Direct starter	SIMOCODE	37	60,1207482	0,86	0,939	fuseless	Type 2	60	Class 10
440	150	Direct starter	SIMOCODE	37	60,1207482	0,86	0,939	fuseless	Type 2	60	Class 10
500	50	Direct starter	SIMOCODE	37	52,90625841	0,86	0,939	fuseless	Type 2	60	Class 30
500	100	Direct starter	SIMOCODE	37	52,90625841	0,86	0,939	fuseless	Type 2	60	Class 30
500	50	Direct starter	SIMOCODE	37	52,90625841	0,86	0,939	fuseless	Type 2	60	Class 10
500	100	Direct starter	SIMOCODE	37	52,90625841	0,86	0,939	fuseless	Type 2	60	Class 10
500	50	Direct starter	SIMOCODE	37	52,90625841	0,86	0,939	fuseless	Type 2	60	Class 20
500	100	Direct starter	SIMOCODE	37	52,90625841	0,86	0,939	fuseless	Type 2	60	Class 20
690	100	Direct starter	SIMOCODE	37	38,33786842	0,86	0,939	fuseless	Type 2	60	Class 20
690	70	Direct starter	SIMOCODE	37	38,33786842	0,86	0,939	fuseless	Type 2	60	Class 30
690	70	Direct starter	SIMOCODE	37	38,33786842	0,86	0,939	fuseless	Type 2	60	Class 10
690	100	Direct starter	SIMOCODE	37	38,33786842	0,86	0,939	fuseless	Type 2	60	Class 10
400	150	Direct starter	SIMOCODE	45	80,17565951	0,86	0,942	fuseless	Type 2	60	Class 20
400	150	Direct starter	SIMOCODE	45	80,17565951	0,86	0,942	fuseless	Type 2	60	Class 30
400	100	Direct starter	SIMOCODE	45	80,17565951	0,86	0,942	fuseless	Type 2	60	Class 10
400	150	Direct starter	SIMOCODE	45	80,17565951	0,86	0,942	fuseless	Type 2	60	Class 10
440	150	Direct starter	SIMOCODE	45	72,88696319	0,86	0,942	fuseless	Type 2	60	Class 20
440	150	Direct starter	SIMOCODE	45	72,88696319	0,86	0,942	fuseless	Type 2	60	Class 30
440	100	Direct starter	SIMOCODE	45	72,88696319	0,86	0,942	fuseless	Type 2	60	Class 10
440	150	Direct starter	SIMOCODE	45	72,88696319	0,86	0,942	fuseless	Type 2	60	Class 10
500	50	Direct starter	SIMOCODE	45	64,14052761	0,86	0,942	fuseless	Type 2	60	Class 20
500	100	Direct starter	SIMOCODE	45	64,14052761	0,86	0,942	fuseless	Type 2	60	Class 20
500	50	Direct starter	SIMOCODE	45	64,14052761	0,86	0,942	fuseless	Type 2	60	Class 10
500	100	Direct starter	SIMOCODE	45	64,14052761	0,86	0,942	fuseless	Type 2	60	Class 10
690	70	Direct starter	SIMOCODE	45	46,4786432	0,86	0,942	fuseless	Type 2	60	Class 30
690	70	Direct starter	SIMOCODE	45	46,4786432	0,86	0,942	fuseless	Type 2	60	Class 20
690	70	Direct starter	SIMOCODE	45	46,4786432	0,86	0,942	fuseless	Type 2	60	Class 10
690	100	Direct starter	SIMOCODE	45	46,4786432	0,86	0,942	fuseless	Type 2	60	Class 10
400	150	Direct starter	SIMOCODE	55	96,45654056	0,87	0,946	fuseless	Type 2	60	Class 10
400	150	Direct starter	SIMOCODE	55	96,45654056	0,87	0,946	fuseless	Type 2	60	Class 20
400	150	Direct starter	SIMOCODE	55	96,45654056	0,87	0,946	fuseless	Type 2	60	Class 30
440	150	Direct starter	SIMOCODE	55	87,68776415	0,87	0,946	fuseless	Type 2	60	Class 10
440	150	Direct starter	SIMOCODE	55	87,68776415	0,87	0,946	fuseless	Type 2	60	Class 20

## 60 Hz fuseless

Un	Iq	Starter type	Overload relay	Pn	In	cosphi	eta	Basic type	Coordination Typee	Frequency	Motor starter class
440	150	Direct starter	SIMOCODE	55	87,68776415	0,87	0,946	fuseless	Type 2	60	Class 30
500	50	Direct starter	SIMOCODE	55	77,16523245	0,87	0,946	fuseless	Type 2	60	Class 10
500	100	Direct starter	SIMOCODE	55	77,16523245	0,87	0,946	fuseless	Type 2	60	Class 10
690	50	Direct starter	SIMOCODE	55	55,91683511	0,87	0,946	fuseless	Type 2	60	Class 10
690	70	Direct starter	SIMOCODE	55	55,91683511	0,87	0,946	fuseless	Type 2	60	Class 10
690	70	Direct starter	SIMOCODE	55	55,91683511	0,87	0,946	fuseless	Type 2	60	Class 30
690	70	Direct starter	SIMOCODE	55	55,91683511	0,87	0,946	fuseless	Type 2	60	Class 20
400	150	Direct starter	SIMOCODE	75	132,5008268	0,86	0,95	fuseless	Type 2	60	Class 10
400	150	Direct starter	SIMOCODE	75	132,5008268	0,86	0,95	fuseless	Type 2	60	Class 20
440	150	Direct starter	SIMOCODE	75	120,4552971	0,86	0,95	fuseless	Type 2	60	Class 10
440	150	Direct starter	SIMOCODE	75	120,4552971	0,86	0,95	fuseless	Type 2	60	Class 20
500	50	Direct starter	SIMOCODE	75	106,0006614	0,86	0,95	fuseless	Type 2	60	Class 10
400	150	Direct starter	SIMOCODE	90	156,8431983	0,87	0,952	fuseless	Type 2	60	Class 10
400	150	Direct starter	SIMOCODE	90	156,8431983	0,87	0,952	fuseless	Type 2	60	Class 20
400	150	Direct starter	SIMOCODE	90	156,8431983	0,87	0,952	fuseless	Type 2	60	Class 30
440	150	Direct starter	SIMOCODE	90	142,5847257	0,87	0,952	fuseless	Type 2	60	Class 10
440	150	Direct starter	SIMOCODE	90	142,5847257	0,87	0,952	fuseless	Type 2	60	Class 20
440	150	Direct starter	SIMOCODE	90	142,5847257	0,87	0,952	fuseless	Type 2	60	Class 30
500	50	Direct starter	SIMOCODE	90	125,4745586	0,87	0,952	fuseless	Type 2	60	Class 10
400	150	Direct starter	SIMOCODE	110	191,2953614	0,87	0,954	fuseless	Type 2	60	Class 10
400	150	Direct starter	SIMOCODE	110	191,2953614	0,87	0,954	fuseless	Type 2	60	Class 20
400	150	Direct starter	SIMOCODE	110	191,2953614	0,87	0,954	fuseless	Type 2	60	Class 30
440	150	Direct starter	SIMOCODE	110	173,904874	0,87	0,954	fuseless	Type 2	60	Class 10
440	150	Direct starter	SIMOCODE	110	173,904874	0,87	0,954	fuseless	Type 2	60	Class 20
440	150	Direct starter	SIMOCODE	110	173,904874	0,87	0,954	fuseless	Type 2	60	Class 30
500	50	Direct starter	SIMOCODE	110	153,0362891	0,87	0,954	fuseless	Type 2	60	Class 10
400	150	Direct starter	SIMOCODE	132	229,0741942	0,87	0,956	fuseless	Type 2	60	Class 10
400	150	Direct starter	SIMOCODE	132	229,0741942	0,87	0,956	fuseless	Type 2	60	Class 20
400	150	Direct starter	SIMOCODE	132	229,0741942	0,87	0,956	fuseless	Type 2	60	Class 30
440	150	Direct starter	SIMOCODE	132	208,2492675	0,87	0,956	fuseless	Type 2	60	Class 10
440	150	Direct starter	SIMOCODE	132	208,2492675	0,87	0,956	fuseless	Type 2	60	Class 20
440	150	Direct starter	SIMOCODE	132	208,2492675	0,87	0,956	fuseless	Type 2	60	Class 30
500	50	Direct starter	SIMOCODE	132	183,2593554	0,87	0,956	fuseless	Type 2	60	Class 10
400	150	Direct starter	SIMOCODE	160	277,0860121	0,87	0,958	fuseless	Type 2	60	Class 10
400	150	Direct starter	SIMOCODE	160	277,0860121	0,87	0,958	fuseless	Type 2	60	Class 30
400	150	Direct starter	SIMOCODE	160	277,0860121	0,87	0,958	fuseless	Type 2	60	Class 20
440	150	Direct starter	SIMOCODE	160	251,8963747	0,87	0,958	fuseless	Type 2	60	Class 10
440	150	Direct starter	SIMOCODE	160	251,8963747	0,87	0,958	fuseless	Type 2	60	Class 30
440	150	Direct starter	SIMOCODE	160	251,8963747	0,87	0,958	fuseless	Type 2	60	Class 20
500	50	Direct starter	SIMOCODE	160	221,6688097	0,87	0,958	fuseless	Type 2	60	Class 10
400	150	Direct starter	SIMOCODE	200	341,7082559	0,88	0,96	fuseless	Type 2	60	Class 10

## 60 Hz fuseless

Un	Iq	Starter type	Overload relay	Pn	In	cosphi	eta	Basic type	Coordination Typee	Frequency	Motor starter class
400	150	Direct starter	SIMOCODE	200	341,7082559	0,88	0,96	fuseless	Type 2	60	Class 20
440	150	Direct starter	SIMOCODE	200	310,643869	0,88	0,96	fuseless	Type 2	60	Class 10
440	150	Direct starter	SIMOCODE	200	310,643869	0,88	0,96	fuseless	Type 2	60	Class 20
500	50	Direct starter	SIMOCODE	200	273,3666047	0,88	0,96	fuseless	Type 2	60	Class 10
400	150	Direct starter	SIMOCODE	250	442,2106841	0,85	0,96	fuseless	Type 2	60	Class 10
440	150	Direct starter	SIMOCODE	250	402,0097128	0,85	0,96	fuseless	Type 2	60	Class 10
500	50	Direct starter	SIMOCODE	250	353,7685473	0,85	0,96	fuseless	Type 2	60	Class 10
500	50	Direct starter	SIMOCODE	315	456,4892942	0,83	0,96	fuseless	Type 2	60	Class 10
500	50	Direct starter	SIMOCODE	355	496,5100425	0,86	0,96	fuseless	Type 2	60	Class 10
400	100	Direct starter	thermal	0,25	0,681866815	0,72	0,735	fuseless	Type 2	60	Class 10
440	100	Direct starter	thermal	0,25	0,619878922	0,72	0,735	fuseless	Type 2	60	Class 10
500	100	Direct starter	thermal	0,25	0,545493452	0,72	0,735	fuseless	Type 2	60	Class 10
690	100	Direct starter	thermal	0,25	0,39528511	0,72	0,735	fuseless	Type 2	60	Class 10
400	100	Direct starter	thermal	0,37	0,986969135	0,7	0,773	fuseless	Type 2	60	Class 10
440	100	Direct starter	thermal	0,37	0,897244668	0,7	0,773	fuseless	Type 2	60	Class 10
500	100	Direct starter	thermal	0,37	0,789575308	0,7	0,773	fuseless	Type 2	60	Class 10
690	100	Direct starter	thermal	0,37	0,57215602	0,7	0,773	fuseless	Type 2	60	Class 10
400	100	Direct starter	thermal	0,55	1,259610022	0,78	0,808	fuseless	Type 2	60	Class 10
440	100	Direct starter	thermal	0,55	1,14510002	0,78	0,808	fuseless	Type 2	60	Class 10
500	100	Direct starter	thermal	0,55	1,007688017	0,78	0,808	fuseless	Type 2	60	Class 10
690	100	Direct starter	thermal	0,55	0,730208708	0,78	0,808	fuseless	Type 2	60	Class 10
400	100	Direct starter	thermal	0,75	1,74954627	0,75	0,825	fuseless	Type 2	60	Class 10
440	100	Direct starter	thermal	0,75	1,590496609	0,75	0,825	fuseless	Type 2	60	Class 10
500	100	Direct starter	thermal	0,75	1,399637016	0,75	0,825	fuseless	Type 2	60	Class 10
690	100	Direct starter	thermal	0,75	1,014229722	0,75	0,825	fuseless	Type 2	60	Class 10
400	100	Direct starter	thermal	1,1	2,420368365	0,78	0,841	fuseless	Type 2	60	Class 10
440	100	Direct starter	thermal	1,1	2,200334878	0,78	0,841	fuseless	Type 2	60	Class 10
500	100	Direct starter	thermal	1,1	1,936294692	0,78	0,841	fuseless	Type 2	60	Class 10
690	100	Direct starter	thermal	1,1	1,403112096	0,78	0,841	fuseless	Type 2	60	Class 10
400	100	Direct starter	thermal	1,5	3,172719094	0,8	0,853	fuseless	Type 2	60	Class 10
440	100	Direct starter	thermal	1,5	2,884290085	0,8	0,853	fuseless	Type 2	60	Class 10
500	100	Direct starter	thermal	1,5	2,538175275	0,8	0,853	fuseless	Type 2	60	Class 10
690	100	Direct starter	thermal	1,5	1,839257446	0,8	0,853	fuseless	Type 2	60	Class 10
400	100	Direct starter	thermal	2,2	4,412704771	0,83	0,867	fuseless	Type 2	60	Class 10
440	100	Direct starter	thermal	2,2	4,011549792	0,83	0,867	fuseless	Type 2	60	Class 10
500	100	Direct starter	thermal	2,2	3,530163817	0,83	0,867	fuseless	Type 2	60	Class 10
690	100	Direct starter	thermal	2,2	2,558089723	0,83	0,867	fuseless	Type 2	60	Class 10
400	100	Direct starter	thermal	3	5,948712092	0,83	0,877	fuseless	Type 2	60	Class 10
440	100	Direct starter	thermal	3	5,407920084	0,83	0,877	fuseless	Type 2	60	Class 10
500	100	Direct starter	thermal	3	4,758969674	0,83	0,877	fuseless	Type 2	60	Class 10
690	100	Direct starter	thermal	3	3,448528749	0,83	0,877	fuseless	Type 2	60	Class 10

## 60 Hz fuseless

Un	Iq	Starter type	Overload relay	Pn	In	cosphi	eta	Basic type	Coordination Typee	Frequency	Motor starter class
400	100	Direct starter	thermal	4	7,94679113	0,82	0,886	fuseless	Type 2	60	Class 10
440	100	Direct starter	thermal	4	7,224355573	0,82	0,886	fuseless	Type 2	60	Class 10
500	100	Direct starter	thermal	4	6,357432904	0,82	0,886	fuseless	Type 2	60	Class 10
690	100	Direct starter	thermal	4	4,606835438	0,82	0,886	fuseless	Type 2	60	Class 10
400	100	Direct starter	thermal	5,5	10,54762729	0,84	0,896	fuseless	Type 2	60	Class 10
440	100	Direct starter	thermal	5,5	9,588752079	0,84	0,896	fuseless	Type 2	60	Class 10
500	100	Direct starter	thermal	5,5	8,43810183	0,84	0,896	fuseless	Type 2	60	Class 10
690	100	Direct starter	thermal	5,5	6,114566543	0,84	0,896	fuseless	Type 2	60	Class 10
400	100	Direct starter	thermal	7,5	14,2558438	0,84	0,904	fuseless	Type 2	60	Class 10
440	100	Direct starter	thermal	7,5	12,959858	0,84	0,904	fuseless	Type 2	60	Class 10
500	100	Direct starter	thermal	7,5	11,40467504	0,84	0,904	fuseless	Type 2	60	Class 10
690	100	Direct starter	thermal	7,5	8,264257275	0,84	0,904	fuseless	Type 2	60	Class 10
400	100	Direct starter	thermal	11	20,67981192	0,84	0,914	fuseless	Type 2	60	Class 10
440	100	Direct starter	thermal	11	18,79982902	0,84	0,914	fuseless	Type 2	60	Class 10
500	100	Direct starter	thermal	11	16,54384954	0,84	0,914	fuseless	Type 2	60	Class 10
690	70	Direct starter	thermal	11	11,98829677	0,84	0,914	fuseless	Type 2	60	Class 10
690	100	Direct starter	thermal	11	11,98829677	0,84	0,914	fuseless	Type 2	60	Class 10
400	100	Direct starter	thermal	15	28,66798429	0,82	0,921	fuseless	Type 2	60	Class 10
400	150	Direct starter	thermal	15	28,66798429	0,82	0,921	fuseless	Type 2	60	Class 10
440	100	Direct starter	thermal	15	26,0618039	0,82	0,921	fuseless	Type 2	60	Class 10
440	150	Direct starter	thermal	15	26,0618039	0,82	0,921	fuseless	Type 2	60	Class 10
500	100	Direct starter	thermal	15	22,93438743	0,82	0,921	fuseless	Type 2	60	Class 10
690	70	Direct starter	thermal	15	16,61912133	0,82	0,921	fuseless	Type 2	60	Class 10
690	100	Direct starter	thermal	15	16,61912133	0,82	0,921	fuseless	Type 2	60	Class 10
400	100	Direct starter	thermal	18,5	35,16626712	0,82	0,926	fuseless	Type 2	60	Class 10
400	150	Direct starter	thermal	18,5	35,16626712	0,82	0,926	fuseless	Type 2	60	Class 10
440	100	Direct starter	thermal	18,5	31,96933375	0,82	0,926	fuseless	Type 2	60	Class 10
440	150	Direct starter	thermal	18,5	31,96933375	0,82	0,926	fuseless	Type 2	60	Class 10
500	100	Direct starter	thermal	18,5	28,1330137	0,82	0,926	fuseless	Type 2	60	Class 10
500	70	Direct starter	thermal	18,5	28,1330137	0,82	0,926	fuseless	Type 2	60	Class 10
690	70	Direct starter	thermal	18,5	20,38624181	0,82	0,926	fuseless	Type 2	60	Class 10
690	100	Direct starter	thermal	18,5	20,38624181	0,82	0,926	fuseless	Type 2	60	Class 10
400	100	Direct starter	thermal	22	41,13779609	0,83	0,93	fuseless	Type 2	60	Class 10
400	150	Direct starter	thermal	22	41,13779609	0,83	0,93	fuseless	Type 2	60	Class 10
440	100	Direct starter	thermal	22	37,39799645	0,83	0,93	fuseless	Type 2	60	Class 10
440	150	Direct starter	thermal	22	37,39799645	0,83	0,93	fuseless	Type 2	60	Class 10
500	70	Direct starter	thermal	22	32,91023688	0,83	0,93	fuseless	Type 2	60	Class 10
500	80	Direct starter	thermal	22	32,91023688	0,83	0,93	fuseless	Type 2	60	Class 10
690	70	Direct starter	thermal	22	23,84799774	0,83	0,93	fuseless	Type 2	60	Class 10
690	100	Direct starter	thermal	22	23,84799774	0,83	0,93	fuseless	Type 2	60	Class 10
500	70	Direct starter	thermal	30	44,05908648	0,84	0,936	fuseless	Type 2	60	Class 10

## 60 Hz fuseless

Un	Iq	Starter type	Overload relay	Pn	In	cosphi	eta	Basic type	Coordination Typee	Frequency	Motor starter class
500	80	Direct starter	thermal	30	44,05908648	0,84	0,936	fuseless	Type 2	60	Class 10
400	100	Reversing drive	electronic	0,25	0,681866815	0,72	0,735	fuseless	Type 2	60	Class 10
400	100	Reversing drive	electronic	0,25	0,681866815	0,72	0,735	fuseless	Type 2	60	Class 20
400	100	Reversing drive	electronic	0,25	0,681866815	0,72	0,735	fuseless	Type 2	60	Class 30
440	100	Reversing drive	electronic	0,25	0,619878922	0,72	0,735	fuseless	Type 2	60	Class 10
440	100	Reversing drive	electronic	0,25	0,619878922	0,72	0,735	fuseless	Type 2	60	Class 20
440	100	Reversing drive	electronic	0,25	0,619878922	0,72	0,735	fuseless	Type 2	60	Class 30
500	100	Reversing drive	electronic	0,25	0,545493452	0,72	0,735	fuseless	Type 2	60	Class 10
500	100	Reversing drive	electronic	0,25	0,545493452	0,72	0,735	fuseless	Type 2	60	Class 20
500	100	Reversing drive	electronic	0,25	0,545493452	0,72	0,735	fuseless	Type 2	60	Class 30
400	100	Reversing drive	electronic	0,37	0,986969135	0,7	0,773	fuseless	Type 2	60	Class 10
400	100	Reversing drive	electronic	0,37	0,986969135	0,7	0,773	fuseless	Type 2	60	Class 20
400	100	Reversing drive	electronic	0,37	0,986969135	0,7	0,773	fuseless	Type 2	60	Class 30
440	100	Reversing drive	electronic	0,37	0,897244668	0,7	0,773	fuseless	Type 2	60	Class 10
440	100	Reversing drive	electronic	0,37	0,897244668	0,7	0,773	fuseless	Type 2	60	Class 20
440	100	Reversing drive	electronic	0,37	0,897244668	0,7	0,773	fuseless	Type 2	60	Class 30
500	100	Reversing drive	electronic	0,37	0,789575308	0,7	0,773	fuseless	Type 2	60	Class 10
500	100	Reversing drive	electronic	0,37	0,789575308	0,7	0,773	fuseless	Type 2	60	Class 20
500	100	Reversing drive	electronic	0,37	0,789575308	0,7	0,773	fuseless	Type 2	60	Class 30
400	100	Reversing drive	electronic	0,55	1,259610022	0,78	0,808	fuseless	Type 2	60	Class 10
400	100	Reversing drive	electronic	0,55	1,259610022	0,78	0,808	fuseless	Type 2	60	Class 20
400	100	Reversing drive	electronic	0,55	1,259610022	0,78	0,808	fuseless	Type 2	60	Class 30
440	100	Reversing drive	electronic	0,55	1,14510002	0,78	0,808	fuseless	Type 2	60	Class 10
440	100	Reversing drive	electronic	0,55	1,14510002	0,78	0,808	fuseless	Type 2	60	Class 20
440	100	Reversing drive	electronic	0,55	1,14510002	0,78	0,808	fuseless	Type 2	60	Class 30
500	100	Reversing drive	electronic	0,55	1,007688017	0,78	0,808	fuseless	Type 2	60	Class 10
500	100	Reversing drive	electronic	0,55	1,007688017	0,78	0,808	fuseless	Type 2	60	Class 20
500	100	Reversing drive	electronic	0,55	1,007688017	0,78	0,808	fuseless	Type 2	60	Class 30
400	100	Reversing drive	electronic	0,75	1,74954627	0,75	0,825	fuseless	Type 2	60	Class 10
400	100	Reversing drive	electronic	0,75	1,74954627	0,75	0,825	fuseless	Type 2	60	Class 20
400	100	Reversing drive	electronic	0,75	1,74954627	0,75	0,825	fuseless	Type 2	60	Class 30
440	100	Reversing drive	electronic	0,75	1,590496609	0,75	0,825	fuseless	Type 2	60	Class 10
440	100	Reversing drive	electronic	0,75	1,590496609	0,75	0,825	fuseless	Type 2	60	Class 20
440	100	Reversing drive	electronic	0,75	1,590496609	0,75	0,825	fuseless	Type 2	60	Class 30
500	100	Reversing drive	electronic	0,75	1,399637016	0,75	0,825	fuseless	Type 2	60	Class 10
500	100	Reversing drive	electronic	0,75	1,399637016	0,75	0,825	fuseless	Type 2	60	Class 20
500	100	Reversing drive	electronic	0,75	1,399637016	0,75	0,825	fuseless	Type 2	60	Class 30
400	100	Reversing drive	electronic	1,1	2,420368365	0,78	0,841	fuseless	Type 2	60	Class 10
400	100	Reversing drive	electronic	1,1	2,420368365	0,78	0,841	fuseless	Type 2	60	Class 20
400	100	Reversing drive	electronic	1,1	2,420368365	0,78	0,841	fuseless	Type 2	60	Class 30
440	100	Reversing drive	electronic	1,1	2,200334878	0,78	0,841	fuseless	Type 2	60	Class 10

## 60 Hz fuseless

Un	Iq	Starter type	Overload relay	Pn	In	cosphi	eta	Basic type	Coordination Typee	Frequency	Motor starter class
440	100	Reversing drive	electronic	1,1	2,200334878	0,78	0,841	fuseless	Type 2	60	Class 20
440	100	Reversing drive	electronic	1,1	2,200334878	0,78	0,841	fuseless	Type 2	60	Class 30
500	100	Reversing drive	electronic	1,1	1,936294692	0,78	0,841	fuseless	Type 2	60	Class 10
500	100	Reversing drive	electronic	1,1	1,936294692	0,78	0,841	fuseless	Type 2	60	Class 20
500	100	Reversing drive	electronic	1,1	1,936294692	0,78	0,841	fuseless	Type 2	60	Class 30
400	100	Reversing drive	electronic	1,5	3,172719094	0,8	0,853	fuseless	Type 2	60	Class 10
400	100	Reversing drive	electronic	1,5	3,172719094	0,8	0,853	fuseless	Type 2	60	Class 20
400	100	Reversing drive	electronic	1,5	3,172719094	0,8	0,853	fuseless	Type 2	60	Class 30
440	100	Reversing drive	electronic	1,5	2,884290085	0,8	0,853	fuseless	Type 2	60	Class 10
440	100	Reversing drive	electronic	1,5	2,884290085	0,8	0,853	fuseless	Type 2	60	Class 20
440	100	Reversing drive	electronic	1,5	2,884290085	0,8	0,853	fuseless	Type 2	60	Class 30
500	100	Reversing drive	electronic	1,5	2,538175275	0,8	0,853	fuseless	Type 2	60	Class 10
500	100	Reversing drive	electronic	1,5	2,538175275	0,8	0,853	fuseless	Type 2	60	Class 20
500	100	Reversing drive	electronic	1,5	2,538175275	0,8	0,853	fuseless	Type 2	60	Class 30
400	100	Reversing drive	electronic	2,2	4,412704771	0,83	0,867	fuseless	Type 2	60	Class 10
400	100	Reversing drive	electronic	2,2	4,412704771	0,83	0,867	fuseless	Type 2	60	Class 20
400	100	Reversing drive	electronic	2,2	4,412704771	0,83	0,867	fuseless	Type 2	60	Class 30
440	100	Reversing drive	electronic	2,2	4,011549792	0,83	0,867	fuseless	Type 2	60	Class 10
440	100	Reversing drive	electronic	2,2	4,011549792	0,83	0,867	fuseless	Type 2	60	Class 20
440	100	Reversing drive	electronic	2,2	4,011549792	0,83	0,867	fuseless	Type 2	60	Class 30
500	100	Reversing drive	electronic	2,2	3,530163817	0,83	0,867	fuseless	Type 2	60	Class 10
500	100	Reversing drive	electronic	2,2	3,530163817	0,83	0,867	fuseless	Type 2	60	Class 20
500	100	Reversing drive	electronic	2,2	3,530163817	0,83	0,867	fuseless	Type 2	60	Class 30
400	100	Reversing drive	electronic	3	5,948712092	0,83	0,877	fuseless	Type 2	60	Class 10
400	100	Reversing drive	electronic	3	5,948712092	0,83	0,877	fuseless	Type 2	60	Class 20
400	100	Reversing drive	electronic	3	5,948712092	0,83	0,877	fuseless	Type 2	60	Class 30
440	100	Reversing drive	electronic	3	5,407920084	0,83	0,877	fuseless	Type 2	60	Class 10
440	100	Reversing drive	electronic	3	5,407920084	0,83	0,877	fuseless	Type 2	60	Class 20
440	100	Reversing drive	electronic	3	5,407920084	0,83	0,877	fuseless	Type 2	60	Class 30
500	100	Reversing drive	electronic	3	4,758969674	0,83	0,877	fuseless	Type 2	60	Class 10
500	100	Reversing drive	electronic	3	4,758969674	0,83	0,877	fuseless	Type 2	60	Class 20
400	100	Reversing drive	electronic	4	7,94679113	0,82	0,886	fuseless	Type 2	60	Class 10
400	100	Reversing drive	electronic	4	7,94679113	0,82	0,886	fuseless	Type 2	60	Class 20
400	100	Reversing drive	electronic	4	7,94679113	0,82	0,886	fuseless	Type 2	60	Class 30
440	100	Reversing drive	electronic	4	7,224355573	0,82	0,886	fuseless	Type 2	60	Class 10
440	100	Reversing drive	electronic	4	7,224355573	0,82	0,886	fuseless	Type 2	60	Class 20
440	100	Reversing drive	electronic	4	7,224355573	0,82	0,886	fuseless	Type 2	60	Class 30
500	100	Reversing drive	electronic	4	6,357432904	0,82	0,886	fuseless	Type 2	60	Class 10
500	100	Reversing drive	electronic	4	6,357432904	0,82	0,886	fuseless	Type 2	60	Class 20
400	100	Reversing drive	electronic	5,5	10,54762729	0,84	0,896	fuseless	Type 2	60	Class 10
400	100	Reversing drive	electronic	5,5	10,54762729	0,84	0,896	fuseless	Type 2	60	Class 20

## 60 Hz fuseless

Un	Iq	Starter type	Overload relay	Pn	In	cosphi	eta	Basic type	Coordination Typee	Frequency	Motor starter class
400	100	Reversing drive	electronic	5,5	10,54762729	0,84	0,896	fuseless	Type 2	60	Class 30
440	100	Reversing drive	electronic	5,5	9,588752079	0,84	0,896	fuseless	Type 2	60	Class 10
440	100	Reversing drive	electronic	5,5	9,588752079	0,84	0,896	fuseless	Type 2	60	Class 20
440	100	Reversing drive	electronic	5,5	9,588752079	0,84	0,896	fuseless	Type 2	60	Class 30
500	100	Reversing drive	electronic	5,5	8,43810183	0,84	0,896	fuseless	Type 2	60	Class 10
500	100	Reversing drive	electronic	5,5	8,43810183	0,84	0,896	fuseless	Type 2	60	Class 20
400	100	Reversing drive	electronic	7,5	14,2558438	0,84	0,904	fuseless	Type 2	60	Class 10
400	100	Reversing drive	electronic	7,5	14,2558438	0,84	0,904	fuseless	Type 2	60	Class 20
400	100	Reversing drive	electronic	7,5	14,2558438	0,84	0,904	fuseless	Type 2	60	Class 30
400	150	Reversing drive	electronic	7,5	14,2558438	0,84	0,904	fuseless	Type 2	60	Class 20
400	150	Reversing drive	electronic	7,5	14,2558438	0,84	0,904	fuseless	Type 2	60	Class 30
440	100	Reversing drive	electronic	7,5	12,959858	0,84	0,904	fuseless	Type 2	60	Class 10
440	100	Reversing drive	electronic	7,5	12,959858	0,84	0,904	fuseless	Type 2	60	Class 20
440	100	Reversing drive	electronic	7,5	12,959858	0,84	0,904	fuseless	Type 2	60	Class 30
440	150	Reversing drive	electronic	7,5	12,959858	0,84	0,904	fuseless	Type 2	60	Class 20
440	150	Reversing drive	electronic	7,5	12,959858	0,84	0,904	fuseless	Type 2	60	Class 30
500	100	Reversing drive	electronic	7,5	11,40467504	0,84	0,904	fuseless	Type 2	60	Class 10
500	100	Reversing drive	electronic	7,5	11,40467504	0,84	0,904	fuseless	Type 2	60	Class 20
400	100	Reversing drive	electronic	11	20,67981192	0,84	0,914	fuseless	Type 2	60	Class 10
400	100	Reversing drive	electronic	11	20,67981192	0,84	0,914	fuseless	Type 2	60	Class 20
400	150	Reversing drive	electronic	11	20,67981192	0,84	0,914	fuseless	Type 2	60	Class 10
400	100	Reversing drive	electronic	11	20,67981192	0,84	0,914	fuseless	Type 2	60	Class 30
400	150	Reversing drive	electronic	11	20,67981192	0,84	0,914	fuseless	Type 2	60	Class 20
400	150	Reversing drive	electronic	11	20,67981192	0,84	0,914	fuseless	Type 2	60	Class 30
440	100	Reversing drive	electronic	11	18,79982902	0,84	0,914	fuseless	Type 2	60	Class 10
440	100	Reversing drive	electronic	11	18,79982902	0,84	0,914	fuseless	Type 2	60	Class 20
440	150	Reversing drive	electronic	11	18,79982902	0,84	0,914	fuseless	Type 2	60	Class 10
440	100	Reversing drive	electronic	11	18,79982902	0,84	0,914	fuseless	Type 2	60	Class 30
440	150	Reversing drive	electronic	11	18,79982902	0,84	0,914	fuseless	Type 2	60	Class 20
440	150	Reversing drive	electronic	11	18,79982902	0,84	0,914	fuseless	Type 2	60	Class 30
500	100	Reversing drive	electronic	11	16,54384954	0,84	0,914	fuseless	Type 2	60	Class 10
500	70	Reversing drive	electronic	11	16,54384954	0,84	0,914	fuseless	Type 2	60	Class 20
500	70	Reversing drive	electronic	11	16,54384954	0,84	0,914	fuseless	Type 2	60	Class 30
500	100	Reversing drive	electronic	11	16,54384954	0,84	0,914	fuseless	Type 2	60	Class 20
500	100	Reversing drive	electronic	11	16,54384954	0,84	0,914	fuseless	Type 2	60	Class 30
690	100	Reversing drive	electronic	11	11,98829677	0,84	0,914	fuseless	Type 2	60	Class 20
690	70	Reversing drive	electronic	11	11,98829677	0,84	0,914	fuseless	Type 2	60	Class 30
690	100	Reversing drive	electronic	11	11,98829677	0,84	0,914	fuseless	Type 2	60	Class 30
690	70	Reversing drive	electronic	11	11,98829677	0,84	0,914	fuseless	Type 2	60	Class 10
690	100	Reversing drive	electronic	11	11,98829677	0,84	0,914	fuseless	Type 2	60	Class 10
690	70	Reversing drive	electronic	11	11,98829677	0,84	0,914	fuseless	Type 2	60	Class 20



## 60 Hz fuseless

Un	Iq	Starter type	Overload relay	Pn	In	cosphi	eta	Basic type	Coordination Typee	Frequency	Motor starter class
400	100	Reversing drive	electronic	15	28,66798429	0,82	0,921	fuseless	Type 2	60	Class 20
400	100	Reversing drive	electronic	15	28,66798429	0,82	0,921	fuseless	Type 2	60	Class 10
400	150	Reversing drive	electronic	15	28,66798429	0,82	0,921	fuseless	Type 2	60	Class 10
400	100	Reversing drive	electronic	15	28,66798429	0,82	0,921	fuseless	Type 2	60	Class 30
400	150	Reversing drive	electronic	15	28,66798429	0,82	0,921	fuseless	Type 2	60	Class 20
400	150	Reversing drive	electronic	15	28,66798429	0,82	0,921	fuseless	Type 2	60	Class 30
440	100	Reversing drive	electronic	15	26,0618039	0,82	0,921	fuseless	Type 2	60	Class 20
440	100	Reversing drive	electronic	15	26,0618039	0,82	0,921	fuseless	Type 2	60	Class 10
440	150	Reversing drive	electronic	15	26,0618039	0,82	0,921	fuseless	Type 2	60	Class 10
440	100	Reversing drive	electronic	15	26,0618039	0,82	0,921	fuseless	Type 2	60	Class 30
440	150	Reversing drive	electronic	15	26,0618039	0,82	0,921	fuseless	Type 2	60	Class 20
440	150	Reversing drive	electronic	15	26,0618039	0,82	0,921	fuseless	Type 2	60	Class 30
500	70	Reversing drive	electronic	15	22,93438743	0,82	0,921	fuseless	Type 2	60	Class 10
500	70	Reversing drive	electronic	15	22,93438743	0,82	0,921	fuseless	Type 2	60	Class 20
500	100	Reversing drive	electronic	15	22,93438743	0,82	0,921	fuseless	Type 2	60	Class 10
500	70	Reversing drive	electronic	15	22,93438743	0,82	0,921	fuseless	Type 2	60	Class 30
500	100	Reversing drive	electronic	15	22,93438743	0,82	0,921	fuseless	Type 2	60	Class 20
500	100	Reversing drive	electronic	15	22,93438743	0,82	0,921	fuseless	Type 2	60	Class 30
690	70	Reversing drive	electronic	15	16,61912133	0,82	0,921	fuseless	Type 2	60	Class 20
690	70	Reversing drive	electronic	15	16,61912133	0,82	0,921	fuseless	Type 2	60	Class 10
690	70	Reversing drive	electronic	15	16,61912133	0,82	0,921	fuseless	Type 2	60	Class 30
690	100	Reversing drive	electronic	15	16,61912133	0,82	0,921	fuseless	Type 2	60	Class 10
690	100	Reversing drive	electronic	15	16,61912133	0,82	0,921	fuseless	Type 2	60	Class 20
400	100	Reversing drive	electronic	18,5	35,16626712	0,82	0,926	fuseless	Type 2	60	Class 10
400	100	Reversing drive	electronic	18,5	35,16626712	0,82	0,926	fuseless	Type 2	60	Class 20
400	150	Reversing drive	electronic	18,5	35,16626712	0,82	0,926	fuseless	Type 2	60	Class 10
400	150	Reversing drive	electronic	18,5	35,16626712	0,82	0,926	fuseless	Type 2	60	Class 20
400	150	Reversing drive	electronic	18,5	35,16626712	0,82	0,926	fuseless	Type 2	60	Class 30
440	100	Reversing drive	electronic	18,5	31,96933375	0,82	0,926	fuseless	Type 2	60	Class 10
440	100	Reversing drive	electronic	18,5	31,96933375	0,82	0,926	fuseless	Type 2	60	Class 20
440	150	Reversing drive	electronic	18,5	31,96933375	0,82	0,926	fuseless	Type 2	60	Class 10
440	150	Reversing drive	electronic	18,5	31,96933375	0,82	0,926	fuseless	Type 2	60	Class 20
440	150	Reversing drive	electronic	18,5	31,96933375	0,82	0,926	fuseless	Type 2	60	Class 30
500	50	Reversing drive	electronic	18,5	28,1330137	0,82	0,926	fuseless	Type 2	60	Class 20
500	70	Reversing drive	electronic	18,5	28,1330137	0,82	0,926	fuseless	Type 2	60	Class 10
500	100	Reversing drive	electronic	18,5	28,1330137	0,82	0,926	fuseless	Type 2	60	Class 10
500	70	Reversing drive	electronic	18,5	28,1330137	0,82	0,926	fuseless	Type 2	60	Class 30
500	100	Reversing drive	electronic	18,5	28,1330137	0,82	0,926	fuseless	Type 2	60	Class 20
500	100	Reversing drive	electronic	18,5	28,1330137	0,82	0,926	fuseless	Type 2	60	Class 30
690	70	Reversing drive	electronic	18,5	20,38624181	0,82	0,926	fuseless	Type 2	60	Class 20
690	70	Reversing drive	electronic	18,5	20,38624181	0,82	0,926	fuseless	Type 2	60	Class 30

## 60 Hz fuseless

Un	Iq	Starter type	Overload relay	Pn	In	cosphi	eta	Basic type	Coordination Typee	Frequency	Motor starter class
690	100	Reversing drive	electronic	18,5	20,38624181	0,82	0,926	fuseless	Type 2	60	Class 20
690	70	Reversing drive	electronic	18,5	20,38624181	0,82	0,926	fuseless	Type 2	60	Class 10
690	100	Reversing drive	electronic	18,5	20,38624181	0,82	0,926	fuseless	Type 2	60	Class 10
400	100	Reversing drive	electronic	22	41,13779609	0,83	0,93	fuseless	Type 2	60	Class 10
400	100	Reversing drive	electronic	22	41,13779609	0,83	0,93	fuseless	Type 2	60	Class 20
400	150	Reversing drive	electronic	22	41,13779609	0,83	0,93	fuseless	Type 2	60	Class 10
400	150	Reversing drive	electronic	22	41,13779609	0,83	0,93	fuseless	Type 2	60	Class 20
400	150	Reversing drive	electronic	22	41,13779609	0,83	0,93	fuseless	Type 2	60	Class 30
440	100	Reversing drive	electronic	22	37,39799645	0,83	0,93	fuseless	Type 2	60	Class 10
440	100	Reversing drive	electronic	22	37,39799645	0,83	0,93	fuseless	Type 2	60	Class 20
440	150	Reversing drive	electronic	22	37,39799645	0,83	0,93	fuseless	Type 2	60	Class 10
440	150	Reversing drive	electronic	22	37,39799645	0,83	0,93	fuseless	Type 2	60	Class 20
440	150	Reversing drive	electronic	22	37,39799645	0,83	0,93	fuseless	Type 2	60	Class 30
500	70	Reversing drive	electronic	22	32,91023688	0,83	0,93	fuseless	Type 2	60	Class 10
500	70	Reversing drive	electronic	22	32,91023688	0,83	0,93	fuseless	Type 2	60	Class 20
500	70	Reversing drive	electronic	22	32,91023688	0,83	0,93	fuseless	Type 2	60	Class 30
500	100	Reversing drive	electronic	22	32,91023688	0,83	0,93	fuseless	Type 2	60	Class 10
500	100	Reversing drive	electronic	22	32,91023688	0,83	0,93	fuseless	Type 2	60	Class 20
500	100	Reversing drive	electronic	22	32,91023688	0,83	0,93	fuseless	Type 2	60	Class 30
690	70	Reversing drive	electronic	22	23,84799774	0,83	0,93	fuseless	Type 2	60	Class 20
690	100	Reversing drive	electronic	22	23,84799774	0,83	0,93	fuseless	Type 2	60	Class 20
690	70	Reversing drive	electronic	22	23,84799774	0,83	0,93	fuseless	Type 2	60	Class 30
690	70	Reversing drive	electronic	22	23,84799774	0,83	0,93	fuseless	Type 2	60	Class 10
690	100	Reversing drive	electronic	22	23,84799774	0,83	0,93	fuseless	Type 2	60	Class 10
400	100	Reversing drive	electronic	30	55,0738581	0,84	0,936	fuseless	Type 2	60	Class 10
400	150	Reversing drive	electronic	30	55,0738581	0,84	0,936	fuseless	Type 2	60	Class 10
400	150	Reversing drive	electronic	30	55,0738581	0,84	0,936	fuseless	Type 2	60	Class 20
400	150	Reversing drive	electronic	30	55,0738581	0,84	0,936	fuseless	Type 2	60	Class 30
440	100	Reversing drive	electronic	30	50,06714372	0,84	0,936	fuseless	Type 2	60	Class 10
440	150	Reversing drive	electronic	30	50,06714372	0,84	0,936	fuseless	Type 2	60	Class 10
440	150	Reversing drive	electronic	30	50,06714372	0,84	0,936	fuseless	Type 2	60	Class 20
440	150	Reversing drive	electronic	30	50,06714372	0,84	0,936	fuseless	Type 2	60	Class 30
500	70	Reversing drive	electronic	30	44,05908648	0,84	0,936	fuseless	Type 2	60	Class 10
500	70	Reversing drive	electronic	30	44,05908648	0,84	0,936	fuseless	Type 2	60	Class 20
500	50	Reversing drive	electronic	30	44,05908648	0,84	0,936	fuseless	Type 2	60	Class 20
500	100	Reversing drive	electronic	30	44,05908648	0,84	0,936	fuseless	Type 2	60	Class 10
500	100	Reversing drive	electronic	30	44,05908648	0,84	0,936	fuseless	Type 2	60	Class 20
500	50	Reversing drive	electronic	30	44,05908648	0,84	0,936	fuseless	Type 2	60	Class 30
500	100	Reversing drive	electronic	30	44,05908648	0,84	0,936	fuseless	Type 2	60	Class 30
690	100	Reversing drive	electronic	30	31,92687426	0,84	0,936	fuseless	Type 2	60	Class 20
690	70	Reversing drive	electronic	30	31,92687426	0,84	0,936	fuseless	Type 2	60	Class 30

## 60 Hz fuseless

Un	Iq	Starter type	Overload relay	Pn	In	cosphi	eta	Basic type	Coordination Typee	Frequency	Motor starter class
690	70	Reversing drive	electronic	30	31,92687426	0,84	0,936	fuseless	Type 2	60	Class 10
690	100	Reversing drive	electronic	30	31,92687426	0,84	0,936	fuseless	Type 2	60	Class 10
400	150	Reversing drive	electronic	37	66,13282302	0,86	0,939	fuseless	Type 2	60	Class 20
400	150	Reversing drive	electronic	37	66,13282302	0,86	0,939	fuseless	Type 2	60	Class 30
400	100	Reversing drive	electronic	37	66,13282302	0,86	0,939	fuseless	Type 2	60	Class 10
400	150	Reversing drive	electronic	37	66,13282302	0,86	0,939	fuseless	Type 2	60	Class 10
440	150	Reversing drive	electronic	37	60,1207482	0,86	0,939	fuseless	Type 2	60	Class 20
440	150	Reversing drive	electronic	37	60,1207482	0,86	0,939	fuseless	Type 2	60	Class 30
440	100	Reversing drive	electronic	37	60,1207482	0,86	0,939	fuseless	Type 2	60	Class 10
440	150	Reversing drive	electronic	37	60,1207482	0,86	0,939	fuseless	Type 2	60	Class 10
500	50	Reversing drive	electronic	37	52,90625841	0,86	0,939	fuseless	Type 2	60	Class 30
500	100	Reversing drive	electronic	37	52,90625841	0,86	0,939	fuseless	Type 2	60	Class 30
500	50	Reversing drive	electronic	37	52,90625841	0,86	0,939	fuseless	Type 2	60	Class 10
500	100	Reversing drive	electronic	37	52,90625841	0,86	0,939	fuseless	Type 2	60	Class 10
500	50	Reversing drive	electronic	37	52,90625841	0,86	0,939	fuseless	Type 2	60	Class 20
500	100	Reversing drive	electronic	37	52,90625841	0,86	0,939	fuseless	Type 2	60	Class 20
690	100	Reversing drive	electronic	37	38,33786842	0,86	0,939	fuseless	Type 2	60	Class 20
690	70	Reversing drive	electronic	37	38,33786842	0,86	0,939	fuseless	Type 2	60	Class 30
690	70	Reversing drive	electronic	37	38,33786842	0,86	0,939	fuseless	Type 2	60	Class 10
690	100	Reversing drive	electronic	37	38,33786842	0,86	0,939	fuseless	Type 2	60	Class 10
400	150	Reversing drive	electronic	45	80,17565951	0,86	0,942	fuseless	Type 2	60	Class 20
400	150	Reversing drive	electronic	45	80,17565951	0,86	0,942	fuseless	Type 2	60	Class 30
400	100	Reversing drive	electronic	45	80,17565951	0,86	0,942	fuseless	Type 2	60	Class 10
400	150	Reversing drive	electronic	45	80,17565951	0,86	0,942	fuseless	Type 2	60	Class 10
440	150	Reversing drive	electronic	45	72,88696319	0,86	0,942	fuseless	Type 2	60	Class 20
440	150	Reversing drive	electronic	45	72,88696319	0,86	0,942	fuseless	Type 2	60	Class 30
440	100	Reversing drive	electronic	45	72,88696319	0,86	0,942	fuseless	Type 2	60	Class 10
440	150	Reversing drive	electronic	45	72,88696319	0,86	0,942	fuseless	Type 2	60	Class 10
500	50	Reversing drive	electronic	45	64,14052761	0,86	0,942	fuseless	Type 2	60	Class 20
500	100	Reversing drive	electronic	45	64,14052761	0,86	0,942	fuseless	Type 2	60	Class 20
500	50	Reversing drive	electronic	45	64,14052761	0,86	0,942	fuseless	Type 2	60	Class 10
500	100	Reversing drive	electronic	45	64,14052761	0,86	0,942	fuseless	Type 2	60	Class 10
690	70	Reversing drive	electronic	45	46,4786432	0,86	0,942	fuseless	Type 2	60	Class 20
690	70	Reversing drive	electronic	45	46,4786432	0,86	0,942	fuseless	Type 2	60	Class 30
690	70	Reversing drive	electronic	45	46,4786432	0,86	0,942	fuseless	Type 2	60	Class 10
690	100	Reversing drive	electronic	45	46,4786432	0,86	0,942	fuseless	Type 2	60	Class 10
400	100	Reversing drive	electronic	55	96,45654056	0,87	0,946	fuseless	Type 2	60	Class 10
400	150	Reversing drive	electronic	55	96,45654056	0,87	0,946	fuseless	Type 2	60	Class 10
400	150	Reversing drive	electronic	55	96,45654056	0,87	0,946	fuseless	Type 2	60	Class 20
400	150	Reversing drive	electronic	55	96,45654056	0,87	0,946	fuseless	Type 2	60	Class 30
440	100	Reversing drive	electronic	55	87,68776415	0,87	0,946	fuseless	Type 2	60	Class 10

## 60 Hz fuseless

Un	Iq	Starter type	Overload relay	Pn	In	cosphi	eta	Basic type	Coordination Typee	Frequency	Motor starter class
440	150	Reversing drive	electronic	55	87,68776415	0,87	0,946	fuseless	Type 2	60	Class 10
440	150	Reversing drive	electronic	55	87,68776415	0,87	0,946	fuseless	Type 2	60	Class 20
440	150	Reversing drive	electronic	55	87,68776415	0,87	0,946	fuseless	Type 2	60	Class 30
500	50	Reversing drive	electronic	55	77,16523245	0,87	0,946	fuseless	Type 2	60	Class 10
500	100	Reversing drive	electronic	55	77,16523245	0,87	0,946	fuseless	Type 2	60	Class 10
690	70	Reversing drive	electronic	55	55,91683511	0,87	0,946	fuseless	Type 2	60	Class 30
690	50	Reversing drive	electronic	55	55,91683511	0,87	0,946	fuseless	Type 2	60	Class 20
690	50	Reversing drive	electronic	55	55,91683511	0,87	0,946	fuseless	Type 2	60	Class 10
690	70	Reversing drive	electronic	55	55,91683511	0,87	0,946	fuseless	Type 2	60	Class 10
400	100	Reversing drive	electronic	75	132,5008268	0,86	0,95	fuseless	Type 2	60	Class 10
400	150	Reversing drive	electronic	75	132,5008268	0,86	0,95	fuseless	Type 2	60	Class 10
400	150	Reversing drive	electronic	75	132,5008268	0,86	0,95	fuseless	Type 2	60	Class 20
440	100	Reversing drive	electronic	75	120,4552971	0,86	0,95	fuseless	Type 2	60	Class 10
440	150	Reversing drive	electronic	75	120,4552971	0,86	0,95	fuseless	Type 2	60	Class 10
440	150	Reversing drive	electronic	75	120,4552971	0,86	0,95	fuseless	Type 2	60	Class 20
500	50	Reversing drive	electronic	75	106,0006614	0,86	0,95	fuseless	Type 2	60	Class 10
400	100	Reversing drive	electronic	90	156,8431983	0,87	0,952	fuseless	Type 2	60	Class 10
400	150	Reversing drive	electronic	90	156,8431983	0,87	0,952	fuseless	Type 2	60	Class 10
400	150	Reversing drive	electronic	90	156,8431983	0,87	0,952	fuseless	Type 2	60	Class 20
400	150	Reversing drive	electronic	90	156,8431983	0,87	0,952	fuseless	Type 2	60	Class 30
440	100	Reversing drive	electronic	90	142,5847257	0,87	0,952	fuseless	Type 2	60	Class 10
440	150	Reversing drive	electronic	90	142,5847257	0,87	0,952	fuseless	Type 2	60	Class 10
440	150	Reversing drive	electronic	90	142,5847257	0,87	0,952	fuseless	Type 2	60	Class 20
440	150	Reversing drive	electronic	90	142,5847257	0,87	0,952	fuseless	Type 2	60	Class 30
500	50	Reversing drive	electronic	90	125,4745586	0,87	0,952	fuseless	Type 2	60	Class 10
400	150	Reversing drive	electronic	110	191,2953614	0,87	0,954	fuseless	Type 2	60	Class 10
400	150	Reversing drive	electronic	110	191,2953614	0,87	0,954	fuseless	Type 2	60	Class 20
400	150	Reversing drive	electronic	110	191,2953614	0,87	0,954	fuseless	Type 2	60	Class 30
440	150	Reversing drive	electronic	110	173,904874	0,87	0,954	fuseless	Type 2	60	Class 10
440	150	Reversing drive	electronic	110	173,904874	0,87	0,954	fuseless	Type 2	60	Class 20
440	150	Reversing drive	electronic	110	173,904874	0,87	0,954	fuseless	Type 2	60	Class 30
500	50	Reversing drive	electronic	110	153,0362891	0,87	0,954	fuseless	Type 2	60	Class 10
400	150	Reversing drive	electronic	132	229,0741942	0,87	0,956	fuseless	Type 2	60	Class 10
400	150	Reversing drive	electronic	132	229,0741942	0,87	0,956	fuseless	Type 2	60	Class 20
400	150	Reversing drive	electronic	132	229,0741942	0,87	0,956	fuseless	Type 2	60	Class 30
440	150	Reversing drive	electronic	132	208,2492675	0,87	0,956	fuseless	Type 2	60	Class 10
440	150	Reversing drive	electronic	132	208,2492675	0,87	0,956	fuseless	Type 2	60	Class 20
440	150	Reversing drive	electronic	132	208,2492675	0,87	0,956	fuseless	Type 2	60	Class 30
500	50	Reversing drive	electronic	132	183,2593554	0,87	0,956	fuseless	Type 2	60	Class 10
400	150	Reversing drive	electronic	160	277,0860121	0,87	0,958	fuseless	Type 2	60	Class 10
400	150	Reversing drive	electronic	160	277,0860121	0,87	0,958	fuseless	Type 2	60	Class 30

## 60 Hz fuseless

Un	Iq	Starter type	Overload relay	Pn	In	cosphi	eta	Basic type	Coordination Typee	Frequency	Motor starter class
400	150	Reversing drive	electronic	160	277,0860121	0,87	0,958	fuseless	Type 2	60	Class 20
440	150	Reversing drive	electronic	160	251,8963747	0,87	0,958	fuseless	Type 2	60	Class 10
440	150	Reversing drive	electronic	160	251,8963747	0,87	0,958	fuseless	Type 2	60	Class 30
440	150	Reversing drive	electronic	160	251,8963747	0,87	0,958	fuseless	Type 2	60	Class 20
500	50	Reversing drive	electronic	160	221,6688097	0,87	0,958	fuseless	Type 2	60	Class 10
400	150	Reversing drive	electronic	200	341,7082559	0,88	0,96	fuseless	Type 2	60	Class 10
400	150	Reversing drive	electronic	200	341,7082559	0,88	0,96	fuseless	Type 2	60	Class 20
440	150	Reversing drive	electronic	200	310,643869	0,88	0,96	fuseless	Type 2	60	Class 10
440	150	Reversing drive	electronic	200	310,643869	0,88	0,96	fuseless	Type 2	60	Class 20
500	50	Reversing drive	electronic	200	273,3666047	0,88	0,96	fuseless	Type 2	60	Class 10
400	150	Reversing drive	electronic	250	442,2106841	0,85	0,96	fuseless	Type 2	60	Class 10
440	150	Reversing drive	electronic	250	402,0097128	0,85	0,96	fuseless	Type 2	60	Class 10
500	50	Reversing drive	electronic	250	353,7685473	0,85	0,96	fuseless	Type 2	60	Class 10
500	50	Reversing drive	electronic	315	456,4892942	0,83	0,96	fuseless	Type 2	60	Class 10
500	50	Reversing drive	electronic	355	496,5100425	0,86	0,96	fuseless	Type 2	60	Class 10
400	100	Reversing drive	none	0,25	0,681866815	0,72	0,735	fuseless	Type 2	60	Class 10
440	100	Reversing drive	none	0,25	0,619878922	0,72	0,735	fuseless	Type 2	60	Class 10
500	100	Reversing drive	none	0,25	0,545493452	0,72	0,735	fuseless	Type 2	60	Class 10
690	100	Reversing drive	none	0,25	0,39528511	0,72	0,735	fuseless	Type 2	60	Class 10
400	100	Reversing drive	none	0,37	0,986969135	0,7	0,773	fuseless	Type 2	60	Class 10
440	100	Reversing drive	none	0,37	0,897244668	0,7	0,773	fuseless	Type 2	60	Class 10
500	100	Reversing drive	none	0,37	0,789575308	0,7	0,773	fuseless	Type 2	60	Class 10
690	100	Reversing drive	none	0,37	0,57215602	0,7	0,773	fuseless	Type 2	60	Class 10
400	100	Reversing drive	none	0,55	1,259610022	0,78	0,808	fuseless	Type 2	60	Class 10
440	100	Reversing drive	none	0,55	1,14510002	0,78	0,808	fuseless	Type 2	60	Class 10
500	100	Reversing drive	none	0,55	1,007688017	0,78	0,808	fuseless	Type 2	60	Class 10
690	100	Reversing drive	none	0,55	0,730208708	0,78	0,808	fuseless	Type 2	60	Class 10
400	100	Reversing drive	none	0,75	1,74954627	0,75	0,825	fuseless	Type 2	60	Class 10
440	100	Reversing drive	none	0,75	1,590496609	0,75	0,825	fuseless	Type 2	60	Class 10
500	100	Reversing drive	none	0,75	1,399637016	0,75	0,825	fuseless	Type 2	60	Class 10
690	100	Reversing drive	none	0,75	1,014229722	0,75	0,825	fuseless	Type 2	60	Class 10
400	100	Reversing drive	none	1,1	2,420368365	0,78	0,841	fuseless	Type 2	60	Class 10
440	100	Reversing drive	none	1,1	2,200334878	0,78	0,841	fuseless	Type 2	60	Class 10
500	100	Reversing drive	none	1,1	1,936294692	0,78	0,841	fuseless	Type 2	60	Class 10
690	100	Reversing drive	none	1,1	1,403112096	0,78	0,841	fuseless	Type 2	60	Class 10
400	100	Reversing drive	none	1,5	3,172719094	0,8	0,853	fuseless	Type 2	60	Class 10
440	100	Reversing drive	none	1,5	2,884290085	0,8	0,853	fuseless	Type 2	60	Class 10
500	100	Reversing drive	none	1,5	2,538175275	0,8	0,853	fuseless	Type 2	60	Class 10
690	100	Reversing drive	none	1,5	1,839257446	0,8	0,853	fuseless	Type 2	60	Class 10
400	100	Reversing drive	none	2,2	4,412704771	0,83	0,867	fuseless	Type 2	60	Class 10
440	100	Reversing drive	none	2,2	4,011549792	0,83	0,867	fuseless	Type 2	60	Class 10

## 60 Hz fuseless

Un	Iq	Starter type	Overload relay	Pn	In	cosphi	eta	Basic type	Coordination Typee	Frequency	Motor starter class
500	100	Reversing drive	none	2,2	3,530163817	0,83	0,867	fuseless	Type 2	60	Class 10
690	100	Reversing drive	none	2,2	2,558089723	0,83	0,867	fuseless	Type 2	60	Class 10
400	100	Reversing drive	none	3	5,948712092	0,83	0,877	fuseless	Type 2	60	Class 10
440	100	Reversing drive	none	3	5,407920084	0,83	0,877	fuseless	Type 2	60	Class 10
500	100	Reversing drive	none	3	4,758969674	0,83	0,877	fuseless	Type 2	60	Class 10
690	100	Reversing drive	none	3	3,448528749	0,83	0,877	fuseless	Type 2	60	Class 10
400	100	Reversing drive	none	4	7,94679113	0,82	0,886	fuseless	Type 2	60	Class 10
440	100	Reversing drive	none	4	7,224355573	0,82	0,886	fuseless	Type 2	60	Class 10
500	100	Reversing drive	none	4	6,357432904	0,82	0,886	fuseless	Type 2	60	Class 10
690	100	Reversing drive	none	4	4,606835438	0,82	0,886	fuseless	Type 2	60	Class 10
400	100	Reversing drive	none	5,5	10,54762729	0,84	0,896	fuseless	Type 2	60	Class 10
440	100	Reversing drive	none	5,5	9,588752079	0,84	0,896	fuseless	Type 2	60	Class 10
500	100	Reversing drive	none	5,5	8,43810183	0,84	0,896	fuseless	Type 2	60	Class 10
690	100	Reversing drive	none	5,5	6,114566543	0,84	0,896	fuseless	Type 2	60	Class 10
400	100	Reversing drive	none	7,5	14,2558438	0,84	0,904	fuseless	Type 2	60	Class 10
440	100	Reversing drive	none	7,5	12,959858	0,84	0,904	fuseless	Type 2	60	Class 10
500	100	Reversing drive	none	7,5	11,40467504	0,84	0,904	fuseless	Type 2	60	Class 10
690	100	Reversing drive	none	7,5	8,264257275	0,84	0,904	fuseless	Type 2	60	Class 10
400	100	Reversing drive	none	11	20,67981192	0,84	0,914	fuseless	Type 2	60	Class 10
440	100	Reversing drive	none	11	18,79982902	0,84	0,914	fuseless	Type 2	60	Class 10
500	100	Reversing drive	none	11	16,54384954	0,84	0,914	fuseless	Type 2	60	Class 10
690	100	Reversing drive	none	11	11,98829677	0,84	0,914	fuseless	Type 2	60	Class 10
690	70	Reversing drive	none	11	11,98829677	0,84	0,914	fuseless	Type 2	60	Class 10
400	100	Reversing drive	none	15	28,66798429	0,82	0,921	fuseless	Type 2	60	Class 10
400	150	Reversing drive	none	15	28,66798429	0,82	0,921	fuseless	Type 2	60	Class 10
440	100	Reversing drive	none	15	26,0618039	0,82	0,921	fuseless	Type 2	60	Class 10
440	150	Reversing drive	none	15	26,0618039	0,82	0,921	fuseless	Type 2	60	Class 10
500	100	Reversing drive	none	15	22,93438743	0,82	0,921	fuseless	Type 2	60	Class 10
690	70	Reversing drive	none	15	16,61912133	0,82	0,921	fuseless	Type 2	60	Class 10
690	100	Reversing drive	none	15	16,61912133	0,82	0,921	fuseless	Type 2	60	Class 10
400	100	Reversing drive	none	18,5	35,16626712	0,82	0,926	fuseless	Type 2	60	Class 10
400	150	Reversing drive	none	18,5	35,16626712	0,82	0,926	fuseless	Type 2	60	Class 10
440	100	Reversing drive	none	18,5	31,96933375	0,82	0,926	fuseless	Type 2	60	Class 10
440	150	Reversing drive	none	18,5	31,96933375	0,82	0,926	fuseless	Type 2	60	Class 10
500	100	Reversing drive	none	18,5	28,1330137	0,82	0,926	fuseless	Type 2	60	Class 10
500	70	Reversing drive	none	18,5	28,1330137	0,82	0,926	fuseless	Type 2	60	Class 10
690	70	Reversing drive	none	18,5	20,38624181	0,82	0,926	fuseless	Type 2	60	Class 10
690	100	Reversing drive	none	18,5	20,38624181	0,82	0,926	fuseless	Type 2	60	Class 10
400	100	Reversing drive	none	22	41,13779609	0,83	0,93	fuseless	Type 2	60	Class 10
400	150	Reversing drive	none	22	41,13779609	0,83	0,93	fuseless	Type 2	60	Class 10
440	100	Reversing drive	none	22	37,39799645	0,83	0,93	fuseless	Type 2	60	Class 10

## 60 Hz fuseless

Un	Iq	Starter type	Overload relay	Pn	In	cosphi	eta	Basic type	Coordination Typee	Frequency	Motor starter class
440	150	Reversing drive	none	22	37,39799645	0,83	0,93	fuseless	Type 2	60	Class 10
500	70	Reversing drive	none	22	32,91023688	0,83	0,93	fuseless	Type 2	60	Class 10
500	100	Reversing drive	none	22	32,91023688	0,83	0,93	fuseless	Type 2	60	Class 10
690	70	Reversing drive	none	22	23,84799774	0,83	0,93	fuseless	Type 2	60	Class 10
690	100	Reversing drive	none	22	23,84799774	0,83	0,93	fuseless	Type 2	60	Class 10
400	150	Reversing drive	none	30	55,0738581	0,84	0,936	fuseless	Type 2	60	Class 30
400	100	Reversing drive	none	30	55,0738581	0,84	0,936	fuseless	Type 2	60	Class 10
400	150	Reversing drive	none	30	55,0738581	0,84	0,936	fuseless	Type 2	60	Class 10
440	150	Reversing drive	none	30	50,06714372	0,84	0,936	fuseless	Type 2	60	Class 30
440	100	Reversing drive	none	30	50,06714372	0,84	0,936	fuseless	Type 2	60	Class 10
440	150	Reversing drive	none	30	50,06714372	0,84	0,936	fuseless	Type 2	60	Class 10
500	70	Reversing drive	none	30	44,05908648	0,84	0,936	fuseless	Type 2	60	Class 10
500	100	Reversing drive	none	30	44,05908648	0,84	0,936	fuseless	Type 2	60	Class 10
690	100	Reversing drive	none	30	31,92687426	0,84	0,936	fuseless	Type 2	60	Class 10
400	150	Reversing drive	none	37	66,13282302	0,86	0,939	fuseless	Type 2	60	Class 20
400	150	Reversing drive	none	37	66,13282302	0,86	0,939	fuseless	Type 2	60	Class 30
400	100	Reversing drive	none	37	66,13282302	0,86	0,939	fuseless	Type 2	60	Class 10
400	150	Reversing drive	none	37	66,13282302	0,86	0,939	fuseless	Type 2	60	Class 10
440	150	Reversing drive	none	37	60,1207482	0,86	0,939	fuseless	Type 2	60	Class 20
440	150	Reversing drive	none	37	60,1207482	0,86	0,939	fuseless	Type 2	60	Class 30
440	100	Reversing drive	none	37	60,1207482	0,86	0,939	fuseless	Type 2	60	Class 10
440	150	Reversing drive	none	37	60,1207482	0,86	0,939	fuseless	Type 2	60	Class 10
500	50	Reversing drive	none	37	52,90625841	0,86	0,939	fuseless	Type 2	60	Class 10
500	100	Reversing drive	none	37	52,90625841	0,86	0,939	fuseless	Type 2	60	Class 10
690	100	Reversing drive	none	37	38,33786842	0,86	0,939	fuseless	Type 2	60	Class 10
400	80	Reversing drive	none	45	80,17565951	0,86	0,942	fuseless	Type 2	60	Class 10
400	150	Reversing drive	none	45	80,17565951	0,86	0,942	fuseless	Type 2	60	Class 20
400	150	Reversing drive	none	45	80,17565951	0,86	0,942	fuseless	Type 2	60	Class 30
400	100	Reversing drive	none	45	80,17565951	0,86	0,942	fuseless	Type 2	60	Class 10
400	150	Reversing drive	none	45	80,17565951	0,86	0,942	fuseless	Type 2	60	Class 10
440	80	Reversing drive	none	45	72,88696319	0,86	0,942	fuseless	Type 2	60	Class 10
440	150	Reversing drive	none	45	72,88696319	0,86	0,942	fuseless	Type 2	60	Class 20
440	150	Reversing drive	none	45	72,88696319	0,86	0,942	fuseless	Type 2	60	Class 30
440	100	Reversing drive	none	45	72,88696319	0,86	0,942	fuseless	Type 2	60	Class 10
440	150	Reversing drive	none	45	72,88696319	0,86	0,942	fuseless	Type 2	60	Class 10
500	50	Reversing drive	none	45	64,14052761	0,86	0,942	fuseless	Type 2	60	Class 10
500	100	Reversing drive	none	45	64,14052761	0,86	0,942	fuseless	Type 2	60	Class 10
690	100	Reversing drive	none	45	46,4786432	0,86	0,942	fuseless	Type 2	60	Class 10
400	80	Reversing drive	none	55	96,45654056	0,87	0,946	fuseless	Type 2	60	Class 10
400	150	Reversing drive	none	55	96,45654056	0,87	0,946	fuseless	Type 2	60	Class 10
400	150	Reversing drive	none	55	96,45654056	0,87	0,946	fuseless	Type 2	60	Class 20

## 60 Hz fuseless

Un	Iq	Starter type	Overload relay	Pn	In	cosphi	eta	Basic type	Coordination Typee	Frequency	Motor starter class
400	150	Reversing drive	none	55	96,45654056	0,87	0,946	fuseless	Type 2	60	Class 30
440	80	Reversing drive	none	55	87,68776415	0,87	0,946	fuseless	Type 2	60	Class 10
440	150	Reversing drive	none	55	87,68776415	0,87	0,946	fuseless	Type 2	60	Class 10
440	150	Reversing drive	none	55	87,68776415	0,87	0,946	fuseless	Type 2	60	Class 20
440	150	Reversing drive	none	55	87,68776415	0,87	0,946	fuseless	Type 2	60	Class 30
500	50	Reversing drive	none	55	77,16523245	0,87	0,946	fuseless	Type 2	60	Class 10
500	100	Reversing drive	none	55	77,16523245	0,87	0,946	fuseless	Type 2	60	Class 10
690	100	Reversing drive	none	55	55,91683511	0,87	0,946	fuseless	Type 2	60	Class 10
400	80	Reversing drive	none	75	132,5008268	0,86	0,95	fuseless	Type 2	60	Class 10
400	150	Reversing drive	none	75	132,5008268	0,86	0,95	fuseless	Type 2	60	Class 10
400	150	Reversing drive	none	75	132,5008268	0,86	0,95	fuseless	Type 2	60	Class 20
440	80	Reversing drive	none	75	120,4552971	0,86	0,95	fuseless	Type 2	60	Class 10
440	150	Reversing drive	none	75	120,4552971	0,86	0,95	fuseless	Type 2	60	Class 10
440	150	Reversing drive	none	75	120,4552971	0,86	0,95	fuseless	Type 2	60	Class 20
500	50	Reversing drive	none	75	106,0006614	0,86	0,95	fuseless	Type 2	60	Class 10
400	80	Reversing drive	none	90	156,8431983	0,87	0,952	fuseless	Type 2	60	Class 10
400	150	Reversing drive	none	90	156,8431983	0,87	0,952	fuseless	Type 2	60	Class 10
440	80	Reversing drive	none	90	142,5847257	0,87	0,952	fuseless	Type 2	60	Class 10
440	150	Reversing drive	none	90	142,5847257	0,87	0,952	fuseless	Type 2	60	Class 10
500	50	Reversing drive	none	90	125,4745586	0,87	0,952	fuseless	Type 2	60	Class 10
400	80	Reversing drive	none	110	191,2953614	0,87	0,954	fuseless	Type 2	60	Class 10
400	150	Reversing drive	none	110	191,2953614	0,87	0,954	fuseless	Type 2	60	Class 10
400	150	Reversing drive	none	110	191,2953614	0,87	0,954	fuseless	Type 2	60	Class 20
400	150	Reversing drive	none	110	191,2953614	0,87	0,954	fuseless	Type 2	60	Class 30
440	80	Reversing drive	none	110	173,904874	0,87	0,954	fuseless	Type 2	60	Class 10
440	150	Reversing drive	none	110	173,904874	0,87	0,954	fuseless	Type 2	60	Class 10
440	150	Reversing drive	none	110	173,904874	0,87	0,954	fuseless	Type 2	60	Class 20
440	150	Reversing drive	none	110	173,904874	0,87	0,954	fuseless	Type 2	60	Class 30
500	50	Reversing drive	none	110	153,0362891	0,87	0,954	fuseless	Type 2	60	Class 10
400	80	Reversing drive	none	132	229,0741942	0,87	0,956	fuseless	Type 2	60	Class 10
400	150	Reversing drive	none	132	229,0741942	0,87	0,956	fuseless	Type 2	60	Class 10
400	150	Reversing drive	none	132	229,0741942	0,87	0,956	fuseless	Type 2	60	Class 30
400	150	Reversing drive	none	132	229,0741942	0,87	0,956	fuseless	Type 2	60	Class 20
440	80	Reversing drive	none	132	208,2492675	0,87	0,956	fuseless	Type 2	60	Class 10
440	150	Reversing drive	none	132	208,2492675	0,87	0,956	fuseless	Type 2	60	Class 10
440	150	Reversing drive	none	132	208,2492675	0,87	0,956	fuseless	Type 2	60	Class 30
440	150	Reversing drive	none	132	208,2492675	0,87	0,956	fuseless	Type 2	60	Class 20
500	50	Reversing drive	none	132	183,2593554	0,87	0,956	fuseless	Type 2	60	Class 10
400	80	Reversing drive	none	160	277,0860121	0,87	0,958	fuseless	Type 2	60	Class 10
400	150	Reversing drive	none	160	277,0860121	0,87	0,958	fuseless	Type 2	60	Class 10
400	150	Reversing drive	none	160	277,0860121	0,87	0,958	fuseless	Type 2	60	Class 20



## 60 Hz fuseless

Un	Iq	Starter type	Overload relay	Pn	In	cosphi	eta	Basic type	Coordination Typee	Frequency	Motor starter class
400	150	Reversing drive	none	160	277,0860121	0,87	0,958	fuseless	Type 2	60	Class 30
440	80	Reversing drive	none	160	251,8963747	0,87	0,958	fuseless	Type 2	60	Class 10
440	150	Reversing drive	none	160	251,8963747	0,87	0,958	fuseless	Type 2	60	Class 10
440	150	Reversing drive	none	160	251,8963747	0,87	0,958	fuseless	Type 2	60	Class 20
440	150	Reversing drive	none	160	251,8963747	0,87	0,958	fuseless	Type 2	60	Class 30
500	50	Reversing drive	none	160	221,6688097	0,87	0,958	fuseless	Type 2	60	Class 10
400	80	Reversing drive	none	200	341,7082559	0,88	0,96	fuseless	Type 2	60	Class 10
400	150	Reversing drive	none	200	341,7082559	0,88	0,96	fuseless	Type 2	60	Class 10
400	150	Reversing drive	none	200	341,7082559	0,88	0,96	fuseless	Type 2	60	Class 20
440	80	Reversing drive	none	200	310,643869	0,88	0,96	fuseless	Type 2	60	Class 10
440	150	Reversing drive	none	200	310,643869	0,88	0,96	fuseless	Type 2	60	Class 10
440	150	Reversing drive	none	200	310,643869	0,88	0,96	fuseless	Type 2	60	Class 20
500	50	Reversing drive	none	200	273,3666047	0,88	0,96	fuseless	Type 2	60	Class 10
400	80	Reversing drive	none	250	442,2106841	0,85	0,96	fuseless	Type 2	60	Class 10
400	150	Reversing drive	none	250	442,2106841	0,85	0,96	fuseless	Type 2	60	Class 10
440	80	Reversing drive	none	250	402,0097128	0,85	0,96	fuseless	Type 2	60	Class 10
440	150	Reversing drive	none	250	402,0097128	0,85	0,96	fuseless	Type 2	60	Class 10
500	50	Reversing drive	none	250	353,7685473	0,85	0,96	fuseless	Type 2	60	Class 10
500	50	Reversing drive	none	315	456,4892942	0,83	0,96	fuseless	Type 2	60	Class 10
500	50	Reversing drive	none	355	496,5100425	0,86	0,96	fuseless	Type 2	60	Class 10
400	100	Reversing drive	SIMOCODE	0,25	0,681866815	0,72	0,735	fuseless	Type 2	60	Class 10
400	100	Reversing drive	SIMOCODE	0,25	0,681866815	0,72	0,735	fuseless	Type 2	60	Class 20
400	100	Reversing drive	SIMOCODE	0,25	0,681866815	0,72	0,735	fuseless	Type 2	60	Class 30
440	100	Reversing drive	SIMOCODE	0,25	0,619878922	0,72	0,735	fuseless	Type 2	60	Class 10
440	100	Reversing drive	SIMOCODE	0,25	0,619878922	0,72	0,735	fuseless	Type 2	60	Class 20
440	100	Reversing drive	SIMOCODE	0,25	0,619878922	0,72	0,735	fuseless	Type 2	60	Class 30
500	100	Reversing drive	SIMOCODE	0,25	0,545493452	0,72	0,735	fuseless	Type 2	60	Class 10
500	100	Reversing drive	SIMOCODE	0,25	0,545493452	0,72	0,735	fuseless	Type 2	60	Class 20
500	100	Reversing drive	SIMOCODE	0,25	0,545493452	0,72	0,735	fuseless	Type 2	60	Class 30
400	100	Reversing drive	SIMOCODE	0,37	0,986969135	0,7	0,773	fuseless	Type 2	60	Class 10
400	100	Reversing drive	SIMOCODE	0,37	0,986969135	0,7	0,773	fuseless	Type 2	60	Class 20
400	100	Reversing drive	SIMOCODE	0,37	0,986969135	0,7	0,773	fuseless	Type 2	60	Class 30
440	100	Reversing drive	SIMOCODE	0,37	0,897244668	0,7	0,773	fuseless	Type 2	60	Class 10
440	100	Reversing drive	SIMOCODE	0,37	0,897244668	0,7	0,773	fuseless	Type 2	60	Class 20
440	100	Reversing drive	SIMOCODE	0,37	0,897244668	0,7	0,773	fuseless	Type 2	60	Class 30
500	100	Reversing drive	SIMOCODE	0,37	0,789575308	0,7	0,773	fuseless	Type 2	60	Class 10
500	100	Reversing drive	SIMOCODE	0,37	0,789575308	0,7	0,773	fuseless	Type 2	60	Class 20
500	100	Reversing drive	SIMOCODE	0,37	0,789575308	0,7	0,773	fuseless	Type 2	60	Class 30
400	100	Reversing drive	SIMOCODE	0,55	1,259610022	0,78	0,808	fuseless	Type 2	60	Class 10
400	100	Reversing drive	SIMOCODE	0,55	1,259610022	0,78	0,808	fuseless	Type 2	60	Class 20
400	100	Reversing drive	SIMOCODE	0,55	1,259610022	0,78	0,808	fuseless	Type 2	60	Class 30

## 60 Hz fuseless

Un	Iq	Starter type	Overload relay	Pn	In	cosphi	eta	Basic type	Coordination Typee	Frequency	Motor starter class
440	100	Reversing drive	SIMOCODE	0,55	1,14510002	0,78	0,808	fuseless	Type 2	60	Class 10
440	100	Reversing drive	SIMOCODE	0,55	1,14510002	0,78	0,808	fuseless	Type 2	60	Class 20
440	100	Reversing drive	SIMOCODE	0,55	1,14510002	0,78	0,808	fuseless	Type 2	60	Class 30
500	100	Reversing drive	SIMOCODE	0,55	1,007688017	0,78	0,808	fuseless	Type 2	60	Class 10
500	100	Reversing drive	SIMOCODE	0,55	1,007688017	0,78	0,808	fuseless	Type 2	60	Class 20
500	100	Reversing drive	SIMOCODE	0,55	1,007688017	0,78	0,808	fuseless	Type 2	60	Class 30
400	100	Reversing drive	SIMOCODE	0,75	1,74954627	0,75	0,825	fuseless	Type 2	60	Class 10
400	100	Reversing drive	SIMOCODE	0,75	1,74954627	0,75	0,825	fuseless	Type 2	60	Class 20
400	100	Reversing drive	SIMOCODE	0,75	1,74954627	0,75	0,825	fuseless	Type 2	60	Class 30
440	100	Reversing drive	SIMOCODE	0,75	1,590496609	0,75	0,825	fuseless	Type 2	60	Class 10
440	100	Reversing drive	SIMOCODE	0,75	1,590496609	0,75	0,825	fuseless	Type 2	60	Class 20
440	100	Reversing drive	SIMOCODE	0,75	1,590496609	0,75	0,825	fuseless	Type 2	60	Class 30
500	100	Reversing drive	SIMOCODE	0,75	1,399637016	0,75	0,825	fuseless	Type 2	60	Class 10
500	100	Reversing drive	SIMOCODE	0,75	1,399637016	0,75	0,825	fuseless	Type 2	60	Class 20
500	100	Reversing drive	SIMOCODE	0,75	1,399637016	0,75	0,825	fuseless	Type 2	60	Class 30
400	100	Reversing drive	SIMOCODE	1,1	2,420368365	0,78	0,841	fuseless	Type 2	60	Class 10
400	100	Reversing drive	SIMOCODE	1,1	2,420368365	0,78	0,841	fuseless	Type 2	60	Class 20
400	100	Reversing drive	SIMOCODE	1,1	2,420368365	0,78	0,841	fuseless	Type 2	60	Class 30
440	100	Reversing drive	SIMOCODE	1,1	2,200334878	0,78	0,841	fuseless	Type 2	60	Class 10
440	100	Reversing drive	SIMOCODE	1,1	2,200334878	0,78	0,841	fuseless	Type 2	60	Class 20
440	100	Reversing drive	SIMOCODE	1,1	2,200334878	0,78	0,841	fuseless	Type 2	60	Class 30
500	100	Reversing drive	SIMOCODE	1,1	1,936294692	0,78	0,841	fuseless	Type 2	60	Class 10
500	100	Reversing drive	SIMOCODE	1,1	1,936294692	0,78	0,841	fuseless	Type 2	60	Class 20
500	100	Reversing drive	SIMOCODE	1,1	1,936294692	0,78	0,841	fuseless	Type 2	60	Class 30
400	100	Reversing drive	SIMOCODE	1,5	3,172719094	0,8	0,853	fuseless	Type 2	60	Class 10
400	100	Reversing drive	SIMOCODE	1,5	3,172719094	0,8	0,853	fuseless	Type 2	60	Class 20
400	100	Reversing drive	SIMOCODE	1,5	3,172719094	0,8	0,853	fuseless	Type 2	60	Class 30
440	100	Reversing drive	SIMOCODE	1,5	2,884290085	0,8	0,853	fuseless	Type 2	60	Class 10
440	100	Reversing drive	SIMOCODE	1,5	2,884290085	0,8	0,853	fuseless	Type 2	60	Class 20
440	100	Reversing drive	SIMOCODE	1,5	2,884290085	0,8	0,853	fuseless	Type 2	60	Class 30
500	100	Reversing drive	SIMOCODE	1,5	2,538175275	0,8	0,853	fuseless	Type 2	60	Class 10
500	100	Reversing drive	SIMOCODE	1,5	2,538175275	0,8	0,853	fuseless	Type 2	60	Class 20
500	100	Reversing drive	SIMOCODE	1,5	2,538175275	0,8	0,853	fuseless	Type 2	60	Class 30
400	100	Reversing drive	SIMOCODE	2,2	4,412704771	0,83	0,867	fuseless	Type 2	60	Class 10
400	100	Reversing drive	SIMOCODE	2,2	4,412704771	0,83	0,867	fuseless	Type 2	60	Class 20
400	100	Reversing drive	SIMOCODE	2,2	4,412704771	0,83	0,867	fuseless	Type 2	60	Class 30
440	100	Reversing drive	SIMOCODE	2,2	4,011549792	0,83	0,867	fuseless	Type 2	60	Class 10
440	100	Reversing drive	SIMOCODE	2,2	4,011549792	0,83	0,867	fuseless	Type 2	60	Class 20
440	100	Reversing drive	SIMOCODE	2,2	4,011549792	0,83	0,867	fuseless	Type 2	60	Class 30
500	100	Reversing drive	SIMOCODE	2,2	3,530163817	0,83	0,867	fuseless	Type 2	60	Class 10
500	100	Reversing drive	SIMOCODE	2,2	3,530163817	0,83	0,867	fuseless	Type 2	60	Class 20

## 60 Hz fuseless

Un	Iq	Starter type	Overload relay	Pn	In	cosphi	eta	Basic type	Coordination Typee	Frequency	Motor starter class
500	100	Reversing drive	SIMOCODE	2,2	3,530163817	0,83	0,867	fuseless	Type 2	60	Class 30
400	100	Reversing drive	SIMOCODE	3	5,948712092	0,83	0,877	fuseless	Type 2	60	Class 10
400	100	Reversing drive	SIMOCODE	3	5,948712092	0,83	0,877	fuseless	Type 2	60	Class 20
400	100	Reversing drive	SIMOCODE	3	5,948712092	0,83	0,877	fuseless	Type 2	60	Class 30
440	100	Reversing drive	SIMOCODE	3	5,407920084	0,83	0,877	fuseless	Type 2	60	Class 10
440	100	Reversing drive	SIMOCODE	3	5,407920084	0,83	0,877	fuseless	Type 2	60	Class 20
440	100	Reversing drive	SIMOCODE	3	5,407920084	0,83	0,877	fuseless	Type 2	60	Class 30
500	100	Reversing drive	SIMOCODE	3	4,758969674	0,83	0,877	fuseless	Type 2	60	Class 10
500	100	Reversing drive	SIMOCODE	3	4,758969674	0,83	0,877	fuseless	Type 2	60	Class 20
500	100	Reversing drive	SIMOCODE	3	4,758969674	0,83	0,877	fuseless	Type 2	60	Class 30
400	100	Reversing drive	SIMOCODE	4	7,94679113	0,82	0,886	fuseless	Type 2	60	Class 10
400	100	Reversing drive	SIMOCODE	4	7,94679113	0,82	0,886	fuseless	Type 2	60	Class 20
400	100	Reversing drive	SIMOCODE	4	7,94679113	0,82	0,886	fuseless	Type 2	60	Class 30
440	100	Reversing drive	SIMOCODE	4	7,224355573	0,82	0,886	fuseless	Type 2	60	Class 10
440	100	Reversing drive	SIMOCODE	4	7,224355573	0,82	0,886	fuseless	Type 2	60	Class 20
440	100	Reversing drive	SIMOCODE	4	7,224355573	0,82	0,886	fuseless	Type 2	60	Class 30
500	100	Reversing drive	SIMOCODE	4	6,357432904	0,82	0,886	fuseless	Type 2	60	Class 10
500	100	Reversing drive	SIMOCODE	4	6,357432904	0,82	0,886	fuseless	Type 2	60	Class 20
500	100	Reversing drive	SIMOCODE	4	6,357432904	0,82	0,886	fuseless	Type 2	60	Class 30
400	100	Reversing drive	SIMOCODE	5,5	10,54762729	0,84	0,896	fuseless	Type 2	60	Class 10
400	100	Reversing drive	SIMOCODE	5,5	10,54762729	0,84	0,896	fuseless	Type 2	60	Class 20
400	100	Reversing drive	SIMOCODE	5,5	10,54762729	0,84	0,896	fuseless	Type 2	60	Class 30
400	150	Reversing drive	SIMOCODE	5,5	10,54762729	0,84	0,896	fuseless	Type 2	60	Class 20
400	150	Reversing drive	SIMOCODE	5,5	10,54762729	0,84	0,896	fuseless	Type 2	60	Class 30
440	100	Reversing drive	SIMOCODE	5,5	9,588752079	0,84	0,896	fuseless	Type 2	60	Class 10
440	100	Reversing drive	SIMOCODE	5,5	9,588752079	0,84	0,896	fuseless	Type 2	60	Class 20
440	100	Reversing drive	SIMOCODE	5,5	9,588752079	0,84	0,896	fuseless	Type 2	60	Class 30
440	150	Reversing drive	SIMOCODE	5,5	9,588752079	0,84	0,896	fuseless	Type 2	60	Class 20
440	150	Reversing drive	SIMOCODE	5,5	9,588752079	0,84	0,896	fuseless	Type 2	60	Class 30
500	100	Reversing drive	SIMOCODE	5,5	8,43810183	0,84	0,896	fuseless	Type 2	60	Class 10
500	100	Reversing drive	SIMOCODE	5,5	8,43810183	0,84	0,896	fuseless	Type 2	60	Class 20
500	100	Reversing drive	SIMOCODE	5,5	8,43810183	0,84	0,896	fuseless	Type 2	60	Class 30
690	70	Reversing drive	SIMOCODE	5,5	6,114566543	0,84	0,896	fuseless	Type 2	60	Class 30
690	70	Reversing drive	SIMOCODE	5,5	6,114566543	0,84	0,896	fuseless	Type 2	60	Class 20
690	100	Reversing drive	SIMOCODE	5,5	6,114566543	0,84	0,896	fuseless	Type 2	60	Class 30
690	100	Reversing drive	SIMOCODE	5,5	6,114566543	0,84	0,896	fuseless	Type 2	60	Class 20
400	100	Reversing drive	SIMOCODE	7,5	14,2558438	0,84	0,904	fuseless	Type 2	60	Class 10
400	100	Reversing drive	SIMOCODE	7,5	14,2558438	0,84	0,904	fuseless	Type 2	60	Class 20
400	100	Reversing drive	SIMOCODE	7,5	14,2558438	0,84	0,904	fuseless	Type 2	60	Class 30
400	150	Reversing drive	SIMOCODE	7,5	14,2558438	0,84	0,904	fuseless	Type 2	60	Class 20
400	150	Reversing drive	SIMOCODE	7,5	14,2558438	0,84	0,904	fuseless	Type 2	60	Class 30

## 60 Hz fuseless

Un	Iq	Starter type	Overload relay	Pn	In	cosphi	eta	Basic type	Coordination Typee	Frequency	Motor starter class
440	100	Reversing drive	SIMOCODE	7,5	12,959858	0,84	0,904	fuseless	Type 2	60	Class 10
440	100	Reversing drive	SIMOCODE	7,5	12,959858	0,84	0,904	fuseless	Type 2	60	Class 20
440	100	Reversing drive	SIMOCODE	7,5	12,959858	0,84	0,904	fuseless	Type 2	60	Class 30
440	150	Reversing drive	SIMOCODE	7,5	12,959858	0,84	0,904	fuseless	Type 2	60	Class 20
440	150	Reversing drive	SIMOCODE	7,5	12,959858	0,84	0,904	fuseless	Type 2	60	Class 30
500	100	Reversing drive	SIMOCODE	7,5	11,40467504	0,84	0,904	fuseless	Type 2	60	Class 10
500	100	Reversing drive	SIMOCODE	7,5	11,40467504	0,84	0,904	fuseless	Type 2	60	Class 20
500	100	Reversing drive	SIMOCODE	7,5	11,40467504	0,84	0,904	fuseless	Type 2	60	Class 30
690	70	Reversing drive	SIMOCODE	7,5	8,264257275	0,84	0,904	fuseless	Type 2	60	Class 20
690	70	Reversing drive	SIMOCODE	7,5	8,264257275	0,84	0,904	fuseless	Type 2	60	Class 30
690	100	Reversing drive	SIMOCODE	7,5	8,264257275	0,84	0,904	fuseless	Type 2	60	Class 30
690	100	Reversing drive	SIMOCODE	7,5	8,264257275	0,84	0,904	fuseless	Type 2	60	Class 20
400	100	Reversing drive	SIMOCODE	11	20,67981192	0,84	0,914	fuseless	Type 2	60	Class 10
400	100	Reversing drive	SIMOCODE	11	20,67981192	0,84	0,914	fuseless	Type 2	60	Class 20
400	150	Reversing drive	SIMOCODE	11	20,67981192	0,84	0,914	fuseless	Type 2	60	Class 10
400	100	Reversing drive	SIMOCODE	11	20,67981192	0,84	0,914	fuseless	Type 2	60	Class 30
400	150	Reversing drive	SIMOCODE	11	20,67981192	0,84	0,914	fuseless	Type 2	60	Class 20
400	150	Reversing drive	SIMOCODE	11	20,67981192	0,84	0,914	fuseless	Type 2	60	Class 30
440	100	Reversing drive	SIMOCODE	11	18,79982902	0,84	0,914	fuseless	Type 2	60	Class 10
440	100	Reversing drive	SIMOCODE	11	18,79982902	0,84	0,914	fuseless	Type 2	60	Class 20
440	150	Reversing drive	SIMOCODE	11	18,79982902	0,84	0,914	fuseless	Type 2	60	Class 10
440	100	Reversing drive	SIMOCODE	11	18,79982902	0,84	0,914	fuseless	Type 2	60	Class 30
440	150	Reversing drive	SIMOCODE	11	18,79982902	0,84	0,914	fuseless	Type 2	60	Class 20
440	150	Reversing drive	SIMOCODE	11	18,79982902	0,84	0,914	fuseless	Type 2	60	Class 30
500	100	Reversing drive	SIMOCODE	11	16,54384954	0,84	0,914	fuseless	Type 2	60	Class 10
500	70	Reversing drive	SIMOCODE	11	16,54384954	0,84	0,914	fuseless	Type 2	60	Class 20
500	70	Reversing drive	SIMOCODE	11	16,54384954	0,84	0,914	fuseless	Type 2	60	Class 30
500	100	Reversing drive	SIMOCODE	11	16,54384954	0,84	0,914	fuseless	Type 2	60	Class 20
500	100	Reversing drive	SIMOCODE	11	16,54384954	0,84	0,914	fuseless	Type 2	60	Class 30
690	70	Reversing drive	SIMOCODE	11	11,98829677	0,84	0,914	fuseless	Type 2	60	Class 10
690	70	Reversing drive	SIMOCODE	11	11,98829677	0,84	0,914	fuseless	Type 2	60	Class 20
690	70	Reversing drive	SIMOCODE	11	11,98829677	0,84	0,914	fuseless	Type 2	60	Class 30
690	100	Reversing drive	SIMOCODE	11	11,98829677	0,84	0,914	fuseless	Type 2	60	Class 20
690	100	Reversing drive	SIMOCODE	11	11,98829677	0,84	0,914	fuseless	Type 2	60	Class 30
690	100	Reversing drive	SIMOCODE	11	11,98829677	0,84	0,914	fuseless	Type 2	60	Class 10
400	100	Reversing drive	SIMOCODE	15	28,66798429	0,82	0,921	fuseless	Type 2	60	Class 20
400	100	Reversing drive	SIMOCODE	15	28,66798429	0,82	0,921	fuseless	Type 2	60	Class 10
400	150	Reversing drive	SIMOCODE	15	28,66798429	0,82	0,921	fuseless	Type 2	60	Class 10
400	100	Reversing drive	SIMOCODE	15	28,66798429	0,82	0,921	fuseless	Type 2	60	Class 30
400	150	Reversing drive	SIMOCODE	15	28,66798429	0,82	0,921	fuseless	Type 2	60	Class 20
400	150	Reversing drive	SIMOCODE	15	28,66798429	0,82	0,921	fuseless	Type 2	60	Class 30

## 60 Hz fuseless

Un	Iq	Starter type	Overload relay	Pn	In	cosphi	eta	Basic type	Coordination Typee	Frequency	Motor starter class
440	100	Reversing drive	SIMOCODE	15	26,0618039	0,82	0,921	fuseless	Type 2	60	Class 20
440	100	Reversing drive	SIMOCODE	15	26,0618039	0,82	0,921	fuseless	Type 2	60	Class 10
440	150	Reversing drive	SIMOCODE	15	26,0618039	0,82	0,921	fuseless	Type 2	60	Class 10
440	100	Reversing drive	SIMOCODE	15	26,0618039	0,82	0,921	fuseless	Type 2	60	Class 30
440	150	Reversing drive	SIMOCODE	15	26,0618039	0,82	0,921	fuseless	Type 2	60	Class 20
440	150	Reversing drive	SIMOCODE	15	26,0618039	0,82	0,921	fuseless	Type 2	60	Class 30
500	100	Reversing drive	SIMOCODE	15	22,93438743	0,82	0,921	fuseless	Type 2	60	Class 10
500	70	Reversing drive	SIMOCODE	15	22,93438743	0,82	0,921	fuseless	Type 2	60	Class 10
500	70	Reversing drive	SIMOCODE	15	22,93438743	0,82	0,921	fuseless	Type 2	60	Class 20
500	70	Reversing drive	SIMOCODE	15	22,93438743	0,82	0,921	fuseless	Type 2	60	Class 30
500	100	Reversing drive	SIMOCODE	15	22,93438743	0,82	0,921	fuseless	Type 2	60	Class 20
500	100	Reversing drive	SIMOCODE	15	22,93438743	0,82	0,921	fuseless	Type 2	60	Class 30
690	70	Reversing drive	SIMOCODE	15	16,61912133	0,82	0,921	fuseless	Type 2	60	Class 10
690	70	Reversing drive	SIMOCODE	15	16,61912133	0,82	0,921	fuseless	Type 2	60	Class 20
690	70	Reversing drive	SIMOCODE	15	16,61912133	0,82	0,921	fuseless	Type 2	60	Class 30
690	100	Reversing drive	SIMOCODE	15	16,61912133	0,82	0,921	fuseless	Type 2	60	Class 10
690	100	Reversing drive	SIMOCODE	15	16,61912133	0,82	0,921	fuseless	Type 2	60	Class 20
400	100	Reversing drive	SIMOCODE	18,5	35,16626712	0,82	0,926	fuseless	Type 2	60	Class 10
400	100	Reversing drive	SIMOCODE	18,5	35,16626712	0,82	0,926	fuseless	Type 2	60	Class 20
400	100	Reversing drive	SIMOCODE	18,5	35,16626712	0,82	0,926	fuseless	Type 2	60	Class 30
400	150	Reversing drive	SIMOCODE	18,5	35,16626712	0,82	0,926	fuseless	Type 2	60	Class 10
400	150	Reversing drive	SIMOCODE	18,5	35,16626712	0,82	0,926	fuseless	Type 2	60	Class 20
400	150	Reversing drive	SIMOCODE	18,5	35,16626712	0,82	0,926	fuseless	Type 2	60	Class 30
440	100	Reversing drive	SIMOCODE	18,5	31,96933375	0,82	0,926	fuseless	Type 2	60	Class 10
440	100	Reversing drive	SIMOCODE	18,5	31,96933375	0,82	0,926	fuseless	Type 2	60	Class 20
440	100	Reversing drive	SIMOCODE	18,5	31,96933375	0,82	0,926	fuseless	Type 2	60	Class 30
440	150	Reversing drive	SIMOCODE	18,5	31,96933375	0,82	0,926	fuseless	Type 2	60	Class 10
440	150	Reversing drive	SIMOCODE	18,5	31,96933375	0,82	0,926	fuseless	Type 2	60	Class 20
440	150	Reversing drive	SIMOCODE	18,5	31,96933375	0,82	0,926	fuseless	Type 2	60	Class 30
500	50	Reversing drive	SIMOCODE	18,5	28,1330137	0,82	0,926	fuseless	Type 2	60	Class 20
500	70	Reversing drive	SIMOCODE	18,5	28,1330137	0,82	0,926	fuseless	Type 2	60	Class 10
500	70	Reversing drive	SIMOCODE	18,5	28,1330137	0,82	0,926	fuseless	Type 2	60	Class 30
500	100	Reversing drive	SIMOCODE	18,5	28,1330137	0,82	0,926	fuseless	Type 2	60	Class 10
500	100	Reversing drive	SIMOCODE	18,5	28,1330137	0,82	0,926	fuseless	Type 2	60	Class 20
500	100	Reversing drive	SIMOCODE	18,5	28,1330137	0,82	0,926	fuseless	Type 2	60	Class 30
690	70	Reversing drive	SIMOCODE	18,5	20,38624181	0,82	0,926	fuseless	Type 2	60	Class 10
690	70	Reversing drive	SIMOCODE	18,5	20,38624181	0,82	0,926	fuseless	Type 2	60	Class 20
690	100	Reversing drive	SIMOCODE	18,5	20,38624181	0,82	0,926	fuseless	Type 2	60	Class 10
690	70	Reversing drive	SIMOCODE	18,5	20,38624181	0,82	0,926	fuseless	Type 2	60	Class 30
690	100	Reversing drive	SIMOCODE	18,5	20,38624181	0,82	0,926	fuseless	Type 2	60	Class 20
400	100	Reversing drive	SIMOCODE	22	41,13779609	0,83	0,93	fuseless	Type 2	60	Class 10

## 60 Hz fuseless

Un	Iq	Starter type	Overload relay	Pn	In	cosphi	eta	Basic type	Coordination Typee	Frequency	Motor starter class
400	100	Reversing drive	SIMOCODE	22	41,13779609	0,83	0,93	fuseless	Type 2	60	Class 20
400	100	Reversing drive	SIMOCODE	22	41,13779609	0,83	0,93	fuseless	Type 2	60	Class 30
400	150	Reversing drive	SIMOCODE	22	41,13779609	0,83	0,93	fuseless	Type 2	60	Class 10
400	150	Reversing drive	SIMOCODE	22	41,13779609	0,83	0,93	fuseless	Type 2	60	Class 20
400	150	Reversing drive	SIMOCODE	22	41,13779609	0,83	0,93	fuseless	Type 2	60	Class 30
440	100	Reversing drive	SIMOCODE	22	37,39799645	0,83	0,93	fuseless	Type 2	60	Class 10
440	100	Reversing drive	SIMOCODE	22	37,39799645	0,83	0,93	fuseless	Type 2	60	Class 20
440	100	Reversing drive	SIMOCODE	22	37,39799645	0,83	0,93	fuseless	Type 2	60	Class 30
440	150	Reversing drive	SIMOCODE	22	37,39799645	0,83	0,93	fuseless	Type 2	60	Class 10
440	150	Reversing drive	SIMOCODE	22	37,39799645	0,83	0,93	fuseless	Type 2	60	Class 20
440	150	Reversing drive	SIMOCODE	22	37,39799645	0,83	0,93	fuseless	Type 2	60	Class 30
500	70	Reversing drive	SIMOCODE	22	32,91023688	0,83	0,93	fuseless	Type 2	60	Class 20
500	70	Reversing drive	SIMOCODE	22	32,91023688	0,83	0,93	fuseless	Type 2	60	Class 10
500	70	Reversing drive	SIMOCODE	22	32,91023688	0,83	0,93	fuseless	Type 2	60	Class 30
500	100	Reversing drive	SIMOCODE	22	32,91023688	0,83	0,93	fuseless	Type 2	60	Class 10
500	100	Reversing drive	SIMOCODE	22	32,91023688	0,83	0,93	fuseless	Type 2	60	Class 20
500	100	Reversing drive	SIMOCODE	22	32,91023688	0,83	0,93	fuseless	Type 2	60	Class 30
690	70	Reversing drive	SIMOCODE	22	23,84799774	0,83	0,93	fuseless	Type 2	60	Class 10
690	70	Reversing drive	SIMOCODE	22	23,84799774	0,83	0,93	fuseless	Type 2	60	Class 20
690	70	Reversing drive	SIMOCODE	22	23,84799774	0,83	0,93	fuseless	Type 2	60	Class 30
690	100	Reversing drive	SIMOCODE	22	23,84799774	0,83	0,93	fuseless	Type 2	60	Class 10
690	100	Reversing drive	SIMOCODE	22	23,84799774	0,83	0,93	fuseless	Type 2	60	Class 20
400	100	Reversing drive	SIMOCODE	30	55,0738581	0,84	0,936	fuseless	Type 2	60	Class 30
400	100	Reversing drive	SIMOCODE	30	55,0738581	0,84	0,936	fuseless	Type 2	60	Class 10
400	100	Reversing drive	SIMOCODE	30	55,0738581	0,84	0,936	fuseless	Type 2	60	Class 20
400	150	Reversing drive	SIMOCODE	30	55,0738581	0,84	0,936	fuseless	Type 2	60	Class 10
400	150	Reversing drive	SIMOCODE	30	55,0738581	0,84	0,936	fuseless	Type 2	60	Class 20
400	150	Reversing drive	SIMOCODE	30	55,0738581	0,84	0,936	fuseless	Type 2	60	Class 30
440	100	Reversing drive	SIMOCODE	30	50,06714372	0,84	0,936	fuseless	Type 2	60	Class 30
440	100	Reversing drive	SIMOCODE	30	50,06714372	0,84	0,936	fuseless	Type 2	60	Class 10
440	100	Reversing drive	SIMOCODE	30	50,06714372	0,84	0,936	fuseless	Type 2	60	Class 20
440	150	Reversing drive	SIMOCODE	30	50,06714372	0,84	0,936	fuseless	Type 2	60	Class 10
440	150	Reversing drive	SIMOCODE	30	50,06714372	0,84	0,936	fuseless	Type 2	60	Class 20
440	150	Reversing drive	SIMOCODE	30	50,06714372	0,84	0,936	fuseless	Type 2	60	Class 30
500	50	Reversing drive	SIMOCODE	30	44,05908648	0,84	0,936	fuseless	Type 2	60	Class 10
500	50	Reversing drive	SIMOCODE	30	44,05908648	0,84	0,936	fuseless	Type 2	60	Class 20
500	100	Reversing drive	SIMOCODE	30	44,05908648	0,84	0,936	fuseless	Type 2	60	Class 10
500	100	Reversing drive	SIMOCODE	30	44,05908648	0,84	0,936	fuseless	Type 2	60	Class 20
500	50	Reversing drive	SIMOCODE	30	44,05908648	0,84	0,936	fuseless	Type 2	60	Class 30
500	100	Reversing drive	SIMOCODE	30	44,05908648	0,84	0,936	fuseless	Type 2	60	Class 30
690	100	Reversing drive	SIMOCODE	30	31,92687426	0,84	0,936	fuseless	Type 2	60	Class 20

## 60 Hz fuseless

Un	Iq	Starter type	Overload relay	Pn	In	cosphi	eta	Basic type	Coordination Typee	Frequency	Motor starter class
690	70	Reversing drive	SIMOCODE	30	31,92687426	0,84	0,936	fuseless	Type 2	60	Class 30
690	70	Reversing drive	SIMOCODE	30	31,92687426	0,84	0,936	fuseless	Type 2	60	Class 10
690	100	Reversing drive	SIMOCODE	30	31,92687426	0,84	0,936	fuseless	Type 2	60	Class 10
400	150	Reversing drive	SIMOCODE	37	66,13282302	0,86	0,939	fuseless	Type 2	60	Class 30
400	150	Reversing drive	SIMOCODE	37	66,13282302	0,86	0,939	fuseless	Type 2	60	Class 20
400	100	Reversing drive	SIMOCODE	37	66,13282302	0,86	0,939	fuseless	Type 2	60	Class 10
400	150	Reversing drive	SIMOCODE	37	66,13282302	0,86	0,939	fuseless	Type 2	60	Class 10
440	150	Reversing drive	SIMOCODE	37	60,1207482	0,86	0,939	fuseless	Type 2	60	Class 30
440	150	Reversing drive	SIMOCODE	37	60,1207482	0,86	0,939	fuseless	Type 2	60	Class 20
440	100	Reversing drive	SIMOCODE	37	60,1207482	0,86	0,939	fuseless	Type 2	60	Class 10
440	150	Reversing drive	SIMOCODE	37	60,1207482	0,86	0,939	fuseless	Type 2	60	Class 10
500	50	Reversing drive	SIMOCODE	37	52,90625841	0,86	0,939	fuseless	Type 2	60	Class 30
500	100	Reversing drive	SIMOCODE	37	52,90625841	0,86	0,939	fuseless	Type 2	60	Class 30
500	50	Reversing drive	SIMOCODE	37	52,90625841	0,86	0,939	fuseless	Type 2	60	Class 10
500	100	Reversing drive	SIMOCODE	37	52,90625841	0,86	0,939	fuseless	Type 2	60	Class 10
500	50	Reversing drive	SIMOCODE	37	52,90625841	0,86	0,939	fuseless	Type 2	60	Class 20
500	100	Reversing drive	SIMOCODE	37	52,90625841	0,86	0,939	fuseless	Type 2	60	Class 20
690	100	Reversing drive	SIMOCODE	37	38,33786842	0,86	0,939	fuseless	Type 2	60	Class 20
690	70	Reversing drive	SIMOCODE	37	38,33786842	0,86	0,939	fuseless	Type 2	60	Class 30
690	70	Reversing drive	SIMOCODE	37	38,33786842	0,86	0,939	fuseless	Type 2	60	Class 10
690	100	Reversing drive	SIMOCODE	37	38,33786842	0,86	0,939	fuseless	Type 2	60	Class 10
400	150	Reversing drive	SIMOCODE	45	80,17565951	0,86	0,942	fuseless	Type 2	60	Class 20
400	150	Reversing drive	SIMOCODE	45	80,17565951	0,86	0,942	fuseless	Type 2	60	Class 30
400	100	Reversing drive	SIMOCODE	45	80,17565951	0,86	0,942	fuseless	Type 2	60	Class 10
400	150	Reversing drive	SIMOCODE	45	80,17565951	0,86	0,942	fuseless	Type 2	60	Class 10
440	150	Reversing drive	SIMOCODE	45	72,88696319	0,86	0,942	fuseless	Type 2	60	Class 20
440	150	Reversing drive	SIMOCODE	45	72,88696319	0,86	0,942	fuseless	Type 2	60	Class 30
440	100	Reversing drive	SIMOCODE	45	72,88696319	0,86	0,942	fuseless	Type 2	60	Class 10
440	150	Reversing drive	SIMOCODE	45	72,88696319	0,86	0,942	fuseless	Type 2	60	Class 10
500	50	Reversing drive	SIMOCODE	45	64,14052761	0,86	0,942	fuseless	Type 2	60	Class 20
500	100	Reversing drive	SIMOCODE	45	64,14052761	0,86	0,942	fuseless	Type 2	60	Class 20
500	50	Reversing drive	SIMOCODE	45	64,14052761	0,86	0,942	fuseless	Type 2	60	Class 10
500	100	Reversing drive	SIMOCODE	45	64,14052761	0,86	0,942	fuseless	Type 2	60	Class 10
690	70	Reversing drive	SIMOCODE	45	46,4786432	0,86	0,942	fuseless	Type 2	60	Class 30
690	70	Reversing drive	SIMOCODE	45	46,4786432	0,86	0,942	fuseless	Type 2	60	Class 20
690	70	Reversing drive	SIMOCODE	45	46,4786432	0,86	0,942	fuseless	Type 2	60	Class 10
690	100	Reversing drive	SIMOCODE	45	46,4786432	0,86	0,942	fuseless	Type 2	60	Class 10
400	150	Reversing drive	SIMOCODE	55	96,45654056	0,87	0,946	fuseless	Type 2	60	Class 10
400	150	Reversing drive	SIMOCODE	55	96,45654056	0,87	0,946	fuseless	Type 2	60	Class 20
400	150	Reversing drive	SIMOCODE	55	96,45654056	0,87	0,946	fuseless	Type 2	60	Class 30
440	150	Reversing drive	SIMOCODE	55	87,68776415	0,87	0,946	fuseless	Type 2	60	Class 10

## 60 Hz fuseless

Un	Iq	Starter type	Overload relay	Pn	In	cosphi	eta	Basic type	Coordination Typee	Frequency	Motor starter class
440	150	Reversing drive	SIMOCODE	55	87,68776415	0,87	0,946	fuseless	Type 2	60	Class 20
440	150	Reversing drive	SIMOCODE	55	87,68776415	0,87	0,946	fuseless	Type 2	60	Class 30
500	50	Reversing drive	SIMOCODE	55	77,16523245	0,87	0,946	fuseless	Type 2	60	Class 10
500	100	Reversing drive	SIMOCODE	55	77,16523245	0,87	0,946	fuseless	Type 2	60	Class 10
690	50	Reversing drive	SIMOCODE	55	55,91683511	0,87	0,946	fuseless	Type 2	60	Class 10
690	70	Reversing drive	SIMOCODE	55	55,91683511	0,87	0,946	fuseless	Type 2	60	Class 10
690	70	Reversing drive	SIMOCODE	55	55,91683511	0,87	0,946	fuseless	Type 2	60	Class 30
690	70	Reversing drive	SIMOCODE	55	55,91683511	0,87	0,946	fuseless	Type 2	60	Class 20
400	150	Reversing drive	SIMOCODE	75	132,5008268	0,86	0,95	fuseless	Type 2	60	Class 10
400	150	Reversing drive	SIMOCODE	75	132,5008268	0,86	0,95	fuseless	Type 2	60	Class 20
440	150	Reversing drive	SIMOCODE	75	120,4552971	0,86	0,95	fuseless	Type 2	60	Class 10
440	150	Reversing drive	SIMOCODE	75	120,4552971	0,86	0,95	fuseless	Type 2	60	Class 20
500	50	Reversing drive	SIMOCODE	75	106,0006614	0,86	0,95	fuseless	Type 2	60	Class 10
400	150	Reversing drive	SIMOCODE	90	156,8431983	0,87	0,952	fuseless	Type 2	60	Class 10
400	150	Reversing drive	SIMOCODE	90	156,8431983	0,87	0,952	fuseless	Type 2	60	Class 20
400	150	Reversing drive	SIMOCODE	90	156,8431983	0,87	0,952	fuseless	Type 2	60	Class 30
440	150	Reversing drive	SIMOCODE	90	142,5847257	0,87	0,952	fuseless	Type 2	60	Class 10
440	150	Reversing drive	SIMOCODE	90	142,5847257	0,87	0,952	fuseless	Type 2	60	Class 20
440	150	Reversing drive	SIMOCODE	90	142,5847257	0,87	0,952	fuseless	Type 2	60	Class 30
500	50	Reversing drive	SIMOCODE	90	125,4745586	0,87	0,952	fuseless	Type 2	60	Class 10
400	150	Reversing drive	SIMOCODE	110	191,2953614	0,87	0,954	fuseless	Type 2	60	Class 10
400	150	Reversing drive	SIMOCODE	110	191,2953614	0,87	0,954	fuseless	Type 2	60	Class 20
400	150	Reversing drive	SIMOCODE	110	191,2953614	0,87	0,954	fuseless	Type 2	60	Class 30
440	150	Reversing drive	SIMOCODE	110	173,904874	0,87	0,954	fuseless	Type 2	60	Class 10
440	150	Reversing drive	SIMOCODE	110	173,904874	0,87	0,954	fuseless	Type 2	60	Class 20
440	150	Reversing drive	SIMOCODE	110	173,904874	0,87	0,954	fuseless	Type 2	60	Class 30
500	50	Reversing drive	SIMOCODE	110	153,0362891	0,87	0,954	fuseless	Type 2	60	Class 10
400	150	Reversing drive	SIMOCODE	132	229,0741942	0,87	0,956	fuseless	Type 2	60	Class 10
400	150	Reversing drive	SIMOCODE	132	229,0741942	0,87	0,956	fuseless	Type 2	60	Class 20
400	150	Reversing drive	SIMOCODE	132	229,0741942	0,87	0,956	fuseless	Type 2	60	Class 30
440	150	Reversing drive	SIMOCODE	132	208,2492675	0,87	0,956	fuseless	Type 2	60	Class 10
440	150	Reversing drive	SIMOCODE	132	208,2492675	0,87	0,956	fuseless	Type 2	60	Class 20
440	150	Reversing drive	SIMOCODE	132	208,2492675	0,87	0,956	fuseless	Type 2	60	Class 30
500	50	Reversing drive	SIMOCODE	132	183,2593554	0,87	0,956	fuseless	Type 2	60	Class 10
400	150	Reversing drive	SIMOCODE	160	277,0860121	0,87	0,958	fuseless	Type 2	60	Class 10
400	150	Reversing drive	SIMOCODE	160	277,0860121	0,87	0,958	fuseless	Type 2	60	Class 30
400	150	Reversing drive	SIMOCODE	160	277,0860121	0,87	0,958	fuseless	Type 2	60	Class 20
440	150	Reversing drive	SIMOCODE	160	251,8963747	0,87	0,958	fuseless	Type 2	60	Class 10
440	150	Reversing drive	SIMOCODE	160	251,8963747	0,87	0,958	fuseless	Type 2	60	Class 30
440	150	Reversing drive	SIMOCODE	160	251,8963747	0,87	0,958	fuseless	Type 2	60	Class 20
500	50	Reversing drive	SIMOCODE	160	221,6688097	0,87	0,958	fuseless	Type 2	60	Class 10



## 60 Hz fuseless

Un	Iq	Starter type	Overload relay	Pn	In	cosphi	eta	Basic type	Coordination Typee	Frequency	Motor starter class
400	150	Reversing drive	SIMOCODE	200	341,7082559	0,88	0,96	fuseless	Type 2	60	Class 10
400	150	Reversing drive	SIMOCODE	200	341,7082559	0,88	0,96	fuseless	Type 2	60	Class 20
440	150	Reversing drive	SIMOCODE	200	310,643869	0,88	0,96	fuseless	Type 2	60	Class 10
440	150	Reversing drive	SIMOCODE	200	310,643869	0,88	0,96	fuseless	Type 2	60	Class 20
500	50	Reversing drive	SIMOCODE	200	273,3666047	0,88	0,96	fuseless	Type 2	60	Class 10
400	150	Reversing drive	SIMOCODE	250	442,2106841	0,85	0,96	fuseless	Type 2	60	Class 10
440	150	Reversing drive	SIMOCODE	250	402,0097128	0,85	0,96	fuseless	Type 2	60	Class 10
500	50	Reversing drive	SIMOCODE	250	353,7685473	0,85	0,96	fuseless	Type 2	60	Class 10
500	50	Reversing drive	SIMOCODE	315	456,4892942	0,83	0,96	fuseless	Type 2	60	Class 10
500	50	Reversing drive	SIMOCODE	355	496,5100425	0,86	0,96	fuseless	Type 2	60	Class 10
400	100	Reversing drive	thermal	0,25	0,681866815	0,72	0,735	fuseless	Type 2	60	Class 10
440	100	Reversing drive	thermal	0,25	0,619878922	0,72	0,735	fuseless	Type 2	60	Class 10
500	100	Reversing drive	thermal	0,25	0,545493452	0,72	0,735	fuseless	Type 2	60	Class 10
690	100	Reversing drive	thermal	0,25	0,39528511	0,72	0,735	fuseless	Type 2	60	Class 10
400	100	Reversing drive	thermal	0,37	0,986969135	0,7	0,773	fuseless	Type 2	60	Class 10
440	100	Reversing drive	thermal	0,37	0,897244668	0,7	0,773	fuseless	Type 2	60	Class 10
500	100	Reversing drive	thermal	0,37	0,789575308	0,7	0,773	fuseless	Type 2	60	Class 10
690	100	Reversing drive	thermal	0,37	0,57215602	0,7	0,773	fuseless	Type 2	60	Class 10
400	100	Reversing drive	thermal	0,55	1,259610022	0,78	0,808	fuseless	Type 2	60	Class 10
440	100	Reversing drive	thermal	0,55	1,14510002	0,78	0,808	fuseless	Type 2	60	Class 10
500	100	Reversing drive	thermal	0,55	1,007688017	0,78	0,808	fuseless	Type 2	60	Class 10
690	100	Reversing drive	thermal	0,55	0,730208708	0,78	0,808	fuseless	Type 2	60	Class 10
400	100	Reversing drive	thermal	0,75	1,74954627	0,75	0,825	fuseless	Type 2	60	Class 10
440	100	Reversing drive	thermal	0,75	1,590496609	0,75	0,825	fuseless	Type 2	60	Class 10
500	100	Reversing drive	thermal	0,75	1,399637016	0,75	0,825	fuseless	Type 2	60	Class 10
690	100	Reversing drive	thermal	0,75	1,014229722	0,75	0,825	fuseless	Type 2	60	Class 10
400	100	Reversing drive	thermal	1,1	2,420368365	0,78	0,841	fuseless	Type 2	60	Class 10
440	100	Reversing drive	thermal	1,1	2,200334878	0,78	0,841	fuseless	Type 2	60	Class 10
500	100	Reversing drive	thermal	1,1	1,936294692	0,78	0,841	fuseless	Type 2	60	Class 10
690	100	Reversing drive	thermal	1,1	1,403112096	0,78	0,841	fuseless	Type 2	60	Class 10
400	100	Reversing drive	thermal	1,5	3,172719094	0,8	0,853	fuseless	Type 2	60	Class 10
440	100	Reversing drive	thermal	1,5	2,884290085	0,8	0,853	fuseless	Type 2	60	Class 10
500	100	Reversing drive	thermal	1,5	2,538175275	0,8	0,853	fuseless	Type 2	60	Class 10
690	100	Reversing drive	thermal	1,5	1,839257446	0,8	0,853	fuseless	Type 2	60	Class 10
400	100	Reversing drive	thermal	2,2	4,412704771	0,83	0,867	fuseless	Type 2	60	Class 10
440	100	Reversing drive	thermal	2,2	4,011549792	0,83	0,867	fuseless	Type 2	60	Class 10
500	100	Reversing drive	thermal	2,2	3,530163817	0,83	0,867	fuseless	Type 2	60	Class 10
690	100	Reversing drive	thermal	2,2	2,558089723	0,83	0,867	fuseless	Type 2	60	Class 10
400	100	Reversing drive	thermal	3	5,948712092	0,83	0,877	fuseless	Type 2	60	Class 10
440	100	Reversing drive	thermal	3	5,407920084	0,83	0,877	fuseless	Type 2	60	Class 10
500	100	Reversing drive	thermal	3	4,758969674	0,83	0,877	fuseless	Type 2	60	Class 10

## 60 Hz fuseless

Un	Iq	Starter type	Overload relay	Pn	In	cosphi	eta	Basic type	Coordination Typee	Frequency	Motor starter class
690	100	Reversing drive	thermal	3	3,448528749	0,83	0,877	fuseless	Type 2	60	Class 10
400	100	Reversing drive	thermal	4	7,94679113	0,82	0,886	fuseless	Type 2	60	Class 10
440	100	Reversing drive	thermal	4	7,224355573	0,82	0,886	fuseless	Type 2	60	Class 10
500	100	Reversing drive	thermal	4	6,357432904	0,82	0,886	fuseless	Type 2	60	Class 10
690	100	Reversing drive	thermal	4	4,606835438	0,82	0,886	fuseless	Type 2	60	Class 10
400	100	Reversing drive	thermal	5,5	10,54762729	0,84	0,896	fuseless	Type 2	60	Class 10
440	100	Reversing drive	thermal	5,5	9,588752079	0,84	0,896	fuseless	Type 2	60	Class 10
500	100	Reversing drive	thermal	5,5	8,43810183	0,84	0,896	fuseless	Type 2	60	Class 10
690	100	Reversing drive	thermal	5,5	6,114566543	0,84	0,896	fuseless	Type 2	60	Class 10
400	100	Reversing drive	thermal	7,5	14,2558438	0,84	0,904	fuseless	Type 2	60	Class 10
440	100	Reversing drive	thermal	7,5	12,959858	0,84	0,904	fuseless	Type 2	60	Class 10
500	100	Reversing drive	thermal	7,5	11,40467504	0,84	0,904	fuseless	Type 2	60	Class 10
690	100	Reversing drive	thermal	7,5	8,264257275	0,84	0,904	fuseless	Type 2	60	Class 10
400	100	Reversing drive	thermal	11	20,67981192	0,84	0,914	fuseless	Type 2	60	Class 10
440	100	Reversing drive	thermal	11	18,79982902	0,84	0,914	fuseless	Type 2	60	Class 10
500	100	Reversing drive	thermal	11	16,54384954	0,84	0,914	fuseless	Type 2	60	Class 10
690	70	Reversing drive	thermal	11	11,98829677	0,84	0,914	fuseless	Type 2	60	Class 10
690	100	Reversing drive	thermal	11	11,98829677	0,84	0,914	fuseless	Type 2	60	Class 10
400	100	Reversing drive	thermal	15	28,66798429	0,82	0,921	fuseless	Type 2	60	Class 10
400	150	Reversing drive	thermal	15	28,66798429	0,82	0,921	fuseless	Type 2	60	Class 10
440	100	Reversing drive	thermal	15	26,0618039	0,82	0,921	fuseless	Type 2	60	Class 10
440	150	Reversing drive	thermal	15	26,0618039	0,82	0,921	fuseless	Type 2	60	Class 10
500	100	Reversing drive	thermal	15	22,93438743	0,82	0,921	fuseless	Type 2	60	Class 10
690	70	Reversing drive	thermal	15	16,61912133	0,82	0,921	fuseless	Type 2	60	Class 10
690	100	Reversing drive	thermal	15	16,61912133	0,82	0,921	fuseless	Type 2	60	Class 10
400	100	Reversing drive	thermal	18,5	35,16626712	0,82	0,926	fuseless	Type 2	60	Class 10
400	150	Reversing drive	thermal	18,5	35,16626712	0,82	0,926	fuseless	Type 2	60	Class 10
440	100	Reversing drive	thermal	18,5	31,96933375	0,82	0,926	fuseless	Type 2	60	Class 10
440	150	Reversing drive	thermal	18,5	31,96933375	0,82	0,926	fuseless	Type 2	60	Class 10
500	100	Reversing drive	thermal	18,5	28,1330137	0,82	0,926	fuseless	Type 2	60	Class 10
500	70	Reversing drive	thermal	18,5	28,1330137	0,82	0,926	fuseless	Type 2	60	Class 10
690	70	Reversing drive	thermal	18,5	20,38624181	0,82	0,926	fuseless	Type 2	60	Class 10
690	100	Reversing drive	thermal	18,5	20,38624181	0,82	0,926	fuseless	Type 2	60	Class 10
400	100	Reversing drive	thermal	22	41,13779609	0,83	0,93	fuseless	Type 2	60	Class 10
400	150	Reversing drive	thermal	22	41,13779609	0,83	0,93	fuseless	Type 2	60	Class 10
440	100	Reversing drive	thermal	22	37,39799645	0,83	0,93	fuseless	Type 2	60	Class 10
440	150	Reversing drive	thermal	22	37,39799645	0,83	0,93	fuseless	Type 2	60	Class 10
500	70	Reversing drive	thermal	22	32,91023688	0,83	0,93	fuseless	Type 2	60	Class 10
500	80	Reversing drive	thermal	22	32,91023688	0,83	0,93	fuseless	Type 2	60	Class 10
690	70	Reversing drive	thermal	22	23,84799774	0,83	0,93	fuseless	Type 2	60	Class 10
690	100	Reversing drive	thermal	22	23,84799774	0,83	0,93	fuseless	Type 2	60	Class 10

## 60 Hz fuseless

Un	Iq	Starter type	Overload relay	Pn	In	cosphi	eta	Basic type	Coordination Typee	Frequency	Motor starter class
500	70	Reversing drive	thermal	30	44,05908648	0,84	0,936	fuseless	Type 2	60	Class 10
500	80	Reversing drive	thermal	30	44,05908648	0,84	0,936	fuseless	Type 2	60	Class 10
400	100	Star-delta starter	electronic	5,5	10,54762729	0,84	0,896	fuseless	Type 2	60	Class 10
440	100	Star-delta starter	electronic	5,5	9,588752079	0,84	0,896	fuseless	Type 2	60	Class 10
500	100	Star-delta starter	electronic	5,5	8,43810183	0,84	0,896	fuseless	Type 2	60	Class 10
400	100	Star-delta starter	electronic	7,5	14,2558438	0,84	0,904	fuseless	Type 2	60	Class 10
440	100	Star-delta starter	electronic	7,5	12,959858	0,84	0,904	fuseless	Type 2	60	Class 10
500	100	Star-delta starter	electronic	7,5	11,40467504	0,84	0,904	fuseless	Type 2	60	Class 10
400	100	Star-delta starter	electronic	11	20,67981192	0,84	0,914	fuseless	Type 2	60	Class 10
440	100	Star-delta starter	electronic	11	18,79982902	0,84	0,914	fuseless	Type 2	60	Class 10
500	100	Star-delta starter	electronic	11	16,54384954	0,84	0,914	fuseless	Type 2	60	Class 10
500	100	Star-delta starter	electronic	15	22,93438743	0,82	0,921	fuseless	Type 2	60	Class 10
500	100	Star-delta starter	electronic	18,5	28,1330137	0,82	0,926	fuseless	Type 2	60	Class 10
400	150	Star-delta starter	electronic	22	41,13779609	0,83	0,93	fuseless	Type 2	60	Class 10
440	150	Star-delta starter	electronic	22	37,39799645	0,83	0,93	fuseless	Type 2	60	Class 10
400	150	Star-delta starter	electronic	30	55,0738581	0,84	0,936	fuseless	Type 2	60	Class 10
440	150	Star-delta starter	electronic	30	50,06714372	0,84	0,936	fuseless	Type 2	60	Class 10
400	150	Star-delta starter	electronic	37	66,13282302	0,86	0,939	fuseless	Type 2	60	Class 10
440	150	Star-delta starter	electronic	37	60,1207482	0,86	0,939	fuseless	Type 2	60	Class 10
400	150	Star-delta starter	electronic	45	80,17565951	0,86	0,942	fuseless	Type 2	60	Class 10
440	150	Star-delta starter	electronic	45	72,88696319	0,86	0,942	fuseless	Type 2	60	Class 10
400	150	Star-delta starter	electronic	55	96,45654056	0,87	0,946	fuseless	Type 2	60	Class 10
440	150	Star-delta starter	electronic	55	87,68776415	0,87	0,946	fuseless	Type 2	60	Class 10
400	150	Star-delta starter	electronic	75	132,5008268	0,86	0,95	fuseless	Type 2	60	Class 10
440	150	Star-delta starter	electronic	75	120,4552971	0,86	0,95	fuseless	Type 2	60	Class 10
500	50	Star-delta starter	electronic	75	106,0006614	0,86	0,95	fuseless	Type 2	60	Class 10
400	150	Star-delta starter	electronic	90	156,8431983	0,87	0,952	fuseless	Type 2	60	Class 10
440	150	Star-delta starter	electronic	90	142,5847257	0,87	0,952	fuseless	Type 2	60	Class 10
500	50	Star-delta starter	electronic	90	125,4745586	0,87	0,952	fuseless	Type 2	60	Class 10
400	150	Star-delta starter	electronic	110	191,2953614	0,87	0,954	fuseless	Type 2	60	Class 10
440	150	Star-delta starter	electronic	110	173,904874	0,87	0,954	fuseless	Type 2	60	Class 10
500	50	Star-delta starter	electronic	110	153,0362891	0,87	0,954	fuseless	Type 2	60	Class 10
400	150	Star-delta starter	electronic	132	229,0741942	0,87	0,956	fuseless	Type 2	60	Class 10
440	150	Star-delta starter	electronic	132	208,2492675	0,87	0,956	fuseless	Type 2	60	Class 10
500	50	Star-delta starter	electronic	132	183,2593554	0,87	0,956	fuseless	Type 2	60	Class 10
400	150	Star-delta starter	electronic	160	277,0860121	0,87	0,958	fuseless	Type 2	60	Class 10
440	150	Star-delta starter	electronic	160	251,8963747	0,87	0,958	fuseless	Type 2	60	Class 10
500	50	Star-delta starter	electronic	160	221,6688097	0,87	0,958	fuseless	Type 2	60	Class 10
400	150	Star-delta starter	electronic	200	341,7082559	0,88	0,96	fuseless	Type 2	60	Class 10
440	150	Star-delta starter	electronic	200	310,643869	0,88	0,96	fuseless	Type 2	60	Class 10
500	50	Star-delta starter	electronic	200	273,3666047	0,88	0,96	fuseless	Type 2	60	Class 10

## 60 Hz fuseless

Un	Iq	Starter type	Overload relay	Pn	In	cosphi	eta	Basic type	Coordination Typee	Frequency	Motor starter class
500	50	Star-delta starter	electronic	250	353,7685473	0,85	0,96	fuseless	Type 2	60	Class 10
500	50	Star-delta starter	electronic	315	456,4892942	0,83	0,96	fuseless	Type 2	60	Class 10
400	100	Star-delta starter	SIMOCODE	5,5	10,54762729	0,84	0,896	fuseless	Type 2	60	Class 10
440	100	Star-delta starter	SIMOCODE	5,5	9,588752079	0,84	0,896	fuseless	Type 2	60	Class 10
500	100	Star-delta starter	SIMOCODE	5,5	8,43810183	0,84	0,896	fuseless	Type 2	60	Class 10
400	100	Star-delta starter	SIMOCODE	7,5	14,2558438	0,84	0,904	fuseless	Type 2	60	Class 10
440	100	Star-delta starter	SIMOCODE	7,5	12,959858	0,84	0,904	fuseless	Type 2	60	Class 10
500	100	Star-delta starter	SIMOCODE	7,5	11,40467504	0,84	0,904	fuseless	Type 2	60	Class 10
400	100	Star-delta starter	SIMOCODE	11	20,67981192	0,84	0,914	fuseless	Type 2	60	Class 10
440	100	Star-delta starter	SIMOCODE	11	18,79982902	0,84	0,914	fuseless	Type 2	60	Class 10
500	100	Star-delta starter	SIMOCODE	11	16,54384954	0,84	0,914	fuseless	Type 2	60	Class 10
500	100	Star-delta starter	SIMOCODE	15	22,93438743	0,82	0,921	fuseless	Type 2	60	Class 10
500	100	Star-delta starter	SIMOCODE	18,5	28,1330137	0,82	0,926	fuseless	Type 2	60	Class 10
400	150	Star-delta starter	SIMOCODE	22	41,13779609	0,83	0,93	fuseless	Type 2	60	Class 10
440	150	Star-delta starter	SIMOCODE	22	37,39799645	0,83	0,93	fuseless	Type 2	60	Class 10
400	150	Star-delta starter	SIMOCODE	30	55,0738581	0,84	0,936	fuseless	Type 2	60	Class 10
440	150	Star-delta starter	SIMOCODE	30	50,06714372	0,84	0,936	fuseless	Type 2	60	Class 10
400	150	Star-delta starter	SIMOCODE	37	66,13282302	0,86	0,939	fuseless	Type 2	60	Class 10
440	150	Star-delta starter	SIMOCODE	37	60,1207482	0,86	0,939	fuseless	Type 2	60	Class 10
400	150	Star-delta starter	SIMOCODE	45	80,17565951	0,86	0,942	fuseless	Type 2	60	Class 10
440	150	Star-delta starter	SIMOCODE	45	72,88696319	0,86	0,942	fuseless	Type 2	60	Class 10
400	150	Star-delta starter	SIMOCODE	55	96,45654056	0,87	0,946	fuseless	Type 2	60	Class 10
440	150	Star-delta starter	SIMOCODE	55	87,68776415	0,87	0,946	fuseless	Type 2	60	Class 10
400	150	Star-delta starter	SIMOCODE	75	132,5008268	0,86	0,95	fuseless	Type 2	60	Class 10
440	150	Star-delta starter	SIMOCODE	75	120,4552971	0,86	0,95	fuseless	Type 2	60	Class 10
500	50	Star-delta starter	SIMOCODE	75	106,0006614	0,86	0,95	fuseless	Type 2	60	Class 10
400	150	Star-delta starter	SIMOCODE	90	156,8431983	0,87	0,952	fuseless	Type 2	60	Class 10
440	150	Star-delta starter	SIMOCODE	90	142,5847257	0,87	0,952	fuseless	Type 2	60	Class 10
500	50	Star-delta starter	SIMOCODE	90	125,4745586	0,87	0,952	fuseless	Type 2	60	Class 10
400	150	Star-delta starter	SIMOCODE	110	191,2953614	0,87	0,954	fuseless	Type 2	60	Class 10
440	150	Star-delta starter	SIMOCODE	110	173,904874	0,87	0,954	fuseless	Type 2	60	Class 10
500	50	Star-delta starter	SIMOCODE	110	153,0362891	0,87	0,954	fuseless	Type 2	60	Class 10
400	150	Star-delta starter	SIMOCODE	132	229,0741942	0,87	0,956	fuseless	Type 2	60	Class 10
440	150	Star-delta starter	SIMOCODE	132	208,2492675	0,87	0,956	fuseless	Type 2	60	Class 10
500	50	Star-delta starter	SIMOCODE	132	183,2593554	0,87	0,956	fuseless	Type 2	60	Class 10
400	150	Star-delta starter	SIMOCODE	160	277,0860121	0,87	0,958	fuseless	Type 2	60	Class 10
440	150	Star-delta starter	SIMOCODE	160	251,8963747	0,87	0,958	fuseless	Type 2	60	Class 10
500	50	Star-delta starter	SIMOCODE	160	221,6688097	0,87	0,958	fuseless	Type 2	60	Class 10
400	150	Star-delta starter	SIMOCODE	200	341,7082559	0,88	0,96	fuseless	Type 2	60	Class 10
440	150	Star-delta starter	SIMOCODE	200	310,643869	0,88	0,96	fuseless	Type 2	60	Class 10
500	50	Star-delta starter	SIMOCODE	200	273,3666047	0,88	0,96	fuseless	Type 2	60	Class 10

## 60 Hz fuseless

Un	Iq	Starter type	Overload relay	Pn	In	cosphi	eta	Basic type	Coordination Typee	Frequency	Motor starter class
500	50	Star-delta starter	SIMOCODE	250	353,7685473	0,85	0,96	fuseless	Type 2	60	Class 10
500	50	Star-delta starter	SIMOCODE	315	456,4892942	0,83	0,96	fuseless	Type 2	60	Class 10
400	100	Star-delta starter	thermal	5,5	10,54762729	0,84	0,896	fuseless	Type 2	60	Class 10
440	100	Star-delta starter	thermal	5,5	9,588752079	0,84	0,896	fuseless	Type 2	60	Class 10
500	100	Star-delta starter	thermal	5,5	8,43810183	0,84	0,896	fuseless	Type 2	60	Class 10
400	100	Star-delta starter	thermal	7,5	14,2558438	0,84	0,904	fuseless	Type 2	60	Class 10
440	100	Star-delta starter	thermal	7,5	12,959858	0,84	0,904	fuseless	Type 2	60	Class 10
500	100	Star-delta starter	thermal	7,5	11,40467504	0,84	0,904	fuseless	Type 2	60	Class 10
400	100	Star-delta starter	thermal	11	20,67981192	0,84	0,914	fuseless	Type 2	60	Class 10
440	100	Star-delta starter	thermal	11	18,79982902	0,84	0,914	fuseless	Type 2	60	Class 10
500	100	Star-delta starter	thermal	11	16,54384954	0,84	0,914	fuseless	Type 2	60	Class 10
400	100	Star-delta starter	thermal	15	28,66798429	0,82	0,921	fuseless	Type 2	60	Class 10
440	100	Star-delta starter	thermal	15	26,0618039	0,82	0,921	fuseless	Type 2	60	Class 10
500	100	Star-delta starter	thermal	15	22,93438743	0,82	0,921	fuseless	Type 2	60	Class 10
500	100	Star-delta starter	thermal	18,5	28,1330137	0,82	0,926	fuseless	Type 2	60	Class 10