

Reluctance motors for inverter operation

Frequency range (0)-5-50 Hz

Series **DNK ...Rs** self-ventilated

Type of cooling **IC 411**

Insulation class F, temperature rise B

Degree of protection **IP 55**

Design: 380 V Y-connection - synchronous pull-out torque approx. 150%

special high-temperature grease

bimetal contacts or PTC = mandatory option

Torque Nm	Power at 50 Hz kW	Type	Nominal current at 380 V A	eta cos phi	J	m
2 poles; 300 - 3000 rpm						
0,57	0,18	DNK	71 A / 2 Rs	0,48	67	3,5
0,80	0,25	DNK	71 B / 2 Rs	1,20	63,3	4,6
1,18	0,37	DNK	80 A / 2 Rs	1,70	66,1	6,8
1,75	0,55	DNK	80 B / 2 Rs	2,50	66,8	8,5
2,39	0,75	DNK	90 S / 2 Rs	3,50	67,8	14
3,50	1,10	DNK	90 L / 2 Rs	4,60	75,7	19
4,78	1,50	DNK	100 L / 2 R	6,60	71,9	38
7,00	2,20	DNK	112 M / 2 Rs	8,80	79,1	63
9,55	3,00	DNK	132 S / 2 Rs	13,50	73,4	140
12,7	4,00	DNK	132 M / 2 Rs	18,00	76,7	190
4 poles; 150 - 1500 rpm						
0,9	0,14	DNK	71 A / 4 Rs	0,60	59,6	5,7
1,35	0,21	DNK	71 B / 4 Rs	0,80	64,5	7,4
2,0	0,31	DNK	80 B / 4 Rs	1,10	66,4	15
2,75	0,43	DNK	90 S / 4 Rs	1,50	76,5	24
4,0	0,63	DNK	90 L / 4 Rs	2,20	70,3	32
4,78	0,75	DNK	100 LA / 4 Rs	3,20	75,8	46
6,4	1,00	DNK	100 LB / 4 Rs	4,60	72,7	61
9,6	1,50	DNK	112 M / 4 Rs	6,30	75,4	120
14,0	2,20	DNK	132 S / 4 Rs	9,50	74,9	240
19,1	3,00	DNK	132 M / 4 Rs	12,30	78,8	340
6 poles; 100 - 1000 rpm						
1,0	0,10	DNK	71B / 6 Rs	0,55	54,0	12
1,4	0,15	DNK	80 A / 6 Rs	0,70	54,3	22
2,0	0,21	DNK	80 B / 6 Rs	0,95	61,2	28
2,39	0,25	DNK	90 S / 6 Rs	1,30	60,9	38
3,53	0,37	DNK	90 L / 6 Rs	1,70	67,5	51
5,25	0,55	DNK	100 L / 6 Rs	2,60	67,0	100
7,16	0,75	DNK	112 M / 6 Rs	3,50	74,0	190
10,5	1,10	DNK	112 ML / 6 Rs	5,60	69,4	240
14,3	1,50	DNK	132 S / 6 Rs	7,40	70,0	320
21,0	2,20	DNK	132 M / 6 Rs	10,80	73,7	460

RELUCTANCE MOTORS MUST NOT BE OPERATED IN THE FIELD

WEAKENING RANGE

U/f = 7,6! Other U / f - ratios upon request

The torques are admissible in continuous operation on the frequency inverter in the entire speed range without reduction. The project planning instructions on page 13 must be taken into consideration for the parameterization of the frequency inverters.

Reluctance motors for inverter operation Frequency range (0)-5-50 Hz

Series **DNK ...RsF** separately ventilated Type of cooling **IC 415**

Insulation class F, temperature rise B

Degree of protection **IP 55**

Design: 380 V Y-connection - synchronous pull-out torque approx. 150%

special high-temperature grease - separate ventilator 230 V

bimetal contacts or PTC = mandatory option

Torque Nm	Power at 50 Hz kW	Type	Nominal current at 380 V A	eta % cos phi	J kg*cm ²	m kg
2 poles; 300 - 3000 rpm upon request						
4 poles; 150 - 1500 rpm						
1,15	0,18	DNK 71 A / 4 RsF	0,85	0,51	63,1	5,7
1,59	0,25	DNK 71 B / 4 RsF	1,20	0,53	59,7	7,4
2,75	0,43	DNK 80 B / 4 RsF	1,60	0,52	67,6	15
4,0	0,63	DNK 90 S / 4 RsF	2,30	0,49	74,1	24
5,5	0,86	DNK 90 L / 4 RsF	2,90	0,54	72,8	32
8	1,26	DNK 100 LA / 4 RsF	4,20	0,47	84,7	46
11	1,73	DNK 100 LB / 4 RsF	6,30	0,50	72,3	61
14,6	2,3	DNK 112 M / 4 RsF	9,00	0,48	77,4	120
20	3,1	DNK 132 S / 4 RsF	13,00	0,47	74,6	240
27,5	4,3	DNK 132 M / 4 RsF	17,00	0,47	76,1	340
6 poles; 100 - 1000 rpm						
1,15	0,12	DNK 71B / 6 RsF	0,75	0,50	48,6	9,2
1,72	0,18	DNK 80 A / 6 RsF	1,10	0,50	49,7	12
2,39	0,25	DNK 80 B / 6 RsF	1,30	0,50	58,4	22
3,53	0,37	DNK 90 S / 6 RsF	2,00	0,47	59,8	29
5,25	0,55	DNK 90 L / 6 RsF	2,60	0,49	65,6	51
7,16	0,75	DNK 100 L / 6 RsF	3,90	0,46	63,5	78
10,5	1,10	DNK 112 M / 6 RsF	5,20	0,46	69,9	100
14,3	1,50	DNK 112 ML / 6 RsF	7,50	0,44	69,1	190
21,0	2,20	DNK 132 S / 6 RsF	12,00	0,43	64,8	320
28,7	3,00	DNK 132 M / 6 RsF	14,00	0,43	75,7	460
8 poles; 75 - 750 rpm upon request						

RELUCTANCE MOTORS MUST NOT BE OPERATED IN THE FIELD WEAKENING RANGE

U/f = 7,6! Other U / f - ratios upon request

The torques are admissible in continuous operation on the frequency inverter in the entire speed range without reduction. The project planning instructions on page 13 must be taken into consideration for the parameterization of the frequency inverters.

Reluctance motors for inverter operation Frequency range (0)-5-50 Hz

Series **DNK ...Rs** not ventilated

Type of cooling **IC 410**

Insulation class F, temperature rise F

Degree of protection **IP 55**

Design: 380 V Y-connection - synchronous pull-out torque approx. 150%
special high-temperature grease

bimetal contacts or PTC = mandatory option

Torque Nm	Power at 50 Hz kW	Type	Nominal current at 380 V A	eta %	J kg*cm ²	m kg
2 poles; 300 - 3000 rpm		upon request				
4 poles; 150 - 1500 rpm						
0,96	0,15	DNK 71 B / 4 Rs	0,65	0,53	66,2	7,4
1,27	0,20	DNK 80 B / 4 Rs	0,85	0,51	70,1	15
1,59	0,25	DNK 90 S / 4 Rs	1,10	0,52	66,4	24
2,36	0,37	DNK 90 L / 4 Rs	1,70	0,50	66,1	32
3,5	0,55	DNK 100 LA / 4 Rs	2,25	0,51	72,8	46
4,78	0,75	DNK 100 LB / 4 Rs	3,40	0,51	65,7	61
7,0	1,10	DNK 112 M / 4 Rs	4,50	0,50	74,3	120
8,0	1,25	DNK 112 ML / 4 Rs	5,00	0,50	76,0	160
9,6	1,50	DNK 132 S / 4 Rs	6,50	0,50	70,1	240
11,8	1,85	DNK 132 M / 4 Rs	7,30	0,50	77,0	340
6 poles; 100 - 1000 rpm		upon request				

**RELUCTANCE MOTORS MUST NOT BE OPERATED IN THE FIELD
WEAKENING RANGE**

U/f = 7,6! Other U / f - ratios upon request

The torques are admissible in continuous operation on the frequency inverter in the entire speed range without reduction.

The project planning instructions on page 13 must be taken into consideration for the parameterization of the frequency inverters.

Reluctance motors for inverter operation

Frequency range (0)-5-87 Hz

Series **DNK ...Rs** self-ventilated

Type of cooling **IC 411**

Insulation class F, temperature rise B

Degree of protection IP 55

Design: 380 V Y-connection - synchronous pull-out torque approx. 150% special high-temperature grease

bimetal contacts or PTC = mandatory option

Torque Nm	Power at 87 Hz kW	Type	Nominal current at 380 V A	eta	J	m	
				%	kg*cm ²	kg	
2 poles; 300 - 5220 rpm		upon request					
4 poles; 150 - 2610 rpm							
0,90	0,25	DNK 71 A / 4 Rs	1,20	0,51	62,0	5,7	6
1,35	0,37	DNK 71 B / 4 Rs	1,70	0,54	61,0	7,4	6,5
1,70	0,46	DNK 80 A / 4 Rs	2,3	0,53	62,0	11	8,5
2,00	0,55	DNK 80 B / 4 Rs	2,8	0,49	61,0	15	9,5
2,75	0,75	DNK 90 S / 4 Rs	3,2	0,5	71,0	24	12,5
4,0	1,1	DNK 90 L / 4 Rs	4,5	0,5	74,0	32	15
5,8	1,6	DNK 100 LB / 4 Rs	6,5	0,5	70,0	61	23
9,5	2,6	DNK 112 M / 4 Rs	11,0	0,48	75,0	120	32
11,0	3,0	DNK 112 ML / 4 Rs	13,0	0,48	73,0	160	38
14,7	4,0	DNK 132 S / 4 Rs	18,2	0,47	71,0	240	46
20,0	5,5	DNK 132 M / 4 Rs	23,0	0,48	76,0	340	58
6 poles; 100 - 1740 rpm							
0,65	0,12	DNK 71A / 6 Rs	0,8	0,49	46,5	9,2	6
1,0	0,18	DNK 71B / 6 Rs	1,2	0,48	46,5	12	6,5
1,4	0,25	DNK 80 A / 6 Rs	1,45	0,47	56,0	22	8,5
2,0	0,37	DNK 80 B / 6 Rs	2,00	0,47	60,0	29	9,5
3,0	0,55	DNK 90 L / 6 Rs	2,75	0,47	65,0	51	15
4,4	0,8	DNK 100 L / 6 Rs	3,5	0,46	71,0	100	23
8,2	1,5	DNK 112 M / 6 Rs	7,6	0,45	67,0	190	32
12,1	2,2	DNK 112 ML / 6 Rs	11,0	0,45	68,0	240	38
14,3	2,6	DNK 132 S / 6 Rs	13,0	0,46	66,0	320	46
16,5	3,0	DNK 132 MA / 6 Rs	15,0	0,46	69,0	380	52
20,3	3,7	DNK 132 M / 6 Rs	18,0	0,44	71,0	460	58

RELUCTANCE MOTORS MUST NOT BE OPERATED IN THE FIELD WEAKENING RANGE

$U/f = 4.4$! Other U / f -ratios upon request

The torques are admissible in continuous operation on the frequency inverter in the entire speed range without reduction. The project planning instructions on page 13 must be taken into consideration for the parameterization of the frequency inverters.

Reluctance motors for inverter operation Frequency range (0)-5-87 Hz

Series **DNK ...RsF** separately ventilated Type of cooling **IC 415**

Insulation class F, temperature rise B

Degree of protection IP 55

Design: 380 V Y-connection - synchronous pull-out torque approx. 150%

special high-temperature grease - separate ventilator 230 V

bimetal contacts or PTC = mandatory option

Torque Nm	Power at 87 Hz kW	Type	Nominal current at 380 V A	eta %	J kg*cm ²	M kg		
				cos phi				
2 poles; 300 - 5220 rpm		upon request						
4 poles; 150 - 2610 rpm								
2,0	0,55	DNK 80 A / 4 RsF	2,6	0,52	62,0	11	10	
2,75	0,75	DNK 80 B / 4 RsF	3,1	0,52	71,0	15	11	
4,0	1,10	DNK 90 S / 4 RsF	4,9	0,48	71,0	24	14	
5,5	1,50	DNK 90 L / 4 RsF	6,3	0,49	74,0	32	16,5	
8,0	2,2	DNK 100 LA / 4 RsF	9,6	0,48	73,0	46	21,5	
11,0	3,0	DNK 100 LB / 4 RsF	13,5	0,48	70,0	61	24,5	
14,7	4,0	DNK 112 M / 4 RsF	17,6	0,47	74,0	120	33,5	
17,4	4,75	DNK 112 ML / 4 RsF	18,8	0,50	77,0	160	40	
20,0	5,5	DNK 132 S / 4 RsF	24	0,47	74,0	240	48	
27,5	7,5	DNK 132 M / 4 RsF	31	0,47	78,0	340	61	
6 poles; 100 – 1740 rpm								
2,5	0,46	DNK 80 A / 6 RsF	2,3	0,50	61,0	22	10	
3,0	0,55	DNK 80 B / 6 RsF	3,0	0,47	59,0	28	11	
3,6	0,65	DNK 90 S / 6 RsF	3,5	0,47	60,0	38	14	
4,1	0,75	DNK 90 L / 6 RsF	3,7	0,47	66,0	51	16,5	
6,0	1,1	DNK 100 LA / 6 RsF	6,0	0,45	62,0	78	21,5	
9,0	1,5	DNK 100 L / 6 RsF	7,2	0,46	69,0	100	24,5	
14,4	2,6	DNK 112 M / 6 RsF	13,0	0,43	71,0	190	33,5	
16,5	3,0	DNK 112 ML / 6 RsF	16,0	0,41	70,0	240	40	
19,2	3,5	DNK 132 S / 6 RsF	17,0	0,44	71,0	320	48	
22,0	4,0	DNK 132 MA / 6 RsF	20,0	0,44	69,0	380	54	
27,4	5,0	DNK 132 M / 6 RsF	24,5	0,44	71,0	460	60	

RELUCTANCE MOTORS MUST NOT BE OPERATED IN THE FIELD WEAKENING RANGE

U/f = 4.4! Other U / f - ratios upon request

The torques are admissible in continuous operation on the frequency inverter in the entire speed range without reduction.

The project planning instructions on page 13 must be taken into consideration for the parameterization of the frequency inverters.

Reluctance motors for inverter operation

Frequency range (0)-5-120 Hz

Series **DNK ...Rs** self-ventilated

Type of cooling **IC 411**

Insulation class F, temperature rise B

Degree of protection **IP 55**

Design: 380 V Y-connection - synchronous pull-out torque approx. 150% special high-temperature grease

bimetal contacts or PTC = mandatory option

Torque Nm	Power at 120 Hz kW	Type	Nominal current at 380 V A	eta %	J kg*cm ²	M kg		
				cos phi				
2 poles; 300 - 7200 rpm		upon request						
4 poles; 150 - 3600 rpm								
0,66	0,25	DNK 71 A / 4 Rs	1,10	0,54	64,0	5,7	6	
1,00	0,37	DNK 71 B / 4 Rs	1,60	0,53	66,0	7,4	6,5	
1,5	0,55	DNK 80 A / 4 Rs	2,4	0,53	66,0	11	8,5	
2,00	0,75	DNK 80 B / 4 Rs	3,3	0,51	68,0	15	9,5	
2,9	1,10	DNK 90 S / 4 Rs	4,5	0,54	69,0	24	12,5	
4,0	1,50	DNK 90 L / 4 Rs	6,8	0,50	67,0	32	15	
5,8	2,2	DNK 100 LB / 4 Rs	9,8	0,50	68,0	61	23	
9,3	3,5	DNK 112 M / 4 Rs	15	0,48	74,0	120	32	
10,6	4	DNK 112 ML / 4 Rs	18,5	0,46	71,0	160	38	
14,6	5,5	DNK 132 S / 4 Rs	24	0,47	74,0	240	46	
20,0	7,5	DNK 132 M / 4 Rs	31	0,48	77,0	340	58	
6 poles; 100 - 2400 rpm								
0,45	0,12	DNK 71A / 6 Rs	0,75	0,48	51,0	9,2	6	
0,72	0,18	DNK 71B / 6 Rs	1,05	0,48	54,0	12	6,5	
1,00	0,25	DNK 80 A / 6 Rs	1,20	0,49	65,0	22	8,5	
1,50	0,37	DNK 80 B / 6 Rs	1,90	0,47	63,0	29	9,5	
2,2	0,55	DNK 90 S / 6 Rs	2,6	0,49	66,0	38	12,5	
3,0	0,75	DNK 90 L / 6 Rs	3,5	0,47	69,0	51	15	
4,4	1,10	DNK 100 L / 6 Rs	5,5	0,46	66,0	100	23	
8,8	2,2	DNK 112 M / 6 Rs	11,2	0,45	66,0	190	32	
12,0	3,0	DNK 112 ML / 6 Rs	15,3	0,44	68,0	240	38	
14,0	3,5	DNK 132 S / 6 Rs	17,8	0,46	65,0	320	46	
16,0	4,0	DNK 132 MA / 6 Rs	20,5	0,44	67,0	380	52	
20,0	5,0	DNK 132 M / 6 Rs	25	0,44	69,0	460	58	

RELUCTANCE MOTORS MUST NOT BE OPERATED IN THE FIELD WEAKENING RANGE

U/f = 3,2! Other U / f - ratios upon request

The torques are admissible in continuous operation on the frequency inverter in the entire speed range without reduction.

The project planning instructions on page 13 must be taken into consideration for the parameterization of the frequency inverters.

Reluctance motors for inverter operation Frequency range (0)-20-100 Hz

Series **DNK ...Rs** self-ventilated

Type of cooling **IC 411**

Insulation class F, temperature rise B

Degree of protection **IP 55**

Design: 380 V Y-connection - synchronous pull-out torque approx. 150%
special high-temperature grease

bimetal contacts or PTC = mandatory option

Torque Nm	Power at 100 Hz kW	Type	Nominal current at 380 V A	eta %	J kg*cm ²	m kg
4 poles; 600 - 3000 rpm						
1,75	0,55	DNK 71 B / 4 Rs	2,5	0,53	63,1	7,4
2,39	0,75	DNK 80 A / 4 Rs	3,6	0,52	60,9	11
3,50	1,10	DNK 80 B / 4 Rs	5,1	0,48	68,3	15
4,78	1,50	DNK 90 S / 4 Rs	6,5	0,48	73,0	24
5,89	1,85	DNK 90 L / 4 Rs	8,0	0,48	73,2	32
7,00	2,20	DNK 100 LA / 4 Rs	9,2	0,48	75,7	46
14,0	4,40	DNK 112 M / 4 Rs	18	0,48	77,4	120
17,5	5,50	DNK 132 S / 4 Rs	24	0,48	72,5	240
23,9	7,50	DNK 132 M / 4 Rs	31	0,47	78,2	340
6 poles; 400 - 2000 rpm						
1,19	0,25	DNK 71B / 6 Rs	1,5	0,48	52,8	12
1,77	0,37	DNK 80 A / 6 Rs	2,2	0,48	53,2	22
2,63	0,55	DNK 80 B / 6 Rs	3,0	0,47	59,3	29
3,58	0,75	DNK 90 S / 6 Rs	4,1	0,47	59,1	38
5,25	1,10	DNK 90 L / 6 Rs	6,2	0,47	57,4	51
7,16	1,50	DNK 100 LA / 6 Rs	7,2	0,46	68,8	78
8,83	1,85	DNK 100 L / 6 Rs	8,8	0,46	69,4	100
14,3	3,00	DNK 112 ML / 6 Rs	16,5	0,42	65,8	240
19,1	4,00	DNK 132 S / 6 Rs	20,0	0,44	69,1	320
26,3	5,50	DNK 132 M / 6 Rs	27,5	0,44	69,1	460

RELUCTANCE MOTORS MUST NOT BE OPERATED IN THE FIELD WEAKENING RANGE

U/f = 3,8! Other U / f - ratios upon request

The torques are admissible in continuous operation on the frequency inverter in the entire speed range without reduction.

The project planning instructions on page 13 must be taken into consideration for the parameterization of the frequency inverters.

Reluctance motors for inverter operation

Frequency range (0)-5-87 Hz
and 5 - 120 Hz

Series DNK ... /46 Rs

Type of cooling **IC 411+415**

Insulation class F, temperature rise B

Degree of protection **IP 55**

Design: 380 V Y-connection - synchronous pull-out torque approx. 150%

special high-temperature grease

bimetal contacts or PTC = mandatory option

Torque Nm	Power at 87 Hz kW	Type	Nominal cur- rent at 380 V A	eta cos phi	J %	m kg*cm ²	m kg
4 poles; 150 - 2610 rpm, 5 – 87 Hz, self-ventilated, type of cooling IC 411							
1,70	0,46	DNK 80 A / 46 Rs	1,55	0,68	0,66	22	9
2,00	0,55	DNK 80 B / 46 Rs	1,55	0,67	0,71	28	10
4 poles; 150 - 2610 rpm, 5 – 87 Hz, series DNK ... / 46 RsF, separate ventilator 230 V, type of cooling IC 415							
2,00	0,55	DNK 80 A / 46 RsF	1,85	0,68	0,66	22	9
2,75	0,75	DNK 80 B / 46 RsF	2,35	0,67	0,72	28	10
4,0	1,10	DNK 90 S / 46 RsF	3,6	0,64	0,73	38	13
5,5	1,50	DNK 90 L / 46 RsF	5,0	0,64	0,71	51	15
8,0	2,2	DNK 100 LA / 46 RsF	6,6	0,67	0,76	78	19
11,0	3,0	DNK 100 L / 46 RsF	9,0	0,66	0,77	100	23
14,7	4,0	DNK 112 M / 46 RsF	12,0	0,68	0,75	190	32
17,4	4,75	DNK 112 ML / 46 RsF	14,0	0,67	0,77	240	38
4 poles; 150 - 3600 rpm, 5 – 120 Hz, self-ventilated, type of cooling IC 411							
Torque Nm	Power at 120 Hz kW	Type	Nominal cur- rent at 380 V A	eta cos phi	J %	m kg*cm ²	m kg
1,5	0,55	DNK 80 A / 46 Rs	1,8	0,67	0,69	22	9
2	0,75	DNK 80 B / 46 Rs	2,5	0,67	0,68	28	10
2,9	1,1	DNK 90 S / 46 Rs	3,5	0,66	0,72	38	13
4	1,5	DNK 90 L / 46 Rs	4,5	0,66	0,77	51	15
5,8	2,2	DNK 100 L / 46 Rs	6,8	0,67	0,73	100	23
9,3	3,5	DNK 112 M / 46 Rs	10,6	0,67	0,75	190	32
10,6	4	DNK 112 ML / 46 Rs	11,8	0,68	0,76	240	38

RELUCTANCE MOTORS MUST NOT BE OPERATED IN THE FIELD WEAKENING RANGE

With motors of the series / 46 R, the instructions on page 14 must be taken into consideration.

The torques are admissible in continuous operation on the frequency inverter in the entire speed range without reduction.

The project planning instructions on page 13 must be taken into consideration for the parameterization of the frequency inverters.

Reluctance motors for mains power supply

Frequency 50 Hz

Series **DNK ...Rs** self-ventilated

Type of cooling **IC 411**

Insulation class F, temperature rise B

Degree of protection IP 55

Design: 400 V Y-connection - synchronous pull-out torque approx. 150% special high-temperature grease