



KEB-DRIVE



USA

Frequency Inverters

The Unified Drive Platform-
open- and closed-loop technologies

F5 Basic

Open-loop applications needing basic I/O
V/Hz mode
SMM (sensorless motor) mode
5 digital inputs
1 0..10VDC, +/-10VDC, 0..20mA, 4..20mA analog inputs
1 0..10VDC analog output
2 form C relay outputs

F5 Compact

Open-loop applications needing expanded I/O
V/Hz mode
SMM (sensorless motor) mode
8 digital inputs (PNP or NPN via software)
2 0..10VDC, +/-10VDC, 0..20mA, 4..20mA analog inputs
2 +/-10VDC analog outputs
2 form C relay outputs
2 PNP transistor outputs

F5 Application

Open- and closed-loop applications for IM and PM motors
V/Hz mode
SMM (sensorless motor) mode
Flux vector mode (torque and speed control down to 0rpm)
PM servo mode
Absolute and relative positioning controller
Angular synchronization controller
8 digital inputs (PNP or NPN via software)
2 0..10VDC, +/-10VDC, 0..20mA, 4..20mA analog inputs
2 +/-10VDC analog outputs
2 form C relay outputs
2 PNP transistor outputs

F5 SCL

Synchronous Sensorless Closed Loop for PM motors
Open-loop speed and torque control exceeding servo performance
Automatic motor identification
I/O based on F5 Application

F5 ASCL

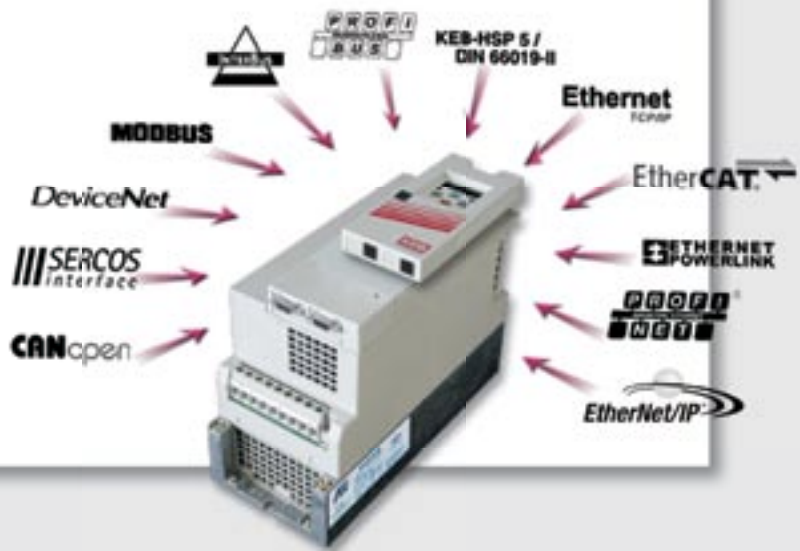
Asynchronous Sensorless Closed Loop for IM motors
Open-loop speed and torque control exceeding flux vector performance
Automatic motor identification
I/O based on F5 Application

Closed Loop
Without Encoder!



B x H x T (approx)
Dimensions in inches

Rated Power [Hp]	208...240VAC Mains			Rated Power [Hp]	350...500VAC Mains		
	Housing	UL Rated Current [A]	EU Rated Current [A]		Housing	UL Rated Current [A]	EU Rated Current [A]
0.5	A,B	2.3	2.3	0.5	A,B	1	1.3
1	A,B,D	4.1	4	1	A,B,D	1.8	2.6
2	B,D	6.8	7	2	A,B,D	3.4	4.1
3	B,D	9.6	10	3	B,D	4.8	5.8
5	D	15.2	16.5	5	B,D,E	7.6	9.5
7.5	E	22	24	7.5	D,E	11	12
10	E,G	28	33	10	D,E,G	14	16.5
15	G,H	42	48	15	E,G,H	21	24
20	H	57	66	20	E,G,H	27	33
25	H,R	84	84	25	G,H	34	42
30	R	100	100	30	G,H,R	40	50
40	R	115	115	40	H,R	52	60
50	R	130	145	50	H,R	65	75
60	R	154	180	60	R	77	90
				75	R	96	115
				100	R,U	136	150
				125	R,U	172	180
				150	U	198	210
				175	U	231	250
				200	U	264	300
				250	P,W	332	370
				300	P,W	397	460
				400	P,W	455	570
				450	W	545	630
				500	W	606	710
				600	2xP	667	800
				650	2xP	742	890
				750	3xP	896	1000
				800	3xP	1030	1150
				900	3xP		1330
				1000	3xP		1450



Gear Motors

***G Series
Inline Helical***



***F Series
Parallel Offset***



***S Series
Helical Worm***



***K Series
Helical Bevel***



Model	Torque [inlb]	Gear Ratio	Hp	Shaft [mm]	Bore [mm]	Shaft [in]	Bore [in]
G0	525	3.46..72.52	1	Ø 20 x 40	-	Ø 0.750 x 1.57	-
G1	1025	3.37..115.34	2	Ø 20 x 40	-	Ø 0.750 x 1.57	-
G2	2075	3.49..153.41	4	Ø 25 x 50	-	Ø 1.000 x 1.97	-
G3	4225	3.56..177.27	7.5	Ø 30 x 60 Ø 35 x 70	-	Ø 1.250 x 2.36	-
G4	7725	3.61..210.05	15	Ø 40 x 80	-	Ø 1.625 x 3.15	-
G5	14500	3.85..186.77	25	Ø 50 x 100	-	Ø 2.000 x 3.94	-
G6	24750	3.96..221.95	30	Ø 60 x 120	-	Ø 2.375 x 4.72	-
G7	43000	4.34..250.97	40	Ø 75 x 140	-	Ø 3.000 x 5.51	-
G8	78500	5.92..186.96	60	Ø 90 x 170	-	Ø 3.625 x 6.69	-

Model	Torque [inlb]	Gear Ratio	Hp	Shaft [mm]	Bore [mm]	Shaft [in]	Bore [in]
F2	2175	3.37..170.20	4	Ø 25 x 50	Ø 25 x 120 Ø 30 x 120	Ø 1.000 x 1.97	Ø 1.000 x 4.72
F3	4150	3.70..190.26	5.5	Ø 30 x 60 Ø 35 x 70	Ø 30 x 150 Ø 35 x 150	Ø 1.250 x 2.36	Ø 1.250 x 5.91
F4	7800	3.20..235.25	10	Ø 40 x 80	Ø 40 x 175	Ø 1.625 x 3.15	Ø 1.500 x 6.89
F5	14000	3.80..205.64	20	Ø 50 x 100	Ø 50 x 210	Ø 2.000 x 3.94	Ø 2.000 x 8.27
F6	24750	4.08..242.53	30	Ø 60 x 120	Ø 60 x 240	Ø 2.375 x 4.72	Ø 2.375 x 9.45
F7	43000	4.32..274.23	40	Ø 75 x 140	Ø 70 x 300	Ø 3.000 x 5.51	Ø 2.750 x 11.81

Model	Torque [inlb]	Gear Ratio	Hp	Shaft [mm]	Bore [mm]	Shaft [in]	Bore [in]
S0	500	5.09..189.00	1	Ø 20 x 40	Ø 20 x 90 Ø 25 x 90	Ø 0.750 x 1.57	Ø 0.750 x 3.54
S1	1475	7.00..168.00	2	Ø 25 x 50	Ø 25 x 120 Ø 30 x 120	Ø 1.000 x 1.97	Ø 1.000 x 4.72
S2	2700	6.85..207.20	4	Ø 30 x 60 Ø 35 x 70	Ø 30 x 150 Ø 35 x 150	Ø 1.250 x 2.36	Ø 1.250 x 5.91
S3	5300	7.25..271.60	5.5	Ø 40 x 80	Ø 40 x 175	Ø 1.625 x 3.15	Ø 1.500 x 6.89
S4	11500	7.70..247.58	10	Ø 50 x 100	Ø 50 x 210	Ø 2.000 x 3.94	Ø 2.000 x 8.27

Model	Torque [inlb]	Gear Ratio	Hp	Shaft [mm]	Bore [mm]	Shaft [in]	Bore [in]
K2	1800	5.07..102.27	3.5	Ø 25 x 50	Ø 25 x 120 Ø 30 x 120	Ø 1.000 x 1.97	Ø 1.000 x 4.72
K3	3525	5.14..120.13	5.5	Ø 30 x 60 Ø 35 x 70	Ø 30 x 150 Ø 35 x 150	Ø 1.250 x 2.36	Ø 1.250 x 5.91
K4	6575	5.16..151.92	10	Ø 40 x 80	Ø 40 x 175	Ø 1.625 x 3.15	Ø 1.500 x 6.89
K5	12500	5.69..138.94	20	Ø 50 x 100	Ø 50 x 210	Ø 2.000 x 3.94	Ø 2.000 x 8.27
K6	22500	6.35..160.53	30	Ø 60 x 120	Ø 60 x 240	Ø 2.375 x 4.72	Ø 2.375 x 9.45
K7	38250	7.29..183.21	40	Ø 75 x 140	Ø 70 x 300	Ø 3.000 x 5.51	Ø 2.750 x 11.81
K8	70250	8.11..144.68	60	Ø 90 x 170	Ø 90 x 350	-	-

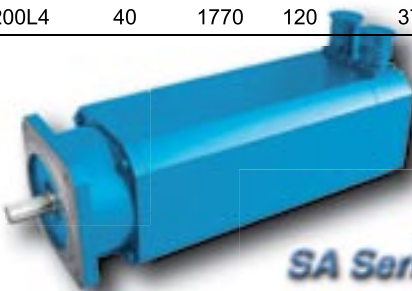
Closed Loop Motors

Vector Motors DL/DA



Motor	Power [Hp]	n [rpm]	Mn [lbft]	Power Off Brake Option (Standard) [lbft]	Power Off Brake Option (Reduced) [lbft]	Motor Inertia [lbft²]	Typical KEB F5 Drive
DL63K4	0.16	1685	0.5	3.7	-	0.0095	05F5
DL63G4	0.25	1690	0.75	3.7	-	0.0095	05F5
DL71K4	0.33	1665	1	3.7	-	0.0102	05F5
DL71G4	0.5	1660	1.5	3.7	-	0.0128	05F5
DL80K4	0.75	1695	2.25	7.4	3.7	0.0225	07F5
DL80G4	1	1675	3	7.4	3.7	0.0275	07F5
DL90S4	1.5	1710	4.5	15	7.4	0.0541	09F5
DL90L4	2	1690	6	15	7.4	0.0664	09F5
DL100L4	3	1705	9	26.5	15	0.1070	10F5
DL100LX4	4	1720	12	26.5	15	0.1421	12F5
DL112M4	5.5	1720	17	52	26.5	0.2371	12F5
DA132S4	7.5	1735	23	74	52	0.3393	13F5
DA132M4	10	1735	30	74	52	0.4509	14F5
DA160MS4	12.5	1765	37	110	74	1.2174	15F5
DA160M4	15	1760	45	110	74	1.3764	15F5
DA160L4	20	1760	60	185	110	1.8510	16F5
DA180M4	25	1765	74	185	110	3.7969	17F5
DA180L4	30	1770	90	370	185	4.2715	18F5
DA200L4	40	1770	120	370	185	6.1224	19F5

Servo Motors TA/SA



TA Series (200% Overload)

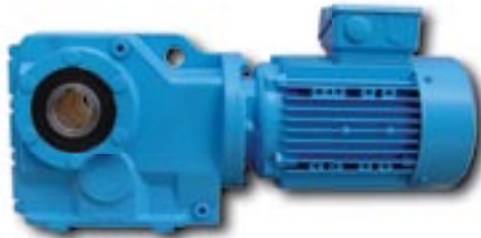
SA Series (500% Overload)

Motor	Rated Speed [rpm]	Rated Torque [inlbs]	Power Off Brake Option [inlbs]	Motor Inertia [lbft²]	Typical KEB F5 Drive
TA21	4000	5	18	0.0009	07F5
TA22	4000	10	18	0.0017	09F5
TA31	3000	10	40	0.0019	07F5
TA32	3000	20	40	0.0036	09F5
TA33	3000	30	40	0.0052	10F5
TA41	3000	45	80	0.0134	12F5
TA42	3000	55	80	0.0193	12F5
TA43	3000	65	80	0.0253	13F5
TA51	3000	75	160	0.0354	13F5
TA52	3000	100	160	0.0511	14F5
TA53	3000	125	160	0.0668	15F5
TA61	3000	185	320	0.1844	16F5
TA62	3000	250	320	0.2698	18F5
TA63	3000	300	320	0.3532	18F5

Motor	Rated Speed [rpm]	Rated Torque [inlbs]	Power Off Brake Option [inlbs]	Motor Inertia [lbft²]	Typical KEB F5 Drive
SA71	4000	5	40	0.0005	07F5
SA72	4000	12	40	0.0009	09F5
SA73	4000	18	40	0.0014	10F5
SA92	3000	21	80	0.0064	12F5
SA93	3000	35	80	0.0100	12F5
SA94	3000	45	80	0.0128	13F5
SA112	3000	55	100	0.0176	13F5
SA113	3000	75	100	0.0233	14F5
SA114	3000	90	100	0.0301	15F5
SA142	3000	100	320	0.0463	15F5
SA143	3000	130	320	0.0634	16F5
SA144	2000	200	320	0.0854	16F5
SA192	2000	350	750	0.3488	18F5
SA193	2000	460	750	0.4983	20F5

Complete Systems

Gear Motors



Power Off Brakes

- Spring Set
- Permanent Magnet

Vector Motors



Cooling

- TENV
- TEFC
- TEBC

Servo Motors



Encoders

- TTL
- HTL
- EnDat
- Hiperface
- UVW
- Biss
- SinCos
- SSI
- Resolver

Drives



people in motion



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