

BLACK MAX® VECTOR DUTY, 1000:1 CONSTANT TORQUE

Explosion Proof, Class I Groups C & D, Class II Groups F & G

Totally Enclosed Non-Ventilated, C-Face with Rigid Base



Applications:

For use in material handling, machine tools, conveyors, crane & hoist, and other variable speed applications requiring up to 1000:1 constant torque speed range, to be installed in hazardous environments as defined by the motor's explosion proof class and group rating. Consult the National Electrical Code and your local regulations for the proper selection of motors in hazardous locations

Features:

- Class F MAX GUARD® insulation system
- Constant torque operation from 0 to base speed on vector drive
- Constant HP operation to twice base RPM
- Continuous duty at 40° C ambient
- Optimized for operation with IGBT inverter (NEMA Design A)
- Class F N/C thermostats
- Totally Enclosed Non-Ventilated
- Ball bearing
- Top mount (F3) conduit box included, shipped loose
- No Encoder Provisions included
- CSA certified under file numbers LR47504 and LR21839
- UL listed, temperature code T3B, under file #E12044
- Three year warranty
- NOT available in all regions.

HP	RPM	VOLTS	FRAME	OVER LOAD	F.L AMPS	WEIGHT LBS.	"C" DIM	CAT. NO.	FOOT NOTES	LIST PRICE
1/4	1800	230/460	56C	TSTAT	1.1/0.55	34	11.97	Y600	CD,N	\$581
1/3	1800	230/460	56C	TSTAT	1.2/0.6	34	11.97	Y601	CD,N	\$681
1/2	1800	230/460	56C	TSTAT	1.6/0.8	39	12.47	Y602	CD,N	\$735
3/4	1800	230/460	56C	TSTAT	2.4/1.2	42	13.47	Y603	CD,N	\$814
1	1800	230/460	56C	TSTAT	3.0/1.5	45	13.97	Y604	CD,N	\$890

microMAX™ AC INVERTER DUTY MOTOR

1000:1 Constant Torque (TENV), 20:1 Constant Torque (TEFC)



Applications: Designed for direct replacement of PMDC or any other variable speed application where up to a 1000:1 constant torque speed range is required. Typical uses include: machine tools, conveyors, packaging machines,

- Features:**
- Replaces 90 volt and 180 volt PMDC motors (when used with AC variable frequency drives)
- Constant torque operation from 0 to base speed (TENV ratings)
- Constant torque operation from 1/20 speed to base speed (TEFC ratings)
- Constant horsepower to twice base speed (RPM)
- C-Face with Rigid Base
- Class H insulation with CR²⁰⁰ magnet wire
- Continuous duty at 40°C ambient
- "Quick Connect" terminal board, as noted
- Top mounted conduit box with pigtail leads (TEFC and 1.5 HP TENV)
- UL recognized and CSA certified
- Three year warranty
- Not Available in all Regions.

HP	RPM	VOLTS	ENCL.	FRAME	CAT. NO.	LIST PRICE	F.L. AMPS	WEIGHT LBS.	"C" DIM	FOOT NOTES
1/8	1800	230	TENV	56C	Y605	\$246	1.0	18	9.80	N,Q
1/4	1800	230	TENV	56C	Y500	\$251	1.0	18	9.80	N,Q
1/3	1800	230	TENV	56C	Y502	\$270	1.2	18	9.80	N,Q
1/2	1800	230	TENV	56C	Y504	\$318	1.8	20	10.55	N,Q
	1800	230/460	TENV	56C	Y360	\$318	1.8/0.9	20	10.55	N
	1800	575	TENV	56C	Y361	\$318	0.7	20	10.55	N,Q
3/4	1800	230	TEFC	56C	Y506	\$393	2.8	23	11.19	
	1800	230/460	TEFC	56C	Y362	\$393	2.8/1.4	23	11.19	
	1800	575	TEFC	56C	Y363	\$393	1.1	23	11.19	
1	1800	230	TEFC	56C	Y508	\$442	3.2	28	12.44	
	1800	230/460	TEFC	56C	Y364	\$442	3.2/1.6	28	12.44	
	1800	575	TEFC	56C	Y365	\$442	1.3	28	12.44	
1 1/2	1800	230	TENV	145TC	Y522	\$550	4.8	49	13.48	N,6
	1800	230/460	TENV	145TC	Y366	\$550	4.8/2.4	49	13.48	N,6
	1800	575	TENV	145TC	Y367	\$550	1.9	49	13.48	N,6
2	1800	230	TEFC	145TC	Y523	\$730	5.8	50	14.87	6
	1800	230/460	TEFC	145TC	Y368	\$730	5.8/2.9	50	14.87	6
	1800	575	TEFC	145TC	Y369	\$730	2.3	50	14.87	6
3	1800	230	TEFC	182/145TC	Y530	\$861	8.4	52	14.87	86,88
	1800	230/460	TEFC	182/145TC	Y370	\$861	8.4/4.2	52	14.87	86,88
	1800	575	TEFC	182/145TC	Y371	\$861	3.4	52	14.87	86,88
5	1800	230/460	TEFC	184TC	Y372	\$1,022	13.4/6.7	88	16.69	6
	1800	575	TEFC	184TC	Y373	\$1,022	5.4	88	16.69	6

Notes: See next page

BLACK MAX® VECTOR DUTY, 1000:1 CONSTANT TORQUE

Totally Enclosed Non-Ventilated, C-Face with Rigid Base



Applications: Designed for inverter or vector applications where up to a 1000:1 constant torque speed range is required. Typical uses include: material handling, machine tools, conveyors, crane and hoist, metal processing, test stands, pumps compressors, textile processing, and other industrial machinery installed in dusty or dirty environments.

Features:

MAX GUARD® Class F insulation system
 Constant torque from 0 to base speed on Vector Drive
 Constant Horsepower to twice base RPM
 Continuous duty at 40° C ambient
 Optimized for operation with IGBT inverter (NEMA Design A)
 Normally closed thermostats (one per phase)
 Removable Base on some models, as noted

Ball bearing
 Field reversible to F2 (except where noted)
 Encoder and brake provisions included on opposite drive end (maximum 10 lb-ft brake, see Accessory Kits sections)
 UL Recognized and CSA Certified (contact factory for CE marking)
 Three year warranty
 Not available in all regions.

HP	RPM	VOLTS	FRAME	FLAMPS	WEIGHT LBS.	"C" DIM	CAT. NO.	FOOT NOTES	LIST PRICE
1/4	1800	230/460	56C	1.2	17	11.76	Y592	N,S,13	\$395
1/3	1800	230/460	56C	1.2	17	11.76	Y593	d,N,S,13	\$431
1/2	1800	230/460	56C	1.6 / 0.8	28	13.48	Y534	N,S,6,13	\$466
	1800	575	56C	0.6	28	13.48	Y555	N,S,6,13	\$466
1	1800	230/460	56C	3.0/1.5	41	14.98	Y535	N,S,6,13	\$556
	1800	575	56C	1.2	41	14.98	Y556	N,S,6,13	\$556
	1800	230/460	143TC	3.0/1.5	43	15.04	Y536	N,S,6,13	\$571
	1200	230/460	145TC	1.9	49	16.04	Y537	N,S,6,13	\$661
1 1/2	1800	230/460	145TC	4.8/2.4	50	16.04	Y538	N,S,6,13	\$694
2	1800	230/460	145TC	6.0/3.0	70	14.68	Y551	N	\$958
	1800	575	145TC	2.4	70	14.68	Y557	N	\$958
	1200	230/460	184TC	6.6/3.3	88	17.44	Y540	N,AL	\$1,369
3	1800	230/460	182TC	8.4/4.2	96	17.94	Y541	N,AL	\$1,187
	1800	575	182TC	3.4	96	17.94	Y558	N,AL	\$1,187
	1200	230/460	213TC	9.4/4.7	118	18.74	Y542	N,AL	\$1,688
5	1800	230/460	184TC	13.0/6.5	98	18.94	Y543	N,AL	\$1,418
	1800	575	184TC	5.4	98	18.94	Y559	N,AL	\$1,418
	1200	230/460	215TC	15.4/7.7	138	20.24	Y544	N,AL	\$2,053
7 1/2	1800	230/460	213TC	21.4/10.7	146	20.24	Y545	N,AL	\$1,862
	1800	575	213TC	7.0	146	20.24	Y560	N,AL	\$1,862
	1200	230/460	254TC	22.0/11.0	209	25.37	Y546	N,AL	\$2,761
10	1800	230/460	215TC	27.0/13.5	159	22.74	Y547	N,AL	\$2,227
	1800	575	215TC	10.8	159	22.74	Y561	N,AL	\$2,227
	1200	230/460	256TC	28.4/14.2	203	25.37	Y548	N,AL	\$3,126
15	1800	230/460	254TC	40.0/20.0	250	26.87	Y549	I,N,AL	\$2,650
	1800	575	254TC	16.0	250	26.87	Y562	I,N,AL	\$2,650
20	1800	230/460	256TC	54.0/27.0	300	24.88	Y552	I,N	\$3,192
	1800	575	256TC	21.6	300	24.88	Y563	I,N	\$3,192
25	1800	230/460	284TC	65.0/32.5	400	27.55	Y553	I,N	\$4,208
	1800	575	284TC	26.0	400	27.55	Y567	I,N	\$4,208
30	1800	230/460	286TC	80.0/40.0	575	28.58	Y393	I,N	\$4,745
	1800	575	286TC	32.0	575	28.58	Y394	I,N	\$4,745

Footnotes:

AL Aluminum Frame Construction
 I Intermittent duty from 90-120HZ operation
 N Totally Enclosed, Non-Ventilated
 S Steel Frame Construction
 CD Class 1 Group C & D, Class 2 Groups F & G

Q Quick Connect Terminal Board
 6 Bolt-on, removable base for footless mounting option
 13 F1 Mounting Only, Cannot reassemble to F2
 88 2:1 Constant Torque speed range; Contact Phelan Brothers for greater than 2:1 capability
 88 182T Base and shaft height, 145TC mounting face and shaft dimensions.