

V*S MASTER

VARIABLE SPEED MOTORS

- 1000:1 Constant Torque Inverter Duty AC Motors
- TEFC Enclosures in Standard NEMA Frame Ratings
- Totally Enclosed Blower Cooled Performance in TEFC Enclosures
- 2 to 500HP

The V*S Master Inverter Duty AC Motors are designed to provide full load torque continuously from 0 to base speed, often referred to as a 1000:1 constant torque rating. All V*S Master motors are in standard NEMA frame sizes, smaller ratings in TENV or TEFC enclosures and larger ratings are TEFC.

V*S Master Inverter Duty AC Motors are specifically designed for operation on inverter power, not for "across the line" operation. The V*S Master has Reliance's inverter duty insulation system which exceeds NEMA's recommendation for Inverter-fed AC motors. Reliance's inverter duty AC motors eliminate the formation of corona that will greatly shorten the insulation life of an AC motor that is connected to a PWM inverter. Reliance's Corona-Free insulation system provides much longer life to AC motors compared to a motor that only uses "corona resistant or spike resistant" materials. The V*S Master motors provide an insulated bearing as standard on all 440 frames.



- Ratings (HP) in NEMA standard frame sizes
 TENV or TEFC
- Continuous constant rated torque from 0 to base speed (1000:1)
- TEFC enclosures provide class B rise over the 4:1 constant torque speed range
- Cast Iron frames and end shields



- 200% overload torque for 1 minute below base speed
- Standard base speeds available: 900, 1200 and 1800 RPM.
- Constant horsepower operation to 1.5 times base speed
- Three normally closed thermostats
- Hole drilled and tapped in shaft for encoder mounting
- Opposite drive end insulated bearing on all 440T frames
- Stocked ratings from 2 HP to 300 HP
- C-face with feet stocked from 2 HP to 20 HP
- Inverter Duty insulation system
- Optimized electrical design for inverter power, not for "across the line" power
- Class F insulation
- 40°C ambient temperature
- Continuous duty
- 1.0 service factor on inverter power
- Re-greaseable bearings
- Stainless steel nameplates
- Hex head hardware



✓ Aggregate/Cement

RELIANCE

✓ Metals

- Many modifications available through production or stock modification
- Encoder mounting kits available from stock for hollow shaft encoders such as the RA HS35-MS, BEI HS35 and Lakeshore HSD35.
- Large Selection of different types of encoders available on production orders.

Applications:

Inverter Duty Applications that require variable or constant torque over 2:1, 4:1, 10:1 or 1000:1 speed ranges. Best

solution for Extruders, Web Processing, Paper Machines, Paper Converting, Metal Processing and other applications that require a large constant torque speed range. Replace troublesome totally enclosed blowercooled (TEBC) motors with this TEFC motor.

RATINGS for 2-500HP

RAIINGS for 2-300HP								
HP	BASE RPM	FRAME	ENCL	M/N	*460V AMPS			
2	1200	TEFC	184TC	P18G1192	2.6			
2	1200	TENV	184TC	P18G1187	2.7			
3	1800	TEFC	182TC	P18G1193	3.8			
3	1800	TENV	184TC	P18G1188	3.7			
3	1200	TEFC	213TC	P21G1165	3.9			
3	1200	TENV	215T	P21G3205	3.9			
5	1800	TEFC	L184TC	P18G1194	6.4			
5	1800	TENV	L184TC	P18G1189	6.4			
5	1200	TEFC	L215TC	P21G1166	6.3			
5	1200	TENV	L215T	P21G3206	6.2			
7.5	1800	TEFC	213TC	P21G1167	10.8			
7.5	1800	TENV	L215TC	P21G1162	9.2			
7.5	1200	TEFC	254T	P25G3205	9.5			
10	1800	TENV	254TC	P25G1152	12.7			
10	1800	TEFC	L215TC	P21G1164	12.4			
10	1200	TEFC	256T	P25G3206	12.6			
15	1800	TEFC	254TC	P25G1153	18.4			
15	1800	TENV	256TC	P25G1150	18.7			
15	1200	TEFC	284T	P28G3205	19.2			
20	1800	TENV	284T	P28G3208	24.3			
20	1800	TEFC	256TC	P25G1151	25.6			
20	1200	TEFC	286T	P28G3206	25.3			
25	1800	TENV	324T	P32G3210	30.6			
25	1800	TEFC	284TC	P28G1083	31.0			
25	1200	TEFC	324T	P32G3205	31.6			
30	1800	TENV	326T	P32G3209	36.4			
30	1800	TEFC	286T	P28G3207	38.3			
30	1200	TEFC	326T	P32G3206	37.5			
40	1800	TENV	364T	P36G3209	48.2			
40	1800	TEFC	324T	P32G3207	49.8			
40	1200	TEFC	364T	P36G3205	49.6			

2-500HP (continued)

	2 3 3 3 11 (6 3 11 11 10 6 4)					
HP	BASE RPM	ENCL	FRAME	M/N	*460V AMPS	
50	1800	TENV	404T	P40G3208	57.9	
50	1800	TEFC	326T	P32G3208	62.6	
50	1200	TEFC	365T	P36G3206	60.7	
60	1800	TEFC	364T	P36G3207	71.4	
60	1200	TEFC	404T	P40G3205	71.1	
75	1800	TEFC	365T	P36G3208	89.4	
75	1200	TEFC	405T	P40G3206	85.1	
100	1800	TEFC	405T	P40G3207	116.0	
100	1200	TEFC	444T	P44G3205	115.0	
125	1800	TEFC	444T	P44G3207	151.0	
125	1200	TEFC	445T	P44G3206	151.0	
150	1800	TEFC	445T	P44G3208	177.0	
150	1200	TEFC	447T	P44G3209	177.0	
200	1800	TEFC	447T	P44G3213	226.0	
200	1200	TEFC	449T	P44G3210	224.0	
250	1800	TEFC	449T	P44G3214	279.0	
250	1200	TEFC	L449T	P44G3211	283.0	
300	1800	TEFC	449T	P44G3215	339.0	
300	1200	TEFC	L449T	P44G3212	354.0	
350	1800	TEFC	L449T	P44G3216	398.0	
400	1800	TEFC	L449T	P44G3217	446.0	
450	1800	TEFC	L449T	P44G3218	502.0	
500	1800	TEFC	L449T	P44G3221	551.0	

www.baldor.com www.ptplace.com www.dodge-pt.com www.reliance.com



Baldor Electric Company Headquarters

P.O. Box 2400, Fort Smith, AR 72902-2400 U.S.A., Ph. (1) 479.646.4711, Fax (1) 479.648.5792, International Fax (1) 479.648.5895

^{*}Typical full load AMPS. Ratings 2HP @ 1200 RPM through 15HP @ 1800 RPM are stocked as 230/460 VAC. Notes: Other base speeds and voltages available.

All V*S Master motors are manufactured in the U.S.A.