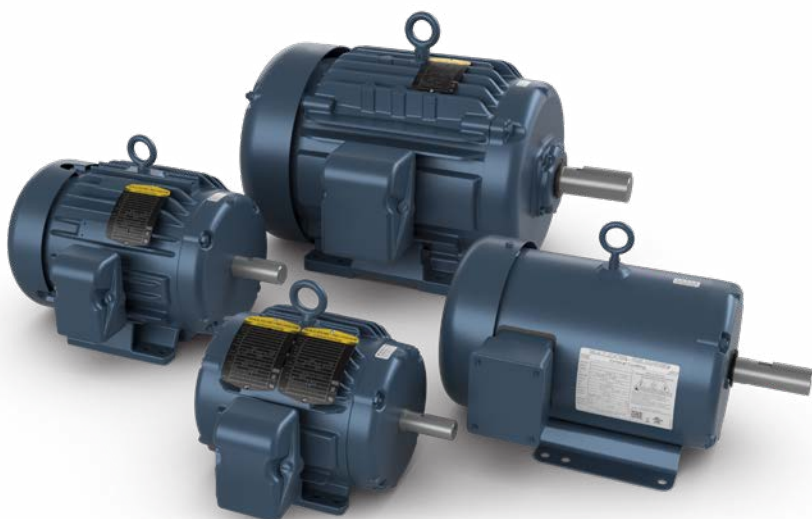


PRODUCT NOTE

## Critical Cooling motors

Highest reliability with lifetime motor bearing protection



Baldor-Reliance® Critical Cooling motors are ideal for variable speed applications where downtime is not an option. Specially designed hybrid ceramic bearings offer a lifetime warranty against motor bearing failure caused by shaft currents.

### BALDOR • RELIANCE

#### Features:

- Lifetime warranty on motor bearings against shaft currents caused by VFDs
- TEAO and TEFC enclosures
- Hybrid ceramic ball bearings on both motor ends
- IP54 ingress protection
- Turndown ratio 20:1 variable torque
- Induction rotor for NEMA Premium® efficiency (IE3) or ultra premium efficiency (IE5+)
- NEMA Design A
- Multi-color leads for ease of connections
- Suitable for inverter use per MG1 Part 31.4.4.2
- Designed for longevity with 5-year warranty

#### Applications:

The Baldor-Reliance Critical Cooling motor is best suited for direct drive or belt-driven HVAC applications that utilize VFDs. Ideal for applications where stable temperature control and continuous operation are critical such as data centers, clean rooms, hospitals, and other commercial and industrial buildings.



## Energy efficient and reliable

Critical cooling motors are offered in two different rotor designs: (1) Induction rotor that meets NEMA Premium® efficiency (IE3) levels and (2) Ferrite Assisted Synchronous Reluctance, or FASR rotor, that is ultra-premium and achieves (IE5+) efficiency levels.



(1)



(2)

## Critical cooling motor, 3 phase, TEFC, ultra premium efficiency (IE5+) 5 thru 20 Hp



Hp	Base speed RPM	C.H. speed RPM	NEMA frame	Enclosure	Catalog number	"C" dim.	Aprx. wt. (lb.)	Full load efficiency	Voltage	Full load amps
5	1800	4000	143T	TEFC	<b>ECC101M0H5DF4</b>	15.54	64	93.0%	230/460	10.4/5.2
		4000	182T	TEFC	<b>ECC101M0H5EF4</b>	16.54	68	93.7%	230/460	10.5/5.3
7.5	1800	4000	184T	TEFC	<b>ECC101M0H7EF4</b>	18.04	92	94.0%	230/460	17.5/8.8
		3000	213T	TEFC	<b>ECC101M0H7FF4</b>	17.89	105	94.0%	230/460	17.4/8.7
10	1800	3000	213T	TEFC	<b>ECC101M0H10FF4</b>	19.02	123	94.8%	230/460	22.0/11.0
15	1800	3000	215T	TEFC	<b>ECC101M0H15FF4</b>	21.96	168	95.6%	230/460	34.8/17.4
20	1800	3000	215T	TEFC	<b>ECC101M4H20FF4</b>	23.51	218	95.9%	460	21.6

## Critical cooling motor, 3 phase, TEFC

1 thru 30 Hp



Hp	RPM	NEMA frame	Catalog number	"C" dim.	Aprx. wt. (lb.)	Full load efficiency	Voltage	Full load amps
1	1800	143T	<b>HBEM3546T</b>	12.31	30	85.5	230/460	1.5
		143T	<b>HBEM3581T</b>	12.54	55	85.5	230/460	1.5
	1200	145T	<b>HBEM3556T</b>	13.31	43	82.5	230/460	1.8
		145T	<b>HBEM3582T</b>	12.54	56	82.5	230/460	1.7
1-1/2	1800	145T	<b>HBEM3554T</b>	13.31	42	86.5	230/460	2.2
		145T	<b>HBEM3584T</b>	12.54	61	86.5	230/460	2.3
	1200	182T	<b>HBEM3607T</b>	16.54	76	87.5	230/460	2.4
		182T	<b>HBEM3667T</b>	15.24	99	87.5	230/460	2.5
2	1800	145T	<b>HBEM3558T</b>	13.31	42	86.5	230/460	2.9
		145T	<b>HBEM3587T</b>	12.54	62	86.5	230/460	2.9
	1200	184T	<b>HBEM3614T</b>	18.04	94	88.5	230/460	3.5
		184T	<b>HBEM3664T</b>	15.24	123	88.5	230/460	3.15
3	1800	182T	<b>HBEM3611T</b>	16.54	74	89.5	230/460	4.2
		182T	<b>HBEM3661T</b>	15.24	105	89.5	230/460	4.1
	1200	213T	<b>HBEM3704T</b>	19.01	135	89.5	230/460	4.6
		213T	<b>HBEM3764T</b>	18.45	211	89.5	230/460	4.5
5	1800	184T	<b>HBEM3615T</b>	18.04	92	89.5	230/460	6.7
		184T	<b>HBEM3665T</b>	15.24	115	89.5	230/460	6.6
	1200	215T	<b>HBEM3708T</b>	19.76	154	89.5	230/460	7.3
		215T	<b>HBEM3768T</b>	18.45	198	89.5	230/460	7.4
7-1/2	1800	213T	<b>HBEM3710T</b>	19.01	129	91.7	230/460	9.4
		213T	<b>HBEM3770T</b>	18.45	193	91.7	230/460	9.5
	1200	254T	<b>HBEM2276T</b>	23.3	281	91	230/460	11
10	1800	215T	<b>HBEM3714T</b>	20.51	156	91.7	230/460	12
		215T	<b>HBEM3774T</b>	18.45	232	91.7	230/460	12.2
	1200	256T	<b>HBEM2332T</b>	23.3	322	91	230/460	14.1
15	1800	254T	<b>HBEM2333T</b>	23.3	270	92.4	230/460	18.1
	1200	284T	<b>HBEM4100T</b>	27.76	369	91.7	230/460	21
20	1800	256T	<b>HBEM2334T</b>	23.3	295	93	230/460	24
	1200	286T	<b>HBEM4102T</b>	27.76	393	91.7	230/460	27
25	1800	284T	<b>HBEM4103T</b>	27.76	400	93.6	230/460	30
30	1800	286T	<b>HBEM4104T</b>	27.76	410	93.6	230/460	38

Cast iron frame

## Critical cooling motor, 3 phase, TEAO

1 thru 30 Hp



Hp	RPM	NEMA frame	Catalog number	"C" dim.	Aprx. wt. (lb.)	Full load efficiency	Voltage	Full load amps
1	1800	143T	<b>HBAO3581T</b>	11.44	58	86.5	230/460	2.9
	3600	145T	<b>HBAO3586T</b>	11.44	64	86.5	230/460	5.4
2	1800	145T	<b>HBAO3587T</b>	11.44	64	86.5	230/460	5.7
	3600	182T	<b>HBAO3660T</b>	13.89	95	89.5	230/460	7.5
3	1800	182T	<b>HBAO3661T</b>	13.89	100	89.5	230/460	8.4
	3600	184T	<b>HBAO3663T</b>	13.89	105	90.2	230/460	12
5	1800	184T	<b>HBAO3665T</b>	13.89	120	90.2	230/460	13.7
	3600	213T	<b>HBAO3769T</b>	16.88	173	91	230/460	19
7.5	1800	213T	<b>HBAO3770T</b>	16.88	198	91.7	230/460	19
	3600	215T	<b>HBAO3771T</b>	16.88	203	91.7	230/460	24
10	1800	215T	<b>HBAO3774T</b>	16.88	231	92.4	230/460	26.3
	3600	254T	<b>HBAO2394T</b>	20.75	239	91.7	230/460	34.4
15	1800	254T	<b>HBAO2333T</b>	20.75	268	92.4	230/460	36.2
	3600	256T	<b>HBAO4106T</b>	23.00	293	91	230/460	23
20	1800	256T	<b>HBAO2334T</b>	23.00	293	93	230/460	24
	3600	284T	<b>HBAO4118T</b>	25.63	378	91.7	230/460	29
25	1800	286T	<b>HBAO4103T</b>	25.63	378	93.6	230/460	30
	3600	286T	<b>HBAO4108T</b>	25.63	410	91.7	230/460	34
30	1800	286T	<b>HBAO4104T</b>	25.63	410	93.6	230/460	38

Cast iron frame

ABB Motors and Mechanical Inc.  
5711 R.S. Boreham, Jr. Street  
Fort Smith, AR 72901  
Ph: 1.479.646.4711

[new.abb.com/motors-generators](http://new.abb.com/motors-generators)