

Crown Triton - IEC Metric

Premium Efficiency Severe Duty Motor

CROWN TRITON-IEC METRIC motor line is engineered for severe duty applications that requires IEC mounting dimension.

It features the highest efficiency through FEM, CFD and HARMONIC analysis, and low noise and low vibration by optimized structural design.



Standard Features

- NEMA Premium Efficiency@60Hz, IEC IE3 Efficiency @50Hz
- Class B Temperature Rise
- Magnet wire and insulation systems meets NEMA MG-1 Part 31
- Suitable for Inverter use, 10:1CT, 20:1VT, meets NEMA MG-1 Part31
- Totally Enclosed Fan Cooled
- NEMA Design B Torque@60Hz (LRC in accordance with IEC Design N)
- IEC Design N@50Hz
- Service Factor
 - 1.15@60Hz,Sine Wave Power; 1.0@VFD Power
 - 1.0@50Hz
- Top mounting(F3) conduit box
- FF-Flange and FT-Flange kits available for B35 and B34
- IP55 Protection
- Cast Iron Frame, End Brackets, Main Conduit Box (except 80M frame)
- Steel Fan Cover
- CSA Certificate for Class I, Div. 2, Groups A,B,C&D, T3
- 3 Year Warranty

Product Range

- **HP** : 1 to 250HP
- **Frame** : 80 ~ 315
- **RPM** : 1200/1800/3600
- **Voltage** :
 - Fr.80 – 132 (9 Leads with Terminal block except 80fr.)
: 230/460@60Hz, 190/380~415V@50Hz
 - Fr.160 and above (6 Leads with Terminal block)
: 460@60Hz, 190/380~415V@50Hz

Applications

- Pumps
- Fans
- Conveyors
- Compressors
- Mixers
- Any application that requires IEC Mounting

Product Features (Basic)

Frame		80-315
HP		1 HP-250 HP
Speed (RPM)		3600, 1800, 1200
Hz & Voltage (Dual Frequency Design)		60Hz : 230/460V(FR.80~132), 460V(FR.160~315)
		★ 50Hz : 190/380V~415V
Mounting	Foot Mount (B3)	★ Foot drilled hole(s) to accommodate mounting flexibility, Dual-drilled holes for multi-mounting capability
	Flange with Foot (B35 & B34)	★ FF-Flange and FT-Flange(FR.80~132) with foot, Dual-drilled holes for multi-mounting capability
	Flange without Foot (B5)	FF-Flange without foot(FR.80~280)
Enclosure / Protection		TEFC / IP55
Rotation	Bi-directional	Fr.80-250 Fr.280-315 4P/6P
	Uni-directional	Fr.280-315 2P
Painting		Polyurethane top coat (PANTONE 279C)
Ambient Temperature		40°C
Insulation Class		★ F(Impregnation Resin & Magnet wire : Class H)

Product Features (Details)

Starting Method	Sine Wave Power		1.15 Service Factor & B Temp. rise
	Inverter Duty 10:1 VT		1.0 Service Factor & F Temp. rise
	Inverter Duty 20:1 VT (at 50% load)		1.0 Service Factor & F Temp. rise
	Inverter Duty 10:1 CT		1.0 Service Factor & F Temp. rise
	Inverter Duty 10:1 CT (1 Hour duty)		1.0 Service Factor & F Temp. rise Fr. 160-315
	Inverter Duty 4:1 CT		1.0 Service Factor & F Temp. rise Fr. 160-315
Material	Constant HP		CHP up to 1.5 times base speed
	Frame		Cast iron
	Rotor		Aluminum die casting
	End-shield		Cast iron
	Fan		Non-sparking conductive plastic fan
Bearing	Fan cover		Steel
	Drive end		Ball Bearing Regreasable (160-315)
	Non-Drive end		Ball Bearing Regreasable (160-315)
	Protection		V-seal
	Lubrication		Polyrex EM Grease
Shaft	Material		AISI1045
	DE threaded hole		Applied
	DE Keyway		Opened keyway
Terminal Box	Material		Cast Iron
	Cable hole plug		Plastic
Lead Cable	Number of lead wire(s)	★	9 Leads Fr. 80-132
	Number of lead wire(s)	★	6 Leads Fr. 160-315
Drain Plug	Frame		Both sides of frame bottom
	Box		None
	Grease outlet		Applied (Fr. 160-315)
Certification	CSA		Class I, Division 2, Groups A, B, C & D
			Class II, Division 2, Groups E, F & G
			Premium Efficiency (CSA C-390)
	DOE		Department of Energy Efficiency Certification #CC038A
	UL		Recognized Motor Components (E211828)(Fr.80-280) Recognized Insulation Materials (E210479)(Fr.80-280)
Name Plate	CE		CE Declaration of Conformity (EN 60034-1)
	Markings	★	CSA ,CC(DOE), UL Recognized, CE
	Material		Stainless Steel AISI304

※ Note : Features marked with a star (★) are Key Features for IEC Metric Motors.

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