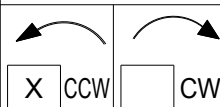


UNITS: INCHES

ROTATION FROM NDE



TOSHIBA RESERVES THE RIGHT TO MAKE CHANGES OF TECHNICAL IMPROVEMENT AND THE DATA MAY CHANGE WITHOUT NOTICE

☐ PRELIMINARY

DO NOT USE FOR CONSTRUCTION, INSTALLATION, OR APPLICATION PURPOSES UNLESS THE DRAWING IS MARKED AS CERTIFIED

☒ CERTIFIED

**TOSHIBA** SEVERE DUTY  
[www.toshiba.com/tic](http://www.toshiba.com/tic) **EQP Global SD**  
**TOSHIBA INTERNATIONAL CORPORATION**

TOTALLY ENCLOSED FAN COOLED  
 HORIZONTAL FOOT MOUNTED  
 3 PHASE INDUCTION MOTOR  
 213T-215T F1 ASSEMBLY

NOTES:

1. MAIN CONDUIT BOX MAY BE ROTATED IN 90° INCREMENTS
2. STANDARD PRODUCT USES BI-DIRECTIONAL FAN. OPPOSITE ROTATION AVAILABLE ONLY BY CONNECTION CHANGE.
3. KEY DIMENSIONS EQUAL 0.312"x 0.312"x 2.38" (MOTOR SUPPLIED WITH KEY)

DRAWING #: MDSL001-03

REV. DATE: 06/26/18 REV. #: 1 PER.: M. O'DOWD

REV. DESCRIP.:

## TYPICAL MOTOR PERFORMANCE DATA

Model: 0028SDSR41A-P

HP	kW	Pole	FL RPM	Frame	Voltage	Hz	Phase	FL Amps
2	1.5	8	865	213T	230/460	60	3	6.0/3.0
Enclosure	IP	Ins. Class	S.F.	Duty	NEMA Nom. Eff.	NEMA Design	kVA Code	Ambient (°C)
TEFC	55	F	1.15	CONT	84.0	B		40 C

Load	HP	kW	Amperes	Efficiency (%)	Power Factor (%)
Full Load	2.00	1.5	3.0	85.9	71.8
¾ Load	1.50	1.1	2.5	85.9	65.0
½ Load	1.00	0.7	2.1	83.5	53.2
¼ Load	0.50	0.4	1.5	76.3	39.5
No Load			1.5		6.8
Locked Rotor			15.4		45.0

Torque				Rotor wk² Inertia (lb-ft²)
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	
12.1	185	170	235	1.00

Safe Stall Time(s)		Sound Pressure dB(A) @ 1M	Bearings*		Approx. Motor Weight (lbs)
Cold	Hot		DE	NDE	
35	15	-	6308ZZC3	6308ZZC3	

\*Bearings are the only recommended spare part(s).

**Motor Options:**  
Product Family:EQP Global SD  
Mounting:Footed,Shaft:T Shaft

Customer	
Customer PO	
Sales Order	
Project #	

Tag:

All characteristics are average expected values.

**TOSHIBA INTERNATIONAL CORPORATION · HOUSTON, TEXAS U.S.A.**

Engineering	aguerrretaz	Doc. Written By	D. Suarez	Doc.# / Rev	MPCF-1119 / 0
Engr. Date	2/27/2019	Doc. Approved By	M. Campbell	Doc. Issued	6/8/2011

## TYPICAL MOTOR PERFORMANCE DATA

Model: 0028SDSR41A-P

HP	kW	Pole	FL RPM	Frame	Voltage	Hz	Phase	FL Amps
1.50	1.1	8	720	213T	190/380	50	3	5.8/2.9
Enclosure	IP	Ins. Class	S.F.	Duty	NEMA Nom. Eff.	NEMA Design	kVA Code	Ambient (°C)
TEFC	55	F	1.0	CONT	77.7	B		40 C

Load	HP	kW	Amperes	Efficiency (%)	Power Factor (%)
Full Load	1.50	1.1	2.9	83.8	70.5
¾ Load	1.13	0.8	2.4	83.8	63.3
½ Load	0.75	0.6	2.0	81.0	51.3
¼ Load	0.38	0.3	1.8	70.5	33.4
No Load			1.5		
Locked Rotor			14.5		

Torque				Rotor wk² Inertia (lb-ft²)
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	
10.9	215	175	240	1.00

Safe Stall Time(s)		Sound Pressure dB(A) @ 1M	Bearings*		Approx. Motor Weight (lbs)
Cold	Hot		DE	NDE	
35	15	-	6308ZZC3	6308ZZC3	

\*Bearings are the only recommended spare part(s).

**Motor Options:**  
Product Family:EQP Global SD  
Mounting:Footed,Shaft:T Shaft

Customer	
Customer PO	
Sales Order	
Project #	

Tag:

All characteristics are average expected values.

**TOSHIBA INTERNATIONAL CORPORATION · HOUSTON, TEXAS U.S.A.**

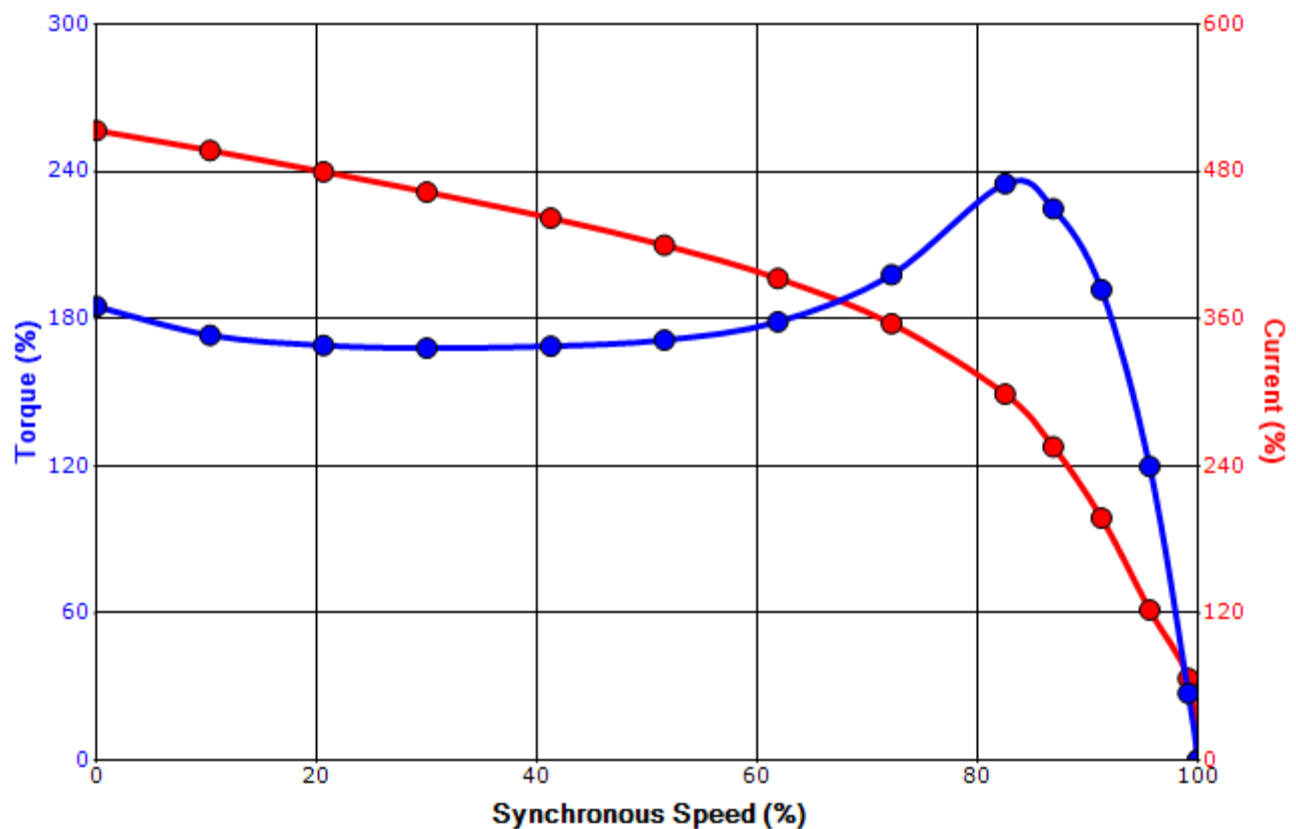
Engineering	aguerrretaz	Doc. Written By	D. Suarez	Doc.# / Rev	MPCF-1119 / 0
Engr. Date	2/27/2019	Doc. Approved By	M. Campbell	Doc. Issued	6/8/2011

## SPEED TORQUE/CURRENT CURVE

Model: 0028SDSR41A-P

HP	kW	Pole	FL RPM	Frame	Voltage	Hz	Phase	FL Amps
2	1.5	8	865	213T	230/460	60	3	6.0/3.0
Enclosure	IP	Ins. Class	S.F.	Duty	NEMA Nom. Eff.	NEMA Design	kVA Code	Ambient (°C)
TEFC	55	F	1.15	CONT	84.0	B		40 C
Locked Rotor Amps	Rotor wk <sup>2</sup> Inertia (lb-ft <sup>2</sup> )	Torque						
		Full Load (lb-ft)	Locked Rotor (%)	Pull Up (%)		Break Down (%)		
15.4	1.00	12.1	185	170		235		

### Design Values



Customer			wk <sup>2</sup> Load Inertia (lb-ft <sup>2</sup> )	-
Customer PO			Load Type	-
Sales Order			Voltage (%)	100
Project #			Accel. Time	-

Tag:

All characteristics are average expected values.

TOSHIBA INTERNATIONAL CORPORATION · HOUSTON, TEXAS U.S.A.

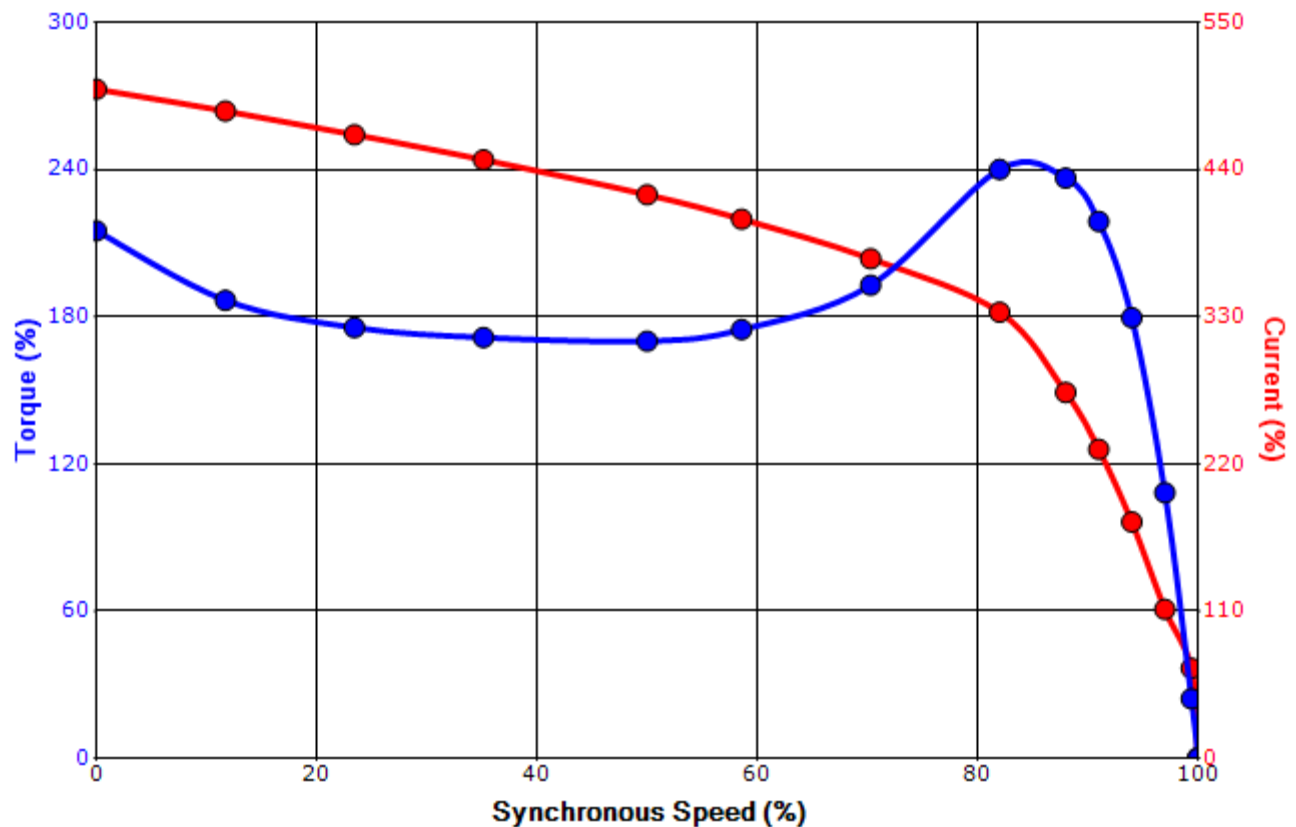
Engineering	aguerrettaz	Doc. Written By	D. Suarez	Doc.# / Rev	MPCF-1121 / 0
Engr. Date	2/27/2019	Doc. Approved By	M. Campbell	Doc. Issued	6/8/2011

## SPEED TORQUE/CURRENT CURVE

Model: 0028SDSR41A-P

HP	kW	Pole	FL RPM	Frame	Voltage	Hz	Phase	FL Amps
1.50	1.1	8	720	213T	190/380	50	3	5.8/2.9
Enclosure	IP	Ins. Class	S.F.	Duty	NEMA Nom. Eff.	NEMA Design	kVA Code	Ambient (°C)
TEFC	55	F	1.0	CONT	77.7	B		40 C
Locked Rotor Amps	Rotor wk <sup>2</sup> Inertia (lb-ft <sup>2</sup> )	Torque						
		Full Load (lb-ft)	Locked Rotor (%)	Pull Up (%)		Break Down (%)		
14.5	1.00	10.9	215	175		240		

### Design Values



Customer			wk <sup>2</sup> Load Inertia (lb-ft <sup>2</sup> )	-
Customer PO			Load Type	-
Sales Order			Voltage (%)	100
Project #			Accel. Time	-

Tag:

All characteristics are average expected values.

**TOSHIBA INTERNATIONAL CORPORATION · HOUSTON, TEXAS U.S.A.**

Engineering	aguerrettaz	Doc. Written By	D. Suarez	Doc.# / Rev	MPCF-1121 / 0
Engr. Date	2/27/2019	Doc. Approved By	M. Campbell	Doc. Issued	6/8/2011

**Motor Connection Diagrams**  
12 Leads

Across-the-Line Starting / Running Connections

Low Voltage Delta



High Voltage Delta



Switch L1 and L2 to reverse rotation

Suitable for Wye-Delta Starting and Limited Part-Winding-Starting.  
Please Contact Toshiba International for specific connections.

## SPARE PARTS LIST\*

**Model:** 0028SDSR41A-P

HP	kW	Pole	FL RPM	Frame	Voltage	Hz	Phase	FL Amps
2	1.5	8	865	213T	230/460	60	3	6.0/3.0
Enclosure	IP	Ins. Class	S.F.	Duty	NEMA Nom. Eff.	NEMA Design	kVA Code	Ambient (°C)
TEFC	55	F	1.15	CONT	84.0	B		40 C

**Bearings DE** 6308ZZC3 / 40BC03JPP3OX

**Bearings NDE** 6308ZZC3 / 40BC03JPP3OX

\*Bearings are the only recommended spare part(s).

Other than the grease used for regreasable bearings and the oil used for oil-lubricated bearings, Toshiba advises that there are no "use" parts. The only insurance spares that Toshiba suggests for these squirrel-cage induction motors are industry-standard and commercially available off-the-shelf bearings as noted above.

Motor components such as terminal boxes, fan covers and other machined parts are available on special request. In these cases, please advise our order entry department of the model and serial numbers found on the motor nameplate and a description of the needed components. With this information they will be able to furnish the current part number, price and availability.

Note: Our internal part numbers are subject to change without notice and are not published.

<b>Customer</b>		
<b>Customer PO</b>		
<b>Sales Order</b>		
<b>Project #</b>		

**Tag:**

All characteristics are average expected values.

**TOSHIBA INTERNATIONAL CORPORATION · HOUSTON, TEXAS U.S.A.**

<b>Engineering</b>	aguerrettaz	<b>Doc. Written By</b>	D. Suarez	<b>Doc.# / Rev</b>	MPCF-1125 / 0
<b>Engr. Date</b>	2/27/2019	<b>Doc. Approved By</b>	M. Campbell	<b>Doc. Issued</b>	6/8/2011