

UNITS: INCHES		NOTES:	
ROTATION FROM NDE		1. MAIN CONDUIT BOX MAY BE ROTATED IN 90° IN	ICREMENTS
		2. STANDARD PRODUCT USES BI-DIRECTIONAL FAN. OPPOS AVAILABLE ONLY BY CONNECTION CHANGE.	SITE ROTATION
		3. KEY DIMENSIONS EQUAL 0.375'x 0.375'x 1.88"	(MOTOR SUPPLIED WITH KEY)
TOSHIBA RESERVES THE RIGHT TO MAKE CHANGES OF TECHN	NICAL IMPROVEMENT AND THE DATA MAY CHANGE V	VITHOUT NOTICE	PRELIMINARY
DO NOT USE FOR CONSTRUCTION, INSTALLATION, OR APPLICAT	ION PURPOSES UNLESS THE DRAWING IS MARKED AS	CERTIFIED	X CERTIFIED
	TOTALLY ENCLOSED FAN COOLED	DRAWING #: MDSLV002-05	
	HORIZONTAL FOOT MOUNTED	REV. DATE: 07/05/18 REV. #: 0	PER.: M. O'DOWD
www.toshiba.com/tic	3 PHASE INDUCTION MOTOR	REV. DESCRIP.:	
TOSHIBA INTERNATIONAL CORPORATION	284TS-286TS F1 ASSEMBLY		

				Issued Date	12/18/20)19	Transmit #	
		_		Issued By	dschoe	ck	Issued Rev	
TOS								
		ТҮР		R PERFORM				
						•		
Model:	0304SDSR41E	3-P						
HP	kW	Pole	FL RPM	Frame	Voltage	Hz	Phase	FL Amps
30	22	4	1770	286TS	230/460	60	3	72/36
Enclosure	IP	Ins. Class	S.F.	Duty	NEMA Nom. Eff.	NEMA Design	kVA Code	Ambient (°C)
TEFC	55	F	1.15	CONT	93.6	В	G	40 C
		1-14/	A 110 10		Efficiency	. (0/)	Bower Fr	$\frac{1}{1}$
	HP 20	kW	Amp		Efficiency	(70)		actor (%)
ull Load	30 22.50	22.4 16.8	36 28		93.8 93.2		83 80	
								-
¹ / ₂ Load	15.00	11.2	21	-	91.6		73	
4 Load	7.50	5.6	16		85.0		50	
No Load			12				5.	
Locked Rotor			21	/			34	.1
			Torqu	•				Rotor wk ²
Full Lo	ad	Locko	d Rotor	Pull	Un	Bro	ak Down	Inertia
Full Lo (lb-ft			a Rotor FLT)	(% F	•		ak Down % FLT)	
	1	-	85	(% F		- (⁵	-	(lb-ft²)
89		10	85	16	5		290	5.70
Safe Stall T		Sound Pressure		Bearing	S*		Approx. Mo	otor Weight
Safe Stall 1 Cold	ſime(s) Hot		D		s* NDE			otor Weight os)
		Pressure	Di 6310	E		23	(Ib	
Cold 35	Hot 15	Pressure dB(A) @ 1M -		E	NDE	3	(Ib	os)
Cold 35 'Bearings are the only re	Hot 15	Pressure dB(A) @ 1M -		E	NDE	3	(Ib	os)
Cold 35 *Bearings are the only re Motor Options:	Hot 15 commended spare	Pressure dB(A) @ 1M -		E	NDE	23	(Ib	os)
Cold 35 'Bearings are the only re Motor Options: Product Family:EQP	Hot 15 commended spare	Pressure dB(A) @ 1M -		E	NDE		(Ib	os)
Cold 35 Bearings are the only re Motor Options: Product Family:EQP	Hot 15 commended spare	Pressure dB(A) @ 1M -		E	NDE	23	(Ib	os)
Cold 35 'Bearings are the only re Motor Options: Product Family:EQP	Hot 15 commended spare	Pressure dB(A) @ 1M -		E	NDE	23	(Ib	os)
Cold 35 Bearings are the only re Motor Options: Product Family:EQP	Hot 15 commended spare	Pressure dB(A) @ 1M -		E	NDE	:3	(Ib	os)
Cold 35 'Bearings are the only re Motor Options: Product Family:EQP	Hot 15 commended spare	Pressure dB(A) @ 1M -		E	NDE	3	(Ib	os)
Cold 35 'Bearings are the only re Motor Options: Product Family:EQP	Hot 15 commended spare	Pressure dB(A) @ 1M -		E	NDE	.3	(Ib	os)
Cold 35 'Bearings are the only re Motor Options: Product Family:EQP	Hot 15 commended spare	Pressure dB(A) @ 1M -		E	NDE		(Ib	os)
Cold 35 Bearings are the only re Motor Options: Product Family:EQP	Hot 15 commended spare	Pressure dB(A) @ 1M -		E	NDE		(Ib	os)
Cold 35 Bearings are the only re Motor Options: Product Family:EQP	Hot 15 commended spare	Pressure dB(A) @ 1M -		E	NDE	3	(Ib	os)
Cold 35 Bearings are the only re Motor Options: Product Family:EQP	Hot 15 commended spare	Pressure dB(A) @ 1M -		E	NDE		(Ib	os)
Cold 35 'Bearings are the only re Motor Options: Product Family:EQP	Hot 15 commended spare	Pressure dB(A) @ 1M -		E	NDE		(Ib	os)
Cold 35 'Bearings are the only re Motor Options: Product Family:EQP Mounting:Footed,Sh	Hot 15 commended spare	Pressure dB(A) @ 1M -		E	NDE		(Ib	os)
Cold 35 Bearings are the only re Motor Options: Product Family:EQP Mounting:Footed,Sh	Hot 15 commended spare	Pressure dB(A) @ 1M -		E	NDE		(Ib	os)
Cold 35 *Bearings are the only re Motor Options: Product Family:EQP Mounting:Footed,Sh	Hot 15 commended spare	Pressure dB(A) @ 1M -		E	NDE		(Ib	os)
Cold 35 'Bearings are the only re Motor Options: Product Family:EQP Mounting:Footed,Sh Mounting:Footed,Sh	Hot 15 commended spare	Pressure dB(A) @ 1M -		E	NDE		(Ib	os)
Cold 35 Bearings are the only re Motor Options: Product Family:EQP Mounting:Footed,Sh Mounting:Footed,Sh Customer Customer Customer Customer PO Sales Order Project #	Hot 15 commended spare	Pressure dB(A) @ 1M -		E	NDE		(Ib	os)
Cold 35 Bearings are the only re Motor Options: Product Family:EQP Mounting:Footed,Sh Mounting:Footed,Sh Customer Customer Customer Customer PO Sales Order Project #	Hot 15 commended spare	Pressure dB(A) @ 1M -		E	NDE		(Ib	os)
Cold 35 Bearings are the only re Motor Options: Product Family:EQP Mounting:Footed,Sh Mounting:Footed,Sh Customer Customer Customer Customer Project #	Hot 15 commended spare	Pressure dB(A) @ 1M -		E	NDE		(Ib	os)
Cold 35 Bearings are the only re Motor Options: Product Family:EQP Mounting:Footed,Sh Mounting:Footed,Sh Customer Customer Customer Customer Project #	Hot 15 commended spare	Pressure dB(A) @ 1M -		E	NDE	23	(Ib	os)
Cold 35 'Bearings are the only re Motor Options: Product Family:EQP Mounting:Footed,Sh Mounting:Footed,Sh Customer Customer Customer PO Sales Order Project # Tag:	Hot 15 commended spare P Global SD haft:TS Shaft	Pressure dB(A) @ 1M		E	NDE		(Ib	os)
Cold 35 *Bearings are the only re Motor Options: Product Family:EQP Mounting:Footed,Sh Mounting:Footed,Sh Customer Customer Customer PO Sales Order Project # Tag:	Hot 15 commended spare P Global SD aft:TS Shaft	Pressure dB(A) @ 1M -	6310	E ZC3	NDE 6310ZC	AS U.S.A.	(Ib	os)
Cold	Hot 15 commended spare ? Global SD haft:TS Shaft erage expected val	Pressure dB(A) @ 1M -	6310	E ZC3	NDE 6310ZC		(Ib	95

				Issued Date	12/18/20	19	Transmit #	
		_		Issued By	dschoed	:k	Issued Rev	
TOS	SHIE							
				R PERFORM				
						L		
Model:	0304SDSR41E	3-P						
HP	kW	Pole	FL RPM	Frame	Voltage	Hz	Phase	FL Amps
30	22	4	1460	286TS	190/380	50	3	88/44
Enclosure	IP	Ins. Class	S.F.	Duty	NEMA Nom. Eff.	NEMA Design	kVA Code	Ambient (°C)
TEFC	55	F	1.0	CONT	92.4	B	G	40 C
Load	HP	kW	Amp	eres	Efficiency	(%)	Power Fa	actor (%)
Full Load	30	22.4	44	.0	93.7		83	.5
¾ Load	22.50	16.8	33	.6	94.4		80	.8
½ Load	15.00	11.2	24	.7	94.5		73	.7
¼ Load	7.50	5.6	17	.6	85.7		56	.1
No Load			12	.9			4.	7
Locked Rotor			25	6			34	.2
			Torqu	e				Rotor wk ²
Full Lo	oad	Locke	d Rotor	Pull	Up	Bre	ak Down	Inertia
(lb-f			FLT)	(% F	•		% FLT)	(lb-ft²)
108	,	-	50	12		(/	230	5.70
100)	1,	50	12	.0		230	5.70
	Time(s)	Sound						
Safe Stall	Hot	Pressure dB(A) @ 1M	D	Bearing E	s* NDE		Approx. Mo	-
Cold	Hot	Pressure dB(A) @ 1M		E	NDE	3	(Ib	os)
		dB(A) @ 1M	Di 6310	E		3		os)
Cold 23 *Bearings are the only re Motor Options: Product Family:EQI	Hot 10 ecommended spare	dB(A) @ 1M -		E	NDE	3	(Ib	os)
Cold	Hot 10 ecommended spare	dB(A) @ 1M -		E	NDE	3	(Ib	os)
Cold 23 *Bearings are the only re Motor Options: Product Family:EQI	Hot 10 ecommended spare	dB(A) @ 1M -		E	NDE	3	(Ib	os)
Cold 23 *Bearings are the only re Motor Options: Product Family:EQI Mounting:Footed,SI	Hot 10 ecommended spare	dB(A) @ 1M -		E	NDE	3	(Ib	os)
Cold 23 *Bearings are the only re Motor Options: Product Family:EQI Mounting:Footed,SI	Hot 10 ecommended spare	dB(A) @ 1M -		E	NDE	3	(Ib	os)
Cold 23 *Bearings are the only re Motor Options: Product Family:EQI Mounting:Footed,SI Mounting:Footed,SI	Hot 10 ecommended spare	dB(A) @ 1M -		E	NDE	3	(Ib	os)
Cold 23 *Bearings are the only re Motor Options: Product Family:EQI Mounting:Footed,SI Mounting:Footed,SI	Hot 10 ecommended spare	dB(A) @ 1M -		E	NDE	3	(Ib	os)
Cold 23 *Bearings are the only re Motor Options: Product Family:EQI Mounting:Footed,Si Mounting:Footed,Si Customer Customer Customer PO Sales Order Project #	Hot 10 ecommended spare	dB(A) @ 1M -		E	NDE	3	(Ib	os)
Cold 23 *Bearings are the only re Motor Options: Product Family:EQF Mounting:Footed,Sf Mounting:Footed,Sf Customer Customer Customer PO Sales Order Project #	Hot 10 ecommended spare	dB(A) @ 1M -		E	NDE	3	(Ib	os)
Cold 23 *Bearings are the only re Motor Options: Product Family:EQI Mounting:Footed,SI Mounting:Footed,SI Mounting:Footed,SI Mounting:Footed,SI Mounting:Footed,SI Mounting:Footed,SI Mounting:Footed,SI	Hot 10 ecommended spare P Global SD haft:TS Shaft	dB(A) @ 1M		E	NDE	3	(Ib	os)
Cold 23 *Bearings are the only re Motor Options: Product Family:EQI Mounting:Footed,SI Mounting:Footed,SI Mounting:Footed,SI Mounting:Footed,SI Mounting:Footed,SI Mounting:Footed,SI	Hot 10 ecommended spare P Global SD haft:TS Shaft	dB(A) @ 1M	6310	E ZC3	NDE 6310ZC	AS U.S.A.	(Ib	os)
Cold 23 *Bearings are the only re Motor Options: Product Family:EQI	Hot 10 ecommended spare P Global SD haft:TS Shaft	dB(A) @ 1M	6310	E ZC3	NDE 6310ZC	AS U.S.A.	(Ib	os)

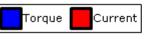
				Issued Date	12/18/20	19	Transmit #	
		-		Issued By	dschoed	:k	Issued Rev	
	SHIB	SI	PEED TORQ	UE/CURREN	T CURVE			
Model:	0304SDSR41B-F	5						
HP	kW	Pole	FL RPM	Frame	Voltage	Hz	Phase	FL Amps
30	22	4	1770	286TS	230/460	60	3	72/36
Enclosure	IP	Ins. Class	S.F.	Duty	NEMA Nom. Eff.	NEMA Design	kVA Code	Ambient (°C)
TEFC	55	F	1.15	CONT	93.6	В	G	40 C
	Rotor wk ²			• •	Torque			
Locked Rotor Amps	ocked Rotor Inertia		Full Load Locked		Pull Up)	Break Down	
-	(lb-ft²)	(lb-ft) (%		s) (%)		(%)		
217	5.70	89	18	5	165		29	90
			De	sign Valu	es			
350)		De	sign Valu	es			650
350			De	sign Valu	es			650
			De	sign Valu	es			
350			De	sign Valu	es			-650
280			De	sign Valu	es		\bigwedge	.520
			De	sign Valu	es		\bigwedge	



130

100

80



20

70

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Customer			wk ² Load Inertia (Ib-ft ²)	-	
Customer PO			Load Type	-	
Sales Order			Voltage (%)	10	00
Project #			Accel. Time	-	
Tag:		-			
_					
All characteristics are av	verage expected values.				
	TOSHIBA INTER	RNATIONAL CORPORATION ·	HOUSTON, TEXAS U.S.A.		
Engineering	jhock	Doc. Written By	D. Suarez	Doc.# / Rev	MPCF-1121/1
Engr. Date	3/13/2014	Doc. Approved By	M. Campbell	Doc. Issued	9/20/2019

				Issued Date	12/18/20	019	Transmit #	
		-		Issued By	dschoe	ck	Issued Rev	
	O304SDSR41B-F	SI	PEED TORQ	UE/CURREN	IT CURVE			
HP	kW	Pole	FL RPM	Frame	Voltage	Hz	Phase	FL Amps
30	22	4	1460	286TS	190/380	50	3	88/44
Enclosure	IP	Ins. Class	S.F.	Duty	NEMA Nom. Eff.	NEMA Design	kVA Code	Ambient (°C)
TEFC	55	F	1.0	CONT	92.4	В	G	40 C
Locked Rotor	Rotor wk ²			•	Torque			
Amps	Inertia	Full Load	Locked	Rotor	Pull U	p	Break	Down
-	(lb-ft²)	(lb-ft)	(%		(%)		(%	
256	5.70	108	15	0	125		23	30
30	0		De	sign Valu	es			·650
24	0		• •				\wedge	520

