
Manual Supplement

X-Ray Tube Stator Compatibility Tables

(For DSS2/LSS2 in CAN Bus Mode with Generator Code Version 3.00.36 and Later of Software Branch 3.00.XX and
Generator Code Version 3.01.73 and later of Software Branch 3.01.XX)

Indico IQ® X-Ray Generator

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Introduction

This supplement contains the X-Ray Tube Stator Compatibility Table for the Dual Speed Starter 2 (DSS2), Low Speed Starter 2 (LSS2), and Three Phase Starter for the Indico IQ® X-ray generator in CAN bus mode. Table 1 contains information pertaining to the DSS2 and LSS2. Table 2 contains information pertaining to the Three Phase Starter. Reference notes are provided at the end of each Table. Some generator software set versions for Indico IQ® may not yet support the most recently added tube types.

TABLE 1: INDICO IQ® TUBE TYPES - DUAL SPEED STARTER 2 AND LOW SPEED STARTER 2

TUBE TYPE (HOUSING)	TUBE TYPE (INSERT)	TUBE TYPE NO.	OPERATING NOTES	INDICO IQ® DSS2 PART NO. (See note 2)	INDICO IQ® LSS2 PART NO. LOW SPEED OPERATION ONLY (See note 2)
Canon (Toshiba)	Most Canon / Toshiba x-ray tubes are identified by their “E” number, which is used to represent both the Tube Insert and the complete assembly. The housing number is usually not shown on the identification label. A specific “E” number may be available with several different stator types, each having different starter requirements. Furthermore, a specific stator type may require different starter requirements depending on the housing used. For ease of use, the Canon tubes are sorted by Tube Type (“E” number) within this table. The installer must confirm the stator type for the planned tube(s). If the stator type is not identified within the Canon documentation, match the stator windings resistance to the appropriate table entry. Contact the factory if the desired Tube Type and stator type / windings resistance are not listed on the same line within this table.				
Canon (Toshiba) XH-112V-2 XH-112W XS-AA stator XS-AG stator (9.4/28.3 Ω)	DRX-3624H DRX-3724H DRX-4634H	Type 17	None	908022-21 908022-23 908022-24	908025-41 908025-43
Canon (Toshiba) XH-112V XS-AG stator (9.4/28.3 Ω)	E7100 (See note 8)	Type 17	None	908022-21 908022-23 908022-24	908025-41 908025-43
Canon (Toshiba) XH-121 XH-126 XH-150 XS-AV stator XS-RA stator (27.5/58 Ω)	E7132 E7239 E7240 E7242 (See note 8)	Type 19	LOW SPEED OPERATION ONLY (See note 1)	908022-23* 908022-24 *Preferred	908025-41

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TUBE TYPE (HOUSING)	TUBE TYPE (INSERT)	TUBE TYPE NO.	OPERATING NOTES	INDICO IQ® DSS2 PART NO. (See note 2)	INDICO IQ® LSS2 PART NO. LOW SPEED OPERATION ONLY (See note 2)
Canon (Toshiba) XH-112V XS-AG stator (9.4/28.3 Ω)	E7250 (See note 8)	Type 17	None	908022-21 908022-23 908022-24	908025-41 908025-43
Canon (Toshiba) XH-106V XH-180 XH-181 XS-AL stator (9.4/28.3 Ω)	E7252 (See note 8)	Type 29	None	908022-21* 908022-23 908022-24 *Preferred	908025-41
Canon (Toshiba) XH-106V XH-180 XH-181 XS-RA stator (27.5/58 Ω)	E7252 (See note 8)	Type 19	None	908022-23	908025-41
			LOW SPEED OPERATION ONLY (See note 1)	908022-23 908022-24	908025-41
Canon (Toshiba) XH-157 XS-RB stator (20.2/38 Ω)	E7254 E7255 (See note 8)	Type 21	None	908022-21 908022-23 908022-24	908025-41 908025-43
Canon (Toshiba) XH-121 XH-126 XS-AV stator XS-RA stator (27.5/58 Ω)	E7299 (See note 8)	Type 19	LOW SPEED OPERATION ONLY (See note 1)	908022-23 908022-24	908025-41

TABLE 1: INDICO IQ® TUBE TYPES - DUAL SPEED STARTER 2 AND LOW SPEED STARTER 2

TUBE TYPE (HOUSING)	TUBE TYPE (INSERT)	TUBE TYPE NO.	OPERATING NOTES	INDICO IQ® DSS2 PART NO. (See note 2)	INDICO IQ® LSS2 PART NO. LOW SPEED OPERATION ONLY (See note 2)
Canon (Toshiba) XH-106V XH-180 XS-AL stator (9.4/28.3 Ω)	E7813 (See note 8)	Type 29	None	908022-21* 908022-23 908022-24 *Preferred	908025-41
Canon (Toshiba) XH-121 XS-BA stator (18/47.5 Ω)	E7843 (See note 8)	Type 0	LOW SPEED OPERATION ONLY (See note 1)	908022-21 908022-23 908022-24	908025-41 908025-43
Canon (Toshiba) XH-121 XH-126 XH-150 XS-RA stator (27.5/58 Ω)	E7861 (See note 8)	Type 19	LOW SPEED OPERATION ONLY (See note 1)	908022-23 908022-24	908025-41
Canon (Toshiba) XH-112V XS-AG stator (9.4/28.3 Ω)	E7864 (See note 8)	Type 17	None	908022-21 908022-23 908022-24	908025-41 908025-43
Canon (Toshiba) XH-121 XH-126 XS-AV stator (27.5/58 Ω)	E7865 (See note 8)	Type 19	LOW SPEED OPERATION ONLY (See note 1)	908022-23 908022-24	908025-41
Canon (Toshiba) XH-112V XS-AG stator (9.4/28.3 Ω)	E7869 (See note 8)	Type 17	None	908022-21 908022-23 908022-24	908025-41 908025-43

TABLE 1: INDICO IQ® TUBE TYPES - DUAL SPEED STARTER 2 AND LOW SPEED STARTER 2

TUBE TYPE (HOUSING)	TUBE TYPE (INSERT)	TUBE TYPE NO.	OPERATING NOTES	INDICO IQ® DSS2 PART NO. (See note 2)	INDICO IQ® LSS2 PART NO. LOW SPEED OPERATION ONLY (See note 2)
Canon (Toshiba) XH-121 XS-AV stator XS-RA stator (27.5/58 Ω)	E7876 (See note 8)	Type 19	LOW SPEED OPERATION ONLY (See note 1)	908022-23 908022-24	908025-41
Canon (Toshiba) XH-121 XH-126 XH-150 XS-AL stator (9.4/28.3 Ω)	E7884 (See note 8)	Type 29	LOW SPEED OPERATION ONLY (See note 1)	908022-21* 908022-23 908022-24 *Preferred	908025-41
Canon (Toshiba) XH-121 XS-126 XS-AV stator XS-RA stator (27.5/58 Ω)	E7886 (See note 8)	Type 19	LOW SPEED OPERATION ONLY (See note 1)	908022-23 908022-24	908025-41
Canon (Toshiba) XH-181 XS-BB stator (20/50 Ω)	XRR-3334F (See note 8)	Type 0	LOW SPEED OPERATION ONLY (See note 1)	908022-21 908022-23 908022-24	908025-41 908025-43
CGR (GE) Statorix 200A/240/260 (50/110 Ω stator)	MN640 M641 MN641 M643	Type 28	LOW SPEED OPERATION ONLY (See note 1)	908022-23	908025-41
	MS740 MSN740 MSN742 RSN742	Type 28	HIGH SPEED OPERATION ONLY (See note 1) FOR DUAL SPEED OPERATION, CONTACT FACTORY.	908022-23	N/A

TABLE 1: INDICO IQ® TUBE TYPES - DUAL SPEED STARTER 2 AND LOW SPEED STARTER 2

TUBE TYPE (HOUSING)	TUBE TYPE (INSERT)	TUBE TYPE NO.	OPERATING NOTES	INDICO IQ® DSS2 PART NO. (See note 2)	INDICO IQ® LSS2 PART NO. LOW SPEED OPERATION ONLY (See note 2)
CGR (GE) Statorix 550 (50/110 Ω stator)	RN620 RN621	Type 28	LOW SPEED OPERATION ONLY (See note 1)	908022-23	908025-41
	RSN722	Type 28	HIGH SPEED OPERATION ONLY (See note 1) FOR DUAL SPEED OPERATION, CONTACT FACTORY.	908022-23	N/A
Chirana Rotax KA 125 (20/50 Ω stator, single phase)	RIK-T	Type 21	LOW SPEED OPERATION ONLY (See note 1)	908022-21 908022-23 908022-24	908025-41 908025-43
Comet DO7 / DX7 (25/50 Ω stator)	DX7 DX71HS (See note 3)	Type 0	LOW SPEED OPERATION ONLY (See note 1)	908022-21 908022-23 908022-24	908025-41 908025-43
Comet DO9 / DX9 (20/50 Ω stator)	DX9 DX91H / HS DX92H / HS DX93H / HS DX94HS DX96HS DX97HS (See note 3)	Type 0	LOW SPEED OPERATION ONLY (See note 1)	908022-21 908022-23 908022-24	908025-41 908025-43
Comet DO10 / DX10 (20/50 Ω stator)	DX10H (See note 3)	Type 0	LOW SPEED OPERATION ONLY (See note 1)	908022-21 908022-23 908022-24	908025-41 908025-43
	DX10HS DX104HS DX105HS DX106HS (See note 3)	Type 24	None		

TABLE 1: INDICO IQ® TUBE TYPES - DUAL SPEED STARTER 2 AND LOW SPEED STARTER 2

TUBE TYPE (HOUSING)	TUBE TYPE (INSERT)	TUBE TYPE NO.	OPERATING NOTES	INDICO IQ® DSS2 PART NO. (See note 2)	INDICO IQ® LSS2 PART NO. LOW SPEED OPERATION ONLY (See note 2)
Comet DO700 / DX700 (25/50 Ω stator)	DX700HS (See note 3)	Type 24	None	908022-21 908022-23 908022-24	908025-41 908025-43
		Type 1	LOW SPEED OPERATION ONLY (See note 1)	908022-21 908022-23 908022-24	908025-41 908025-43
Comet XSTAR (25/50 Ω stator)	XSTAR8 (XST-8) XSTAR74 (XST-74) XSTAR-WHIS	Type 0	LOW SPEED OPERATION ONLY (See note 1)	908022-21 908022-23 908022-24	908025-41 908025-43
Dunlee (Philips) DA10 series (20/50 Ω stator)	DA1002 (DU304-1.0/2.0) DA1029 (DU304-0.6/1.2) DA1036 (DU404-0.6/1.2) DA1083 (DU404-0.3/1.0) DA1092 (DU604-0.6/1.2) DA1094 (DU404-0.4/0.8) DU404 (0.6/1.25)	Type 4	None	908022-21 908022-23 908022-24	908025-41 908025-43
Dunlee (Philips) DA90 DA90HS (36/44 Ω stator) (See note 4)	DU 1750 DU 3050 DU 2550 DU 33100 (See note 6)	Type 9	LOW SPEED OPERATION ONLY (See note 1)	908022-21* 908022-23 908022-24 *Preferred	908025-41
Dunlee (Philips) DA90 DA90HS (9/11 Ω stator) (See note 5)	DU 1750 DU 3050 (See note 6)	Type 9	LOW SPEED OPERATION ONLY (See note 1)	908022-21* 908022-23 908022-24 *Preferred	908025-41
	DU 2550 (See note 6)	Type 9	None	*Preferred	
	DU 33100 (See note 6)	Type 9	HIGH SPEED OPERATION ONLY (See note 1)	908022-21 908022-23 908022-24	N/A

TABLE 1: INDICO IQ® TUBE TYPES - DUAL SPEED STARTER 2 AND LOW SPEED STARTER 2

TUBE TYPE (HOUSING)	TUBE TYPE (INSERT)	TUBE TYPE NO.	OPERATING NOTES	INDICO IQ® DSS2 PART NO. (See note 2)	INDICO IQ® LSS2 PART NO. LOW SPEED OPERATION ONLY (See note 2)
Dunlee (Philips) DR1400 (20/50 Ω stator)	DR1429 (DU304-0.6/1.2) DR1436 (DU404-0.6/1.2) DR1492 (DU604-0.6/1.2) DR1494 (DU404-0.4/0.8)	Type 4	None	908022-21 908022-23 908022-24	908025-41 908025-43
Dunlee (Philips) DR 1800 (19/22 Ω stator) (See note 4)	DR1817 DR1833	Type 9	LOW SPEED OPERATION ONLY (See note 1)	908022-21* 908022-23 908022-24 *Preferred	908025-41
Dunlee (Philips) DR 1800 (9/11 Ω stator) (See note 5)	DR1817	Type 9	LOW SPEED OPERATION ONLY (See note 1)	908022-21* 908022-23 908022-24 *Preferred	908025-41
	DR1825	Type 9	HIGH SPEED OPERATION ONLY (See note 1)	908022-21 908022-23 908022-24	N/A
	DR1833	Type 9	None	908022-21* 908022-23 908022-24 *Preferred	908025-41
Dunlee (Picker / Philips) PX1300 3" anode "S" stator (15/30 Ω)	PX1302 (DU303-1.0/2.0) PX1312 (DU303-0.6/1.2) PX1351 (DU143-1.0/2.0) DU303 (1.0/2.0)	Type 7	None	908022-21 908022-23 908022-24	908025-41 908025-43

TABLE 1: INDICO IQ® TUBE TYPES - DUAL SPEED STARTER 2 AND LOW SPEED STARTER 2

TUBE TYPE (HOUSING)	TUBE TYPE (INSERT)	TUBE TYPE NO.	OPERATING NOTES	INDICO IQ® DSS2 PART NO. (See note 2)	INDICO IQ® LSS2 PART NO. LOW SPEED OPERATION ONLY (See note 2)
Dunlee (Picker / Philips) PX1400 series 4" anode "S" stator (15/30 Ω)	PX1402 (DU304-1.0/2.0) PX1412 (DU304-0.6/1.2) PX1415 (DU404-0.3/0.9) PX1425 PX1429 (DU304-0.6/1.2) PX1431 (DU304-0.7/1.4) PX1436 (DU404-0.6/1.2) PX1456 (DU404-0.3/1.0) PX1463 (DU604-0.6/1.2) PX1472 (DU604-0.3/1.0) PX1473 (DU404-0.6/1.2) PX1475 (DU754-0.6/1.2) PX1482 (DU404-0.6/1.0) PX1483 (DU404-0.3/1.0) PX1492 (DU604-0.6/1.2) PX1494 (DU404-0.4/0.8) DU404 (0.6/1.25)	Type 1	None	908022-21 908022-23 908022-24	908025-41 908025-43
GE Maxiray 75 (3" anode) 23/23Ω equal impedance "E" stator * Dunlee tube	MX-75 DU303 (1.0/2.0)* DU303 (0.6/1.2)*	Type 14	None	908022-21	908025-41
GE Maxiray 100 (4" anode) 23/23 Ω equal impedance "E" stator	MX-100	Type 20	None	908022-21	908025-41
Gilardoni Rotagil (33/36 Ω stator)	AR11-30 AR30-00-1 AR30-60 AR9000-001 AR9000-002	Type 22	LOW SPEED OPERATION ONLY (See note 1)	908022-21 908022-23 908022-24	908025-41 908025-43

TABLE 1: INDICO IQ® TUBE TYPES - DUAL SPEED STARTER 2 AND LOW SPEED STARTER 2

TUBE TYPE (HOUSING)	TUBE TYPE (INSERT)	TUBE TYPE NO.	OPERATING NOTES	INDICO IQ® DSS2 PART NO. (See note 2)	INDICO IQ® LSS2 PART NO. LOW SPEED OPERATION ONLY (See note 2)
Gilardoni Rotagil A/A5 (33/36 Ω stator)	AR20-50 AR30-100 AR40-100	Type 22	None	908022-21 908022-23 908022-24	908025-41 908025-43
Hangzhou Kailong (see Kailong RADII)					
Hangzhou Wandong WANRAY (Polygala / Yuan Zhi) XD51-20.40/125 (LQ16-XA2) XD51-10.40/125 (LQ16-XA4) XD52-30.50/125 (LQ17-XB1) XD57-20.50/150 (LQ16-XD57)		Type 0	LOW SPEED OPERATION ONLY (See note 1)	908022-21 908022-23 908022-24	908025-41 908025-43
IAE C40 (33/64 Ω stator)	X39 X42 X76	Type 44	LOW SPEED OPERATION ONLY (See note 1)	908022-23 908022-24	908025-41

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TUBE TYPE (HOUSING)	TUBE TYPE (INSERT)	TUBE TYPE NO.	OPERATING NOTES	INDICO IQ® DSS2 PART NO. (See note 2)	INDICO IQ® LSS2 PART NO. LOW SPEED OPERATION ONLY (See note 2)
IAE C100 C100XS C100XT C52 Super C52 C352 (20/40 Ω stator)	RTC1000 HS	Type 48	LOW SPEED SUPERBOOST™ (See note 10)	908022-21 908022-24	N/A
		Type 42	None	908022-21 908022-24	908025-41 908025-43
	RTC700 HS	Type 45	None	908022-21 908022-24	908025-41 908025-43
	RTC600 HS	Type 49	LOW SPEED SUPERBOOST™ (See note 10)	908022-21 908022-24	N/A
		Type 46	None	908022-21 908022-24	908025-41 908025-43
	RTM 90 H RTM 92 H RTM101 H RTM102 H	Type 41	LOW SPEED OPERATION ONLY (See note 1)	908022-21 908022-24	908025-41 908025-43
	RTM 90 HS RTM 92 HS RTM101 HS RTM102 HS	Type 41	None	908022-21 908022-24	908025-41 908025-43

TABLE 1: INDICO IQ® TUBE TYPES - DUAL SPEED STARTER 2 AND LOW SPEED STARTER 2

TUBE TYPE (HOUSING)	TUBE TYPE (INSERT)	TUBE TYPE NO.	OPERATING NOTES	INDICO IQ® DSS2 PART NO. (See note 2)	INDICO IQ® LSS2 PART NO. LOW SPEED OPERATION ONLY (See note 2)
IAE C52 C352 (20/40 Ω stator)	RTM782 H RTM78 H X40 X50 AH X50 H	Type 43	LOW SPEED OPERATION ONLY (See note 1)	908022-21 908022-24	908025-41 908025-43
	RTM782 HS RTM78 HS	Type 43	None	908022-21 908022-24	908025-41 908025-43
Kailong RADII H1064 H1065 H1066 (25/62 Ω stator)	KL64 KL65 KL66	Type 0	LOW SPEED OPERATION ONLY (See note 1)	908022-21 908022-24	908025-41 908025-43
Kailong RADII H1074 H1075 H1080 H1083 H1086 (20/50 Ω stator)	KL74 KL75 KL80 KL80A KL83 KL86	Type 0	LOW SPEED OPERATION ONLY (See note 1)	908022-21 908022-24	908025-41 908025-43
Kailong RADII H1076	KL76	Type 19	LOW SPEED OPERATION ONLY (See note 1)	908022-23 908022-24	908025-41
Kailong RADII H2100 (20/50 Ω stator)	KL100	Type 21	None	908022-21 908022-23 908022-24	908025-41 908025-43
Machlett (Varex) Dynamax 52 Std "R" stator (16/50 Ω)	A-102 A-132 A-142	Type 0	None	908022-21 908022-23 908022-24	908025-41 908025-43

TABLE 1: INDICO IQ® TUBE TYPES - DUAL SPEED STARTER 2 AND LOW SPEED STARTER 2

TUBE TYPE (HOUSING)	TUBE TYPE (INSERT)	TUBE TYPE NO.	OPERATING NOTES	INDICO IQ® DSS2 PART NO. (See note 2)	INDICO IQ® LSS2 PART NO. LOW SPEED OPERATION ONLY (See note 2)
Machlett (Varex) Dynamax 62 "STD" stator (23/56 Ω) Dynamax 62U configured as "STD" or "R" (15/36 Ω)	A-192B A-196 A-197	Type 0	None	908022-21 908022-23 908022-24	908025-41 908025-43
	A-256 A-272 A-282 A-286 A-292 A-482 A-486	Type 1	None	908022-21 908022-23 908022-24	908025-41 908025-43
Philips / Dunlee CTR1725 (13.8 Ω / 41 Ω)	DU 2506	Type 37	LIMITED USAGE – CONTACT FACTORY LOW SPEED OPERATION ONLY (See note 1)	908022-21 908022-23 908022-24	908025-41
Philips ROT 350 ROT 351 (36/44 Ω stator) (See note 4) * Dunlee tube (See note 6) ** NAGO tube *** Varex (Varian)	RO 1230 RO 1750 RO 2050 RO 3050 SRO 2250 DU 1750 * DU 3050 * GD6 3050 ** PG-256 *** PG-292 *** RAD-34 *** RAD-50 ***	N/A	DUAL SPEED OPERATION NOT COMPATIBLE WITH HIGH IMPEDANCE WIRING. FOR DUAL SPEED OPERATION, REFER TO LOW IMPEDANCE WIRING (9/11 Ω stator).	N/A	N/A

TABLE 1: INDICO IQ® TUBE TYPES - DUAL SPEED STARTER 2 AND LOW SPEED STARTER 2

TUBE TYPE (HOUSING)	TUBE TYPE (INSERT)	TUBE TYPE NO.	OPERATING NOTES	INDICO IQ® DSS2 PART NO. (See note 2)	INDICO IQ® LSS2 PART NO. LOW SPEED OPERATION ONLY (See note 2)
Philips ROT 350 ROT 351 (9/11 Ω stator) (See note 5) * Dunlee tube (See note 6) *** Varex (Varian) tube	RO 1230 RO 1750 RO 3050 DU 1750 * DU 3050 *	Type 9	LOW SPEED OPERATION ONLY (See note 1)	908022-21	N/A
	RO 2050 SRO 2250 PG-256 *** PG-292 *** RAD-34 *** RAD-50 ***	Type 9	None	908022-21	N/A
	RO 2550 RO 33100 SRO 1330 DU 2550 * DU 33100 *	Type 9	HIGH SPEED OPERATION ONLY (See note 1)	908022-21	N/A
Philips ROT 500 ROT 501 (9/11 Ω stator)	SRM 0310	Type 30	None	908022-21* 908022-23 908022-24 *Preferred	908025-41 908025-43
	SRM 1080 SRM 35100	Type 30	HIGH SPEED OPERATION ONLY (See note 1)	908022-21 908022-23 908022-24	908025-41 908025-43
Shimadzu (Circlex) RX80 RX81 RX82 (7.5/35 Ω stator)	P18DE-85	Type 16	LOW SPEED OPERATION ONLY (See note 1)	908022-21 908022-24	908025-41 908025-43
	P33D P38D P38DE-85	Type 16	HIGH SPEED OPERATION ONLY (See note 1)	908022-21 908022-24	N/A
Shimadzu (Circlex) RX100	P38E	Type 16	None	908022-21 908022-24	908025-41 908025-43

TABLE 1: INDICO IQ® TUBE TYPES - DUAL SPEED STARTER 2 AND LOW SPEED STARTER 2

TUBE TYPE (HOUSING)	TUBE TYPE (INSERT)	TUBE TYPE NO.	OPERATING NOTES	INDICO IQ® DSS2 PART NO. (See note 2)	INDICO IQ® LSS2 PART NO. LOW SPEED OPERATION ONLY (See note 2)
Shimadzu (Circlex) RX150 (8.4/24 Ω stator)	P18DK	Type 16	LOW SPEED OPERATION ONLY (See note 1)	908022-21 908022-24	908025-41 908025-43
	P38DK P324DK	Type 16	HIGH SPEED OPERATION ONLY (See note 1)	908022-21 908022-24	N/A
Siemens Biangulix “S” stator (1-phase only) (14/18 Ω)	BI 125/20/40 BI 125/30/50 BI 150/30/50 BI 150/30/52R	Type 23	HIGH SPEED OPERATION ONLY (See note 1)	908022-21 908022-24	N/A
Siemens Opti-150 “S” stator (1-phase only) (14/18 Ω) * Varex (Varian) tube	150/30/52R 150/40/72C 150/12/50 150/40/80 150/30/50 150/40/102C	Type 23	HIGH SPEED OPERATION ONLY (See note 1)	908022-21 908022-24	N/A
	SG-796B *	Type 23	None	908022-21 908022-24	908025-41 908025-43
Siemens OptiTop “S” stator (1-phase only) (14/18 Ω) * Varex (Varian) tube	150/40/80HC-100L 150/40/80HC-102L	Type 23	HIGH SPEED OPERATION ONLY (See note 1)	908022-21 908022-24	N/A
	SG-1096 *	Type 23	None	908022-21 908022-24	908025-41 908025-43
Siemens Optilix “S” stator (1-phase only) (14/18 Ω) * Varex (Varian) tube	150/30/50C-100L 150/40/80C-100L	Type 23	HIGH SPEED OPERATION ONLY (See note 1)	908022-21 908022-24	N/A
	SG-256 *	Type 23	None	908022-21 908022-24	908025-41 908025-43

TABLE 1: INDICO IQ® TUBE TYPES - DUAL SPEED STARTER 2 AND LOW SPEED STARTER 2

TUBE TYPE (HOUSING)	TUBE TYPE (INSERT)	TUBE TYPE NO.	OPERATING NOTES	INDICO IQ® DSS2 PART NO. (See note 2)	INDICO IQ® LSS2 PART NO. LOW SPEED OPERATION ONLY (See note 2)
Siemens Megalix Siemens SV 125 "S" stator (1-phase only) (14/18 Ω)	125/30/82CM-120LW 125/40/82CM-120LW	Type 8	HIGH SPEED OPERATION ONLY (See note 1)	908022-21 908022-23 908022-24	N/A
Siemens SV 150 "S" stator (1-phase only) (14/18 Ω) * Varex (Varian) tube	SV 150/30/50C-100L	Type 23	HIGH SPEED OPERATION ONLY (See note 1)	908022-21 908022-24	N/A
	SG-296B *	Type 23	None	908022-21 908022-24	908025-41 908025-43
Siemens SV 150 "S" stator (1-phase only) (14/18 Ω) * Varex (Varian) tube	SV 150/40/80C-100L SG-796B *	Type 23	None	908022-21 908022-24	908025-41 908025-43
Siemens (SXVT) RAY-6_1 RAY-8(S)_1 RAY-12(S)_1 (1-phase only) (20/50 Ω stator)	SV 150/12/40-S SV 150/25/48-S SV 150/22/54-S	Type 31	LOW SPEED OPERATION ONLY (See note 1)	908022-21 908022-23 908022-24	908025-41 908025-43
Siemens (SXVT) RAY-13(S)_1 RAY-14(S)_1 (1-phase only) (20/50 Ω stator)	SV 150/33/78R-S	Type 31	None	908022-21 908022-24	908025-41 908025-43

TABLE 1: INDICO IQ® TUBE TYPES - DUAL SPEED STARTER 2 AND LOW SPEED STARTER 2

TUBE TYPE (HOUSING)	TUBE TYPE (INSERT)	TUBE TYPE NO.	OPERATING NOTES	INDICO IQ® DSS2 PART NO. (See note 2)	INDICO IQ® LSS2 PART NO. LOW SPEED OPERATION ONLY (See note 2)
Siemens (SXVT) SDR (1-phase only) (20/50 Ω stator)	SDR 150/30/50-1	Type 31	None	908022-21 908022-24	908025-41 908025-43
Siemens (SXVT) SV 150 “S” stator (1-phase only) (14/18 Ω)	SV 150/40/80C-100_1 (See note 7)	Type 23	None	908022-21 908022-24	908025-41 908025-43
Varex (Varian) B-100 “R” stator (16/50 Ω)	A-102 A-132 / A-134* A-142 / A-144* * (See note 9)	Type 0	None	908022-21 908022-23 908022-24	908025-41 908025-43
	A-145	Type 2	LOW SPEED OPERATION ONLY (See note 1)		

TABLE 1: INDICO IQ® TUBE TYPES - DUAL SPEED STARTER 2 AND LOW SPEED STARTER 2

TUBE TYPE (HOUSING)	TUBE TYPE (INSERT)	TUBE TYPE NO.	OPERATING NOTES	INDICO IQ® DSS2 PART NO. (See note 2)	INDICO IQ® LSS2 PART NO. LOW SPEED OPERATION ONLY (See note 2)
Varex (Varian) B-130 B-130H B-135H B-146 B-147 B-150 B-150H "R" stator (16/50 Ω)	A-152 A-182 / A-184* A-192 / A-194* A-195 A-196 A-197 * (See note 9)	Type 0	None	908022-21 908022-23 908022-24	908025-41
		A-272 / A-274* A-277 / A-278* A-282 / A-284 * A-286 A-292 / A-294* A-482 G-242 G-256 G-292 / G-294* G-296 G-892 G-896 * (See note 9)	Type 40	None	908022-21 908022-24* *Preferred
	Type 51		LOW SPEED SUPERBOOST™ (See note 10)	908022-21 908022-24* *Preferred	N/A
Varex (Varian) B-160 B-160H B-165H "R" Stator (16/50 Ω)	G-1077 G-1078 G-1080 G-1082 / G-1084* G-1086 / G-1087* G-1092 / G-1094* * (See note 9)	Type 15	None	908022-21 908022-23 908022-24	908025-41 908025-43
		Type 53	LOW SPEED SUPERBOOST™ (See Note 10)	908022-24	N/A
Varex (Varian) B-180 B-180H B-185 B-185H "R" Stator (16/50 Ω)	G-1582 G-1592 / G-1594* G-1593 * (See note 9)	Type 47	LOW SPEED SUPERBOOST™ (See Note 10)	908022-21 908022-23 908022-24	N/A

TABLE 1: INDICO IQ® TUBE TYPES - DUAL SPEED STARTER 2 AND LOW SPEED STARTER 2

TUBE TYPE (HOUSING)	TUBE TYPE (INSERT)	TUBE TYPE NO.	OPERATING NOTES	INDICO IQ® DSS2 PART NO. (See note 2)	INDICO IQ® LSS2 PART NO. LOW SPEED OPERATION ONLY (See note 2)
Varex (Varian) B-199 "S" Stator (15/18 Ω)	SG-1096	Type 18	None	908022-21 908022-24	908025-41 908025-43
Varex (Varian) B-240H "R" Stator (14/46 Ω)	G-2090	Type 50	LIMITED USAGE – CONTACT FACTORY LOW SPEED SUPERBOOST™ (See note 10)	908022-21 908022-23 908022-24	N/A
		Type 39	LIMITED USAGE – CONTACT FACTORY	908022-21 908022-23 908022-24	908025-41
Varex (Varian /Eureka) Diamond Emerald LEO "R" stator (20/50 Ω)	RAD-8 RAD-12 RAD-74	Type 0	LOW SPEED OPERATION ONLY (See note 1)	908022-21 908022-23 908022-24	908025-41 908025-43
Varex (Varian /Eureka) Diamond Emerald LEO "R" stator (20/50 Ω)	RAD-13 RAD-14 RAD-68	Type 0	None	908022-21 908022-23 908022-24	908025-41 908025-43

TABLE 1: INDICO IQ® TUBE TYPES - DUAL SPEED STARTER 2 AND LOW SPEED STARTER 2

TUBE TYPE (HOUSING)	TUBE TYPE (INSERT)	TUBE TYPE NO.	OPERATING NOTES	INDICO IQ® DSS2 PART NO. (See note 2)	INDICO IQ® LSS2 PART NO. LOW SPEED OPERATION ONLY (See note 2)
Varex (Varian /Eureka) Sapphire "R" stator (20/50 Ω)	RAD-21 RAD-40 RAD-44 RAD-56 RAD-60 RAD-92 RAD-94	Type 5	None	908022-21 908022-23 908022-24	908025-41 908025-43

Notes for Table 1

NOTE 1: Tube types designated as low speed only or high speed only must be programmed for low speed only or high speed only operation. Refer to the section Tube Selection within Chapter 3 of the applicable generator service manual for details. For some tubes listed as high speed only, the starter may be capable of low-speed operation but the Manufacturer's data sheet for the Insert lists high speed only. In other cases, the limitation is due to operational limitations of the starter itself.

NOTE 2: Where more than one Dual Speed Starter part number is referenced for a particular tube type, any of these (applicable to the generator and input voltage) is acceptable. For 2-tube systems using different tube types, both tube types must be considered. The Dual Speed Starters provide a selection of shift capacitance values for both high speed and low speed operation, as identified by the DSS part number suffix ("tab type"). Unless otherwise specified, capacitor selection is made automatically by relays located on the Dual Speed Starter board.

NOTE 3: Comet tube inserts with the prefix "DI" and "DX" are interchangeable.

NOTE 4: Philips / Dunlee housing with the windings connected in series (low-speed / high impedance configuration).

NOTE 5: Philips / Dunlee housing with the windings connected in parallel (high-speed / low impedance configuration).

NOTE 6: Dunlee tube inserts with the prefix “DU” and Philips tube inserts with the prefix “RO” are interchangeable. Select the corresponding Philips insert type within the Generator software if the Dunlee type is not available.

NOTE 7: Siemens (SXVT) housing with the “phase-shifted” windings connected in parallel (low impedance, high speed configuration).

NOTE 8: Complete Toshiba x-ray tube assemblies include the suffix “X”, “FX”, “GX”, or “JX”, which are electrically interchangeable.

NOTE 9: These X-ray tubes incorporate a control grid. Grid control only supported by some specific configurations of Indico IQ® X-ray generators. Consult the factory for more information. If using a standard CPI generator, connect the grid connection to Cathode Common when using these tubes, and select the insert type within the Generator software corresponding to the equivalent non-grid tube.

NOTE 10: Tube Types with the **Low Speed SuperBoost™** feature have shorter response time to fluoro/rad exposure switch activation. The response time is shorter for exposures requiring low speed mode, such as fluoro. Response time unchanged for exposures requiring high speed mode.

The number of low speed starts/boosts per minute must be restricted to the same limitations as high speed. For example, if the datasheet from the tube manufacturer only permits 1 high speed start per minute, this restriction applies to low speed as well. Use of fluoro and rad anode hangover features is recommended to reduce the number of starts.

Three Phase Starter X-ray Tube Codes

Tube operating parameters for each tube type are selected by setting switches to the applicable Code for the Three Phase Starter. Reference notes are provided at the end of Table 2.

TABLE 2: INDICO IQ® TUBE TYPES – THREE PHASE STARTER				
TUBE TYPE (HOUSING)	TUBE TYPE (INSERT)	DIP SWITCH SETTINGS SW1 (1.....5) (See note 1)	OPERATING NOTES	THREE PHASE STARTER PART NO.
Canon (Toshiba) XH-1008	E79039X E79036X	(10000)	REQUIRES SPECIFIC CONFIGURATIONS OF INDICO IQ®. CONTACT FACTORY FOR DETAILS (See note 2)	908112-00
Canon (Toshiba) XH-177	E7902X E79016X E79030X XRV-7247F	(00100)	LIMITED USAGE. REQUIRES SPECIFIC CONFIGURATIONS OF INDICO IQ®. CONTACT FACTORY FOR DETAILS (See note 2)	908112-00

Notes for Table 2

NOTE 1: Tube Type settings should only be used with the applicable tube types specified in this table. Using incorrect settings can result in damage to the X-ray tube.

NOTE 2: Certain Canon (Toshiba) X-ray tubes require additional hardware to support grid control and auxiliary power for heat exchanger, oil pump, and getter. Contact CPI for more information.