

SPECIFICATIONS OF RADAR SENSOR DRS6A/12A/25A-NXT

1 ANTENNA UNIT

1.1	Antenna type	Slotted waveguide array
1.2	Antenna length	3.4 ft (XN10A), 4 ft (XN12A), 6 ft (XN13A)
1.3	Horizontal beam width	2.3° (XN10A), 1.9° (XN12A), 1.35° (XN13A)
	RezBoost effective beam width*	1.15° to 2.3° (XN10A), 0.95° to 1.9° (XN12A), 0.7° to 1.35° (XN13A)
	*: RezBoost provides better echo resolution, in a manner similar to adjusting the beam width.	
1.4	Vertical beam width	22°
1.5	Gain	27.5 dBi (XN10A), 28.5 dBi (XN12A), 30 dBi (XN13A)
1.6	Sidelobe attenuation	
	XN10A	-20 dB (within ±10°), -28 dB (±10° or more)
	XN12A	-27 dB (within ±10°), -34 dB (±10° or more)
	XN13A	-29 dB (within ±10°), -37 dB (±10° or more)
1.7	Rotation	24/36/48 rpm range coupled or 24 rpm fixed
1.8	Relative wind load	70 kn or less

2 RADAR FUNCTION

2.1	Tx frequency	3 channel, auto/manual selectable
	Ch.1 (P0N/Q0N)	9380/9400 MHz
	Ch.2 (P0N/Q0N)	9400/9420 MHz
	Ch.3 (P0N/Q0N)	9420/9440 MHz
2.2	Output power	
	DRS6A-NXT	25 W
	DRS12A-NXT	100 W
	DRS25A-NXT	200 W
2.3	Duplexer	Ferrite circulator with diode limiter
2.4	Intermediate frequency	83.75/103.75 MHz (P0N/Q0N)
2.5	Range scale	0.0625/0.125/0.25/0.5/0.75/1/1.5/2/3/4/6/8/12/16/24/32/36/48/64/ 72/96* *: DRS12A/25A-NXT only
2.6	Pulse length	P0N: 0.04 to 1.2 μs, Q0N: 5 to 48 μs
2.7	Pulse repetition rate	
	DRS6A-NXT	700 to 2000 Hz approx.
	DRS12A /25A-NXT	550 to 2000 Hz approx.
2.8	Minimum range	
	DRS6A-NXT	10 m
	DRS12A/25A-NXT	6 m
2.9	Range resolution	10 m
2.10	Range accuracy	Within 1% of range in use
2.11	Bearing accuracy	Within ±1°
2.12	Warm-up time	Nil
2.13	Target tracking (TT)	Auto or manual acquisition: 100 targets between 0.1 and 24 NM Past position: 5/10 pts on all activated targets Vector time: 1 to 60 min.

3 INTERFACE

LAN: 1 port, Ethernet, 100Base-TX

4 POWER SUPPLY

DRS6A-NXT	12/24 VDC (10.8-15.6/21.6-31.2V): 9.5/5.0 A
DRS12A-NXT	24 VDC (21.6-31.2V): 5.0 A
DRS25A-NXT	24 VDC (21.6-31.2V): 5.6 A

5 ENVIRONMENTAL CONDITIONS

5.1 Ambient temperature	-25°C to +55°C (storage: -30°C to +70°C)
5.2 Relative humidity	95% or less at +40°C
5.3 Degree of protection	IP56
5.4 Vibration	IEC 60945 Ed.4

6 UNIT COLOR

N9.5